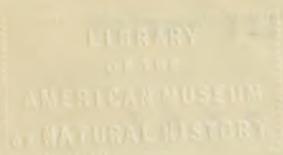




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Journal and Letters Vol.III
of

William F. Coultas

Whitney South Sea Expedition

February 1932 - October 1933.

Period dealing with
New Britain
Bismarck Archipelago

Itinerary and Contents

Volume III.

1 9 3 2

- February 2. 'France' arrives Rabaul, New Britain
Island, Territory New Guinea.
- February 10. Capt. Thomas Royden Lang leaves
Expedition.
- March 1. John and Harold James begin collecting
Rabaul and environs.
- March 31. W. R. Carpenter offer to purchase
'France'.
- April 18. Vessel on slip for inspection.
Expedition Headquarters established
ashore.
- April 22. W.R.Carpenter & Co. agree to purchase
'France'.
- May 1. Camp established at Latromat, in the
central Baining Valley, Gazelle Penin-
sula, New Britain.
- June 24. First collection New Britain assembled
and prepared for shipment New York.
- July 13. Received payment for schooner, 'France'-
also dispatched first shipment, New York.

- July 20. Collecting begins second shipment. Base camp remains at Latromat in the central Baining Valley.
- August 9 - 30. One camp established at Wunga in Baining Mountains and several unsuccessful attempts are made to push through Mountains to Wide Bay.
- September 19-29. Rabaul; dispatching specimens.
- September 29 --
- October 1. M/v. Lassul - enroute Nakanai District, North coast New Britain.
- October 1-10. Walo Station: Bungula Bay, Nakanai District.
- October 10-17. Coultas to interior of Mountains, to elevation of 6200 feet.
- October 18-26. Harold and John James, Malutu, 2700 feet elevation.
- October 18-26. Coultas, Walo.
- October 26-31. Coultas, Tarobi and Passusu.
- October 31 --
- November 6. Walo Station.
- November 6-18. Malutu, 2700 feet elevation.

- November 18--
- December 5. Lobi, 2200 feet elevation.
- December 5-6. Walo Station.
- December 6-10. En route Rabaul.
- December 10-16. Rabaul.
- December 16-17. En route Wide Bay, New Britain.
- December 17-27. Tol Plantation, Wide Bay.
- December 27-31. Camp on Mavlo River, Wide Bay.
- July 18--
- 1933.
- August 2.
- January 1-26. Mavlo River, Wide Bay.
- January 26-27. To Balayang, Baining Mountains.
- January 28--
- March 20. At Balayang-- a 2500 ft. Plateau.
- March 21-22 En route Mavlo.
- March 23 --
- April 12. Collecting, Mavlo River.
- April 12-19 At Tol Plantation.
- April 19 --
- May 12. To interior Timoipe Mts. to 3500 feet elevation.

March 25 --

May 5. John James, Andamgi, Baining Mts.
2200 feet elevation.

May 1-30. Harold James, collecting Rabaul.

May 12-30. Tol Plantation, collecting.

May 31-June 3. En route Rabaul.

June 3-July 13. Rabaul.

June 7. John and Harold James leave Expedition.

July 13--

August 2. Usiwit River - North coast Gazelle
Peninsula, New Britain.

July 27-28. Talele Islands.

August 3 --

September 30. Rabaul.

List of Birds Collected on New Britain:

1. Rabaul area
2. Baining Valley
3. Nakanai Mountains.
4. Wide Bay
5. Usiwit River and Talele Islands.

1932.

February 2 (Tuesday). Rabaul. After a good night's run across from New Ireland we entered Blanche Bay and anchored in front of Carpenter's Wharf, Rabaul, just at daylight.

The medical officer, Dr. Brennen, and several customs officials boarded ship at 9:30 A.M. and issued us a pratique which extended us the courtesy of the harbor.

Myself ashore during the morning to the principal shipping firms and learned that there would be a boat calling here on February 10 en route Sydney, Australia, which could accommodate Captain Lang. With the 'France' to be sold there is no possibility of retaining him any longer, so I must return him to his destination.

The Solomon Island crew will have to remain here until March 1 at which time a vessel is proceeding to Tulagi in that group. This delay, on their part, will give me a splendid opportunity to put the vessel in first-class condition before they leave. These boys understand the ship and can accomplish twice as much as a new crew not properly trained.

The 'France' is well known in this port as both Beck and Hamlin have visited here previously with the same vessel. Any number of people stopped me and inquired of earlier members of the crew.

At the post office, I found the following letter of instructions from Dr. Murphy awaiting me:

February 2, 1952. After a good

night's run across the ice fields we entered Linnæus Bay
and anchored in front of Carpenter's Wharf, Upernivik, just at
dawn.

The medical officer, Dr. Brannen, and several
quarantine officials boarded ship at 9:30 A.M. and issued us
a quarantine which extended us the courtesy of the harbor.

Myself ashore during the morning to the officials
explaining things and learned that their records as a port visit
date on February 10 on route Upernivik, Upernivik, which means
associated Linnæus Lane. With the 'Princess' to be sold
there is no possibility of retaining his name for ever, so I
must return him to his destination.

The whole island area will have to remain here
until March 1 at which time a vessel is proposed to be
sent in that group. This being on their part, will give
us a splendid opportunity to put the vessel in that class
condition before the leave. These boys understand the
ship and our scientific work as well as a very fine job
properly trained.

The 'Princess' is still known in the port as both
best and health have visited here previously with the same
vessel. Any number of people should be and included in
either number of the crew.

at the last office, I had the following letter
of introduction from the Upernivik officials:

October 30, 1931

Dear Coultas:

We have just received your catalogue and notes on the Caroline Islands, Gower, Ontong Java, etc., and the three notebooks with the numerical record of the specimens.

As you know, we have had quite an exchange of cables with Captain Lang at Manila as well as with you at Palau, and only after some difficulty have we learned the reason why the FRANCE put in at Manila and what the prospects were for early departure toward Rabaul. Captain Lang finally sent us a long and detailed account of the circumstances, whereupon we ordered him to put to sea and pick you up as soon as possible. You were doubtless also in communication with him about the time you notified us that you would proceed to Rabaul.

As a matter of record I wish to note that my principal letters to you during 1931 were those of January 19th, February 4th, April 10th, June 25th, August 4th, and September 16th. Thus far I believe I have had acknowledgment only of the first two in this list, but I trust that all the others have by this time been delivered to you. Most of them were addressed either to the American Consul or the National City Bank at Kobe, Japan, although several may have been sent to Palau-Yap-Truk in accordance with your instructions of May 17th. In most instances, a carbon of each letter has been mailed to one of your addresses as a special precaution.

It is not necessary for me to recite again the instructions to close up the expedition this year because I have already done this in my letter of September 16th. To this, however, I must add with emphasis that the very last money from the regular fund was the draft for \$5,000 sent to your account in Kobe on September 15, 1931. This represented the promised October deposit. How much we may be able to supply you with next year is still a question, but if you get rid of the France and pay off your captain and crew you may be sure that we shall see to it that you are kept supplied with the necessary funds until you have sufficient warning about being recalled to the United States. There can be no question, however, about keeping the schooner FRANCE any longer. We sympathize with your disappointment, and fully realize the difficulties of working without a vessel, as outlined in your letter of May 17th. All that is neither here nor there because we have not, and shall not have, the money to run her any longer. Use your best judgment and luck and sell, charter, or lay her up according to the best opportunities that arise. We hope that you may be able to realize something on the vessel at Rabaul, and that the sum obtained will help with your expenses in New Britain or New Ireland next year. We are still awaiting very eagerly for a tentative estimate from you. Do you think it will be possible to carry out a modest campaign for five or six thousand dollars in addition to your own salary? If not, kindly get us some figures as soon as you can, for we want very much

to have you conduct such a course of shore work at least throughout the year 1932. The job of getting rid of the vessel and winding up the Whitney South Sea Expedition will be your first responsibility, and the sooner we hear that this part of the task has been accomplished the better all members of the Committee will feel.

We have never succeeded in getting the net called for in your recent cable. Nearly a year ago we sent the necessary funds to Dr. Stresemann in Berlin, but he was unable to get any response from the Italian manufacturers of the bird net. Somewhat later I communicated with them, but have not yet had their reply. We shall purchase and send you one or more of these nets providing we ultimately get some response from the makers. Just why they have shown no interest in selling their product for American dollars neither Mayr nor I understand. Nothing of the sort, it seems, is manufactured anywhere else than in Italy.

I have no idea of your present balance of funds or of supplies. How do you stand for axes? Between the last few days of 1930 and the first of February 1931 we sent you consignments totalling 10,000 shells, but have had no word as to what proportion of these were delivered to the vessel. I hope that you have sufficient ammunition to begin work on New Ireland or New Britain, and that we may learn in the near future your needs in the matter of other supplies.

Dr. Mayr is working on a locality list and suggestive species catalogue for both New Britain and New Ire-

land. It will be best if we leave you without specific instructions as to beginning your work, because your own conveniences will doubtless be the best guide. My suggestion would be to get established at a main base camp which might prove to be headquarters for a number of weeks, or even months, and to hunt up some good material in the way of native collectors. We should naturally expect that some little time would be required to break in such men, but there is no reason why you should not pick the best and pay them well according to the local scale. Moreover, if you have or can find any tolerable white companion, I should think you could well afford to hire him also.

Once the FRANCE is off our hands, this matter of being nearly always out of communication will not prove such a heavy burden. As soon as you reach Rabaul and have sized up the general situation, I hope that you will send us a full report. None of us can be quite at ease, naturally, until we learn definitely that the FRANCE has been sold or stolen! In other words, until by hook or crook the expense of keeping her up becomes a thing of the past, we shall all be somewhat ill at ease. Dr. Sanford has just this moment burst in to ask when the FRANCE will be disposed of, and all I can tell him is your instructions are perfectly clear and that you will handle the matter to the best of your ability and with the utmost despatch.

With best wishes from all of us, I am,

Yours sincerely,

(Signed) Robert Cushman Murphy

February 3 (Wednesday). Rabaul. Despatched the following cable to Dr. Murphy at the Museum, "Announce arrival, all the crew on board to be discharged, will dispose of vessel, sufficient funds in hand for present, forwarding cases marked as usual. No ammunition required this year. \$5000 all that I require this year. Present exchange favorable. Please send remittance through Standard Bank of South Africa Ltd. to the credit of my account Bank New South Wales here to the Bank. Coultas."

Ashore to interview the Government Secretary, Mr. Page, who informed me that the administration would offer no objections to our proposed ornithological survey.

Though I had been informed that the Government contemplated the purchase of a small schooner for the use of out station patrol officers, Mr. Page insisted that he was not interested in the 'France.' That vessel was too large for his needs, he inferred. On the other hand, the harbor master, Commander Webb, advised me that he would interview the Administrator, General Wisdom, upon this Excellency's return from a trip of inspection and attempt to procure the 'France' for the use of the District services.

I also visited Messrs. Burns Philp and Co. regarding the 'France' and was informed that they were not interested. In fact, that firm owned a schooner in the Solomon Islands which they were advertising for sale at the time.

Follow this, I next interviewed W. R. Carpenter and Co., the other of the two leading firms in Rabaul and

was pleased to learn that these latter were contemplating the purchase of a schooner and would consider the 'France.'

I quoted this firm the sum of 2000 Pounds Australian for the vessel as she lay in Rabaul Harbor and was informed that the matter of sale would be taken up with the head office in Sydney at once. Since there is a 3-weekly mail service between here and Sydney, well over a month must elapse before any definite reply can be received from that quarter.

Also to visit the office of the "Rabaul Times" to place an advertisement for offer of sale of the 'France.' Mr. Hoogelweurf, the editor, was reluctant about advertising the vessel as we are foreigners, but did offer to give us a write-up and state that the vessel was to be disposed of since we are to become a land unit.

The crew have been at work these two days drying and unbending sails. Those will be stowed away in the main hold as we have no further use for them.

February 4 (Thursday). Rabaul. To the bank of New South Wales to arrange for a current account and to have the balance of my funds now in the Bank at Kobe, Japan, transferred to Rabaul. Recently the Japanese yen has been falling on the exchange which means that I will lose money on this transaction.

Most of the expedition mail is scattered to the four winds. Though I dispatched instructions to Guam and Kobe none of that mail has arrived as yet. To safeguard against loss, I duplicated the instructions

With Captain Lang to the Japanese shipmaster, Mr. Komini, but learned that his trucks and slipway are badly in need of repair, hence he will not be in a position to haul the 'France' if and when we must pull that vessel out of the water for inspection before sale.

Mr. John James remained at work on the engine cleaning and oiling that instrument of propulsion against rust which is bound to set in, if that vessel lies idle any length of time.

The crew were employed all day unreeving all running gear. That, too, will be stowed away in the forward hold, safe against deterioration.

A customs officer, Mr. Palfreyman, came aboard and checked over all ship's stores with me. It will be necessary to pay an import tax of 10 per cent ad valorem on all comestibles brought into the territory. The ammunition will be assessed 25 per cent of its original value. Even with these assessments our goods and equipment will be considerably cheaper than the same goods in the local stores.

With the drop in exchange value of the English and the Australian pounds, imported American produce has more than quadrupled in value. The merchants in turn have taken advantage of this trend of affairs and have marked their own prices. For instance, a 5 cent current issue of the 'Saturday Evening Post' sells for $3/6$ (87 1/2 cents) normal exchange or about 50 cents present exchange. It is well that we have a generous supply of canned goods on

board.

February 5 (Friday). Rabaul. Commander Robert Crookshank R. N. (Ret) late Captain of the 'France' and now in command of Carpenter's vessel the 'Duranbah' came aboard to pay a visit. He has had the misfortune to fall down a hatch aboard his vessel, break his left arm and scrape generous quantities of skin from his face. We were most pleased to see the old Captain again.

He informed me that his firm was anxious to purchase this vessel, but like all business organizations would not pay more than was absolutely necessary for the 'France.'

With Captain Lang to another Japanese shipwright, Mr. Nagahama, whose slip we have learned will accommodate the 'France' when it becomes expedient to haul her up. The cost of such a performance would be 35 pounds Australian, but that amount would rest on the purchaser should the vessel be sold.

To the bank and transferred the sum of 500 pounds Australian from my Sydney account to Rabaul.

Mr. Ted Taylor, the District officer, of New Britain, called aboard ship pursuant to our proposed ornithological survey. He outlined briefly the laws and regulations regarding work in the bush and informed me that I could have police boys if I wanted them. I refused the use of the latter as they have turned out many times to be a nuisance in that they create discord among the natives and oftentimes attempt to run matters to suit themselves. Mr. Taylor advised me to begin work in the center of the Gazelle

Peninsula until such time as I had familiarized myself with the natives and the country. He also offered no objection to my using local natives as shoot boys. The inhabitants of the mountains, so I was informed, such as the Nakanais and the Arawes were not too settled yet and those areas were not under control. Mr. Taylor expressed his desire that I stay out of the Arawe country.

While with the Nakanai mountains I might go in quietly without seeking Government permission, but that I must not give those people firearms to hunt with.

February 6 (Saturday). Rabaul. Mr. John Thurston, a local ship owner, recruiter, trader, and supposed plantation owner aboard with his crew of Manus boys who inspected the underside of the ship for broken copper plates.

Mr. Thurston has expressed his desire of purchasing the 'France' which he would like to use in the Sepic River for recruiting purposes. He feels that he can carry 500 boys aboard the vessel easily.

There are several reasons why Mr. Thurston can not be looked upon as a prospective purchaser. In the first place, he has no money and is heavily in debt to W. R. Carpenter and Co. who hold a stiff mortgage over his present ship 'The Drina.' Secondly, there is a law in this territory to the effect that any vessel over 45 tons net must be operated by a certificated master mariner and Mr. Thurston does not hold a ticket. Last of all, I have been warned by the customs office and a number of

other people that Thurston cannot be trusted.

I must say that this man did give us some very helpful suggestions regarding trade goods for dickering with natives. He advised us to carry calicos, bush knives, trade tobacco, beads, safety razor blades, salt, thread and fish-hooks. Many of his suggestions were most helpful later on when we reached the bush.

Our own crew busy cleaning out the hold and arranging everything in shipshape order.

Mrs. Coultas at work making a comparative list of prices of commodities from Manila, Hong Kong, Rabaul and Sydney. With the present fluctuating exchange it is very difficult for us to tell just where to purchase necessities. Rabaul prices are so outlandishly high I hate to spend the money here.

February 7 (Sunday). Rabaul. Considerable rain this morning. Busied myself with accounts which will give me no end of trouble as they are in pounds, yen, pesos, and guilders.

In the afternoon for a long walk through the city and the botanical gardens. Rabaul is spread out for miles along the east side of Simpson Harbor and the bases of two volcanoes which go to form a narrow peninsula. As a rule the place is oppressingly hot and after a rain inflicted with the sulphur fumes of a more or less active parasitic offshoot of one of the volcanoes. The city, though, is moderately clean with wide, shaded, graveled streets and uniform one-story hungalow type homes. Both houses and

stores all built on piles. There are about 400 white residents, most of which are Government employees or clerks in the stores. They require the services of 2000 or more natives who attend to all sorts of duties.

The botanical garden at the northern end of the city, a carry-over from German times, is really a credit to the government and the community. It has been enlarged upon in recent years, added to, and improved to where one might class this undertaking as one of the major accomplishments of the administration. Just recently an orchid grove has been added which exhibits hundreds of varieties of local species. Those might well be inspected by transient botanists.

February 8 (Monday). Rabaul. Thurston's boys at work cleaning the ship's bottom. They report one piece of copper missing near the rudder. Crew of the 'France' at work oiling masts and painting above decks forward.

Commander Webb, the harbor master, aboard to measure the hold of the 'France.' He insists that he will do everything he can to induce the Government to purchase the vessel, principally as a freight carrier up the Sepic River where a district officer and his staff are scattered. Webb, I think, feels that he would like to get out of Rabaul and go back to sea again.

Thurston, on the other hand, tells me he is attempting to raise funds. It is encouraging to know that there are interested parties. So many people are in debt

to the large firms that the field of prospects will be limited.

I don't feel like extending any one terms over a period of years so must hold out for cash.

February 9 (Tuesday). Rabaul. General Wisdom, the Administrator, returned this morning from an inspection trip about the islands. I visited him and was well received, was offered any facilities at his command to aid me in the ornithological work.

When the question of the 'France' came up he advised me that he thought it would be more practicable for the Government to build a new ship according to their specifications and not attempt to alter a second-hand vessel to meet their needs. He did finally agree to take the matter under consideration.

The two telegraphic transfers of funds, one from New York and the other from Kobe, Japan, reached the bank today. On the Japanese transfer I lost 500 pounds on what I should have obtained had the yen remained normal. At that I made money over the gold standard rate. With the accumulation of funds I have sufficient to carry me on for many months.

Spent the whole afternoon and night going over accounts with Captain Lang.

February 10 (Wednesday). Rabaul. The S. S. Nellora of the Eastern and Australasian Line arrived in port enroute Sydney. Captain Thomas Royden Lang, who has been with me many months, packed his effects and left the

expedition to journey to Sydney aboard this vessel. The Captain certainly hated to leave but there was no other course open for him as there is no possibility of work in his line here.

After paying him his wages in full all of us attended him to the ship to wish him Bon Voyage.

Mike James has come down with a dose of fever which he must have contracted at Port Sulphur, New Ireland. Much of it is his own fault as Mike is a finicky eater and will not consume sufficient for his needs.

February 11 (Thursday). Rabaul. Continued hard rains and squalls from the N. W., it looks to me as though we are in for a siege of bad weather. Kept the crew employed all day cleaning and scrubbing paint work. None of us ashore and fortunately no visitors either.

The vessel has developed a slight leak at the base of the windlass which will be very difficult to repair even though Lang and I did pour great quantities of marine glue into the place when we were on Kusaie Island.

February 12 (Friday). Rabaul. Learned definitely that I can get the Solomon Islands crew away on the S. S. Duris which is sailing for Tulagi on March 1. Therefore cabled Mr. Johnson, the Treasurer of the Solomon Islands Government to that effect. These boys are long overdue so I will have to make the best of it with them.

Boys employed all day aboard, scraping and varnishing the booms. Also the two ship's boats were hauled up preparatory to painting. The small one is in good con-

dition, but the large one has been badly eaten with Teredo worm. By the judicious use of patches of lead, and hot marine glue and stockholm tar we hope to make it watertight, for inspection at the time of sale. By rights we should have a new boat, but can't afford it.

"Kar Kar" Schmidt came aboard to inspect the vessel; he like many others would like to purchase it to use in hauling copra from the outstations to Rabaul. Unfortunately, "Kar Kar" has no ready cash and no hope of getting any either.

February 13 (Saturday). Rabaul. Ashore early to the native market or "Bung" as it is called here. The same is a compound of two long cement sheds with countless tables and benches piled high with all sorts of garden truck; outside are about 25 more long tables where one can find the same sort of edibles for sale.

Natives from all over this area come every day, especially Saturday, well laden with commestibles to exchange for cash or tobacco.

One can find most anything he requires at this distribution center: fowl, ducks, eggs, and even Megapode eggs, fish, prawns, clams, lobsters, oysters, taro, sweet potatoes, yams, tomatoes, lettuce, cabbage, onions, cucumbers, pumpkins, melons, radishes, native greens, native nuts, and sometimes corn, as well as other commodities as Pau Pau, oranges, tangerines, lemons, etc.

Prices are fixed by the Government and are fairly reasonable: one large Pau Pau one stick of tobacco, a

good-sized basket of tomatoes one shilling a bunch, (ring), of bananas 1 stick of tobacco, one cabbage 6 pence. Corn 4 ears for one stick of tobacco. Police boys are stationed about the place to regulate all prices and settle any disputes arising.

This large trading compound is the most spacious and best organized that I have seen in this part of the world and will, I am sure, go a long way toward teaching the native the value of money as a method of exchange. As far as barter is concerned, these "primitive" people were engaged in trade long before Christianity overtook the tribes of Europe and the former can still teach the whites a few tricks in the matter of close bargaining.

Considerable rain today. Crew were employed as usual cleaning about the ship.

I rigged up a dark room in the captain's cabin and began developing pictures in water brought to 70° Fahrenheit by the judicious use of ice. We have encountered no end of trouble getting water cool enough to keep the emulsion from running.

February 14 (Sunday). Continued rains with intermittent sharp squalls from the northwest. Was necessary to let out another 30 fathoms of chain and as a safeguard laid out the second anchor and 30 fathoms of chain in case we think it advisable to let that go also.

Developed more pictures with an average degree of success. The water cooled with ice is all that is necessary to our undertaking.

February 15 (Monday). Rabaul. Torrents of rain all day. Not a soul left the ship. I put the crew to work in the main hold sewing together spare canvas that will be used for tentflys in our forthcoming inland camps. A good-sized convenient tentfly should be about 18 feet long and 12 feet in width from the ridge pole to the bottom of the canvas; though one of these becomes quite heavy, two boys can carry it quite comfortably in dry weather. The James boys were engaged with the crew all day.

February 16 (Tuesday). Rabaul. Another day of rain and everyone confined to the ship. The crew were employed with sails as previously.

Myself at work on bird parasites. Those, which have been collected from time to time, are being labeled and packed in small vials for shipment to the Museum. I used Dr. Jordan's formula of 3 parts alcohol, 2 parts water and 1 part glycerine as a solution in which to preserve them.

February 17 (Wednesday). Rabaul. Another day of rain with all of us employed as previously. The S. S. Montoro arrived from Sydney bringing the following letter from the Museum:

December 23, 1931

Dear Coultas:

We have received your cable from Palau, saying that you are proceeding toward Rabaul, and another asking us to disregard the messages from Manila referring to the propeller and crank shaft, which are to be sold at auction for costs. Since your last message, however, we have had

still another through the Department of Commerce, asking us to send \$40.00 to Manila. I am doing nothing about this, but nevertheless the whole matter is mystifying and embarrassing.

We are also absolutely at a loss to account for an engine transaction concerning which we heard never a word until this month. You once wrote me that the purchase of a new engine would be advisable and would add to the sale value of the 'France', but you never reported that such an engine had been paid for or even ordered. These facts are apparently costing us a great deal of money, for we now learn from the Standard Gas Engine Company of Oakland, California, that an engine for which you paid \$3,312.00 last July was shipped to Manila where it arrived a week after the departure of the 'France'. It was then returned to California and is now on the dock. The manufacturers offer to sell it for us for whatever it will bring, which appears to be very little. Moreover, most or all of what can be realized will probably be eaten up by the extra costs of its return across the Pacific, etc. Naturally, the Committee would have delayed the sailing of the 'France' from Manila if we had had the slightest inkling that an engine had been ordered. As things have worked out, we are seriously set back all around, and you have spent to no purpose enough money to keep yourself going in New Ireland and New Britain for a year or thereabouts.

Kindly send as soon as possible a report on all this, because at present we don't know just where we stand

or why such procedure was followed.

The wife of Captain Lang writes me that she has had no word from him since September 14, 1930, and no money since February 1931. She says that she is ill and penniless. I have no wish to pry into the Captain's private affairs, and he may know much more about this than I have heard. Nevertheless, I enclose Mrs. Lang's letter in a sealed envelope, and would ask you to hand it to him without commenting on the fact that you know anything about its contents. If there is any justice in what Mrs. Lang has written, perhaps you would like to follow the matter up with him on your account.

When you reach Rabaul make your first object that of getting rid of the schooner, or if there is no sale at least put her out of commission on the cheapest basis and eliminate all possible expenses of her upkeep. Then send me a full report on the present status of everything, including an estimate of the costs ahead and a statement of your current balance of funds. Ship me all the collections to date, along with any equipment of value that you are not likely to need in the future. I believe that we shall be able to keep you in the field during most of 1932, despite our recent losses, but I cannot be sure of this until I get your estimates and know how much money you have. Of course if you can sell the 'France' it will solve many of our problems for the time being.

Remember that we are very eager for a full report from you at the first possible moment.

With all best wishes for the New Year, I am

Yours sincerely,

(Signed) Robert Cushman Murphy

February 18 (Thursday). Rabaul. W. R. Carpenter and Co. have an ice house and meat market where one can purchase the former as well as refrigerator stores from Sydney every morning. It is customary to send a native to this market with funds and a note requesting one's needs.

This morning native Belleu, a citizen of Malaita and a hereditary enemy of Tommy, another Malaita man, in returning in the small boat with the ice and meat tossed the meat up and aboard without looking where the package landed. The meat landed in Tommy's face, who was engaged, at the moment, over a tub full of water and dirty clothing.

As Belleu bent down in the boat to gather up his 25 pound cake of ice, Tommy, from above, dropped the tub, water, clothing and all, on top of Belleu's head, knocking the poor lad as cold as his cake of ice. Thus was justice meted out in logical primitive style.

We laid Belleu out on deck, poured cold water over him until the boy revived, thankful that he possessed a skull a half inch thick.

Considerable rain yet, though the squalls are diminishing in strength and frequency. The crew remained in the hold at work on the tents (we will have 3 of those).

Myself at work on the parasites and finished them late in the evening.

Received another letter from Dr. Murphy regarding insurance which read as follows:

December 28, 1931

Dear Coultas:

The insurance on the 'France' in the amount of \$12,000 expires January 14, 1932. I am planning to renew it for a period of one month instead of the usual term of a year. If you sell the vessel, cable me at once so that we may cancel the insurance from the date of receiving your message. In the same way if the vessel is laid up so that insurance of the type we carry is no longer required, send me cabled information to this effect. We don't want to go on paying a premium which amounts to about \$100.00 a month any longer than we need to.

Yours sincerely,

(Signed) R. C. Murphy

Therefore, I dispatched the following cable to the Museum, "Your letter of 28th day of December came to hand to-day. Vessel laid up. Coultas."

February 18 (Thursday). Rabaul. Moderately fair day with occasional showers. Crew continued with the tents as it is too wet to paint. Those are progressing nicely and will be completed shortly.

To Bay luo lumber Company to order a half a dozen tin-lined cases which can be used in the field to store our effects and later to transport bird specimens back from the camps. Those are durable and will withstand all sorts of abuse.

Also began checking and labeling the collection of birds from the Palau group. With the hold clean and no rain I shall put those through in good time I hope.

Crew began painting around the sides of the ship.

Also ashore and purchased four chairs for the ship. We have been seated on benches for all these years, but must have something for guests to use.

February 19 (Friday). Rabaul. Isreal, our wash boy, this time put about 6 months' supply of bluing in the water when he rinsed the clothing; as a consequence we no longer have whites, but blues. The old story, that a native must be shown every time he performs a task, is fairly accurate after all.

Work progressed as usual with the crew painting about the vessel and ourselves working at labeling and recording specimens.

February 20 (Saturday). Rabaul. Engaged aboard the vessel as previously with the crew finishing off around the outside. We have the ship in a very presentable condition and ready for anyone's inspection.

Numerous and assorted visitors continue to come to the vessel, propelled I suppose more through curiosity than any other motive.

February 21 (Sunday). Rabaul. Mr. Thurston aboard the ship and went over the engine with John James. Thurston still harbors the idea that he is going to purchase the 'France' and use her for recruiting, in the Sepic River area.

To date I have seen no indications of a financial transaction of any kind.

February 22 (Monday). Rabaul. Captain Irving of W. R. Carpenter and Co.'s staff spent a good portion of the day going over the ship and measuring her space in cabins and hold. He infers that should his firm purchase the 'France,' they will utilize every inch of space for cargo and will leave only the Captain's cabin for the use of the master or passengers.

Captain J. Duncan, Lloyd's surveyor for this port, came aboard and had a look at the vessel. He informed me that his services had been engaged to survey her also.

Captain Crookshank also aboard in the evening for dinner and announced that the firm of Carpenters had questioned him at length regarding the 'France.' Such activities and reports are indeed encouraging, but the length of time involved is most distressing.

I did find a little time to work on the collections which the crew were engaged at various tasks and the tents.

February 23 (Tuesday). Rabaul. Took the ship across the harbor to Toboi where we filled the tanks with fresh water. Thence back across the harbor again to the old anchorage. I'm pleased to say that the engine performed very well at her allotted task. Captain Lew Austin and Crookshank accompanied us on the short run.

Spent the rest of the day at work on birds.

With the advent of the new bird record sheets which I had printed in Guam, we are now able to keep a very concise record of every specimen collected. In the future we should experience no trouble with lost specimens and duplicated numbers.

February 24 (Wednesday). Rabaul. Began packing the tin-lined case with bird skins; when this is filled and soldered there should be no risk of damage to specimens. Also I have adopted a policy of shipping specimens as preferred freight with the case in a rat-proof room and away from bulk cargo: this as an added precaution.

Rained off and on all day. With the crew engaged sewing canvas and cleaning firearms.

Guns rust very quickly here in this climate. I shall have all of them painted black with black enamel and the insides and mechanism covered with vaseline. In this way I hope to forestall too much deterioration. At best the life of a firearm in this part of the world is very short.

February 25 (Thursday). Rabaul. Commander Webb aboard this morning to measure the vessel and see if he can devise any way in which the space can be cut down to meet the 45-ton maximum requirement that will prohibit Thurston from operating the vessel himself. Webb concluded that there was no hope for Thurston unless he engages the services of a master mariner.

Continued with the case of birds, each specimen being wrapped separately in newspapers and fitted in in layers. After a generous quantity of naphthalene has been sprinkled throughout the case those must be in good order.

February 26 (Friday). Rabaul. Captain Crookshank aboard to inform me that Carpenters have about made up their minds to purchase the 'France,' if she is slipped and found satisfactory.

Considerable rain today with the crew engaged in sewing canvas and ourselves at birds.

Tommy, who scored a knockout blow over Belleu, has, in true Malaita fashion, concocted a song about his deed, and spends his time singing over and over again of the valor of his performance.

February 27 (Saturday). Rabaul. Weather very unsettled. Continued at work in the specimens and finished those. I have only to wait now until Mr. Lew Froggatt, the Government entomologist, returns to the city to examine them for insect pests and they will be ready for shipment to the Museum.

February 28 (Sunday). Rabaul. Continued rains and hard squalls most of the night and today. Bad weather usually runs in cycles of two weeks' duration in this part of the world.

Remained aboard ship all day and engaged in odds and ends. During a spell there is not a great deal one can do confined in the cabin of a small vessel.

February 29 (Monday). Rabaul. Ashore to obtain

86 pounds sterling in shillings for the crew who are to be returned to the Solomons aboard the S. S. Duris sailing tomorrow. There is a law in that territory which requires that a boy must be paid off with half of his wages given to him at the time of his dismissal. This money will be registered and delivered to the Treasurer in Tulagi who will pay the boys in that port.

Also the Government and obtained hunting permits for ourselves. The Territory of New Guinea charges a tax of one pound per year on every permit dealing with non-protected birds. As we will not be collecting birds of paradise and the like, it will not be necessary for us to spend the 25 pounds for a permit dealing with those species.

Crew were employed all day with sail canvas and odd tasks aboard the ship.

The James Brothers were engaged cleaning and painting firearms.

March 1 (Tuesday). Rabaul. John and Mike James began collecting today. Those two took the small boat and the outboard motor to journey down the harbor past the bee hive rocks to a stretch of secondary bush along the cliffs and, back in the interior, vast areas of grassland. To begin with, I advised them to go a little slow at first and center their attentions on starlings, crows, centropus and mina birds. All of which species are easy for beginners to handle.

They returned shortly after noon reporting very few birds in the bush and too many natives for comfort.

During the afternoon we held a school in bird preparation. Like most young men, these two are eager to get into the field and collect but very reluctant about the preparation of material.

The five Solomon Island boys Jack Ulava, Jimmie, Tommy, Belleu and Charley got away on the S. S. Curis for Tulagi. I certainly dreaded to see those boys go when they are just at a place where they can do their work without being driven all of the time.

I should have liked to keep Jimmie especially as he is a good bird preparator and fairly conscientious. In fact, I did requisition the Solomon Island Government to permit him to return at my expense but hold little hope that he will be permitted to leave his country again.

In true native style, every one of the boys broke out in tears as they were leaving the vessel.

We still have the Caroline boy Isreal who will be dispatched just as soon as a vessel comes into port going his way and it is rumored that a Japanese ship will call here shortly. I asked permission from this Government to retain Isreal but was told that he would be classed as a prohibited immigrant once we leave the ship and start work ashore.

March 2 (Wednesday). Rabaul. Have engaged the services of four Manus natives, who are part of Thurston's crew, to work about the ship while we are living aboard. Thurston is more than anxious to get his boys on the ship.

Secretly I'm half inclined to believe Thurston would be capable of seizing the vessel at night and sailing her out of the harbor. After we leave; as he wishes to move aboard and act in the capacity of caretaker should we go to the bush before the vessel is sold.

Continuous rains all day so that none of us left the vessel. On board all of us were employed variously.

March 3 (Thursday). Rabaul. The two James brothers hunting again across the bay; they returned with a few reed birds (Cisticola) among their collections of starlings and Mina birds. All of us into the hold to have another lesson in bird skinning.

I am troubled in my own mind about these two boys. They should attempt to seek employment elsewhere, but unfortunately there is no work or positions available for them here in this port. On the other hand, I do need them badly to help me get started in my work here.

Kar Kar Schmidt and Captain Bertie Hall spent a good share of the day on board examining the ship. Kar Kar wants, in the worst way, to own the vessel, but unfortunately has no money available. All of his money is invested in a coconut plantation at Jacquinot Bay. I admire him for his frankness in the matter.

I brought up the subject of a camp in the mountains back of Jacquinot Bay, but learned from Mr. Schmidt that he had never been back into the interior himself. He admitted, too, that those natives Sulkas and Tamoipes were very bad about dumping people's cargo on the trails and

then running away. The District officer had warned me some time ago that we must be careful of those primitive nomadic people.

March 4 (Friday). Rabaul. The James brothers hunting again and returned with some specimens. I am afraid that they are a little too eager in the beginning and do not care to spend sufficient time learning to prepare their material after they acquire it.

A number of visitors aboard all day. One becomes a little tired of listening to the same stories of how wonderful it must be to have a ship and travel around doing nothing. I should like very much to chase them all over the side, but one can't do that very well.

March 5 (Saturday). Rabaul. Another day similar to yesterday with the boys away collecting and a series of people aboard "to see the ship."

I could put a caretaker on board and go into the bush immediately, but that has its drawbacks. It is doubtful whether I could find a man who would look after the vessel and keep the decks wet down as they should be. Furthermore, I'm told that the roads back into the interior of the Baining are in very poor condition at this time of year and that I had better wait at least another month before attempting to truck our gear out there.

Remaining in Rabaul is a terrible chore, but at the same time is hopeful.

March 6 (Sunday). Rabaul. With Thurston and Mr. Honey in a motor car along the north coast to the

Agricultural Experimental Farm and a view of the northern Baining mountains which rise to 2000 feet here. It is possible we will be able to work into those from the central valleys.

March 7 (Monday). Rabaul. With Kar Kar Schmidt in his little Mercedes special along the Kokops road and thence up the small spur of cliffs to a place where he has a bungalow overlooking the central Baining valley. Kar Kar offered me the use of his house if I wished to spend some time there working in the grasslands. His offer was splendid, but unfortunately there was no fresh water available within a mile.

In the evening to a dinner at Dr. Brennen's home. I know definitely now that the Government will not purchase the 'France.'

March 8 (Tuesday). Rabaul. Rained most of the day so that we could accomplish little. Went to work on a tentative list of birds of New Britain which can be compiled with the aid of a number of Novitates sent me by Dr. Hartert. Fortunately, I have publications of everything taken by Meek and Eichhorn in this archipelago.

March 9 (Wednesday). Rabaul. John and Mike both at work with Thurston's boys hauling out old sails from the main hold which will be cut up and made into large awnings for the whole deck of the ship.

In all fairness to the Manus native, I must say that the Malaita men can beat them hands down. Laziness seems to be the great trouble with the former. The Manus

boys can all sew canvas--strange as it may seem.

March 10 (Thursday). Rabaul. Mr. Froggatt of the Agricultural Department spent the whole morning aboard examining my Palau collection. He pronounced them free of insect pests and will grant me a clearance for them.

The James brothers at work with the natives sewing and arranging the new awnings. Those are old but will be serviceable for as long as we will need them here.

Thurston has loaned me his 32 calibre revolver which takes the aux cartridges and with which I hope to collect small birds at very close range.

Also dispatched a letter to Dr. Murphy regarding the engine for the 'France.'

March 10, 1932

My dear Dr. Murphy:

Concerning the engine:

I have every reason to believe that you have not received my letter of October 10th, 1931, which was posted in Palau. I am, therefore, enclosing a copy at this time. I have covered the field up to that time.

To continue: We couldn't possibly have sailed among the Carolines at that time of year--with calms or variable winds and if we had started off for New Guinea across the equator and the doldrum belt we might have been six months on the way. Without an engine, we couldn't sell the vessel, later.

The logical thing to do, which I did, was to purchase a new engine, get it put in at the nearest port

and keep on with the work.

Lang took the France to Manila alone in 66 day with a crew of 5 malaitamen. He passed thru two typhoons, had his crew give out on him. All of which caused him a serious nervous breakdown. He hadn't regained his composure when he left here in February. I think a few months on land, as we agreed before he left, will straighten him out.

I instructed Atlantic Gulf and Pacific Co. of Manila to install the new engine, dispose of the old one to best advantage and have Lang meet me in Palau, with a well stocked ship. By careful figuring, we had funds to carry us to the first of March--whence we were going to proceed to Rabaul or Samarai, and dispose of the vessel.

I had no idea that your instructions were to lay up the ship by the first of the year, at the time we made this decision. I received your June 25th, communication and Sept. 16th, letter in the later part of October. I am still looking for your August letter.

Lang, in Manila, got mixed up with the American Trade Commissioner, Mr. Hoster, who evidently took it upon himself to try to run the expedition and when he found that he couldn't, he, of course, wanted to wash his hands of the whole matter. Hence this propeller business.

I did not know, until the France reached Palau, that the new engine had been cancelled and the old one patched up. I am still in the dark about this whole transaction. I have, though, written both Atlantic Gulf and the

American Trade Commissioner, Mr. Hester of Manila.

Regarding the new engine now on the dock in San Francisco, I can give you no information, as I have no letters of any kind regarding the same. I have often wondered though, what legal right Frisco Standard Gas had to accept some one else's cancellation when I purchased this new engine in my own name.

To try to keep in communication with you, by letter, while I was in the Mandate was impossible. I have to this date scarcely no letters, which passed thru the Mandate, since those I received in Guam.

Sincerely,

William F. Coultas
Whitney Expedition
Rabaul, New Guinea

March 11 (Friday). Rabaul. To Bay Loo lumber company and ordered a main boom standard. We have been in need of this support for some time. When sails are furled or unbent the boom has a tendency to sag badly in the middle which warps the same and causes the mainsail later, when set, to draw badly. I feel that it is better to use a standard and have the boom straight now than have a dispute over a warped one in the future.

Got the case of Palau birds away to Burns Philp and Co. who will ship to Sydney, thence San Francisco and across continent by fast freight to New York.

The little Japanese inter-island boat S. S.

Heiyei Maru came into port from Ponape. This will give me an opportunity to get Isreal away to his home.

The James boys hunting and returned with a pair of owls among other things.

March 12 (Saturday). Rabaul. The two James hunting and returned with a number of Centropus which they skinned creditably and also a Gallicolumba jobiensis. It is a good thing for them to be able to make their start here so that we will all be in good trim when we reach our bush camp.

Thurston's boys are the slowest things I have ever seen and I firmly believe it is all due to under-nourishment. Native labor in this territory is given no breakfast, but is sent to work on an empty stomach at daylight. During the one-hour lunch period at noon all of them get a small bowl of rice. In the evening at 6 P. M. this issue is repeated. Once a week, if they are lucky, they receive a 12 oz. tin of meat apiece. With such a diet it is little wonder that these poor creatures have little stamina or resistance.

From one week-end to the next most of them never obtain any grees of any kind unless individuals exchange their rice issue for something else.

I believe, and have carried out the plan, that a hot cup of tea with sugar and a ship's biscuit or two issued to each boy in the morning will amply pay for themselves in additional work received.

March 13 (Sunday). Rabaul. A throng of visi-

tors on board all day. There was naught to do but humor them. Each was given a cup of hot tea, a biscuit and a smile. Long ago, I learned not to offer beer or liquor to guests, otherwise I should have had a ship full of scroungers all of the time. It is astounding the number of chronic bums of both sexes one finds in these small out-of-the-way places.

March 14 (Monday). Rabaul. John and Mike hunting across the bay again. The outboard motor refused to function and the boys, late to start with, were forced to row back to the whip, which they reached long after dark. With guests aboard we didn't get to the specimens but put them in our improvised ice box.

To Alous Kun (Chinese merchant) during the day and purchased a number of camp necessities such as canvas cots, canvas chairs, thin mattresses for the cots, cheese-cloth, calicos, beads, trade paint and sundries.

I will begin now to arrange everything into bush packs against the day when we can get started. It seems that we are getting nowhere with all of these people around.

March 15 (Tuesday). Rabaul. Busy all morning with the specimens of yesterday. They kept very well on the ice except that the feathers have a tendency to absorb moisture. The boys did very well, returning with owls and ground doves. They returned to the bush again in the afternoon after they had cleaned up the left-over specimens.

Myself to the Japanese boat with Isreal, the Caroline Island boy, who will return home today. Isreal has developed into a very good cook and will be sadly missed from now on as a new one must be trained. Yowie, a Manus boy, will take charge of the culinary department as from date.

The hunters returned late with a number of migrant bee eaters (Merops) and paraquets (Charmosynopsis) which kept us engaged until late at night. All of us are slow workmen, I must say, but we do keep at it and show results of our efforts. In this short time both of the boys have shown aptitude for their tasks.

March 16 (Wednesday). Rabaul. Mr. F. Show Meyer of Tring and Paynton called today on his way to the Markham valley in the mainland of New Guinea. He has just taken a large collection of live birds back to England and is returning for more. Meyer tells me that he will try to make up a few bird skins as well on this trip.

The hunters returned with a rather nice collection of birds which gave all of us, including Meyer, an opportunity to visit and work at the same time.

March 17 (Thursday). Rabaul. Meyer with us most of the day. I find him an accomplished bushman, full of information, and not the least reluctant about imparting his knowledge gained through experience.

Hunters returned and all of us to work as previously.

March 18 (Friday). Rabaul. F. Show Meyer has

presented us with a number of small flue nets which he tells me he has used with some success in catching specimens. These are small, some of them made of hair and others of fine thread. They will, though, be appreciated as we are anxious to try out such devices.

Mike and John hunting again but with only moderate success.

March 19 (Saturday). Rabaul. Not feeling well today, but sure that it is not fever.

Meyer remained with us most of the day and assisted with the birds in the evening. We find him a very congenial guest.

Mr. Mirfield, chief engineer of W. R. Carpenter and Co., came aboard and asked permission to survey the engine next week. He assures me that I may expect an offer from the firm within a fortnight.

March 20 (Sunday). Rabaul. I am afraid that I am coming down with a case of mumps, of all things.

Considerable rain all day and strange as it may seem, this is one of the very few days when we didn't have visitors on board. The two James boys took off early for the other side of the peninsula to be gone all day. They reported poor hunting country on their return.

Compiled the following letter to Dr. Murphy:

March 20, 1932

My dear Dr. Murphy:

On February 3rd, inst. I cabled you as follows:

"Announce arrival--all the crew on board--to be

discharged--will dispose of vessel--sufficient funds in hand--for the present--forwarding case marked as usual--no ammunition required this year--\$5000.00 all that I require this year--present rate of exchange favorable-- please send remittance thru Standard Bank of South Africa Ltd.--to the credit of my account--Bank New South Wales here--to the bank. Coultas."

Since that time, I have discharged the Captain and all of the crew--paid in full. The vessel has been offered for sale and is now definitely laid up. As soon as we go into the bush, I shall place a white-man on board (to sleep there at night) in accordance with the harbor regulations. The duties of the white man will be to wet down the decks daily and light the riding-lights at night. As he will be getting a home for nothing, the cost of this transaction will be little, I shall protect myself with a written agreement but I think it advisable to keep harbor insurance for fire and theft on the France until I cable you to cancel same.

Upon receipt of your letter of December 28th, I cabled you as follows: "Your letter of 28th day of December came to hand to-day--vessel laid up. Coultas."

I have offered the France for sale for 2000 pounds Sterling, cash, which will sell her if she can be sold at all. Schooners of this type have gone out of service mostly, here in the islands. Recruiters and shell hunters do use this type of boat. Times are hard here as everywhere--but, with the trouble in the Orient, the price

Copra appears to be gradually rising. I have had a number of nibbles to date but have seen no actual cash. I am confident that I can sell the vessel.

The case of birds, Saipan, Tinian and Palau, is on the way. The customs export entry and Dept of agriculture clearance have accompanied the case to Sydney and should be forwarded to you from Sydney as I have requested. Burns-Philp.

Field Notes

Field notes and records for the Palau birds are in the mail. Other notes, Whitney report, photo negatives, accounts etc. will follow immediately. I shall be more prompt in these matters in the future.

A small box containing 80 vials of external bird-parasites is in the mail, with a letter separate--listing same. Beginning with the New Britain collections, I shall save samples of birds stomachs and birds--in alcohol. I can very easily make a complete collection in alcohol if you wish it.

Itinerary

We are, at present, in the field every day getting some real good material but will shift in to the Baining Mountains within a few days where we will establish a base camp and remain until the south-east season has definitely set in. Following this I propose to go to the north side of the island, to the high mountains, away from the south coast rains. Later we will shift to the western end--check up there and later on start the moun-

tains of New Ireland. The Government, here, has granted us all necessary permits.

Finances

I have, at this writing, approximately 2800 Pounds Sterling to the credit of the expedition. Not one cent of debt and everyone paid in full. Besides this I have most of my equipment for the bush and about three months supplies of commestibles on hand. With a little care and much planning, this amoung should carry the expedition well into 1933 before the matter of finances need be discussed again. Should I sell the France, which is likely, I can go on into 1934. (Feb. remittance rec'd. and included above.)

Former Shipments

To date, I have no acknowledgment of your receipt of my cases of Ponape and Kusaie birds, nor the small case of Guam birds--all of which I forwarded from Guam. Perhaps your missing letters addressed to me in the Carolines contained this information.

Miscellaneous

I have plenty of ammunition for the year but will require labels, as I have mentioned separately. Should the expedition take a new name, I will want stationery. Although I have plenty of single barrel shot-guns--I could use two double-barrel Parker guns--my present one being worn out in the mechanism.

Would you please have the New York Times send me a years subscription of their Sunday edition--to Rabaul and

debit the cost from my salary. We are hard put for news down here and even to date I can't find out who won the last World's series. (No mail since last July).

Mr. F. Shaw Meyer, visited us on his way to the mainland. He is with Tring. He gave me a couple of Flue nets, small ones, for catching birds and if these work on ground birds, I shall have the natives make me more of them.

My best wishes,

(Signed) William F. Coultas

A long time ago I wrote to you about publications, particularly The Whitney Expedition Reports---"American Museum Novitates." I should like a complete set of those to study when I am in the bush and any other publications that you think would be a help to me.

March 21 (Monday). Rabaul. Ashore to Dr. Brennen who ordered me to bed. Boys hunting and returned with a few kingfishers not much of a day all round.

March 22 (Tuesday). Rabaul. Will have to split up the boys and let them alternate in the field every day. One of them will have to remain on board to drive the crew about their tasks otherwise nothing will be accomplished.

March 23 (Wednesday). Rabaul. Myself in bed. John aboard ship supervising details of the new crew. Complete eclipse of the moon tonight.

March 24 (Thursday). Rabaul. Mike on board with the crew and got into them with both fists. At least the method is effective in that it breaks the black boys'

hearts and stirs them up. The danger lies in the possibility that they might report the matter to the police whereupon we would be fined heavily. Would to heave we could take them to sea for a short while--things would be different then.

March 25-27 (Friday-Sunday). Rabaul. The Easter holidays ashore with all of the stores closed and the crew on leave as is customary. Myself in bed all of the time.

March 28 (Monday). Rabaul. John aboard ship and Mike hunting. Myself in bed. This illness is most exasperating--seems that we are actually getting nowhere with all these delays. Yet this is the tropics where it is impossible to get anyone to hurry.

March 29 (Tuesday). Rabaul. Dr. Brennen out to the ship to give me an overhaul. John aboard and Mike hunting along the slopes of the volcano mother. He returns with scarcely any material. The propeller of the outboard motor is broken which is a handicap at this time.

March 30 (Wednesday). Captain Duncan, Lloyd's surveyor, and Mr. Mirfield (engineer) spent the whole day aboard ship and made a rather exhaustive survey. They were well with the vessel but concluded that the engine was too small for the type of work they wished to use the vessel for, namely, hauling copra.

The James brothers were given permission to visit the Duke of York Group with Mr. Thurston of the "Drina."

March 31 (Thursday). Rabaul. After all of these weeks of puttering around W. R. Carpenter and Co. made the

following offer for the 'France' as quoted:

31st March, 1932

Mr. Coultas
m.s. "France",
RABAU

Dear Sir,

We are prepared to offer you the sum of £1250 cash for the purchase of the m.s. "France" as she lies in Rabaul Harbour subject to the vessel being slipped and found satisfactory, and to our offer and your acceptance being confirmed by Head Office. We would be prepared to pay the cost of slipping in the event of the purchase being completed, otherwise this expense would be yours.

We should be obliged if you'd let us know whether you would accept such an offer.

Yours faithfully,

W.R.CARPENTER & COMPANY LIMITED.

G. Symington
Manager

April 1 (Friday). Rabaul. It is quite evident that Messrs. Carpenter in their offer are attempting to obtain the vessel for as little as possible, which is quite natural with any firm. At the same time with alterations and a new engine necessary before the vessel is ready for sea, I don't dare demand too high a price or I shall lose the only chance I have at present of disposal.

Should I refuse the offer and chance a sale at a later date there is the ever increasing danger of rapid

deterioration from improper care while the vessel lies at anchor. (This is exactly what happened to the 'France' in the end after Carpenters purchased her).

I therefore quoted Messrs. W. R. Carpenter and Co., as follows:

Rabaul, T. N. G.
April 1, 1932

W. R. Carpenter & Co. Ltd.
Rabaul, T. N. G.

Gentlemen:

Pursuant to your communication of March 31st, 1932, I hardly feel that I should care to accept the sum of Pounds--1250 for the France, as she lies, here in Rabaul Harbor. I do feel though, that I can compromise on the sum of Pounds, 1500 under the terms of your letter, ie, the vessel to be slipped, if found satisfactory and purchased, the purchaser to pay slipping charges. If the vessel is not purchased, I shall bear the expense of the slipping charges.

I understand also, that the transaction must be confirmed by the Company's Head-office before completion.

Sincerely,

William F. Coultas

The two James brothers returned from the Duke of York Group during the night and announced that bird life was very sparse there because practically the whole group has been planted to coconuts.

April 2 (Saturday). Rabaul. The new crew have,

at last, finished sewing, roping and settling anning canvas the whole length of the ship. It has been a devil's own task with such slow workmen, but I must say that they have a creditable piece of work to show for their labor. This complete covering will protect the decks of the ship should she lay here at anchor for a number of months.

Beginning next week we must start packing effects, commestibles, etc., for the bush. The party should be into camp by the middle of the month.

April 3 (Sunday). Rabaul. Messrs. Frogatt and Greene of the Agricultural Dept. called and spent most of the day on board. As both of them have spent considerable time in the bush they were chuck full of information which, when digested, will be of use to us.

We are told that the Central Baining valley natives are mostly nomadic, build few if any houses, eat their dead to keep their enemies from stealing the corpse and the soul of the deceased, are very difficult to obtain as carriers, but do cultivate excellent gardens. We will be assured of plenty of native truck if nothing else.

Both of these men advise us to go to Malabunga or Latromat and use either of those places as base camp and jumping-off point to the mountains.

April 4 (Monday). Rabaul. All hands began on bush packs. We have a system where each benzine case will hold a supply of all necessities. Hence one can take any case and be assured of what he needs without the necessity of opening several packs to find enough for a meal or a

side trip. Each case will hold tinned meat, vegetables, fruit, matches, flour, sugar, tea, coffee, salt, soap, rice, etc. We hope with this system to eliminate waste and time, and furthermore to instigate order about camp-- a thing which is almost unknown on most expeditions.

Received another letter from Messrs. W. R. Carpenter and Co. asking for a 14-day option on the 'France' as follows:

4th April, 1932

W. F. Coultas, Esq.,
m.s. "France",
RABAU

Dear sir,

We acknowledge the receipt of your letter of the 1st instant and wish to know whether you will grant us an option for fourteen (14) days for the purchase of the m.s. "France" as she lies in Rabaul Harbour for the sum of £1500. subject to the vessel being slipped and being found satisfactory by us, we to pay slipping fees if purchase is completed, otherwise this charge to be yours.

If you grant us this option, would you permit us to inspect the vessel with a view to seeing what alterations we will require to make to it?

Yours faithfully,

W.R. CARPENTER & COMPANY LIMITED.

G. Symington
Manager.

April 5 (Tuesday). Rabaul. Rented a room in

the Times Building, a rather small one 18 x 10 feet not large enough, but will do for the present to store all of our effects in. With the possibility of the sale of the vessel "as she lays" the purchaser is entitled to everything on board hence the necessity of getting off what we want before the deal is closed.

There is no end to the accumulations on a ship of this size and every blessed bit of it will have to be thrown away when we leave the territory.

Dispatched the following letter to Messrs. W. R. Carpenter and Co.:

April 5, 1932

The Manager
W. R. Carpenter & Co. Ltd.
Rabaul, N. G.

Dear Sir:

Regarding your request for an option for fourteen (14) days for the purchase of the m. s. "France" as she lies in Rabaul Harbour for the sum of Pounds 1500. subject to the vessel being slipped and being found satisfactory by yourselves, you are to pay slipping fees if purchase is completed, otherwise I am to stand slipping charges, etc--, I will grant you a fourteen (14) day option on the purchase of the vessel beginning from date of April 5th, 1932.

You may feel free to come aboard and make such inspections as you like, at any and all times.

Yours faithfully,

To: Mr. Symmington

April 6 (Wednesday). Rabaul. John James with the aid of natives cutting the tops out of benzine tins and later making lids to fit over them. After the container has been painted and filled with rice, bird meal or sugar and the edges of the lid taped well such a one is relatively water-tight and free from ants and other insect pests.

Mike James with the rest of the crew transporting effects to the storeroom in the building ashore. There will be numbers of such voyages before we have what we want.

April 7 (Thursday). Rabaul. Mr. Eric Grantar of the Rabaul carrying company aboard and agreed to transfer our effects to Latromat in the Bainings providing the roads are good. We set the date as April 15 weather permitting, and the price between 6 and 7 pounds Australian.

Work on board continued as previously with more loads of effects being transferred ashore.

Mr. and Mrs. Beiri aboard all afternoon. Beiri, who has but recently lost his plantation, seems to feel that he can dispose of the vessel to Norddeutscher Lloyd who are running a branch line down here and are in need of a vessel of this type. His prognostications are a little doubtful and besides the gentleman is not a business man in any way. I can appreciate his interest in a way but feel that it is purely mercenary on his part, although his interference at this time with Carpenter's holding an option is not to my liking and not as I should have wished.

I have known for some time that the German firm was slightly interested in the 'France.' Furthermore, I have it from good authority that they will not pay much of a price for the vessel either.

April 8 (Friday). Rabaul. All of us at work all day on bush packs. Between rain squalls we were able to get a number of loads ashore. With the last load in the evening stupid Sae, of Manus, dropped a case into the large boat and nearly tore the bottom out of the large boat. This accidental, more aptly termed intentional, move on the part of that young man will necessitate his working all day Sunday to compensate for lost time in repairing the boat.

April 9 (Saturday). Rabaul. Mike at work all morning with lead and hot marine glue, repairing the large boat. John and self painting tins and cases. This last act, apparently useless for short trips, is a wise one for a party which intends to spend months in the bush. Paint as a protective will increase the life of cases and tins fourfold.

Considerable rain again today. I fear that we are going to have a couple of weeks of rainy weather and as a consequence a setback in our proposed trip into the bush.

April 10 (Sunday). Rabaul. Mike has done an excellent job on the boat. When that one was lowered into the water this morning, it was found to be water-tight.

With hard work we were able to clean up the last

of our effects and get those ashore, so that now the vessel is ready to be delivered as she lays in the harbor. Our storeroom in the Times Bldg. is piled full with hardly space to turn around principally because everything was dumped in there indiscriminately without system or thought.

I shall have to look around for larger quarters as soon as we are settled.

The S. S. Bermerhafen, Captain Engles, came into port from Hong Kong. Mr. Beiri rushed over to that vessel, solicited an interview, thence back to the 'France' and informed me that Captain Engles would like me to come on board. Under the circumstances there was naught for me to do but go on board with Beiri, hold my temper, and see what the Captain had to say. The latter asked if he might come aboard the 'France' the next morning and give her a survey.

April 11 (Monday). Rabaul. Captain Engles, the chief engineer, Chinese boatswain and others aboard ship all morning to survey the 'France.' Everything went along nicely until it came time for a trial run, then the blessed engine wouldn't start.

About noon the prospective purchasers gave up and returned to their boat. We did finally get the engine going about 2 P.M. and had a run around the harbor.

Captain Engles informed me that he believed his company in Bremen would consider 800 to 1000 Pounds as a fair price for the vessel. I informed him that I couldn't consider such an offer.

Considerable rain off and on all day. Nothing accomplished other than the survey.

April 12 (Tuesday). Rabaul. Ashore to Dr. Brennen who pronounced me in good shape and told me to go ahead with my work. As a matter of fact I have been doing just that for several days.

Strong squalls with rain off and on all day which indicates that we are going to have one more siege of northwest weather before the end of the season. This one should be the last too.

Found means of getting to China Town where we visited every store, priced commodities mostly trade goods for natives to get an idea of Rabaul prices before we begin exchanging with the natives.

April 13 (Wednesday). Rabaul. Mr. E. D. Taylor, District officer of New Britain called and informed us that he heartily approved of our proposed base camp at Latromat in the Baining valley. He assured us that a police boy permanently stationed there would be able to assist us, etc. etc.

Personally, I have a holy horror of police boys who are always meddlesome, arrogant and more often than not trouble makers. The Government, though, not having sufficient funds to police the area with whites nor not willing to adapt the highly satisfactory system used by the Americans of placing marines in the bush to govern the natives, places their faith in black police boys. This system has not proved satisfactory in many ways but is the practice

here and the one we must adjust ourselves to, whether we like it or not.

If there is a police boy within 50 miles of camp he will come over and join the staff, that is assured. So it is best to adopt a tolerant attitude at the start and have done with it.

Mr. Bieri, of Nort deutscher Lloyd fame, asked me to drop in on him at the hotel. Once there, Mr. Beiri calmly touched me for a personal loan of 300 pounds Australian to get him to Shanghai where he hoped to join the Chinese Army. Without even batting an eyelash he informed me that he had engineered the sale of the 'France' and as a favor felt that I should reward him with the personal loan. Questioned further I learned that there would be no security, just a little matter, "between friends."

Mr. Bieri is a citizen of Switzerland, and the Swiss were once the Robber Barons of Europe. It appears as though the offsprings have lost none of their cunning.

I was very sorry to disappoint Mr. Bieri, didn't even take the matter under consideration. Europeans have always considered Americans plain fools with their money and the truth is Americans are just that. We, as a people, haven't developed the underhanded cunning other nations have and as a consequence we have been and are the losers.

This is one instance though where the other side got let down rather badly after his loan was refused.

April 14 (Thursday). Rabaul. The first officer of the Bremerhafen informs me that Captain Engles has wired

to head office at Bremen requesting permission to purchase the 'France.' The price, unofficially obtain for me, 800 Pounds.

Captain Duncan, the surveyor, on board for further inspection of the vessel.

Mr. McLean, shipping manager of Carpenters, on board and informed me that head office in Sydney had confirmed my offer. He asked that we be ready to have the vessel slipped Monday the 18th inst.

The following letter was received from W. R. Carpenter and Co.:

14th April, 1932

W. F. Coultas, Esq.
RABAU

Dear Sir,

We confirm our conversation with you this afternoon when we advised you that we have been instructed by our Head Office to exercise our option of purchase of the m.s. "France" as she lies in the harbour for the sum of £1500 subject to the vessel being slipped and to Captain Duncan's certificate that she is in good order and condition.

We have arranged with Mr. T. Nazaki to slip the vessel on Monday morning next, the 18th instant, and should be glad if you would have her alongside the slip at 7 a.m.

Would you please let us inspect the Certificate of Registration of the vessel and the papers held by you authorising you to deal with her.

Yours faithfully,

W. R. CARPENTER & COMPANY LIMITED

G. Symmington
Manager

April 15 (Friday). Rabaul. Dispatched the following cable to Dr. Murphy at the Museum, "Please telegraph immediately, Direct to W. R. Carpenter and Co. Ltd. Rabaul your confirmation my authority to sell vessel.- Coultas."

Continued rains and strong wind squalls most of the day which kept us incapacitated.

Mrs. Coultas gave a morning tea, at the Rabaul Hotel for the ladies of the community. This was a duty bound engagement and well worth while for those ladies have been considerate enough to invite her to their homes.

April 16 (Saturday). Rabaul. Received the following cable: "Sell France--Chapman."

Continued hard rains all day which means another 10 days or so before we can get away for the bush.

With the 'France' being sold, it is all working out pretty well except the loss of time involved.

April 17 (Sunday). Rabaul. Continued rains and gales of wind, ship riding well with both anchors down. No work accomplished.

April 18 (Monday). Rabaul. Up early and took the vessel to Nozaki's slip way where we turned the ship over to him. Before releasing the vessel to the Japanese, I attempted to obtain in writing an acknowledgment of his responsibility in case of accident to the vessel while on

the slip ways. The Japanese would accept no responsibility which is customary in cases of this kind. I next attempted to obtain insurance at the local agents but was informed that I could only insure against "Total loss including salvage charges." There should be a "hull insurance" clause covering the vessel in the policy held by Museum but unfortunately I do not have a copy of that policy with me.

There was naught to do but chance the slipping and risk an accident.

The whole party moved ashore to the Pacific Hotel, where we will remain until conditions are favorable for the bush trip.

April 19 (Tuesday). Rabaul. Received the following cable from the Museum: "Hereby authorize you receive purchase money for France and sign transfer papers provided usual Government regulations are complied with.- Museology."

W. R. Carpenter and Co. also received a cable authorizing me as agent for the Museum.

The long missing and very instructive letter of Dr. Murphy under date of Aug. 4th which was sidetracked thru Kobe to Guam reached me today and is quoted as follows.

Kobe August 27, 1931.

Mr. William F. Coultas
Whitney Expedition
Port Apra, Guam

Dear Mr. Coultas:

We enclose a letter received for you, which has

been inadvertently opened by mistake by our Mail Department.

We regret exceedingly that this has occurred.

Yours very truly,

F. M. Satterfield
Manager

August 4, 1931

Dear Coultas:

Your letter of July 1, announcing the shipping of four metal-lined cases by the U. S. S. HENDERSON, has been followed by a telegram from the Mare Island Navy Yard reporting their arrival. We expect to have them in the Museum within ten days or so, and we are all looking forward with keenest anticipation to the material from the Carolines and Ontong-Java.

I have also received your affidavits showing that the schooner FRANCE was in port at Ponapé from October 26, 1930 to January 5, 1931, and at Kusaie from January 13, 1931 to May 21, 1931. The documents have gone to our insurance brokers as a claim against return of premiums.

Apropos of the bill of Dr. E. L. Miller of 601 Hubbell, Building Des Moines, Iow, I have another communication saying that he is greatly in need of an immediate settlement. Naturally I cannot authorize payment at this end without your consent, but I should greatly appreciate it if you would write Dr. Miller and take the matter off our Museum records. It does you no par-

been inadvertently opened by mistake by our Mail Department
We regret exceedingly that this has occurred.

Yours very truly,

F. M. Satterfield
Manager

August 4, 1931

Dear Gentles:

Your letter of July 1, announcing the shipping
of four metal-lined cases by the U. S. S. HENNINGSON, has
been followed by a telegram from the Mare Island Navy
Yard reporting their arrival. We expect to have them in
the Messum within ten days or so, and we are all looking
forward with keenest anticipation to the material from
the Carolines and Olong-Java.

I have also received your affidavit showing
that the schooner BRANCE was in port at Honolulu from Oc-
tober 25, 1930 to January 5, 1931, and at Kona from
January 13, 1931 to May 21, 1931. The documents have
gone to our insurance brokers as a claim against re-
turn of premiums.

A copy of the bill of Dr. A. L. Miller of
601 Habbell Building, San Francisco, Cal., I have another com-
munication saying that he is greatly in need of an im-
mediate settlement. Naturally I cannot authorize payment
at this end without your consent, but I should greatly
appreciate it if you would write Dr. Miller and take

the matter off our Messum records. It does you no har-

ticular good to have him pestering the Museum for a bill which he alleges you have owed him for two years or more.

In two previous letters I have sent you the fullest possible prognostications about our future financial resources. It has become increasingly clear that the sooner we get rid of the schooner the more we are going to save for a continuation of your field work next year. I sincerely hope that you will be able to make advantageous disposition of the vessel in the very near future instead of waiting until toward the end of the year.

We have just had a long letter from Dr. Sanford, who is in Paris, and have followed this up with a conference of other members of the Whitney Expedition Committee and Dr. Mayr. The following conclusions, reached after full consideration, may serve as instructions to be followed as nearly as possible by you in case you do not find a buyer for the schooner in the Caroline Islands.

Finish up what may seem to be absolutely essential work in the Carolines just as rapidly as you can. It is regrettable of course that you will not be able to visit a number of interesting islands, but everything has to give way when the money is running out. Then take the FRANCE to Rabaul and put her in the hands of an agent. If there is no prospect of an immediate sale, lay her up in a shipyard, or in some other way reduce the expense to a minimum. Get rid of your crew with the exception of one or two helpers whom you think will be best adapted to assist you in a campaign among the Admiralties.

Mayr tells us that transportation to the various islands of this group is easily arranged with possibly one or two exceptions among the outliers. If you will plan to work that group during the latter part of this year and all or most of next year, I can guarantee funds which ought to be sufficient for your needs. It will also give you an opportunity for a really intensive ornithological campaign with plenty of time to work all parts of each island thoroughly. Moreover, the greater part of the region is a virgin field, and your collections should prove rich in new and little known birds, and should furnish the basis for important systematic and geographical studies which I hope you will work out largely yourself.

We are eager to hear your acceptance of this plan as soon as possible, for if anything should prevent you from carrying it out Dr. Sanford wishes to arrange a similar Admiralty campaign in cooperation with Dr. Stresemann of Berlin. If, on the other hand, you go there, the field will be left entirely to you.

The Whitney Expedition so far as active field work is concerned is now practically dead except in name. The check which will go forward to you some time during September will represent the last payment of the annual contribution by Mr. Whitney or his estate.

In another sense the Whitney Expedition has of course just begun, for the scientific results of all the labors in the field by so many different devoted men will now appear more actively than ever and should continue for

many years to come. I hope that you will let me know as soon as possible that the vessel is in one way or another off your hands, and that the work in the Admiralties is under way.

With all best wishes from everybody here,

I am,

Yours sincerely,

(Signed) Robert Cushman Murphy

April 20 (Wednesday). Rabaul. To the Times Bldg. and engaged a double room for a period of 6 months. This place will be used for a general store room and assembling space for specimens from the bush.

In the mail I received two long letters from Dr. Mayr outlining collecting stations, etc. and are quoted as follows:

February 15, 1932

Dear Bill:

We have just received your radio from Rabaul, and I am glad that you arrived safely at that port and are ready to begin your activities in the Bismarck Archipelago.

I began to compile notes on the birds of New Britain and the surrounding islands for your information, but I have found that it takes more time to do it really well than I expected. I will therefore send you in this letter the most important information. The plans of the Whitney Expedition will have to be changed somewhat as

various events have happened in New York recently. You will receive more extensive notes from me later. For the present the following information will help to direct your present campaign.

1. Collecting Stations. The two most important items of your activity will be the exploration of the mountain forests on New Britain and New Ireland. Several new species can be expected from there as well as some other very desirable and rare birds. It is therefore necessary for you to stay in the mountains sufficiently long to obtain complete representation of the fauna there.

You will find out from the residents the most suitable place to enter the mountain area. As far as I remember the eastern part of the south coast is the most accessible place to enter New Britain. "Kar-Kar" Schmidt whom you will probably meet in Rabaul offered to arrange for me a visit to the mountains of that district. Eichhorn went to the Talasea Mountains which are volcanic and are therefore probably poorer than the main range.--In New Ireland the highest mountains are in the southernmost part. According to the maps the southwest coast seems to be the most accessible place. We are very anxious to get a complete representation of the mountain bird life as it is entirely unknown in the Bismarck Archipelago, while the lowland is well explored ornithologically. We can therefore get most of the lowland species in exchange.

We would, however, like you to stay for some time on the Duke of York Islands near Rabaul, which are the

type locality of many birds. Another important place in the lowland is Nusa Island (and Kapaterong I.) near Kavieng. The islands are the type locality of a little black honey-sucker and the opposite mainland the type locality of two species of grassland finches. Don't forget grassland birds. There are five species of grass finches known from the Bismarck Group, and two of them are very rare in collections. Furthermore, two very rare species of quails occur in the grasslands, and one species of wrens..

Concerning the outlying islands of the Bismarck Group: Rook Island, Witu Islands, Feni, and New Hanover are less important because they have been recently visited by other collectors. On the other hand, nothing is known about the islands northeast of New Ireland (Tanga Islands, Lihir I., and Gardner Is.). There are not many birds to be expected on these islands. It is therefore not advisable to collect there if the trip will cause much loss of time. The best way would be perhaps to hire a small vessel in Rabaul and work these mentioned islands successively and afterwards St. Matthias Islands. St. Matthias has several very peculiar birds, among others a rare species of kingfisher, two species of thrushes, rare flycatchers, thickheads, and warblers. A trip to the mountains of the interior seems to be advisable. Squally Islands have no endemic species and is not worth a visit.

Equally unknown are the islands of the western Admiralty group. Only half a dozen birds have been re-

corded so far from the Ninigo Group, and nothing at all is known from the Hermit Islands. If a visit to these islands could be undertaken without much expense, some interesting discoveries no doubt would be made. On Luf Island in the Hermit group there is a high hill which is evidence of the considerable age of this island. On Kommerson Island a colony of sea birds was reported. The known birds of the Ninigo Group include an indigenous species of megapode, parrot, kingfisher, starling, flycatcher, and black honey-sucker. Probably an endemic species of cuckoo and ground dove could also be expected here. A large series of the megapode is especially desirable. The type locality of the endemic kingfisher is supposed to be Anchorite Island.

The bird fauna of these islands is rather poor, and I wouldn't advise a visit, as I said above, if too much loss of time is incurred. If you have still time after completion of this program, a trip to the mountains of Manus may bring you some results, although the altitude is given as only 3,000 feet on my map. Perhaps you could also obtain something interesting on Rambutyo Island, east of Manus.

II. Desirable birds of the Bismarck Archipelago.

Don't waste any time on sea birds except for petrels and birds found on their breeding colonies. The same is true for shore birds, which are exclusively northern migrants. We do not even want records of them. One of the bitterns is quite interesting (Dupetor). It is the one you collected on Rennell Island, but in a different subspecies.

Most birds of prey are very interesting and de-

sirable, especially the smaller hawks. We do not want any series of the two fish hawks (Haliastur and Pandion). Megapodes, quails and rails are always welcome. A series of Porphyrios from New Britain and New Ireland is particularly wanted.

There are several small lakes, swamps and coastal marshes on New Britain and New Ireland about which you can get information from local people, and where you will find rails, grebes, and reed warblers.

Pigeons are very numerous in the Bismarck Archipelago. Not less than 30 species and subspecies have been described from there. Most of these are common and not very desirable. Some of the mountain species and ground doves are rare (Gymnophaps, Gallicolumba and Henicophaps). There are 18 parrots known from the islands, several of which are desirable, especially the two mountain species and all the pigmy parrots. Cuckoos are always wanted, especially the larger grassland cuckoos (Centropus). Owls, night-hawks and swifts are very much wanted. Among the kingfishers are several rare species, especially the small forest kingfisher (Ceyx), and the long-tailed kingfisher (Tanysiptera). Even the common coconut kingfisher (Halcyon chloris) is wanted, as it shows great geographical variation. Northern and southern New Ireland is inhabited by two different forms of this species. On St. Matthias Island and Ninigo Island live very peculiar subspecies of this kingfisher. An endemic subspecies of the whiteheaded beach kingfisher has been described from the Admiralty Islands. Only three

specimens are known. We do not want, however, any specimens of the Australian migrant (*Halcyon sancta*). Of bee-eaters two species are known, one a migrant from Australia (*ornatus*) the other (*Merops philippinus salvadorii*) breeds in river banks adjoining grasslands. It differs from *ornatus* by having the underside strongly washed with reddish brown, and the rump dark green. The tail is bluish-green not black. A series of this bird is desirable.

The dollar bird and the hornbill you don't need to collect; but there are three rare species of pittas, one on New Britain, one on New Ireland, and one on Manus, which are valuable. There are several species of Gray-birds, but none of them is very rare. The yellow-eyed species is the most desirable. New Ireland has a large drongo, an endemic genus with long curly tail-feathers of which we want a series. The crow is common and not desirable.

On New Britain occurs a rare brush wren (*Ortygocichla*) of which I will send you the description later. Three thrushes are known from the islands. One is black like the Rennell Island thrush and was found from St. Matthias. The other two are similar to the "Pseudopitta" which we found on St. Cristobal Island. One of the two was found on St. Matthias also, the other on the mountains of Talasea. A third one will probably be found in the mountains of New Ireland. They are ground birds and rather difficult to collect.

Besides the grass finches there are three other grassland birds. One is a chat with black (and white) males

and grayish-brown females (*Saxicola*); the second is a small grass warbler, buffy underneath, and brown with blackish stripes above (*Cisticola*); the third is a grass wren, *Megalurus*, similar to preceding but larger and with a long tail. A green warbler (*Phylloscopus*) has been found only on St. Matthias so far, but I expect you will discover it in the mountains of New Britain and New Ireland also. It is the same bird we found on St. Cristobal and Malaita, but as it has a different subspecies on each island, a large series is desirable from each locality. All the fantails are wanted except the common wagtail.

Among the flycatchers proper are several quite rare species. One is endemic on St. Matthias (*Monarcha menckei*). Another one on Manus (*Monarcha infelix*); another one on the Ninigo Islands (*fulviventis*). Woodswallows (*Artamus*) are common on New Britain). They are black above and on the throat, and have a white belly. You will recognize them by their fancy flying.

The thickheads (*Pachycephala*) are extremely interesting. On the small islands off the coast like Uatom, Credner Island, Duke of York Islands, a different subspecies has been reported than on the large islands New Britain and New Ireland. This sounds rather incredible, but the question cannot be cleared up without sufficient material from as many localities as possible. Females are particularly valuable in this species.

Starlings are not interesting on the larger islands. On the Fead Islands, however, and on the Ninigo Is-

Islands endemic species occur which are desirable. They are related to the Rennell Island starling and may also occur on some of the other small coral islands. The minah (*Mino dumontii*) is uninteresting. Among the sunbirds we do not want the yellow-bellied species, but the black one with the glossy breast shield (*Cinnyris sericea*) is desirable, especially in the subspecies occurring on the islands east of New Ireland. Small honey suckers (*Myzomela*) are represented by 6 species, all of which are desirable. They seem to be rather locally distributed, and it is advisable to collect a large series whenever one species is common in a certain locality.

It is possible that unknown species of larger honey suckers occur in the mountains. The large leather-heads (*Philemon*) occur in a common species on New Britain and in a rare one on New Ireland. The latter one is desirable.

Midgets (*Dicaeum*) occur on all of the larger islands. A small series is wanted. White-eyes (*Zosterops*) are apparently rare. Only two species are known and both seem to be restricted to the coast and some of the smaller islands. They are rare in collections and therefore desirable. If any species should be found in the mountains, a large series is necessary. Besides *Erythrura* which has been found on the mountains of New Ireland, five other species of grass finches (*Lonchura*) have been recorded from the group. They seem to be distributed rather locally,

The two rarest are known only from the northern end of New Ireland (vicinity of Kavieng). Grassland birds suffer much from wear. Try if possible to get a series of these grass finches in fresh plumage.

This concludes the list of the known species of the Bismarck Archipelago. You can inspect part of these species in the collection of Father Otto Meyer on Uatom!!! He is very obliging, and I am sure that he will do everything to help you and will give you a great deal of important information. Give him my kindest regards.

Concerning your methods of collecting, I have a few suggestions to make after looking over your last shipment. First, fatty birds like pigeons and sea birds were not sufficiently degreased, and a good percentage of your beautiful doves look rather pitiful now. Second, most of your small birds were not filled out enough, and the skins are now somewhat thin and flat. Third, the thread on your labels was too long; the label should not be further away from the leg than one inch. Otherwise, I was very pleased with your success. I described a new genus from your collection, the green "honey-sucker" from Ponapé. It was a disguised white-eye.

I hope you will have a successful year in the Bismarck Archipelago and wish you the best of luck.

With greetings and cordial regards, I am,

Yours sincerely,

(Signed) Ernst Mayr

February the twenty-fifth
Nineteen hundred thirty-two

Dear Bill:

I hope that before this reaches you you will have received my letter of February 15. In it I hinted that "various events have happened in New York" which necessitated the change of plans of the expedition, about which I informed you. I am in the position to-day to give you the full reason, which is that New York has acquired the entire Rothschild (Tring) Collection. This means that we get all of the Meeks and Eichhorns collections and do not want any re-duplication. We want only material from places which were not collected, or which were insufficiently collected, by the collectors of Tring Museum.

To repeat the essential points of my last letter: We want first, and most important of all, a complete representation of the mountain bird-life on New Britain (main-range) and New Ireland. We do not want any birds from Rook, Witu, Feni, New Hanover and Squally Island, except in case you get "stranded" on those islands accidentally.

Some of the outlying islands, as mentioned in the last letter, are ornithologically unknown or almost unknown and should therefore be visited, if not too much loss of time and money is involved. The Duke of York Islands and the vicinity of Kavieng are the two lowland localities from which we are most anxious to get specimens.

On Manus I think you could make several discoveries. Meek missed some of the endemic birds (as the

White-headed Beach Kingfisher, the Black Myzomela and the White-eye), all three probably occurring on small outlying coral islands. He also did not penetrate into the interior or visit the mountains.

There is a rumor that a Cassowary occurs on Manus and Doctor Sanford is very keen on information in that line. Cassowaries require a special treatment. They must be degreased carefully and the colors of the soft parts must be described--even a color sketch should be made, if possible. The bones must be taken out of the legs, and head and neck must be filled with cotton, as is done with a bird-skin. Only by this method will the natural colors of the soft parts be preserved to some extent. Some measurements of the bird in flesh should be taken and the sex ascertained by dissection. We do not want skins of young Cassowaries from New Britain.

Compared with the diaries of other expeditions, I find that the notes of the Whitney collectors contain only very rarely any information about the stomach contents of the specimens. It is not sufficient, however, to say insects or fruit, but if you wish to give really useful information it is necessary to specify the order of insects (beetles, moths, etc.) and the kind of fruit (berries, nuts, etc.)

I hope that these remarks, combined with the information contained in my letter of February 15, will give you a fair idea of our wishes and needs.

With best wishes for good success and with cordial regards, I am,
 Very sincerely yours,
 (Signed) Ernst Mayr

April 21 (Thursday). Rabaul. Have made repeated trips to the 'France' since she has been drawn out of the water and find her in good condition except for a number of sheets of copper which need renewing.

April 22 (Friday). Rabaul. Went over the 'France' with McLean, the shipping manager, who agreed to take the vessel if I would stand the fifty Pounds expense of re-coppering flaky patches.

I agreed to this. Later in the day W. R. Carpenter & Co. gave me the following letter of confirmation concerning the purchase of the 'France.'

22nd April, 1932.

W. F. Coultas, Esq.,
Rabaul

Dear Sir,

Re the schooner "France"

We refer to our letter to you of the 14th instant and have now to advise you that we have received Captain Duncan's report of the condition of this vessel, which is to the effect that she is in good order and condition subject to the replacement of portion of her copper sheeting.

We confirm the arrangements entered into with you this morning whereby you have agreed to make an allowance of £50 on this account, and we have to advise you that we are prepared to take the vessel over as she lies on the slip and to pay to you the sum of £1450 on your executing the necessary documents of transfer in our favour.

Yours faithfully,

W. R. CARPENTER & COMPANY LIMITED.

(Signed) G. Symmington

Manager

Carpenter's agreed to take up this matter of registry etc. with the Museum while, as an incentive to more rapid results, I dispatched the following cable to the American consul in Sydney.

"Give W. R. Carpenter & Co. Sydney all information American Shipping Board regulations enable them take transfer schooner France from us. Coultas."

In the afternoon with Mr. Thurston and John James in a car as far Toma which is in the direction of the central Baining valley. The roads looked quite good so concluded to send the Party out to-morrow.

April 23 (Saturday). Rabaul. The others got away with all of the camp equipment in a large truck early this morning. It will be necessary for me to remain here in Rabaul a few days to wait for cables, transfer papers and matters dealing with the 'France.'

April 24 - May 2. Rabaul. Learned that the bush party had a hectic time getting to Latromat. Thru negligence of the native driver they became mired on eight different occasions and didn't reach their objective until Monday noon. Once at Latromat, camp was established and collecting begun on April 29th.

During this time in Rabaul, I shifted all effects to two large rooms in the "Times Bldg" and made a work shop out of that place.

Mr. Thurston's crew, who had been engaged on the 'France', were all paid off in full so that we would have no cause for a misunderstanding from that quarter.

May 2 (Monday). Is. Latromat. With Dr. Brennen in his car to Latromat in the Baining where I found the party encamped. They are very favorably situated with two fair-sized native houses in which to prepare specimens and store effect. There is also a newly erected cook house and two tents for sleeping quarters.

The two James have been in the field every day and are producing fair results for beginners.

I found that Mrs. Coultas had been literally eaten alive with sand flies.

Met Ian Mac, Patrol officer, who, while discussing the tribes of New Britain, warned me to be very careful of the natives of the Nakanai area if we make a journey into that country. Furthermore, on the lower side of the Island, he informed me, the Arames are not to be trusted either. I should not attempt to penetrate that country he advised.

Returned to Rabaul with Dr. Brennen.

May 3 (Wednesday). Is. Latromat again. To the office of W. R. Carpenter & Co. where I learned that there was no news regarding the transfer of the 'France.' So concluded to return to the Bush camp and remain a few days.

With Mr. Thurston in a food car to camp, arriving at 2 p.m. He will take the car, a hired one, back to Rabaul for me.

Once in camp went to work on birds. The boys have done fairly well with an example of Tyto aurantia and a rail among other species obtained. Also one night hawk has been brought in so far. The skins are good, thanks to the careful attention of Mrs. Coultas.

With their hunting, both boys have yet to learn that the early morning hours are the best for collecting. Both of them complain that the dew gets them all wet and cold, hence they should remain in camp until the sun is up enough to dry the grass and leaves.

Another failing, which is common everywhere, is the habit of late hours. I believe a great number of people enjoy sitting up most of the night and then sleeping until 9 or 10 in the morning. One can't do that and collect birds, though I will add that I never broke the boys of this atrocious habit while they were in camp with me. After the birds, I set to work on the camp effects. Those were not stored properly and required shifting and straightening. Order and convenience is a mania with me, while, at the same time, it tends to make life in camp much more congenial. Especially does orderliness help to keep down petty quarrels.

May 4 (Thursday). Latromat. My introductory night to life in this camp was not a very pleasant one. Sand flies pestered me all night long. Even the lotion or dope that was purchased in Rabaul and brought as a preservative gave only momentary relief as the insect pests

were back at work just as soon as the liquid evaporated.

Two unpleasant factors made their influence felt right at the beginning of camp and remained with us throughout all of our stay. One of them, an arrogant, surly police boy, and the other a perfectly worthless native mission boy. These two are at logger-heads with each other all of the time, as each attempts to induce the natives to do their individual bidding. neither of them have a great degree of success, but both stir up no end of discord.

The old chief of the village is not a strong man nor an influential one either. As a consequence, the natives of the tribe do just about as they please.

The Bainings, as reported, are dirty, timid, covered with sores, and not the least inclined toward communal life. This particular village, one of a score or more of houses was erected at the instigation of the Government and represents the only congregating center of this particular tribe of people. While all of the population is supposed to live here, I am told that most of them remain in the bush for weeks on end and return to the village as the spirit moves them.

As for the country, an almost flat valley floor cut by deep ravines. I am sure from my observations, so far, that we can not find a better locality than the one we are in.

We have here an abundance of virgin forest,

numerous patches of grass land, great stretches of secondary bush, and native gardens everywhere. Besides this, there is no end of small streams and miniature rivers. In the distance we have mountains rising to 4000 feet and if we can reach these we will be able to make a very fine survey indeed. Only one thing is lacking to make the area a perfect paradise and that is a lake with swamp land surrounding it.

Nevertheless, I can think of no reason for shifting camp to some other location until we have sized up this area and are ready to tackle the mountains.

May 5 (Friday). To Rabaul. Found that the two nurses, who are running a native hospital at Malabunga, are going in to Rabaul, so concluded to accompany them. I am especially anxious to get the sale of the 'France' completed in order that we can get down to work in earnest.

Reached Rabaul in the evening.

May 6-16. Rabaul. During this period in Rabaul I engaged my time labeling up earlier collections of New Britain, writing bird notes, etc., while waiting for some word or indication that I might use to transfer the 'France.'

On June 9th cabled the Museum. "Can you hasten United States Government Shipping Board. Please telegraph authority to transfer vessel direct to W. R. Carpenter a Limited Company here. Cannot sell without direct

authority. Coultas."

May 13th received following, "We give you authority transfer 'France' to W. R. Carpenter Limited. Making every effort to expedite Shipping Board Approval. Museology."

May 17 (Tuesday). To Latromat. Mr. Tom Goss, a planter at Loma, arrived in town with a letter from camp requesting my presence there. Packed a few effects and journeyed to Loma with Goss where I spent the night.

May 18 (Wednesday). Latromat. Cut across the forest area and reached camp about noon. Passed through an interesting country with birds everywhere. It is only necessary to go after them, I am sure they are here.

Found camp in good order. The boys have been collecting every day and have made up a number of specimens though mostly small birds. I did find several hawks and a small owl Ninox among the specimens in the racks. Owls are reported to be very common in this area. Our problem will be to locate their roosts and thus collect them during the day.

May 19 (Thursday). Latromat. Went over all of the birds and found them quite good except in several cases where the necks of the skins are too short.

District officers Taylor and Mac called again while on their rounds of inspection.

The boys returned from hunting about noon and gave us work for the rest of the day. In the evening for night hawks (Caprimulgus) which put in their appearance over the grasslands and native gardens just before dark. Unfortunately, none were obtained this evening but several were heard.

May 20 (Friday). Latromat. Hunting early this morning. Small birds are especially common, and as the Bainings have their gardens scattered all over the country one can find trails in every direction.

Two Henicopernis, the black hawk, were brought in, one by John James and the other by the local sub-chief called the Tol-tol. These are reported as moderately common but rather difficult to stalk.

Mike, the younger, has become a small bird man who delights in bringing in numbers of tiny creatures which are easy for him to prepare. John, on the other hand, believes in large birds and will spend the whole day chasing a hawk. The habits of the two sort of equalize the hunting but are not very satisfactory in building up the collections.

To date one single Baining, the Tol Tol, is the only one who has shown any aptitude with a shot gun. He is a fair shot but a rascal as well. I am afraid his time with us is limited.

Left camp at 4 p.m. to go to the Goss residence and thence on into Rabaul.

May 21 (Saturday). Rabaul. Up at daylight and started on foot for Rabaul. After about 8 miles of it Mr. Phibbs, the collector of customs, met me in his car and made the following 20 miles relatively easy for me.

Reached Rabaul little after 8 a.m. and found the following cable from the Museum: "Shipping Board order 2347 authorize transfer France - copy of order American consul Sydney. Museology."

Informed Mr. McLean of the cable and he agreed to get in touch with Sydney. The transfer promises to be a long drawn out affair before we have finished with it. Undoubtedly the permit of transfer has been forwarded by mail and will take 6 weeks to reach that port.

Notwithstanding, I have decided to remain in Rabaul a few days to see what develops.

May 22-30. Rabaul. During this period in the city I spent most of my time running errands and attending to odds and ends which always accumulate.

Received the sum of sixty-seven Pounds- four shillings and six pence from the Solomon Islands Government as a returned deposit on the guarantee posted on the five boys which we used as crew in the Caroline Islands.

To Bay Loo Lumber Co. and ordered a number of bird drying racks. These, when completed, will be about

3 feet 6 inches long, 20 inches wide, and 8 inches deep. They will be covered with copper mesh wire on both sides, cut, and hinged lengthwise through the middle of the uprights, so that they can be opened, birds inserted, and the rack hung by wires for the specimens to dry. Small, ant proof, and rat proof containers of this kind are quite essential in this humid climate. Dr. James P. Chapin's case is quite satisfactory on the march but not so successful in camp as wet specimens placed inside are inclined to mildew from the lack of circulation of air through the case.

Met Mr. Perryman, the manager of W. R. Carpenter & Co., who has been in Sydney on holidays. He feels that the transfer of the 'France' is almost completed. He has been informed by head office in Sydney that Mr. Carpenter has advised his agent in New York to have the transfer of the 'France' made in America in order to save time. Possibly this procedure will hasten matters.

Sent the following cable to the Museum after hearing from the Consulate in Sydney: "American Consulate, Sydney N.S.W., have not been advised transfer. Please instruct shipping board to telegraph American Consulate, Sydney, order number 2000-347, will enable us to complete sale at once. Coultas."

Mr. Joe Hoddenott, master of a very small vessel, assures me that he will be pleased to take me to Long Island and the Schouten Group on the northeast

coast of New Guinea at any time I would care to go there. His price with food and accommodations would only come to two pounds ten shillings, or \$12.50 per day. (a reasonable figure.)

June 1 (Wednesday). To Latromat. Forwarded a bank draft to Atlantic Gulf and Pacific Co. for payment of the propeller and shafting-handling charges, I now having received a letter from that organization explaining the situation there.

Concluded to return to camp again as there is nothing to take my attention here in the city.

With Mr. Ewing, arrived at camp at dusk. Learned that there is to be a big dance or "Sing Sing" to-night. Unfortunately, rain sets in shortly after dark and we retire only to be awakened about 1 a.m. with the native drums pounding and the festivities in full sway.

We go to the clearing near the village and find hundreds of natives assembled. At one side of the cleared circle the old men with their bamboo (and some with skin) drums are seated. In the center of the area is a huge fire which illuminates the participants and observers.

This is the seasonal dance of this tribe which has to do with the initiation into manhood of the young men. It is purely Phallic worship. Each dancer is covered with ropes of leaves and smeared with all sorts

and colors of paint and mud. The more hideous looking they are the better for them. On their heads each wears a most amazing mask, very large, most of them measured from 4 to 6 feet in length to 3 to 6 feet in height. These represent huge birds, lizards, cassowaries, fish, and other forms of life from the bush. Some of the bolder dancers pierced the flesh at the base of the spine and inserted a long thin rod (6 to 10 feet long) all covered with feathers and leaves which represented a tail. In front of their bodies each supported a grossly exaggerated replica of the male organ. These were decorated with flowers, designs, instruments such as horns, and some even had frills like propeller blades on the end of the object.

Each dance lasted perhaps half an hour while the participants leaped and cavorted about the arena. Others leaped through the fire at intervals, but all ended up in front of the orchestra toward the end of their period of gyrations. A wierd nasal chant was sung continuously by all participants during the dance.

Once assembled in front of the orchestra all actors wriggled, squirmed and performed what we would term lewd suggestive motions and ambulations.

Only males participated in this dance. At no time was there any indication that the women would engage in the performance.

As is true with most primitive people, the

women constituted the audience and are never permitted to see the faces of the actors. The latter though do recognize their men folks by their feet and their locomotion or by some bruise or scar on the ankle of a dancer.

Toward daylight all of the males with their paraphernalia scampered off into the bush to hide their costumes and wash their bodeis that no trace of the night's performance might be left on them.

June 2 (Thursday). Latromat. Not much accomplished this day as all of us were tired from the night's entertainment. Did manage to check over the specimens and perform odd tasks about camp.

The boys went hunting a short time in the afternoon.

Shortened the legs on the mesh tables we have had made by Bay Loo Company. These tables are so constructed that the flat top folds double. The reinforced sides fit together when the table is folded and the legs swing on bolts and fold down against the under side of the top. Folded, the table is a flat compact thin box, easy to carry and does not take up a great deal of space. These tables with canvas camp chairs are indeed a help in any camp and are usually found in such places.

June 3 (Friday). Latromat. Spent most of the day in the bush with John James. We put up a number of Pittas, immitated their calls and attempted to track

them through the bush. The birds were too smart for us and kept just out of range all of the time. I firmly believe this species delights in playing hide and seek with a person, for they will spend hours and hours answering a human-made call.

The chief, or Lu lu ai, from the village of Taulil came into camp and asked permission to try his hand at hunting. He was given a shot gun, a number of cartridges, and sent out but returned rather late in the day without any appreciable results.

Like most natives everywhere, once they learn that fire arms are available, they feel that they are natural born shot gun experts. Any and all villagers will step forward and proclaim themselves prepared to begin collecting. Perhaps they are with their own weapons.

In 95 percent of all cases, not one native has had a shot gun in his hands before, and when given one and allowed to shoot the same for the first time, the recoil from the discharge usually knocks him over backwards or frightens him so badly that he flinches every time he pulls the trigger afterwards. Consequently, without proper training he continues to miss his marks and returns with no specimens.

I have found that a little careful instruction right at the beginning will overcome a great deal of this tendency toward flinching on the part of the pros-

pective collector and will set him on the right track. Thus, when a boy is given a gun, I always take a few minutes and teach him how to hold his piece against his shoulder, how to lean forward to balance his weight against the recoil of the gun when the cartridge is discharged, how to squeeze the trigger, not pull it, and how to keep his eyes open. Likewise, he is taught to keep the thumb of his trigger hand hard against his cheek so that that member will not give him a bloody nose or a black eye when the musket is discharged.

After these few rudimentary points are drummed into the student's head, I always put up a target and attempt to explain something of distance and dispersion of shot at various distances. This last is a most complicated problem for a native and usually ends in wasted effort on the part of the instructor. To a native, a bird is a bird whether it is blown to pieces or procured at record distance.

Once the boy has an idea of the rudiments of shooting it is best to start him out on aux. cartridges first and leave the larger ones until he has acquainted himself with the less destructive ammunition. Unfortunately, nearly all natives resent being sent after small specimens and always complain bitterly about the larger examples they have lost through the small shot.

After a few days of practice or, more logically, a period of personal supervision in the field, most any

native can be trusted to the use of a shot gun. I say most any native because the average of successfully trained boys is very high.

The difficulties that confront the expedition leader when he is attempting to use a native staff of collectors does not come from the latter's inability to shoot nor his lack of skill in locating the material desired. The disturbing factors are all of a social nature and have to do with the normal life of a native. First of all, the black hunter, with a loaded gun on his shoulder, is in a commanding position. He is in possession of a stronger weapon than his associates and is, consequently, to be feared and respected. The temptation to show off is too great. He must strut around the ladies and bulldoze the men. Every native will do this no matter who he is nor what position he holds in the community. Humiliation, physical contact, nor profanity upon the part of the white man will not stop the native from his quest for social importance.

Then again there are so many edible birds in the bush which can be taken, eaten, or exchanged for something of intrinsic value (principally favors from some lady friend, usually married). It is such an easy matter to tell the master that he missed the object he was stalking.

If, for any reason, the flesh of a bird is not wanted, the feathers can always be used in ceremonial

dances, or can be sold or bartered to a neighboring village or clan.

Such a thing as honor or integrity, as developed in our more civilized races, is unknown to these primitive people. They have no conception of anything of that nature but acquire as much as they can get away with from any and every one.

Even if a boy can keep out of trouble long enough to receive a few shilling, some tobacco and a number of calicos for the specimens he has turned in, he soon reaches the saturation point where he feels independently wealthy. Once at that point, he no longer feels the need of continuing his hard labors of tramping through the forests when he can derive no end of pleasure from sitting around the village and explaining to eager listeners the virtues of the chase.

One learns to count upon a week to ten days of collecting as the limit of usefulness for an individual shoot boy. After that time one must begin casting around for another recruit. This is a problem which faces the leader of an expedition from the day he begins his activities in the field until the day he leaves.

If a permanent staff of collectors is signed on and used, those boys may be counted upon to be in trouble with the locals at least 90 per cent of the time. No matter who they are, how long they remain, or how good they are in the field, they will be in hot water over

something every blessed day. Locals know that one's shoot boys receive money and the former set every conceivable trap to catch the latter in order to extol blackmail from the same.

It is true that one can do his own collecting but that is most difficult at best. No white man can cover the forest and locate the species of birds as easily as a native who has lived in a particular locality all of his life. Thus, in this camp, we are faced, as always, with the problems of hunters and the Bainings are no better nor no worse than the natives in others.

Mr. E. D. Ewing of Burns Philip' staff arrived in camp to spend the week-end. As Saturday is the King's birthday or some such holiday, he has two full days away from the office.

Hunting for night hawks to-night and obtained two specimens, that is, I saw two fall after they had been shot at, but in the tall grass was unable to locate them with a flash light.

June 4 (Saturday). Latromat. Into the kunai grasslands early this morning and located the two night hawks that I had shot last night. One of them was found to be in excellent condition but the other one had been eaten badly by small black ants. This necessitated my disposing of it.

This species, Caprimulgus, hides in dense thickets in the day time and is almost impossible to flush

at this period. Though, as a species, they are very regular in their habits. One can watch for their appearance over open fields just at dusk and will usually find that the bird (individuals alone always) always comes to the clearing from the same direction and place every night. Locate the thicket where the bird should be roosting during the day and one searches in vain for the individual. Protective coloration plays a very important part in the concealment of individuals, as they choose leaf strewn ground upon which to rest and sleep.

Went to work on Pittas again to-day but without success. There is only one way to obtain this species and that is to stay with it until we learn how to acquire specimens. I'm mortally certain they will not come to us.

Mr. Jim Corfield, the native agricultural inspector for the Government, called while making his rounds of this area. His duties are to inspect native gardens, cocoanut trees (for pests) and to survey roads and keep them clean. He also distributes potatoes, rice, and seeds of kinds in an attempt to teach the natives a little variety of diet. Such vegetables as onions, lettuce, cabbage, tomatoes, melons, and pumpkins grow readily and are slowly being adopted by the natives.

June 5 (Sunday). To Rabaul. No hunting this day. All of the colored citizens washed and arrayed themselves in their very best before attending church

(Ló tu). Even our filthy cook and the "number two" (camp attendant) cleansed themselves.

This is a Methodist community whose requisites are that all natives bathe before attending services. This one hygienic factor alone is about the only real good the native derives from the church. All this is lost on the Bainings, though, who may be seen every Sunday evening squatting on the ground rubbing dirt into their skins.

When questioned as to this procedure, I learned that when a person washes they remove the covering from their bodies and become cold at night when they sleep. But if they rub plenty of dirt into their skins they will "sleep warm" at night.

I can understand now why Ma ra rup, our cook, and Ta Mongah, the No. 2, look askance at us when we send them to the streams to cleanse themselves twice daily.

I might mention here that a little spring near camp has been harnessed and made into a water falls and an excellent shower bath.

A number of visitors called in the afternoon. We have adopted the English custom of serving afternoon tea to all guests. It is quite inexpensive and restful.

With Mr. Ewing in the evening to Rabaul again where I hope to get some word of the 'France'. It is most distressing this journeying back and forth to Rabaul all of the time. Reached the city at 8 p.m.

June 6 (Monday). To Latromat. To the office of W. R. Carpenter & Co. but learned that they had received no word of the 'France' registry. Informed the Company that I would return to the bush and remain there until the end of the month. They agreed to forward any and all information if they could find a conveyance going that way.

With Mr. Thurston in a rented Ford and reached camp at 4:30 p.m. Learned that John James has obtained another Tyto aurantia which pleases him immensely. I only wish that he could obtain many more of these. This species with his shrill cry will respond to a call but it is rarely that one can get them to come within shot gun range.

All of us out for night hawks and owls again at dusk but none were obtained. This little spell in the evening just at dark is a pleasant break from bird skinning and affords exercise as well.

Mr. Corfield has put all of the natives to work, pulling weeds, cleaning roads, villages, and gardens. Our area fairly shines, it is so clean. I only wish he would remain with us all of the time and help us keep our grounds tidy.

It is customary in most villages to hire a woman to come and clean the compound, as this work constitutes an activity delegated to this sex. Men will

not always perform it even though they are a part of our hired retinue.

One point worth mentioning, though, with all of this grass cutting and weed pulling the sand flies have become disturbed and are around us as thick as can be. We will obtain little sleep for several nights until these quiet down again.

June 7 (Tuesday). Latromat. Mike James left with Jim Corfield for Wunga, a village in the mountains, some 12 miles distant. This one is reported to be at an elevation of 2000 feet and quite near a small mountain lake. Mike will have a look at the place and decide for himself whether he would care to collect there for a few days. I feel that it is about time for these boys to branch out for themselves if they are ever going to. As for myself, I wish to remain on here for a while until I see what this country holds and to acquaint myself with the natives sufficiently to urge them to carry us into the mountains. This will not be an easy task I am assured.

Hired a new camp boy named Dambien. He will act as roustabout and assistant cook. Among other duties, washing clothes, cutting fire wood, cleaning the house and camp will likewise fall to his lot.

To bed with a dose of fever. The first bad one I have had for some time.

John James returned with an example of Accipiter brachyurus. We didn't know it at the time but this one is a very desirable species.

June 8 (Wednesday). Latromat. A day of hard rains; very little hunting. John did get out and set a number of flue nets. Even if we are successful in obtaining specimens with these, I am afraid the natives will steal the birds before we collect them. This is the way of some primitive people.

Went over all specimens and packed the dried skins. We are able to condition our material without it becoming mouldy, though I have noticed here in this locality that it takes unusually long to get the feet hard and firm. It must be the air and the humidity that affects the skins.

Mike returned from on top with a dose of fever and went straight to bed. Corfield tells me that he thinks we should find camping quite agreeable up there though he admits that he didn't find conditions any different from the locality we are in nor did they find the supposed lake. There are no houses there either.

The cook, Ma ra rup, who had been permitted to go hunting during the afternoon, returned late smelling of flying-fox. Though he denied it, I am convinced that he shot specimens and ate them. This, unfortunately, ends Ma ra rup's career as a hunter. He can now center

his attentions on bread baking and rewashing clothes when they are not cleaned sufficiently. There is always the humiliating task of cleaning and brooming the yard too as a gentle reminder when work is poorly done.

The law does not permit one to lay heavily, the hands, on a native, except in the bush, but the gentle art of humiliation works wonders at times with these people.

June 9 (Thursday). Latromat. The natives have ruined the night hawk and quail country since they have cut and burned all of the grasslands in the vicinity. Though I have seen none of the latter to date, I have heard them and have been told also that they are present in small numbers here. Into the bush but returned with only a limited number of small birds. Just one of those days when I couldn't find anything worth while.

Mike still down with fever. We can't get him to eat, which is not an auspicious sign for him. Papa should have "spanked" in the earlier years of this young man's career.

June 10 (Friday). Latromat. John James and I hunting together. We have located a fine country to the north of us where we should encounter plenty of birds. Heard a cassowary but the same ran away before we were within a mile of him. Pittas again played with us and we were not rewarded with specimens. Though I did learn

that this species has ventriloquistic powers, will hide in a low tree and throw its voice to the ground. We were rewarded with a good adult example of an Accipiter novaehollandia and a Ninox for the day.

Red ants have come into camp since being disturbed by the annual cleaning brigade. These pests are now into everything, which forced us to bathe tables, chairs, boxes, and bed-legs with creosote.

The racks of drying bird skins suspended from the rafters of the house by wires are easily kept free of pests by the simple application of creosote rubbed on cotton which is tied to the wires upon which the racks swing.

June 11 (Saturday). Latromat. Hunting in the morning in the deep wooded ravine that separates these Baining people from the Tanlil Tribe to the south. The Luluai, or chief, of the latter accompanied me. We found plenty of good virgin forest but not many birds, though with the aid of my black accomplice we were able to obtain a Pitta.

The chief made a small leaf blind or covering into which we crept and which proved to be the undoing of the bird when it came too close to us. This idea is an excellent one and shall be used extensively from now on.

Near Tanlil village I found a large patch of grassland where cisticola, quail, and finches may be ob-

tained. The Tanlils have a bad habit of burning the grassland frequently, which will be a decided disadvantage to us in this work.

June 12 (Sunday) Latromat. Mike still down with fever. The boy seems to be suffering more from mental depression than from the effects of fever. In the first place, we can't induce him to eat and that is a handicap; in the second, he is a finicky sort of an individual who picks and chooses. He must have grape nuts, sliced bananas and cocoa with toast for breakfast. Soups of all kinds, rice, boiled meats, and potatoes all upset his stomach. One can well imagine the terrible mental suffering a young man must undergo in a country like this where there are no potato chip stores (delicatessens) handy and where he must eat what is placed on the table or else go away hungry. I was taught from childhood to eat what was offered me. In this and other camps my associates must learn to do the same thing.

Once a person is catered to, and each whim reckoned with, we will spend all of our time cooking and doing nothing else. Therefore, we must, as always, consume the common things as rice, potatoes, pigeon soups, etc. and we will learn to like them or else go hungry.

Considerable difficulties have been experienced with the villages lately over native foods. I lay the blame at the feet of the Methodist Mission boy who is, apparently, not satisfied with the prices I pay. There-

fore I used my voice and most of the afternoon in roaring the daylight out of every native I could find, with a result that we have considerably more provender this evening than we will be able to use for many days to come. When the master goes on the war path he announces that he is "Long Long," (crazy), but nine times out of ten noise and profanity bring results.

June 13 (Monday). Latromat. Mrs. Coultas and I hunting along the road that leads to Molabungo. This 5 miles stretch is flanked on both sides with large areas of secondary bush and well fenced in garden plots. One finds any number of small species along the road but very few large birds. We were rewarded with a ground pigeon, Henicophaps. This one is a stupid creature who, when disturbed, flies off the ground where he is feeding into the branches of a low tree and just sits. If one will stop and observe him, he will react like a Franklin's Grouse who just cranes his neck and silently watches the intruder.

There is no trouble in collecting this species once it is discovered. It is a wonder the bird hasn't been exterminated ages ago by the natives who take every one they can lay their hands to. Though rare here, one occasionally runs into them in darkened thickets of the forest valleys.

John returned from his trip with another owl among his collections.

Slowly we are learnign something of the area we are in and should be able, in the near future, to begin bringing in more of the desirable species.

Returned to camp to find the cook house full of kanakas and was forced to chase them all away, much to their resentment. I don't know what it is that attracts them unless it be the warm fire, but all natives always congregate in the cook house wherever one goes. The process of clearing it out must be repeated many times a day; even a club doesn't seem to put a stop to the practice either.

June 14 (Tuesday). Latromat. Into the bush with a new shoot boy but encounter a deluge of rain which drives us home early in the morning. It actually rains so hard we can accomplish nothing, so "rest" for most of the day. The grass roof of the bird preparation house leaks badly and we are put to it to keep the specimens dry.

June 15. (Wednesday). Latromat. Hunting with the new boy again and visit the grasslands near Tanlil. There are no quail in evidence though we tramp through the area until the heat of the sun drives us to cover. Grasslands in the tropics can become unbearably hot from the middle of the morning until late afternoon. Still one can find birds there at all hours.

John obtained an example of the long-tailed pigeon (Reinwardtoenas browni) which he found in the

dense forest and not far from a small rock-strewn river.

Mike is still in bed and complains of pains in his stomach which I think must come from lack of nourishment as he exhibits no signs of gastric malaria.

June 16 (Thursday). Latromat. Put a crew of natives to work making a new thatched roof for the bird house. Got around the demands of the local labor racketeers by promising the old chief 100 sticks of tobacco when a good job has been completed. Its up to him to see that the job is done well and acceptable. before payment is to be made. Hunting with good results.

June 17 (Friday). Hunting all day despite a light fog and drizzle of rain. In many ways a dark day is often superior to a bright sunny one. The damp bush allows one to walk more quietly, and the lack of bright sunlight eliminates shadows which do startle birds. I found one female Saxicola down in a ravine in heavy underbrush. This species is very active and most difficult to obtain here.

June 18 (Saturday). To Wunga. With a bed roll and a few supplies on the backs of 3 carriers, I took off with Mrs. Coultas to visit Wunga in the mountains to the north. We reached the village in five hours and found it situated at 1750 feet altitude.

Outside of a small, very dirty church and several lean-tos, there are no houses to make up the village.

The Bainings use this as a sort of congregating center when wanderers wish to meet friends and thresh out tribal problems.

We had the boys make us a temporary frame house with a lightly thatched roof which will suffice if we don't get too much rain. I did, though, leave orders for them to make us a proper leaf house for use in the near future.

June 19 (Sunday). Wunga. Took a long hike to a place called Muipe where there is supposed to be a lake. The same turned out to be a depression in a small valley where water accumulates after long hard rains. That is the nature of it. It was perfectly dry during our visit. This, at times, soggy place is apparently mixed up in the culture of the tribe, as most of them are terribly afraid of the area.

The country itself is excellent for hunting and should be worked. Natives report the grey hawk, Accipiter princeps, Melanchroa, and Gymnophaps here. Two problems will stand in our road, carriers for our duffle and housing facilities. I doubt if we can rake together enough boys to include tents in our packs, the next time we come here.

June 20 (Monday). Latromat. Up at daylight and took a long easy trip back to camp. Obtained a new kingfisher (Alcyon websteri) and missed two Ducula melanochroa.

John in the meantime has been acquiring a series of Charmosynopsis as those fly over camp in flocks just

before dusk.

Mike is up and around but not looking like his normal self.

Started our cook Ma ra rup at skinning birds but he doesn't appear to take kindly to the job.

June 21 (Tuesday). Latromat. Sent word to the chief that we would like 20 carriers to transport some of our effect up to Wunga on Saturday 25th, at which time I expect the natives up there to have the log house finished for us.

Hunting to-day in the grasslands and obtained a number of reed birds (Cisticola). John out but returned without anything. Native Minial showed up with 5 Owls (Ninox) which he obtained in a few hours of hunting.

I had offered a reward of one red calico (value 10 cents) for each Ninox procured. Minial being considerably smarter than he looks gathered up a small army of children who went into the bush and located roosting birds. After the kids had reported their finds back to Minial, that industrious citizen came to me and pleaded for a gun, stating that he knew where he could find an owl. I gave him his musket, received the 5 specimens, and rewarded the hunter in turn.

Now, from the native standpoint, Minial has out-smarted me and has become a temporary hero in his clan.

White men loop upon natives as poor illiterate

children, but the natives feel the same about the whites. According to native standards we whites are pretty easy marks. Nevertheless, I have, at last, started this species coming in and expect plenty of owls from now on.

I have yet to find someone who will take an interest in ground birds. Have talked snares and traps until I am black in the face but doubt whether one native has taken this work seriously as yet.

June 22 (Wednesday). Latromat. Did what I think was a smart thing and put Minial, the owl hunter, on the retired list temporarily. When he has spent and traded his calicos he may be able to return to work and find us some more good material.

Considerable rain off and on all day which made collecting an impossibility. Engaged our time around camp at odds and ends of things.

June 23 (Thursday). Latromat. John James takes for Sumgavis near the Worangoi River to ascertain whether he can pitch camp and find worth while swamp material there. Myself out again and obtained a number of finches and small stuff.

The tol tol and his cohorts were encountered shooting flying foxes which they have probably been doing for some time. This necessitated my calling in the gun. There is nothing in the world so aggravating as performances like these. Every white has to contend with it no matter

where he is.

June 24 (Friday). Latromat. John returns from his trip, having been eaten alive by mosquitoes, but brings no specimens. He thinks he might like to make a camp there later on.

Having an assurance from the chief that he would procure carriers for us on the morrow, we spent the day getting a number of packs in order and ready for the trip to Wunga.

I should like to establish a camp there as a forerunner for a trip into the mountains back of Wide Bay.

The Baining have and use a regular trail road in their journeys back and forth between these two places. Our only hope of getting into this mountain area from this locality is over this road, otherwise we will be required to go around to Wide Bay and enter the mountains from that side.

June 25 (Saturday). Latromat. The appointed day and not a blessed carrier. The old chief assured me that he would, without fail, have the required number of Boys on Monday. To-day, so he said, they were all in the bush gathering food for over Sunday and couldn't spare the time.

I set to work to dry all specimens and get those ready for a shipment to New York.

June 26 (Sunday). Latromat. Tommy Goss, from his plantation at Loma, called and informed me that he would be journeying to Rabaul on Tuesday, which affords me an opportunity to accompany him.

Mike is back on his feet now and will be able to go hunting in the future. I am afraid the boy is homesick and is having trouble adjusting himself to his surroundings.

The Sisters from Malabunga health station spent the afternoon in camp as well.

June 27 (Monday). Latromat. No carriers again to-day. The old chief showed up with three little boys as his only contribution and insisted that the rest of his subjects had fled into the bush where they will hide from him as long as they can.

Naught to do but drive the old fellow out of camp and attempt to instill enough fear into him to get some results.

There is an old addage to the effect that mind masters matter. In this case matter appears to be on top.

June 28 (Tuesday). To Rabaul. Left camp early in the morning to journey to Loma and accompany Goss to Rabaul. Arrived at Loma to find that gentleman having trouble with his car so spent the rest of the day and night with him.

June 29 (Wednesday). Rabaul. Reached Rabaul

early in the morning and found two cables awaiting me. "Shipping Board has telegraphed permit to American Consul Sydney inform me by telegraph immediately purchase price so that we can execute bill of sale in New York. Murphy."

This cable was sent on the ninth of June.

Also another: "Please send me answer to telegram of 9th day of June. Murphy."

June 30 (Thursday). Rabaul. Cabled Dr. Murphy as follows: "Purchase price 1450 pounds Australian currency when executed please telegraph Camobe Sydney. Arrangements for payment have been made with bank here. Your telegram received only this morning owing to my absence in the interior. Coultas."

W. R. Carpenter & Co inform me that just as soon as they receive telegraphic advice from Sydney they will pay me for the vessel.

I therefore decided to return to camp, get all of the specimens in order and dispatch them at once. Was able to find a passage with Goss as far as Loma and reached camp late at night. Found everything normal, birds drying slowly and well, but no carriers and no collecting done.

Received the two following letters from Dr. Mayr in New York:-

April 26, 1932

Dear Bill:

I just received your welcome letter of March 19 from Rabaul, and I am very glad to hear that you are well

and in the best of spirits. I trust you received in the meantime my two letters of February 15 and 25 with the suggestions concerning your activity in the Bismark Archipelago. The Museum would appreciate it very much if you could write to me about every four weeks and send a report of your current work. This would give us a chance to make suggestions and to improve the results of the expedition. I assure you that all your letters will be answered immediately and you will get all the information possible to any of your questions as long as I am here in New York. I know from my own New Guinea expedition how valuable and stimulating contact between a museum and a field worker is. The purchase of the engine for the France, which was without the knowledge or even against the orders of the Museum, has made the people here in New York angry, but the sale of the France has now equally pleased them enough to balance things up.

Your last shipment from the Carolines has not yet arrived. I think considering all the difficulties and handicaps you have done very well in this region. There is no necessity for you to return to that group as we will get all the missing species and subspecies in the Rothschild Collection. All our interest at present is centered in the investigation of the Bismarck group, and we expect that your collections will be very important and will solve some of the systematic and zoogeographical puzzles of that region.

I have given you a great number of details concerning collecting stations and desirable species, but I would like to emphasize again a few of these points. The most important point for us is the thorough investigation of the mountain areas of New Britain and New Ireland. Next in importance come some of the outlying coral islands, as mentioned in my previous letters.

We are very much interested in getting some notes on the habitat, food, and habits of the birds you have collected. The things we wish to know in particular are

- (1) the vertical distribution of all the species
- (2) the occurrence in the different formations (virgin forest, secondary growth, grassland, mangrove, swamp, etc.)
- (3) notes on their voices and breeding habits.

All such observations will contribute a great deal to our knowledge of the Melanesian birds. We are particularly anxious to get all the possible information as the Museum intends to publish a series of papers or books on the birds of Polynesia and Melanesia.

I expect that by this time you have met Father Otto Meyer of Uatom. He has quite a good collection of birds and a very profound knowledge of their habits. I am sure he can give you a great deal of information.

I was very much interested in all the news you

sent me about Rabaul and the Solomon Islands. I enjoy every bit of news from the South Seas and think very frequently of the various experiences we went through together. I see Hamlin very often. He is studying hard at Yale, and hopes to take his doctor's degree within two years. He studies zoology, anatomy, and anthropology but I think he will eventually concentrate on physical anthropology. That is the subject he seems to be most interested in.

I will be here in New York until the middle of June, and I hope to go to Europe for the summer. So far nothing has been decided yet about my future, but things look as if I were going to stay here forever.

I hope you will carry out your plans and study biology here in New York. I think that the study of ornithology has quite future for an energetic and bright young man.

Dr. Murphy is still in England where he is supervising the packing up of the Rothschild collection. We expect him back in New York some time in June.

Please give my kind regards to everybody I know in Rabaul, particularly to Bob Crookshank. I had a very nice letter from him a few weeks ago and have very good intentions of answering it soon.

I hope you will write me soon. With kind regards and best wishes, I am

(Signed) Ernst Mayr

May 3, 1932

Dear Bill:

Just received your two letters of March 10 and March 20. As I wrote you in my letter of April 26, Dr. Murphy is still in England. We expect him back in the latter part of this month. In his absence I will answer all the points you bring up in your two letters.

The case of birds from the Caroline Islands (Saipan and Palau) has not yet arrived, but I hope they will come soon.

On all the labels of birds collected in the Bismarck group you will have to put on not only the island but also the exact locality, as there are several cases known where the single species is represented by two races in different parts of the same island.

Itinerary.--You write that you intend to enter the mountain area of New Britain from the north coast in order to avoid the southeast monsoon. It is doubtful, in my opinion, whether you will succeed in reaching the central range in this way. There are several isolated volcanoes on the north coast, as for example, the Father and the Talasea Mountains. I do not believe, however, that these mountains are inhabited by the entire mountain fauna. If the season does not permit you to enter within the next half year from the north coast, it may be more convenient to collect in the mountains of New Ireland first and then go back to the south coast of New Britain. It is very difficult to give

you any real valuable suggestions from here. You, in the field, ought to be much better able to decide about that.

The question of labels and of new guns I will take up with Dr. Chapman. Also the question of the subscription of the New York Times Sunday edition.

I see from your letter that you don't have much news about the rest of the world. The 1931 World Series in baseball was won by the St. Louis Cardinals, who won four games, while the Philadelphia Athletics won only three.

Concerning politics we are in the middle of the primaries for the party conventions. Hoover is the sole candidate of the Republican party, but the votes in the Democratic party are rather split between Governor Roosevelt and Al Smith, and some minor lights. The public opinion in favor of Hoover is growing stronger, so that I would not be surprised if he would be reelected in spite of all the criticism against him.

The Whitney Wing looks almost like a complete building from the outside. The windows are in and the roof is finished. There is much to be done yet in the inside, and we are estimating that it will take more than a year before it will be ready for occupancy. There are many study rooms in the building, and I expect that it will be a fine place to do ornithological research work.

Please tell me in your next letter a little more about Shaw Meyer's activities. In which part of New Guinea

is he working and for whom? I heard that he is collecting for Tring, but this is hardly possible as Lord Rothschild has sold his bird collection to us. It is possible that Meyer's collections will eventually come to New York also. However, I haven't heard anything about it yet.

I will add a few notes on the birds of the Bismarck Archipelago to my letter as usual. The information in all my letters combined will in time make a useful guide to the bird life of the islands on which you are collecting and will give you an opportunity to improve on the quality of your collections.

I wrote you that we acquired the collection of the Tring Museum. In addition to that material we have also a few skins collected by Beck in Rabaul and in southern New Ireland. I thought it may interest you to know what he got. (Numbers refer to the enclosed list of the birds of the Bismarck Archipelago).--

Near Rabaul he collected: 32, 33, 56, 78, 83, 95, 100, 104, 112, 125, 128, 139, 153, 156, 167, 176, 182, 186, 192, 204, 205, 211, 212, 224, 226, 231, and 236.

On New Ireland he collected only a few birds: 66, 112, 183, 192, 194, 195, 212, 204, and 168.

Here are a few notes on these birds: No. 168 is a long-tailed drongo with the outermost tail-feathers curled. This bird is apparently not very rare, but as it is a genus restricted to New Ireland we are anxious to get

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a large series. Compare its life history (voice, etc.) to the common drongo on New Britain.

Of all the grass finches (*Munia* or *Lonchura*) *spectabilis* is the most common species. Its head, hind-neck and upper throat, thighs, and under tail-coverts are black, rest of the underside white. The back and the wings are brownish. The upper tail-coverts and central tail-feathers are orange ochre. Of all the other species of this genus we want as large a series as possible, preferably of birds of fresh plumage. Of the two sun-birds found in the Bismarch Archipelago, one, No. 211, is familiar to you from the Solomon Islands. The other species, No. 212, has the male bluish black with a purple glossy breast shield and greenish glossy crown, scapulars and rump. The female has the head dark gray, throat light gray, rest of the underside yellowish olive and the back olive. This species has a subspecies on Feni Island, No. 213.

Among the Monarchas, two species are very similar; *alecto*, No. 192, is black in the male sex with a greenish blue gloss all over. The female is very different. It is white underneath, black with a greenish blue gloss on the crown, and cinnamon on back, wings, and tail. The other species, *hebetior*, is smaller and also black in the male sex, but with less and a more bluish gloss. The female

is rather different by having the back darker and more grayish. *M. alecto* is a common species and we do not want many specimens. *M. hebetior*, however, (with a subspecies No. 194 on St. Matthias Island) is much rarer and very desirable. *M. chrysomela*, golden orange and bluish black, is a very beautiful bird but rather common in collections. *M. cinerescens* is gray above and on the throat, and rufous on the belly. It is only found on small coral islands, and a series from every locality is desirable.

M. verticalis on New Britain (with *M. menckei* on St. Matthias, and *M. infelix* on Manus as representatives) is black and white in both sexes, but with rufous buffy colors in young birds. It is related to the bird in the Solomon Islands which we used to call *M. arses*. All three species, 189, 190, 191, are desirable.

There are only four species of *Ptilinopus* known from the island, two of which we also found in the Solomons, namely, the yellow-bibbed dove, Nos. 59-61, and the superb dove. Very similar to the yellow-bibbed dove is a white-bibbed dove, *P. rivolii*. *P. insolitus* is easily recognizable. It is olive all over except for a few gray spots on the wing and chin and for the orange upper belly and the lower yellow belly. The most obvious character of this bird is a large yellow fleshy knob on the forehead. We would like to get a large series of this

species and also a large series of the yellow-bibbed dove from Manus (no. 61); all the other species of *Ptilinopus* are common in collections.

In my next letter you will receive a few more notes on birds from your islands. For this time I will give you a few bird lists (numbers corresponding to the enclosed list) of the birds of the Bismarch Archipelago.

On Feni Island Eichhorn collected the following species: 26, 22, 16, 15, 18, 32, several shore birds, 54, 55, 56, 65, 63, 72, 78, 80, 84, 88, 100, 107, 125, 126, 131, 136, 139, 144, 147, 165, 198, 192, 200, 205, 211, 213. Of these birds three have Feni Island as type locality and are therefore very important. These three are a small hawk, No. 26, which is related to the black and white hawk of Choiseul Island. It would be interesting to know if this species also occurs on the other islands east of New Ireland. The other two species are the gray and rufous flycatcher, No. 198, and a sunbird, 213. Other important birds from this island are the common gray pigeon, No. 63, the night heron, No. 15, the king parrot, No. 100, the starling, No. 205, but particularly the thickhead, No. 200, and the coconut kingfisher, No. 136. This latter bird is supposed to be identical with the one found near Kavieng, while the south of New Ireland is inhabited by No. 135.

A few notes on the birds from New Ireland.--

Eichhorn was the first to go to the mountains of this island. He collected in southwest New Ireland from November 1923 to the beginning of March 1924. His camp was situated at an elevation of 1800 feet, but he collected birds as far up as 3,000 feet.) Here are a few notes on the more important species of his collection. He collected the first series of *Ducula finschi* which was previously known only from a few specimens. The bird has a gray head and hind neck, while the throat is more vinaceous. The abdomen and under tail-coverts are reddish brown; back, scapulars and upper tail-coverts are beautiful metallic green with a bronze tinge on the fore-back. Wing and tail-feathers bluish green. The tail with a whitish subterminal band.

Ducula melanochroa was also collected by Eichhorn in a large series, although previously considered very rare. He shot one specimen of the rare yellow-legged pigeon, of which he collected three or four specimens in the Solomons (No. 71). *Columba albertisi*, No. 69, was discovered on New Ireland by Eichhorn; previously known only from New Guinea. This bird is related to the black-winged pigeon we found on the highest tops of Malaita. *Lorius albidinucha* is a very desirable species. It is red on the underside, back and rump; black on the crown, whitish on the hind-neck, and green on wings and tail. There are a few yellow feathers on the sides of

the breast, and the wing band is lavender blue. High up in the mountains lives a little pigmy parrot which is strikingly different from the lowland species. This bird should also be found in the high mountains of New Britain. None of the smaller birds collected by Eichhorn seems to be restricted to the mountain zone except a little parrot finch (241). I expect that there is at least a species of flycatchers and of honeysuckers restricted to the mountains which would be new.

Among the collections you have sent us you mention a small case of Guam birds. We have not received this case but I have started at once an investigation as to its whereabouts. However, I would like to know from you some further details. When did you send this case, by what shipping line, and do you have still some record, invoices, etc.? I hope the case did not get lost as Guam birds are very rare in collections.

You are asking for ornithological publications, and I have mailed you a whole set of the Whitney papers which have been published so far. I do not know of any other ornithological publications in English of the Melanesian region which would be of an interest to you. If I should find something I will also forward it to you.

You remember the two pidgin English stories that Bob Crookshank used to tell on the France? One about Adam and Eve and the other about the parable of the fish

and loaves? I would appreciate it very much if you sent me the text of these two stories in the correct wording. If you hear any other good pidgin English stories I would also like to receive the text.

You ask what specimens you should collect in alcohol. There are only a very few genera indigenous to the Bismarck group and therefore anatomical material is less important. If you can I would like to get one *Philemon*, one *Pachycephala*, and one *Coracina*; furthermore, the tongues of all the *Meliphagidae* and white-eyes, and stomachs of pigeons, well labeled.

With regards and best wishes for your success,

I am,

Yours sincerely,

(Signed) Ernst Mayr

July 1-7. Latromat. Mike James has gone to Loma to Tommy Goss' place where he will collect in the grasslands there for Finches, Quail, Rails, *Zosterops*, etc. He expects to be gone several days.

John James has taken himself to Laup, another small village near the Worangoi river, where he will set the small flue nets given us by F. Shaw Meyer, and will attempt to snare or trap the rail, *Habopteryx*, which is reported in that locality and also a few *Porphyrios*, if they are present.

Myself in camp, drying, labeling, and packing

all specimens for Rabaul where we will get them off our hands.

On the 7th of July I obtained carriers to take our cases of specimens to Malabunga where we will be able to avail ourselves of the truck at the Welfare Station which will make the trip to Rabaul to-morrow morning

Spent the night with the Sisters.

July 8-29. Rabaul. During this time in the city a number of matters were taken care of.

On July 13th, received a bank draft for 1450 Pounds in payment for the schooner 'France.' I immediately deposited that in the bank in Rabaul on fixed deposit to draw interest for the time being.

Cabled the Museum as follows: "Sale completed. Paid in full, transfer has been made papers are on the way by post forwarding cases marked as usual will leave for the interior will probably be absent about two months."

Packed and dispatched all of the specimens collected since our arrival in this territory. There were 2 cases containing 532 specimens representing 75 species. This collection was necessarily small as we are just breaking in to the bush life and have also been handicapped by repeated trips to Rabaul in reference to the 'France.' Now that the vessel is sold definitely, we hope to be able to go much more rapidly from now on.

Received the following letter from Dr. Mayr on July 10th:

May 17, 1932

Dear Bill:

The case of birds from Guam which was reported as missing in my letter of May 3rd has finally arrived. I inspected it at once and found the collection very satisfactory. I am enclosing a list with the correct scientific names of the species collected, indicating by a red asterisk the endemic species. The bird you call Monarcha is usually separated from that genus under the generic name Myiagra, distinguished by the very broad bill. One species of this genus also occurs in the Bismarck group, and I hope you can collect a series as the bird is rather rare in collections.

I did not find in your Guam collection 6 of the species previously recorded from that island. The most remarkable of these is a duck, and I am very much afraid that this duck is extinct. Did you hear any reports of this or the other 5 species listed? The collection arrived in very good shape, but I find in this lot the same objections I have already mentioned in my letter regarding your Caroline collections. First, the labels are tied on too long; the label should never be more than 1 inch away from the bird; second, many of the smaller bird skins are too flat, not enough filled with cotton; third, some of the fatty birds, such as sea birds and pigeons, were not sufficiently degreased. If you keep these points in mind I think it will greatly improve the

quality of your future collections. We were particularly glad to get a collection from Guam Island as this island has been greatly neglected by other collectors. Tring, for example, has very nice collections from the other islands of the Marianne Group, but has only a few specimens from Guam. Your collection is therefore a welcome supplement to the material acquired from Lord Rothschild.

We greatly appreciate the care you have devoted to your field book, and I can say without exaggeration that no collector of the American Museum, with the exception of Chapin, has ever kept such an exact record of his specimens. I am particularly grateful for the sketch plans of the islands visited, with indications of your collecting stations and with information of plant formations and so on. I hope you will continue this method as it will greatly facilitate the working out of the collections. Notes on the stomach contents are very desirable and would improve the value of your field notes. I hope you include in your diary a short description of every collecting station with indications of altitude, plant formations, general landscape, and changes due to native cultivation.

The guns you asked for are ready for shipment. We are holding them up, however, until we can add the labels which are now in press. I hope to be able to send you this parcel within a week or so. The subscription to

the Sunday Times has been ordered also, and you will get all the copies after May 6.

The approval of the sale of the France by the Federal Shipping Board meets some difficulties as we have no certificate of registration or any other official papers. However, we are pushing the matter hard, and hope to put it through as quickly as possible. Do not think that the delay is due to the Museum. We are doing our best.

If I remember correctly there have been on the France a great number of maps from all parts of Polynesia, and also Melanesia. I would be very grateful if you can send me all the maps that you don't need any more. I have difficulty at times in finding our collecting stations on the few maps which the Museum possesses.

We received to-day from the San Francisco agent of B. P. a bill of about \$36.00 for shipping charges for 2 cases of shot-gun shells from Sydney to Yokohoma, and from there to Truk. The bill will be paid from the Whitney Fund, and I send you this information so you won't pay it also.

I am sending you a few notes and identification keys of the birds of the Bismarck Group. I also send you lists of the birds known at present from the Admiralty Islands, from St. Matthias Island, and from the Ninigo Islands. The more I study the bird collections made on

Manus the more I am convinced that a great number of species will be discovered on that island in a further exploration. Only 2 expeditions have ever collected any birds from Manus, and both on the northeast coast of the Island. Neither the interior nor the south coast, nor any one of the outlying islands has ever been visited. I think it is worth while to concentrate on the Admiralty Islands after you have completed the exploration of the mountains of New Ireland and New Britain. I am sending you keys of the genera *Zosterops*, *Myzomela*, *Rhipidura*, *Collocalia* and *Lonchura*, and also of all the kingfishers and parrots. I think you will be able with these notes, together with the previous ones, to identify most of the birds known from the Bismarck Group.

You will also be able to learn which of the species of your collection are new records for the various islands, and which of the species are particularly valuable. I do not need to repeat that the owls and rails are always very much in demand. Some of the owls in the Bismarck Group belong to the rarest species of birds in the whole world.

Best luck to you.

Yours sincerely,

(Signed) Ernst Mayr

On July 16 dispatched the following letter to the Museum:

Rabaul, T. N. G.
July 16th, 1932

My dear Dr. Murphy:-

On April 15th, I cabled you asking you to confirm my authority to sell the vessel. This confirmation came through in good order and proceedings were started at this end through the American Consulate-General in Sydney, Australia. After numerous cables W. R. Carpenter & Co. decided the latter part of May to have the transfer signed in New York by their agent as we were apparently getting nowhere at this end and they were anxious to complete the sale - as well as myself.

These delays were caused by the customary government regulations concerning sale of American vessels and particularly the clauses: I think, which deals with vessels attempting illegal trade, etc, etc. No one was to blame for the loss of time and now that the transaction has been completed we have all heaved a sigh of relief.

Finances

As I intimated to you in my letter of March 20th, I now have with the additional 1450 pounds from the sale of the vessel, sufficient funds to carry me well into 1934 before the matter of finances need concern any of us again. I hope to make my accumulated balance carry me longer but I shall set that date as the very minimum of time.

Itinery

I am forwarding at this time (cable of July 13th) two tin-lined cases of birds, as listed separately. I am not pleased with the quantity of material but I feel that the quality will put you at ease for the time being. Now that the matter of the "France" is definitely settled for all time, I shall be able to do first class work and will try to get off a shipment to you every two or three months. Of course when I reach the outlying islands a longer period of time will elapse between shipments because it will be necessary for me to come to Rabaul and clear cases of birds through the Department of Agriculture and the Customs Office.

Shipment

The present shipment goes forward via the S.S. Macdhui, July 25th, to Sydney thence to San Francisco and by rail to New York. The customs export entry and Department of Agriculture clearance accompany the cases to Sydney and should be forwarded on to you as I have requested. I shall follow this same procedure in the future in order to eliminate all possible delays and complications.

Bird Notes

I am forwarding under separate cover by registered mail my field note book covering the last shipment of birds, as well as typed notes of all collections to date. Just as soon as I can dove-tail the matter in with the field work I shall forward my final report on my

time with the Whitney Expedition up to the sale of the France.

Letters

I have at last received your communication of August 4th, 1931, which reached me after a very round-about course. I wish particularly to acknowledge paragraph 3 of page 2. I shall be only too pleased to undertake such an assignment after I have completed the task at hand. The Bismarck Archipelago with its outlying islands will require all of my attention until early 1935 following which I feel that I should return to school.

Specimens

Dr. Mayr has intimated in his correspondence that many of my specimens were grease burned. I am well aware of this and am at this time washing fatty birds in gasoline. I wish you would please have a look at the Ducula which arrive in this shipment and tell me their condition on arrival. I didn't wash the petrels of Palau and regretted it afterwards. I think that the small birds in former shipments were flattened by being placed in the same case with larger, heavier specimens. Perhaps they can be fluffed out a little and made to assume more athletic proportions but in the future I shall try to send all small birds in cases by themselves. I have been in the habit of leaving the labels a little long in order that I could have a little more elbow room when making the final check in india ink.

Dr. Mayr's correspondence

I am in receipt of a number of letters etc. from Dr. Mayr, all of which have contained valuable and helpful information. I appreciate the time and the thoughtfulness of Dr. Mayr in sending this data and suggestions. In only one matter I draw the line: that is, the question of passing up certain species, as being common and not desirable. At the present time I am not sufficiently versed in systematic ornithology to trust my own judgment, I much prefer to take all species in series and hope that even though they are very common they will be of some value to you. To be more explicit, I prefer to do the extra work of preparing these specimens rather than pass up a valuable material.

I might say farther that I intend to spend more time in each locality from now on and attempt to obtain all species in good series. As you will note with this shipment the larger series comprise the more difficult birds. It will be a very easy matter to fill in the common species. I don't think you will ever visualize what a rare treat it is for me to work in a country like this, so prolific in bird life after the tremendous struggle I had in the Japanese Mandate to gather a few specimens.

New Britain or this part of New Britain where I am now is the greatest hawk and owl country I have ever found. The hunters by the way are terrible but they are learning.

Miscellaneous

I am in receipt of the New York Times for which I thank you, and note that the two guns and labels are on the way.

There is sufficient ammunition on hand for some time to come.

I shall write you again in September when I forward the next shipment.

Best wishes.

Besides the two cases of birds forwarded, there was the field book worked in india ink and the bird notes of the Palau area which I was able to handle at this time. This clears up most of the back material for me.

Mrs. Pinching, the wife of a planter at Jaquinot Bay on the south coast of New Britain, was in the city and gave me some information on conditions in that area. I am told that weather conditions are not favorable from June until December as the southeast trade winds are blowing at that time and abundant quantities of rain is encountered. Mrs. Pinching felt that any time after December would be auspicious.

As to the natives, I was told that they are nomadic and often times scarce. Not many of them visit her station and when they do they remain only long enough to purchase a little tobacco and salt.

These people, so she infers, are wild and untamed. They have had little or no contact with whites and are known to run away at the slightest provocation.

Reichnow's book on the birds of the Bismarck Archipelago has reached me from Berlin and is sincerely appreciated.

Mr. Bieri of Bremerhafen fame has just returned from a gold seeking expedition on San Aristoval Island in the Solomon's. He was apparently unsuccessful in his efforts.

Father Schum of the Roman Catholic mission on the Talasea peninsula visited with me and went over the collections. I asked about cassowaries and the good Father advised me that he had never taken any. I presume the technicality in this statement lies in the fact that natives obtained the birds for him.

The new Administrator, Brig. General Tom Griffith reached the territory. I visited him, paid my respects, and found the old gentleman very courteous and friendly.

Also found Fred Werner, who has a small boat and a new plantation on the north coast of New Britain at a place called Biala near the Nakanai country. He has agreed to take us to that region in his boat about the third week in September.

Received the following letters from Mayr while in Rabaul:

June 7, 1932

Dear Bill:-

I have asked the Berlin Museum to send you a paper by Reichenow on the birds of the Bismarch Archipelago. This paper is written in German and is furthermore somewhat out of date concerning its scientific names. However, it contains a great deal of valuable information on the exact localities where several of the rare species have been found. It also has a great number of the native bird names. You will find that these names are probably different in every district, and it is therefore advisable to state always where the name was used. I also tried to get you all of Dr. Hartert's papers on the Meek and Eichhorn collections from the Bismarck group. In case my last letter to you got lost, I am enclosing a duplicate set of the keys to the various genera and families.

The guns and labels have been sent, and I hope you will get them soon.

Do not forget to send me all the Polynesian and Melanesian maps which you don't want any more. I need them very much in my work.

I shall go to Germany on June 23rd for a stay of three or four months, if all my plans go through. If you have any questions concerning the scientific side of the expedition, I will answer them from Berlin. But if there is anything more official you had better write direct to

Dr. Murphy.

Dr. Murphy returned yesterday from England, and will probably be in town all summer.

Wishing you best of success, I am

Yours sincerely,

(Signed) Ernst Mayr

June 16, 1932

Dear Bill:

We finally received your magnificent collection of Palau Island birds. I have checked over the collection and identified all the species. It is a very complete collection, and aside from a few unimportant migrants you missed only three species. One is a little rail which has not been found on the Palau Islands since 1882. The second species is the Nicobar pigeon, and I wonder if you have any information concerning this bird. The Palau Islands are inhabited by an endemic race, and it would be a pity if this species had been exterminated by Japanese hunters. The third species is *Erythrura trichroa*, which, however, always has been rare on the Palau Islands. As far as I can see at the first hurried inspection, there are no new species or subspecies. Many of the forms were so far unrepresented in American collections, and some of them as the owl, the nighthawk and *Megazosterops* were so far only known from one specimen. The collection was

well packed and in excellent shape. However, the labels were tied on too long, as in your previous collections. I hope you have remedied this in the meantime.

There is one more point I would like to call your attention to--the treatment of the bill. It is very important for the study of the generic position of a bird to study the finer details of the nostrils. In most Whitney birds this is impossible on account of the heavy needle and thread used by Beck. Your skins are somewhat better in this respect, but not yet quite satisfactory. Maybe you could in every species treat a few specimens in a different way. If the skin is well made it is sometimes sufficient to wrap a small piece of moist cotton around it. My remarks refer particularly to birds with soft bills, as, for example, Rhipidura and Myiagra, in which the shape of the bill is frequently much altered by careless preparation.

I wonder when you will be able to send us your diaries and field notes. I am very much interested to learn how some of the Micronesian birds live, for example, Psamathia and Conopoderas (Acrocephalus). I hope you write short life histories of every species right in the field as it is a well known experience that you forget a great deal as soon as you come home.

We have not heard from you in quite a while, but I expect that you are up in the mountains of New Britain and have no chance to get in communication with us. I am

very much interested to learn what your success will be.

With all best wishes to you, I am

Yours sincerely,

(Signed) Ernst Mayr

July 29 (Friday). To Latromat. With a motor car left Rabaul about noon and reached camp at Latromat about 7 p.m. after a trying trip in the rain. We were without chains which hampered progress considerably.

Found the two boys in camp and doing well.

July 30 (Saturday). Latromat. Spent the day going over the small collection made by the James' during my absence. Though small, it is excellent in some new material, i.e., another Accipiter brachyurus, an Accipiter luteoschistaceus and a bush wren, Ortygocichla. Minial has been hunting during my absence and has done good work.

John got very little material at Taup and Mike less at Loma; both boys complained of the rains encountered.

The natives here have shown no inclination of carrying us to Wunga.

It is my intention to push back into the interior and work the mountain area before the middle of September. There are any number of species not well represented in our collections which will require some getting before we are through here.

The Boys have improved wonderfully in their

preparation but are still afraid of the bush despite the fact both of them are getting "all of the good birds."

Natives Minial and Mararup showed up with a number of small Collocalia which they had located in a cove some distance from here; also an example of the widely distributed mountain pigeon Melanochroa reached camp but proved to be very fat which necessitated giving it a bath in gasolene.

July 31 (Sunday). Latromat. Sent the boys out for "Bulus", Ducula rubricera, but those returned in the rain with only two examples. Rained most of the day, hence we kept to the house and labeled a few skins.

August 1 (Monday). Latromat. All three of us hunting this morning, Minial with me. We chose the undulating country to the north where one finds patches of timber, scrub, and native gardens.

The natives informed me long ago, as I reached a garden to the north of camp, that that one was the last. Yet if I went a few hundred yards farther on thru the forest, I would be sure to find another garden hidden away somewhere. These people are masters at concealment and have hoodwinked the Government for years. As stated previously they are nomadic but excellent agriculturalists. Each family makes a samll garden of taro, yams, and sweet potatoes in an area. They use a small lean-to to live in while they are tending the same. Once the place is

in good order the family moves on to another area, fells a bit of timber and plants more produce.

I presume that the Bainings prefer to have several sources of food supply against drouth, raids, etc. rather than depending upon one only source or plot of land.

Once an area has been used for a season it is allowed to rest two or three years before being used again. A more or less rotation of crops sort of business that we Americans haven't learned to do well yet.

Thus, one can go for hours through the bush and find all sorts of conditions. Along the small streams and rivers one sees a wealth of tall timber undisturbed.

August 2 (Tuesday). Latromat. Called the Chief into camp again and demanded carriers. The poor old thing offered all sorts of excuses and agreed finally to have another try at his clan. I shall keep nagging at him until something happens.

John has located a large dead tree where Falcons are known to roost. We visited there and sure enough saw two birds sitting very erect in the top of the branches.

They were too high for our twenty gauge shot gun cartridges to affect them.

With Mararup for Ortygocichla but could obtain none. These have the facility of being able to hide

under leaves and in the branches of dead fallen trees. In many respects they resemble wrens in their habits.

Considerable rain again to-day which kept our specimens from drying well.

August 3 (Wednesday). Latromat. The natives have, at last, succeeded in bringing in 6 Kai Kai pigeons which permitted us to invite the two Sisters from Malabunga and have roast pigeon cooked in our new Dutch oven. This bit of hardware will prove a god-send to us in our camp life as we will be able to bake bread without resorting to old benzine tins and other makeshift forms of ovens.

August 4 (Thursday); Latromat. Mike and John remain in camp to arrange effects for a trip to Wunga tomorrow as we are practically assured of enough carriers to take part of our effects. The two boys are very desirous of getting out on their own again.

I feel very confident that they hate the sight of me by this time. This is indeed a definite sign that these boys are adjusting themselves to expedition life.

Myself hunting and obtained some good material, including a falcon, 2 Bazas and a pitta. Minial accompanied me and proved himself to be a dependable companion in the bush. Had time in the evening to label up a few specimens as well. The use of india ink on the labels does slow one up terribly but tends toward a much neater job in the end. The new note book also takes

time when done in india ink. Whether its future value warrants the time expended is a debatable matter.

August 5 (Friday). Latromat. John and Mike with the aid of the Police boy got away for Wunga shortly after daylight. I must say that the way these Baining natives carry we will have the devils own time getting anywhere with them. They have no conception of packs, while the largest men carry the smallest loads always. I doled out the loads and distributed the weight evenly, knowing, at the same time, that they will rearrange the cargo to suit themselves just as soon as they get down the road out of my sight.

Minial, hunter, Mararap, cook, and Dambien, assistant, will accompany the boys. Without them I fear me those two lads will be lost. Mrs. Coultas and I will train and use two juveniles who have applied for positions. "Quila," a lad of 8 or 9 summers, and his assistant, "Little Jesus," aged 6 springs, will heat water, boil rice, tend the fire, obtain water and wood for us. In the end these two will probably do just as well or better than their older bretheren and will be much easier to handle.

A retinue of natives laden with vegetables arrived from Taulil and signified their intention of hunting for us and supplying our wants in the absence of the Bainings.

Among this crowd I found a moderately bright, clean-faced young man by name "Tamalam" who tells me that

he once worked for Master Moore in the Duke of York Group and can handle a musket.

I gave him one and was rewarded with an Amaurornis for my pains. So with a rail for his first bird I judge Tamalam will become a permanent member of our staff.

Natives are peculiar. As long as the Bainings were around camp we didn't see a Taulil Boy, but as soon as the Bainings took off for Wunga the Taulil Boys moved in. Of course the two are hereditary enemies and as late as 15 years ago were fighting with one another over the very ground we are living on.

August 6 (Saturday). Latromat. For the first time in our camp experience we are rained out. Every blessed thing we own is soaking wet or damp from the misty atmosphere. The birds, those precious things, were kept from direct contact with the elements by wrapping the racks in blankets. I wish people in the Museum could learn to be half as careful with skins as men in the field must be.

The rain brought on the sand flies which were most persistent in their attacks on us.

The Taulil hunters managed to bring in a few specimens and then spent the night in our camp marooned between the flooded rivers. I put them to work digging drains, a duty all natives despise. They feel that the water will run off anyway so why trouble with ditches.

August 7 (Sunday). Latromat. To work cleaning camp, airing and drying bedding, birds and effects. The birds were free from direct contact with the mist, but absorbed moisture nevertheless.

I'm pleased that we have a hundred birds for the second shipment. I do want 500 more from here before we leave. Though, quite naturally, the longer we remain here the longer the series of common birds will be and the more searching we must do for the more desirable material.

A note from the Boys on top. They were completely drowned out yesterday and will require a couple of days to dry all of their effects. A fair house has been erected which will accommodate all of us up there and will be our next objective.

August 8 (Monday). Latromat. Hunting again this morning and succeeded in obtaining two Pitta by the method of concealing myself and calling them to me. Tamalam brings in a Baza and a Ninox which he finds in the rugged forest country to the south of Taulil village. I have never hunted there because of the length of time required in crossing steep ravines and getting around dense secondary bush to that section.

Sent the Police boy off to round up carriers to take us on top. Most of the Bainings are still up in the mountains.

August 9 (Tuesday). To Wunga. Up early, broke camp, and packed ten carrier loads to go into the camp at Wunga. After wrangling all morning we managed to get away at noon with 3 boys. This necessitated our leaving most of our effects behind, which I hope to be able to send for to-morrow.

Reached Wunga a little after four and found the boys camped in a makeshift lean-to. The whole thing has been thrown together hastily and leaks like a sieve.

The old Chief reports that everyone is actively engaged getting ready for a big dance on the morrow and can't spare the time to work on the house.

Before the evening was over 40 substantial recruits piled enough materials on the roof to give us a dry camp.

The cargo down below though will have to remain until the dance is over on the morrow.

I couldn't possibly get a boy to desert this place with a festival in the offing.

The two James brothers report the hunting fair here in the mountains but the going rough, and few, if any, trails in the bush. We will have to cut these.

August 10 (Wednesday). Wunga. Despite all sorts of wailing and arguments to the contrary I rounded up about 20 boys and had them erect windbreaks around camp,

dig drains, reinforce the roof, and put the camp in some sort of order.

Found time to go hunting and procured two white Cockatoos which were both in excellent plumage. This species is exceptionally hard to make into a good skin, once obtained. More often than not after being shot, blood gets all over the feathers which requires hours of cleaning to bring the feathers back into a presentable appearance. The thickness of the skull makes them difficult to kill in the first place and, if shot at too close range, they will bleed like a stuck pig before one can get to them to sponge off the fresh blood.

John James returned with another example of Accipiter luteoschistaceus which he obtained on a ridge in the true forest. This species is rarely seen in the bush.

Visited the dance for a few minutes in the evening but found it to be a repetition of the one we witnessed down at Latromat.

August 11 (Thursday). To Latromat. Hunting in the morning along the ridges and valleys west of camp.

The country is broken but fortunately none of the ridges are more than 500 feet above the valleys.

In this particular area there are very few native gardens. Most of these, I believe, are hidden away in the valleys below. At least we have been unable

to find patches of native produce except the one spot at Wunga.

The forest though is dense with a wealth of undergrowth. One must cut their way through this with a knife of some sort.

Birds were not observed to be plentiful as is often the case in thick forest until one learns their feeding and congregating areas.

Found a pair of owls roosting in the top of a tree and John too got a pair which makes four Ninox for the day.

Returned to camp about noon to learn that every blessed native had disappeared during the early morning hours. An examination of the trail showed that they had, most of them, gone back to Latromat.

Concluded that I would return to Latromat myself and get the rest of our cargo shifted on top.

Reached Latromat at dark and slept on the floor of the house. Not a comfortable place since I have become accustomed to a cot, and have become soft.

August 12 (Friday). Latromat. Had a show down with the Bainings over carriers and came out at the losing end. This time I was informed that the Kiap was expected most any day now and the natives didn't dare leave camp. I attribute all of this last to the Police boy but don't dare lambast the daylights out of him as he is classed as "a representative of the king."

Sent word to Mrs. Coultas to come down and join me. We will camp here for a while and see if we can push off for the mountains in the direction of Taup, though I am beginning to believe we are stuck right where we are.

Ropen, a new boy, with only the aux cartridges turned in an example of Loriculus tener, a rare from of paraquet. Immediately upon receipt of the same I returned to the area, secondary bush, where he had taken the bird but could find no more examples. I wonder if these birds aren't stragglers from some other locality. Few of the natives here recognize this species.

August 13 (Saturday). Latromat. Mrs. Coultas reached camp with the two Taulil boys who had been sent for her. She reports the James boys real pleased to see her go.

Hunting this morning after the rain and found the bush alive with birds. After a shower all species appear to voice their approval and at the same time become much more active. I think this is especially true of the small passerine species.

Another Zosterops to-day. There are most difficult to obtain here on this island for some reason. I presume it is because they remain in the tops of high trees and are only encountered when migrating or wandering among the secondary growth and low bushes.

August 14 (Sunday). Latromat. John James has shot a wild pig and has sent us down a hind quarter. Fresh meat of this kind is always a pleasant change.

To the bush and obtained a female Pitta. These are far more reserved and wary than the males and, as a consequence, much rarer in collections.

Some time spent at labeling specimens. Will try this time to label the skins in camp as we go along though I hate to spend the time at such a tedious task.

Have every reason to believe that Minial has stolen a few cartridges. I make every effort to keep an exact check on these for fear a few will get out on me. Not that any harm will come to us, but the extra ones allow the boys to obtain birds in the bush and not turn them in, thus encouraging stealing.

August 15 (Monday). Latromat. Hunting in the Taro fields in the direction of Toma. Tamalam and I got down on our hands and knees and crawled through the Taro gardens whenever we heard *Amaurornis* calling. There is no surer way of obtaining a good wetting than this method when heavy dew is on the broad leaves of this plant, yet I can think of no better way to stalk this rail. One has to be on the ground to see under the leaves and watch for the bird.

Tamalam obtained one example of this species and later we together obtained another Pitta.

Considerable rain all afternoon and evening.

August 16 (Tuesday). Latromat. Mararup showed up in camp with a number of specimens the boys on top had taken but couldn't manage to skin. Both of them are very slow in this work. I arranged with them, that should they have more material than they could handle we would help them with it.

Have concluded to keep Mararup here with us and let Minial do the cooking for the James. Quela will be dismissed and Little Jesus will cut wood for us. Mararup celebrated his return by having a good bath - the first in days.

The Taulil boy, Tamalam, turned in his gun as the Government tax collector is expected daily. As I have no permit for Tamalam he will be disengaged temporarily. Rained hard all day. We were thankful for the extra birds to fill in our time.

August 17 (Wednesday). Latromat. An ex-calfactoria arrived by carrier from John James. As this species is so tender skinned, John was afraid to tackle this one. I must say that this species, well encased in fat, can try the patience of most any one.

Myself hunting for a short time during the middle of the day but returned with mediocre results. I chose the area of secondary bush on the road to Malabunga in hopes I might see another Loriculus tener but was disappointed.

The whole camp is a bustle and strife again in

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chose the site of secondary bush on the road to Malabunga
in hopes I might see another Lophoceros but was dis-
appointed.

The whole camp is a bustle and stir again in

anticipation of a visit from the Government patrol officer.

The village of Taulil will pay a head tax of 10 shillings per annum per boy but the Baining natives pay nothing. This alone would be enough of an excuse to start a respectable war between two tribes.

August 18 (Thursday). Latromat. Hunting alone in the forest north of cam. The ground was just porous enough to make walking easy without the noise of my efforts startling birds.

I ran into an adult Cassowary but the same saw me and took off before I could get a shot at him. Once startled, this bird makes more noise than the Sixth Avenue Elevated here in New York. I've yet to learn how to capture these individuals.

The sisters, Margery and Mears, from the Malabunga health station, lined the natives and examined them for sores, yaws, etc. The natives, I regret to say, do not take kindly to medical examinations.

August 19 (Friday). Latromat. The new Mission house, which the black preacher (Tela Tela) has been working on these many months, capsized of its own accord this morning. I swear I had nothing to do with the collapse of the structure. I did, though, lose no time in spreading a few seeds of discontent among the natives by telling them that this particular missionary was not a good man. Otherwise, if the Lord wasn't dissatisfied with this individual, he would not have pushed

his house over.

I made a long trip into the bush to the north and west and found the small limestone cave in an out-cropping of coral where the boys had previously taken the small swifts *Collocalia*. There I obtained a few examples of this species, also a long-tailed *Tanysiptera* and a *Micropsitta*. Had a long trip back in the rain. It is surprising how one becomes accustomed to such things in the tropics and doesn't mind them in the slightest. The secret of constant wettings is to get into dry clothing just as quickly as one can and not sit down or stop exercising while wet.

August 20 (Saturday). Latromat. Hunting in the secondary bush and Taro for a time. I did find a *Ceyx lepida* in the low bush where he had no business being. One always associates this species with dark-covered forest and dark mountain streams over-shadowed with copious vegetation.

Returned to camp with a howling dose of dengue fever and so into bed. I have no idea where this malady came from.

The boys sent down a number of birds from Wunga. Some of them were excellent while others, particularly the smaller ones, were not acceptable. I disposed of a few of them rather than have poor material go into the museum. No rain to-day.

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August 31 (Sunday). Latromat. Hard rains today. No birds dried in the sun. No visitors. Put in some of the day labeling up specimens. We are rounding out a fair series in some species but have a long way to go. before we have made a representative collection of the Island. To be quite frank about it, we haven't learned how to conduct ourselves in the bush here as yet.

August 22 (Monday). Latromat. Rained hard all day. I remained in bed and consumed gallons of hot tea laced with brandy and every two hours a tablespoon full of camphorated opium. This is a sure means of killing Dengue, if such is possible.

Tamalam returned from his village and rewarded me with another Amaurornis. I have asked him to make a paper with me for a period of one year and he has promised to do so.

It is surprising how smoothly a camp can run with only two occupants. I believe the boys had better have their camps alone in the future.

August 23 (Tuesday). Latromat. Hunting most of the day with Mararup. We were not as successful as we should have been. Only a few birds and all of them small ones. I still hold to the theory that birds move in waves. Once a person can run into them and follow along he is most sure to obtain specimens. At another time in the same area one will rarely see or hear a specimen.

Possibly the weather as well as food has something to do with this behaviorism of species.

The Sisters from Malabunga returned from Rabaul and brought us mail and fresh bread. Mayr has gone to Germany for the summer.

August 24 (Wednesday). Latromat. The Government patrol officer has gone thru Taulil village but did not call at Latromat. Hence these people have had all of their cleaning for nothing. On the other hand, had he surprised them and found the place dirty, there would have been new recruits for the Government road corps.

Found a pair of Falcons perched in the top of a tall dead tree in the Gardens north of camp, but unfortunately missed both of these. They were too high for our number eight shot and their feathers too coarse and strong as well. I've no doubt they felt the effect of the shot but that doesn't do me any good.

Thence on into the true forest where I crawled into a leaf blind and remained there until I obtained a Gallicolumba beccarii and a Pitta.

Returning to camp I discovered a big native trial going on with the whole tribe attending. Four young men and four young ladies, one of them married, have been having relations with one another without paying the proper parties. Hence the trial. Its all a dollar and cents proposition with these people.

August 25 (Thursday). Latromat. Ropen has been put to work skinning birds in order that I will have more time to devote to hunting. The stuff is here in the bush but we can't locate it.

The big trial continues with plaintiffs and defendants, counsels and witnesses, each in turn, holding forth with bush oratory. My how they love it - this opportunity to sway the multitude with their words of wisdom.

To the big ravine and the grasslands near Taulil. I managed to obtain one *Excalfactoria* from the Kunai. One only finds a single individual at a time where one would expect them to be in flocks of a dozen or more.

Tamalam turned in another rail. I shall keep him at these all of the time. If we can train one good rail boy, we will be doing something.

A number of good birds were turned in to-day.

August 26 (Friday). Latromat. The boys have sent down all of their specimens from on top again. I have insisted that they should do this at each opportunity as I do not want to run the risk of damage once we have obtained them.

Remained in camp all day going over specimens and labeling them. We are slowly rounding out our series, though it is a very slow process.

The big trial came to an end at 4 p.m. after 60 hours of wrangling and disputes. The four unfortunate young men were required to irate fathers and husbands shell money to the extent of about \$50.00 (ten fathoms). Besides this the young men and their parents were forced to supply pigs enough for a big feast. I was very careful to see that we were not neglected when the pigs were portioned out.

In the old days both male and female were given a sound thrashing after being caught in a clandestine love affair. Now the thrashing is dispensed with but the fines are much higher.

Fortunate indeed, according to native standards, is the husband who possesses a desirable wife who can frame up and blackmail a well-to-do man or son into a court case.

The tribe, too, favor such things as they are all assured of a big free feed of pig afterwards.

August 27 (Saturday). Latromat. The old Chief promised faithfully to send carriers up to Wunga after Mike and John the beginning of next week. I have learned that someone has stolen about a tea cup full of kerosene from me and believe that I can use a threat of Police violence as a motive of getting the boys and their duffle back to camp.

With native Tamalam to the village of Taup

several miles to the westward in search of carriers to take us into the mountains from that direction. The Taup people are Bainings but of another clan.

After talking with them for a short time and listening to their tales of woe, I concluded that our chances from that direction are zero. Tommy Goss insisted that I couldn't use these people as carriers and I'm afraid I shall have to agree with him. Nevertheless, I'll keep dinging at them for the time being.

There is no use asking the Taulil people to help us, they do not know the trails into the Baining Country and would be sure to get into trouble if they went in as a party.

Returned to camp very late with a few good birds. The country back of Taup is mostly virgin forest and would make an excellent place for a camp. I noticed heavy timber everywhere toward the mountains. Unfortunately, finding carriers, even to get to Taup, would be a problem.

August 28 (Sunday). Latromat. Tamalam, a Catholic convert, though a most pronounced infidel at heart, visited church, said his prayers, obtained four Amaurornis, and reached camp 5 miles away by 9 a.m. Now why can't he do that every day? I suppose if he could there would be no fascination in hunting.

Had a whole number of visitors to-day, including Dr. Brennen and a collection of his drinking partners, all on horseback. Since Latromat is the jumping off place

and the last village on the road, we will have Sunday company as long as we are here.

For nighthawks again in the evening but saw none.

August 29 (Monday). Latromat. Chased all of the natives out of camp at daylight and bounded them down the road in the direction of Wunga. There is pronounced reserve about these people. I think they like to be coaxed.

Spent the whole morning in the bush with some success. I obtained another example of Ceyx lepidus, which is indeed hard to find here. Tamalam has been sent to the interior to look for the rail Habopteryx. He knows the bird but tells me that it is rarely that he sees it here in the bush.

Mr. Goss of Loma called in his truck and promised to transport our effects to Rabaul when we are ready, which will be in about two weeks time, or just as soon as we finish the 500 specimens.

Dambien has come down from Wunga with a jagged hole in the middle of his back. He tells me that he was sleeping in a lean-to and close to a fire at night and that a bush devil sneaked up on him and assaulted his person. I am afraid he has had trouble with some of his tribe and someone hurled a stone at him, using a sling shot.

I sent the boy to the hospital at Malabunga.

August 30 (Tuesday). Latromat. To Malabunga this morning to have a look at Dambien; he is no better. The Sisters have probed into his back but have located nothing.

Returning, I succeeded in obtaining an example of the large cuckoo, Eudynamis scolopacea. These are exceedingly difficult to obtain because of their ability to hide in the tops of very tall trees. Furthermore, they feed at night and rest in the day time.

August 31 (Wednesday). Latromat. Some very fine birds to-day. We have, at least, learned to collect Pittas. I certainly hope it doesn't require this length of time for every desirable species.

John and Mike reach camp at 10 p.m. after a number of harrowing experiences, including one of giving Mararup a thrashing for trying to run away.

I am thankful to feel that all of our cargo is again in one place. Was beginning to have doubts whether we could get it back here.

The boys brought 30 birds with them which means that we will have our 500 specimens in a short time.

September 1 (Thursday). Latromat. John complains of fever and Mike has the dobie itch. Both of them remained in camp all day. I suspect that they have been living pretty hard while in their camp. Such is the case usually with young men alone who don't take time to prepare their food properly.

Have instigated a new schedule. Will let the boys alternate every other day in camp and the opposite day have the full time in the bush.

The Methodist Missionary, a white one, came into camp this afternoon for the annual hand out. Even though the Government has decreed that these Baining people are so poor they will not be required to pay the annual head tax, still the missionary was able to collect 50 pounds (250.00) from them as their annual contribution to the church. Yet at the same time the same man collects money from the whites of Australia and elsewhere to bring the "Light" to the poor heathen. I'm afraid I'm losing what little faith I ever had.

Myself hunting most of the day and with fair results. 2 Pittas and 2 Bazas, among other things.

September 2 (Friday). Latromat. Mrs. Coultas and I with Mararup, the coffee pot, and a number of sardine sandwiches go into the deep bush and spend the day, this being my time to have the whole day to myself.

Mararup tells me that Dambien and Minial have been catching wasps, toasting them over the fire and eating the same. Mararup is prohibited by some tribal taboo from eating such insects and looks with disgust upon those who do.

Obtained a pair of Owls and a Pitta for my contribution to-day. In all, 3 Pittas came in. We now have a beautiful series of these.

Unfortunately, I didn't see any other good birds, even though I had the whole day to look for them.

September 3 (Saturday). Latromat. Dambien has been taken to the hospital at Bitaloba where there is an operating table. The boy is in a very bad way.

John hunting all day and succeeded in reaching the lake well into the interior. He reports it to be a dried up mud puddle similar to the one I saw north and west of Wunga. I suspect that the Bainings, once upon a time, lost some of their people in a swamp as they are deathly afraid of those things. John returned with some good birds.

Myself hunting and procured an Amaurornis. Mike returned with a Ninox.

In the afternoon bird skinning and working up bird catalogue.

September 4 (Sunday). Latromat. At work all day preparing specimens, labeling birds, and packing dried specimens. Very hot sultry day with myriads of sand flies attending. These latter-named have eaten my neck so badly I have had to have my whiskers pulled out one by one. Not a very pleasant task either.

Tamalam turned in another Amaurornis and a hand full of feathers which he swears come from Habopteryx.

September 5 (Monday). Latromat. Cloudy and raining to-day so that none of us accomplished much.

Mike was out all day and returned with the first female Halcyon albonotata with organs in a breeding condition. We were beginning to suspect this species of being a migrant.

Mrs. Coultas to bed with a fever.

September 6 (Tuesday). Latromat. After weeks of struggling and haranguing, a native from Katowie has succeeded in obtaining a Porphyris for us.

This species is well known to the natives but is reported as rare in this portion of the Island. I am informed that they are quite common along the south coast in the vicinity of Sum Sum. Also, natives around Rabaul report them as common in places.

Have had word that the doctor has probed into Dambien's back and has taken out the metal base of a cartridge. Evidently Dambien had one of these and wrapped it up in his calico when he laid down close to a fire to sleep, whence it rolled out and exploded. Or, during his sleep rolled too close to the fire and caused the cartridge to discharge.

In the first place, the boy had no business with a cartridge and must have stolen it out of the hunting bag of one of the James boys. It is no wonder all of the natives were so quiet about this whole proceeding. I am convinced now that they knew all of the time what had happened to Dambien.

A few good birds were turned in again to-day

including two hawks and two *Amaurornis*.

September 7 (Wednesday). Latromat. John James returned with another *Alcyon websteri* which he obtained along the Worangoi river. One rarely sees this species, and if they do the bird is so active and quick in its movements that one is rarely afforded a shot at it.

The same native at Katowie returned with our first example of *Hypotaenidia philippensis* which he took in the grasslands near the village. This is another species which may be termed a very difficult one to obtain. It keeps to the grassland or thick underbrush and rarely, if ever, allows one a shot at it. All of us in this party have a great deal to learn about collecting rails, *Porphyrio*, and other ground birds. Pittas we have mastered.

September 8 (Thursday). Latromat. Spent the whole day in camp as it was my day to retrieve left-overs and superintend work. There is an added advantage in having some one around all of the time. Natives are not nearly so apt to abscond with our effects.

Hunting Night Hawks in the evening and obtained two. John also visited Taulil territory and returned with two more. We will, I believe, have a creditable series of this species before we are thru.

Feni, who has been carrying a 410 shot gun, for several days and centering his attention on *Ortygocichla*,

has returned with a specimen for which I paid him a red calico. Feni will spend all of his time searching for this one species.

September 9 (Friday). Latromat. I left camp early in the morning to journey to Taup to see if I couldn't find enough carriers to take one man into the mountains for a week or so. Even if just one of us could get in it would give us an idea of the country.

There is a report that the large Eagle, Cuncuma leucogaster, roosts in a very high tree in that area also.

Reached Taup and was flatly refused all aid in the bush. The natives insist that they do not know the trails and are also afraid of the "Wild People" there.

Returned to camp to find a number of good birds turned in for the day.

The native at Katowie has obtained another example of Hypotaenidia in the grassland. He has built himself a little platform upon which he crawls early in the morning before daylight and there sits watching for a movement in the grass. His is not a bad idea and is only inconvenient in the time that is expended there.

John James has obtained another example of Accipiter luteschistaceus. He has, indeed, been fortunate in finding these as I never see this species in the bush.

Out for Night Hawks again tonight. Mike ob-

tained one and I obtained another. Now that the grassland has grown out somewhat, these birds are beginning to return to the area around Latromat.

September 10 (Saturday). Latromat. Remained in Camp all day, going over specimens and cleaning up odds and ends. Mrs. Coultas has come out of her dengue fever in good order but John was off color to-day.

Mike spent most of his time in the bush but with mediocre results.

We have reached our 500 specimens so can leave at any time now. Considerable rain during the afternoon.

September 11 (Sunday). Latromat. Mr. and Mrs. Flynn and Tommy Goss called in the morning but remained only a short time as rain was threatening. I arranged with Goss to come Tuesday and take our effects to Rabaul. He has but a small truck so we will be obliged to make two trips.

With the rain we were able to accomplish little except label birds. Rather than have mistakes I have concluded to do all of that work, thus making a uniform piece of lettering throughout.

The Tuluai from Katowie brought us the hind quarter from a wild pig which he had shot with one of my guns. He had reported that a pig had been rooting up his Kau Kau (sweet potatoes) so did him a good turn and received two days issue of fresh meat for the sum of

one cartridge or 6 cents.

September 12 (Monday). Latromat. All of us in camp labeling specimens, packing dried skins and camp gear. Feni, the only hunter out, returned with one bush wren (Ortygocichla).

By working rather late in the evening we now have one truck load ready for Mr. Goss on the morrow.

September 13 (Tuesday). Latromat. Arose with the rain coming down in a steady deluge. There will be no Mr. Goss to-day. We spent the whole day catching up on our loafing, a thing one has very little time to do here in the bush.

All in all, we have had a moderately successful camp in the way of specimens, though, like all expeditions, no one is satisfied and every one of us can look back at the mistakes we have made. Should we do the whole thing over again, I believe we could improve upon our time.

Certainly the refusal of the natives to carry our effects into the mountains was a handicap and upset our plans terribly.

I had no intention when I started, of remaining in the lowlands as long as I did.

All of us have become somewhat adjusted to camp life by this time and realize the ups and downs that confront one. John, though slow, is a good hunter and has the gumption to remain on the trail of a specimen until he gets it. Mike is not a good bush man,

He is afraid of the virgin forest or else feels that it is too much trouble to get out and thrash through the wilderness.

At bird skinning, Mike could, if he applied himself, become a first class preparator, but he doesn't. I think it is pure laziness on his part.

John, on the other hand, is too slow to become a good workman. He will just be the same at whatever task he sets himself.

Of all the hunters tried, Tamalam has turned out to be the best boy. He had promised me that he would sign a contract and accompany me for one year. Now he has come forward with the story that the German Father, somewhere up in the direction of Loma, has prohibited Tamalam from leaving his village. So I get no shoot boy. If the Good Father has derived any pleasure out of interfering with my business, I wish him congratulations, though I shall get the birds just the same without either Tamalam or the assistance of the Germans.

Feni could be taken along as a hunter but he is married and would be forced to take his wife with him. Such an arrangement would not be very satisfactory.

The Bainings as camp attendants and hunters are out of the question. We will do much better to wait until we reach another area before attempting to sign on boys. There are always the locals who can be made into temporary help even though they are not always as satis-

factory as one would wish.

September 14 (Wednesday). Latromat. Still spasmodic rain squalls off and on all day. A note from Goss reached us in which he asserts that he will be down to-morrow if the weather is propitious. We are all packed and ready for him.

September 15 (Thursday). Latromat. Goss and his truck arrived about noon. We loaded up the thing and sent John and Mike into Rabaul with this load. They are to remain in the city while the truck will return for us Saturday or, at the very latest, Monday. The steep hill going to Loma is considered a bad one, hence the necessity of limited loads going that way.

September 16-19 (Friday-Monday). Latromat. We didn't get away as per schedule because of rain and other hold-ups from Mr. Goss' standpoint. Goss has a contract with the Government to deliver native foods at regular intervals so was forced to use his conveyance for other purposes over the week-end.

Our time at Latromat was spent in compiling notes and odds and ends.

True to form every scoundrel in the country came around and expressed his sorrow at our leaving. It is not an unusual sight to see a number of them begin to cry when camp has been broken and the gear all loaded up to go.

Goss' truck arrived late Monday night assuring

us of transportation in the morning.

September 20 (Tuesday). To Rabaul. Got away at daylight and reached Rabaul a little after three in the afternoon. Lumped all of our effects into the storerooms in the Times Building and went to live in the Pacific Hotel.

There is no sign of Fred Werner who was to take us to Nakanai so will try to get to Wide Bay as we had originally planned.

September 21 (Wednesday). Rabaul. To the Post Office, but found no mail from the Museum. Just a note from Mayr saying that he was having a pleasant vacation in Berlin.

I learned that Captain Thurston's "Drina" will be leaving for Wide Bay to-morrow morning. We haven't a hope of getting our supplies, shipping our specimens, and catching that boat.

The M/V Carisso, an American tramp steamer, is in port bound for San Francisco. I have been trying for years to ship specimens direct to San Francisco on this boat but learn now that her Captain, Mr. Drummond, does not care to handle such small shipments. Being a cantankerous old salt, he would do just such a thing. Probably his company has some agreement with the other shipping lines which prohibits his doing this sort of business.

To the Lumber Company and order cases for

birds. Also purchased a number of supplies for our next camp.

September 22 (Thursday). Rabaul. In a motor car to Kokopo the first thing in the morning to report my activities to the Government District Officer, Mr. Taylor, and ask his permission to visit either Wide Bay or the Nakanai Mountains. Mr. Taylor, who is by far the most agreeable and efficient of all of the officials dealing with natives, told me that I might visit the Nakanai country but that I must be very careful in there. I would not be permitted to issue natives firearms nor would I be allowed to recruit boys from that area.

As far as Wide Bay was concerned, I was told that I might go where I pleased provided I didn't attempt to get in behind the volcano Father where hostile natives were known to dwell.

Called upon the Superintendent of the Catholic Mission at Vunapope near kokopo and asked permission to engage passage on one of their boats which is passing Wide Bay within a week's time. I was told that it was not customary to carry passengers except in cases of extreme sickness or when one was a member of the Mission. Although I was not directly refused, I was told in mellow terms that I might make formal application through the Secretary. I concluded to give up hope of a passage from that quarter and will await Mr. Werner who is due

most any day now.

Returned to Rabaul and began packing cases of supplies for the bush. It will be necessary for us to depend upon bush foods, wild pigeons, flour and rice for our provender despite the weak stomachs among our party.

September 23 (Friday). Rabaul. The Administrator, General Griffiths, called in the morning to have a look at the specimens. Although in some ways I would rather not take the time, his whims must be catered to. The old gentleman was very pleasant and showed an unusual knowledge of ornithology.

The boxes arrived from the lumber yard which gives us an opportunity to settle into our work of packing specimens. These are all labeled and most of them are dry, which means that we can soon have the same aboard ship and enroute to the Museum.

September 24 (Saturday). Rabaul. Hard rains all day. Remained in the room and worked at specimens and camp equipment.

There is one serious objection to our present quarters - they are near the center of the town with the area below the eaves open to wind and weather. The dust of dry weather blows in and covers everything. Furthermore, the gravel and sand used on the streets is fine volcanic ashes which blow everywhere. As soon as I can find a place away from town we will move to that one.

September 25 (Sunday). Rabaul. To the room again and worked all day. Fred Werner came into Port in his little ship the 'Lassul' and told us he would be ready to leave for Wide Bay on Tuesday evening. That won't give us much time but I believe we can clean up our work.

September 26 (Monday). Rabaul. Disposed of all of the birds by packing them into two large cases and two parcel post packets. Thence thru a series of Red Tape with the Agricultural Department, Customs, and Shipping office before I was able to transport them to the Government's customs store rooms on the wharf.

Rabaul is so spread out that one can spend hours walking from one Government office to another.

September 27 (Tuesday). Rabaul. Cabled Dr. Murphy as follows: "Forwarded by steamer 2 cases. Forwarded by Parcel Post 2 packages. The next will be December shipment. Coultas." I should have taken the time to write Dr. Murphy a letter but everything was in such a jumble and rush I neglected to do it, and, of course, was sorry afterwards.

Packed all of our effects aboard the little 14 ton schooner 'Lassul' and sailed for Wide Bay at 10 p.m. This was contrary to the advice of Charley Boles and George Neass who had just come in from that part of the island and informed me that the southeast monsoon was blowing strong on that coast. They felt

that Werner's little ship couldn't possibly punch against the seas out there and get us down the coast.

Nevertheless, we concluded to give it a trial, and subsequently learned for ourselves that Messrs. Neass and Boles knew what they were talking about. The poor little ship stood on her beams ends and nearly swamped after we reached Gazelle Light and met the full force of the southeast swells.

We concluded that it would be best to turn around, return to Rabaul, get another clearance, and go on down to the Nakanai country.

Down on the north coast at Walo in Bungula Bay we will have until the first or middle of December before the northwest season sets in and drives us out of there.

September 28 (Wednesday). Rabaul. Returned to Rabaul a little before day-light.

I availed myself of the opportunity of visiting Father Meyer on Watom Island. He is reported to possess considerable knowledge of the ornis of New Britain. We had a very pleasant visit but I noticed that the Father was very careful not to commit himself about any species. When asked where such and such a bird might be found, he always replied that he had heard that it inhabited a certain area, etc., etc.

September 28- October 1. To Walo. Sailed aboard the 'Lassul' early in the morning of the 29th and

reached Walo on the Nakawai coast late at night of the first of October after a number of stops along the route.

I shall have to admit that travel on this little vessel is not the most comfortable in the world but it serves the purpose of getting us where we want to go. Like all ships powered with full or semi Diesel crude oil burning engines, this one coughs soot and smoke all over the place. We were all as black as night when we got off the ship, but that washed off with generous applications of soap and water.

October 2 (Sunday). Walo. Awakened to find ourselves about half way between the Volcano Father to the eastward and the Talasea Mountains to the westward.

This is the one portion of the coast that is low and swampy for about five miles into the interior before the land rises to the high mountains inland. The rest of the coast is more or less bold and mountainous.

Several years ago the Government built a station here at Walo on the Coast and later constructed a good wide road leading straight into the mountains.

The station houses are about 400 yards in from the beach and comprise two large rest houses for whites, three police barracks, and two native rest houses. The whole station has been cleared to an extent of five acres or more and makes a rather clean presentable compound.

There are, unfortunately, no natives living right at the station, though salt-water people have villages both up and down the coast from the station. In the lowland interior one must traverse at least six or eight miles before he comes to settlements there.

Back in the mountains, twelve miles distance or more, there are hundreds of people scattered indiscriminately all over the country. The Government has made a number of patrols into the interior but has as yet come in contact with only a portion of all of the inhabitants.

In 1927 the local people of the mountains directly behind Walo cut out a Government patrol of four whites and about thirty polica boys. Three of the whites and numerous natives were killed. The Government retaliated by reprimanding the natives and wiping out numbers of those with the punitive expedition that traversed the area.

Since that time, there has been no trouble of any kind, though there must be thousands of natives who have not as yet come in contact with whites and who will eventually instigate a fight of some kind.

All of us to work hustling our cargo ashore and into one of the large houses in the compound. Engaged the services of several local natives to help us get our camp started.

October 3 (Monday). Walo. With the ex-

ception of Mike, all of us at work straightening up the camp. The former spent a few hours along the beach and returned with the announcement that mosquitoes were very bad in the bush.

Messrs. Daymond, patrol officer, and Morris, medical officer, are across the way from us in the other large house. They arrived Saturday to undertake a patrol and survey of the area. Neither of us knew that the other was coming to this station. I am afraid our arrival upset them as they had planned to spend a few weeks in camp resting before undertaking their bush work.

We found them a little difficult to visit with at first as Daymond refused me permission to hunt in the area. I had no recourse but to advise him that I had permission from the Administrator and I intended to remain. Later on, the young man thawed out a little which made our relations much more congenial.

Our living quarters are plenty large enough to meet our needs. There are three large rooms in the house and a storeroom as well. Along one side and one end we have a good broad veranda which is at least 14 feet wide. To the back of the house we had built a fair-sized cook house where our meals can be prepared.

Two natives from the village of Tarobe, down the coast, one "Marbo" and one "Galky" have volunteered to act as cook and camp attendant. Neither of them can speak or understand much English but, with a little

patience, we should be able to get on well with them.

Most natives, when once engaged as camp attendants, are normally willing to do their work once they learn it. Quite often the trouble comes when a native fails to understand what is said to him. Patience is the motive one must govern oneself by though it is surprising how quickly people fly off the handle over little trifles here in the tropics.

October 4 (Tuesday). To Sipa; With Mrs. Coultas and Marbo and our tea kettle to the village of Sipa in the mountains about 12 miles distance. It is my intention to have a good look at the country and establish a camp in the mountains just as quickly as possible.

Our "luck", as one might call it, is out for the present, I am afraid, with the Government patrol here getting ready to visit all villages in the area. Sure as mud they will grab all of the carriers to handle their duffle and leave us on the coast until they have made their rounds.

Nevertheless, we will get in if we have to spend months doing it.

The trip to Sipa was most interesting. After about five miles of tramping thru mud and ooze, we passed thru the swamps and reached dry rocky ground. As in the swamps, heavy secondary bush and thick masses of undergrowth predominated with here and there numerous large

trees standing.

We must have covered seven miles of ground passing through the moderately sloping terrain which lies between the swamp and the mountains. Toward the mountain side of the area the forest becomes very heavy, with much less underbrush and ground vegetation.

Once one reaches the mountains, the climb becomes almost perpendicular to the top of a ridge at 2500 feet elevation. The village of Sipa is on an isolated spur behind the first one climbed. Thus one is found to go up to 2500 feet, straight down the sides of a ridge to 800 feet, and back up to 2500 feet again.

Like so many villages in this part of the world, this one is placed on the vent end of a spur of land and is protected on three sides by precipitous cliffs of at least 1000 feet in height, thus affording a natural protection against enemies who did in the past harass every settlement.

Considerable rain hampered us during the later part of our trip and forced us to waste time under shelter so that we didn't reach Sipa until four in the afternoon.

Once there, we found the natives very courteous and most eager to have a good look at Mrs. Coultas. With the exception of the two older natives who had been out of the area, no one had ever seen a white woman before. Consequently, the women particularly crowded around and gave her a most minute scouting.

The Sipa people are tall, well built, and particularly clean. There were few evidences of yaws and other tropical diseases. Very few of them wore any clothing at all. There was a noticeable preponderance of small children and lack of able-bodied men, which may be attributed to the punitive expedition of some years ago which killed off so many of the able-bodied men.

Once in the village, the natives lost no time in cutting banana leaves and fern fronds for a bed for us. They, too, supplied us with taro and yams for our evening meal.

Just at dark all of them crowded around our hut and, when asked what they wanted, we learned that they were waiting for us to take out our teeth before going to sleep, just as they had seen another white man do that before us, so they said. When we assured them that ours were not removable, they went away and did not disturb us during the night. Rained off and on all night long.

October 5 (Wednesday). To Walo. Rained all morning so that we did not get away until 11 a.m. After a wet and muddy trip, reached camp at Walo at 3 p.m.

Before leaving Sipa, the young Doctor Boy, the only one who speaks English at all well, assured me that he would bring a few of his small boys and carry my duffel on a preliminary survey trip into the mountain. He told me that I might get as far as "Ti" on the other side of

the divide. Just as soon as the Government patrol had passed his village he would be down.

The country in the immediate vicinity of Sipa is not high enough for mountain ornis and too rugged for real good hunting. Farther on, at Malutu, there is a Government house which was built several years ago. That will make a good temporary camp, I believe, until we can find a desirable area to hunt in.

John informs me that the repeated rains have developed leaks in the roof of our house. Otherwise everything as it should be.

Sent Galky down the coast to his village to round up ten boys and return with them in the morning. They will be put to work re-matting the roof and reinforcing the cook house.

John has been in the bush, and returned with a Henicophaps and a Gallicolumba beccarii. He reports the mosquitoes most prolific in the bush.

Mike has spent the day along the sea coast and returned with a Micropsitta, a kingfisher, and a Trichoglossus.

October 6 (Thursday). Walo. Galky returned with four boys, all he could muster, and set to work on the roof of the house. They were able to finish their work by evening and were paid off with two sticks of tobacco each, a fair return all around.

Myself into the bush, where I found the little

black mosquitoes of arctic density. The country is all swampy and honey-combed with all sorts of streams and little rivulets. The undergrowth, large plantains, swamp taro, and vines and creepers are so dense one has a terrible time getting through them. Nevertheless, I believe it to be a wonderful hunting country if we can adjust ourselves to the mosquitoes.

John obtained the first Porzana from the overgrown grassy garden area near the house. John likes nothing better than to sit for hours in a grassy spot looking for rails. As long as he produces I have no objections whatsoever.

Myself returned with a Gallicolumba beccarii and a few examples of the red-knobbed dove (Ptilinopus insolitus) which appear to be quite common in the fruit-bearing trees here.

Mike walked down the road to the sand beach again.

October 7 (Friday). Walo. Hunting in the swamp most of the day. Was bitten so badly with mosquitoes that I look as though I had the measles. There is a wealth of material here, no question about that. I obtained another Henicophaps which appears to be quite common in this area. John obtained another Gallicolumba beccarii. These latter are very common in the swamp but most difficult to obtain. One flushes them continuously but they are so adept at hiding that

one scarcely, if ever, is rewarded with a shot at them. I know of no sure way of hunting this species successfully.

Mike again to the sea beach where he obtained a few sea birds. He insists that he will not ruin his health in the swamps where there are so many "bugs". If he can produce results along the beach I will have no objections to his present working area.

Mr. Daymond, before leaving on his rounds of inspection, gave me a map of that portion of the interior with which he is familiar. He and Mr. Morris left today for the mountains on their first trip. They expect to be gone two weeks.

October 8 (Saturday). To Segi. With Mrs. Coultas to Segi to the south and east of us. We passed through miles of swamp until we came to the village perched on top of a knoll at about 700 feet above sea level.

I should like to make a good base camp near a village so to be assured of sufficient garden truck and also to have natives about and handy when needed.

Segi, though, is neither close to the mountains nor the Nepa swamps so that village is out of the question. The natives, who are a dirty lot and covered with sores, promised to supply us with bananas, paupau, taro, yams, fresh eggs, etc. as long as we are camped at Walo. They didn't, though, show any enthusiasm over the prospect of carrying our cargo. I am afraid they cannot be depended

upon to do that.

The country around Segi is elevated and more or less free of tall timber. The soil, which is barren and rocky in many places, does support some grassland and quantities of secondary bush. I presume that this tribe have, in years gone by, cut out most of their large timber to clear the area for gardens. They are good agriculturalists.

October 9 (Sunday). Walo. Twelve small boys, not a one of them over ten years old, came down from Lobi and announced that they would carry my effects into the mountains. Children that they are, twelve of them will be able to handle about three men's loads.

John into the old garden plot near camp and obtained two Porzana. One in the morning and another in the evening. I went into the bush for a short time and found only a Graucolus lineata as a desirable species.

We have night-hawks right around the house at night but to date have been unable to procure any.

Segi came with a generous quantity of foods.

October 10 (Monday). To Sipa. Packed twelve small carrier loads of effects for my children:

- 1 and 2. Bedroll with canvas for stretcher; 2 blankets.
- 3. Benzine tin with 2 changes of clothing.
- 4. Cook pot, cup, saucer, knife, fork, spoon
- 5. and 6. (Two boys) light box with bird e quipment

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7-8. Small box of rice, tinned meat, tea, biscuits and sugar.

9-10. Small box of tobacco and trade goods.

11-12. Small box ammunition, medicines, mosquito net.

Just enough to carry me through and still be able to collect specimens. We are going to have a time of it if these urchins are the best the country has to offer.

I concluded to make the survey alone, principally so only one man would be spared from the collecting. The two James boys were very cross with me because I didn't take one or both of them along.

Our object here is the collection of a series of birds. I felt and still do that we should make every minute count in that direction. The presence of either or both of these men was not necessary, consequently I didn't take them along.

With my boys, reached the village of Sipa about the middle of the afternoon. The little fellows carried well, though I found it necessary to stop them every hour for a brief rest.

At Sipa I spent a couple of hours along the ridges and in the ravines but found nothing of interest in the way of specimens. Sipa is not a good place to establish a camp.

October 11 (Tuesday). To Malutu. Hunting for a few hours in the vicinity of the village but found

nothing except Parrots of all kinds and a few *Ducula*.

Thence into camp, rounded up my children, and continued on to Malutu which lies up a long ridge some four or five miles in a direct line from Sipa. By the road we must have traversed twice that distance.

Malutu is a Government rest house, rather large, with two big rooms, a wash room and cook house adjoining, and a large veranda running around three sides. The house is on the top of a hill while below it a two acre space has been cleared where a police barracks has been erected. The ridges and valleys in the immediate vicinity are covered with a heavy growth of virgin forest, which is relatively clean and free from underbrush. This, to my mind, is an ideal locality for a mountain camp. This station is at an elevation of 2800 feet.

During the evening I observed a flock of seven pigeons which I am convinced are the mountain *Gymnophaps*. The natives assured me that such a pigeon with reddish flesh around his eyes does exist here in the mountains and that I will be able to obtain examples if I can locate a type of medium height tree with small purple berries upon which they feed.

Also heard several bush wrens (*Ortygocichla*) calling, but was unable to locate these in the underbrush near camp.

October 12 (Wednesday). To Lobuki and Kai ko. Broke camp and got away with my children before the sun

was up.

We followed along the top of a steep ridge through a wealth of virgin timber until we reached an elevation of 4200 feet.

Shortly after this high point the boys led me down the side of the ridge to a little mountain village called Lobuki. This village, located on a small space of flat land made by a bend in the ridge and corresponding mountain stream, roughly marks the dividing line of the Island. The streams all flow toward the south coast from here.

The village consists of four houses and a tiny patch of garden on the flat surface. Other cultivated patches are found on the precipitous sides of the mountains. It seems that the steeper the ridge the more desirable the space for a garden. Why such places are chosen is beyond my comprehension, unless it be that the mountain valleys are flooded during certain seasons.

Another reason for the use of steep hill sides might be laziness on the part of the native who can fell the timber and watch it roll down hill and thereby save himself the added labor of clearing his land.

Reached Kai ko just before dusk to find a big dance in progress. I learned, too, that I am not on the road to Ti but have been brought here so the youngsters can partake of the festivities during the night.

The natives of this rather large village are

considerably more wild and uncommunicative than any I have met so far. Though they expressed no hostility toward me, they let me know that my presence was not wanted.

Kai lo is a large hamlet of at least thirty houses. It, too, is placed on a spur of land, protected on three sides by steep cliffs, and at least 800 feet above the river bed. Numerous gardens and cleared areas are to be found in all directions with the virgin timber to the back of the gardens.

The dance was postponed during my visit with the announcement that such was not for me to see. I was told that there had been a raid and several prisoners had been captured; but I am in no position to verify such a statement.

During the night one of the leaders of the village brought me no end of roast pig and foods after I had assured him that I would leave the first thing in the morning.

October 13 (Thursday). To Ti. With my young urchins down the river for about five miles and thence up and over three distinct ridges to the village of Ti.

This one, which is scattered over an area of about one square mile, comprises some 40 houses and at least 150 people. It, too, is placed on a very broad ridge or small plateau with three steep sides protecting

it.

Ti is the outpost station of this particular group of people (the Nakanais). To the south the long heads or Arawi tribes are to be found. If one will go far enough he will come to the south coast of New Britain at Cape Beechy.

To the best of my knowledge no white man has ever crossed the island at this particular spot, nor anywhere through the central part of New Britain until 1934, when an Irish Father connected with the German Mission crossed from Jacquinot Bay to the Volcano Father (indirectly).

October 14 (Friday). Ti. Heard a Tyto aurantia calling during the night but was unable to attract him close to camp.

Early in the morning while hunting I had the misfortune to shoot at and miss a beautiful pair of Falcons flying together just over the top of the ridge. Nothing humiliated me more in years than that performance of mine.

Continued hunting most of the day and found nothing of interest except a flock of Dollar birds (Erythronas orientalis) which I believe were migrating. I obtained five specimens.

Either this is a different species or a migrant, as all specimens encountered heretofore in the lowlands have been alone. This observation holds true on other

islands as well, where it has been met with.

Around Ti there is not nearly the rich and abundant forest that one finds elsewhere. The sides of the ridges are much more barren and show evidences of land slides. Fools gold or Iron Pyrites and traces of copper are to be found everywhere in the rock formations.

Native gardens are in abundance everywhere along the ridges.

The natives were found to be much more shy than I had anticipated. They are stark naked and considerably more dirty than our Sipa youngsters. In fact I saw very little of the locals, who keep to themselves much of the time. There is another factor to be considered. None of them could speak ^{pidgin} pigeon English, though none of them molested me, they let me know that my presence was not wanted.

Food was in evidence everywhere, but none was offered to me. I concluded to spend another day before returning to Malutu and our base camp at Walo.

October 15 (Saturday). Ti. Hunting again along the ridges and found nothing but Eurystomas and the wood swallow (Artamus) of which I took specimens. Even small birds, such as Dicaeum and the honeysuckers (Myzomela) were scarce. Possibly the food in this particular spot is scarce right now and has driven the birds to another locality.

Worked up my specimens and prepared to return on the morrow,

October 16 (Sunday). To Malutu. The Ti people hustled my baggage out of camp bright and early in the morning. Once outside their village area they dumped it all and wished me Bon Voyage. The twelve little boys who have been camped in the bush just outside of the village took over and away we went.

Returning to Malutu we climbed a very high ridge to the west of the regular trail and reached before noon an elevation of some 6000 feet before dropping down to a 4000 foot level again. Once, on the level, we dropped to an 1800 foot valley and thence back again to the Malutu ridge at 4000 feet and continued on to our destination.

At 6000 feet I noticed^A no birds and heard only Centropus violaceus booming in the valleys. Considerable moss, though, was encountered at the highest elevation.

Reached Malutu at 3:20 after a hard day and secured a volunteer to take a note down to Walo. Will ask Mike to come up here for a few days to see what luck he can have.

We haven't enough carriers available yet to get all of us up here but possibly we can all get in by working in relays.

The Government patrol showed up just at dark, having completed a round to the west of this place. They

will rest a few days here before continuing on with their survey.

October 17 (Monday). To Walo. Mike with his long legs made a quick trip up from Walo and reached camp at 11 a.m. Poor boy was as white as a sheet when he got in, due to overexertion. I, personally, would rather take an hour or two longer and still have a reserve left in me when the end is in sight.

Turned all of my effects over to Mike and left with the children for Walo. With these lads I can get John and his effects into the mountains and trust to luck to get Mrs. Coultas and me with our gear in as quickly as possible.

The two James brothers are to comb the mountains for new and very desirable species only. I want them to spend every available minute in the bush regardless of whether they skin lowland specimens or not. It is the mountain material that we want from here.

Myself away at noon and reached Walo and camp at 4 p.m. The going down the mountain was much more rapid than up, naturally. Yet, strangely, climbing down a ridge or mountain is the much more tiring of the two.

In camp at Walo, went right to work helping John get his stuff packed so that he can take off for the mountains.

I am not worried about Mike as he has the Patrol to keep him company until John gets up there. Secretly,

I am anxious to see how they will get on after the Patrol is gone and they are alone.

During my absence some good material was brought in, though not as much as I should have liked.

Mrs. Coultas gained undying fame by marching into the bush and obtaining a Henicophaps and a Pitta on two successive mornings.

John made a prolonged trip to the swamps north and east of Segi, became lost, and was forced to spend the night in the swamps.

On top of this he fell into a wild pig pit and miraculously saved himself from being injured. This experience unnerved John terribly and took him two days to get on his feet again. Why he hasn't learned to back track and read his own foot prints is beyond me.

Mike made a canoe trip to the small islands off the coast and returned with a few Ducula Van Wyckii, nothing more. These Island birds do fly well into the mountains to feed but return always to the Islands to roost.

October 18 (Tuesday). Walo. John got away about 8 a.m. with his boys well laden. I told him to remain and seek out mountain material until we showed up to join him.

Into the bush hunting for a short time, thence returned to camp to check over and label specimens. A new boy by name, Mio, has attached himself to camp and will become a member of our staff. Anyone who is willing

to work and learn is acceptable.

In the evening for night hawks and obtained an example.

October 19 (Wednesday). Walo. Into the bush in the direction of Gai Gecki and the hot springs. The latter cover an area of several acres and are often used by the natives as a place in which to cook their foods. At the same time the hot stones in the vicinity of the boiling water burn the feet of the natives and are a constant source of danger to them. A report has it that several natives broke through the crust of earth and were scalded to death here.

Right at the edge of the hot springs there are several low trees bearing fruit at this time of year where one may find Ptilinopus insolitus at any hour of the day. One is practically assured of at least one specimen for each visit.

Once shot into, though, the flock takes to wing and remains away from the spot for several hours.

Had the good fortune to obtain an Ortygocichla while in the swamps. This one, much bolder than others, showed himself long enough for me to fire at him.

October 20 (Thursday). Walo. With Marbo to carry my hunting bag and into the bush in the direction of the hot springs again. We built a leaf house and were rewarded with an example of Gallicolumba beccarii. I feel now that this slow stop and wait method is a sure way of

obtaining specimens. The only discomfort is the feeling that one is wasting time while one is sitting in the blind.

Later, I found the little red Myzomela cruentata kleinschmidti working around in the top of a very high flowering tree but managed to obtain two specimens. These are indeed most active and especially difficult to obtain so high up, especially when one is required to use large cartridges. The spread of these is so great that unless a single pellet of shot strikes the bird in the head or a wing bone there is no hope of obtaining a specimen.

Marbo doesn't care for my company so I permitted him to depart for the mountains where he can wash clothes and cook for John and Mike.

October 21 (Friday). Walo. Took a different route and followed along the coast. I heard twice and saw once the little Alyone pusilla of which Mike has obtained two examples since he has been here. These are exceedingly active and dart about among the mangrove thickets with such rapidity that one scarcely has a sight of them before they are gone.

In the afternoon to the swamp area again and obtained another example of Henicophaps.

At least we are able to find a few desirable species if nothing else.

October 22 (Saturday). Walo. A note came down from the boys on top with an accompanying Bush Wren (Orty-

gocichla). They report that they can't find the mountain Gymnophaps, that the natives will not bring them food, and that it rains all of the time. Apparently it isn't taking long for the boys to get their bellies full of the mountains. I wrote, telling them to send me carriers and we would come up to join them.

The small boys, so they told me, don't want to come down again. I imagine they have had all of the luggage hauling they will want for a few days.

Myself in the bush but failed to return with any real good material. A couple of Micropsittas. These are quite common here.

October 23 (Sunday). Walo. Sent the two black sprites fishing with the understanding that we would pay for the fish they brought to us. Luckily we had fish for breakfast and hope to continue this plan in the future.

Remained in camp all day checking over stores and labeling specimens. So far, in this camp, we have done nothing startling. One thing and another have kept us from results. It is most discouraging.

The Patrol returned to Walo in the afternoon and report that they will be engaged for two weeks more with all of the carriers they can get their hands on. Daymond advised me to remain here until the end of the first week in November when he will be leaving. We can then have all of the boys we want. I presume I shall have to do just that.

October 24 (Monday). Walo. Hunting most of the day but with mediocre results. The sun was too hot and the bush too dry. Given a few days of sunshine and the bush dries out so badly that every step through the leaves and twigs resounds for yards and scares everything within shooting distance.

Segi village showed up again with quantities of fresh foods which enabled us to stock up our larder. There are very few instances in my tour of the Islands when the natives wouldn't bring me plenty of food.

October 25 (Tuesday). Walo. Sent Mio early in the morning to Pa su su to obtain a canoe to take us to the small islands. There is a possibility that we might find another *Myzomela* and another subspecies of *Pachycephala*. Unfortunately they were not present. We did, though, procure a generous quantity of Gallup nuts for food and enough Kai Kai pigeons for a good roast dinner.

Returned home much the worse for a good blistering in the sun.

Mr. Morris came to dinner at night. Mr. Daymond declined because of a dose of fever.

October 26 (Wednesday). Walo. Our much hoped for rain arrived during the night and remained with us most of the day. I was able to obtain a few parrots from a big tree near the house where they roost and also a couple of kingfishers. Spent the rest of the day label-

ing specimens.

October 27 (Thursday). Tarobi. Concluded to shift camp to Tarobi, a salt water village to the west of us. Our two cooks come from there and assure us that there are Habopteryx in the swamps behind the village.

With the aid of the two cooks we obtained a large canoe and transported our effects to the village of Tarobi which lies at the tip end of a little peninsula some five or six miles to the west of our place.

There we were able to establish a small makeshift camp in a tiny Government rest house.

The village, which numbers eight or nine houses, holds the remnant of a once numerous tribe of people. We found the present ones dirty, lazy and indifferent toward life. Like so many of the island people, these appear to have given up hope and no longer have an interest in anything.

Their gardens are very limited, with only a few fruits, and some sweet potatoes being raised. Fish and other marine forms constitute a great share of the diet.

Had time to spend a few hours in the bush but didn't discover anything of real interest. The swamp area here is extensive but very mucky and almost impossible to traverse.

October 28 (Friday). Tarobi. Out with the old

chief Tivo this morning and into the gardens and later swamp area. The bush is full of parrots and pigeons but, unfortunately, we saw no species that we require.

Right around Tarobi all of the large trees have been cut down at one time or another so that now nothing but low shrubs and secondary bush are to be encountered. Eclectus, Domicella, and Trichoglossus are the only species in abundance here and these congregate at any flowering shrub or low tree.

The pigeons (Ducula) fly in from the small islands and congregate here before flying off to the mountains. Later in the day they congregate again before retiring to the Islands.

October 29 (Saturday). Pa su su. To the village of Pa su su which lies about 2-1/2 miles inland from Tarobi. It is a part of the latter village with the inhabitants of both interchanging.

Like Tarobi, there is a small area of gardens and secondary bush around the village and then mucky swampland.

The natives promised to take me into the swamp, but led me all over the place without doing so. I came to the conclusion finally that the short-winged rail (Habopteryx) must be mixed up in the culture of the tribe and necessarily protected. No one would make an effort to show me where the bird feeds nor where I could station

myself to intercept specimens.

Returned to camp and concluded to go back to Walo and get into the mountains where we belong.

About the only worthwhile occurrence here were the quantities of oysters which the natives brought to us. These made a welcome change in our diet. But as far as birds were concerned we are no better off than when we started.

October 30 (Sunday). To Walo. With all of our effect in a large canoe and reached Walo about 3 p.m. after a hot trip in a blistering sun.

Found that the two James boys had come down yesterday. I was very cross with their actions in leaving the mountains, coming to Walo, and dismissing their carriers without at least telling me so that I could go back with the small boys.

The two James Had almost no birds to show for their time. They ran out of food and couldn't induce the natives to bring them more. Besides this, they complained bitterly of the rain.

Anyone knows that it rains every afternoon and on many occasions during the night and morning, as well, in the mountains of these Islands. One must arise very early in the morning, get their specimens, and be back in camp before the rain starts. Late sleeping in the mornings is not an inducement to good bird collecting.

Another factor which the James brothers haven't

as yet learned to adjust themselves to is the matter of food.

When we came to Walo we had what we figured would be ample supplies for three month's duration if they were carefully measured out from time to time. The two boys have used most generously, even extravagantly, of what we have and are now faced with the hard problem, for them, of living entirely on native foods until we reach Rabaul again.

Most people, including Mrs. Coultas and myself, can live for weeks on end in the bush without any outside provender except tea or coffee and sugar and salt.

Personally, neither my wife or I mind in the least the fact that we must live bush from now on. But the two boys will suffer, I know, and I can't help feeling very sorry for them that they must go through the trying ordeal of adjustment.

At the next camp, if they are with me, they will have considerably less tinned goods to draw from than this time. This expedition is not a delicatessen affair. It never was and it never will be.

Let me add here and now that I never quarreled with the boys about food. They were always at liberty to eat as much as they liked as long as it lasted. If they wished to open half a dozen tins of different kinds of food and only nibble a little out of each tin before

throwing it away, I never once complained. But when the food was all gone, all of us did without. No more was purchased.

October 31 (Monday). Walo. To work on a number of large Ducula to-day. Thence to check and label such material as we have at hand. I realize that we have now just about completed our series of the more common species but there are so many desirable ones to be taken yet that I am terribly discouraged with the results. We can't seem to be getting our feet on the ground and accomplishing results. This has been the most trying month I have ever experienced on the expedition.

Have concluded to let the boys hunt where they like while I will go into the mountains at the first opportunity.

The fact that we are not permitted to use natives as hunters is a tremendous handicap to us. I believe firmly in the native even if he is a rascal at heart and plays horse most of the time. He does know where to go to look for birds while we are obliged to search and search until we locate them.

November 1 (Tuesday). Walo. With Marbo to Segi to round up a bunch of native foods and to procure a number of carriers if possible.

The boys doing a little spasmodic collecting.

November 2 (Wednesday). Walo. Segi showed up this morning with enough provender to last us well over a week if used wisely. They are as eager to obtain our tobacco as we are to accept their foods. As for the carriers, not a blessed one of them would consider the subject.

Considerable rain during the day which stopped all hope of collecting, though all of us did make a futile attempt at getting into the swamps.

November 3 (Thursday). Walo. Took the whole day and followed the swamp road to the base of the mountains. Enroute, in the swamps, I know blamed well that I saw an Habopteryx but he was too quick for me. This is the first real encouragement I have had with this species.

John got back into running by returning with a Ducula finschii (the band-tailed pigeon). We need more of these badly.

November 4 (Friday). Walo. Now that I am on the right track, I shall remain with the rail until I get him. Returned over the same ground and obtained a Melanchroa at about 800 feet elevation. This quite low for this species.

November 5 (Saturday). Walo. To the mountains again and back to camp by 4 p.m. with two Gymnophaps which I obtained on the mountain ridge east of Sipa and at

about 4000 feet.

The James brothers contributed a number of Meagodes juveniles which they obtained from the natives.

The Police Patrol returned from their eastern trip which assures us of some boys for the morrow.

Though every individual boy assured me that he had done all of the carrying he cared to, I was able to round up eight of them who agreed to stay over until the morrow and go with us. I fed them well and prayed that they wouldn't change their minds over night. Eight boys will just get Mrs. Coultas and me into the mountains and that is all.

November 6 (Sunday). Malutu. Loaded the eight carriers and started for the mountains at 7 a.m. Reached Malutu some time after noon, after a very pleasant journey. For once, we encountered no rain or difficulties.

Mio, the little salt water boy from Pa su su, accompanied us as the cook. He was the most interested boy on earth when he got into the mountains and saw all of the volcanoes and mountain peaks in the distance. Though only a relatively short number of miles from his home, he had never been into the mountains before. These people, here, are naturally hereditary enemies of his and even at this date resent his intrusion.

Once at Malutu we had our beds and tables up in short order and the carriers on their way down by

2.p.m. A number of boys from Sipa, Bogella, and Gatto

gathered fire wood, broomed the camp, and brought in fresh vegetables.

Mrs. Coultas unearthed a large patch of lima beans that had been grown over but with enough beans on the vines to keep us supplied well during our stay..

The small children scoured the bushes and brought in bowls full of red raspberries that grow in profusion all over the mountains.

Quantities of other edibles were brought to us so that we have no worries of a food shortage during our stay.

November 7 (Monday). Malutu. Had a wonderfully cool night and slept under two blankets. It is surprising how quickly a person pulls himself together with a few degrees of cover temperature.

Took the trail down to the base of the mountains again and spent the day in the semi swamp. After tramping diligently for hours ran into and obtained the first example of Habopteryx. This one was found in the pit-pit or bull rushes where he had been feeding on the pulpy center of this plant.

Returned to the mountains to work them thoroughly for the rest of our stay. Will trust that John and Mike will be able to obtain one or two specimens down below, now that we know definitely that this bird is here.

November 8 (Tuesday). Malutu. Spent most of the morning on the eastern side of the ridge upon which

gathered fire wood, prepared the camp, and brought in
vegetables.

Mrs. Condit described a large patch of lima
beans that had been grown over but with enough beans
the vines to keep us supplied well during our stay.

The small children scoured the bushes and
in bowls full of red raspberries that grow in profusion
all over the mountains.

Quantities of other edibles were brought to
so that we have no worries of a food shortage during
stay.

November 7 (Monday). Mista. Had a wonderful
fully cool night and slept under two blankets. It is
praising how quickly a person pulls himself together
a few degrees of lower temperature.

Took the trail down to the base of the mountain
again and spent the day in the semi swamp. After that
the diligently for hours ran into and obtained the first
example of Hesperotryx. This one was found in the pits
or bull trashes where he had been feeding on the pulpy
center of this plant.

Returned to the mountains to work them
thoroughly for the rest of our stay. Will trust that
John and Mike will be able to obtain one or two specimens
down below, now that we know definitely that this bird
here.

November 8 (Tuesday). Mista. About noon
the morning on the eastern

our camp is located. Birds were not plentiful by any means. I was able to obtain a Ducula melanochroa and a few dicerurus. No doubt plenty of pigeons do hide in the tops of the trees and are never observed. Melanochroa especially is prone to sit quietly in the top of a tree and never utter a sound. If one is fortunate enough to catch them feeding, the sound of falling fruit will be sufficient indication of their whereabouts.

As a whole, where there is forest, the ground is relatively clean underneath the trees. The ridges are often very steep which does not make walking an easy matter.

November 9 (Wednesday). Malutu. Tavu, a crippled boy from Lolu, came into camp and requested permission to learn to cook. Always cooperative, we lost no time in assuring him that his services were needed. Mio will be shifted to table and wash boy. I'm sure Mio doesn't mind.

Went hunting with two rock imps or sprites from the village of Babila. These two are certainly not many generations removed from monkeys or jack rabbits. The first time I fired a cartridge they were off like scalded cats. Curiosity, though, was too much for them, they couldn't stay away but returned to circle around me all morning long.

These are typical bush men, - wild eyed, active, small statured, and as dirty as sin, no clothing and no desire for any. Yet the way they scampered up and down

mountains would put a goat to shame.

If I had means of communicating my wishes in the way of species, I feel sure this crowd could help me. Unfortunately, neither of them can speak pidgin English. Once I learn the names of their birds I will be all right. At retrieving specimens which have fallen down the side of the mountain there is no equal to Mr. "Tuesday" and Mr. "Friday," my two associates.

November 10 (Thursday). Malutu. Tuesday located a feeding tree of Gymnophaps which enabled me to obtain three specimens before the daily rain set in. This tree, some smaller than the average run of them in the forest, has the small purple fruit berries of which this species is particularly fond. This purple berry is entirely different from the one in the lowlands upon which Reinwardtoenas browni feeds. Also obtained another Melanochroa and two Zosterops.

I have heard Ortygocichla daily, but as it is a God of these people I can get no help in hunting it.

November 11 (Friday). Malutu. A note came up from John; he has taken another Henicopernis. Also a note enclosed from Fred Werner. He will call for us on December 7th, weather permitting. Hunting again along the mountain ridges and obtained a number of good specimens. It looks as though we will be able to obtain a substantial series of Gymnophaps before we frighten the

birds away from their feeding tree.

The village of Gatto brought us a great quantity of very large sugar cane. These people pride themselves on the size of their particular species.

Some stalks were at least eight feet long and five inches through at the base. The cook was put to work boiling this down into sugar for our tea.

November 12 (Saturday). Malutu. Our veranda is covered with fruits and vegetables. I don't see how anyone can possibly go hungry here.

Hunting again up the ridge toward the 4000 foot level. Obtained a number of desirable birds but no new species.

(?) : 1960: Cichlornis grosvenori Gilliland

Though I spend hours in the bush I have, as yet, seen no signs or indications of the ground thrush ^{? zoothera} which is known to occur here. The natives know it but tell me that they only see the bird occasionally. The Mission boy from Lolu reports that he has seen it there several times.

Tavu, the new cook, quit his job and retired to a more peaceful existence in the village. At home there are others to do the work, here he finds life entirely too active for his liking. Mio expressed himself as being quite satisfied to all of the work alone.

November 13 (Sunday). Malutu. At least a good thousand people from the Gasmata side of the mountains passed through on their way to the coast to obtain

bamboos full of salt water and great slabs of Nepa palm pulp which has soaked up salt. This is an annual foray of the mountain people for salt and was in the old days accompanied by fights and bloodshed. There was a unique system. Women heavily laden with baskets of food accompanied the hoard and, at a few hour intervals of marching time, one man and two women were dropped to await the return of the party. On the way back the salt gatherers would be assured of food to sustain them in their labors.

At Malutu the last party of women were left as the army surged on. Each male carried a long spear, nothing more. After ten hours or just at dusk, the party heavily laden returned, stopped a half hour to eat, and continued on, taking their women with them.

We were indeed fortunate to observe such a performance. One of them, though, appropriated one of Mrs. Coultas' shirts before we had sense enough to bring them in from the line stretched behind the house.

November 14 (Monday). Malutu. Down the mountain side to the east of us and in the general direction of Malusi. Found the hunting quite good and obtained a number of desirable specimens, including Zosterops again. There is apparently no mountain Zosterops here.

Some carriers arrived just after noon with mosquito nets, bird drying racks, and bird meal. Used this opportunity to send what birds we have down.

One crafty individual walked off with a small bird-skinning knife. How he did it I'm blessed if I know, as we always chase all natives off the veranda when they congregate.

These mountain people, though, are chronic thieves.

Later in the evening someone walked off with a soup spoon from the cook house, but I raised such a fuss that that was returned quietly and pushed into the side of the wall.

Once these monkeys begin stealing and getting away with it we will lose everything. Hence I must stop it in its inception.

November 15 (Tuesday). Malutu. During the night someone burned little Mios calico, an act of spite work to teach him not to report stolen spoons I suppose. We tore a bed spread in half to keep the poor lad from sleeping naked at night.

Quite an accumulation of natives in camp, so chased every blessed one of them out and told them to stay out. It just takes one hot head in a party like that to start trouble.

Remained in camp all morning, keeping spasmodic return rascals out of the place. After three or four half-hearted attempts all went away and I continued in the direction of their village, Bilusi, to have a good look at the whole crowd.

Obtained some good specimens on the slopes of the ridge, including an *Accipiter* which might be new.

November 16 (Wednesday). Malutu. The natives from Lobi and Malusi show up with some tomatoes, lettuce and sweet corn and invite us to come over to their ridge to the eastward and hunt there. As they have a nice small rest house there I advise them to come over Friday at daylight and get our cargo.

I have always found it a good omen when natives extend one an invitation to use their village as a base camp.

Hunting on the ridges south and obtained some good specimens.

November 17 (Thursday). Malutu. A day of continuous rains for a change. Was only able to obtain one specimen of Melanochroa which settled in a tree near camp. Spent the rest of our time catching up on notes.

November 18 (Friday). Lobi. The Malusi-Lobi crowd surprised me. They were in camp at daylight, as requested, and made quick work of humping our cargo the eight miles to their village. I'm inclined to believe that they are tobacco conscious and want us around for a time to replenish their store of smokes. What a pleasure it was to have willing hands grab the duffle and bustle it across country.

Our new house is about 12 x 14 feet and about

five feet off the ground. It is new, clean and well roofed. A detachment of locals put up a cook house and small lean-to for bird skinning in jig time. Another series of urchins brought us two weeks supply of fire wood which gladdened the heart of Mio.

Climbed the 5000 foot ridge to the east of camp and obtained a number of birds - Gymnophaps, Melanochroa centropus violaceous, and another female example of what I take to be another species of Accipiter.

November 19 (Saturday). Lobi. We have with us here a Methodist Mission Boy, Charles by name, who, I must admit, is as fine a type of native as one could wish for anywhere. It is rarely that one finds a good native missionary. This one, though, is as accomodating and helpful as they ever get.

Up to the present the German Catholic Missionaries have always kept to the sea coast (with the exception of a couple of stations in the Gazelle peninsula); now the Methodists are pushing into the interior and are grabbing converts right and left behind the coast converts.

The Methodists have the Catholics bested in two great redeeming features - cleanliness (with their native preachers especially) and gardens.

Wherever there is a Methodist Missionary, white or native, one can always be assured of plenty of good food.

And here at Lobi we were given just all we could stuff down our gullets. Such items as lettuce, onions, corn, beans, tomatoes, cabbage, sweet potatoes, pumpkins, melons, taro, yams, paupau, pineapples, oranges, mongoes, keep us from "starving."

Hunting with Charles who tells me that he has seen the thrush several times in the three years that he has been here. We visited an area where there have been a number of land slides but found no bird.

Locals promised to put out rope snares and help us.

November 20 (Sunday). Lobi. Hunting all day and had a surprise when I flushed and obtained a little finch Lonchura melanea in a small patch of grassland not over five yards square tucked away on a mountain side.

Charley, the missionary, ceased his ecclesiastical labors long enough to borrow a shot gun from me and kill a wild pig which was rooting up a patch of sweet potatoes.

November 21 (Monday). Lobi. Up just before daylight and to the top of the mountain ridges to the east of us. One does develop some splendid leg muscles chasing up and down hills from 2200 feet up to 5000 feet and back every day. More Gymnophaps from another purple berried tree and more Ducula melanochroa. We shall have a nice series of both species.

November 22 (Tuesday). Lobi. Hunting in the

native gardens until the rain drove me home. After all of these months I found and obtained a pair of the supposedly common Saxicola caprata aethiops. This species undoubtedly is common on some parts of New Britain but I have never had the good fortune to strike one of those areas.

November 23 (Wednesday). Lobi. Away at daylight with our two trunks full of birds to the base camp at Walo. We have our containers full and must make room for more. I don't dare trust the birds to natives so accompanied them.

Reached Walo at 11. Repacked specimens and left again at 3:20, reaching camp at Lobi at 7:30 p.m.

John and Mike were neither one at Walo but Mike at Segi and John at Gai gi ki. They had made up six skins in eight days - no wonder they wrote home to their Father and told him they were doing all of the work.

I really should let them go now, but can't hardly until I get some kind of a native staff to help me. Such a thing is impossible right here where we are.

November 24 (Thursday). Lobi. Find that I am a trifle stiff and sore from the long hike yesterday. Did get into the gardens and mountain slopes on the side and procure another peculiar hawk which must be a female of Eichhornis accipiter luteoschistaceus. Two more Saxicola to-day as well and more Melanochroa.

November 25 (Friday). Lobi. Rained all day so that I obtained only the black pigeon (Melanochroa) and a couple of crows.

A note from Mike. He has shot a cassowary and is having a terrible time trying to degrease it. I can only advise him to saturate wood ashes and pollard with gasolene and degrease until he get the inside of the skin clean.

November 26 (Saturday). Lobi. Another nasty day which gives every indication of an advancing north-west season. We are fortunate in being in a well protected valley and just below the fog line where driving rains are broken pretty well by the mountain ridges.

Spent a good share of the day in the bush and returned with some Macropygias for a change.

November 27 (Sunday). Lobi. Mrs. Coultas made us some Chili Con Carne with Malutu-Malusi beans, small red peppers, and chopped up pigeon breasts. By George, it was good even if the concoction did nearly burn the lining out of our throats.

Rain kept us in the house all day. Sent a note down to the James Brothers urging them to concentrate on rails.

November 28 (Monday). Lobi. To Malusi along the river and to the base of the mountains to the area where I found the rail before, but simply wasted a whole day.

I do wish someone could devise a way of collecting specimens without such a waste of time.

November 29 (Tuesday). Lobi. Obtained a Gallicolumba jobiensis on top of the mountain at 5000 feet. This is an unusual record for me at least. For I have never encountered this species at such an altitude. Also obtained a pair of the Torres Straits Pigeon (Myristicivora) which are moderately common here but most difficult to obtain as they congregate in the very tops of the tallest trees beyond where our shot will touch them.

November 30 (Wednesday). Lobi. Hunting for a short time this morning but returned with chills and fever, so bundled into bed and remained there.

December 1 (Thursday). Lobi. Sent Mio to Walo with four hatching eggs of Centropus violaceus which are to be placed in alcohol. These were found in a loosely constructed nest of twigs (similar to that made by the American crow (Corvus brachyrhynchos) in the top of a tall tree. The eggs were the same as those of Centropus ater-albus except possibly a little larger.

Myself hunting along the ridge all day and obtained a number of Ducula melanochroa. There will conclude a very large series of this species.

I also found a small flock of Graucalus lineata sublineata. These are rarely met with in the bush and are always found actively dodging around in the tops of high trees.

December 2 (Friday). Lobi. Out with Charles all day in search of the mountain thrust. We were favored with a dull day too, which makes hunting all the better, but did not obtain a sight of this species.

Charles assures me that there is another kind of *Domicella* here with white on the back of its neck and similar to Eichhorn's New Ireland form. This bird, he tells me, he saw once during the month of August of this year.

Collected a number of wood-swallows (Artamus) which were flying about in a native garden and perching in low dead trees.

December 3 (Saturday). Lobi. Considerable rain off and on all day. Went hunting along the little river that flows along the base of this ridge and thence along another ridge to the south.

Collected a Halcyon sancta for sake of record only. I am convinced that a few individuals of this migrant species remain all of the year around.

December 4 (Sunday). Lobi. The Chief of the village was fortunate enough to spear a pig during the night. The one hind quarter given to us worked up into an excellent Sunday dinner.

Spent considerable time packing birds in anticipation of our exit from this region. With this recent spell of rainy weather we are sure to have the northwest monsoon soon.

December 5 (Monday). Lobi. Started hunting this morning. Shot a cassowary and knocked him down but the same individual arose from the ground and took off in such a hurry that I couldn't reload the gun and get another shot at him.

At least two dozen natives took up the chase but failed to run him down.

A note from Mike reached us around noon saying that Fred Werner was at Walo awaiting us. We hustled a number of cases down to the coast, sent word to begin loading ship, and let them know that we would follow with the rest of the effects early in the morning. This last move would save us making another bed to-night and would not delay us to any extent to-morrow, if everything is aboard ship when we arrive.

December 6 (Tuesday). To Walo and Bialla. Another pleasant day of continuous rain. The average of wet days upon which we have shifted camp far outnumbered the dry ones. It seems to be an unwritten rule.

We were up early. Mrs. Coultas and Mio started down just at daybreak, while I broke camp and started the carriers. Reached Walo at 10 a.m. Found the ship loaded and our effects aboard. We were ready to leave when Mr. Daymond, Patrol officer, decided he would like to go along as far as Lolobau. This kept us waiting until 3 p.m.

With Daymond, Morris, and fifteen Police boys,

our party of four, Fred, and his crew of six boys, we had a real ship load. There was just room enough to turn around and scarcely an inch of free board above the water.

Reached Biialla, up the coast, and spent the night at Werner's home. This would get us to Lolobau to-morrow night and would give us the day for dodging reefs. We wouldn't dare risk the ship outside the fringing reefs loaded as she is.

December 7. To Lolobau. Under way early after Fred had added a few bags of sweet potatoes to our already overloaded ship and reached the Roman Catholic sawmill near the Volcano Father at 4 p.m. We had an hour there.

This is the place where someone (a Brother) employed in the mill shot and forwarded the single specimen of Lorius amabilis to Father Meyer. I was shown the tree where Domicellas, Trichoglossus, and other parrots congregate and roost at night, but observed no unusual specimens among the early arrivals this evening. I was told too that the red phase of Domicella has not been observed since the one specimen was taken.

We continued on to another anchorage about five miles distance where we discharged the two officers, their troops and cargo, but anchored for the night.

December 8 (Thursday). Lolobau to Massawa.

Under way again at 3 a.m. and reached Stockholm plantation at 9. There, Werner had some business ashore which prohibited our leaving until 2 p.m. Thence on to Massawa which we reached just at dark.

Our Captain, full of newly made Pineapple brandy, which he imbibed at Stockholm, chipped the corner off a reef coming into the anchorage at Massawa but had forethought enough to keep going with the ship and beach her before she filled with water and sank.

John, Mike and I grabbed our tin boxes of specimens and waded ashore with them, thus saving our collections from a wetting.

All of us worked until 2 a.m. unloading the ship so that we could turn her over and patch the jagged hole up forward which had been punched into the sides by the coral.

There are some advantages in owning a tiny boat after all. One can shove it on the beach, handle it like a row boat, and undertake repairs which cannot be done with a large one.

December 9 (Friday). Massawa-Rabaul. Fred stopped the hole forward by nailing a piece of planking over it inside and a patch of copper over the outside of the area.

We had the ship loaded and were under way for Rabaul by noon, none the worse for our experience except the loss of time.

Reached Rabaul just at midnight and slept on board the rest of the night.

December 10 (Saturday). Rabaul. All of our effects ashore and to the Time Bldg. with Mr. Gascoigne's truck. Cleaned the room which has accumulated a tremendous amount of dust. Thence put all of the birds out to dry well before shipment to New York.

To the city and learned that there is no transportation available for Wide Bay until well after Christmas. Thence to see Fred Werner again who is having his ship hauled up on the slip. He tells me he will take me to Wide Bay next Friday, the 16th, if I can be ready by that date. This leaves us terribly short of time as some of the specimens are not dry.

I conclude to go with Werner, send a small shipment this time and the balance when we return from Wide Bay.

We should, by rights, go to New Ireland now but I simply can't force myself to do it with our New Britain collections incomplete.

December 11 (Sunday). Rabaul. To the room early. We have arranged to have our luncheons at the room, thereby saving the long walk to the hotel and return during the middle of the day.

Spent most of the day working at labeling, sorting and drying specimens.

I told the James boys distinctly that it

would be best for them to begin looking elsewhere for employment as I shall not be able to keep them on much longer.

In the evening walked to the shipway and found that Werner's ship has been hauled up. There isn't such a large hole in her after all.

December 12 (Monday). Rabaul. Dispatched the following cable to Dr. Murphy: "Forwarded by steamer one case forwarded by Parcel Post one package several new species. The next will be March shipment. Coultas."

To the stores and purchased a number of supplies for the next trip. The two James brothers to work making new benzine tins and lids, also cleaning and oiling our collection of firearms.

December 13 (Tuesday). Rabaul. Put the birds out to dry again. Obtained the services of a small Markham river boy by name "Argo" who will busy himself about the place cleaning up odds and ends.

Made several attempts to recruit boys in Rabaul but had no success. They are most difficult to obtain at times.

To work all day packing cases and bird material for the bush. Our lives are given over to packing and unpacking. One, in time, becomes immune to the monotony of it all.

December 14 (Wednesday). Rabaul. Was called to the District office in Rabaul and required to register all of our fire arms and report the quantity and quality of ammunition. I had gone through all of this with the customs people when I first came to the territory but neglected unknowingly to inform the Police as well.

To work all day packing and recording specimens for this shipment. This consumed the whole day.

December 15 (Thursday). Rabaul. Packed the case and small parcel post packet of birds and dispatched them through Agriculture and Customs. Then to work on the last of the bush effects. Worked until midnight getting everything in order for sailing to-morrow.

We haven't had half the time we should have had here. As a consequence, no letters written, no notes and only a very few of the specimens dispatched.

Received the following letter from Dr. Mayr:

October 20, 1932

My dear Bill:

I have just returned from my European excursion and began immediately to study your New Britain collection.

I think you can be well satisfied with your collection which is in quality superior to anything that Beck ever delivered. And, as you say, the quantity will come now as you have your hands free after the sale of

the France.

I was not here when your shipment arrived, but apparently the smaller birds were packed, separated from the large birds; at any rate they look splendid and decidedly better than the small birds in your former shipments. In fact, they do not need any more improving, and are much better than most collections coming to the Museum. I know that you were making fine skins in the Solomons, and I was therefore sure that the "flatness" of many of your Micronesian skins was either a matter of packing or insufficient stuffing. I guess you will be glad to hear that everybody was so pleased about your skins, and I hope your future shipments will reach the same high grade. I went carefully over all the species that tend to greasiness, and found them very satisfactory. Only one specimen of Gallinula was somewhat greasy, but I know that is sometimes practically impossible to degrease them. The time spent on degreasing will be amply repaid by the quality of the skins. I wonder some times how much longer some of the earlier Whitney Expedition skins will last. Some are terribly grease-burned already.

A word about your labels. All the labels with long thread are being tied on shorter here in the Museum as they got hopelessly entangled in the trays. We would appreciate it if you save us this double work. An inch

or an inch and a half between leg and label is sufficient.

Concerning localities, we suggest an improvement: "New Britain, New Guinea" is not only vague, but also misleading, as New Britain zoologically (and that is the point that interests us) does not belong to New Guinea. Every ornithologist who works on indo-austr. birds knows such islands as New Britain, Duke of York, New Ireland, etc.; however, we would like to have the exact locality on the label, as Blanche Bay, or Baining Mts., and so on. The label would thus be for example: "Baining Mts., New Britain, 1200 ft." It is necessary to be so detailed as there are several cases known of birds that occur in two different subspecies on the same island in the Bismarck group. It is rather awkward to look up your diary every time one wants to know where a certain specimen was collected. If you give us a map with your collecting stations, we will easily find even obscure localities.

Now to the systematic contents of your collection. I am surprised to see how well you identified your species. There is hardly one misidentification. The Accipiter are only two species of the large novae-hollandiae. You collected 2 ad. and 2 juv. of the smaller rufous-necked brachyurus (long middle toe). Acc. brachyurus is very rare. I don't think any specimen has come to this country previously. The "Porzana" of your

list is Amaurornis olivacea. The "Columba vitiensis" of your list is Reinwardtoena browni, a very desirable species of pigeon, with white underside. Heniophaps forsteri is very desirable. All the Centropus with white are Centropus ateralbus, a species with tremendous individual variation. The barn owl is one of the prizes of the collection, being Tyto aurantior of which only four or five specimens were known so far. The common Tyto alba is supposed to occur there also. I was quite pleased that you got only one species of Ninox, because I was always suspicious of the reports that there were two. I have worked out the whole case recently in the British Museum and have come to the conclusion that the only Ninox on New Britain is N. odiosa and the only one on New Ireland Ninox solomonis (unfortunately!) (with variegata, novae britanniae and novae hibernicae as synonyms). The big Alycyone is a fine bird and rare in collections. Where did you get it? The "grass warbler" of your list is a stone-chat (Saxicola) which lives in the grasslands, and the small reedbird is Cisticola. I hear that grassland birds are comparatively easy shooting at dawn, when they come up to dry their plumage. The "gray" Rhipidura of your list is Rh. rufiventris, an apparently very common bird. The Monarcha seem to trouble you somewhat. I will add a key for you.

Monarcha Key (Compare also letter of May 3)

1. Only bluish-black and white....verticalis ♂
and ♀. (also infelix and menckeii).
2. The entire plumage black.....♂ ♂
(a) smaller with bluish gloss.....hebetior ♂
(b) larger, with greenish gloss...alecto ♂
3. Brownish, grayish and whitish colors in the
plumage...♀ ♀
(a) Underside pure white, crown glossy
greenish black.....alecto ♀
(b) Underside grayish, crown gray...hebetior ♀
4. Orange colors in the plumage.....chrysomela
5. Upperside and breast gray.....belly rufous....
cinerascens

You collected 5 specimens of verticalis, 5 of hebetior and 14 of alecto. The Pachycephala are very welcome.

The best birds in this collection are: Dupetor, Henicopernis, Accipiter brachyurus, Reinwardtoena, Hemiphys, Tyto aurantia, Ninox odiosa, Alcyone websteri, Tanysiptera, Rhipidura dahli, Monarcha hebetior, Pachycephala, Myzomela erythromelas, Zosterops, Lonchura melaina.

I realize fully the difficulty of not collecting common birds as Halcyon sancta, Merops ornatus, Rhipidura rufiventris, Monarcha alecto, Aplonis and Cinnyris

jugularis. However, you will understand our interest not to have reduplicated too much what we have received in the Rothschild collection already.

Altogether your collection contains 77 species (including 3 specimens of Chalcophaps stephani and 1 of Eudynamis) and 532 specimens.

Fieldbook and field notes. Your field book is a constant source of pleasure to me. It will facilitate the working out of the collection considerably. Particularly the notes on molt and on the size of the gonads. I hope you will try to work out little life histories of all the birds with notes on their habitat, voice, general habits, etc. Which of the species travel in mixed flocks? How far inland can coastal species be found? What are the vertical ranges? What is the sequence of the beginning of the morning song? What birds call at night? etc., just to mention a few points. It will lift you above the ordinary collector if you do this. I found some very interesting and useful remarks in your notes on Micronesian birds.

Further plans. We would like to know approximately in what sequence you plan your further movements. I have written you in previous letters what I consider the most important localities. The more I study the bird life of the Bismarck group, the more I realize the importance of the Admiralty Islands. I think you should

tackle them before you go to the outlying islands.

Previous letters. I mentioned a few questions in my previous letters to which you have not referred in your recent letter. I do not know whether you overlooked them or not, and want to mention them once more.

Tying of the bill in soft-billed birds (letter of June 15th).

Sending back of all the Melanesian and Polynesian maps not required any more (May 17 and June 7).

Notes on stomach-contents (letter of May 17).

Collecting stations (letter of May 17).

Exact localities (letter of May 3).

I think you will find a few more points, if you go through the set of letters I have written to you. I think this covers all the vital questions. There are many more things which I would like to know (for example what you heard about rails and cassowaries), but I come back to them in later letters.

I spent a very pleasant summer in Germany, and did also some good work at several museums. I don't know if you have heard it already that I have been appointed Associate Curator at the American Museum, so you will find me here in New York when you come back from the wilds. I was certainly very fortunate in getting such a fine position. I am trying just now to hurry off a few half-finished manuscripts, as we will start to move into the new building within 5 or 6 months, a task which

will take all of our time and efforts for a long period.

How is everybody in Rabaul? My best regards to Crookshank, Paatsch, Etc.

Further good success to you,

Yours sincerely,

(Signed) Ernst Mayr

December 16 (Friday). To Wide Bay.. All of our effects to the Lassue and ready to sail at 11. Werner's vessel is quite presentable after numerous scrubbings and a coat of white paint. We experienced a pleasant day at sea, without rain.

December 17 (Saturday) Tol-Wide Bay. Reached Tol Plantation at noon after a short stop at Sum Sum where Werner unloaded cargo for Peter Uterick.

Found George Naess, the owner of Tol Plantation, at home and were urged to store all of our effects in his place until we found a suitable camp. There is ample room here for all of us without the least crowding. Naess has a very large native made leaf house with 8 rooms and also a very large veranda around the structure.

We have chosen a good place and only regret that we didn't come to this part of the island much sooner.

The Timoipe Mountains across the bay rise to an elevation of 5000 feet and the Baining Mountains behind us to an elevation of 4000. We will have all the mountains we require if we can once get into them.

Once settled, I wrote to both Dr. Mayr and Dr. Murphy. These letters Naess assures me he will forward by native runner the day after Christmas, as he is often in the habit of sending mail to Rabaue in that way.

December 18 (Sunday) Tol. Spent the whole day with our host who elucidated upon the natives and the

surrounding country. Naess has been here since 1919 and acted in the capacity of Patrol officer when he first came to this area.

December 19 (Monday) Tol. Not a possibility of obtaining carriers for our cargo until after the holidays. We will remain here until after that time and then attempt to establish camp either in the Baining Mountains or in the Timoipes. I should much prefer to have two camps, one in each range.

With Naess to an abandoned saw mill which lies inland about a mile from the mouth of the Mavlo river. This consists of a non-leaking/^{tin}roof. It is open to all weather but we can overcome that by putting up wind breaks on the windward side.

There is a wealth of river swamp country which undoubtedly holds rails, herons and other water birds. I believe it advisable to use this as a base camp for a beginning.

December 20 (Tuesday) Tol. Naess tells us that his plantation is over run with hawks. (Accipiter novae hollandiae). We will assist him in reducing these and at the same time increase our series.

John visited the river area and returned with a Dupetor flavicollis. This one is a desirable species and most welcome.

I visited a small patch of kunai near the station and discovered cisticola but no finches or quails.

December 21 (Wednesday) Tol. With Naess to the little village of Casalia above the saw mill to have a look at the country and appropriate carriers if possible.

The five able-bodied villagers assured us they would come and help us the second day after Christmas.

Obtained two Scythrops from a large and tall fruit-bearing tree. This species though often heard high in the air is rarely if ever obtainable.

Mike and John spent the day patching up an old flat bottomed boat which they hope to use along the swamps and flats of the Maylo river.

December 22 (Thursday) Tol. John while chasing around in the gardens north of the plantation met with an example of Loriculus tener and obtained it. This is our second specimen of this most interesting paroquet. The first one was taken in low secondary bush and this one in an open garden. Yet I do not know to this day the habitat of this species.

December 23 (Friday) Tol. Rain early in the morning which delayed all attempts at hunting. All of us got into the plantation in the afternoon and obtained 5 Accipiter novae hollandia before we were through. There still remains an unlimited supply of this species here among the cocoanuts. Never in my life have I seen them so plentiful.

December 24 (Saturday) Tol. All of us collecting a good number of Ducula rubricera for our dinner on the morrow. Three Accipiters were also brought in and made up quickly.

December 25 (Sunday) Tol. Christmas Day -

I had the good fortune to observe a Henicopernis in fresh plumage and obtained him, despite the day.

December 26 (Monday) Tol.

Why the English call the day after Christmas "Boxing Day", is more than any one around here can answer. No collecting. Considerable rain off and on helped us with our visiting without hurting our consciences. Every blessed native has disappeared to a big dance somewhere.

Naess tells me that my chances of obtaining permanent boys is pretty slim. Up until recently a great number were blackbirded from this area and those remaining are very timid about making a contract. We will make a try anyway.

December 27 (Tuesday) Tol. About 25 boys showed up from odd corners of the area and with Naess Plantation line lost no time in transporting all of our effects to the saw mill.

Once there we had a camp together in jig time. With our collapsible tables, beds and chairs we can have a going concern within a very few minutes. George has loaned us one of his cook boys, "Phanatype" by name, who will take over the culinary fixtures for the present.

All of us to bed at an early hour as the mosquitoes are most dense and annoying here on the river bottom just after dark. Luckily, we all have good strong mosquito nets with us.

December 28 (Wednesday) Mavlo. Most of the day around camp. None of us feeling very well as the new cook sort of poisoned us with overly strong coffee.

One Mr. "Paulus" from the village of "Real" came into camp and expressed his desire of joining our staff. He was accepted. A few birds including a Dupetor were brought in.

December 29 (Thursday) Mavlo. Two more dirty savages, "Franus" and "Pa met ko" joined our staff. They were promptly put to work cutting fire wood as I like a three weeks' supply on hand against the day when hard rains set in. They always do you know.

The "boys" returned with two more Dupetors.

December 30 (Friday) Mavlo. Another boy "Nini", who had cooked for Mr. Vic Pennyfather for 14 years, walked into camp unannounced and chased "Paulus" and "Phana-type" out of the house (cook). He immediately got to work setting hops for bread -- made us baking powder biscuits and had dinner ready at noon without even saying "boo" to any one. Not a word was spoken to him all day and he announced after supper that he would go to his house and get his blankets but would be back in time to cook breakfast.

I don't know what to think of such performances but I do know that we have a cook and a good one.

We all had a real day in the field; bringing in ducks, rails, herons, hirundo, hawks and all sort of things.

December 31 (Saturday) Mavlo.

Arose to find a nice breakfast on the table.

I spoke to Nini and asked him if he was the cook. He said "Yes", so that settles it -- "Phanatype" can go back to Naess. Paulus will understudy the rest of us as a field representative for a while as will Franus. The other one, "Pa met ko", blistered his hands with an axe and left camp in a "huff".

Some more good birds including Acrocephalus today.

1933.

January 1 (Sunday) Mavlo. A very heavy rain during the night which has caused the river to rise within a few feet of the mill. Huge tree trunks, bushes, debris of all sorts, are floating down to the sea.

The rain continued all day with no abating and with indications of a week or so of strong north-west weather. Naess has told us that we can expect a deluge at this time of year.

Two of our natives, Paulus and Franus, who had been away to their village over Sunday, returned late in the evening in a small canoe. They followed the opposite bank of the river until well past the mill and then cut across the river and let the current carry them down and over to us. I can't help but admire the way these two boys handled their small canoe in such a rapid current. I am sure none of us in camp could have handled such a conveyance as well under the circumstances.

Mike, who went to Naess' place yesterday has been cut off from camp.

January 2 (Monday) Mavlo. Arose to find

the river over its banks and lapping away at the old boiler at the end of the shed. We became a little uneasy and prepared to evacuate if the river starts to cut in too much from above. Rain continued all day with periodic sharp squalls.

There was no hope of any of us getting out of the house. John obtained one Porzana from the shed.

January 3 (Tuesday) Mavlo.

The river has broken a new channel thru at her mouth and is running more rapidly and freely now. We are here marooned on a tiny island with water all around us. Fortunately, we have plenty of food and fresh water every where.

Put all of the boys to work making a wind-break on the north-west corner of the house. Mike returned after finding a canoe to transport him over three rivers and several bayous. Mike had a few specimens including another Porzana.

January 4--8 (Wednesday to Sunday) Mavlo.

No hunting during this period. Hard rains and intermittent squalls kept us marooned inside the mill. Luckily, there is plenty of old timber lying around to be used as fire wood.

Yesterday John shot an Arnaurorius which came up to the mill and today Mike despatched an Alcedo atthis.

January 9 (Monday) Mavlo.

The water has gone down enough for all of us to get into the bush. During the morning I met with six different cassowaries but couldn't obtain a one. I presume that those have been marooned in a small area during

the floods but will disappear shortly.

The whole country around here is flat but harbors a variety of bush, a good stand of virgin timber can be found most any where except small areas of about a half acre or so which have been used as native gardens at one time but have now grown back into secondary bush.

Mike left camp at noon to go up the coast to the Phillipine manager of Kolai Plantation. One Aquiningoe who owns a small sail boat that we hope to obtain to carry the James' brothers cargo to Karlai village where they will try to get into the Timoipe Mountains and make a camp. I desire above all things to get the boys established before we get ourselves established in the Baining Mountains.

A number of good specimens were brought in today.

January 10 (Tuesday) Mavlo.

Mike still away after the boat. John and I hunting. John obtained an Ixobrychus and a Dentrocoryna while I remained in the bush and found some desirable specimens. During the morning I put up a Cassowary and shot him three times, with the rifle Frans was carrying. After the first shot the bird charged me and didn't stop until the third one blew his head off. This ruined him as a specimen but saved me an uncomfortable set-to with a wounded bird.

An ordinary shot gun is not powerful enough unless a specimen is met with at very close range.

Mike returned late in the evening with an example of Alcyone pusilla which he obtained at the edge of the Mangroves. Mike seems to have learned the secret of obtaining this species.

The Phillipino forwarded to us a nice large basket of fresh vegetables which will be most acceptable.

January 11 (Wednesday) Mavlo.

The two James boys with Paulus and Franus and the boats crew got away with their duffle about 10: A.M. They are to establish a camp in the Timoipe Mountains at from 2500 to 3000 feet and search for new and desirable specimens only. As all of the more common species are now well represented we will concentrate on the more difficult ones, from now on. I placed no limit on the length of their camp but plan to be out of here by the first of March.

Myself hunting for the day in the bayaus and swamps along the river and return with fair results. In the evening obtained a night hawk. These are quite frequently heard along the river at night but as yet we have not located their regular cruising areas.

January 12 (Thursday) Mavlo. Nini, the cook, and I hunting. We were favored with fair results including another example of Ixobrychus sinensis. Sent word to the Baining tribes on top that I would need 30 carriers to transport our effects to Balayang. Also requested the Lu lu ai up there to make us a house, before we come up.

After night hawks again in the evening but failed to collect.

January 13 (Friday) Mavlo. Along the river and back swamps all day. I put up small flocks of the tree duck, Dendrocygna several times and on one occasion shot one out of a tree and wounded it but the same dove under the water and remained there as the common Mallard duck so often does when wounded.

The heron, Dupetor, is quite common here along the river and can be met with most any morning and evening.

The Baining natives from the village of Andamgi came into camp with a quantity of fresh vegetables. They tell me there aren't sufficient men in their village to transport our cargo and insist that we will have to make use of the Balayang people.

Obtained another night hawk tonight near the saw mill.

January 14 (Saturday) Mavlo. Paulus arrived early in the morning with a note and an example of Columba pallidiceps. This is the first example of this rare pigeon that we have taken here.

Mike, in his note, tells me that he and John are camped in a small Government rest house at the village of Karlai. The natives there are very reluctant about carrying their effects into the mountains but both James have hopes of getting away within a few days.

Myself hunting in the swamps again today and obtained a number of good specimens including two examples of the little rail, Porzana, which has the habit here of walking down to the water's edge to peer at one as he drifts along the marshes in a canoe.

January 15 (Sunday) Mavlo. Hunting for a time in the morning and obtained an example of Porzana and a couple of Acrocephalus from the reeds and marshes along the river's edge.

John sent me a juvenile Cassowary which he shot yesterday. This one did not have the legs skinned out nor arsenic in the fleshy side. I am sorry to say that the feathers were slipping when it reached me and had to be discarded. This wasn't a serious loss as the same was only about half grown.

A pair of natives from Balayang came down to tell me that they were all actively engaged up there in making a new church for the Methodist Missionary and would not be able to transport my effects for a week or ten days. I am pleased that they are honest about it at least.

January 16 (Monday) Mavlo. Phanatype, who has been visiting with his friends around the harbor shore returned to camp. I had sent him back to Naess but the colored gentleman failed to report to his master. As long as he is here I shall retain him.

To the river area again and also the forest on the other side. Had a very favorable day and in the evening obtained another night hawk.

I can well understand why the lumber mill was placed here on the river when I see the wealth of good trees along the bottom land and in the swamps. The Australian eucalyptis is the most abundant tree in the bottom lands. Dense weeds and bushes do handicap travelling though.

January 17 (Tuesday) Mavlo. Out in a canoe alone and obtained two tree ducks, an Ixobrychus and another small rail Porzana. The hunting in the river area is excellent in the early morning but absolutely no good during the heat of the day. At such time one has either to return home or go into the dense forest.

Occasionally one sees a crocodile sunning himself on a mud bank or swimming in the water. There are several stories regarding the disappearance of natives in the region who are supposed to have been taken by these crafty creatures. After having seen the size of some of these individuals I can well believe the stories. Paulus claims that they sometimes bump the side of a canoe and attempt to tip it over when natives are inside.

Obtained two Caprimulgus in the evening in the spot near the saw mill.

January 18 (Wednesday) Mavlo. Hunting along the river again and knocked down a tree duck but that one dove under the water and remained there. I did find and obtain a number of good marsh birds which are helping to complete our series of desirable species. The smaller heron, Dupetor, shows such variation here that a large series is most welcome.

Hunting in the evening near the house and obtained another night hawk.

In the same patch of grassland we hear Arnaurorius calling every night but to date have obtained only the one specimen. The grass is a trifle too high for us to make a showing on this species. Our native force have cut irregular paths along which we hope to obtain stray individuals who leave the heavy grass to reconnoiter in the clearings.

January 19 (Thursday) Mavlo. Rained early in the morning though I did have time to procure a few specimens from the bush before being driven into camp again.

George Naess called and brought a number of fish which he had "shot" with dynamite. He remained through luncheon with us before returning to his station. Naess reports that the James' are still on the beach without prospect of carriers to convey their effects into the bush. Sent native "Franus" with a note to Kiep to pick up the Rabaul paper from the steamer "Mirani".

January 20 (Friday) Mavlo. Into the swamp and forest again today and obtained another Porzana among other specimens. While in the bush I surprised a Pitta which had hidden in the top of a low tree where it did not expect me to look for him.

Nini, the cook was permitted to go to his village where a pair of falcons has been reported. Unfortunately he returned rather late and empty handed. He did say that the Bainings would be down on Wednesday at the very latest to carry us into the mountains. This was good

news indeed, as we are now ready to get established in the mountains again.

January 21 (Saturday) Mavlo. Franus is playing horse somewhere along the line and Phanatype has been sent to fetch him.

Continued in the bush in the morning and observed a young Cassowary again but the same ran away as soon as he saw me. I regret that it is impossible for me to get thru the bush as quickly as one of these large birds, though I doubt very much whether I could make more noise than they do while about such activities.

In the evening another nighthawk put in his appearance near the saw mill and was obtained.

January 22 (Sunday) Mavlo. Franus returned from Kiep about 9 A.M. with the Rabaul paper and a little personal mail from the states. People back home seem to be suffering from the depression.

Franus also brought a note from John. Mike has been down with fever again and the two of them are camped at Karlai still, with no carriers available because of a big dance. John doesn't seem to know when they will get away for the mountains.

Mrs. Coultas and I walked over to George Naess' place in the afternoon and had a cup of tea with him and back to the saw mill again before dark. I obtained a kingfisher, Alcedo, a swift hirundo and a warbler, Acrocephalus during the walk.

January 23 (Monday) Mavlo. Hunting during the day in the swamp and forest land adjoining. Did not have much success because of the heat. The Andamgi Bainings came into camp again with several carrier loads of taro and sweet potatoes. These people have been very good about keeping us supplied with food.

January 24 (Tuesday) Mavlo. The advance party of Balayang carriers arrived in camp and announced that the remainder of the carriers will be down in a day or two. Their early arrivals have made a camp for themselves up the river a couple of miles and seem quite content to just sit and wait the arrival of the others.

Myself, hunting again today but returned with nothing of real interest; just a Megapode and a couple of Centrapus violaceus. The bush just now seems to be dead with no birds anywhere.

January 25 (Wednesday) Mavlo. Hunting early in the morning and obtained a few birds. I met the rest of the carriers on the trail and agreed to return to camp, pack and leave at once but the Bainings insisted upon a rest before returning to their village.

Returned to camp, packed all necessary effects into 30 carrier loads and then built a long high rack near the roof of the saw mill where the wet specimens can dry and at the same time be free of insect pests and MAULINGS from stray natives.

As a rule, one can leave birds and camp gear

most anywhere without its being molested. Tobacco and trade goods though, should be locked up when left in an abandoned camp.

January 26 (Thursday) To Balayang.

Got away about 8 A.M. with 30 carriers who rushed over the trail until almost noon. We had easy going all of the way with the land rising gradually. As usual we followed a meandering mountain stream and crossed that about 30 times. /

Afternoon the land began to rise abruptly which soon tired the carriers; those gave out on me after an hour or so and pitched camp for the night. Luckily we brought one shelter tent which kept us dry during the afternoon rain.

Along the river bottom over which we passed there was an overabundance of good thick virgin forest. One could not ask for a better hunting ground anywhere. Though without natives nearby a camp here would be awkward.

January 27 (Friday) To Balayang.

Had our boys on the trail by daylight and climbed ridges until shortly after noon whence we reached Balayang.

Here we found a tiny structure about the size of a chicken house awaiting us. There was naught to do but have the boys put up our tent and wait a couple of days until the natives built us a proper house. The old chief of the village has died so there is no one in command of the village. The new mission boy would like to take charge

but I prefer to have nothing to do with him.

Nevertheless, a semi-intelligent youngster, by name "Manus", agreed to undertake a contract and erect a good dwelling for us for 100 sticks of tobacco, with the understanding that the roof must not leak after being completed.

Sent out a call for native foods and received a few scraggly pieces of taro for which the natives asked a stick of tobacco each or three for a shilling. A small handful of bananas according to their standards, was worth a shilling. I attribute this attempt at robbery directly to the new mission boy who is fresh from Rabaul and consequently full of all sorts of ideas.

January 28 (Saturday) Balayang.

The inhabitants of the village, 100 at least, all sizes and both sexes, assembled early in the morning and began the house for us. They expect to have it completed by tomorrow night, weather permitting.

The mission boy with the sweetest sort of look on his face called and offered me food at twice Rabaul prices. I lost no time in sending him back to his house with his tail between his legs. To make my point more effective, I recited a few verses of Scripture for his benefit.

The house came along famously with assorted natives in the bush collecting and carrying logs, vines for rope fastenings, poles, stringers and rafters. Others remained in camp to build the structure.

The women kept busy carrying back-breaking loads of plants and grasses for the roof.

A few other boys were put to work clearing bush and cleaning a fair sized area around camp so that we will have plenty of light and air here.

Myself into the bush awhile and learned that we are camped on top of an extensive plateau.

Good thick virgin forest is all around us with some secondary bush and a few native gardens scattered indiscriminately at odd intervals throughout the bush.

Several flocks of Gymnophaps were both observed and heard flying near camp. This species makes a peculiar whistling sound with their wings when in flight and can easily be recognized. The discovery of these birds puts me at ease regarding altitude.

January 29 (Sunday) Balayang.

Despite the Sabbath Day, the whole village continued with the house. These people when they want to, can perform a creditable piece of work in a short time.

Had another discussion over native foods but got nowhere with it. Remained in camp continuously and assisted with the house.

January 30 (Monday) Balayang.

Sent Nini to the village of Tilinial, about 8 miles distance, to gather up a few carrier loads of native vegetables. We must break up this stubborn attempt at profiteering at once. A little competition from other villages will go a long way toward the demolition of the clique, I think.

If Tilinial refuses, I believe I can get the natives of Andamgi, 20 miles away, to contribute to our

commissary.

The natives finished the house by noon and moved all of our effects in after they had first sprinkled generous quantities of wood ashes on the floor and trampled them into the ground with their feet. They say that wood ashes keep ants and other insects out of the house. Ours is a nice structure about 30 feet long by 18 feet wide with verandas at the two long ends of the house. The south side is open to the sun and the north and west covered with leaves to keep out the north-west squalls and rain that will eventually come.

The natives were paid their tobacco with the understanding that they would repair the roof when it leaks. A few locals were retained to clean camp and erect a good cook house for us.

Phanatype and Franus showed up from down below with the announcement that the James brothers are back at the saw mill again. They can put in their time to good advantage hunting herons and rails along the river bottom and swamp lands.

Myself into the bush and procured a Gymnophaps, a Reinivard toenas and Gallicolumba jobiensis, among other birds. I believe we will be able to add to our series here. To the east of us, or in the direction of Tilinial one finds nothing but virgin country and the terrain is not badly broken with ridges and valleys either.

January 31 (Tuesday) Balayang.

Heard at least a half dozen Tytos calling during the night, yet was unable to attract any of them and get

. them to come near camp.

Hunting most of the day and obtained several Gymnophaps but these are so fat we can't work them. Later, near the gardens I did obtain a falcon from a tall tree. This one was sitting quite rigid against the trunk of the tree and paid little attention to my approach.

Nini returned from Tilinial with enough native foods to last us two weeks. I am in hopes that this action will "bring shame" to the inhabitants of this village. Nini too is breaking out with boils; an especially large one has grown out on his shoulder. We removed him from the house cook and put Fransus to work.

Phanatype was permitted to cut firewood until 10:30 tonight, under my watchful eye and the aid of our gasoline lantern. All of this because Phanatype has been a naughty boy and hasn't done his work properly.

To the village in the evening. It lies down the trail about 200 yards from our house. In all there are some 11 houses built right on the ground and as dirty as sin.

Most everyone has yaws and at least eight of the older people have part or all of their feet eaten away by this disease. Others have lost parts of their bodies, face, arms or hands. Strangely they all appear to be happy though they haven't walked a step for years, but have been obliged to crawl wherever they wanted to go.

.The gardens true to form are not placed near the village -- why, I don't know, unless it be a means or

manner of hiding one from the other.

There is no apparent attempt at sanitation among this clan. Even the pigs and chickens sleep with humans. Possibly people who exist in such squalor become nomadic to get away from the stench of communal life. There would be wisdom in such a move.

February 1 (Wednesday) Balayang.

Franus and Phanatype were put to work cleaning up the yard around camp and cutting firewood. As neither of these boys are on very good terms with the Baining natives I think best not to send them hunting together. Phanatype will shortly return to the saw mill and Franus can accompany me in the bush.

Nini the cook, has survived his siege of boils from eating too many Mangrove apples and was permitted to go to Tiliniel village in search of good specimens.

Myself, hunting all day in the true forest. There are not too many trails but the forests are clean enough to permit one to travel without too much time spent in cutting a path. Observed a number of *Ducula finschii*. These are reported as being relatively common here. Unfortunately, this species when shot and tumbled out of a tree loses a tremendous lot of feathers when the bird strikes the ground. I should say that a good two-thirds of those taken must be discarded because of loss of feathers.

Heard several *Tytos* again in the evening but could not obtain an example.

February 2 (Thursday) Balayang.

Nini the cook, returned from Tilinial with the chief of that village and a good supply of bananas, pan pan pineapples and several kinds of greens. With this one and a former contribution we are again at ease over native foods.

Put Franus and Nini to work on flying foxes. I should like a series of these now so that the skulls will have sufficient time to dry before we must transport them to the coast.

Myself hunting on the plateau all morning and part of the afternoon with moderately good results. Just now the mountain Gymnophaps are very common. One often encounters them traveling thru the forest in waves of several hundred or more. Part of the time these will be in the tops of trees and again encountered fluttering near the ground.

I did obtain another example of Henicophaps forsteri; this one too was found feeding on the ground, and flew but a few feet before lighting on the lower limb of a tree, the better to observe my intrusion.

February 3 (Friday) Balayang.

Phanatype was despatched to the saw mill to assist the two James brothers in their pursuit of specimens. I believe we can do much better here without his services.

Franus his countryman, will remain here to carry my hunting bag while I am in the bush. Both of these Mungen natives were heartbroken when they learned that they would be separated.

The Doctor boy of this village, "Brit" by name, returned from a prolonged expedition in the bush. I suspect him of having been in the country behind the volcano Father, where spasmodic fighting is still going on. Brit is apparently the leader of this clan. He lost no time in advising me that we were to have all of the native foods that we require.

Myself hunting to the south and west of camp where one encounters a considerable area of garden land and secondary bush. I obtained a fine example of the long-tailed cuckoo, Eudynamis scolopacea, among other things.

The Baining villagers kept us awake all night with a tremendous dance and festival. I am positive that they were cooking and eating human flesh during the night too.

February 4 (Saturday) Balayang.

Every blessed native around the place except Franus slept all day; hence no work done. Myself hunting with Franus but had only moderate results. There are all kinds of common varieties of species but precious few desirable ones available.

I am confident that the rail Habopteryx is here in the little valleys as I have heard him screaming at all hours of the night.

I was able to obtain a number of local names of birds during the evening.

February 5 (Sunday) Balayang.

Rained off and on all day which allowed all of us to remain in camp with easy consciences.

The Bainings continued all night with their dancing again and were, as a consequence, conspicuous by their absence during the day.

Mrs. Coultas reports that yesterday morning at about 10 o'clock, a large Tyto flew within a few yards of camp before retiring into the secondary bush again. She was unable to locate it after going into the house for her 410-gauge shot gun.

February 6 (Monday) Balayang.

Despatched four natives with foodstuffs to the James brothers at the saw mill. The latter appear to be having difficulty obtaining edibles from the locals down there.

Another crew went to work adding leaf to our roof. It had settled during the week and required more material.

When leaving camp this morning I beheld a wonderful view of the mountains to the westward so put Franus and natives to work clearing the area in that direction in order that we may have a good view of these mountains from our camp, both in the early morning and late evening.

With Brit today to the true forest to the north of camp where the former has assured me that falcons are obtainable at times. We found no falcons in the forest nor in the sparse clearings that one meets with in traveling along the more or less plateau country. Our bag included Ducula finschii, Gymnophaps, two Tanyciptera and the

common Accipiter novae hollandia.

The bush wren, Ortygocichla, appears to be moderately common here also as his rattling alarm note is often heard in the little valleys that have been cut by mountain streams. Try as we will we do not seem to be able to locate this species.

Brit also has agreed to send all available small boys out to set traps and snares for the rail Habopteryx.

February 7 (Tuesday) Balayang.

Sent Nini and two small boys to a cave to the west of the native gardens where the small swift Collocalia esculenta is reported to roost. These three returned late in the evening with only one juvenile specimen and the report that they could not catch or knock down the adults. The small cave, it appears, is nothing more than overhanging rocks along a small mountain stream bed.

Myself hunting with Brit but obtained only moderate results. One good specimen of Ducula finschii and a long-tailed Tanyciptera. As sometimes happens, one can travel all day thru the forest and scarcely hear or see a bird.

February 8 (Wednesday) Balayang.

The bush cleaners finished off their task consequently we now have an admirable view of the Timoipe and the Nakanai mountains as well as the three volcanoes: the Father, North Son, and South Son.

Considerable rain off and on all day again which hampered our activities in the bush. Brit and I spent all

morning in the vicinity of the gardens chasing a falcon but unfortunately could not come within shot gun range of him.

Began a collection of pigeons' stomachs which we will dry in the sun and later place in little cheese cloth bags for shipment to the Museum.

February 9 (Thursday) Balayang.

Sunshine with strong southeasterly squalls in the early morning. The latter drove away the sand flies which are especially bothersome during the heat of the day.

Franus, who was permitted to go hunting alone in quest of the bush wren, Ortygocichla, dragged himself into camp about 10:30 A.M. with a badly torn knee cap. He had been crawling over a wet log, over a ravine when he slipped and plunged about 40 feet to the bottom. I arrived home at noon, placed his leg in splints and later secured the same with generous wrappings of adhesive tape. Franus was then put into an improvised bunk and told to stay there. I learned that during the morning, the cripple had crawled well over a mile with his injured member before he reached camp.

Myself with Brit had moderately good success in the bush. The falcon which we have been chasing was obtained at the edge of the garden area. This makes the second specimen from this locality. The stomach contents were made up entirely of small bats. A number of other desirable birds were also procured.

February 10 (Friday) Balayang.

Franus is some better. He has devised a pair of crutches out of saplings and insists upon walking about camp. We are both astounded at the recuperative powers of these natives.

This was a red letter day for me. Early in the morning while hunting east of camp, I sighted a large female Tyto with her head sticking out of a hole, well up in a large tree. I shot the bird which tumbled back into the hole. This necessitated our setting to work chopping down the tree before the specimen was obtained.

In the afternoon while collecting in the garden area, I surprised an adult Cassowary and obtained that. This bird kept us busy most of the night, skinning and degreasing. Several natives assisted us by holding the skin while we scraped and worked. Once cleaned we washed the whole thing in gasolene, then inserted sticks and bamboos in the neck and body to hold the skin apart so that it might dry more quickly. One Cassowary is an 18 hour job for two people. Once cleaned we simply hung it under the roof to dry as expediently as possible.

Two Mission boys from the vicinity of Malabunga, reached here tonight in a very foot-sore condition. They informed us that they had spent $2\frac{1}{2}$ days on the trail. This is the same one that we wanted to take last year from our camp in the Central Baining valley.

February 11 (Saturday) Balayang.

Our first day of continuous sunshine since we have been in camp here. The south-east is still blowing

with considerable rain on the coast. We have none here but we can smell it even at this distance.

Finished the Cassowary early in the morning and slept a few hours. In the afternoon, hunting again but with meager results.

A new boy, "Manus", has been given a gun and sent in search of rails, bush wrens and desirable specimens.

February 12 (Sunday) Balayang.

Awakened this morning to learn that Fransus has disappeared during the night, undoubtedly in the direction of his home. He was thoroughly discouraged with his lot and insisted several times on leaving. I was afraid to let him lest he injure his torn knee cap.

Shot and obtained a beautiful grey hawk, which turned out to be a new species, as this one chased a Philemon across the cleared area near camp. The natives tell me that this species is rarely seen around here.

Manus returned from a short trip with an example of Ceyx lepidus. This little kingfisher is extremely difficult to find. To date we have been unable to locate their roosting holes in the soft clay banks of mountain streams.

February 13 (Monday) Balayang.

Spent the whole blessed morning trying to outwit a bush wren but without success. They hide so successfully one just cannot locate them. Native Mein du did obtain an example in the melé which resulted around the bush pile into which we chased them.

Manus returned in the afternoon with a splendid example of the sea eagle Haliaeetus leucogaster which he discovered sleeping in a tall tree. This particular bird had consumed an opossum which we took from its stomach in a more or less complete condition.

Nini was permitted to go to Tilinial again in search of falcons.

In the afternoon I obtained an example of Reinivard toenas brownii which I discovered in a rocky area in a deep ravine. Mr. John James had previously found the single egg of this specimen on a bare stone along a rocky ledge in a deep ravine which has given us an indication of the habitat of this species.

February 14 (Tuesday) Balayang.

Myself not hunting. Spent the morning finishing up the eagle and then found too much rain pouring down to make collecting worth while.

February 15 (Wednesday) Balayang.

Manus turned in another eagle which kept me engaged all morning. More rain again today though I did manage to get out and secure another cuckoo, Eudynamis.

Nini returned from Tilinial without specimens. He reports conditions too wet in the bush for collecting. The area where he hoped to find the rail, Habopteryx, is now flooded with water.

Quantities of fresh vegetables have been coming in. I must say that Brit is looking after our interests very well.

George Naess has returned from Rabaul and has forwarded mail on to us including two letters from Mayr under date of November 18, 1932 and December 8, 1932, which are recorded here:

November 18, 1932.

Dear Bill:

The two parcels of small birds have arrived today and we find the specimens in good condition. The way you tie your labels at present meets with our approval. However, the cotton was wrapped around some of the birds too tightly, thus cutting the feathers around the hind-neck, so please try to avoid this in the future.

I was delighted with the fine series of several of the rarer species as *Micropsitta*, *Collocalia*, *Ceyx*, *Rhipidura dahli*, *Pachycephala*, *Zosterops*, and particularly about the four specimens of the endemic genus *Ortygocichla*. The larger birds have not yet arrived but I see from your field book that you enlarged the series of such desirable birds as *Pitta*, *Accipiter*, *Ninox*, *Baza*, *Eudynamis* and *Henicophaps*. New to our collection seem to be the species of *Falco*, the yellow-legged Porzana, and the buff-breasted *Accipiter*. I will write you what they are as soon as your shipment arrives.

I am very glad you succeeded in getting some rails, as Dr. Sanford is keen about them and always asks

first, "How many rails did he get?". The most important rail from New Britain is *Rallus insignis*. Looking over the list of specimens sent in by you I notice that you have still missed some of the known species from New Britain, such as Nos. 1, 34, 71, 86, 113, 123, 124, 145, 173, 175, 177, 187, and 216 of the list of New Britain birds I sent you.

The Baining Mountains do not belong to the central range, and I am afraid your collection of New Britain birds will remain incomplete if you don't succeed in penetrating to the high mountains in the interior of the island. It is also possible that certain species of birds are only found on the south shore of New Britain. It might be advisable, therefore, to go to southern New Britain and penetrate from there into the interior. A longer stay on the Gazella peninsula would result in too much reduplication of your series. In New Ireland you can cut out the lowland altogether, except perhaps for a short stay upon Kavieng and Nusa Island. Lowland birds from that island are well represented in the Rothschild Collection, but the series of mountain birds are rather small, and even new discoveries are possible. After the completion of New Britain and New Ireland, an extended stay in the Admiralty Group would be your most important task. If time and money allow, we would like you to undertake the outlying islands as the last point in the Bismarck Archipelago program.

We have had no letter from you in the last two months, but I suppose that there is one on the way. In my last letter of October 20, I have asked you a good many questions and have sent you a few suggestions about improving your collection. I would like you to comment on these points in your next letter to me. We also would like to know if you are in good health and if you have to make any suggestions about possible changes in the work of the expedition.

There is very little to tell you from here. Everybody is busy getting things ready for moving into the new building, which will take place some time during the next year. I am busy completing my list of New Guinea birds which I hope to have ready for publication within four or five months. Hamlin is still at Yale, and I expect to see him tomorrow when I go up to New Haven for the Yale-Harvard game.

Hoping to have word from you soon, and with best wishes, I am,

Yours sincerely,

(signed) Ernst.

Mr. William F. Coultas,
Whitney South Sea Expedition,
Rabaul, Territory of New Guinea.

December 8, 1932.

Dear Bill:

The third shipment of New Britain birds arrived on Saturday and pleased us tremendously. The skins were in excellent condition, and the shipment contained many rarities. I was particularly delighted with the three specimens of the buff-breasted Accipiter, with the two hobbies, and with the two Alcyone, and fine series of Pittas. Your skins are excellent and everybody in the department came to admire them.

I have gone over some of your previous shipments, for example your Palau birds. You don't need to worry much about the shearwaters. I reexamined them and found them in very good shape. They are not a bit greasy. The only birds that appear to be greasy are some doves and pigeons.

I have prepared for you a complete list of the birds known from New Britain with indications of the number of specimens so far collected. You can readily see that we do not need any more specimens in some of the more common species. In the rarer birds a series of up to 40 specimens is all we want. The Museum might run into trouble if anybody sees the series of 71 Ninox collected by you.

Looking over this list you will find some

species that have not yet been collected by you. They may be divided into four groups -- first, high mountain birds. To this group belongs the mountain thrush as the only high mountain bird so far known from New Britain. I hope, however, that an investigation of the mountains of central New Britain, will yield more. I realize that the mountains on New Britain are not as high as those found on New Ireland and on some islands in the Solomon group. However, 1800 meters is sufficient altitude to give these mountains a certain alpine character. You should be able to find a species of *Phylloscopus*, the mountain pygmy parrot, *Gymnophaps*, *Erythrura*, and possibly more unknown species.

It is impossible to say before hand whether or not there is a distinct mountain fauna on New Britain. However, an investigation of these mountains is of great zoogeographical importance, even if the number of real mountain birds should be very small.

Looking over the map of New Britain I find that the highest mountains are 'Father' and another neighboring mountain. However, if I remember well, both these mountains are volcanoes, and the same is true for the mountains on the Talasea peninsula. It is doubtful if these volcanoes have the complete mountain fauna. According to my map there are two higher mountain ranges in central New Britain, one called the Nakanai Mts., south of Commodore Bay, and another one called the Whiteman range about south

of Talasea. Both ranges seem to be slightly closer to the north shore, but I was told that they are more accessible from the south coast. Whiteman range is supposedly in the territory of rather hostile natives, but I was told that the Nakanai Mts. are in a region of friendly natives. You will be better able to decide where to go after having consulted with the local experts.

Second group -- Grassland birds are also still rather poorly represented in your collection. I am particularly anxious to get a series of the quail and of the Hemipode (Turnix). You also have not yet collected any Magalurus, and only one specimen of Sexicola. Grassland birds are very difficult to obtain, particularly the quails and hemipodes, and we will fully appreciate your efforts to enlarge our series in those species.

Third -- The same is true for birds living in swamps. I have mentioned in a previous letter that Dr. Sanford is very keen about rails, and it seems to be important to spend some time in a swampy region to increase your series of rails and other fresh water birds. There is a very interesting reed warbler on New Britain (*Acrocephalus*). This bird is very difficult to obtain. I succeeded in getting a series of 6 specimens during a short visit on New Britain by employing the following method: I sent two or three boys through the reeds chasing the bird in my direction while I was waiting quietly on the other edge of the swamp.

Fourth:-- Birds of the sea shore. This group has been well collected by Eichhorn and you don't need to bother about this group of birds.

What are your observations about the New Britain bee-eater? There is an endemic species of bee-eaters found on New Britain which has not been obtained by Eichhorn, and of which we would like to have a series. So far you have only sent specimens of the Australian bee-eater. The New Britain bee-eater is characterized by a golden brown on the undersurface. You have sent a fine series of the glossy swiftlet, but you have not yet come across the two species of dull-colored swiftlets which are also found on New Britain.

I would like to call again to your attention that Father Meyer on Uatom is an excellent ornithologist with a nice private collection, and I am sure that he can give you a great deal of useful information. His island can be reached without much difficulty from the mission station on the mainland opposite Uatom.

The highest mountains on New Ireland are close to the southern end of that island. Eichhorn has made a good collection of lowland birds on New Ireland. He has also collected a few mountain birds, but it is quite possible that you will make some more discoveries on these mountains. The bird fauna in south New Ireland seems

to be slightly different from that on the northern end of the island. There are several species known to occur only in the Kavieng region, as for example, *Lonchura hunsteini*, *Myzomela nigrita ramsayi*, and *Halcyon chloris nusae*. I think it would be worth while to spend a few weeks in the Kavieng region to collect the northern end of New Ireland and the small islands of the strait between New Ireland and New Hanover. I have prepared for you a complete list of all the species of land and fresh water birds known from New Ireland, and by comparing this list with the list of the New Britain birds you can see which species are identical on both islands and which are different.

I am sending you with the same mail a series of notes on birds of the Bismarck group which I prepared last summer. It comprises most of the larger birds up to the cuckoos. Pressure of time prevents me from completing this card catalogue, and I am sending it to you now as it is. I hope that it will be of some use to you. I am tremendously interested in the work you are doing, and I appreciate any information on your activities. I will write you again as soon as I hear from you.

With all best wishes and hoping you are in good health, I am,

Sincerely yours,

Mr. William F. Coultas,
Whitney South Sea Expedition,
Reboul, Territory of New Guinea.

(signed) Ernst Mayr.

February 16 (Thursday) Balayang.

Despatched a number of carriers who will take native foods to the James brothers at the saw mill and will return with flour and other commestibles which Naess has brought with him from Rabaul.

Myself hunting to the east of camp in the good heavy forest where I obtained a number of good specimens.

In the evening while searching for rails in the secondary bush just south of camp, I put up a night hawk (Caprimulgus) and obtained the same. This is indeed an unusual find at this altitude as we have never heard the bird calling at night in this vicinity. Probably this species hides here in the mountains during the day and flies down to the sea coast at night.

February 17 (Friday) Balayang.

With Mrs. Coultas down the trail to the east of camp. Unfortunately the bush was dead and dry which made collecting all the more difficult. We did obtain a pair of Accipiter novaehollandia, a Tanysiptera, and one Graucalus sublineata. The latter are always found in high trees and are most difficult to obtain.

February 18 (Saturday) Balayang.

Native Nini who has promised to make a one year paper or contract with us has informed me that the German missionary down on the coast wants him to join the mission school and become a native catacist. Apparently we are to get no boys from this district.

Native Manus brings in an example of the river kingfisher, Alcyon websteri. I had hardly expected to find this species at this altitude.

Myself hunting with 'Brit', and with a fair degree of success including a beautiful example of Myristicivora.

February 19 (Sunday) Balayang.

No collecting today. Remained in camp and checked over dried specimens. Those which were conditioned were placed in tin trunks ready to be transported back to the coast.

February 20 (Monday) Balayang.

Nini, the cook, has come down with a bad dose of pneumonia. Mrs. Coultas is doctoring him with hot milk (Libby's evaporated) and rubbing his chest with Vick's vapo rub. In all probability the boy will pull thru.

Myself hunting with 'Brit' to the forest to the north again. We have adopted a policy of working in circles. The day was fairly successful with Gymnophaps, Henicophaps and several examples of Myzomela erythromelas.

The natives, from time to time, have caught small birds with the sap of the bread fruit tree which they smear along the limbs of small flowering trees. Those specimens obtained have always been in such a mutilated condition that I could not save them. Hence I have discouraged the activities of the boys.

February 21 (Tuesday) Balayang.

Have engaged the services of one "Charley" who will do the cooking and look after Nini.

Brit and I out before daylight in quest of Cassowaries. We have located a tall fruit bearing tree where these birds come to eat. None made their appearance this morning. Later in the day I did obtain another example of the new Accipiter (princeps). This one was found roosting well up in a tall tree and was not the least alarmed by our presence near him.

Manus brought in another example of Alycyon websteri which he found along a mountain stream to the north of us.

During the afternoon Manus and I visited the same mountain stream and obtained a pair of Reinivord toena browni. These, as usual, were feeding on small purple berries of a low tree near a mountain stream.

Heard several Tytos again this evening but I couldn't induce any of them to come within shot gun range.

February 22 (Wednesday) Balayang.

A new boy, Sandow, comes to work for us. We informed this young gentleman that his services are not required but he remains. Probably, after a few days, as is usually the case he will drift away from camp.

Nini is no better. Brit informs us that he will not eat.

Myself hunting with Manus all day along the small

rivers. We obtained one example of Alcyone websteri which is the species we were hunting for.

One native brings in an example of a very elongated banded black rat which I have never seen before.

February 23 (Thursday) Balayang.

Brit and I visited the ravine to the west of camp in quest of small swifts. We are not successful. The so-called cave is only a few overhanging ledges under which the swifts roost at night. During the day they remain high in the air and are obtainable with a 410 gauge gun and chest shot. We will have to wait until we get back to the coast before collecting these swifts.

Manus returned with another example of Alcyone websteri. I am going to let him remain with those until he procures a good series.

Mrs. Coultas dragged poor Nini out of the boys' house in the village and brought him to our house cook. I actually think the dirty devils in the village wanted Nini to die, so they could have a big festival and eat him. If we can save the boy's life I am afraid we will not be very popular with the village.

February 24 (Friday) Balayang.

A young man showed up this morning with a juvenile example of Accipiter luteoschistaceus which he had chanced upon while it was feeding on small prawns in the river. The native wounded the bird with an ax and increased our

collection thereby

Myself alone in the ravine and secondary bush in search of Habopteryx and the bush wren, Ortygocichla. These ravines are none of them more than 20 to 30 feet below the level of the surrounding terrain but they do harbor possibilities of desirable species.

The abundance of leeches in this area must be mentioned here. We had encountered a few in the foot hills of the Baining Mountains during our first camp on New Britain; again in the Nakanai Mountains. They were met with periodically above 3000 elevation. But on this plateau of 2500 feet above sea level they became the curse of our life in the field.

These little pests which do not measure more than a quarter to a half inch in length are met with every where in the bush. They are located on the ground on stones and logs and on low bushes and vines.

Either in dry weather or wet, in dry places and in damp areas alike, they are encountered in profusion. After a quarter of an hour on the trail or in the bush, one can pick off as many as 50 or more from one shoe and puttee.

The inconvenience of removing these parasites is a continuous one from the time one enters the bush until he leaves. Left alone, these little blood suckers will burrow between the folds of one's puttees or thru the eyelets of one's shoes.

Once these have reached a person's flesh and

have begun suction a nasty sore spot is bound to follow. Especially in this part of the world do all scratches, chafed places and abrasions about the feet and legs turn septic and enlarge rapidly.

A drop of turpentine, a burning match or lighted cigarette will enable one to rid himself of his unwelcome guest quite readily.

The application of generous quantities of Ichthyol ointment over the open wound and that held on the sore with a good strong bandage, will do more to eliminate the spread of infection than any other medicant we tried.

Usually from three weeks to a month's time is required to heal a wound inflicted by one of these leeches.

My only results for the day were one good example of Ducula finschii.

Both rails and bush wrens are tremendous time-wasters but I can think of no other way of obtaining specimens than searching long and diligently. Since coming to Balayang both the natives and myself have built numbers of small leaf blinds where we can hide and watch for ground species. The actual time consumed while waiting in one of these structures is tremendous and is so discouraging in results that I can hardly afford to do it.

February 25 (Saturday) Balayang.

Myself up several times during the night, attempting

to obtain an example of Tyto aurantia. There are three or four individuals of this species which visit the clearing around our camp every night in search of rats. One hears their call at all hours of the night. These birds are though sharp enough to take to flight before one can walk or sneak to within gun range.

John James arrived in camp at 5:30 P.M. after a long hard day on the trail. He reported that Mike had worn out his shoes and couldn't accompany his brother.

The flour which we ordered didn't arrive; only the bill for the same reached us.

John reports the hunting very mediocre down on the coast. Rain has kept them indoors much of the time. John did locate the roosting tree of Falco melanogenys but the birds were too high in the air for him to pull down.

February 26 (Sunday) Balayang.

John and I were up, off and on all night chasing examples of the large owl, Tyto, but without success. These birds were entirely too wary for us.

Native Nini has worked up a real good sweat for the first time which practically assures us that he will survive.

Intermittent rains all day. We have been fortunate so far in having our hardest rains on Sundays. Even with these we were able to spend quite a bit of time in the bush looking for rails.

February 27 (Monday) Balayang.

Native Charley deserted the cook house long enough to beg a gun and run away into the bush to procure

an adult specimen of the large sea eagle, Haliaeetus leucogaster. Charley had seen the bird light in a tree and knew exactly where to go for it. I would probably have spent an hour finding the tree after I had reached the general locality of the bird.

John spent the day with us hunting the ravines and tiny valleys, thickets and swampy areas for rails but without results of any consequence.

February 28 (Tuesday) Balayang.

John had planned to leave today but the rains and north-west weather prohibited him from getting away. I have a suspicion that we are about due for a siege of north-west weather as we have had almost two months of fairly decent conditions here.

Manus returned with another example of Alcyone websteri but nothing else. I spent hours grumbling at the boys about snares for rails. They grew quite provoked and insisted that they had had traps out for over a month.

At odd intervals all of us got into the bush but never far from camp.

March 1 (Wednesday) Balayang.

Considerable wind with spasmodic squalls of rain. John goes out for the day and returns with chills. He is put to bed and given numerous cups of hot bouillon which soon straighten him out. John did find a Reinivard toenas which can be saved as a specimen.

The natives have practically all disappeared.

where they have gone is a mystery. Charley and Nini are the only ones in camp. Manus turned in his gun last night after filling the cook house with commestibles.

Myself out in the afternoon and became lost in the secondary bush. This was because of a fog which settled down and prevented me from seeing where I was going. I did find my way home just at dark by listening for voices of natives and howling of dogs.

March 2 (Thursday) Balayang.

An unusually good day of sunshine. John spent the whole of his time in the bush for rails and returned a very discouraged man. God knows we have put in enough time if we could only locate the material. John too, visited the swampy area in the direction of Tilinial where rails are reported periodically.

I had the good fortune to return with a Henicopernis which I found resting in a low tree. This individual had become entangled in a large spider web which made a mess of his feathers.

Charley went out for a short time and returned with a number of specimens including an example of Eurystomas orientalis. This species is rarely observed here. Charley reports finding a feeding tree of Casuarium and has built himself a leaf house at the base of this tree where he can sit and wait for the bird.

March 3 (Friday) Balayang.

This was a most eventful day all around. Charley visited his leaf house just before daylight --

while waiting there he shot an eagle which settled in a tree near by. Later, a Cassowary came along and Charley fired at the bird. The latter, angered by such treatment charged the native. Charley using his shotgun for a club, struck the bird, bent his gun into a "U" shape and ended up by choking the Cassowary to death.

By the time we saw him I believe he had more dirt and blood on his body than the bird had on his. We patched ~~up~~ Charley's wounds with Ichthyol ointment, and adhesive tape and sent him to his bed for the day.

Nini, fired with jealousy over this good fortune of Charley's, crawled off his death bed and disappeared into the bush to return with an example of Habopteryx. The first specimen of this species we have located here.

The Cassowary, eagle and rail kept us busy all day and most of the night. We found that the generous application of wood ashes, saturated with gasolene, acted as the best possible ingredient for removing the grease and fatty tissue from the skin of such a large bird as this Cassowary.

Like vultures, the village natives returned from the bush to help us rough out the Cassowary, knowing that they might have the body to use for a feast and dance later. Any performance like this one of Charley warrants a sing-sing and festival.

John spent most of the day in the swampy area near Tilinial and returned with a few specimens including Gallicolumba jobiensis.

March 4 (Saturday) Balayang.

John left for the saw mill at daylight. Rain began shortly after his departure so I presume he had a very uncomfortable trip down. Myself in camp all day finishing off the eagle and Cassowary

Manus and 'Brit' hunting together, returned with some good specimens including the large black Accipiter meyeriannus. This is a species I have been trying to obtain ever since I first came to the island. The natives of the Baining valley informed us of this bird and reported it from their area. Also the natives of the Nakanai Mountains told us of the occurrence of meyeriannus in their mountains also.

March 5 -- 16 inclusive. Balayang.

During this period we were besieged with rain and strong north-west winds. It was necessary for us to erect shelves and swinging platforms, surround these with blankets and keep fires burning underneath the birds night and day; otherwise the wet specimens would have rotted in such damp weather. The freshly skinned Cassowary was our hardest problem until we directed the heat of the fire thru a funnel into the inside of the drying skin.

One Habopteryx was trapped and brought in during the rainy spell.

The natives were most accommodating in erecting wind-breaks, piling more leaves, logs and stones on the roof of our house to keep the driving rain out of camp.

March 17 (Friday) Balayang.

The weather broke sufficiently for us to get everything we owned into the sun which dried all equipment favorably and rapidly.

The birds have come thru very well and with the exception of a few places on the neck and head of the Cassowary, no epidermis was found to have slipped on any specimens.

Our clothing, bedding etc., were covered with mildew and damp, but that was soon eradicated by the sun.

I concluded to break camp at once and get back to the Mavlo river and into Rabaul. We have now spent more time in this area than I had planned though we are still a long way from having as complete a representation of species as I should have liked.

Sent 'Brit' and 'Nini', 'Manus' and 'Charley' in all directions to round up boys to hump our cargo down to the saw mill on Monday. We will have things dry by that time, I hope.

March 18 (Saturday) Balayang.

Put all of the specimens in the sun again and went hunting for the day. A Henicophaps and an Alcyone websteri were obtained in the forest to the eastward but no sign of Habopteryx. No natives were sent collecting.

March 19 (Sunday) Balayang.

After weeks of tantalizing efforts, I at last obtained a beautiful male example of Tyto aurantia from the dead tree just east of the house. This specimen was taken at about three o'clock in the morning.

Spent the whole day packing up effects for the journey down to the coast. All of our containers are full of dried skins. The other effects we must make into bundles as best we can.

March 20 (Monday) Balayang.

Twenty-three boys showed up this morning to transport our effects to the saw mill. This is not enough for all of our gear, so put 'Nini' in charge of the crew and sent them on. I will go to Tilinial and round up more carriers and follow with the rest of the duffle tomorrow.

Visited Tilinial and obtained seven more boys. These were very reluctant about carrying as they are making plans for a big dance at that village. An old woman had died there.

March 21 (Tuesday) To Mavlo.

Had a terrible time getting enough boys to carry the rest of our effects. The Tilinial crowd ran away during the night. These had to be replaced by Balayang youngsters. I have 'Brit' to thank for all of this trouble as he is determined not to carry for us.

After threatening to burn the village and wage war on the whole place we did get away at 11 A.M. Just as we were leaving an old man showed up with another example of Habopteryx which he had caught in a snare. We carried that and skinned it out in the evening.

March 22 (Wednesday) To Mavlo.

Our camp during the night was a most disagreeable one. Rain continued thru all these hours and wet everything exposed. Without a tent we were forced to rely upon a make-shift and that leaked like a sieve.

Nevertheless we broke camp at daylight and continued on to reach the saw mill about 3 P.M.

All of our effects were found to have survived the journey in good order. The carriers, with the exception of Manus and Charley, were paid off and permitted to return to their villages. The two mentioned will remain in camp and help us for a few days.

During our absence in the mountains, John and Mike have done almost no work. They complained of the weather, food etc., and the lack of carriers for their mountain trip.

I concluded, after looking over the collections to get one or both of the James' into the Bainings at Andamgi, while I will make my way into the Timoipe Mountains, before proceeding to Rabaul. We are here on the ground so might just as well finish our work while we are at it.

March 23 (Thursday) Mavlo.

No collecting. Spasmodic rains in the morning so all of us pitched in and packed specimens for their final journey to Rabaul. There were all sorts of odds and ends to attend to.

Manus was despatched to the village of Andamgi on a range of mountains to the east of Balayang to round

up carriers to take John James into the mountains there. I am determined to have a good series of Habopteryx before we leave New Britain.

March 24 (Friday) Mavlo.

Mike and I collecting. John in camp getting together his effects for the trip into the mountains.

George Naess called and informed us that Harold Koch and the Ma am are due shortly. This will give me an opportunity to send Mike into Rabaul for supplies. Mike is without shoes and must spend all of his time in a canoe on the river.

March 25 (Saturday) Mavlo.

John leaves with three carriers for Andamgi in the Bainings to the east of us. He is to spend all of his time looking for rails, falcons and new hawks, and to remain until we send for him.

Paulus, the culprit, has been released from all obligations and returned to his home.

Nini has been paid off and sent to the Good Father who will make a Christian of him.

Mike and I collecting again. I was fortunate enough to obtain another falcon from the village of Casalia.

March 26 (Sunday) Mavlo.

Customary Sunday rain again. I got caught in it on my way to Tol Plantation to visit Naess and again on my way back. Naess has agreed to accompany me into

the Timoipe Mountains, whether or not we can obtain carriers.

March 27 (Monday) Mavlo.

Mike and I together with native Manus, spent the day in the bush. Jointly, we obtained 4 examples of Alcyone websteri which is unusual for one day's collecting. Mike obtained another Dupetor and a couple of Alcedo atthis as well.

Fresh from the mountains we are having a terrible time adjusting ourselves to the heat and humidity on the coast.

March 28 (Tuesday) Mavlo.

A rather successful day all around. Mike had a good morning on the river and returned with a tree duck, sandpiper and a rail, while I worked in the lowland forest and swamp to the north of camp, and obtained several good specimens including an Alcyone websteri.

The native force we engaged all day with firewood.

March 29 (Wednesday) Mavlo.

Mike had a very successful day along the river, probably because the sky was cloudy which did away with the intense heat over the water. Mike's best find was another example of Alcyone pusilla. Charley turned in three Alcyone websteri which is the best individual record yet. If we hang on here long enough we can't help but obtain a good series of desired material.

Myself to Tol Plantation to interview the District Patrol Officer, Mr. Gregory, who is now in the area, tax

collecting. I attempted to get both Charley and Manus to make a contract with me but neither one will consent. I am very much afraid we are not going to obtain any boys in this locality.

March 30 (Thursday) Mavlo.

Mike turned in another good collection of birds including two Dupetor, a Porzana and an Amaurornis.

Manus returned with a falcon and a Habopteryx. Charley acquired two Accipiter novae hollandia, and I, another Henicopernis. This made us a very fine day's work. I only wish we could do as well every day in the week.

March 31 (Friday) Mavlo.

The natives of Balayang, came down en masse with all sorts of edibles. I presume that they have used up all of their tobacco and are feeling need of more.

Our general collecting for the day was very poor again, only a couple of Dupetors and the beach kingfisher, Alcedo atthis. I insisted upon accompanying Manus to the area where he had located Habopteryx yesterday. Though we tramped thru the swamp most of the day we did not observe any sign of the bird.

A note has reached us from John; he is having unusual success with Habopteryx up there at Andangi.

April 1 (Saturday) Mavlo.

A young man from Real brought us an opossum and several flying squirrels. This is the first time that any one from that village has attempted to help with the survey.

Mike and I collecting as usual. Mike worked the river area and returned with two rails, a Porzana and an Amaurornis. Myself into the area to the north of the saw mill and obtained a falcon among other specimens. The bush is becoming dry again which does not assist us in any way.

The two natives, Manus and Charley, were gone all day, presumably in search of rails but I believe they found sleep more interesting.

Phanatype showed up with a long string of fish which Naess had secured with dynamite.

April 2 (Sunday) Mavlo.

Natives, Charley and Manus, incensed over their sound scolding of yesterday, flooded us with good birds. They were both up and collecting before daylight and returned at noon with a falcon, an Ortygocichla, and an Amaurornis among other birds.

Unfortunately for us, natives undergo these spurts about once a month only.

Native Paulus who accepted a knife from us without acknowledging the same, has been brought back to camp to work off 4 shillings in fine against the knife. Otherwise I shall have to ask the police to deal with him.

We realize of course, that the police would do nothing in a case like Paulus', but as long as he thinks otherwise we will have his services, in lieu of a very cheap piece of German cutlery.

April 3 (Monday) Mavlo.

Mike, while hunting this morning, discovered a migrant flock of Dendrocygna arcutata and obtained 5 specimens before the remainder flew away. Mike had the misfortune to fall in the mud during the collecting sojourn and was forced to spend the rest of the day cleaning himself and his shot gun.

George Naess called during the morning and helped us enjoy a very nice roast duck dinner, made from the bodies of Mike's 5 anseres.

The natives brought in a number of good specimens including two Porzana and an example of Alcyone pusilla which they discovered in the swamps west of camp.

April 4 (Tuesday) Mavlo.

The M/V. Manam arrived in Wide Bay en route to Rabaul. She is loaded down with Copra and can not take our cargo of dried specimens.

Captain Koch announced that he would return this way within a few days and would at that time be able to bring us sufficient provinder for the remainder of our time here. He would also be able to take Mrs. Coultas and our dried specimens into Rabaul.

Mike will accompany the Manam to Rabaul, order

a number of foodstuffs for us and will center his efforts on collecting in the vicinity of Rabaul until such time as we arrive. There are two or three species from around that area which we have not obtained, as yet.

My two natives put in a full day in the bush and turned in some good material. In the evening I was fortunate to obtain another nighthawk, Caprimulgus.

April 5 (Wednesday) Mavlo.

Manus had the good fortune to chase a large Wallaby into the river and drown it. He insists that he shot the animal but we could locate no pellets of the cartridge when we came to skin it, later on.

I spent the early morning on the river until the heat became so oppressive that it drove me in. At that, I was able to obtain a few specimens including another Porzana. In the evening another nighthawk visited camp and was procured.

April 6 (Thursday) Mavlo.

Spent another day in a canoe well up the Mavlo river. This river shoals rapidly about two miles above camp and becomes a small tumbling rocky mountain stream, as soon as it reaches the foothills at this point.

In the lower reaches of this body of water one finds an abundance of low marshy land which harbors rails, herons, swallows (Hirundo), warblers (Acrocephalus), ducks etc.

The very nature of the vegetation which is coarse

heavy marsh grass, makes walking most difficult until one penetrates it and reaches the heavy forest to the rear.

There is undoubtedly, an unlimited quantity of desirable ornithological material: rails, etc., which hide in the marshy area out of sight of the hunter. One can only keep searching in hope that he will first locate the birds and later learn the habits of various species which are being sought.

A hunter can always expect to obtain one Dupetor during a morning's tour and, possibly a Porzana. The other desirable species, such as the two Alcyones, Habopteryx, and Dendrocygna with others, can only be hoped for and taken if fortune favors the collector.

Time, as always is the great factor and is often lost sight of in the/quest for desirable material.

The native hunters here and elsewhere are most spasmodic in their collecting. One day they will turn in a very fine bag of birds and then loaf in the bush for a week before duplicating their performance.

White men, including the writer, over a period of time do not vary greatly from the native in the matter of results. The white man works harder than the native because he is not such a good bush man and because he is not familiar with the country nor the behaviorism of individual species.

Where the white man gains over the native is in the former's ability to shoot birds on the wing;

the latter bests the white man in his uncanny knack of being able to decoy species, or sneak up on them without his being observed.

There are many arguments pro and con on the relative merits of the native hunter. I contend that in the end, the native will turn out to be an asset always. He should be taken at face value and driven for all he is worth while it lasts.

April 7 (Friday) Mavlo.

The motor vessel, "Drina", with Mr. Thurston called at the saw mill to have a look at the same in hope they can dismantle the machinery and take it to Jacquinot Bay for further use there.

Mail reached us from the states, including letters from Dr. Murphy and Dr. Mayr, which are included as follows:

November 22, 1932.

Dear Coultas:

Since my departure for England, Dr. Mayr has taken over the task of keeping specifically in touch with you. This has the full approval of the Whitney Expedition Committee, and you should regard his advice and instructions as authoritative. Under date of November 18, for example, he has written you about the importance of getting in to the central mountain range of New Britain and New Ireland, from which regions we expect to get most of what will prove to be new to our collections, particularly since we have now acquired all the Tring birds.

It is by no means my intention to relinquish the pleasure of keeping in touch with you directly as heretofore. Your reports to me will always be of the utmost interest, and I am continuing as the executive member of the Whitney Expedition Committee, to present all of your data to the Committee, and to acquaint you with the actions taken. Dr. Mayr, however, is far more familiar with the ornithology of the region than any of the rest of us, and we shall leave the selection of regions to be worked almost entirely to his judgment.

A note from Dr. Shapiro, in charge of physical anthropology in the Museum, calls attention to the desirability of obtaining human crania from New Britain

and New Ireland. If there is opportunity for obtaining without interfering with your regular work, I hope you will take advantage of it. It is not necessary of course for me to remind you of the importance of respecting the burial places of the natives. Under certain circumstances, however, you might be able to get hold of some skulls through some sort of exchange with the people themselves.

With best wishes from all of us here, I am,

Yours sincerely,

(signed) Robert Cushman Murphy.

William F. Coultas, Esq.,
Whitney South Sea Expedition,
Rabaul, Territory of New Guinea.

December 13, 1932.

Dear Bill:

We received yesterday your most welcome cable about the shipment of one case and one parcel of birds. Your remark "several new species" makes me suspect that you succeeded in penetrating into the interior and reaching the central range. We are very curious to see what species you obtained. Lord Rothschild always thought that there might be some unknown birds of paradise in the mountains of New Britain. I am not so optimistic, but I also believe that these mountains may yield something unexpected. Well, we will see.

I would like to call your attention to the necessity of collecting some swallows on New Britain. I just found out yesterday that it is not yet certain whether *frontalis* (with white on the tail) or *subfusca* (without white on the tail) occurs in that island. I don't need to tell you that you have to use some discretion when collecting swallows. You possibly will remember what Mr. Kuper thought of Beck when he tried to collect some swallows on Santa Anna. It seems fairly certain that *subfusca* is the form that occurs on New Ireland.

I am just preparing a short but complete report on the Whitney Expedition since its beginning. On this occasion I found that it is rather difficult to trace

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your movements since you have not sent in any diary or itinerary as the other members of the expedition have. I would appreciate it if you add to your letters in future a short itinerary stating the collecting localities and the time spent at Rabaul, at sea, or travelling. This will facilitate considerably, the writing up of our reports.

I would like to get your itinerary since leaving the Palau Islands, and I enclose for correction the itinerary of your trip through Micronesia. I hope you are still keeping a diary in which you record your daily experiences and observations. It is the wish of the Whitney Committee that every member of the Expedition keeps such a diary, and it may be very useful to you for itinerary purposes. I am enclosing a copy of two days of Dr. Drowne's diary, which may give you some idea how other members of the expedition kept their diaries.

How are the possibilities of reaching Long Island? It seems to be rather important to get a collection from that island which is half way between Rook Island and Dampier Island. Rook Island has a typical New Britain fauna and Dampier Island a typical New Guinea fauna. If you should be able to make a collection on Long Island without losing too much time, it would be advisable to use that opportunity. However, you may delay this trip until you have completed the survey of the Admiralty Islands, which

seems to be the most important point in your present program.

I have sent you letters on the following dates: October 20, November 18, and December 8. I would like to know if you have received them all.

With all best wishes for a Merry Christmas and a successful New Year, I am,

Yours sincerely,

(signed) Ernst Mayr.

Mr. William F. Coultas,
Whitney South Sea Expedition,
Rabaul, New Guinea.

April 8 (Saturday) Mavlo.

With native Manus in a canoe up the Mavlo river again and obtained the usual type of material; i.e. Dupetor, Amaurornis, Acrocephalus and Alcedo atthis. Charley visited the river valleys toward the mountains supposedly in quest of Habopteryx, but obtained nothing of value.

Mrs. Coultas and I to Tol Plantation in the evening for a short visit. Naess has started a new house on the sand beach and has engaged the services of one Richard Blunt Barnes, a carpenter, to do the work for him. Barnes has a manis for split pea soup which he makes in vast quantities and poisons with a large tablespoonful of soda for each pot. I made the fatal mistake of eating a plate of this concoction and became violently ill from the effects of the soda. My incapacitation was considered a great joke by the inhabitants of Tol.

April 9 (Sunday) Mavlo.

Spent the day in camp, sorting and packing cases for Rabaul. Every container we have is full to overflowing with specimens. We must get these in to the city as soon as possible and move containers out here into which to pack the new birds.

By right I should go to Rabaul but don't feel that I care to until I make some sort of survey of the

Timoipe Mountains.

April 10 (Monday) Mavlo.

A note reached us from John at Andamgi. He feels that he should have more commestibles at once. We have none to send him so hold a boy over to await the arrival of the Manam with supplies from Rabaul. John reports some very good material up where he is.

Myself and Manus along the river again today and procured a number of Porzana, a Ceyx lepidus and an Alcyone pusilla. We have certainly worked this area well and must get away just as soon as the boat arrives.

April 11 (Tuesday) Mavlo.

I saw a Wallaby swimming the river early this morning and went after it with Beck's old rifle which, by the way, is worn out and does not shoot straight. I believe I hit the animal as it sunk out of sight and was not observed again. The boys seemed to think that an alligator got the specimen; quite probably it did.

Hunting near camp this morning but did not obtain anything of value.

April 12 (Wednesday) Mavlo.

We were interrupted at breakfast by the 'Manam' coming up the river. The boat rounded the bend and promptly became stuck on a mud bank.

I went down to the ship and helped shift drums of oil etc., but it was not until 2:20 P.M. that ^{we} were able to float the little vessel off the mud. Following this, Harold Koch brought his ship alongside the bank at the

saw mill and loaded all of our cargo aboard. We then proceeded down the river to its mouth but found breakers and swell set up by the tide, so strong that Harold would not chance a passage over the bar.

All of us remained on board all night and were generously eaten by swarms of mosquitoes.

April 13 (Thursday) To Tol.

Capt. Koch, after taking a small boat and testing the bar, concluded that his ship was drawing too much water for a safe passage; he being afraid a large wave would set the ship down on the bar and break her back. It was necessary for us to unload the vessel and have all of the cargo carried over to Tol. This consumed the whole day and led to a fair exchange of profanity between Harold and George. The cargo was all brought over in good order and stored in the shed to await the arrival of the Manam in the morning.

April 14 (Friday) Tol.

Good Friday -- Harold brought the Manam over the bar at daylight without touching, and reached Tol at 7 A.M. This being Good Friday and all of the stores in Rabaul closed until Tuesday, Harold decided to spend his holiday here rather than in Rabaul.

Mrs. Coultas baked a cake and prepared an excellent dinner which put everyone in the best of spirits.

I packed a number of supplies and sent them to John at Andamgi. He should now have enough to keep him contented, though I regret to say that I left none for

myself -- Mike shorted us.

The two Baining boys, Charley and Manus ran away just as soon as they saw the boat. Both of them were frightened of being blackbirded.

April 15 (Saturday) Tol.

Spent most of the day with the boat's crew, packing our effects aboard the Manam. Harold will not leave until Monday morning.

George sent out a call for carriers for the Karlai boat for next Tuesday. There isn't a possible hope of our getting into the mountains until after the Easter holidays. These "day belong Lotu" affairs are most important and are strictly observed -- by the boys.

April 16 (Sunday) Tol.

The whole day spent in talking and visiting. Barnes has gastric malaria, which keeps him in bed. Visited the kunai grass patch east of the plantation but did not find a nighthawk in the evening.

April 17 (Monday) Tol.

The Manam sailed for Rabaul at 3 A.M. with Mrs. Coultas on board. She will take our specimens in, hunt up a new room in Rabaul, preferably at Mr. Gascoigne's; will sort out the specimens, keep an eye on Mike James who has gone to pieces and must leave the expedition, and will try to recruit some permanent help and train them for future camps.

Myself spent the whole day reloading cartridges

so that I will have some dust shot for the small birds in the high trees.

John was supposed to send his specimens down from Andamgi but has not, as yet. I am a little cross with him about this as I wanted all of the specimens to go to Rabaul with this boat. Out here we are always running the risk of damage to the specimens.

April 18 (Tuesday) Tol.

The ship's boat from the plantation at Karlai, arrived in the afternoon which assures us of transportation across the bay, early tomorrow morning. Once across the bay we will have to depend upon what we can get in the way of carriers.

April 19 (Wednesday) To Karlip.

George and I with 5 of his plantation boys and 2 boats' crew crossed the bay under sail during the morning. We had lunch at the Roman Catholic Mission Plantation at noon and continued on with the boat to Karlip village up the coast which we reached in the evening.

Once at Karlip, we both put up for the night in the tiny Government rest house there.

April 20 (Thursday) Karlip.

Try as we might, neither George nor I could induce any of the natives here to carry any part of our cargo. The rascals insisted that they had work to do in their gardens, that others were away visiting, and still others were sick.

So rarely do Government officials visit this portion of the island that the natives have got out of the habit of doing anything. Furthermore, the Mission station nearby does exert an influence on these people. The latter accept no orders from anyone but the Padre. One must admire his ability to handle these people even though it causes others no end of inconvenience.

George sent back to his plantation for ten more boys to carry our duffle into the mountains.

April 21 (Friday) Karlip.

George despatched a boy up the coast toward Kiep in an effort to obtain more carriers but none appeared.

Ourselves into the bush to the village of Katakomb where we found very few people living. There were only three houses inside a very poor garden. These people are a very small remnant of a once populous race. In recent years, Elephantiasis or Filaries has taken a very heavy toll of the inhabitants of this whole coast. As a consequence, the entire mountain region behind is void of natives.

We shall have to depend entirely upon our own boys to take us in, make a camp and look after our needs while we are covering the interior.

Back on the coast again in the evening we found the 10 boys from the plantation awaiting us.

April 22 (Saturday) Katakomb.

The plantation staff moved our effects up the river past Katakomb, in two relays. Here, we pitched

camp and will continue on tomorrow. The country here is broken with very poor clay and shale rock soil. Only secondary bush is encountered and no marshy or swamp land. The small streams or mountain rivers sweep down out of the mountains in flood periods and inundate large areas of the land. During the dry season they are nothing more than little tricklers of water that wind about over the rocky stream beds. Those areas which are swept bare during the time of high water become overgrown with brush and brambles when the land is exposed and free of water.

April 23 (Sunday) Camp Tambaron.

With the carriers, we continued up the river about 7 miles to a waterfall and mass of overhanging rocks. Here it was necessary for us to pitch camp again as we have no trails to follow but must go ahead and find a suitable spot near water somewhere up ahead of us. The mountains from here rise rather abruptly. They are rugged and of a loose shale and gravel surface which makes climbing rather difficult. Virgin forest of a good density covers the whole of the ridges, except where landslides have swept everything before them.

The natives have some superstition about the river and overhanging rock at this point. They are very reluctant to proceed around that.

Considerable rain in the afternoon and evening swelled the river for us.

April 24 (Monday) Camp Tambaron.

With the native, Qui ack oh, to the upper reaches of the mountains. We found the going most difficult with the mountains practically standing on end, at this section of our journey.

In the vicinity of 3500 feet elevation, a level area of some 100 square yards, was found which will give us a favorable camp site. A little spring nearby will furnish the water necessary for camp consumption.

I observed a beautiful male Accipiter princeps during the day but this individual dodged thru the forest so quickly I couldn't get a shot at him. The sight of this species gives me added incentive to work this particular range of mountains.

April 25 (Tuesday) To Camp Naess.

Naess and I sent the boys on top to clear an area, erect a house, and put up a temporary shelter. the remainder of our effects were also transported on top so that on the morrow we can move in and start to work from the mountain camp at 3500 feet.

I spent the day in the forest but found no desirable material. Several bush wrens were heard but I just could not obtain specimens. This species is, no doubt, the most difficult of all to collect in series.

April 26 (Wednesday) Camp Naess.

The force shifted our beds and the rest of the cargo to the mountain camp, put that in order and returned to the Plantation at Tol; all except one boy who will

remain as cook and camp attendant.

Considerable rain during the afternoon and night which may be a forerunner of bad weather.

We had enough forethought to bring a bag of rice with us which will certainly be of use here where we will not be able to avail ourselves of native produce.

A runner reached camp from Tol with a number of letters for Naess and a communication for me from Dr. Mayr, in New York, which is as follows:

March 1, 1933.

Dear Bill:

Your December shipment of 105 birds' skins arrived here in good shape. I was very well pleased about the specimen of Habropteryx insignis, but I am somewhat at a loss to understand the small number of skins in this shipment. One hundred and five specimens is usually the result of about a week's collecting, but it took you two months to get them; so I presume that you have not sent the entire yield of your trip to the Nakanai Mountains.

I wonder whether you succeeded in reaching high altitudes, since your collection does not contain the mountain pigmy parrot, the mountain thrush, the parrot finch (Erythrura), or the tree warbler (Phylloscopus), birds that should occur on the New Britain Mountains. Under these circumstances, your proposed visit to the mountains of New Ireland does not seem advisable. Only an unusually good collector could make new discoveries in an area where

Eichhorn has worked.

I am completely in the dark about your movements or future plans, since you have not written to us since July last year. Maybe you have forgotten that you signed a contract which states that you should write to the Museum every fortnight. To refresh your memory, I am inserting the following extract from it:

"Since it is to our mutual advantage for you to keep as closely as possible in touch with the Museum, I request that you report by letter regularly every two weeks, as nearly as possible, even if your communications are very brief. The field notes made by you and Mr. Eyerdam, should likewise be sent in frequently, but registered mail, so that they may be copied promptly. These will further serve to keep us in close touch with the progress of the work. The original manuscripts will be preserved and returned subsequently to the writers".

I did my best to accomplish a closer contact between you and the Museum, but you have done only very little to assist me in this.

I have frequently mentioned in my previous letters how great our interest is in the exploration of the Admiralty Islands. I have sent you a list of the birds known from that island and have given you details concerning the rarer and more desirable species. I think I have sent you enough information to guide you in the exploration of that island. I may add that we are particularly anxious to get a good series of rails from there.

I hope you will read over carefully all the communications received from me and that you will send me

a detailed answer as soon as possible.

With best wishes, I am,

Yours sincerely,

(signed) Ernst Mayr.

William F. Coultas, Esq.,
Whitney South Sea Expedition,
Rabaul, Territory of New Guinea.

April 27 (Thursday) Camp Naess.

Myself, in the bush all day collecting and hunting. I discovered Gymnophaps to be quite numerous but all of them so fat I didn't think it advisable to save any specimens.

The country all around is steep and very difficult to walk over. Loose shale and gravel surface covers the whole terrain. Behind camp one can climb to 5000 feet, before reaching the top of the high ridge. Behind this there is still a higher ridge, which has been reported to reach 6000 feet in places.

Considerable rain fell off and on all day which made life most uncomfortable for us. Naess spent the day wandering thru the bush with his rifle, looking for wild pig and Cassowaries. Though he saw plenty of signs, he was not fortunate to obtain specimens.

April 28 (Friday) Camp Naess.

This day was a repetition of the former. I was able to add one Henicophaps forsteri and two Gymnophaps to the collection but nothing else. As previously, I found bush wrens quite plentiful but always wary enough

to keep out of my sight. In one tiny ravine I even went so far as to build a leaf blind but couldn't collect the specimen.

What little valleys there are between the ridges are pretty well grown over with underbrush. These seem to accumulate debris from the precipitous mountain slopes.

April 29 (Saturday) Camp Naess.

Naess decided to return to Tol plantation, collect his gear and walk into Rabaul. He is having trouble with the manager of the bank over a loan on his property.

This leaves me alone with the one cook boy. The two of us will work together for a period of ten days or more; at least until I am sure there is nothing new in this area which has not been taken, as yet.

April 30 (Sunday) Camp Naess.

The one Timoipe native, Qui ack oh, came into camp this morning for a visit. With this individual and the cook I set to work to run a line of snares in all directions in hopes that we can catch mountain rails while we are here. Rain hampered us all day so that we were eager to get back to camp at night and soak up quantities of hot tea.

May 1 -- 10 Camp Naess

During this period I remained in the mountains with one native. Every day was spent in the bush hunting, at from 3000 feet to 5000 feet elevation above sea level.

Rain continued during this entire time which

made life most miserable for us. We hung our wet clothing over the fire at night and put the garments on damp, again in the morning. Everything became mildewed.

A number of specimens were obtained during this period but not a large quantity as I was spending all of my time looking for new and desirable species.

The mountain thrush, Turdus talasea, was not met with; neither could I locate a mountain Zosterops or a mountain Micropsitta.

At the end of this time I felt that I had remained long enough and should be getting back to Rabaul.

May 10 (Wednesday) Camp Naess.

My 10 carriers showed up at daylight and lost no time in helping me bundle my effects together to be transported down to the coast to Karlip. Reached the station at 4 P.M. and put up in the small Government rest house for the night.

May 11 (Thursday) Karlip to Tol

With the carriers as far as Karlai Plantation where we acquired the Plantation's ship's boat and crossed the bay under sail to reach the Plantation at 7 P.M.

Once there, I found that John had returned from Andamgi with some very desirable material. In fact we had far better success in his camp than I had in mine and considerably less rain during his sojourn too.

May 12 (Friday) Tol.

Unpacked all of my specimens and found that

they had come thru in good order, except the most valuable bird, the Accipiter princeps, which I shot the morning we were leaving the mountains. This one had sweat during the journey and had loosened the horny sheath around its bill; otherwise, this specimen was in good condition and plumage.

John, during the six weeks' encampment at Andamgi, added 4 Falco peregrinus, one Falco severus, four Monacella mülleriana, and eleven Habropteryx, to our collection. Natives snared all of the latter for him which was the best piece of fortune the Expedition has had to date.

Though John's collection was very small in numbers, I must say that it was very satisfactory in quality. He, John, neglected one important thing -- i.e. the removal of the tendons in the legs and feet of the rails.

The two of us spent the day going over our collections and making ready for our trip to Rabaul.

Harold Koch, of the Manam, is now long overdue. We have either to await his arrival here, or walk the 100 miles into Rabaul. The latter course is not to be recommended as Naess started out for Rabaul some days ago and was turned back because of flooded rivers.

May 13 -- 29. Tol Plantation.

During this period while waiting the arrival of the Manam to transport ourselves and our effects to Rabaul, John James and I engaged our time making a large

collection of the three varieties of Collocalia found around the cocoanut plantation and small patch of grassland at Tol.

We learned that these small swifts congregated in numbers, over the tops of the young cocoanut palms and the grassland, both early in the morning and late evening and also after a very heavy rain.

We are unable to locate the roosting site of these birds, therefore, we resorted to the use of a 410 shot gun with its cartridges loaded with very fine dust shot. I must admit that considerable skill is required in learning how to obtain these species on the wing. I believe we averaged about 30 percent of our shots,

We learned also that during the hotter hours of the day, these little birds rose to a height of 300 to 400 feet above the ground where we could not reach them with our fire-arms.

In the grassland or Kunai area we built platforms covered with leaf where we often sat and watched for quail (Escaefactoria) and rails (Hypotaenidia and Amaurornis). With the use of these platforms which stood a good ten feet above the top of the grass, we were able to collect a number of Cisticola, as well as a wild pig on two different occasions.

In the plantation garden adjoining I was able to

record an example of Loriculus tener which I saw flying from one dead sapling to another, but never remaining in one place long enough for me to obtain the specimen.

In the patch of grassland, the only one in the vicinity, we searched long and well for Excalfactoria, Megalurus, Turnix, Porphyrio and Hypotaenidia -- all of which should or could have been in this particular bit of covering.

The natives of Balus village were entrusted to set snares for Habropteryx and for Cassowarius but neither of these two species was obtained.

All in all, our stay at this place was not pleasant because of our anxiety to get into Rabaul and on to another locating locality.

May 30 (Tuesday) Tol.

Capt. Harold Koch and the Manam showed up late in the evening. He reports heavy south-east weather down the coast which has held him up for some time.

The Captain has decided to lay over here a few days and put his engine in order before proceeding.

May 31 (Wednesday) Tol.

To work, putting all of our effects on board. This consumed about an hour's time, following which I enjoyed the agony of sitting and waiting.

Harold got his engine going in the evening and

made a start but was forced to return to his anchorage.

June 1 (Thursday) Tol.

The whole day spent in waiting on the engine. Such an one is not an alarming situation as any person familiar with small marine, internal combustion engines can testify.

June 2 (Friday) Tol to Rabaul.

John and I got away with the Manam a little after 8 A.M. and reached Rabaul just before midnight. Spent the night on board.

June 3 (Saturday) Rabaul.

Up bright and early. Breakfast and to the Times Building where we found no one and thence to Mr. Gascoigne's where we discovered our new quarters.

Mrs. Coultas has signed on two new boys -- both Aitipes from the north coast of New Guinea proper. One of them, "Siap", is at present the cook and a most dirty individual he is too. The other, "Yawa", is a tall light skinned half-cast Malay Aitipe boy. He is at present the laundryman, and general handy man around the place.

These two boys are a most valuable addition to our staff and should have been added months earlier.

During my absence, Mrs. Coultas has engaged two rooms in Mr. Gascoigne's building. These rooms have been painted a pure white and look very attractive and clean. Here, we will be able to sleep, cook our meals and prepare for future camps.

This is the King's birthday, hence I was not able to send cables or get in stores. Remained in the room all day, sorting our specimens and getting affairs in shape.

I found the following letter from Dr. Murphy awaiting me:

April 3, 1933.

Dear Coultas:

I am delighted to have your letter of December 15, 1932, from Wide Bay, New Britain, together with the copy of your letter of December 17 to Mayr. He received the original in the same mail.

I appreciate the difficulties of travel and transportation in New Britain, and it appears that you have exercised a great deal of tact in getting such help as you have from the native peoples. Your description of what happens to Gymnophaps when it hits the ground, makes me think again of the tropical American trogons. These birds also turn practically naked if they fall from a height of 25 or 30 feet, and it is rather a discouraging job to try to save them. Apropos of your difficulty in bringing down Micropsittas from high trees, is it not possible that you need slightly larger shot than a No.10 rather than dust shot? The question depends of course, on whether you are getting so much spread that the birds are not hit, or whether the fine shot lacks sufficient penetrative force at such range. Possibly No.8 would turn

the trick; for shells loaded with eights make a pretty fine pattern at 40 yards.

I note what you say regarding funds and ammunition and I gather that you will not need additional aux shells until the end of this year. It is not quite clear to me just when you must have the 5000 rounds of 20 gauge ammunition.

All of this brings up the question of how long we are going to be able to keep you in the field. I doubt very much whether any funds in addition to those now at your disposal will be available. Dr. Sanford is in favor of winding up the work at once because of the stringent financial condition and because the Museum has practically discontinued all other field operations. When Dr. Chapman returns to New York next month the matter will be decided. In the meantime I must warn you to make your plans to liquidate and return while^a sufficient balance of your present funds is in hand. As soon as possible I shall send you more definite instructions.

I believe all of your material has reached us safely and doubtless Dr. Mayr has written you about it in detail. We are taking care of your subscription to the New York Times.

With best wishes, I am, Yours sincerely,

(signed) Robert Cushman Murphy-

June 4 (Sunday) Rabaul.

The preceding letter from Dr. Murphy convinces me that I will have to dispense with the two James boys at once. John, I would be willing to keep on with me for a time as he does try; despite the fact that he is very very slow in his work. Mike, on the other hand, is not an asset to the Expedition and must go at all odds.

I explained to them that they would have to seek employment elsewhere. Neither of the boys seemed the least upset about it. Mike, I learned later, had already made application to one of the Gold Companies for employment. As Mike is the stronger of the two he will lead John wherever the former wishes to go.

Mike has been doing a little collecting around Rabaul these last weeks, but nothing like he should have.

The two boys have taken up residence at the Pacific Hotel for a couple of days until we can get their accounts straightened up and out of the way.

June 5 (Monday) Rabaul.

I am surprised to find that all of the Germans in town are anticipating my departure at once. Where the information came from is beyond me, and is most humiliating to say the least.

I am not ready to return to the states yet, with so much of the Bismarck Archipelago unfinished and so expressed myself in the following cable to the Museum:

"Combined shipment will be despatched about the middle of this month. Proceeding Admiralty Islands. Referring to your letter of third day of April. Authorize you stop payment my wages New York beginning with fifteenth day of June. Similar amount may be deducted from the account in the bank here. Sufficient funds in hand and stores to enable me to meet requirements this year. No need to return before about the end of this year or the beginning of next. Will explain fully by letter. Please confirm this telegram in such words that I may understand that you have received message correctly. Coultas"

There are sufficient funds here to carry me for a number of months yet. I should certainly hate to leave the field before using these.

June 6 (Tuesday) Rabaul.

The two James boys seem to feel that they have been badly mistreated while with me and have kicked up a tremendous fuss. Apparently, they have forgotten that they came to me of their own accord and were kept on only as a temporary assignment to the Expedition.

I can understand that both of them are sick of the life in the bush and wish to get out with as much salary as possible, but I still don't understand what all of the fuss was about.

These two young men, acting under orders from their father, I presume, visited the administrator and told him that I had "beat them out of their wages".

I didn't know that there were any wages to beat them out of. The administrator advised them to visit a and let the latter handle their case.

'Myself at work all day on the accounts of the two boys. I have paid them sailors' wages of \$40. a month each while they were aboard the "France" and five pounds per month each for the time they spent in the bush. This I consider a very fair salary and as much as they were worth.

June 7 (Wednesday) Rabaul.

I called on the administrator and explained the case of the two James boys. He informed me that I should have no trouble with the boys as I was paying them everything they were entitled to under the circumstances.

Later, visited the lawyer, McLennan and concluded with him that there would be no case.

The two boys were sent down to me in the afternoon, accepted their wages and went their way. They will take passage on the mail steamer to Salamua and thence to the gold fields where they expect to find employment. I might add that salaries paid up there are considered quite high too.

June 8 (Thursday) Rabaul.

A cable from Dr. Murphy, this morning, approving mine as follows:

"Cable fifth day of June approved. Your accounts not received since 1930. Please send immediately full record with vouchers and also credit balance after fifteenth day of June and until further notice you may draw your wages from the field accounts. We await with interest your last shipment. Murphy"

Upon receipt of this cable I instructed the bank in Rabaul to advise Dr. Murphy thru the Standard Bank of South Africa Ltd., in New York, that I was holding the sum of 2650 pounds ~~in~~ Australian in my account or, \$8718.50 by exchange of the present date.

Until my accounts arrive from the field, this will give Dr. Murphy an indication of my present financial status.

June 9 (Friday) Rabaul.

Engaged all morning with His Majesty's Customs. It was necessary for me to withdraw the 50 pounds deposit against the James boys which I had posted on arrival in that territory. Then the matter of fire-arms had to be gone over as well.

In the afternoon to visit Capt. H.A.Mackenzie who owns a small ship which I may be able to charter to work the Admiralty Islands. Transportation facilities in these waters are so limited that we must have some kind of conveyance before we can visit them -- otherwise we might spend a whole year and get no where. Unfortunately, Mackenzie's boat is not in condition yet, and

it will require some weeks before it is ready for sea.

June 10 (Saturday) Rabaul.

To the city and ordered a number of supplies for George Naess at Tol. During the time we were with him we certainly ate enough of his provinder to make this little contribution of ours well worth while. These comestibles will be despatched with the Manam which is sailing tonight.

John and Mike came to the room in the afternoon and practically demanded that I give them cots, chairs, tables, beds, mattresses etc. Unfortunately for them they did not obtain what they came after. I must say that those boys have nerve if nothing else.

June 11 (Sunday) Rabaul.

The German cruiser "Koeln" is in port -- consequently the German population is literally swimming in beer.

We, to work in the room straightening and arranging specimens. We now have 26 boxes filled with specimens. These will certainly require some cataloguing before shipping to New York.

June 12 (Monday) Rabaul.

To Burns Philip & Co., and arranged for a passage on the S/S/ Maiwara to go to Manus on July 7. We can always cancel the accommodations if we don't want them.

Thence to the room to work on the bird collections. The process of labelling and recording in a field book assuredly takes time, but should be of some value at a later date, in the Museum.

June 13 (Tuesday) Rabaul.

Father Madigan of the German Mission called and informed me that he would be going out to Watom Island on the morrow to see Father Meyer. An invitation was extended for me to accompany him which I accepted. Continued with the specimens.

June 14 (Wednesday) To Watom.

With Fathers Madigan and Schwingen in a small pinace to Watom where we met Father Meyer. I was afforded an opportunity of seeing Father Meyer's collections. These were quite representative of New Britain.

Returned to the room at 4 P.M. and to work again on the specimens.

June 15 (Thursday) Rabaul.

To the bank and began taking my salary in the field as per agreement. Cabled New York: " Will forward accounts made up to date. Please forward 5000 rounds of ammunition as requested. Will proceed as stated. Coultas"

It has been necessary for me to send to Sydney to obtain a statement of my accounts there before I can straighten out my accounts and forward these to the Museum.

Rabaul is beastly hot these days and certainly gives me no incentive for work. Kept on with the birds the rest of the day.

News has reached us that Patrol Officer Mack has been killed by the natives of the Ramu River in New Guinea.

June 16 -- 20 Rabaul.

Remained in the quarters and continued labeling specimens. These are coming along in grand shape and will soon be ready to be despatched to New York.

June 21 Wednesday) Rabaul.

Father Otto Meyer called to have a look at my collections. The poor old man became so excited that he actually sat on the floor twice. This is a fairly common trick of older people. Father Meyer told me that this was the first time he had been afforded an opportunity of viewing the birds of New Britain in series.

It was necessary for me to discard the large Cassowary which Mike had taken in the Nakanai country. He had failed to degrease it properly and the same has become terribly greased burned. I simply will not forward poor material to the Museum.

Mr. John Talmadge, an Australian, has been engaged temporarily, to clean all of the guns. These must be taken apart and sponged with gasolene and later saturated with vaseline at regular intervals.

Mr. Gordon Thomas of the Rabaul Times, called in the afternoon; he also wanted to see the birds. We are fortunate in being able to work without too many spectators to consume our time with requests to observe specimens.

June 22 -- 26 Rabaul.

During these days I continued with the specimens and packed one large case for the Museum.

Mr. Renton, a tinsmith was engaged to make cans for the bird drying racks. These, when completed will hold three of the racks and are so arranged that they can be made practically water tight by merely pasting a strip of tape around the lid. Thus when carriers are crossing rivers, or when they stop to rest and put the case down on damp or wet ground, or encounter rain on the march, we will be assured that our specimens will not become wet or damaged. These cases which measure over all, not more than $3\frac{1}{2}'$ X $2\frac{1}{2}'$ X $2\frac{1}{2}'$, are light enough for one man to handle.

The old France, after lying idle in the harbor for 17 months has been pulled up on the slip and found to be badly rotted. W.R. Carpenter & Co. should have known better than to leave a wooden vessel of this type such a long time at anchor without a caretaker aboard to wash down the decks and ventilate the hold.

Mr. and Mrs. Mackenzie have offered me the "Lady Betty" for work in the Admiralty Islands but I do not care to undertake the campaign with such a small vessel and without a mariner, of some kind, on board. It is undertaking too much for a man to run a ship and an expedition both, at the same time.

Capt. Thomas Royden Lang, the former master of the France, has returned to Rabaul as the first officer of the new motor vessel, "John Bolton". He will be engaged in the Copra trade here among the islands of the Bismarck Archipelago. Lang is working under Captain

Cruikshank; also a former master of the 'France'.

June 26 (Monday) Rabaul.

Received the following cable from the Museum:
 "Sale of engine will reduce your refund to Museum from
 \$3500. to \$1624.88 Please refer to my letter of fif-
 teenth day of June and twenty-third day of June. Murphy"

Upon receipt of this cable I instructed the Bank
 of New South Wales to telegraph that sum to Dr. Murphy
 thru the Standard Bank of South Africa, Ltd., New York.

Captain Koch of the Manam, and Naess called for
 dinner and advised me against the "Lady Betty" as she has
 a reputation of being very dirty in head sea and a most
 uncomfortable ship.

Continued with specimens in afternoon and evening.
 These are progressing nicely at the present time and should
 be well out of the road within a week.

June 27 (Tuesday) Rabaul.

Cabled Dr. Murphy as follows: "Your telegram
 twenty-fourth day of June. Transfer has been made thru
 Standard Bank of South Africa, Ltd. New York. Will this
 answer the purpose intended. Will answer your communi-
 cations from the field. Coultas".

June 28 -- July 7 Rabaul.

During these days we finished packing the three
 large cases, soldered them and passed thru the Customs and
 turned same over to the shipping agents for transportation,

to New York via the S/S Macohui, which is leaving tomorrow.

The smallest of the specimens were packed into two small boxes and forwarded to the Museum by Parcels Post

The field record sheets checked and recorded in india ink, were also forwarded under separate cover.

This shipment is the largest and most complete in quantity and quality of any I have despatched to the Museum so far.

Mr. Charley Adams of the North Baining has informed me that he has taken a Cassowary out there with a wattle something on the order of the one found on a turkey gobbler. I have concluded to visit his plantation for a few days while I am waiting for a record of my accounts from the Bank in Sydney. The question of transportation is one which will have to be considered most seriously.

The two new boys, Siap and Yawa have improved wonderfully during their short stay with us.

A new boy, "Aunali" has been engaged. he is a native of the Arawe coast and has a splendid police record behind him; he having spent a few years in jail for murder, and at other times, for stealing.

July 7 (Friday) Rabaul.

Labeled and packed the birds' eggs in two ammunition boxes to be despatched to the Museum. Was able to gather together sufficient small tobacco tins in which to pack individual clutches of eggs and thereby eliminate

a certain risk of breakage.

Also packed one ammunition box of mammal skulls after soaking them in creosote and wrapping the same in cotton. These too, well sprinkled with paradichlorobenzene, should arrive at their destination in good condition.

July 8 (Saturday) Rabaul.

Worked out an itinerary of movements of the Expedition since I joined and despatched the same to the Museum.

Mr. Mackenzie has sold the "Lady Betty" to a man named Montgomery, and has offered to take us on his other vessel, the "Pato".

July 9 (Sunday) Rabaul.

Captain Mackenzie called and came to an agreement with me regarding the use of his vessel for the survey of the Admiralty Islands. By the terms of our agreement I will pay 65 pounds per month for the services of Mackenzie, his wife, the vessel and the crew. Furthermore I shall supply the food for the ship.

He still has quite a bit to do before the vessel is ready for sea but agrees that once started he will continue until the end of the Admiralty Campaign.

July 10 (Monday) Rabaul.

A most hopeless day attempting to interview Government Officials regarding the "Pato", insurance, liabilities etc. The Harbor master, Commander Webb,

was most accommodating, but unable to give me much assistance. I concluded at last to leave everything in the hands of Mackenzie. If he loses the ship then he must stand the blame.

July 11 (Tuesday) Rebaul.

Learned that I can obtain passage on the M/V Kokopo, which is leaving for the North Bainings tomorrow night. This vessel will allow me two weeks in the bush in quest of the wattled Cassowary while I am awaiting Bank statement from Sydney and the refitting of the Pato.

To work getting effects in order and obtaining shooting permits for the three natives I have engaged as a permanent staff.

July 12 (Wednesday) Rabaul.

Assembled and placed all effects aboard the Kokopo which will sail in the evening for Notremal in the North Bainings.

Despatched the following letter to Dr. Murphy in the Museum, in New York:

Rebaul, New Guinea
July 12, 1933.

My dear Dr. Murphy:-

Your communication of April 3rd, reached me upon my arrival in Rebaul the first of June. This letter combined with a short article in Time Magazine under date of March 27th, convinced me that I could not go ahead with the survey of the Bismarck Archipelago as I had originally planned and outlined to you earlier in

the campaign.

Inasmuch as the Admiralty survey always has been the one major desire of the Committee, I concluded that this should be undertaken at once and completed, if possible, before returning to the States.

Therefore, on June 5th, I cabled you as follows: "Combined shipment will be despatched about middle of this month -- Proceeding Admiralty Islands-- Referring to your letter of 3rd. day of April, authorize you stop payment of my wages new York beginning with the 15th day of June-- similar amount may be deducted from the account in the Bank here-- sufficient funds in hand and stores to enable me to meet requirements this year-- no need to return before about the end of this year or the beginning of next-- will explain fully by letter-- Please confirm this telegram in such words that I may understand that you have received message correctly!"

The combined shipment as listed in my short note of July 3rd, includes:

3 cases of birds by freight
 5 boxes by post (birds, eggs, skulls)
 3 packets by post (maps, photo negatives, records)

The contents are the remainder of the Nakanai Mountain collection and all of the Wide Bay material. As I intimated in my communication of December 17th, 1932, I had but a few days in Rabaul in December to re-label, pack and despatch specimens, re-equip and arrange for the Wide Bay areas. I can visualize the uneasiness caused by the receipt of very small shipments but I had either

this course or a wait of six weeks in Rabaul for another boat. I chose the former alternative.

Dr. Mayr is quite right in pointing out that former material from the Whitney Expedition was not sufficiently labeled. In the future all shipments, including this one, will bear the exact locality on the label along with the customary data. To facilitate the working out of localities in New York, there has been prepared and despatched at this time, two maps -- one of New Britain, and the other of the Admiralties (Ninigo's, Hermits etc. included). These combined with the charts forwarded earlier should meet all needs.

To carry on the Admiralty campaign there was approximately 3000 pounds Australian available here at the time of cabling, June 5th. With this amount I felt that I could possibly do my share toward aiding matters in the Museum by voluntarily accepting my wages in the field for the remainder of my stay here. Therefore upon receipt of your confirmation of my proposed salary transfer I instructed the Bank of New South Wales here in Rabaul, beginning June 15th, 1933, to deposit the 15th day and the first day of each month the equivalent of \$50.00 American at the current rate of exchange on the day of transfer. This, the bank has consented to do by placing my salary in a Number 2 account. I am forwarding, along with vouchers and bank transfers, etc. to and including June 15th, a record of this transaction in order that you may have same for your files.

In the previous paragraph I stated that I had approximately 3000 pounds Australian available at the time of cabling, while on June 10th, I instructed the bank here to confirm to you through their agent, the Standard Bank of South Africa Ltd. (New York) the amount of my bank balance in Rabaul which was roughly 2650 pounds. There was an additional 100 pounds in the Bank of New South Wales, Sydney, and over 300 pounds cash in my possession at that time-- thus making 3000 pounds. I mention this to forestall any misunderstanding.

You intimated in your letter of April 3rd that it would be necessary for me to liquidate while there were sufficient funds in the field. I had anticipated such a course months ago and retained 100 pounds in the account in Sydney for that purpose. Now to make doubly sure that there will be no embarrassment, I have had 200 pounds additional transferred from Rabaul to Sydney. This transaction also appears in the bank statement.

On June 26th I received your cable advising that there was a refund due the Museum of \$1624.88 on the sale of the engine. I immediately instructed the Bank here to cable you (Dr. Murphy) that amount thru the Standard Bank of South Africa, Ltd., New York. The current rate of exchange for that day on \$1624.88 reduced my balance by 486-2-6 pounds.

After the sale of the "France" last year, all

the equipment was moved ashore into the Times Building and later into Mr. C.J. Gascoigne's Storage rooms, giving a permanent base for effects and supplies from which the Expedition could operate quite freely.

It has been my policy to purchase supplies in case lots where practicable, thus effecting a cheaper quotation on the order and paying cash, as I do, the customary charge --8% on current accounts is eliminated. As you will notice when looking over the incoming vouchers, Burns Philip give an additional 10% reduction on cash sales, and Carpenters, 5%, which represent savings of 18% and 13% respectively. Working with this system there is often a considerable amount of material on hand, as there happened to be when I cabled you June 5th.

Although the present economic turmoil throughout the world has forced prices to low levels elsewhere, there has been no appreciable letting-up in the enormous percentages of profit extracted in all directions in this sphere of the Pacific. Even with the returns on raw produce so small that most plantations are falling into the hands of large companies, freight rates and passenger fares are still at pre-depression level.

By slowly assuming control of the majority of plantations Burns Philip, and Carpenters are able to gather practically all copra with their own vessels and have forced out the small schooner trade which formerly transported raw materials from plantations to the large

concentration centers, such as Rabaul, Madang, Kavieng, etc. Norddeutscher Lloyd has two vessels which pick up copra at plantations and go direct to Hong Kong.

Burns Philip have two boats which visit the Admiralty Islands: one, the overseas mail steamer Montoro calls at Lorengau every third month. The other, the little inter-island vessel, Maiwara calls at a number of places at Manus as well as the outlying islands every six weeks. Carpenter & Co. now have one vessel, the Duranbah, which visits outlying islands and Manus every six or eight weeks, making the circuit from Madang to Rabaul and including the outlying New Ireland islands and New Ireland ports. The Duror and Duris which Carpenters operated in addition to the Duranbah, in 1929 and 1930 have been lying idle for months.

The 'France' has made one trip to Pondo since being sold. I wish to make clear that shipping conditions have changed since copra dropped from 30 pounds per ton to 6 pounds.

The Government has several small schooners which it operates mainly for medical and patrol officers but discourages, quite justly, the practice of transporting private individuals except in emergency cases.

Any one of the vessels mentioned above could land the Expedition at a base but it would be a matter of weeks or perhaps months before picking it up again. Time would be lost as was the case at Wide Bay. Again, only a few hours in a locality would not be sufficient to secure the best material.

I had planned to come to Manus on the first available transport, place a base camp at Lorengau and carry on to the best of my ability, using a large native canoe, which I am told the natives make and sail well in these regions. Such a course left many problems open to speculation, as canoes are suitable for short distances and good weather, but it would have been impossible to have reached any of the outlying islands. I therefore felt a great deal of satisfaction when I came to an understanding with Capt. and Mrs. MacKenzie of the 28-ton schooner "Pato" here in Rabaul.

By the terms of our agreement I am to have the services of the vessel for a period of months, (terminating with 30 days' notice) with Mr. and Mrs. MacKenzie to operate same for the sum of 60 pounds per month, plus 5 pounds insurance (carried in the owner's name, MacKenzie). I will found the vessel and pay the crew of blacks and running expenses which should be approximately, 150 pounds per month.

Mr. MacKenzie is an experienced sailing ship operator and engineer with years of time both here and in Papua, while his wife is also familiar with sailing ships engines, and and small schooner life. They have the best of recommendations from both the Customs Officials and the Harbor Master. The latter has been consulted in reference to sailing permits and has granted a pratique for the Admiralty Group and the outlying islands.

I might state now that I have experienced the fairest of treatment from each and all Governmental

Departments in this territory at all times since my arrival. With the political world topsy-turvy and affairs in the East at tension, it speaks well that an American has been given a free hand. Our own country is not popular with other nations just now.

With the services of the "Pato", I shall be afforded a permanent mobile base, which can visit any island in the group and make a survey without thought to time tables. I have attempted to calculate expenses without and with the vessel and find that the vessel has the additional feature of saving time.

The "Pato" will be ready to proceed about August first. Our immediate objective will be such outlying islands as can be worked before the northwest season begins in November, leaving the islands to the leeward of Manus and Big Manus for the bad weather. It is impossible to give you a set schedule at this date but I shall keep an itinerary of movements. I am anticipating ship life again with a great deal of pleasure and assure you that it will speed up the work of the Expedition considerably.

Now about the bird shipments -- After the experience of flat birds in the Carolines, I have reverted to Mr. Beck's idea of forwarding small specimens by Parcels Post. As I have had no complaints regarding their condition upon arrival at the Museum, I shall continue to do so. Large cases I have arranged to have dispatched thru Mr. C.J. Gascoigne (Customs Agent) which will eliminate my coming

to Rabaul to obtain Department of Agriculture permit and Customs clearance. There is no objection to this arrangement here.

Under date of March 3, 1933, Dr. Mayr wrote to me that the customary number of specimens to be taken should be about 100 birds a week. That may look very well in the annals of the Whitney Expedition but perhaps Dr. Mayr has overlooked the fact that Mr. Eichhorn, with whom he compares my work, collected slightly over 500 birds in four months at Talasea, according to the published records. And, strange to say, I have been asked specifically to collect birds missed by Mr. Eichhorn-- at the rate of 100 per week. I have prepared and am enclosing for the Committee a list of birds taken by the Whitney Expedition which I do not find mentioned in Dr. Harteret's report of the Talasea collection. I am quite willing that a comparison of collections, species, and time spent collecting, be made.

This, I believe, covers the matters at hand for the present. My report of the work on New Britain and financial record with vouchers, are being dispatched under separate cover.

Most sincerely;

Birds collected by the Whitney Expedition on New Britain which are not included in Dr. Harteret's report of the collection made at Talasea by Mr. Eichhorn:

1. *Casuarius bennetti*
2. *Demiegretta sacra*.
3. *Ixobrychus sinensis*
4. *Dendrocygna guttata*
5. *Dendrocygna arcuata*
6. *Accipiter princeps*
7. *Accipiter brachyurus*
8. *Accipiter meyerianus*
9. *Haliaetus leucogaster*
10. *Pandion haliaetus*
11. *Falco peregrinus*
12. *Excalfactoria*
13. *Habopteryx insignis*
14. *Hypotaenidia philippensis*
15. *Porzana cinerea*
16. *Amaurornis*
17. *Porphyrio*
18. *Orthorhampus*
19. *Gallinago*

20. *Calidris acuminata*
21. *Sterna dougalli*
22. *Sterna bergii*
23. *Capella megala*
- 24.
25. *Ptilinopus insolitus*
26. *Streptapelia*
27. *Ducula van wyckii*
28. *Gymnophaps albertisii*
29. *Columba pallidiceps*
30. *Reinwardtoena browni*
31. *Charmosynopsis rubrigularis*
32. *Loriculus tener*
33. *Tyto aurantia*
34. *Collocalia esculenta*
35. *Collocalia spodiopygia*
36. *Alcyone websteri*
37. *Alcyone pusilla*
38. *Halcyon saurophaga*
39. *Rhyticeros*
40. *Ortygocichla*
41. *Saxicola*
42. *Monacella Mülleriana*
43. *Cisticola*
44. *Myzomela cruentata*
45. *Zosterops*

46. *Lonchura melaena*

47. *Lonchura spectabilis*

July 13 (Thursday) Notremal.

We arrived off the Usiwit River about 10:30 A.M. and were informed by Mr. Schnakenberg, the Captain, that we had reached the end of his run and under no consideration would he carry our cargo further. We still have 3 miles to go before we reach our destination.

A beautiful tropical scene ended our difficulties by our use of the ships boats to transport our effects to Mr. Adams station at Notremal, at which place we paid our passage.

Once ashore at the latter's place, we were extended a most cordial greeting and urged to line in the house with the Adams' family.

Theirs is a typical planter's home situated in the cocoanut plantation. The house is a low, rambling structure, with verandas on all sides and a cook house and wash room adjoining the main building.

The laborers' quarters, or "Boys' houses" as they are called, are placed at a good distance from those occupied by the whites. Cocoanuts, in even rows extend from the beach frontage to a good half mile back into the interior.

The country or terrain here is flat and is traversed by the Usiwit River which rises in the 3000 foot ranges of mountains that are encountered some 5 miles

inland from the coast.

Behind the plantation one observes a wealth of virgin forest, growing on the mountain side.

July 14 (Friday) Notremal.

With my three boys into the bush to give them their first lesson in the use of firearms for bird collecting. We spent the whole day in the forest where we definitely found signs of Cassowaries but saw no birds.

This is the season of Gallup nuts which should bring these birds into this area for food. Natives contend that Cassowaries travel great distances in search of these nuts. I believe them. Again I might add that the nuts of the Gallup tree ripen more quickly in the low lands than they do in the mountains.

July 15 (Saturday) Notremal.

There are conflicting reports among the plantation laborers regarding the bird we are searching for. Some contend that the bird with the wattle has yellow legs and others seem to think that only juveniles have such coloration. Most all of the boys though, hold that there are two kinds or species -- one with a wattle and one without.

Unfortunately for us, practically all of the natives, that is Bainings, have died out in the mountains behind the plantation so we have no local informants on this subject.

Myself and the three boys into the bush again

'all day. Siap is, by nature, a good hunter and a bushman. Yawa is fair but not too sure of himself yet. Aunali is absolutely no good in the bush. I shall have to turn him over to Mrs. Coultas for services as the camp cook. I'm fairly certain I saw a *Columba pallidiceps* today but could not obtain it.

The bush here is good and clean; heavily wooded and easy to walk through. If we could induce rain to dampen the leaves, I am sure we would have much better success. Dry leaves are most noisy and frighten everything within sound when one is walking.

July 16 (Sunday) Notremal.

Mr. and Mrs. McLean from the neighboring plantation of Rangarere, called and spent most of the day.

During the afternoon Siap, one of my shoot boys came home with a *Columba pallidiceps*, the yellow-legged pigeon. Mr. and Mrs. McLean tell me that this bird is quite common in the forest behind their plantation. Evidently, this species of *Columba* is restricted to very definite small areas, as we have not encountered it before, except the one time at Karlip on the Wide Bay coast.

July 17 (Monday) Notremal.

With Siap and Yawa I visited the forest area behind Mc Lean's plantation and obtained another example of *Columba pallidiceps*. The only one I saw all day. Cassowaries are reported too as occurring along the ridges and valleys here though we saw none.

This portion of New Britain, the northern most part of the Gazelle peninsula is the oldest geological formation on the island. The whole terrain is worn and crumbly and shows every indication of a long period of weathering. As stated before though, there is an excellent stand of timber everywhere.

Aunali, our third boy appears to be afraid of the bush and takes no interest in anything away from the salt water. This is understandable as he was born and raised on a small island on the south coast of New Britain, where his people constantly were at war with the inhabitants of the bush.

July 18 (Tuesday) Notremal.

To Mount Calabuse which lies directly behind the plantation. I was able to record 2350 feet altitude on this particular mountain though there are some slightly higher in the immediate vicinity. There were numerous signs of Cassowaries thru the bush but no specimens were either seen or heard.

The two natives visited the mountains also but in a different direction. They observed no Cassowaries either. The red-knobbed fruit pigeon *Ducula rubricera*, is most common in the mountains here.

July 19 (Wednesday) Notremal.

Took Aunali with me to carry my hunting basket and systematically worked in the river country and its approximate undergrowth and thickets; we saw and heard

one cassowary but did not have an opportunity to shoot at the bird's head.

Later in the day I located two chots (Monacella) and obtained these from the small stones in the center of the river. This species is very shy and retreats quickly into the forest when disturbed or frightened.

July 20 (Thursday) Notremal.

With the two boys to the native village of "Mo!" in the mountains. The Baining natives all ran away when they learned that we were coming. As a consequence we saw none of them.

Their village is nothing more than a collection of "lean-to's" scattered around the edge of a large garden.

We continued on all day and obtained nothing of value to us, except pigeons for our dinner.

July 21 (Friday) Notremal.

Myself along the river all day and obtained a Henicopernis and another chat (Monacella). The bush is entirely too dry for good collecting. Even though I arise before daylight and take my breakfast with me; there is not enough dew penetrating the forest trees to overcome the rustle of dead leaves.

July 22 (Saturday) Notremal.

Siap put up a cassowary early in the morning and in true native fashion chased it all day. The bird being as smart as the native kept out of gun range all of the time.

Myself into the mountains but had no better success

than Siap.

July 23 (Sunday) Notremal.

Mrs. Coultas and I to visit the MacLeans at their plantation. MacLean has had two of his boys in the bush this past week looking for cassowaries for us but neither of them has had any success.

July 24 (Monday) Notremal.

To the mountains back of the MacLean plantation at Rangarere. I obtained one example of Columba pallidiceps and observed a number of others which I was not able to procure. These were found feeding in the tops of very high trees. Like the Nicibar pigeon which they resemble a great deal when seen from a distance these birds have developed the ability of being able to hide successfully, when disturbed.

July 25 (Tuesday) Notremal.

One of MacLean's boys returned with a half-grown cassowary which he obtained early this morning. This one did have yellow legs but in all respects resembles other juveniles we have seen. This upholds Fred Werner's theory that only juvenile birds have their legs so colored.

Myself along the river country and found only an excellent example of Ceyx lepidus -- nothing more.

July 26 (Wednesday) To Talele Islands.

I spent a fair share of the day obtaining a row boat and a large canoe with which to transport ourselves and three natives to the low sandy Talele Islands which

lie a few miles out in the ocean from this portion of the coast.

I am especially anxious to go there to collect a subspecies of Pachycephala and a Myzomela which only occur in the small islands and not on the mainland of New Britain.

Early in the afternoon we were favored with a row boat from Rangerere Plantation which transported us to the island. The boys followed with their sleeping equipment in a large canoe.

These seven small sandy islands offer no shelter in the way of houses and no fresh water - of any kind. No natives live here and those who visit them only come for sea birds and twittles eggs or perhaps a few sea birds which the boys devour on the spot.

Once ashore we made a make-shift camp under an overhanging ledge of rocks which were located high enough above high tide to give us a dry place to live.

The boys concluded to make their sleeping quarters on the sandy beach. Sufficient fresh water for our needs was brought with us in tins.

For this temporary camp of only a few days' duration we brought only a small kettle in which to boil tea, a little rice and a few tins of meat. It is possible that the boys may be able to catch a few fish while here.

In the evening, just at dusk, we observed Frigate birds coming in from the sea, to roost presumably on one of the small outlying islands of the group.

I sent the boys off in the small canoe after dark to locate the roosting ground of these birds, in order that we may obtain some birds tomorrow morning..

July 27 (Thursday) Talele Islands.

Up before daylight and with two boys in the native canoe to the outermost sand-pit where I hoped to obtain a few frigate birds as these were putting out to sea. Just as we approached the island I observed a number of birds circling overhead and when I fired at one, which I missed, the whole colony of several hundred took flight.

These were accompanied by many thousand noddy terns (Anous minutus) which were also roosting on this small island.

The three of us went ashore on this small bit of land which was not over 400 feet in length and 100 feet wide, and found the same covered with a low dense vegetation of scrub trees and bushes. Like all tiny islets that are used by thousands of sea bird for a roosting place, this one also reeked of ammonia fumes from the excreta of so many birds. We concluded to return in the evening and attempt to catch our desired Frigate birds after dark.

Continuing on in an easterly direction we came to another low rocky islet which was not over 150 feet long by 50 feet wide by 25 feet above water and barren of all trees and scrubs. This tiny bit of ground turned out to be the visiting grounds for hundreds of terns of two

'species.' Both Sterna dougalli and S. sumatrana were found incubating their one egg which was laid on the bare rock or ground. In some instances eggs were laid on ledges or between crevices of stones on the perpendicular sides of the mountain cliff.

We collected examples of both species of birds and a few clutches of eggs as well.

Hard rains in the afternoon caused a number of stones to loosen on the top of our overhanging ledge. I became unduly alarmed and had our make-shift beds moved down on the sand beach. There are any number of things I prefer to having a large stone roll down on me while I am asleep.

In the evening our whole complement to the small island where the frigate birds come to roost. The boys were able to catch two of these birds with their hands as well as several noddy terns of which I saved a pair for record only.

I made an attempt to climb the small trees and catch specimens with my hands but in doing so, fell out of the tree and frightened the colony away. My native didn't forgive me for this blunder either. Once disturbed, the birds did not return again for some time which necessitated our returning to camp.

July 28 (Friday) Talele Islands.

To work early in the morning on the material taken last night. Then covered the island upon which we are living. This island, the largest of the seven,

covers about an acre in area and rises about 100 feet above the ocean. It is rocky with some sandy fore shore and covered with a scraggly growth of trees and shrubs.

Here we found living the small island species.

Myzomela sclateri, Pachycephala pectoralis dahli and Monarcha cinerescens. Examples of these were taken.

In the evening we again visited the small island where the frigate birds roost and obtained three more examples of this species. This time my natives insisted that I remain on the sandy fore shore and let them obtain the specimens.

July 29 (Saturday) Talele Islands.

A most miserable day for us crowded together under the overhanging ledge while rain poured or pelted down outside. We managed to finish off the frigate birds from the night before without the mist bothering the birds too much. The rest of the day and night were just simply spent in waiting for the rain to stop.

July 30 (Sunday) To Notremal.

Mr. MacLean called for us early this morning with his little pinnace "Lottie Don" and transported us and our effects to Notremal where we were able to dry ourselves and our specimens. Ours was not a very pleasant camp on the small island but it did give us a representation of the ornithology of these small islands.

July 31 (Monday) Notremal.

With the boys again and into the bush where we were not fortunate enough to find or even see a cassowary. Kept at the task all day and returned to the camp dog tired. Siap played culprit and ran away for the night, for which he was soundly reprimanded.

August 1 (Tuesday) To Rabaul.

Mr. MacLean who is going to Rabaul in his small pinnace for supplies extended us an opportunity of returning with him. We loaded all of our effects into his small gasoline boat and proceeded to reach the city about 4 in the afternoon. It was necessary for us to transport our supplies and equipment from the north coast in a truck as MacLean did not care to make the long journey around the north end of the Gazelle peninsula in his small boat.

In the city we set to work in our quarters laying out our small collection of specimens to dry and preparing to clean up accounts and sundries before commencing the Admiralty campaign.

August 2 (Wednesday) Rabaul.

To Captain MacKenzie this morning and learned that the Pato will not be ready yet for some days. As it is we have sufficient work to keep us busy here for several weeks.

This time in port I plan to clean up all accounts; photos, notes, etc., and dispatch those.

I received Dr. Murphy's letter of June 15th which is quoted herein:

June 15, 1933.

Dear Coultas:

We have evidently connected promptly and with no misunderstanding in our respective cables of June 7, 8, and 15. We are pleased to learn from the last that your accounts are up to date and that you are forwarding them. The ammunition as requested in your recent letter will be made up and dispatched at once.

In addition to the three cables mentioned I received on June 10 a message from the Standard Bank of South Africa in New York, which had evidently been forwarded on your behalf from Rabaul. This stated that the amount to your credit in the Bank of New South Wales at Rabaul was 2,650 pounds, Australian currency, which at the day's rate of exchange amounted to slightly over \$8,700. I have no means of knowing whether this is your entire balance and that brings me to the general matter of your financial records.

At the time I went to England a year and a half ago, I more or less dropped immediate contact with your affairs, financial and otherwise. Therefore, when the Whitney Expedition Committee recently called for a financial statement it was a good deal of a shock to me to find that we had had no return from you since September 1930, and that the balance unaccounted for amounted to \$29,571.53 a sum which did not include the funds which accrued to you from the sale of the schooner 'France'. I enclose the Bursar's

statement, which you may find useful for comparison with your own record.

It is not necessary for me to tell you that such a long interval between the rendering of accounts and vouchers is very far from being good business. Moreover, it is a direct neglect of our written understanding with you by the terms of which you were to send in very frequent reports and accounts. Besides putting you in a bad light, the situation has let me down because in the last analysis I am responsible to the Whitney Committee even though I necessarily had to drop/close contact last year. I hope that the early arrival of your full records, including the 'France' transaction, will do as much as possible to put everything right.

If you would always make a point of posting us some kind of report, however brief, at every opportunity, no end of misunderstanding and dissatisfaction would be avoided. Your collections are eagerly examined by most members of the Whitney committee and by all on the staff of the Bird Department, and it is unavoidable that the greatly reduced quantity of material over that which we used to received in the old days should be noted and commented upon. There may be excellent reasons why this is the case, but you are the only person who can acquaint us with them and this you have certainly not done sufficiently for your own good. Even Mayr who has had experience in that part of the world and who knows all the difficulties, has failed to understand why the material has been so limited

and, still more, why we hear such a very little from you.

Furthermore, we cannot fail to pick up all sorts of information, including rumors which may or may not be true from outside sources, and it would be much better for you if you anticipated all such matters by direct report to us. It would not hurt you to do so even if you regarded the facts as personal. Certainly the hiring of the James boys, if that is true, was far from a personal matter and one in which the Museum has a clear responsibility, even to the point of liability for injury or accident. We should know of all such things from you long before there is any opportunity for them to trickle in to us from outside. I hope that a full journal of all your observations and business transactions has already been dispatched so that I may have the opportunity of presenting all the work you have done for us in the best possible light at the next general meeting of the Whitney Committee, which will probably be held in September.

Your salary of June 15 is being paid as usual by the Museum Bursar, but in accordance with my cable of June 8 you may hereafter draw it yourself twice a month from the Museum balance under your control. In doing this you must keep in mind that you are paid in dollars just as all other Museum employees are, and that you are entitled to an amount of foreign currency only equivalent to what can be purchased by the given amount of dollars on the respective salary dates. You doubtless understood

this without any advice from me, but I put it into the record in order to avoid any possible misunderstanding.

You are already aware of the seriously straitened finances of the Museum, and that it will not be possible for us to send any further money from the small balance of the Whitney fund. We cannot afford even to make further shipments of supplies, though we are making an exception in the case of the ammunition ordered in your last letter which would not be available to you in any other way.

Moreover, in view of the urgent need we are sure to have for the small balance of our Whitney funds after your final shipments have been received, the committee feels that the cost of the 85-horse power gasoline engine and other equipment which was never used, will have to be reimbursed to the Museum from the proceeds of the sale of the 'France'. This engine, with the propeller, etc., has lain at Oakland for the last two years, representing an absolutely dead loss to the Whitney fund. We have not had a single bona fide offer for it, although the company has made efforts to sell it on commission for about half its cost. The data I have from the manufacturers and steamship companies are as follows, and I should like your confirmation of the details:

Original cost paid by you	\$3312.00
Expenses of return and cartage	<u>144.38</u>
Total	\$3456.38

Regarding the cost of the propeller, etc., I have never had any figures, but on the motion of Dr. Chapman

the Whitney committee has ordered that the round sum of \$3500. (unless the details on cost are amended by you) be reimbursed from your Museum balance and that a draft for that amount be sent to the Bursar of the American Museum of Natural History. This will cut down by more than one-third the balance with which you plan to wind up your campaign, but there is no other course open.

You may find all of this an unwelcome letter, but I assure you that we have all been undergoing very severe deprivations in our lives, and work, and you are really very lucky to have been carrying on in a less hectic part of the world. I sincerely hope that the journals, reports, financial statements and specimens now under way will go far to cheer up Dr. Sanford and everybody else here with reference to the last two years of the Whitney Expedition's great campaign. If you will only follow up the letters you have already sent with more frequent communications, say never less than one a month, it will go far to reinstate you and the work in the eyes of the Museum. To date, your last letter of which we have record was written at Wide Bay on December 17, 1932, mailed at Rabaul February 13, 1933, and reached us here on March 25. In other words it was three months between a letter and the next communication, which was merely a cable, and at times there have been still longer gaps. Often too, the letters have been entirely lacking in certain bits of information which would be of very great interest to all of us.

Dr. Mayr finds that the series of many species of New Britain birds are already so large that nothing can be gained by adding to them. No startling discoveries can be expected in the lowlands there, and it seems to us that the one profitable opening is that which you have now begun, namely to work at the Admiralty Islands as long as funds are available.

Finally be sure to keep in mind that your resources are expected also to get you, as well as all of your material, home again. You had best set aside a reasonably liberal balance for this purpose. I should to have also as early as possible a statement of your plans for returning, because we intend to do everything possible to give you the opportunity for work which was promised when you first joined the Expedition.

The field notes of the Whitney Expedition, beginning with those of Beck and Quale, are now bound in eighteen large volumes, and this does not include a mass of manuscript from Hamlin which is ready to be bound up in the same way. I earnestly hope that we may soon have your reports, to be copied and added to this series. At present it makes a definite and conspicuous gap that your journals are not included, especially as you are one of the leaders of the Expedition which is bound to remain notable in the annals of ornithological science. Your work is appreciated far more than I have indicated in this letter. Perhaps you have not seen the remarks of

Professor Osborn as published in his final Annual Report.
I am therefore having a copy mailed to you.

With best wishes from everybody here, I am,

Yours sincerely,

(signed) Robert Cushman Murphy

Mr. William F. Coultas,
Whitney South Sea Expedition,
Rabaul, Territory of New Guinea.

P.S. Did you receive my letter of March 3, 1933?

August 3-15

Rabaul.

During these days I worked over the accounts of the Expedition since September 1930. This, as a whole was no mean feat as I was required to manipulate American dollars, English pounds sterling, Australian pounds, Japanese yen, Phillipine pesos, and Dutch Guilders. On top of this I had to deal with a fluctuating exchange as well.

Mrs. Coultas during this time assisted me with accounts and began to work up a concise list of requisites for our six months' campaign in the Admiralty Islands.

The three natives were kept busy washing and ironing clothes and working around our quarters.

August 15-31

Rabaul

This portion of the month was spent in cleaning up a number of tasks that accumulated over a period of months. One case contains over a dozen glass jars of

specimens(ornithological) in alcohol and one five-gallon milk can containing the larger specimens in alcohol, were forwarded to the Museum via S/S Carisso.

Photographic negatives of the Expedition's work were labelled and dispatched by post. These negatives dealt with the Solomon and Caroline Islands.

Another collection of bird parasites which were collected on New Britain were labelled and dispatched to the Museum.

The collection of small birds, collected at Notre-mal and the Talele Islands in July were put in order and forwarded.

I purchased a ton of rice for use on the ship and engaged Mr. Gascoigne to place this rice in 5-gallon tins which were soldered and made air tight after being filled. These 38 tins of rice will be held as a reserve aboard ship against the time when we are short or out of food.

Another native, a small boy named 'Dito' from New Ireland was signed on as a cook's helper for a period of one year. He like the others will be paid the sum of 6 shillings per month for his services rendered.

On August 29th I dispatched the following letter to the Museum relative to the James brothers and their connection with the Expedition.

Rabaul, T.N.G.
August 29, 1933.

Dear Dr. Murphy:

Regarding the matter of the James brothers who were with me until the first of June this year.

The James boys have been acquaintances of mine for years back in the States. As early as June 1930 I wrote once to Harold James asking what he was doing and telling him that I was interested in him, nothing more.

The next intimation of their whereabouts came as a cable from Manila to me in Palau stating that both Harold and John were with Capt. Lang there. I presumed that the Museum had sent both of these boys out to me and did not learn differently until the 'France' reached Palau in December 1931. There the boys informed me that they had packed their bags and come out to join me on their own, and were not from the Museum.

When discussing the matter with Capt. Lang he told me that he too was first under the impression that the Museum had sent the boys and later, when he learned differently, went to Mr. Hester, the American Trade Commissioner, who advised him inasmuch as he was signing off the Chinese cook and would require a mate and an engineer for the vessel, he might as well take these two boys, which he did.

As the James boys were signed on the 'France' on articles at Manila, one as engineer, the other as mate, I paid them \$40.00 per month, sailor's wages, and return

passage to Manila as per articles.

Here in Rabaul, I explained at the time of arrival that I was ordered by the Museum to cut down on my staff and work at a minimum to eliminate expense and that I couldn't guarantee them much of a salary, because I did not know how my funds would work out in this new territory. They both told me then and also later, that they were not interested in the money but wanted the experience.

At that time I was losing all of my Solomon Island bird skinners who were then overdue at their homes. I had petitioned the Solomon Island Government to allow me to retain the best boy of the lot and received a very firm negative.

The natives of this territory are not bird skinners-- I have yet, to this day, to find one boy who can make up a skin equal in quality to those forwarded by this expedition. When I look back at the experience of Dr. Mayr, F. Shaw-Meyer, and Mr. H. Stevens in this territory, or to go a little farther when I see the pitiful examples that Father Otto Meyer's boys bring to him, I do not feel so badly about my own lot.

I felt that I should keep the James boys on for a time and let them aid me in getting well started in the territory. For their services in the field I agreed to and did pay them the sum of five pounds a month, which I feel was sufficient for them and is no more nor less than others have received heretofore.

The boys were of assistance in many ways; both with the 'France' and in the field, though I must say that their hearts were not in the work. Harold could have developed into a very fine bird skinner had he applied himself but like so many young men he detested skinning birds. John the older boy, though very slow, did become a good hunter and turned in some very good specimens. However, city-bred young men who are accustomed to regular hours, set tasks, delicatessen meals and good evenings' entertainment, find this life very trying and are not able to adapt themselves quickly to their surroundings.

Early this year, I explained to the boys that their time with the expedition was limited and they set about seeking employment elsewhere. Both were successful in obtaining jobs at the Gold-fields on the mainland of New Guinea.

As shown by the accounts and statements which have gone forward both boys have been paid in full for their services and left me for the gold-fields the early part of June this year.

Sincerely,

COPY OF LETTER FROM P.B.JAMES TO W.F.COULTAS

4808-37th Ave., N.E. Seattle--

(I have never acknowledged this letter as I did not think it necessary). Coultas.

Seattle, Wash.
Dec. 8, 1931.

Dear Mr. Coultas:

A letter from Mike giving us the Expedition's forwarding address in New Guinea affords us our first opportunity to apologize for the sheer brass displayed in our giving permission to our sons to go "crashing the gate" into the middle of your Expedition--- all on the strength of what you in your said to them when you were in Seattle. We would not have dared to do it had it not been for your plea of "guilty" to some successful "gate crashing" of your own (e.g. in Russia and in New York) in times gone by and for the fact that being a married man you will probably have sons of your own some day. You will learn then by experience what you already know by observation and long-suffering, and long-suffering: that parents will stop at nothing to advance what they conceive to be the interests of their offspring. This is just a biological fact and nothing can be done about it that I know of.

Anyhow I want to pay tribute to your good sportsmanship in taking the news of the boys' arrival the way you did. Wilkinson (who was one of the arch conspirators against your peace and dignity) assured us that we could count on it and the fact is that knowing you, we

needed no such assurance. It would be impertinent to thank you, for the debt Mrs. James and I owe you is too great to be paid off by mere thanks. You are giving our boys the one big chance of their lives -- something we could never have obtained for them ourselves. We want you to know that we, on our part, (I speak for Mrs. James as much as for myself) are good enough sportsmen to agree willingly to all the risks the boys may be called upon to take. We do not want you to change any of the Expedition's plans in the slightest degree in order to keep John and Mike from meeting dangerous conditions which you would feel warranted in facing yourself. We assume that attacking a terra incognita in the interior of New Guinea involves a distinct element of danger. Well, if that is what best serves the work of the Expedition we are glad you and they are going there. We are not, either of us believers in "Safety First". Better by far that the boys should run the risk of fever, cannibals, snakes, etc., in New Guinea and play for big stakes--- even if they lose and never come back-- than that they should rust out on the street of Seattle, where the danger of being killed by an automobile is probably greater than the danger from wild men, wild animals and fever in New Guinea. We are not borrowing trouble nor worrying in the least. We have considered the risk, that is all, and decided that it is well worth taking and we trust you and the boys implicitly.

I have been lecturing the boys about the need

of note-taking and have passed on to John some instructions I gathered from one of his Geology professors here concerning geological field work. Any thing you can do to keep them on their toes in these matters will be appreciated. I wish you would also urge them to keep in touch with Miss Gamble, their benefactress in Palo Alto, whose kindness made their trip possible. Miss Gamble, as Mike tells me, being the "heiress" of Ivory soap, is wealthy enough to finance the Expedition for another year or two if her interest is aroused. They owe it to her to write to her as fully, frequently and interestingly as they can, and -- to put the obligation on its lowest terms-- it would be strange if a reasonable considerateness on their part did not react favorably for the Expedition, for you and them in the future. One never can tell!

There is not much news here that would interest you beyond what the boys have already conveyed. The Museum situation here in Seattle is distinctly improved, I should suppose by the gift of \$250,000. to the city by one of the Professors at the U. (Fuller*) to build an art Museum in Volunteer Park which is to house his collection. I am a little worried about Wilkinson, who helps everybody but himself. He has been eased out of the job on which he was depending to put him through the University in consequence of unusually bad behavior on the part of Mrs. Savery, the selfish little goose in

'charge of Henry Art Gallery where he worked. However the worm seems at last to have turned, and Wilkinson is putting up a vigorous fight which I trust will land him in another job even if it fails to bring him back the one he lost, and which may also result in a check-mate from an unexpected quarter for the ambitious little minx at the Henry Gallery.

The well and unfavorably known "depression" continues with no signs of abating as yet. If you have any option about the time of your return to civilization, I would say: defer it as long as possible while the storm blows itself out. "Civilization" is a good thing to be out of under present conditions. There is a good deal of talk about the "end of an era", and there may be something in it. Perhaps nobody now alive will ever see "Prosperity" again. It is difficult to see what can be done to bring about real improvement, short of an economic and social readjustment far more radical than anything responsible people are willing to consider yet. Which of course involves the distinct possibility that we may drift along into something much worse. I have even suggested to John that it would be a good idea to keep eyes open for some remote haven of refuge where, if worse comes to worst, one could barricade himself and live in peace. I am not an alarmist and do not expect anything like this to happen but it would be folly not to recognize it as a possibility.

I think millions of people in this country-- not necessarily of the "unemployed" -- would say the same thing. In fact, the East is far more given to gloomy foreboding than we are out here. So you will understand that I am quite serious in my suggestion.

Please allow Mrs. James and me to congratulate you on your marriage. We regret having had no opportunity to meet Mrs. Coultas when she passed through Seattle en route to the Orient, but we did not hear of her coming until after she had gone. She must be a wonderful girl to go out into the wilds as she has done, without apparently realizing that it is anything out of the ordinary.

High Goat

P.B.James

September 1 -- 30

Rabaul.

During this irritating time we busied ourselves with packing, preparing, organizing supplies and commestibles for a 6-months survey of the Admiralty Islands. All of us encounter considerable delay because of an epidemic of Dengliue fever which swept Rabaul. This sickness was brought on largely by the tremendous amount of dust which had accumulated during the dry spell. Our English cousins here have not advanced to the place where they sprinkle streets to keep down dust and indirectly, sickness.

Our new recruit "Diti" was sent to the hospital

and will have to be forwarded on to us at Manus in the Admiralty Islands, later.

On September 10th, a native living on the outskirts of Rabaul, brought in an example of Habropteryx which he had snared. I was most pleased with the receipt of this bird for I have suspected for some time that Father Meyer obtained one or more specimens around Rabaul even though I could not get him to commit himself on this subject. Why he was so damned afraid I would discover the areas in which he collected his material it is beyond me to comprehend.

The first supplement of my bird notes was typed and sent in during this time though I was only able to cover a small proportion of this work.

Captain Thomas Royden Lang, our late master of the schooner 'France', was lost overboard from the S/S Montoro while en route to Sydney from Rabaul. We were most distressed to learn of his death.

The work on the Pato which has been held up on account of the sickness of MacKenzie, progressed to such a point that we were able to begin loading our cargo the last week in the month.

I was fortunate also to be able to purchase at three pence a gallon, a number of drums of crude oil from Captain Montgomery of the "Enuk" who is disposing of his vessel and returning to Scotland.

The customary price for crude oil in this part of the world is one shilling a gallon, thus I was able to effect a considerable saving.

Mrs. Coultas, while shopping in Chinatown, was able to procure a number of pounds of beads which a Chinese tradesman let her have for a penny a pound. These she can and will use in trading with the natives.

A variety of calicoes were purchased, cut in five-foot lengths, and bundled in lots of ten, before they were stowed in locked containers. With calicoes in bundles so numbered, we hope to eliminate loss from theft. Natives will and do steal everywhere and proper precaution must be taken against such action on their part. Thus every container we use has at least one good padlock fastening it.

Fish spears, trade paint, cheap shirt buttons, cheap thread, tobacco and other materials were all put in tin lockers or boxes, against the time when we would dispose of them to the natives for foods, specimens of birds, rent on houses, carrier service and the like.

New Britain

"New Britain is a crescent-shaped angular island lying between the southern part of New Ireland Island and Cape King William on the northeast coast of New Guinea. From Cape Gazelle, its northeasternmost point, the island trends in a southwesterly direction of 120 miles and thence westward for 185 miles to its western extreme, the most southerly point being in the vicinity of the 150th meridian; it is about 60 miles in breadth in places, and the isthmus connecting Gazelle peninsula, the northern portion of the island, to the main part is about 20 miles across.

The island generally is mountainous, and in the northern part of Gazelle peninsula there is an active volcanic parasitic cone, which was in violent eruption in 1878, when an island 60 feet in height, was thrown up on the western shore of Blanche Bay. This eruption, which covered the whole of Blanche Bay and St. George Channel with pumice, was succeeded by a seismic wave, which washed away a large portion of Matupi Island. In Lolobau Island on the north coast of New Britain and on the main island to the southward of it, there are also active volcanoes.

The Island of New Britain is for the most part covered with virgin forest, even the volcanoes are in most cases so covered to their summits. The land is

watered by a fairly large number of rivers, great and small, and possesses several well protected harbors on its coasts. While the whole south coast eastward of Cape Merkus is almost free from reefs, and has deep water close to the shore, the west and north coasts are fronted by numerous reefs, making these coasts dangerous for shipping."

"Gazelle peninsula is the northern part of New Britain; its eastern and northern shores are contiguous to St. George's channel and the adjoining waters; -----Crater peninsula and Rembarre ranges in the northwest; the Takit range in the southwest (Baining) and the Bainings again in the southeast. The eastern coast of the peninsula is not so mountainous as the northern and western sides."

Blanche Bay.- From Cape Gazelle the coast runs in a general westerly direction for eleven miles to Raluana point, thence it curves in westerly, northerly and general southeasterly directions to Praed point, two and one-half miles northward of Raluana, forming a large irregular bay known as Blanche Bay, containing many smaller bays and harbors.

Simpson Harbor, occupying the northwestern section of the inner part of Blanche Bay is two miles in length by one and one-half miles in width between bridges point and the opposite shore.

It is here that the city of Rabaul, the seat

of the Australian Mandated Government is located.

On February 2, 1932, the schooner 'France' of the Whitney Expedition anchored preparatory to the disposal of the vessel and the commencement of an exploration of the Bismarck Archipelago as a land unit. As the use of the schooner 'France' was no longer necessary in the exploration of such large islands as New Britain, etc., the ship was offered for sale in the city of Rabaul.

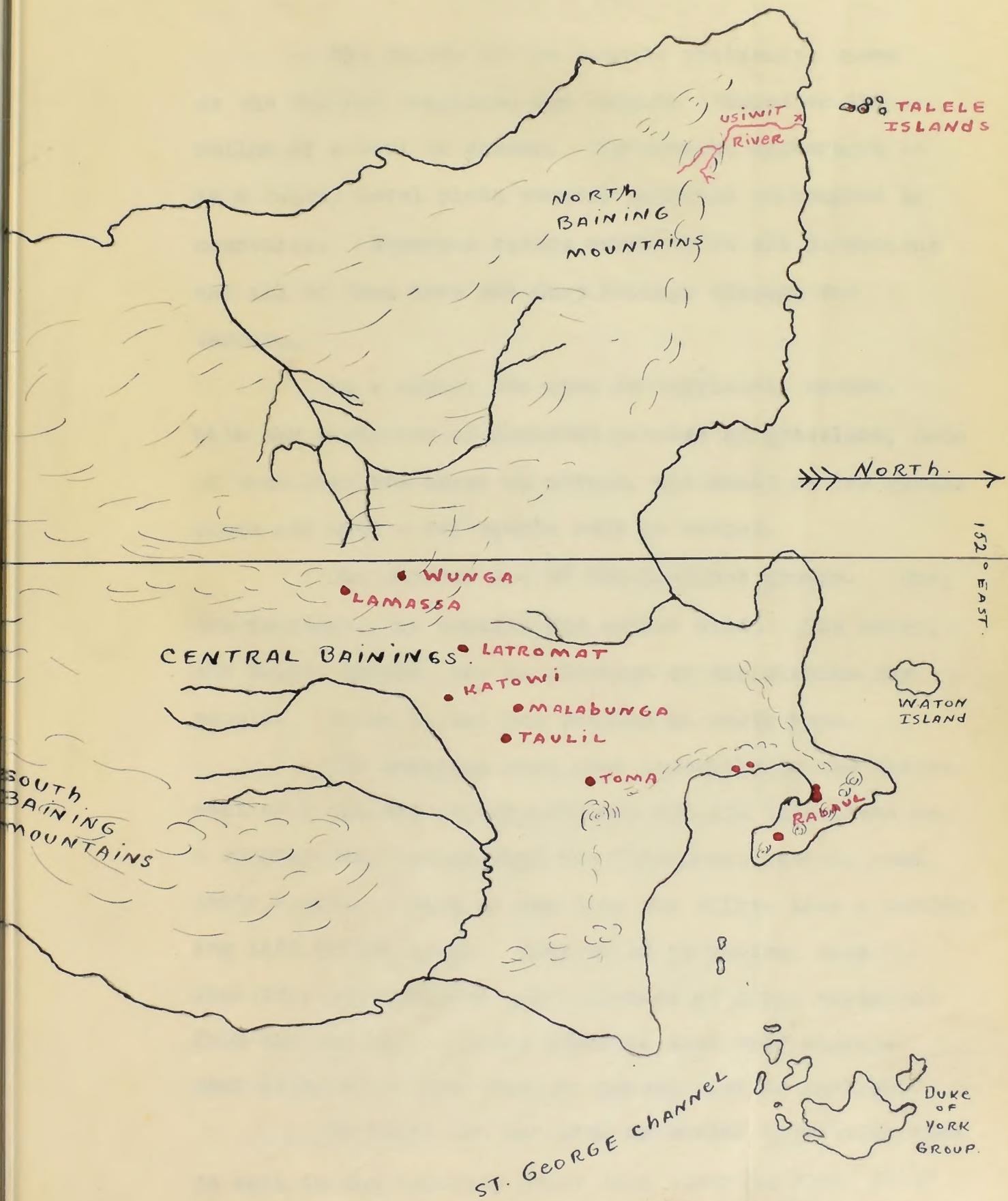
During the time of repatriation of master and crew to their homes, the sale of the 'France', and the establishment of a permanent base camp in the city of Rabaul, some collecting was carried on in the vicinity of this city.

During the month of March, 1932, collecting was carried on from the ship using the area along the coast to the south and west of the city of Rabaul. There some forest land some grassland was encountered. Also to the south and east of Rabaul a small amount of collecting was done in the grasslands near the city. Because of the dense population of natives near Rabaul and the abundance of native gardens, which are used to supply the needs of the residents of the place, only a limited number of species could be taken. Collecting was difficult but favorable under the circumstances. It is possible to undertake thorough work in this area if one could locate

their camp some miles from Rabaul and work carefully in the area.

Along the wooded slopes of the volcanoes to the north and west of the settlement, it is possible to make extensive collections.

I make these statements in contradiction to the collections made, as none of us at that time understood the natives well. Were we to make a survey of the Rabaul area at a later date I am sure results would have been much different. For instance, in September, 1933, a native brought to us an example of Habropteryx insignis which he snared near his village. His place of residence was a stone's throw of Rabaul proper.



North →

152° EAST

04° South

■ AREA COVERED

M

Baining Valley

The center of the Gazelle peninsula, known as the Central Bainings, may best be likened to the hollow of a bowl or saucer. In general appearance it is a fairly level plain country entirely surrounded by mountains. Numerous rivers cross it in all directions and all of them have cut deep valleys through the terrain.

As a whole, the area is completely wooded, with the exception of isolated patches of grassland, none of them over two acres in extent, and small native garden plots not over a few square rods in extent.

The natives are of two distinct groups. One, the Bainings, are nomadic and rather wild. The other, the Taulil people, are an offshoot of the Blanche Bay people. These latter are settled in their ways.

The Bainings have been assembled by the Government at a village called Latromat and use this place as a congregating center when the Government patrols make their rounds. Most of the time the tribes live a wandering life in the bush. They build no houses, only lean-tos, and separate their gardens at great distances from one another. It is probable that they migrate many miles at a time from one garden plot to another.

No white man has ever succeeded in getting them to work in any capacity other than clearing bush, prior

to an agricultural undertaking. As indentured labor, they are valueless as they will run away at the least provocation.

Being timid people, they are reluctant about showing a white man through their country and will not offer their services as carriers either.

The Taulil people, on the other hand, are settled but they were of little use to the expedition as their land does not extend toward the high mountains. In ancient times the Bainings and the Taulil people were at constant war with one another. At the present time it is still unsafe for one people to cross over into the other's land.

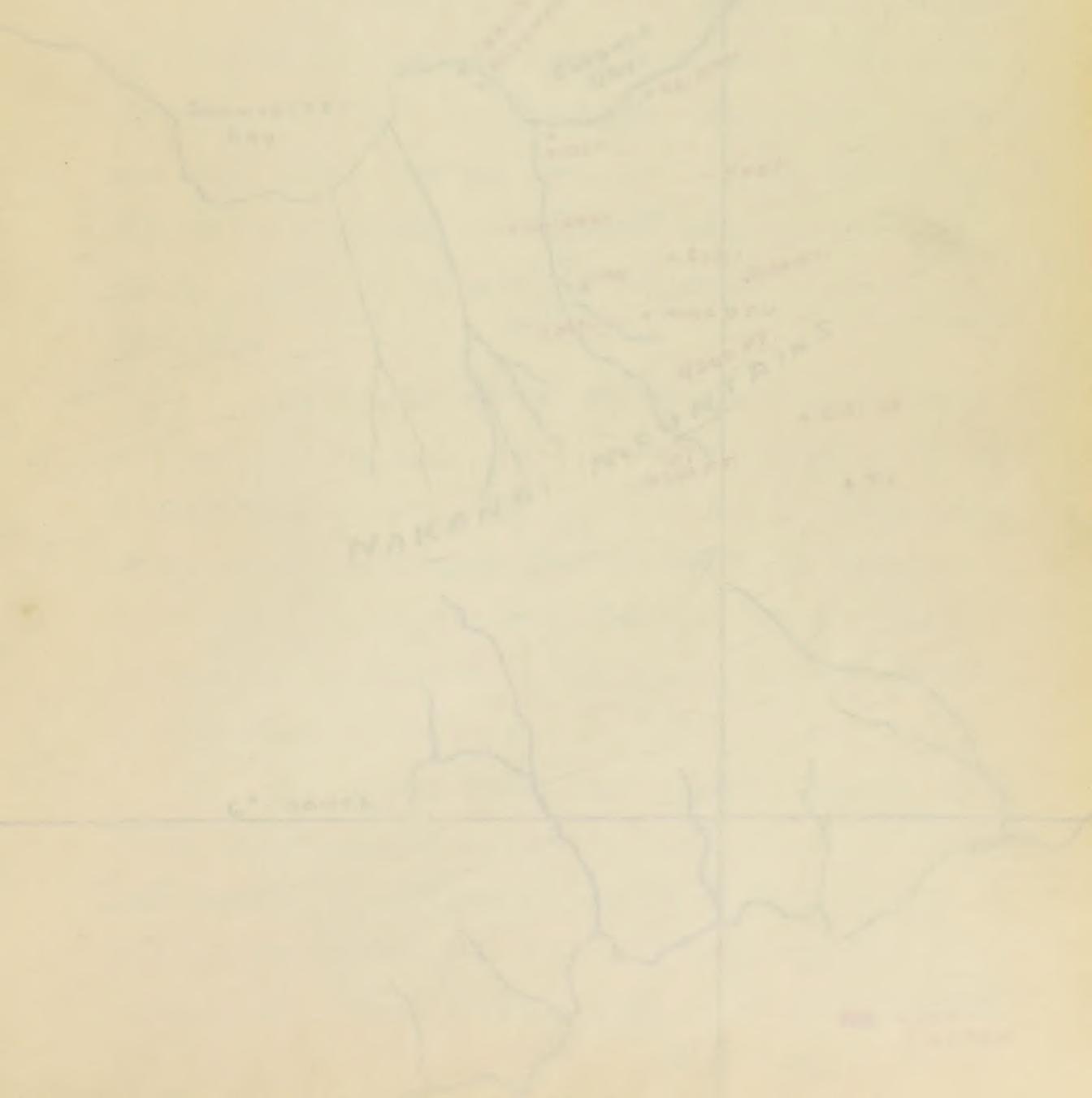
From May first until September fifteenth, 1932, The Whitney Expedition established a base camp at Latromat and worked the surrounding country from these headquarters.

Repeated attempts were made to force a party through the Baining mountains to the Wide Bay area. No one progressed farther than the village of Wunga, situated at an elevation of 1800 feet and lying almost three days march from the original objective.

I have called the Baining valley the greatest hawk and owl country in the world. So it is. The whole valley is prolific in bird life so that an excellent series was brought together. Certain mountain forms, such as Gymnophaps albertisii, are known to occur in this area, but unfortunately were not met with during our stay.

Probably they visit these mountains at other times of the year.

The Baining valley gave the expedition a good ground work training for use later on in the campaign. Though the natives were most reticent about helping with the survey, they did keep it well supplied with foods at all times. Even some of the natives became quite proficient in the use of firearms.



NORTH.

151° EAST.

365.

→ TO LOLOBAG VOLCAN FATHOR

NAKANAI MOUNTAIN AREA.

Commodore Bay

TAROB
PASSUSU

BANGULA BAY

• KAIAMO

• WALO

• SEGI

• GAIGEKI

• SIPA

• LOBI 5000 FT.

• BAGELO

• MALUTU

4200 FT.

NAKANAI MOUNTAINS

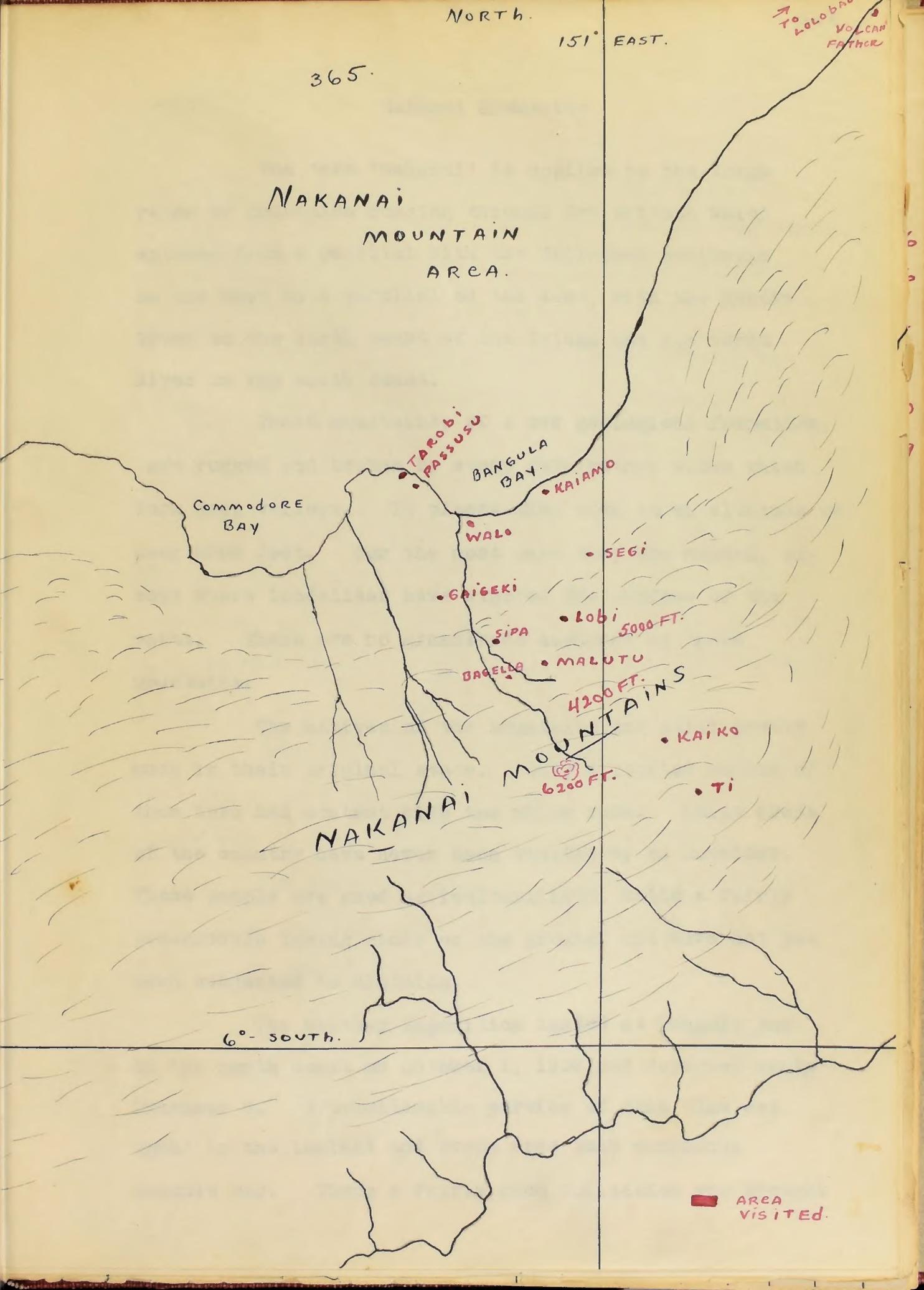
6200 FT.

• KAIKO

• TI

6° SOUTH.

■ AREA VISITED.



Nakanai Mountains

The term 'Nakanai' is applied to the large range of mountains running through New Britain which extends from a parallel with the Willaumex peninsula on the west to a parallel on the east, with the Makavo River on the north coast of the Island and the Torlu River on the south coast.

These mountains, of a new geological formation, are rugged and broken by steep precipitous sides which form deep valleys. In places they rise to an altitude of over 6000 feet. For the most part they are wooded, except where landslides have exposed the surface of the earth. There are no grasslands anywhere in these mountains.

The natives of the mountains are still pretty much in their original state. Only a limited number of them have had contact with the white race. Large areas of the country have never been visited by an outsider. These people are good agriculturalists, build a fairly presentable living abode on the ground, and have not yet been subjected to clothing.

The Whitney Expedition landed at Bungula Bay on the north coast on October 1, 1932 and departed again December 6. A considerable portion of this time was spent in the lowland and swamp area that surrounds Bungula Bay. There a fairly good collection was brought

together.

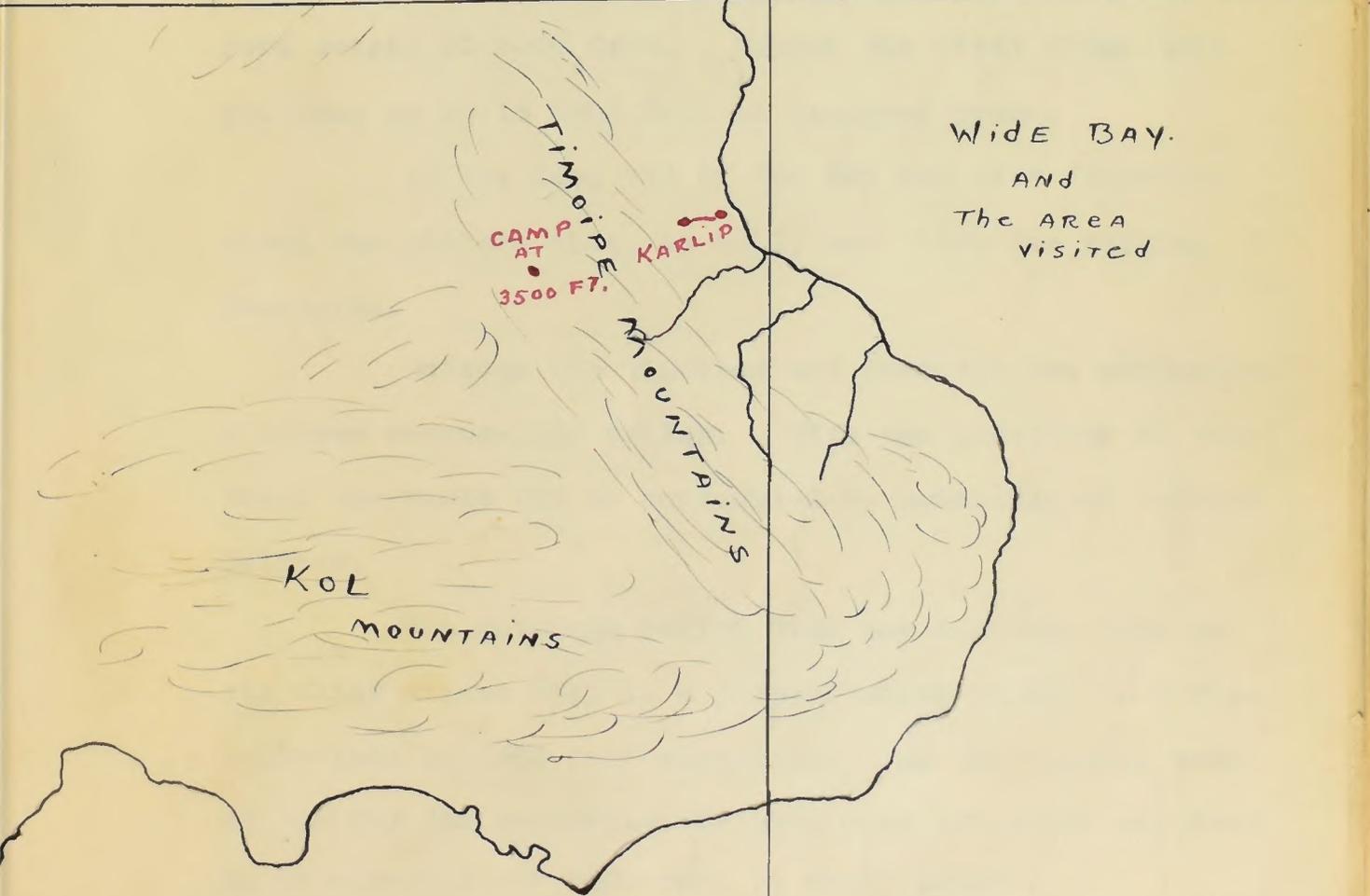
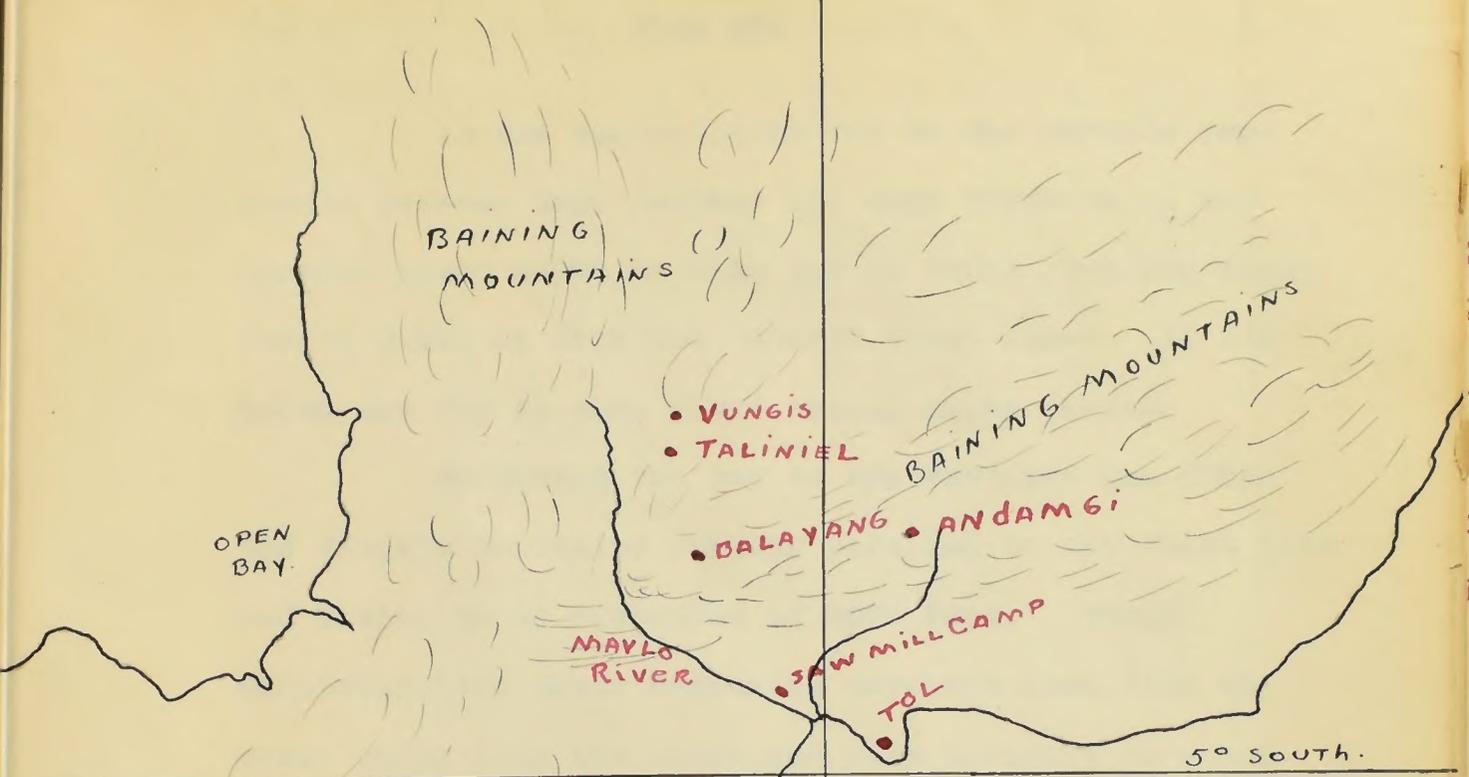
The month of November was spent in the Nakanai Mountains where collecting was carried on to an elevation of 5000 feet. Although some mountain ornithology was encountered, the results were not nearly as satisfactory as we originally anticipated.

The natives, though quite friendly after we became adjusted to one another, were still "as wild as a March hare" where reliability was concerned. We did not dare permit them the use of firearms.

Early in October the writer penetrated through the mountains as far as the village of Ti which lies one days march past the central divide. There the natives resented his intrusion, forcing him to turn back to safer ground.

Summing up the Nakanai campaign, I should say that the natives are still a little too unsettled for an expedition to make a thorough survey of the area.

For instance, late in October, 1934, a Government patrol was badly shot up in this area. Just two years after our visit.



■ AREA VISITED.

Wide Bay

At the southeastern end of the Gazelle peninsula between Cape Archway and Cape Cormoran an extensive inlet known as Wide Bay is found receding about twenty miles in from the general coast line. At its mouth the Bay is also about twenty miles across.

Bordering the bay to the westward one finds the Timoipe Mountains running parallel to the coast line and rising to an elevation of 6000 feet. These mountains have their beginning anywhere from five to seven miles from the coast and rise abruptly to a uniform height of 3600 feet. Behind the first ridge they continue on up to 6000 feet in isolated peaks.

At the deep end of the Bay and also following along the eastern side, as well, one finds the Baining Mountains.

Between the Timoipes and Bainings one encounters a narrow canyon-like valley. With the exception of this break the whole Bay is surrounded by mountains of various heights.

The Bainings behind Wide Bay and some five to six miles inland rise in a perpendicular manner to a flat table-land of 2500 feet elevation. On the eastern side of the Bay the mountains are much more irregular and rise to an elevation of 4000 feet at their summit.

The Mavlo river, the largest in the area,

empties in the Bay at the extreme end. The river and its tributaries pass through a large flat swampy area at their mouth.

The Whitney Expedition spent from December 17, 1932 to June 1, 1933 in the vicinity of Wide Bay. Collecting stations were established at:

1. Tol Plantation.
2. Mouth of the Mavlo River.
3. Balayang, Baining Mountains.
- 4; Andamgi, " " " "
5. Karlip.
6. Timoipe Mountains.

Tol Plantation, the station of Mr. George Naess, was used in the beginning as headquarters until we could get well established; later, while efforts were made to get into the Timoipe Mountains; and lastly, while we were waiting for transportation back to Rabaul. Tol is situated on a narrow flat neck of land jutting out into the Bay. The plantation is all planted in cocoanuts. Behind it one finds a large patch of grassland and beyond this the typical virgin forest of the Island. There is only one small village of endemic natives living in the lowlands on this side of the bay and these are about four miles distance from the plantation. A moderate bit of collecting was done at Tol Plantation and consisted chiefly in large series of hawks and Collocalia.

A number of years ago a lumber company established headquarters about a hundred yards in from the mouth of the Mavlo river. There a large saw mill was erected and operations conducted from that point. More recently the whole undertaking was abandoned as unprofitable but the mill and other buildings were permitted to remain. The mill itself was selected as a base camp and collecting was carried on from this point at various times. As stated elsewhere in the report, the whole country around the river is low, flat, and marshy. Considerable dense timber and secondary bush are found on the more solid ground, while tall reeds and rushes grow on the river banks and flooded areas. Here again there are only a few natives. One village of Mengen people live on the sea coast on the Timoipe side and one village of Bainings live about three miles into the interior from the saw mill.

Balayang village, situated on top of the Baining plateau behind the Bay, was chosen as a mountain camp, and collecting was carried on from there between January 28 and March 20. This plateau is as flat as the term indicates and is only cut up by small streams that cross it in a general direction of the ocean. Practically all of this country is covered with a luxuriant growth of virgin forest. Here and there one finds gardens of a limited area or secondary bush where gardens have been previously. There are no grasslands and no rugged

rocky areas either.

The Bainings, like those we encountered in the center of the Peninsula, are nomadic, shifty, dirty, and timid. After we became acquainted with one another the primitive ones became almost friendly. In time we were supplied with all of the native foods we could use and even trained a couple of boys into fair hunters. Here at this camp we were able to add new species and records to the ornis of the Island.

The Timoipe Mountains, which were visited from April 19 to May 12, are entirely devoid of natives. In former days there were a considerable number of Mengen people who made their homes in this area. At present scarcely one hundred, which comprises the remnant of the race, are scattered along the sea coast. They are all in poor health and without any initiative of any sort. But a short time will elapse before all of them are gone.

To make an encampment in the mountains it was necessary to engage the indentured labor from Tol Plantation to carry all camping effects into the interior. Camp was established at 3500 feet and hunting carried on up and down the steep mountain sides from that point.

The mountain sides are all well wooded and in places covered with a dense undergrowth as well. Very few mountain streams are encountered except during hard rains when the gulches become raging torrents. At

other times one is pressed to find water anywhere.

All of the mountain area is wooded. There are no grasslands. Occasionally one finds rocky promontories and quite frequently bare slopes which have been made by land slides.

The ornithology of the Timoipe Mountains is the same as the Baining Mountains. Though I believe Accipiter princeps is far more common in the former locality.

Between March 25 and May 5 Mr. John James visited Andangi in the Baining Mountains east of Balayang. He reports the native and conditions the same as those found at Balayang.

Usiwit River (MAP PAGE 361.)

The Usiwit River, flowing out of the Baining Mountains, empties into the ocean at a parallel with Cape Lambert and the Talele Islands at the northwest corner of the Gazelle peninsula.

Near the coast, the country through which the river passes is low, flat, and, in many places, swampy. A number of cocconut plantations have been propagated on the coast in the vicinity of this body of water. The portion of the land not under cultivation is still in its virgin state and consists of either dense mangrove thickets or a heavy stand of tall virgin timber.

From three to five miles back from the sea beach the Baining mountains rise rather abruptly to an elevation, in places, of from 2500 to 3000 feet. The mountains also are heavily wooded. I believe this portion of New Britain is the oldest, geologically, of any part of the Island.

It must be of another formation separate from the others as no earthquakes or tremors are felt on this bit of land. At no other place on the Island is this phenomenon true.

In former times, probably, this area accomodated a fairly large population of natives. One can find scattered patches of newer timber which would indicate that these small spaces had been under cultivation at

one time. At present there is only a very small band of people clustered around a garden plot situated about half way up the mountain side. These people are nomadic like the rest of the Bainings, build no houses, and are rarely seen by the white plantation owners who live on the coast. Though I visited the garden area, during my visit all of the natives ran away and hid in the bush so that I was not afforded a sight of them. Since so little is known of the habits of the Baining people, it is possible that the owners of the garden are only transients from another locality.

The Whitney Expedition visited the Usiwit river country from July 13th to August 2nd, 1933 following a rumor that a wattled cassowary inhabited that region. During this time, the expedition lived on the plantation of Mr. and Mrs. Charles Adams at Notremal.

During our stay here every day was spent in the bush searching for sassowaries but only a half-grown individual was obtained. No attempt was made to bring together a series of the birds as our series of the species of New Britain was practically complete at the time. A few desirable species were collected, another habitat of Monacella mulleriana was established, and the habitat of Columba pallidiceps was discovered. The latter appeared to be moderately common in that area.

Telele Islands MAP PAGE 361.

The Telele or Scilly Islands to the northward of Cape Lambert lie approximately at the extreme northwest corner of the Gazelle peninsula. They are situated well within the barrier reef surrounding Cape Lambert. They are a cluster of five low rocky and sandy islets, situated upon loosely connected reefs, surrounded by deep water. Three of the islands are wooded and the other two are barren. One of them, the largest, reaches a height of sixty feet above high water mark.

None of these islands are inhabited. They are only visited periodically by natives from the mainland who go there to raid the sea bird rookeries and to collect turtles eggs. There is no fresh water available on any of these islands.

The three wooded islands contain a varied assortment of tall trees and a rather dense growth of shrubs and vines. The two barren Islands support a growth of short grass. Man o'war birds, noddy terns, and possibly a stray gannet or two roost and nest on the wooded islands. Sterna dougalli and Sterna sumatrana nest on the small barren islands.

On the larger wooded islands one finds a few small passerine birds as well as the marine forms named.

The Whitney Expedition spent two days (July 27

and 28, 1933) on these islands. The following species were collected during this sojourn:-

<i>Fregata ariel</i>	5
<i>Accipiter novaehollandia dampieri</i>	1
<i>Sterna dougalli bangsi</i>	2
<i>Sterna sumatrana</i>	3
<i>Anous minutus</i>	2
<i>Monarcha cinerescens</i>	2
<i>Pachycephala pectoralis dahli</i>	2
<i>Myzomela sclateri</i>	4

and no. 1953) on these islands. The following species

were collected during this sojourn:-

- 1 *Procyon lotor*
- 2 *Sciurus harrisi*
- 3 *Sciurus carolinensis*
- 4 *Sciurus harrisi*
- 5 *Sciurus carolinensis*
- 6 *Sciurus harrisi*
- 7 *Sciurus carolinensis*
- 8 *Sciurus harrisi*
- 9 *Sciurus carolinensis*
- 10 *Sciurus harrisi*

T. H. H. April 1962 - E.H.

Brook's Land + Fuel work book

veg ✓

all pencil checks on
marks last represent
species collected in
new Britain in 1958-1959

names in pencil represent
collected by E.H. & not by M.F.G.
dark checks represent species of land - fuel work book
collected by M.F.G. and not by S.T.G.

- ✓

Birds of New Britain

(With quantity of each shipment from areas visited)

	1 st R A B A U L A R E A	2 nd B A I N I N G	3 rd N A K A N A A R E A	4 N A K A N A I	4 W I D E B A Y	5 U S I W I T T A L L E	T O T A L
✓ Casuarius bennetti bennetti	-	-	-	1	2	2	5
✓ Podiceps ruficollis colleyi							
Puffinus leucomelas							
Puffinus pacificus chlorchynchus							
Puffinus heinrothi							
Phaeton rubricauda							
" lepturus							
Sula leucogaster							
" dactylatra							
Phalacrocorax melanoleucus							
Fregata minor peninsulae							
" ariel ariel	-	-	-	-	-	5	5
✓ Butorides striatus macrorhynchus							
✓ Demigretta sacra sacra	-	-	-	5	-	-	5
✓ Nycticorax caledonicus canericorus	1	-	-	-	8	-	9
✓ Dupetor flavicollis nesophilus	1	-	-	-	23	-	24
✓ Ixobrychus sinensis	-	-	-	-	4	-	4
✓ Dendrocygna guttata	-	-	-	-	8	-	8
✓ " arcuata	-	-	-	-	5	-	5
✓ Anas superciliosa pelewensis							
✓ Aviceda subcristata bismarckii	15	25	-	2	7	-	49
✓ Henicopernis longicauda infuscata	2	-	-	1	3	1	7
✓ Milvus migrans affinis							

	1 R A B A U L A R E A G.	2 2 nd B A I N I N G.	3 3 rd N A K A N A I	4 N A K A N A I	4 W I D E B A Y	5 U S I W I T T A T A L L E. L E.	T O T A L.
✓ Haliastur indus girrenera	-	-	-	-	-	-	2
✓ Accipiter meyerianus	-	-	-	-	1	-	1
✓ " novaehollandiae dampieri	15	7	7	1	44	1	75
✓ " luteschistaceus	-	3	-	-	1	-	4
✓ " princeps	-	-	-	-	3	-	3
✓ " brachyurus	4	1	1	-	-	-	6
✓ Haliaetus leucogaster	-	-	-	-	5	-	5
✓ Pandion haliaetus cristatus	-	-	-	1	-	-	1
✓ Falco peregrinus	-	-	-	-	4	-	4
✓ " severus papuanus	-	2	-	-	7	-	9
✓ Megapodius freycinet eremita	12	12	-	13	3	-	40
✓ Excalfactoria chinensis lepida	-	2	-	1	-	-	3
✓ Turnix sylvatica saturata	-	-	-	-	-	-	-
✓ Habropteryx insignis	-	-	1	-	14	1	16
✓ Hypotaenidia philippensis meyeri	-	2	-	-	-	-	2
✓ Eulabeornis tricolor convicta	-	-	-	-	-	-	-
✓ Porazna cinerea minima	-	-	3	1	27	-	31
✓ Amaurornis moluccanus nigrifrons	1	27	-	2	8	-	38
✓ Porphyrio albus neobritannicus	-	1	-	-	-	-	1
✓ Orthorhamphus magnirostris	-	-	-	1	-	-	1
✓ Pluvialis dominicus fulvus	-	-	-	2	-	-	2
✓ Charadrius mongolus	-	-	-	2	-	-	2
✓ " dubius jerdoni	-	-	-	-	-	-	-
✓ Capella megelea	-	-	-	4	-	-	4

	RA BA VA L	A ⁽¹⁾ BA IN ING	B ⁽²⁾ BA IN ING	3 NA KA NA I	4 NA KA NA I	4 WI DC BA Y	5. USI WI T	T AL LE L.	T O T A L.
✓ Actitis hypoleucos	2	1	-	-	1	-	-	4	6
- ✓ Calidris acuminata	-	-	-	-	1	-	-	1	6
✓ Heteroscepius incanum incanum	-	-	-	-	-	-	-	-	-
- ✓ Himantopus himantopus leucocephalus	-	-	-	-	-	2	-	2	-
✓ Numenius phaeopus variegatus	-	-	-	-	-	-	-	-	-
✓ Sterna bergii cristata	-	-	-	1	-	-	-	1	3
✓ " hirundo longipennis	-	-	-	2	1	2	-	5	7
- ✓ " dougalli bangsi	-	-	-	-	-	-	-	-	-
- ✓ " longipennis	-	-	-	-	-	-	-	-	-
- ✓ " sumatrana	-	-	-	-	-	-	3	3	3
- ✓ " leucoptera chlidonias	-	-	-	-	-	-	-	-	-
- ✓ " anaethetus anaethetus	-	-	-	-	-	-	-	-	-
- ✓ Anous stolidus pileatus	-	-	-	-	-	-	-	-	-
- ✓ " minutus	-	-	-	-	-	-	2	2	2
✓ Ptilinopus superbus superbus	3	4	-	-	-	-	-	7	7
✓ " insolitus insolitus	1	2	15	-	-	-	-	18	18
✓ " rivolii rivolii	2	3	6	1	-	-	-	12	12
- ✓ " solomonensis meyeri	-	-	-	-	-	-	-	-	-
- ✓ Ducula pacifica tarralli	-	-	-	-	-	-	-	-	-
✓ " pistrinaria vanwycki	-	-	5	4	-	-	-	9	9
✓ " rubricera rubricera	4	-	-	8	-	-	-	12	12
✓ " finschi	1	1	3	-	15	-	-	20	20
✓ " melanothroa	-	2	8	29	-	-	-	39	39
✓ " ^{spilorrhoea} Myristicivora subflavescens	-	5	-	4	1	-	-	10	10
- ✓ Columba vitiensis halmaheira	-	-	-	-	-	-	-	-	-
✓ " pallidiceps	-	-	-	-	1	3	-	4	4

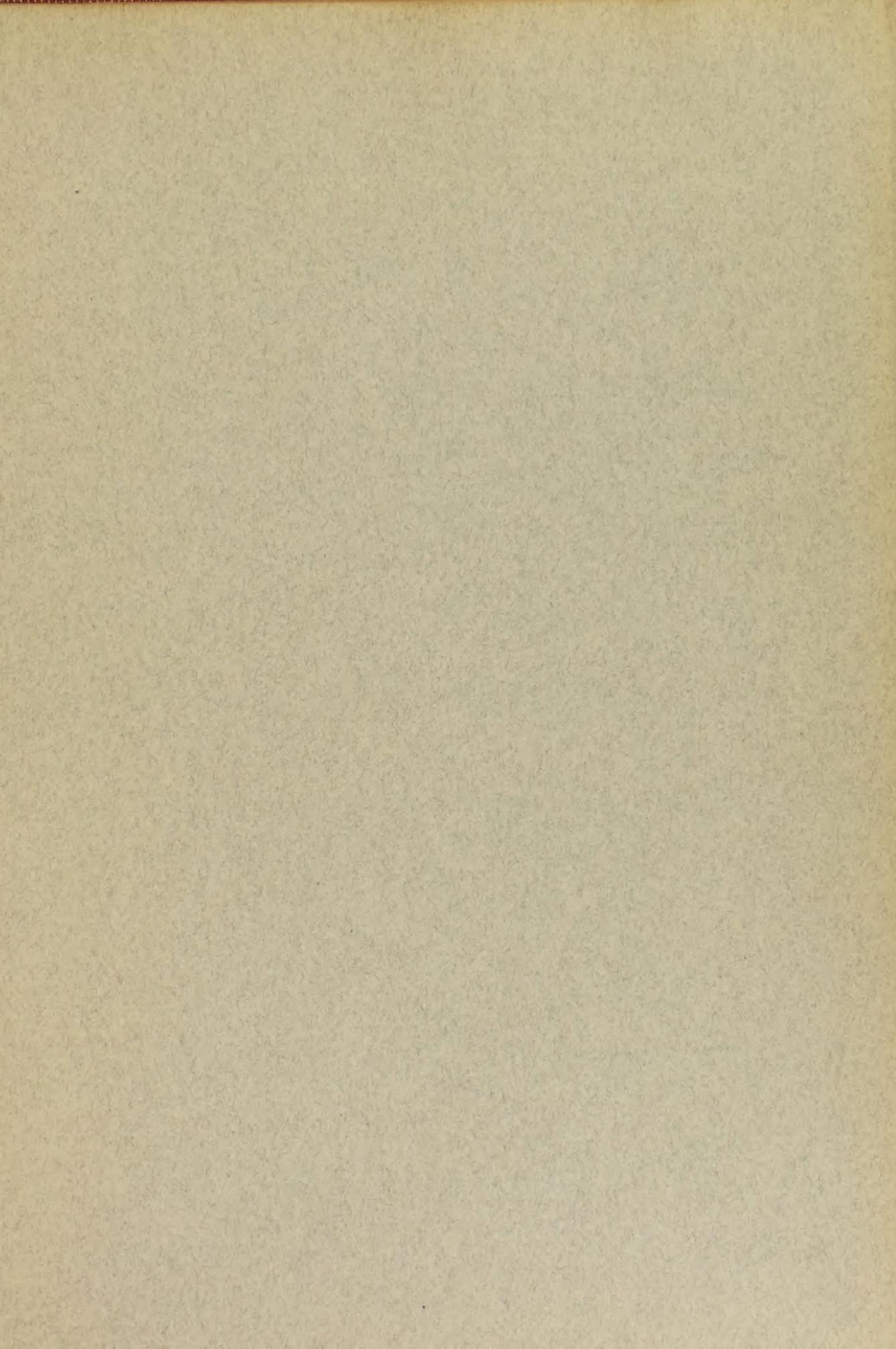
	1 RABAU L	2 A N D B A I N I N G S	3 B A I N I N G S	4 N A K A N A I	4 N A K A N A I	4 W I D E B A Y	U S I W I T E	T O T A L
✓ Gymnophaps albertisii <i>longicauda</i>	-	-	18	-	10	-	-	28
✓ Macropygia amboinensis carteretia	2	3	-	3	1	-	-	9
- ✓ " rufa arossi								
✓ " nigrirostris	-	5	-	-	2	-	-	7
✓ Reinwardtoena browni	2	-	1	-	9	-	-	12
- ✓ Streptopelia chinensis tigrina	-	-	-	-	3	-	-	3
✓ Chalcophaps stephani stephani	3	1	-	3	-	-	-	7
- ✓ Henicophaps foersteri	4	6	4	1	4	1	-	20
✓ Gallicolumba beccarii johanna	4	2	2	1	2	-	-	11
✓ " jobiensis <i>jobiensis</i>	6	-	-	1	9	-	-	16
✓ Caloenas nicobarica nicobarica	1	1	-	-	-	-	-	2
✓ Lorius hypoinochrous devittatus	2	5	-	6	-	-	-	13
- ✓ " amabilis								
✓ Trichoglossus ^{<i>haematodus</i>} ornatus aberrans	1	-	-	-	8	-	-	9
✓ Chamosynopsis placentis pallidior	13	4	-	3	-	-	-	20
✓ " rubrigularis rubrigularis	19	4	-	4	-	-	-	27
✓ Cacatua galerita ophthalmica	8	3	-	-	1	-	-	12
✓ Micropsitta pusio pusio	-	13	7	9	4	-	-	33
✓ ^{Lorius} <i>bruijnii necopinata</i>	2	-	-	2	-	-	-	4
✓ Eelectus roratus goodsoni	2	-	-	2	-	-	-	4
✓ Geoffroyus heteroclitus heteroclitus	5	1	-	3	-	-	-	9
✓ Loriculus tener	-	1	-	-	1	-	-	2
- ✓ Cuculus optatus	-	-	-	-	1	-	-	1
✓ <i>Cuculus saturatus horsfieldi</i>	-	-	-	-	1	-	-	1
✓ Cacomantis variolosus macrocercus	7	5	-	2	9	-	-	23
- ✓ Chalcites lucidus lucidus	3	1	-	-	1	-	-	5

	RA DA VA L A R E A	B A I N I N G S ²	N A K A N A I ³	N A K A N A I ⁴	W I D E B O D Y ⁴	V I S I T I T	A N D T A L E C	T O T A L
✓ Eudynamis scolopacea salvadorii	1	6	-	-	5	-	-	12
- ✓ Urodynamis taitensis								6
✓ Scythrops novaehollandiae	2	-	-	-	2	-	-	4
✓ Centropus violaceus	4	8	-	11	12	-	-	35
✓ " ateralbus	14	5	-	4	-	-	-	23
- ✓ Tyto alba meeki	-	-	-	-	-	-	-	7
✓ " (novaehollandiae) aurantia	2	-	-	-	3	-	-	5
✓ Ninox odiosa	22	49	-	1	3	-	-	75
- ✓ Caprimulgus macrurus albolaxatus	5	9	7	-	12	-	-	33
✓ Collocalia esculenta stresemanni	-	28	-	-	4	-	-	32
✓ " spodiopygia eichhorni	-	-	-	-	44	-	-	44
✓ " vanikorensis coultasi	-	-	-	-	40	-	-	40
✓ Hemiprocne mystacea aeroplanes	9	13	-	5	-	-	-	25
✓ Alcedo atthis pelagica	5	-	-	9	19	-	-	33
✓ ^{Ceyx} Alcyone websteri	1	2	-	-	16	-	-	19
- ✓ " pusilla	-	-	2	-	5	-	-	7
✓ Ceyx lepidus sacerdotis	2	11	-	2	3	1	-	19
✓ Halcyon saurophaga saurophaga	-	-	-	2	-	-	-	2
✓ " chloris tristrami	14	12	-	10	22	-	-	58
- ✓ " sancta	18	1	-	1	-	-	-	20
- ✓ " macleayi								
✓ " albonotata	18	26	1	3	-	-	-	48
✓ Tanyptera sylvia nigriceps	4	8	-	8	24	-	-	44
- ✓ Merops ornatus	9	-	-	-	-	-	-	9

	RA BAUL AREA	2. BA INING.	3 NA KANA AI	4 NA KANA AI	4 W I D E B A Y	5 U S U W I T	T A L C L E.	T O T A L.
- ✓ <i>Merops philippinus salvadorii</i>								
✓ <i>Eurystomus orientalis crassirostris</i>	4	5	-	8	3	-		20 ⁶
✓ <i>Rhyticeros plicatus dampieri ruficollis</i>	2	2	-	-	-	-		4 ⁶
- ✓ <i>Pitta macklotii gazellae</i>	14	32	4	1	5	-		54 ⁻
- ✓ <i>Hirundo tahitica ambiens</i>	-	-	-	-	15	-		15 ⁰
- ✓ <i>Petrochelidon nigricans nigricans</i>								
✓ <i>Lalage leucomela karu falsa</i>	13	2	-	2	-	-		17 ⁷
✓ <i>Coracina papuensis sclateri</i>	7	4	-	9	-	-		20
- ✓ " <i>novaeollandia melanops</i>								
✓ " <i>lineata sublineata</i>	2	-	4	2	3	-		11
✓ <i>Edolisoma tenuirostre heinrothi</i>	5	3	1	7	2	-		18
✓ <i>Dicrurus hottentottus bracteatus laemostictus</i>	11	9	-	10	-	-		30
✓ <i>Corvus coronoides insularis</i>	3	3	-	2	-	-		8
✓ <i>Ortygocichla rubiginosa</i>	-	4	3	-	2	-		9
✓ <i>Cichlornis grosveneri</i>								
- ✓ <i>Oreocincla dauma talasea</i>								
✓ <i>Phylloscopus trivirgatus moorhousei</i>								
- ✓ <i>Saxicola caprata aethiops</i>	1	-	-	4	3	-		8
- ✓ <i>Acrocephalus arundinaceus meyeri</i>	-	-	-	-	25	-		25
- ✓ <i>Cisticola exilis diminuta</i>	9	10	-	-	15	-		34
- ✓ <i>Megalurus timoriensis interscapularis</i>								
✓ <i>Rhipidura dahli dahli</i>	4	10	-	3	11	-		28
✓ " <i>rufiventris finschi</i>	18	2	-	-	-	-		20
✓ " <i>leucophrys melaleuca</i>	-	-	-	3	-	-		3
✓ <i>Myiagra cyanoleuca noveepomeraniae</i>	-	-	-	-	-	-		
✓ <i>Monarcha verticalis</i>	6	6	-	8	9	-		29

	1 R A B A I N U L	1 B A I N I N G	3 N A K A N A I	4 N A K A N A I	W I D E B A Y	U S I W I T	T A L E L C	T O T A L
✓ Monarcha alecto chalybeocephalus	14	6	-	1	5	-		26
✓ " hebetior eichhorni	5	6	-	9	6	-		26
- ✓ " cinerascens impediens	-	-	-	-	-	2		2
- ✓ Monachella mülleriana	-	-	-	-	5	3		8
✓ Artamus insignis	9	1	-	9	1	-		20
✓ Pachycephala pectoralis ^{citroogaster} finschi	7	33	-	17	12	-		69
✓ Aplonis metallica ^{us} nitida ^{us}	9	6	-	2	-	-		17
- ✓ " cantoroides	4	1	-	1	-	-		6
✓ Mino dumontii ^{kreffti} ^{gillau}	11	3	-	1	-	-		15
✓ Cinnyris jugularis flavigaster	4	-	-	2	-	-		6
✓ " sericea corinna	30	3	-	-	-	-		33
✓ Myzomela erythromelas	8	9	-	1	4	-		22
✓ " cruentata ^{coccinea} ^{kleinschmidti}	-	1	2	-	-	-		3
✓ " cineracea ^{eques} cineracea	11	2	-	3	5	-		21
✓ Yosea ^{whitemanensis} novaeguineae cockerelli	4	4	-	4	-	-		12
✓ Dicaeum eximium layardorum	19	4	-	3	-	-		26
✓ Zosterops hypoxantha hypoxantha	4	8	-	5	1	-		18
- ✓ Lonchura spectabilis spectabilis	3	-	-	-	20	-		23
- ✓ " melaena	13	12	-	2	-	-		27





20mm
122 species
1500 skins

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