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THE NEW YORK TIMES, TUESDAY, JUNE 29, 1982

## *Dr. Hannibal Hamlin, Former Neurosurgeon*

Dr. Hannibal Hamlin, a retired neurosurgeon at Massachusetts General Hospital in Boston, died yesterday at the hospital. He was 78 years old and lived in Providence, R.I.

Dr. Hamlin had been associated with Massachusetts General since 1939, and had been chief of its neurosurgical clinic. He was appointed senior neurosurgeon in 1977 and honorary neurosurgeon in 1979, when he retired.

He is survived by his wife, Margaret Beck Hamlin; a daughter, Ellen V. Reynolds of Manchester, N.H.; two sons, Prof. Cyrus Hamlin of Toronto, and Dr. Charles Hamlin of Denver; two sisters, Sally Cworowsky of Glen Ridge, N.J., and Eleanor Vendig of Port Washington, L.I., and five grandchildren.







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JOURNAL AND NOTES  
of  
HANNIBAL HAMLIN  
—  
WHITNEY SOUTH SEA EXPEDITION

July 20, 1927 - November 7, 1928

УЧЕБНИК  
ДЛЯ  
АВИАЦИОННОГО  
ИНЖЕНЕРНОГО

ВОДОК СНА ПАНИКОВ

30

ИМЕНИ ГЛАВНОГО

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МОТИВЫ АВИАЦИИ И МАСТЕРСТВА

СССР . Академия - Уфа . ОГУЗ

JOURNAL

July 20, 1927. Took leave of Doctors Chapman and Murphy and the Museum in the afternoon. Mr. Thomas Barbour, the reptile expert, informed us of Plasmochin which fixes malaria with none of the discomforts that accompany the action of quinine; it is a German preparation, which we shall probably be unable to get.

G. R. and I were accorded a memorable farewell celebration by many of the best in Yale '27. We departed from the Grand Central at 9:45 E.S.T. on the Montrealer with all our baggage, instructions, and the 6000 auk shells.<sup>X</sup> Also two bottles of champagne, a perfect charade of the "coals to Newcastle" idea.

July 21. Arrived at Montreal at 8:50 feeling no ill effects from Ludington's symposium. We visited McGill University, noting particularly the Library where was on exhibition a strange collection of Italian bird illustrations done in feathers. Unsuccessful in procuring Plasmochin. Lunched with Mr. Frank Clergue, ex-Bangor, and his friend Henry Josephs, who played in the McGill backfield the first year a contest was ever staged with Harvard in Montreal. Our host took us around his house, which contained among other things the first piano (not a copy) played on by Paderewski in North America, a petrified tree stump from Japan, two tusks from a walrus estimated to be over 200 years old, a genuine Turner, and the second



watch built by the Hamilton makers. The meal, served by a Japanese servant, included caviar and real Madiera. Spent the afternoon swimming off an island in the St. Lawrence, returning in time to catch the trans-Canada Limited at 6:45 E.S.T. At dinner we killed the first bottle.

July 22. Both of us exercised our new typewriters strenuously with eminent epistolary result. Have already met two travelers bound for Sydney on the Aorangi; a ship-builder from Freemantle returning from a trip to Sweden, and a Londoner named Hibert, whose one fraternal distinction is membership in the A.O.F.B. (Ancient Order of Froth Blowers); its ideals are contained in the name. A second degree is conferred upon the receipt of 25 neophytes and one becomes a "Blaster", then a "Monsoon", and finally a "Grand Typhoon". The order provides automatic insurance to its members against everything that one could not possibly contract except "bitsers" (bits o' tin, bits o' wood, etc.). Excellent scenery around Lake Superior. Temperature about 75. Saw some small ducks, doves, and hawks.

July 23. Got off the train at Winnipeg and got the returns on the Dempsey-Sharkey fight. In strolling up the main street, we nearly missed the train, but returned to a most uninteresting afternoon's ride. Hot and dusty. Prairies.

July 24. The first sight of the Rockies came about 9 A.M. By noon we were well into them-- Banff and Lake Louise showered passengers upon us as well as scenic



beauty. 3.0 grades and spiral tunnels make one dizzy, the last, the Connaught being 15 miles long under Mt. Sir Donald (Glacier, B.C.). By 6 P.M. we were leaving them behind.

July 25. Off at Vancouver at 9:30 of a bright morning and the first object of importance that we saw was the S.S. Aorangi, 22,000 tons net displacement and very trim in appearance. At 10:30 we left for Seattle on the Princess Marguerite. On board were Alston Jenkins and Martin Fenton, both Yale '29. In Victoria we had a swim in the Crystal Garden pool. The sail down the sound was delightful. In Seattle we found Collins by sheer good fortune, for the telegram we sent from Moose Jaw never reached him. He immediately treated us to two box-spring beds.

July 26. Among the many delightful indulgences of this day were swimming in Lake Washington and a seaplane ride over the city. After a splendid dinner we caught the same Princess Marguerite back to Vancouver. This trip was ex cathedra and not on the generosity of the Museum (editor's note).

July 27. Up betimes and busied about luggage. The auk shells were intact. A few supplies uptown and we were ready to sail, which we actually took part in. The Aorangi stopped for 2 hours in Victoria where we put foot on land for the last time before getting to sea. By 9:30 we were watching the lights disappear over the horizon.

July 28. Lat. 46-52 N. Long. 128-6 W. Run 226 (noon recording). We are surrounded by Australians of very slight acquaintance. Our table companions-- Mr.



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and Mrs. H. P. Christmas of Sydney.

July 29. Lat. 42-49 N. Long. 135-49 W. Run 408.

G. R. ill with chills and fever from under-eating and general change of environment; kept to his bunk and visited by the ship's surgeon, who pronounced him a perfect specimen. We have resolved on a schedule (pronounced shedule in Anzac) that is going to be difficult to follow--reading, writing, and exercising at regular times (and drinking).

July 30. Lat. 37-58 N. Long. 142-15 W. Run 413.

15/- tax for privilege to compete in deck-tennis and quoits I call burglary, especially since the entries for everything except billiards, an aged game, had closed before we were collared. Unfortunately, it is a "necessary expense". The ocean out here is even calmer than near land. I always had an idea that it was due partly to depth, but Johnstone's "Study of the Oceans" reveals the fact that the deeps in the Pacific are all off the several continental shelves. The food on board is excellent; we hope to keep our weight down by exercise.

The most distinguished passengers, I suppose, are Hon. William McCormack, M.L.P., Premier for Queensland, and Sir George Fairbairn, one of the biggest sheep owners in Australia. By far the nicest man, from the American point of view is Mr. Pullar, a young Scotchman, who is representing a famous cotton firm of Edinburough, established by his grandfather.

July 31. Lat. 32-43 N. Long. 147-33 W. Run 408.

Sunday. 890 miles from Honolulu at noon. The most important event of the day was the divine service, conducted



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by Commander H. Crawford, Esq. The doctor read the lesson in unintelligible fashion, showing that the perfect Oxford accent can be wholly as strange as that of Brooklyn, N.Y. On the whole the religious exhibition was dull and inadequate. Why not organize a choir, as suggested by H. A. Eccles, a delightful doctor from Cornwall?

"They played a tune on that beastly harmonium that no one had ever heard before, and nothing happened."

The orchestra quite outdid themselves in an evening concert on the verandah cafe; stuff they could play- Gilbert and Sullivan and English folk-dances.

August 1. Lat. 27-22 N. Long. 152-24 W. Run 408. Weather and sea continue favorable with prevailing winds SSW. Both wrote many letters in anticipation of Hawaii.

August 2. Lat. 22-1.N. Long. 156-53 W. Run 408. Raised the island of Molokai shortly after 1 P.M. and a consequent rush of humanity to the boat-deck. A few gulls and terns about the ship. The approach to Honolulu harbor is a rhapsody in blue, beautifully protected by reefs, the surf rolling in, great combers in line. Over in the inlet to Pearl Harbor lay a three-masted schooner, the name of which I have forgotten, but which was later pointed out as the carrier of numerous scientific expeditions. She is privately owned. Diamond Head lies off to your right and the town loses itself in the sloping hillside, which is finally surmounted by volcanic ridges. There are very few peaks, the group is volcanic in origin.

By 6:30 we were in the surf at Waikiki beach off the Moana Hotel. We decided to spend the night. Governor



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Wallace Farrington was cordial (classmate of Cy Hamlin at the University of Maine), his married daughter particularly so. His official residence is the former home of the last queen, Liliokilanea. Built of coral, it has been added to and improved by American comforts. We were received in a large piazza-like room where green plants peeped in on all sides. Mrs. Whittemore (the daughter) as we were about to leave invited us to what she termed "a rare Hawaiian party". It was. There we stepped into the midst of a fast younger set that would rival that of New York's suburbia, and experienced the native drink okuleou (phonetic). Music was provided by two Hawaiian orchestras, one jazz and the other a typical trio. The singing was enchanting. A native girl danced the hula kui in full regalia with such grace and spirit that most of the female guests were induced to emulate her remarkable movements. The Governor's daughter was particularly effective. In a group of three they danced a liliu-e, which is designed to present a graphic description of the departed queen's anatomy. To the hotel after a late supper.

August 3. Up at 7 and into the luxurious surf. At 7:30 Dr. Bryan<sup>y</sup> of the Bishop Museum telephoned and later appeared in his Ford to take us for a ride. We visited the Aquarium and then circled Diamond Head; up on Pale the wind blows 70 miles an hour as a casual thing; it is a driveway that leads up to the historic scene of the battle in which Kamanemea pushed the defenders over the cliff and asserted superiority over the whole



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group of Hawaii. The view takes in the naval base and an arc of the coast for something like 20 miles. We met the director of the Aquarium, Dr. Edmondson. The best part of the plant is its laboratories; the students can bring specimens in right off the reefs. The collection is small but very beautiful and quite representative. Then the University, an institution of over 1000 students and remarkable facilities-- five or six large buildings, outdoor swimming pool, football and baseball fields, and a couple of barrack-like dormitories. We stopped in at the laboratories of pineapple and sugar commissions, where scientific knowledge is developed concerning the culture and protection of these valuable products. These are the foundation of the wealth of Hawaii. Insects and birds of particular species have been imported to combat pests, worms, and bugs that have threatened their welfare.

At the Bishop Museum we met Dr. Gregory, a much anticipated event. Our friend Bryant took us on a rapid but very instructive tour of the museum collections. He is Yale S'21 and spent 9 months on the "France", so his kindness was extremely welcome. He is sort of head curator and an <sup>wp</sup> etymologist by speciality. The Polynesian stuff was wonderful representing practically all the Pacific archipelagoes. It was our luck also to meet Dr. Buck, an ethnologist and an authority on the Maoris. A Dr. Stokes urged us to discover the method of manufacture employed in the making of adzes in the Solomons. Gregory told us not to forget land shells, and Bryant, of course,



insects. I do hope we can send them something.

Panini (native name of Frances Farrington) and Drs. Gregory and Bryant were at the pier with sweet leis of gingerflower and awa pue, the blossom that exudes the very essence of the islands. The whole cerulean scene is before our eyes again- the water, the gentle slopes, and the cloud-capped mountains; native boys do swan-dives off the hurricane deck as the Aorangi backs out. Furtive looks both on ship and shore; aloha oe, and the blessed islands are a wraith. In the harbor one casts one's lei into the ocean- if it floats, the traveller will surely return.

August 4. Lat. 15-20 N. Long. 161-14 W. Run 408.

Saw a few shearwaters and another larger bird, probably a species of petrel, brown dorsal markings with white on its underwings. Will the day ever come when I can recognize a specimen with confident assumption? The Committee has inaugurated another sports competition which we both entered to do right by the Museum. I was eliminated in the first round of the deck quoits.

August 5. Lat. 9-24 N. Long. 164-46 W. Run 412.

In the second round of the deck tennis I was thoroughly drubbed by a Jew named Lazarus. G. R. reports that he saw two albatrosses this morning.

August 6. Lat. 3-45 N. Long. 167-56 W. Run 389.

Saw what appeared to be some species of petrel this morning. The Indian Ocean has attracted my interest lately and its islands especially- the Chagos, Seychelle, Maldives, Laccadive, and Andaman groups. Have these been thoroughly investigated? Tomorrow around 2 A.M. we cross



the equator. The mutation of climate has been one of the fascinations of the voyage, passing gradually into an opposite solstice.

August 7. Lat. 2-12 S. Long. 171-25 W. Run 414. (Sunday). The Church of England had to get on without me this morning. About 1:45 we raised Mary Island, a typical coral atoll, the island furthest west of the Phoenix group. The bird life was wonderful. Gannets were plentiful and mostly of one species; terns and shearwaters. I recognized the fairy tern. Nothing on the island except a few palms and an old deserted hut. The blue lagoon enclosed by the atoll is about 3 miles wide. A large fringing reef to the northwest along the shore. There were many large birds but not albatrosses, mollymawks probably. In crossing the prime meridian we lose one day. Many of the birds stayed with the ship until quite late at night.

August 8. Lat. 8-15 S. Long. 174-48 W. Run 413. Passed the Horne Islands this morning, volcanic formations thickly wooded and uninhabited. Not many marine birds in evidence. Some shearwaters.

August 9. Lat. 14-30 S. Long. 178-45 W. Run 403. G. R. wins a prize at the fancy dress party as the "most sustained character". This enhances our chance of meeting some of the select passengers. We have met one man from the Solomons, a missionary of the C of E- R. C. Rudgard of Pawa on the island of Ugi, a little one located off the NW of Guadalcanar.

August 10. This day does not exist as far as we are concerned.



August 11. Lat. and Long. at 9:30, Suva, Fiji.

The approach is not as beautiful as that of Hawaii, and particularly because the natives were burning sugar cane stalks. The harbor is well protected by barrier reefs, having a rather narrow entrance channel. It is actually a bay due to a promontory that extends out to sea quite a ways on the south. The natives impress one immediately by their wonderful physiques and rugged appearance; many of them do stevedore work on the pier. The only thing to do in Suva is to ride about; very interesting if you can keep awake, very dull if you cannot, and very expensive either way. About three hours and you are finished, if the ride is not. The driver never goes over 15 miles an hour, murmuring something about traffic regulations in reply to protest; at least ten cars passed us. The idea is to draw out the time. Well, we saw a native village, whose picturesqueness had been dissipated by tourist exhibitionism. The young people are lazy and have lost their powers of vigor because of the white mores. We called on the chief who was busy making poi, but who raised his head to say, "Samboda" (evidently "good-day; good-bye- Samboda"). The location of the village was pretty- on the top of a bluff overlooking the harbor. The aboriginal natives would be expected to have difficulty in maintaining their culture, being outnumbered by Orientals and Indians. Very interesting was the government bird sanctuary well up in the interior; there was also a botanical garden, all this at an altitude of about 700 feet. We crossed the Nausori river, pictured below and



visited a sugar refinery. The chief produce of the islands consists of bananas, sugar, and pineapple.

Foolishly we had lunch at the Grand Pacific Hotel (Gr. Terrific Hotel), which was just bad. The Aorangi was cleared by 2:30. We left native coin-divers waving farewell from their dug-outs and singing "Show Me the Way to Go Home", first in English and then in Fijian. About 7:30 we passed close to the outlying island in our course, lying under a full moon, a lighthouse on the reef and a cloud on the mountain. The Solomons are only a few days run to the west. Gulls and shearwaters were in evidence until midnight, when G. R. and I have a half hour session on the forepeak.

August 12. Lat. 23-34 S. Long. 177-9 E. Run 337. Change in temperature and humidity phenomenal; overcast nearly all day until it cleared quite suddenly about 6 P.M. Twenty-four hours ago we were panting around Suva; now we are getting out the coats and rugs.

August 13. Lat. 29-58 S. Long. 176-8 E. Run 388. This is the roughest day we have had so far, many people staying below. Air much colder than yesterday; fur coats were in evidence. A gymkana was held in the afternoon. In the evening prizes were distributed in the lounge. The session ended with a great exchange of encomiums: the captain said in all his experience he had never seen such an energetic and efficient sports committee, and Sir George Fairbairn announced that this voyage was certainly the finest of his career. The last word was a quotation of the captain's- obviously a stock



offering used every trip, something about "for the knowledge of whom I am richer, and of me they no poorer, I guess (or hope)."

August 14. Lat. 36-25 S. Long. 174-59 E. Run 391. At noon we were 60 miles from Auckland and approaching the Bay of Islands. The harbor is remarkably protected thereby, great volcanic masses exhibiting extinct craters. New Zealand is a wonderful thermal region. Saw many petrels and as we came closer black-backed gulls in large numbers and a small gull, white with grey wings having white tips, and red feet.

Passing the customs was quite laborious. And then the only thing we found ashore was a circle of frenzied evangelists and socio-political ranters. One was expounding all the texts in the Bible that dealt in description of hell; another opposite was damning American wealth and morality as depicted by the movies; furthermore he denounced America as a nest of war propaganda and sabre-rattling.

August 15. The Museum revealed a splendid Maori collection- implements, dwelling-places, and dress; wonderful wood carving. The bird and animal exhibits looked ratty; poorly mounted and rather jumbled. It makes one appreciate how valuable the groups pictured in their natural environment by the artists in N. Y. are for fixing the specimens in the mind of the observer. I did see one or two tattooed heads in very poor state; those on the 4th floor of our Museum are certainly remarkable. The Zoo was very fine and the best thing the town offers.



Located in a large hollow with paths leading down in terrace fashion. The carnivores looked in excellent shape; and quite a variety although the institution is only four years old. Splendid bird specimens, especially eagles and vultures; pigeons, parrots, and finches were plentiful. The keeper was particularly proud of the American bison.

August 16. Lat. 34-21 S. Long. 170-1 E. Run 344. Since it is the end of winter down here we have decided not to go to Tasmania, which would cost us plenty and make us very cold. The definite sailing date of the Mataram that will take us to Tulagi is the 31st, according to the purser. Saw six mollymawks, which are following the ship and one lone black storm petrel. I am tempted to float a hook out baited with meat to see if I can catch one and try skinning it.

August 17. Lat. 34-16 S. Long. 162-37 E. Run 367. Someone had an idea that we should arrive two days early but the Tasman Sea kicked up and the Aorangi is travelling at half speed. So we shall arrive on the 19th, one day earlier than the schedule calls for. The last days drag. Saw a few shearwaters- I should say, *puffinus* (*gavia* or *assimilis*); flight very rapid and zig-zag. The mollymawks are still with us, beautiful in flight.

August 18. Lat. 33-58 S. Long. 156-38 E. Run 298. Quite rough last night and the worst it has been during the whole voyage this morning. Luckily we have gotten used to it so we do not miss a meal. Tomorrow morning early we shall raise Sydney Heads. The doctor informed me that



this is the breeding season for albatrosses. Today we saw flocks of little shearwaters and isolated petrels.

August 19. Awoke in time to see the South Head go by. Picked up the doctor at 7 and by 8 we were anchored well up in the 'arbor. Considerable confusion about luggage and we finally got up to the Australia Hotel. Richards' first gesture, signalizing our advent to New South Wales was to spill a large order of cock-tailed oysters on his vest. In the afternoon we called on Burns Philp & Co., the reputed agents of Mr. Beck. An official named Virtue thought he might be at Gizo, but no one was sure of anything. The American Consulate had a letter from Mr. Beck dated sometime in January. G. R. advises sending a wireless to Tulagi, which will be done tomorrow.

Two American physicians on lecturing tours of the Australasian Universities got on at Auckland (Drs. Cavallo? and Bishop); the former introduced us to a Dr. Todd on the pier who is a trustee of the Zoo. He promised to try to put us in touch with some bird men in Sydney.

August 20. The Mataram gets in tomorrow. I made an appointment with a dentist to have him take care of a tooth I broke on the Aorangi. After lunch we took a remarkable ferry ride up the Parramatta River. A good deal of nice land under cultivation. On the bank grow numbers of mangrove trees, their roots in the water and often covered with molluscs, oysters probably. Saw black swans and cormorants of some kind with white throats. At the end of the trip we were conveyed by a ridiculous train to a place called Rosehill, a race course in action.



We came in time to see the last race, after which we returned to town on a racetrack special. Our tickets, presented to us by the ferryman, were no good, but the conductor did not seem to mind if we did ride along.

The dinners at the Australia are excellent. We get our breakfasts with beds, eat very light lunches outside wherever we happen to be, and order plenty in the evening. This night we saw the first great venture of the Australasian Pictures Inc., "For the Term of His Natural Life", the scenario based on the novel by Marcus Clarke. The cold air here at night makes for fine sleeping.

August 21. Sunday and inevitably a dull day in theory. We visited the Zoo and were well entertained. The birds are excellent, particularly inland aquatic species- herons, cranes, storks, and kingfishers. Tropical birds well represented. The bower bird is very interesting, possessing a strange call and eccentric habits. There were birds of paradise from New Guinea, and birds of prey from the interior of Australia. Marsupials, of course, and the Tasmanian devil, the only mammal in this part of the world that does not carry its young in a pouch. Here, too, the object of their pride is the American bison. The Zoo itself is located on a hillside across the harbor from the city; somewhat like the Auckland institution, the exhibitions are arranged in a terrace formation; and the carnivores in dens behind ditches so that one does not have to look at them through bars. In this they are better than our American zoos, but not



in variety of selection. The return ride in the ferry gave us a fine view of H.M.S. Sydney, the conqueror of the Emden, which is anchored in the harbor. This evening we sent a wireless message to Mr. Beck at Tulagi.

August 22. Weather continues clear and cool. Yesterday afternoon we visited the Heads and Watson's Bay. Application for permission to go to the Solomons revealed the fact that we must first be cleared by the Internal Revenue Department. And since I have a visa for Australia only, I must have another picture taken of my face. Visited an art gallery and the Library.

August 23. A second visit to the Zoo gave us more of an insight into the bird collection, which is even larger than we judged. The Aquarium was open and is stocked with native fish from the vicinity of Sydney harbor. Quite a large tank full of sharks. Today we paid for our passage and secured the necessary signatures from the tax office that enabled the passport dept. to give us visas. To date we have attended two dramatic offerings, "The Road to Rome" and "The Ringer".

August 24. Inspected the Maloja with a fellow passenger from the Aorangi, who sails on her tomorrow from Woolloomooloo (name of a wharf). This man, Dr. Eccles, is a charming old fellow and resides in Cornwall near the sea. Of late I have been seeing a good bit of a dentist.

August 25. G. R. off for the Jenolan Caves, a mountain resort. At 9 a.m. I again tried a few chemists for Plasmochin without success. Since I had to purchase something I got some knives and fishing tackle to trade



with natives. Then I watched the Aorangi steam out.

The dentist in addition to the broken tooth found four swell cavities.

August 26. This morning I discovered that all our luggage was in imminent danger of being chucked into Sydney Harbor; we supposed that we had left it under customs bond, but this privilege does not entail responsibility for over 24 hours. I had it transhipped to the Mataram wharf. The S.S. Ventura brought us each a couple of letters. Spent the afternoon and evening in the Library. Thunder showers somewhat relieved the impending drought.

August 27. What is duller than a morning in a White de luxe motor bus? The answer is, an afternoon. I had resigned myself after the first stop for morning tiffin, but after lunch the scenery began to excite interest and wonder; added to the comfort of half a whole back seat, which was vacated at Katoomba, it made the afternoon quite enjoyable. Blue Mountains they are and reminiscent of Vermont, very rugged and peopled with iron-wood forests. From one o'clock we climbed to over 3000 feet, eventually running along a ridge that overlooked a broad valley. There upon the summit was a monolisk erected to the memory of the three men that first blazed a trail over the mountains, led by Captain Lawton (1815). The view down the valley resembles the Yellowstone in spots. Nothing else except tea in a ramshackle hotel. Very little habitation, which gave the scenery a pristine beauty. We slid over a hill and



dropped into the valley of the caves, passing G. R. about five miles from town on his afternoon overland. Coasting through a vaulted grotto called the Devil's Coach House where the wind rushes, the expectant traveller passes all the entrances to the various caves and suddenly finds the Caves House bursting about his ears. This lies in the exact bottom of a huge draw and roughly wooded slopes confront every window. No heat except open fire-places which are not much help. The place is government-run and provides sanctuary in a surrounding area for wild birds and animals. There are rock wallabies, possum, goats, and rabbits in profusion; bird life is prolific, the Australian kingfisher (laughing jackass), king parrots, jays, magpies, crows, and numerous small birds that we could not recognize.

The caves are a result of geosyncline weakness in the under-strata; great pressures have creased the surface strata in to indistinguishable layers, while it has given way below, forming the caves. The upper crust is really a great mountain from external appearance. One enters them from the lowest level and climbs. An underground river keeps the cave bed cut out by a constant process of erosion. The roof is gradually settling and the openings are slowly closing because of this, and the lime carbonate growths in the interior. Stalagmites, which grow up from the floor are more rapid in process than the stalactites, which grow down from the ceiling.

August 28. Yesterday a month we sailed from Vancouver. Today being Sunday we sought God in the earth,



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visiting two of the best caves. Guides are most solicitous and point out all the formations, chemical and plastic. Most of them have developed stock answers of humorous intent for all possible questions. For instance: "Looking up you see the vault of the Devil's Coach House, one hundred and eighteen feet in height from which the recorder for births, deaths, and marriages for this district fell in the year 1867." Question: "Was he killed?" "Ah, no- he was a public servant." One chamber was 250 feet X 200 and beautifully marked and colored by iron oxides.

August 29. The ride back reminded me painfully of the ride out; for I was jammed in beside a fat lady all the way. Besides the stops for tiffin, we saw Leura Falls and the Jamieson Valley- famous jumping-off places recently graced by the tender gazes of H.R.H. the Duke of York and his wife, the Duchess. The bus got us to the hotel in good time to bathe, dress, dine, and around the corner to the theater for "Ruddigore". This was easily our most enjoyable experience in New South Wales.

August 30. A great decision was reached this morning, namely not to proceed to Brisbane by the steamer-motor route proposed by our table companions on the Aorangi. We were very foolish to consider it since it costs five pounds more and entails grave risk in regard to baggage. Mr. Lawson, the consular-general registered us as defenders of the Constitution and promised to facilitate the transportation of any remains, etc. The dentist finished the job on my teeth, extracting five guineas



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from me in the last visit. Spent the afternoon and evening at the Library.

August 31. G. R. got an eleventh hour inoculation against smallpox. Upon arriving at the pier we were informed that the ship might not go to Brisbane at all on account of an impending general strike in Queensland, startling news when we realized that by this morning's vacillation between going on the Mataram and going via the tourist route and Bryon Bay we were playing dangerously with the chance of missing the only boat to the Solomons in six weeks. The news did prompt action, for we had time to rush back uptown and buy the few things we had thought of getting in Brisbane. The Mataram finally got off, but shortly anchored in Watson's Bay to wait for the mail from Melbourne. This held us up three hours but we finally got out of the Head with H.M. A.S. Sydney right in our wake. Later we learned that she is bound for Tulagi also, and that the Lieutenant-Commander went around the islands with this ship the last trip in order to learn the reefs.

The Mataram is only about 5000 tons, but quite chummy and comfortable; her maxium speed is ten knots, but she goes all the time. About 35 passengers, most of them taking the round trip for health or holiday. In the harbor we saw many gulls of the peculiar Australian variety- silver gull, I think they call it- small (about 18 inches), white breast, silvery-grey back, and black tips on the wings. In addition I saw one lone albatross, a strange enough sight, paddling around amongst them.



It was unmistakably *diomedea exulans*, the first of this species I have honestly seen.

September 1. Lat. 30° 56' S. Long. 153° 7' E. Run 205. Navigators hug the coast to get the advantage of a cold current, evidently Antarctic in origin, that moves quite rapidly northward. This part of the shore is sandy and does not appear to support much. Saw some cormorants similar to those described in connection with the trip up the Parramatta River. Also terns and larger birds that I think are gannets- very adept at diving, sometimes from the height of fifty or a hundred feet, the bird penetrating the water quite a few feet after prey. Whales are around in schools-humpbacks and right whales on their way south to colder waters.

There is one little man on board named Quintal, who hails from Norfolk Island. He is a descendant of one of the mutineers of the H.H.S. Bounty that went ashore and settled on Pitcairn Island in the early part of the nineteenth century. He has promised to send me some photographs of birds that he has taken on Norfolk Island.

September 2. Lat. 27° 12' S. Long. 153° 29' E. Run 233. Weather has never been so fine. Terns plentiful; also count some petrels. On the basis of some reassuring word by radio the captain has decided to go to Brisbane. At 3 P.M. we passed Moreton Island and entered the bay (also Moreton), which is over 20 miles wide, the entrance to the Brisbane River. On the way in we passed the *William Penn* of Galveston, the first American ship we have seen since we left. Vessels going to Brisbane stop at Pinkenba,



which is at the mouth of the river and 15 miles from town. The latter we reached by motor and in time to catch a few stores open so that we could get a few things we thought we might need. All the residential houses are mostly one-story bungalow style and built on piles, somewhat reminiscent of Honolulu.

September 3. Lat. 25-11 S. Long. 153-19 E.  
Run 147. 1063 miles from Tulagi at noon today, and Sandy Cape, the last bit of mainland we shall see for some time just dropping over the stern. Here through the second's glasses I was shown some wild horses on this bleak spot- he called them "brumbies", little fellows with thick necks and rather large heads for their bodies. More whales today and some only 200 yards off the ship. One gave us a great thrill by "breaching", leaping clear out of the water; then he would pound on the surface of the water lazily with one great fin. Birds not as plentiful as they have been- a few flocks of shearwaters and lone petrels.

September 4. Lat. 21-36 S. Long. 154-36 E.  
Run 227. Fairly rough today. We have caught the trades. Saw some Mother Cary's Chickens, little black and white birds; they appear to "shear" in their flight, skimming the water with their wings like the shearwaters.

September 5. Lat. 17-54 S. Long. 156-4 E.  
Run 238. Prevailing SW trade winds keep us cool; in addition the sky is overcast. At noon we were 598 miles from Tulagi and general prognosis has it that we shall be in port by Wednesday evening (7th), and shall anchor



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in the harbor until morning. This afternoon we passed close to Mellish Reef, a coral atoll of considerable extent. One of the Burns Philp boats on this run piled up thereon four years ago with the present skipper of this ship in command. He ordered one blast on the whistle as we swung off to the starboard to pronounce a sort of benediction. Flocks of birds around the reef, most of them too far away for recognition. A few gannets came near enough to see their beautiful markings and features; black body and head with almost orange undermarkings on wings and breast- straight, white beaks. The "sparks" has promised to try to find out from the Tulagi station whether or not the "France" is in port. Last night we had a "little visitor" in our cabin in the form of one specially designed wave, the aperture of entrance being beside the upper berth which I occupy.

I had my attention called to Rennell Island, one that is SW of the Solomons and somewhat isolated from them. The Mataram took two government investigators, evidently geologists to Tulagi last trip; they were on their way to Rennell. According to report it is quite untouched; they say there is only one navigable harbor, for the island rises out of the sea like a great plateau. There are natives on it in a primitive state using implements of stone and wood, there being no iron on the place.

September 6. Lat. 14-10 S. Long. 157-11 E.  
Run 234. Another overcast day with the glass falling. Our friend, Mr. Quintal, told me a great deal about



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Norfolk Island; he remembers well when the "France" collected there something like three years ago. It must be a wonderful place to live; excellent climate and no disease. They raise dairy cattle and grow all their own vegetables. I tried to catch birds off the stern with fish hook and line- no success; it is too difficult to attract their attention and besides Burns Philp are not in favor of the idea.

September 7. Lat. 10-29 S. Long. 158-50 E.  
Run 243. Barometer down to 29.2, squalls of rain frequent. At noon 121 miles from Tulagi. About 4 P.M. we sighted Guadalcanal, the southernmost island of the group. "Sparks" in communication with Tulagi tells us that the "France" is not in nor is her present whereabouts known. Guadalcanal was an ominous looking place, its skyline showing dimly through heavy blue-black storm clouds; nevertheless a welcome sight. Saw a few sea birds (petrels) far off, an encouraging sign.

September 8. We stayed up last night until the ship anchored in Tulagi harbor about 1:30 A.M. this morning. An exceptional piece of navigation and a lovely sight when we had hove to. Cooling breezes and a moon rather dispelled the terrifying conception we had conjured up about it. Tulagi itself is larger than anticipated, having two hotels (one White- one Chow). The B P store, sheds and employees buildings lie on a little island in the harbor known as Makambo. Across the spit from this are the main works- post office, govt. administration houses, and quite a shopping district. White and Chinese in separate localities.



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The first news we heard was as follows: item-  
two nights ago a Chinese was murdered by a native boy  
following a rather serious dance that lasted over 48  
hours, the upshot being that one participant is selected  
by the devil-devil to kill a man in his honor. The "Chow"  
just happened to be the one; item- a B P plantation mana-  
ger up on Malaita slain with an axe by a native.

In regard to the "France"- concensus of opinion  
has it that she is working around the island of Ysabel  
(Bogota). She has not been in Tulagi for nearly 10 weeks  
and is expected back sometime. The 2nd engineer of the  
govt. vessel "Renandi" said he saw her three days ago off  
a place called Hivo on the east coast of Bogota, evidently  
sailing toward Gizo. Mr. Laycock, a planter said he had  
seen her three weeks back in the Meringue Lagoon. All  
seem to be of the opinion that she is going to Gizo before  
returning here. Only the postmaster was at variance; he  
thinks she will return to Tulagi within a fortnight be-  
cause Mr. Beck had given him that idea before he left.  
The plan is to go to Gizo and if she has not been there  
to wait; if she has been there, return on the steamer to  
Tulagi. This course of action reveals eight pounds excess  
in passage cost than if we had booked straight through to  
Gizo from Sydney. We may get a refund since they were  
bum sports at the office not to tell us while we were  
discussing the possibilities of both Tulagi and Gizo as  
points of disembarkment. We had a good look around the  
place, inquiring about the "France" from everyone. At  
the hospital we had word of Dr. Drowne, who stayed there



8 weeks or so with an island sore on his shin. The B P officials were very kind, Mr. McKaye, Mr. Scott, and Mr. Ferry. They helped us get all the information possible. All have great things to say about Mr. and Mrs. Beck and the rest of the crew.

September 9. The postmaster, Mr. Dicks sent a letter out that he happened to run across from Mr. Beck dated June 29, instructing him to send all July and August mail to Gizo and to hold any September mail; this indicates that he is returning to Tulagi, which was Mr. Dicks' previous contention. We got ashore in great confusion with more luggage than I knew we had; the 2nd steward gave us newspapers for Capt. Lang and "Splinter" King, a steward, some guitar and ukelele strings for the musical crew. Customs rates are unholy here- 100% for guns, ammunition (except shot gun shells 12%); tobacco, etc. 12%) We put up at the Elkington Hotel in wonderful quarters. We can get some clothes washed and perhaps do some collecting. Yesterday one of the boys gave me a starling, which I can practice skinning with.

September 10. Spent the morning getting settled. The result of the skinning exercise was one skin and some rudimentary experience. Tom Elkington, the host's son has promised to get me some birds. Preston Clark's insect-collecting outfit is excellent, so we can probably prove something while we are waiting. Through the courtesy of a gentleman in His Majesty's service, a commissioner from Suva, we are members of the Tulagi



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Club until the "France" arrives. This gives us golf, tennis, or swimming whenever we want it. Over at Gavutu, a Lever Bros. station, we heard little that is new about the "France". When we got back a B P recruiter from Malaita had come in the hotel; he thought the "France" somewhere near Cape March on Guadalcanal, 60 miles away, and that Mr. Beck was undoubtedly coming to Tulagi before he went to Gizo. Mr. Hart, another planter, left for his plantation. He is something of an etymologist, having sent material to both the British and the Australian museums, and the American also; he has given Dr. Drowne insects and land shells.

September 11. Left washing with a Chinaman. In the afternoon both of us started out armed with cyanide bottles and nets to try our luck with the insect kingdom of Florida Island. G. R. came back just before the rainstorm with specimens, and I came back just after the rainstorm with specimens. Apparently these moonlight nights are too bright for Sphingadae; this is the second venture that has proved unsuccessful.

Mr. Tait, the recruiter, and Mr. Johnson, the only man in the islands who owns an ice-plant (usually not functioning), visited the hotel and spun yarns until a late hour.

September 12. Breezes keep us cool and comfortable. The reality of Tulagi is a paradise compared to the preconceived idea we had of it. No evidence of mosquitoes yet; the sleeping is great. In the morning we went over to Makambo to get our refunds from B P on our passage money. All the gentry of the place are busy



sitting at court. Mr. McKaye, B P's dock man, is a motion picture enthusiast and intends taking 5000 feet of native life on the Solomons. Both G. R. and I collected in the afternoon. It is well to take things easy at first so that we can work up to the all day pull of the expedition. The bush is very interesting to the newcomer. We hope to send a shipment of insects to the Museum before the "France" comes in. She is still reported off Cape Marsh somewhere. It is against the law for us to touch any guns before we see Mr. Beck and secure permits.

Mr. Johnson's ice-plant is actually in operation.

September 13. Clean clothes and a bottle of iced beer from the butcher were the gleanings of the morning. The merchants in Tulagi (Carpenter, B P, etc.) are only too willing to give us boxes for packing insects. We shall start going out twice a day soon; Mr. Johnson is going to take us on an expedition to the mainland of Florida Island. The part that Tulagi is on lies just across a little spit. Ngela is the native name for Florida. Reptiles are supposed to be well represented; lizards and guanoes. The possum here is called kandoro by natives.

We have decided not to have malaria; it is more convenient. No doses of quinine yet. They have a remedy here called Smalarina, an Italian product which is supposed to impart immunity to the taker if it is consumed with intermittent doses of quinine. Anyway this is one of the seasons when the disease is latent- Spring. Apparently the worst things in the way of affliction, acquired by



methods both subtle and blatant, are the island score and the centipede bite. The latter come out of their haunts in the evening, "the arrow that flieth by night". On this particular occasion we saw three of the brutes; one of the boys was bitten on the toe.

We collected with some success all afternoon. The Sphingidae are still in the ground; rain will probably bring them out.

September 14. Collected a bit in the morning after packing the results of our precious experiments. According to the natives, insect life on Florida (Ngela) is not nearly as prolific as on Guadalcanal (Solomon) and the larger islands. G. R. could not venture forth today having broken the shaft of his net. "Tom" Elkington, Jr., the hotel-keeper's son, took me on a guano hunt; the result was no guanoes but a brown pigeon and one of the numerous red parrots that inhabit the coconut trees, both badly shattered but serviceable for skinning practice. Also collected a few insects.

Mr. Robinson, another plantation manager came in from somewhereon Malaita with no news of the "France". Mr. Johnson, the genial butcher from Yorkshire invites us shooting with him day after tomorrow and in addition promises ice cream. This life of expectation is turning us into "softies". This was an evening for the centipedes again.

September 15. Collected both morning and afternoon. Mr. Robinson invites us to spend a week-end at Berande, Guadalcanal and we accept; it will be an



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opportunity to visit the island and do some collecting as well. Mr. Lazarus, termed "the wandering Jew", being the only Jewish recruiter in the group, sailed into port and came up to the hotel. He had many yarns and much profanity. It seems he has been having hard luck on Malaita. "Tony" Olsen in the schooner "Myopa" also turned up. We set out for Berande at midnight in a calm sea.

September 16. A six o'clock breakfast was had from the stove of Mrs. Dumfy (or Duffy), probably the only widow who lives by herself on Guadalcanal- a half caste. By noon we were at Berande. After kai-kai we were treated to a ride about the plantation, learning thereby the process of copra. This was once the habitat of Jack London and Martin Johnson. On either side of the manager's house is a fresh water river one of which is supposed to have been explored by Mr. London. Apparently this whole region is contained in "Adventure". Gavutu is mentioned as the place where they drink between drinks. And there is nothing mythical about South Sea imbibing. Our host brought back a copious supply and all hands were piped to consume it as rapidly as possible. That the practice of intermittent excess in drinking is a principal cause of fever and chronic apathy cannot be doubted. Two men without much aid from us consumed over a case of beer this evening. Mosquitoes were abundantly provided.

September 17. Both of us collected along the shore and in among the palms and rubber trees. This



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Saturday was a great occasion for the native labor; a bullock (bullimacow) was killed and kai-kaied. Each boy has to cut three bags of copra perday and the week ends on Saturday noon. There are 50 boys on this plantation and they are treated like dogs; the manager says they have absolutely no sense of gratitude. The house boys and the "cooki" receive the worst of the lot.

In the evening men arrived from up and down the coast including old Masher, who has been in the Solomons 23 years, the first man on the beach at Yandina, Cape Marsh, and Mr. Wilson, a high police official with 16 carriers out after the accomplices in a recent wholesale murder of police boys. I don't remember when I have seen more drinking.

September 18. Collected as much as the heat and mosquitoes would permit. As on Florida the palms are haunted by cockatoos and red parrots. Also saw three fish hawks. The most profitable event of the trip was a ride to an out station called Teteri, eight miles from Berande. On the way we passed through two native villages, the latter being the scene of the tragedy of the "Albatross" in 1896, an Austrian expedition that met its fate at the hands of the forebears of this salt water tribe. Here I secured some photographs. But the sight of the afternoon was the great grass plain at the foot of Lion's Head, the highest peak in the island, never climbed by white man. About 5000 acres of fertile table land well stocked with kangaroo grass. It is the only one in the Solomons. Here we were able to gallop for a mile up to the station house. We returned by an inland government road, passing



through the thick bush at dusk. Saw many small birds that I could not recognize. At this evening's kai-kai there were eleven and Mr. Robinson reckoned himself the luckiest man on the coast. Hospitality here is code of everyone. At midnight we departed with many cheers and thanks for Tulagi; Mr. Tice, ex-manager of a place on Teti-pari, the lonliest islet of all accompanied us. He is going south on the Mataram for a spell and back to England.

September 19. Word of the "France" awaited us at the hotel in the person of Mr. Johnson, plantation owner from southern Bogota. She is definitely due in Gizo now to catch the Mataram. Mr. Beck spent three days with him in addition to picking up supplies and benzine. So we have picked the wrong course exactly in waiting in Tulagi. The problem now is to get to Gizo with all dispatch. A Chinaman very kindly offered us the charter of his ketch for 45 pounds, which we gracefully declined. Our best bet is Bill Tait, who was here at the hotel last week. He will be back from Malaita in two or three days and will pull out for Gizo immediately. If he fails, the govt. vessel Renandi may go up by the end of the week after a spin over to Rennell. At all passes we shall leave on the first craft that starts in that direction. We sent a wireless to Mr. Beck that we would join him within a fortnight if convenient, and expect a reply. Sure enough in the evening word came from the Mataram from Faisi that the "France" was in Gizo; the steamer called there yesterday and will call back tomorrow. We



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shall be able to take all mail of which there is a great amount, and they will have time to prepare for us on board. Although we drew the wrong card we followed the only piece of empirical intelligence we had in that letter which the postmaster sent out to us just as we were about to go to Gizo on the Mataram. If fare on the Awa or Renandi is as cheap as we expect there will be little excess in cost and we shall have sent some insects off to the Museum.

We find that the guns and shells are tax exempt, coming under the provision for "guns or accoutrements of any recognized rifle club or public institution". No collecting was done due to our efforts to secure immediate passage to Gizo and the general confusion of unfinished business.

September 20. Message from Mr. Beck came through B P at Makambo, asking them how soon they could forward us and the mail for the "France". The wireless we sent yesterday should serve as an answer. Evidently the two crossed. Today no collecting was done, but two welcome contributions came in: one genuine sphinx moth and a huge specimen of an utterly unintelligible beetle. H.M.A.S. Sydney arrived at 4 to coal up and pay respects to the Resident Commissioner. Spent a pleasant evening with Messrs, Heritage and Scrimigeour, officers of Carpenter Ltd., with excellent repast and bridge.

September 21. Collected in the afternoon, taking both net and rifle proving thereby that two things cannot be done at once. This has been the hottest day we have had so far. H.M.A.S. Adelaide steamed in to join the



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Sydney. The place is swarming with sailors. No definite word yet about the Awa or the Renandi.

September 22. Collected in the afternoon. Rainy and disagreeable. Band concert, cricket match and "a showing of the flag" on board the Sydney in the evening. We expect the Awa, our transport to Gizo and the Yankee schooner "France" early tomorrow. All the recruiters assemble for the week-end.

September 23. Sent off a cigar box of insects to supplement the first shipment from Florida. The Awa came in about 8 A.M. leading the Royal Endeavor, coming from Vanikoro via Malaita and the Ruana. Passage arranged with "Bill" Tait, who expects to shove off by the 26th. We have tried for Sphingidae twice in the evening with no success. The Mataram steamed in late and we all went aboard where we heard much about the "France"; the second mate had had a yarn with Dr. Drowne and all the stewards had enjoyed Hawaiian music as rendered by the crew. Many of our friends on board said we were looking well, which was encouraging. The hotel was the scene of quite a brawl endorsed by all the newly arrived sailor men. Captain Hall of the Royal Endeavor presented us with an owl taken on Vanikoro about a month ago, a specimen skinned by the carpenter of the "France".

September 24. Instructions from Mr. Beck were welcome. He advises us to do some collecting up on Florida via the river known as Malially. Three young ladies from the Mataram called on us for morning tea, after which we collected for about two hours. "Bert"



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Johnson has promised us the use of his launch to go up the river tomorrow. The steamer sailed at 3 and Tulagi came back to normal. "Bill" Tait is to be mate of the Renandi, so we shall get up to Gizo within five days.

September 25. We went to the top of Ngela getting only two specimens; delay in starting pressed us for time. On the return the supply of benzine waned out and we "washied" over to Tulagi with the floor boards, which had to be ripped up. The Ngela boys at a salt-water village refused to give us any kind of aid, probably on account of the fact that the two boys with us were Malaita men. It was our first real trek into the deep bush and taught us a great deal. We got back to the hotel about 8, tired, wet, and hungry.

September 26. G. R. collected insects in the morning while I made a miserable attempt at taxidermy on the two birds we shot on Florida. How many skins does one have to ruin before he turns out a decent job? I went over to Florida in "Bill" Tait's dinghy after lunch with three of his boys. We tracked about three miles up to the top of a hill where we found a village. Here, one boy offered to take me where there were "plenty pidgin good fella", but the hour was too near kai-kai time to go on. I saw over a dozen birds of about six species and had shots at four which took no effect. I am sure the shells used were defective in their charge. I have the usual difficulty of the beginner in seeing the birds when they can be heard. Mr. Beck wants specimens of a



ground cuckoo and white-headed pigeon. Both have been heard but not yet seen.

September 27. Three of us went over to Florida, G. R. and "Tom" Elkington, and had a dozen shots and very little luck- one black bird with yellow markings on the eyes and white stripes on the wings, quite common, and a large eagle. Came across natives kai-kaing a possum. Played bridge with Scrimigeour and Heritage in the evening, and returned at midnight to skin the specimens. The practice acquired is about all they are worth.

September 28. Collected with poor success on this little island of Tulagi. G. R. shot a parrot and a little swift. Both of us are fed up with this waiting.

September 29. Collected on Florida returning six birds, four of which we skinned, giving two parrots to the boys to kai-kai. A honey-eater, two warblers, and a large greenish blue bird, an insect-eater of some kind. We had two shots at the white-headed pigeon that Mr. Beck requires. We are working with .410 shot, which does not carry too well and is much too heavy.

September 30. Heavy rain nearly all day with a shifting of wind. First indications of Spring in the Solomons. No venturing into the field today. G. R. read Schopenhauer, a great day for it. I tried developing some films in the evening. Captain Tate indicates that he will push off on the 3rd of October whether he gets word of his appointment or not. This inconvenience will not delay the expedition, I hope, since they can work around the Gizo district; we deserve the wait and



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an ugly passage up for our mistake in not going up on the steamer.

October 1. Rain continued through the morning but allowed us to go out in the afternoon wherein we did very poorly. Took dinner with Lt. Commander Cruikshank of the Renandi and his wife. He assured us that Tate would get us to Gizo by the 7th or 8th.

October 2. Mr. MacKaye of B P expected to take us on a day's trek this morning, but the usual rain prevented. It stopped about ten o'clock, having gone 259 inches in three days. I went out for a couple of hours before lunch on the small island and missed a few beautiful shots; also killed a little black bird with a red breast and could not find it. Both of us went to Florida later, taking the longest walk yet and having the worst luck. Bridge with Messrs. Heritage and Scrimigeour in the evening, both of whom said we were overdoing it by rowing a dinghy across to Ngela in the sun, and followed with a long and lugubrious but dispassionate harangue about the dangers of these parts and all the fever that wasteth white mankind.

October 3. More rain with a spell in the afternoon that let us venture for a couple of hours. I brought in nothing; G. R. got three. The Renandi blew a cylinder-head and is delayed another day. Caught another sphinx moth of the same species that we have been getting.

October 4. Renandi sails at noon and the Awa will leave tomorrow morning. Collected both fore and afternoon, bringing in a half a dozen specimens- one



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"koro koro" pigeon and a small hawk; in the evening we skinned two birds each, a record turn-out. All set to shove off in the morning.

October 5. Out of Tulagi bag and baggage at 10:30. It was a great moment. Outside of Savo we rolled to big swells from the SE, the last of the regular monsoon. Beautiful night, but rough sleeping. I was sea-sick to the point where I was forced to expel the contents of my stomach.

October 6. Shot a brown gannet on the wing about 15 miles from the Bili passage on New Georgia; and then jammed the barrel of my gun with a pull-through. Anchored off Bili village, a 7-day advent conquest; the passage leads into the Marovo Lagoon on the SW. Here we spent the day, delightful swimming and a good rest. The worst of the sea trip is behind us.

October 7. Pleasant passage to Mongo passage in the Marovo by way of Lili Hina, where the 7-day advent outfit hath its head-quarters. Here we had lunch (on board) and tried to pick up a native to pilot us through a shorter passage. Failing, Captain Tate carried on to the aforementioned anchorage where we put in another fine evening with swimming and extraordinary kai-kai on a freshly caught fish. All shaved in which I featured by throwing the captain's razor overboard. Have seen plenty of terns and petrels. Many birds could be heard at night in the Marovo, in particular some kind of a night-fowl with a raucous staccato cry.

October 8. Arrived at Hamarai Plantation in



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Ramada Bay about 11 o'clock - a Mr. Newall, the manager. His wife gave us two excellent meals with fresh meat. On Hamarai (Hameri) they have a number of blue and white herons, according to Mr. Newall, the only representation in the group. This good man provided tools sufficient to ram out my clogged gun. The entire evening was spent in a heated argument drawing all the masculine indulgence as to the function, ordinance, and capabilities of patent and common logs. Plenty of rain knocking about.

October 9. (Sunday). Out of Ramada Bay by 9 A.M. and steamed without mishap to the Diamond Narrows, passage into the Rubiyana Lagoon. Tied up at the wharf of Naru estate on Arundel Island. No one about until about 9 P.M. when Mr. Sims returned from Kokeqolo, the headquarters of the Methodist Mission. He reported the "France" at Gizo on the word of the "Konakarra", Lever's steamer, which called yesterday. Also said there were two from the expedition collecting on Kulambangra, a small island of remarkable altitude. Have seen many species of salt-water birds; the bay is full of fish. Spent a quiet evening with the mosquitoes.

October 10. The run to Gizo is 60 miles. Left Arundel at 7 A.M. and made it by 1 o'clock ahead of some bad weather. Saw flocks of terns and petrels feeding on shoals of fish. Quite a common sea-bird here is called the "bellama" - supposed to be some prognosticator of weather; like a gannet, long, forked tail and motionless flight. During the morning we had a good view of Kulambangra's summit where Dr. Drowne is at work. In Gizo



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the "France" is expected tomorrow afternoon. Instructions for us are to wait. G. R. spent the night up at B P's staff quarters, I on the Awa where plenty mosquito, he stop.

October 11. Ariel Cove - Kulambangra I. Solomons. Four of the crew of the "France" were sent over to Gizo in the long-boat to pick up news about our arrival; so Captain Tate kindly decided to run us across the bay. The Awa left after lunch and by 2:30 we were on board the elusive schooner. Mrs. Beck and Dr. Drowne and Captain Lang welcomed us. All hands were tickled to get their mail. Mr. Beck, Hicks, and David, the cabin boy, were up on the mountain at camp. Spent the afternoon getting settled and a very pleasant symposium, which lasted until midnight on board the Awa, "Bill" Tate and Dr. Drowne among those present.

October 12. Collected up the river that empties into this cove this A. M. in search of the little rare, blue kingfisher; returned for lunch and helped "Doc" with some carpentry. Collected along the shore P.M. I took one long-tail as it is called, Mr. Beck thinks a kind of ground cuckoo, of young plumage (brown), and a shrike. "Doc" gave valuable instruction in bird-skinning after supper.

October 13. Collected all day until 3 o'clock along the trail up the mountain. I took two black-heads. Manuel, who left for the camp on top yesterday to tell Mr. Beck of our arrival, came down with 6 or 8 specimens; what with the work of Doc and G. R. we got up from the



work bench about 10:30.

October 14. Another day in the bush. Returned about 4. I took one gray fly-catcher, brownish-red breast, and a common dove- the green, scarlet-throated fellow called "koro-koro" by the natives of Ngela and Guadalcanal. Mr. Beck came down the mountain during the morning and informs us that we are all through on top. After kai-kai Mr. Beck went out in the dinghy after terns and shearwaters, the latter passing on their migration from Alaska or Siberia, etc., to N.Z. or Australia. Only the rare kingfisher to take and we shall pull out to Vella.

October 15. I helped prepare birds in the morning while Mr. Beck went after the little rare kingfishers, returning with three, each different. Heaved anchor after lunch and coasted to Sand Fly Inlet, six miles northward where it was decided to spend the sabbath, our first on board. Apparently this day of rest is the only available time for note-typing except while at sea. Mr. Beck went out in the dinghy after shearwaters and brought back grey-backed and bergi terns, two of which fell under my scalpel. Both G. R. and myself already notice the effect of the coaching provided by Dr. Drowne and Mr. Beck; Hicks is also very helpful. It is remarkable how much one can pick up just by watching the operation of these three. All the birds we took in Tulagi and carved up so deftly will be sent on to the Museum; one little hawk has not been taken yet by the expedition. The Vanikoro owl given us by Captain Hall of the "Royal Endeavor" proved a welcome addition.



At this anchorage birds sound more plentiful than at Ariel Cove. The long-tail, honeysuckers, white-eyes, parrots, wagtails, and kingfishers are heard with the usual nocturnal frog serenade. I have commandeered the hammock under the boom for sleeping quarters, abetted by a poncho to aid the leaking awning; here I can appreciate these musical offerings of our feathered friends.

October 16. Wrote letters and notes before lunch and then got out the water-colors, making a rather questionable reproduction of a parrot and a much more plausible one of a kingfisher. Mr. B took some photographs and developed them soon afterward, the only safe method down here. I decided to use up the rest of the exposures in my camera since they can be developed on the way to Vella Lavella. Wrote notes in the evening on Kulambangra, little as I have been able to observe. Conversation with G. R. and the Doctor on interesting topics until a late hour.

Kulambangra Island lies at Lat. 8 S. Long. 157 W. and is nearly circular in shape. From N to S it measures approximately 18 miles and E and W 14 miles. The coast is quite regular and shows a number of fair anchorages for small craft; its margin is encrusted with fringing reefs, many of the coves being sheltered by coral barriers. It is the last island of the group that was completely surveyed by H.M.S.Penguin in her trip of 1893-5. The central volcanic peak rises 5200 feet and extends in razor-back formation N and S for about 5 miles; the principal drainage runs in the



opposite direction down numerous ravines that cut the main ridge of the mountain. The contour lines have a much more rapid rise to the mile from the S than from the N, the latter end of the island showing the smoother topography. Red clay is present above 1000 feet, while the lower soil is chiefly volcanic buff and coral rock. Birds are more plentiful and vary more at the higher altitudes. Mr. Beck and Hicks found a rare species of thrush, pigmy parrot with red breast and blue markings, and yellow-bibbed doves above 2000 feet. Thickheads, bald fly-catchers, blackheads, black and brown fantails, white-eyes, and honey-suckers range over the entire island. This is true of the larger birds like parrots, paroquets, long-tails, and the red-knobbed and gray pigeon. Shrikes, wag-tails, swallows, and swifts prevail nearer the shore and especially around swamps just inside the mangroves that line the immediate marge. The brown ground dove is quite common here; natives have captured a few alive for Mr. Beck. The ordinary kingfisher may be heard anywhere along the coast, both the brown-breast and the white-headed; the little red-billed fellow and the blue-headed variety frequent the rivers and have been taken at high altitudes. Plovers, bittern, and the blue heron are common along the reefs. The mina as usual whistles gaily. In addition to the pigeons mentioned, Mr. Beck has taken a number of birds similar to the red-knobbed and common gray, but showing white throat and white head. These do not stay up high like the yellow-bib, one or two having been shot near the



ship. Kulambangra boasts only a few salt-water villages, having been depopulated by head-hunting marauders from Choiseul and principally New Georgia; the pickininnies were taken in slavery. There are perhaps a dozen villages, having perhaps 100 inhabitants. Mr. Beck had found trading for fruit or vegetables slack and has not used natives in the bush. Fish, limes, yams, and pineapples have been procured. The men are 7-Day Advent converts and appear apathetic. Those who brought the ground-doves received enough to pay their yearly tax, which is about their only concern. The meris do all the work both in the garden and around the house, so the masculine worries are few. They do not use tobacco or betel nut as forbidden by the Mission.. The villages reveal nothing startling in the way of arts of life.

Yesterday morning Mr. Beck went after the little kingfisher returning with three, each of a different marking. He was forced to remove his trousers (pants) to chase one in among the mangroves. In the afternoon he collected sea-birds in the dinghy- sooty terns, several of which G. R. and I skinned under excellent tutelage. Toward evening I saw many plover and cormorants. All planting on Kulambangra lies at the N end, where the ground is most level; Lever Bros. are the owners.

October 17. Mr. Beck up at 5 A.M. and out in the dinghy after shearwaters, which escaped him; he shot several sooty terns. After breakfast G. R., Hicks, and the Doctor and I collected near the shore taking 15 birds in about two hours. I shot a red and green paro-



quet, two minas, a white-headed hawk and a honey-sucker. Birds seem more plentiful here than at the Ariel anchorage. Mr. Beck shot another brace of little kingfishers, Hicks two more, making six of different markings taken in two days in this vicinity. Previous to Kulambangra only one or two had been collected on Guadalcanal. Insects, small fish, and crabs were found in their several stomachs. Prepared birds for an hour before lunch and for most of the afternoon, turning out three skins, a phenomenal number for me. After supper raised anchor and stood out for Vella-Lavella, failing to gain the anchorage and lay to during the night. Another color sketch of the little blue and white kingfisher turned out much better. Weather generally fair with short rain squalls. Temperature in the cabin approximately 85. David had a touch of fever today. G. R. and I have started on quinine.

October 18. Dropped anchor at the Methodist Mission station Vaitasoli, located on the SE coast of Vella Lavella, Rev. Bensley in charge. The native village on the salt water numbers about 200. This mission operates a good-sized coconut plantation in cooperation with its religious work- with some profit since labor is free. Mrs. Beck found feminine companionship with two ladies who live at the station. Mr. Bensley gave us a fine boy to guide us cross country. He took us inland to a lake- the Doctor, G. R., and I, but we found it quite devoid of the expected bird life, excepting the omnipresent parrot. Its name- Kola Kola, and is perhaps 3/4 mile wide being nearly circular. It lies on the NW



side of the island only 1/4 mile from the salt water; its level is that of the sea and the taste proved brackish. We could hear long-tails and saw two red-headed hawks. Returning, the Doctor took a young green heron on the shore, which we had to follow for two miles. The best hunting proved to be on top of the ridge that we had to follow to reach the lake. Here we found a new species of white-eye, yellow bill and yellow and white breast, which is close to the Gizo variety, bald fly-catchers of new appearance; also the striped gray-bird, and honeysuckers, black with red on the tail; the long-tail shows an occasional light feather in its tail. We saw few pigeons or doves except the red-knobbed and gray; the Doctor spotted a couple of white-headed doves on the wing. Both he and Hicks picked up a snake apiece, both new and one poisonous, according to the demonstration given by the native. He indicated that venom from its fang made "one fell sick too much, he put him inside on ground." All in the village showed trepidation, the meris especially when shown the snakes. These natives are thoroughly missionized- dark-skinned and for the most part healthy. Their made over church is a queer combination of Christianity and Totemism; it contains long benches and the altar on a dais, but on the rafters are fastened all the repudiated totems of the tribe- birds and fish. I could recognize the kingfisher, sea-birds, and the shark. In the canoe-house was the largest and finest canoe I have yet seen in the Solomons; it would hold 20 and is elaborately decorated. The two ends are



joined up to a height of 8 feet, and curiously encrusted along the joint with separate shells, which had been run through with reedy material decorated with red feathers, inlaid pearl shell along the outer gunwale. After kaikai many came out to the "France" and watched us prepare skins in amazement. The boys of our crew gave us their usual musical offering and were applauded by the natives, who soon responded with some Methodist hymns in four-part harmony. After putting up 35 skins, G. R. and I doing 6, we went aft to find Mr. Fuller on board from his plantation next the Mission. He very kindly present us with fresh real cow's milk, vegetables, and a whole bullimacow. The Museum owes quite a debt to these people for the extra nourishment they provide her men with.

October 19. Vella Lavella extends in a general N and S direction, and is 25 miles long and not more than 8 wide in its greatest measurement. The maximum altitude is 3000 feet and the main drainage E and W. A river that is navigable to small boats 6 miles into the interior is reported on the western coast at Mr. McCakron's place, which should prove an interesting spot for birds. Mr. Beck intends returning. Stood out on a S by W course for Ganonga after breakfast, dropping anchor between the mainland and Inijaru I. after lunch. The native village is Kumbokota, and flies the 7-Day Advent Colors. Ganonga I. lies directly west of Kulambangra 20 miles on the 8th parallel of latitude and is 25 miles long and 5 miles across at its widest point. The island extends in a



general SW direction. Mt. Kela rises 2500 feet above our anchorage, the summit being negotiable in one day's climb. As usual the ridge of the mountain runs the long way of the island and is drained by steep ravines cutting it at perpendiculars. In these, fresh water abounds. The Doctor, Hicks, G. R. and I went ashore to collect enough for the night's session. Bald fly-catchers were plentiful; red parrots, paroquets, and the friendly wagtail choroused in the coconuts along the shore. I followed a stream and shot two flycatchers, a white-eye, brown fantail and an ordinary kingfisher. Doctor found another variation in the white-eye from the type taken on Vella Lavella. In all we had 20 birds to skin, fly-catchers predominating. Natives came out in large numbers and report habitation of possum, yellow-bibbed doves, and ground doves. They tend excellent gardens here; all the fruits of the field were brought out for trade- pawpaws, cucumbers, bananas, yams, plantanes, and sweet corn, a remarkable product. The last-named is the first Mr. Beck has encountered in the islands; evidently introduced by a missionary. There are very few natives up in the bush and such provident husbandry is not typical of the salt-water man.

October 20. Five of us ashore resulting in about two dozen birds. Mr. Beck went to the top of Kela bringing in a new variety of thickhead and one yellow-bib dove. I went up about 1000 feet and secured six birds, one a new and interesting kind of blackhead, marked with brown, and a pigmy parrot. Mr. Beck anticipates



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much good material here. Hicks shot two of the little river kingfishers and G. R. one. White-eyes are proving difficult to get, they move about so lively and when shot, very hard to find. For the latter a native is especially helpful in the bush. Doctor went to the top of the ridge and brought down among many specimens a new snake; also a very interesting exhibit of native twine made from the liana vine. The young plant is stripped of its bark and the hemp-like fibre combed out; this is twisted into cord that is used for fishing principally. For anything ordinary the native uses raw green vine, making an excellent bundle out of large leaves. This he uses to carry anything perishable. By an extenuated demonstration the Doctor managed to communicate the idea of possum to one of the boys who savvied immediately and declared that "plenty he stop along bush". He and his mates were admonished to catch as many as possible. The expedition has already sent some specimens to the Museum, so my enthusiastic intentions about bagging the rare marcupial for Dr. Raven have already been fulfilled. Out they came after kai-kai to trade vegetables, fruit, tortoise shell, and some curios, as ethnological articles are popularly termed. G. R. brought out everything he had to offer and was really dramatic in his business of barter. The men are of the salt-water with a 7-Day Advent froth. Most of them ignore the taboos of the order, using tobacco and betel nut freely. They are very dark-skinned and small of stature; not as many as usual showed scars from tinea and other skin afflictions. This particular village has



a reputation among the nearby whites for industry and health, most of it taught them by the missionary. Such things as seed corn are certainly introduced by the white man. The meris and pickininnies of missionized settlements are not inclined to run for cover when approached by a white person as is characteristic of the more aboriginal natives. A wreath of amazed black faces framed the hatch of the hold while we were skinning; no doubt many of the more sophisticated understand when we tell them that America like to look along pidgin that stop on the Solomons. But the majority think us quite "cranky" (nutty) and therefore treat us with delicate consideration.

October 21. A day not to be soon forgotten. Reached the top of Kela about noon where birds were plentiful, but I missed more easy shots than ever before. Took two thickheads and a pair of female bald flycatchers finally. The climb near the top is rough, thickly wooded and serrated with small ridges that eventually lead up to the main ridge where the trail is located that goes to the bottom. I got off completely on the way down chasing little kingfishers, of which I secured two in a small tributary drainage. Spent a half hour looking for the last one and then found myself completely lost after finding it. By this time it was too dark to undertake a systematic recovery of the trail, so I came down with the drainage, sliding and scraping over rocks and boulders. I described some splendid arcs and came to halt on a large flat rock upon which I fully expected to



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spend the night. But the boys in the crew did not desert me, and I soon heard hallooing and gun shots that lost no time in finding my stout bellow. I got back to the ship about 7:30 much the worse for wear and thankful not to have to spend a night in the bush because how it did rain before morning.

October 22. Yesterday's ordeal made me feel unequal to the climb, so I collected northward along a shore trail that took us a mile up in the bush. We picked up two natives who took us to a patch of trees that seemed full of birds. In addition to bald fly-catchers each of us took a female gray-bird, new to us, from this island. I also shot a brown fan-tail and three white-eyes. The Doctor took a wag-tail to look for possible variation. In all we brought in 20 birds. G. R. reached the top of Koomba, a smaller mountain to the south of Kela, where he found thick-heads, honeysuckers, white-eyes, and fantails. It is remarkable how scarce the blackhead is on Ganonga; we have only taken one as yet that does show considerable demarcation from the Kulam-bangra type. This and the yellow-bib dove are the special desiderata here. There is supposed to be a black cockatoo on this island and Vella Lavella as well, according to the yarn of some plantation owner. It has not been seen. The long-tail, malau or megapode, and the ordinary red-knobbed and gray pigeon thrive; and the usual parrot and paroquet. For so small an island the fauna is most abundant. Not only the birds but mammals, reptiles, land-snails, and insects are various and plentiful. Three



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snakes were taken today and in the evening natives brought three more on board; there were also six or eight giant frogs and five possums. The latter are very docile for the natives catch them simply by feeling about in tree holes with bare hands. This will give Dr. Raven a good series of the Solomon Island phalanger. The fine yield of the gardens make our dining table resemble a sort of Arcadian feast what with five kinds of vegetables. The natives are eager to trade, but are very shrewd depending on one who "savvies too much" for advice on a bargain. G. R. and I spent our time on the possums, while Mr. Beck and the Doctor ran out the birds. Two possums were left for tomorrow.

October 23. Skinned possum in the morning. After lunch we went ashore to take luxurious bath in the big stream with germicidal soap; I took some photographs around the village. The Doctor performed a neat piece of surgery on one of the old men, who had a hand badly infected with blood-poisoning. The courage of the ordinary native under pain is phenomenal; all his relatives and friends stood about exhorting him not to flinch. Returned to the "France" to write some notes; made a water-color of a kingfisher, which in the process of drying was relieved of all its exquisite gamboge by the flies.

October 24. Mr. Beck, Hicks, and I climbed the mountain and ran into nothing but rain in torrents. Hicks and I built three makeshift leantos at successive stages of the journey for shelter. My partner is an excellent woodsman as well as an experienced bird-hunter and Skinner



of the Beck school. One can learn much by watching him. I took very few, a fan-tail, two blackbirds, and a pigmy parrot. Both Hicks and I think we heard cockatoos. The white species is certainly not present or we should have seen it. Hicks claims he saw one of the black ones fly; it could have been anything. While we were getting wet up top the Doctor was busy collecting 28 birds lower down, where it rained very little. I took a large lizard on the way back, of which only one other like it has been taken in the islands. Hicks found a nearly fully developed embryo of a phalanger lying in the trail, which may prove of interest. The Doctor has taken a host of land-snails from Ganonga as well as from other islands. Insects we pick up whenever we can. Mr. Beck is a good hand at picking them up. Tonight four more phalangers came aboard as well as a number of frogs and another snake. Of the possums Mr. Beck tried to keep two alive from the last batch without success; the Doctor thinks they died from concussion, having been thrown down the hold with their feet tied. Two of the new lot, very young, were put in a cage and ought to stay in good health.

Native names for fauna on Ganonga Island (probably New Georgia dialect):-

red-knobbed pigeon	- koora borra
gray "	- koora-kau
long-tailed dove	- sakondali
long-tail	- mau
ground-dove	- buti
bald flycatfher	- sec sec unbangra
blackbird	- ninduko
white-eye	- nala
med. sized kingf'er-	- pipi
red-billed "	- shinga
pigmy parrot	- kori korioriga



thickhead	- wekto watto
megapode	- kao
possum	- gondui
flying fox	- lau
frog	- bakarau
big snake	- kuto
small snake	- ungakoru

October 25. G. R. and I reached the top by steady climbing by noon. I took care to cut a trail where the right going is dubious near the top. Heavy rain harassed our collecting, but I managed to get one yellow-bib dove, cherished by Mr. Beck, and a brown fan-tail. This dove is found only at altitudes above 2000 feet, according to Mr. Beck. The ground dove, long-tailed dove, and both the red-knobbed and gray pigeon are found everywhere there are nygali nut trees, which means practically the entire island. We have found whole nuts of the nygali in the crows of pigeons; it is quite a bit of chemistry for their stomachs to digest the shell of the nut, since it takes at least two hard blows with a large rock or hammer to crack one. The meris prepare them with great skill and regularity using two blows to each nut. The nut is placed sideways on a flat rock for the first blow, and one end for the second; then the nut is taken out intact within its fine inner skin. Thickheads are found here only above 1000 feet. (According to the aneroid the topmost altitude registers 2550 feet.) White-eyes and blackheads, the latter being scarce here, seem to be more plentiful the higher one goes, although they may be collected any time along the shore. The coup de grace scored when I shot the yellow-bib came to speedy retribution the further I proceeded down the mountain. I found



myself very badly lost with nothing positive except the direction of the France by my pocket compass. So down I came as before with the drainage, almost a part of it I should say, crashing through the bush and tumbling down creek bottoms. I was soon well bruised by the rocks and lacerated by thickets of brambles. One in particular known as "the lawyer vine" is the most devilish botanical device for annoying mankind. It grows up from the ground in long, green stalks about 1/2 inch thick and covered with tough thorns; these bend over about head high and send out fern-like leaves also equipped with spikes nicely camouflaged; finally from the tip of the leaf there is a long trailing vine of thorns that attaches itself to any nearby plant or tree and the barrier is complete. To the cursory eye one looks quite harmless so that the amateur continually blunders into them; once hooked it is a situation that patience alone can alleviate. At last I found the trail nearly half way down the mountain. I followed it with all despatch, but darkness caught me about 500 yards from shore and I was once again hung up until the welcome shout of David reached my ears. Thus I lost four hours of good hunting and caused the boys some inconvenience; but experience lighteth the way for only one person. I shall use my bean more in the future, I hope. Mr. Beck now advises taking some sticks of solid alcohol into the bush so that one can make a fire and some kind of a camp. The worst feature in spending a night in these forests is the fact that we are invariably wet through when we come out, often lacking dry shells.



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to fire as a distress signal and matches. Other birds taken today, few in number, were thickheads, brown fan-tails, and white-eyes; Mr. Beck took another yellow-bib, making three from Ganonga. The Doctor and Hicks spent the day at the skinning table finishing up yesterday's birds and the phalangers. The black cockatoo is still a myth as far as we are concerned. Another large snake and some choice centipedes were added to the collection by the natives. Mr. Beck found the nest of a gray pigeon with both eggs and fledglings; after photographing he caged the two young birds. The green and the red parrots and paroquet as usual are here in considerable number. At Kulambangra the rare kingfisher was reasonably hard to find; here they seem to be about the streams in the woods for anyone to shoot. In three days we have collected 6 without hunting them in particular. His call is much shriller than that of the ordinary kingfisher and is especially noted after rain. One usually finds him sitting on an open perch where he can fully realize the excellence of his voice. Rain squalls during the night disturbed my rest in the hammock under the boom; twice I have been rudely dumped out of a sound sleep upon the steering gear. I expect to rig up something permanent when we get to Gizo.

October 26. Raised anchor at six and stood out on a SW course for Narovo Island, spending the morning writing notes and drying clothes. The "France" covered the 20 miles by 11 o'clock under power, and Mr. Beck lost no time in going ashore to see Mr. Pohlson, the only white



man on the place. He operates a copra export station and trading store on shares, the owner being Ike Green of Gizo. The anchorage is very fine on the NE side of the island, well protected by a long barrier reef where hosts of terns nest- sooty, noddy, and sumatra. Narovo Island is 4 miles long and not over a mile wide in any part. A much smaller island, Simbo, which gives the little group its popular name in these parts, is separated from its NW coast by a very narrow and shallow passage. Quite phenomenal thermal action arises along the shore of the larger island making the water between the two warm and in some spots boiling hot; it is fed by fresh-water springs and provides fine sanctuary for megapodes, which lay in a large colony along the sandy shore. Some dig down to a depth of 3 feet to deposit their eggs, which incubate naturally and quickly with the warmth generated by the earth. A similar colony was described in connection with Savo and on the E coast of Guadalcanal near Berande I remember a megapode colony where the natives gamble on the amount of eggs laid in the various holes. The population of the two islands numbers nearly 1000, according to Mr. Pohlson. The people are very dark and short of stature typifying the western Solomon Islander. About half are missionized by the Methodist; there is a Samoan Mission on Simbo, which controls the largest salt-water village. The boys of the crew had a happy visit with their countrymen. The best accomplishment of the Missions apparently is in teaching the natives new arts of agriculture and domestic life. Thus numerous Polynesian methods of



basket and mat weaving have been introduced by the missionary on Simbo. The planting of sweet corn and beans on Ganonga was the result of imported teaching. Narovo boasts of many domestic fowls, which with the megapodes supply plenty of eggs; they can be purchased in any of the villages, 5 for 1 stick of tobacco. The men of the salt-water near Mr. Pohlson's house are just finishing one large canoe that will carry 24 persons. The task has already taken four years and represents an art that is rapidly disintegrating since the old men no longer trouble to teach the youth such ancient accomplishments. There are very few mosquitoes at this anchorage, but their absence is compensated by the number of flies probably caused by the presence of so many natives, the majority of which are very uncleanly in their habits. Flies carry the diseases of the skin that afflict the blacks; and here in particular a number show bad cases of granulated eyelids.

By noon Mr. Beck, the Doctor, Hicks, G. R., and I were in the field. I picked up a salt-water man named Doti, who took me up a trail like the side of a house since I told him I wanted to go up. We went up about 800 feet and I shot 3 bald fly-catchers, but could only find one since each dropped 20 or 30 feet below me. I was informed that a small crater lies at the top, extinct of course, but did not investigate. Coming down another trail not so steep I had a shot at an eagle hawk and took a broad-billed bluebird similar to the species of Guadalcanal and Florida. Reaching the shore I walked along the gov't road that leads across Narovo to Simbo Island, taking a



wag-tail and a white-headed kingfisher. Green and red parrots and paroquets were common among the coconuts. All the groves here are native-owned; the copra is sold or traded to Mr. Pohlson. I waded over to Simbo where I heard minas, starlings, and pigeons, but had no chances. Here I shall hunt tomorrow. Returned to the main island in a single canoe, a singular accomplishment for me. No one took a great number of birds; the Doctor had a number of fly-catchers, male and female. Mr. Beck returned a long, light brown snake. G. R. also got a bluebird. My guide invited me to inspect his house, which lay just off the road on the way back. The neatness of the little settlement surprised me. Japanese clover made a fine green lawn all around, and the houses were all on solid foundations of rock. The meris looked very trim in bright lavalavas and were busily cracking nygali nuts of which my friend gave me half a coconut full. October and November is the nut season and one of their busiest since they put them up to last the whole year. The nuts are mashed and mixed with some unknown ingredients into a poi pudding; this is cleverly wrapped in a bundle of leaves and hung up to the rafters in the houses. The black boys came out to the "France" to trade fruit and vegetables bringing yams, bananas, and pawpaws; not to mention the rarer hen's egg. Most of them were fresh, but Mr. Beck found a number of megapode eggs too much ripe with pickininnies testing them in water. An interested audience watched us put up birds. The session lasted until 10:30, but all the natives depart before 8



and one rarely sees one prowling about after darkness comes down over the land.

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October 27. Heavy rain squalls drove me to cover from the after deck last night; rain continued through the morning keeping us on board. The Doctor, Hicks, G. R. and I went ashore after lunch. I made for Simbo as planned and took four bald fly-catchers, starlings, and a mina. The latter resembles the Kulambangra species, but has a larger bill. At the salt-water village where the Samoan Mission holds sway I got three snakes, which had been captured by the pickininnies. Two species represented, neither poisonous, one brown and red and the other grey and black. The village is enclosed in a stockade stoutly lashed with vines from four to six feet high, and including in its scope the large garden of yams, bananas, and some kind of bean. Instead of putting me down immediately as "cranky" all were much interested in the purpose of all this catching of birds and snakes. One made bold to ask me very respectfully what we intended doing with "all this fella pidgin"; I explained again how anxious all the people "that stop along America were to look along pidgin belong Narovo, because they no got this fella pidgin". On the shore I shot one of the common sand-pipers or waders and a golden plover. Returning through the woods where there were plenty of nygali nut trees and others of great height and foliage I heard the red-knobbed and gray pigeons, and the long-tail. The latter is called "mau" by the natives, and is not plentiful. We have not taken any yet. The sound of the long-tail is unmistakable



in two variations: the first and most excited call like a broken Klaxon automobile horn and the second a sort of low contented monody, which sounds like the zooming of a big bullfrog. Narovo yielded no white-eyes nor cockatoos; lack of the former is particularly noteworthy with the flourishing numbers present on other nearby islands. It indicates as does the thermal activity that Narovo is somewhat younger than the others- the barrier reef is young compared to those of Vella Lavella, Ganonga, and Gizo. Here it is always out of water and harbours quite a tern colony. Mr. Beck visited the reef today bringing back sooty terns, noddies, and sumatra; he also took some photographs. Mr. Pohlson informs that the largest salt-water village still preserves its head house where one can see the remnants of cannibal days in a fine exhibition of dried heads and skulls. We were occupied with skinning again until after 10.

October 28. Only the Doctor and I went ashore after breakfast to collect. Hicks and G. R. remained on board to finish left-over birds. I again picked up Doti, who took me along the shore southward on the weather side. Ipana, his son, also came along. Here in a salt-water swamp I found plenty of yellow honey-suckers and took four. They seem to like the low trees around swamps. Also shot two Tihitian swallows and two white-headed kingfishers. Reached the village on the point for kai, and then proceeded by canoe across a little spit where mangroves made land travelling difficult to another peninsular. Hunting was excellent and I soon had a half dozen



bald fly-catchers; missed the only brown fan-tail I have seen here. Picked up a bright green lizard and two large walking-stick insects. Having used all my shells I returned to the ship by direct overland route guided by an old man from the village. The number of well-preserved old men and women in this village surprised me; the old boys usually go about wearing grass sunshades over their eyes. I should call them outfielder's hats. Many of the birds here are called names similar to those of Ganonga. The long-tail is "mau", and they savvy the red-billed kingfisher, "shinga"; they say, "he stop along swamp". But none of us have seen any. The white-headed kingfisher is "kekeou" and the bald fly-catcher "avinjo"; the name for the yellow honey-sucker is so long I have forgotten it. The possum is again "gondui". All these words may be attributed usually to the bird's call, as is usually the case with the kingfisher. Or they describe some notable physical feature of the bird or animal. The Doctor took both the brown fan-tail and the pigmy parrot so that the only desiderata seen but not taken are the eagle-hawk and the long-tail, though it is doubtful that the latter night vary. Probably the most common bird here is the gray pigeon; when not feeding in the nygali tree, they usually sit in large flocks in trees of little or no foliage. Since I returned earlier than customary Hicks and David with some insignificant aid from me were able to put up nearly all my birds. So the evening session lasted only until 9:30.

October 29. Raised anchor at 6:30 and stood



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out on a NE by E course for Gizo running under power with a head wind from the NW. Reached port about noon and found many small craft awaiting the Mataram. We found B P's store a heap of ashes; it burned to the ground a week ago. Nevertheless, Mr. Beck was able to buy many stores and the steamer will bring additional. En route we caught two fine fish- a bonito and another unknown thing but excellent kaikai. Capt. Voy brought the Mataram in at 9 o'clock, an extraordinary piece of seamanship this passage being noted for its devious reefs. The sparse remains of the schooner "Montauk" of New York lies on the most dangerous of them and its wasted spars are now used as a marker. G. R. and I went on board and found the 3rd engineer, who promised to make us two aux tubes to fit the 20 gauge guns; this will be a great addition since the 410 shells have proven very ineffectual. We also were able to weedle the mail out of the boy at the post-office, and awoke everyone on board when we returned for letter-perusing, a most welcome pastime out here.

October 30. (Sunday). Answered mail and wrote up my journal. Had lunch on board the steamer with G. R., and it seemed bacchanalian; I can remember how we disparaged the steward dep't of the Mataram on the trip up to Tulagi. A quite evening of writing was interrupted by a sudden squall that caught us unawares and carried the "France" well in toward shore before we could get the big anchor down. Most of the crew were ashore, but all hands on board managed to get everything tied down and the ship



came head around when the big hook caught hold. We were informed today of a very serious outbreak on Malaita. Two district officers and nine police boys killed at Serengo passage back of Heuru. Mr. Bell, who has been on Malaita over 20 years and Mr. Lylies, an Oxonian, were the white men. They were collecting taxes from the bush men; there were about 100 of them. In addition to the nine police boys killed, six were badly cut up and are in the Tulagi Hospital. A punitive expedition is out after the malfactors at the present time, and H.M.S. Adelaide standing by. This is the climax of many murders and smaller revolts on plantations employing labor from that particular bush district. Things should be settled by the time the "France" starts on Malaita.

October 31. Typed notes and answered mail practically all day. Mr. Beck busy straightening out accounts and getting more supplies. Mr. Booth, the manager of B P's will deliver our steamer cargo tomorrow morning. After shipping some birds and other material and securing the aux tubes we shall return to Vella Lavella, perhaps to solve this mystery about the black cockatoo.

November 1. The steamer came in early and shoved off for Tulagi and Sydney at 11, taking all our mail which has kept us busy for the past two days. Mr. Beck sent a few small boxes to the Museum by parcel post. I got letters off to Drs. Murphy and Sanford. Helped a bit with the stores after lunch, purchasing a lot of stuff for myself including 12 sq. feet of waterproof canvas



for a hammock awning. After evening kai the most estimable Rev. Tutty and his colleague Rev. Peacock came aboard from the A V Melanesia, the official 7-Day Advent craft; they rigged up a benzine magic-lantern aft and showed 100 slides, many of exceptional interest, dealing with native life and missionary work on Vella Lavella, the 7-Day stronghold, Bougainville, New Georgia, and Malaita. Rev. Peacock, by the way, assisted in the burial of Mr. Bell, the recently murdered D. O. of Malaita. In 12 years this mission has made remarkable progress; starting on Vella Lavella they have used natives extensively in propagating their doctrine on other islands. Problems of health, sanitation, and education were undertaken first (after the church had been built). They have no commercial interests like Rev. Goldie and his Methodist clan. Things of most practical value are taught the natives, such as the cultivation of sweet corn and other vegetables. We were supplied with excellent garden products at Kumbakota on Ganonga where the 7-Day station was originated, and has always been operated by natives. The ethnology of the exhibit proved very interesting. Head-houses, burial biers and crematoriums, canoe-houses, and heathen ornaments were shown, all revealing sun and moon worship, which brings to mind Dr. Fox's "Threshold of the Pacific" and its thesis, based on ethnographical research, that Egypt was the original migratory center for the Solomons. According to Rev. Tutty, who appended many remarks, the natives themselves do not realize that they worship the sun and moon. Its principal signifi-



cance to them is tradition and regard of ancestors, all of which amounts fundamentally to ghost-fear. The only elements of this culture they can understand and trace are their totems. The stories of their origin as a people from some bird or fish are handed down by mouth and tattooed on their bodies in many cases, so that the whole constitutes a primal flook-lore. Why the pyre of a funeral bier must be lighted just at sunrise is a mystery to them, the significance of the sun being disregarded; but the story of the shark that turned into a man or the woman who gave birth to an alligator, thus giving rise to a tribe, remains in original entity. Language is the first category of education. The missionaries have to work now in three distinct languages and eighteen dialects, the principal one of which is New Georgia. They teach reading and writing phonetically, acting on two principles: vowel following a consonant and two diphthongs- ei and ae. The boys at Batuna in the Marovo Lagoon print and bind Bibles and prayer-books for use anywhere that the 7-Day is established. In medicine they have done a great deal, all charitably. Members of the regular church in Australis, England, etc., give one-tenth of their incomes for the benefit of foreign missions, which is the first cause of the 7-Day advance. Of all the missions out here the French Catholic is the most respected by the white people; and of the Protestant, the 7-Day. The little lecture closed appropriately with a representation of the expected second coming of the Saviour. Mr. Beck showed our most interesting birds and acquired much information



concerning anchorages around New Georgia, Bougainville, and Choiseul.

November 2. Ashore by 8 with the Doctor and G. R. Collected until 3 o'clock, taking a dozen birds—white-eyes, bald fly-catchers, blackheaded flycatchers (white breast and reddish inside the mouth), and yellow honeysuckers. The white-eye here varies from the species found on Kulambangra, Vella Lavella, and Ganonga; the white-eye is not present on Narovo, nor is the white cockatoo, the latter also lacking on Ganonga. I mistook the black-headed flycatcher for the blackhead. The red on the inside of the mouth is not found on the same bird taken in the eastern Solomons. Finished skinning before supper, and later entertained B P's staff and Mr. Griffiths, manager of Lever's plantation at Loga (Shelter I.) Gizo I. is 7 miles long extending NW and SE and not over 3 miles wide at any point. The average altitude does not exceed 500 feet and the drainage is poor, mangrove swamps abounding. The interior is more densely wooded than is usual. Numerous small islets and barrier reefs lie to the SE of the anchorage making navigation very difficult. Two of the largest are Long I. and Latitude I. Gizo is about midway between Kulambangra and Ganonga.

November 3. Finished with stores by noon. The Doctor collected one golden plover and a turnstone in young plumage along the coral-reefed shore, disappointed in not finding yellow-legs as he thought he saw some yesterday. Weighed anchor and stood out on a SW by W course for Bagga I. and the W side of Vella Lavella. Rain squalls and



variable winds all afternoon. Caught one fine fish for evening kaikai. Passed Vic Pohlson of Narovo in a heavy rain and slipped him a tin of benzine. The France under power made Kumbakota anchorage, our former stamping ground, by 6:30, where the sky cleared and the moon shone upon the rolling vessel in a sheen of mellow gold. Even Mr. Beck remained up on the quarter until after 11.

November 4. Made Bagga Island under sail with a stiff NW breeze by 11 A.M., dropping anchor off Binskin Island, the only charted anchorage on the island. Mr. Chaperlan operates a plantation on shares with Mr. Binskin, the owner of all Bagga. The wife and child of the latter were murdered by natives in 1909, while the master was off on a recruiting trip. Bagga Island lies 4 miles west of Vella Lavella at Lat. 8-45 S. and is 5 miles long N and S and approximately the same in the opposite measurement. The island is uninhabited by natives. The coastline is not shown on the chart, but proves to be very irregular, fringed with reefs. Renard Island lies a mile and a half to the north of Bagga and is not over 2 1/2 miles long; Fairway Island, a very small islet is just east of Bagga 1/2 mile at the entrance to the Binskin passage. The highest point of the ridge that runs generally N and S on Bagga reaches approximately 600 feet. Extensive mangrove swamps skirt the shore about the anchorage. It was in the swamp that the Doctor and I hunted during the afternoon; G. R. was also out. We collected over 20 birds, I shot 4 bald flycatchers, 2 white-eyes, and a red-breasted dove. Other birds taken were the red-backed honey sucker,



which proved to be darker on back and head than other species represented; the white-eye compares with the type found on Vella Lavella, light yellow bill and yellow feet; the blackhead does not show the usual white ear-patch. Wag-tails, Bergi terns, and the bright mottled blue-headed kingfisher were taken, G. R. and the Doctor each getting one. We did not take any blackheads on Vella Lavella during our short stay, but Mr. Beck expects they will be similar due to its proximity. Other birds heard here are the common parrot and paroquet, long-tail, red-knobbed and gray pigeon and the cockatoo. G. R. saw a striped hawk. The Doctor and I found all our birds in the vicinity of the mangroves; the kingfishers were shot on the salt-water. The white-headed type are plentiful. They seem to like the mangroves as a background for their perch on bare, dead timber. We climbed a little knoll 1/4 mile inland, finding no small birds but plenty of pigeons. We met a Malaita boy who is employed by Mr. Chaperlan to milk the bullimacow and hunt pigeons for the family's kaikai. He had six of the red-knobbed koora-boras; I shot one gray koora-kau for him. He calls the white-headed kingfisher "ku-ku", apparently Malaita dialect. These Malaita men are certainly the most intelligent and the most vigorous natives of the whole group; they furnish practically all the recruited labor for plantations, the population of Malaita being 50 or 60,000. Self-maintenance is difficult especially because the bush-men are generally hostile to the salt-water men. The recently killed D. O. had acted as peace-maker between the two



for many years. They are much lighter than the people of the so-called western Solomons- Bougainville and Choiseul. They cling to tradition and custom, refusing to be missionized to any extent; the Catholic and the 7-Day have accomplished a little. One can always tell a Malaita man by his color and by his tattoos; these show on his cheeks and around the orbital ridge, the latter being rows of dots; the cheek sometimes shows a star (Bena). Across the chest is found the totem, a bird or more often a fish, occasionally flowers and leaves are the pattern. Generally a name completes the array, designating a particular tribe or family. The totems are a much more general classification. In the western Solomons, in the islands recently visited like Ganonga and Narovo the men have little or no tattooing. I have seen several cicatrices on the upper arm, one a frigate bird, evidently made by incision and rubbing in dirt. Malaita boys everywhere we have found them have shown interest in our quest for birds and recognize many species as representative of their islands; the red-billed kingfisher is again shinga (or chinga), and the pigmy parrot- "sumba". After kai we put up birds in a heavy rainstorm that lasted until after 10 P.M., and gave us fresh water in every conceivable receptacle.

November 5. Ashore with the Doctor and G. R. shortly after 7, Mr. Beck having gone off earlier in the dinghy. We landed below the mangroves in a little bay opposite Binskin Island and climbed to the top of the ridge, finding surprisingly few birds. I shot one



blackhead, a red-backed honeysucker, brown fantail, white-eye, and the usual brace or so of bald flycatchers. The Doctor got three white-eyes among others, and G. R. a striped hawk. Mr. Beck fared much better, hunting up to the ridge nearer the southern end of the island; among his birds were 4 of the desired blackheads. Hicks also had one; he went out after lunch. Mr. Beck also brought in a white-headed hawk. George, the mate, failed to scare up any wild pigs on his excursion into the bush for that purpose. The folks on shore here show the usual admirable Solomon Island hospitality, having entertained Mr. Beck at lunch yesterday, and Mrs. Beck and the Captain at dinner this evening. A Mr. Risby of Savo is visiting the Chaperlan home at present. They send us out a couple of quarts of milk every day; with its aid Mrs. Beck baked a splendid cake, which we enjoyed for three meals. The avifauna has not yielded us what it should have, the total being about 50 birds; but the Doctor has collected 10 or 20 different species of land-snails, and Hicks brought in a large snake last night, brown and white diamond pattern similar to one taken on Ganonga. No fangs were revealed, but auxiliary teeth in the upper jaw. Mr. Beck put two scorpions into pickle. The monitor lizard is here among the mangroves; the smaller lizards show nothing new. The insect kingdom has yielded us a few beetles, among them a longicorn. Pigs are supposed to be plentiful, although none of us have seen any; we found a lot of mud holes on top of the ridge where they evidently wallow, in addition to "pig trails". These



tracks are most useful to us where native trails are lacking; one finds them running along the top of a ridge so it can be followed with reasonable assumption that it will lead to the most gradual slope to lower ground. It seldom is a problem to get up a mountain; getting back down is the perplexing part, and in this the pigs are of considerable assistance. We were up from the skinning table by 9 P.M., and glad for the Sabbath tomorrow since all the field party are suffering from diverse minor afflictions; the itch is shared about equally, an insidious irritation about the ankles caused either by sand-flies or some kind of a "chigger" like those found in the southern U.S. that burrow under the skin. Mr. Beck with his remarkably sturdy constitution and tough hide seems to fare better than the rest of us. I have a special dispensation in the existence of a swollen lymph gland located in the left groin.

November 6. Wrote notes and dabbled in water-colors in the morning. Mr. and Mrs. Beck were hosts to the people from Binskin. David has arisen from his bed of fever. After lunch the Doctor, Captain Lang and I rowed lazily over to Fairway Island, a distance of a mile from the ship. It does not measure over 100 yards in breadth and marks the end of a barrier reef that extends to Bagga on the west. Even on this little spot of land birds were plentiful: starlings, white-headed kingfishers, and red-knobbed (often called white-tailed) pigeons, plover were also seen. The Doctor and I took several photographs. The strong tide in Beagle Channel



made it a hard pull back and in this I made trouble for my swollen gland. The swelling increased with added pain and stiffness and following kaikai came a dose of fever. The Doctor knocked this nicely with a 15 gr. dose of Calcium Iodide and I repaired to bed in a makinaw shirt and a blanket.

November 7. I remained on board on the Doctor's advice and the sanction of Mr. Beck. The fever subsided during the night, but the groin is still stiff and painful. The rest of the field party- Mr. Beck, the Doctor, G. R., and Hicks went ashore for the morning. I read and typed notes until lunch, when they returned with about 25 birds. It took the France just about an hour to run over to Nyanga on Vella Lavella, where Mr. McEachran (formerly referred to as Mr. McKechnie) operates a plantation. He came out immediately bringing Mr. Fuller, who is a visitor and the same man who gave us the whole bullimacow when we stopped a day at Vaitasoli on the east coast of this island. He went ashore with Mr. Beck to show him some skull caves located nearby, the cenotaph of many native warriors. G. R. and Hicks went out after pigs, which again are reputed to be overrunning the district. The Doctor and I, aided by David, put up the morning's catch. Hicks and Mr. Beck brought back flycatchers (both bald and blackheaded), two white-headed kingfishers, and two brown fantails. No new birds were taken this morning on Bagga Island. No pigs were seen or heard. We are anchored approximately at the central point of the west coast between two rivers; one on the South is supposed to flow in orderly fashion



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permitting navigation, provided one takes along a cross-cut saw and a brace of axes, 14 miles from Mundi Mundi, a mission station farther north. The other river on our north, according to Mr. McEachran, is navigable for a small craft 6 miles, where it strikes the foothills of the numerous peaks visible from the ship. The highest does not exceed 3000 feet and all appear to range along two ridges running generally N and S. We can see eight to the northward when it is clear; to the south there is visible a lower ridge, probably not over 1500 feet. The entire coastline on the Admiralty chart is lacking and the topography of the interior untouched. The 7-Day Advent Mission was first established on Vella Lavella and practically all the remaining inhabitants of the island, which are few, are under its dominion. The principal station is at Dobeli.

November 8. Rain kept all of us aboard after breakfast. The Doctor advised my resting the glandular leg again, which has not yet responded to treatment. He opened what appears to have been a small infection on my instep; this may be the seat of the swelling in the groin. The Doctor, G. R., and Hicks went ashore when the rain abated and Mr. Beck took the dinghy to reconnoiter the mouth of the large river. He brought back one of the rare little blue kingfishers, black-bib dove, brown fantails, white-eyes, two white-eared kingfishers (mottled blue head), and blackheads. The latter species here and the white-eye are similar to those taken on Bagga. G. R. brought in a new variation in the thickhead. The white-



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headed kingfisher is common along the shore. This seems to be a good focal point for all birds; even the yellow-bib dove was heard along the river, an altitude not over 50 feet above sea-level. Mr. Beck also added an eagle-hawk to the collection. Returning he found a beautiful kind of tree-orchid growing close to the bank and so brought a large sprig to photograph. It is a long green stem, the flowers growing out in a spiral; they are a pale cadmium yellow dotted with black splashes, and have five leaves in the calyx and a yellow stamen. Ordinarily there is no odor, but a faint but luxurious perfume is present in the early morning. Heavy showers hindered the collecting considerably. Mrs. Beck spent the day at Mrs. McEachran's house. I helped with the birds in the evening. No apparent change in my condition.

November 9. G. R. and Hicks ventured forth in the dinghy to camp up along the big river. Mr. Beck found two branches; the one going north is probably the waterway to Mundi Mundi. They will be out until Saturday, the 12th. Mr. Beck developed a few films before going ashore to collect with the Doctor. My leg is a bit worse this morning, and discloses the fact that all the trouble comes from the little sore on the instep; the poison from it has infected the whole lymph channel. It was the beginning of a real "island sore". I wrestled with the eagle-hawk all morning and developed a pack of film. In the afternoon I lay down with the bum leg elevated until the field party returned. The Doctor had a yellow-bib dove and a young blue hawk; both he and Mr. Beck took thickheads,



blackheads, bald flycatchers, and two black fantails with a new variation in plumage. David went out about 4 o'clock but had no luck and much difficulty finding his way out. Mr. Beck allowed me to skin a red-throated dove, the first of my experience. After kaikai I retired on the Doctor's advice to rest the leg; absolute quiet is the best remedy, so I am resigned to lying on my bunk until the business is finished and cleared up. I noticed that the sore on the instep looked ugly and soaked my foot in dilute Dakin solution. The groin is still swollen and painful, so I shall bend all my diverse energies to recovery by simple direct action- to wit, inactivity.

November 10. Lay on G. R.'s bunk all morning after breakfast leaving it only to soak the foot in Dakin. The Doctor and David went ashore. Mr. Beck remained aboard to develop and print film. Mrs. Beck finds much comfort in her daily sojourn on shore with Mrs. McEachran. The Captain and George mended sail while I read Shakespeare. Rain again made the day's catch of birds small. The Doctor brought in both brown and black fantails, a reef heron, and a white-eared kingfisher. There are many of these fellows about; they nest down in the mangrove swamps. One hears them calling, particularly after rain- a shriller and more staccato note than the ku-ku-ku of the bigger white-headed brother. On account of the expanse of swamp I can hear few other birds except parrots and paroquets in the coconuts. Tihitian swallows are regular visitors to the France, perching on the halyards and carrying off bits of hemp to their nests on shore. About the



only thing I can be sure of in regard to Nyanga anchorage is the landscape; so I shall attempt some topographical mapping since the Admiralty chart is so inadequate. This is a good locality to start on because the water-sheds of two ridges of hills, north and south, empty into the bay from three rivers.

November 11. On my back again except to soak the foot and dress the sore. Mr. Beck and the Doctor constituted the field party. David down with another attack of fever. I read a great deal and typed a few notes. Mrs. McEachran came aboard for lunch. She is much the finest lady I have yet seen in the Solomons. We had much in common since she hails from County Wicklow. Her span of adventure and her knowledge of natives made very interesting conversation. The collection was richer this evening by a dozen or more birds- thickheads, black fantails and white-eyes among those taken; also a white "barn-owl", so termed by Mr. Beck, quite a rare prize. Only one has been collected to date plus the one brought by us, a gift from the captain of the "Royal Endeavor" from Vanikoro. My leg is better this evening.

November 12. I was able to skin a couple of birds this morning. The Doctor also remained on board to put up the remainder of yesterday's catch. Mr. Beck spent the forenoon ashore returning after lunch with several gray-birds in addition to others already represented. He had the gray-bird both male and female in several plumages, one very young looking like a different kind entirely. About 1 P.M. the camping party returned



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with a good bagful considering the adverse weather. A brown bittern and several female gray-birds but no doves except common species. No yellow-bibs were found although they reached 2000 feet. The yellow-bib has been heard again by Mr. Beck along the small river, so it does not cleave exclusively to higher altitudes. All the birds taken by the campers, except the bittern and one red-billed kingfisher, have been collected on shore from the present anchorage. The fact that this is the emptying point of so much drainage from both N and S inland may help to explain the presence of so many unexpected varieties; the rarer dove like the yellow-bib and the thickhead is usually found above 2000 feet. After the rain Mr. Beck took the dinghy up the small river returning just before dark with nothing important for his efforts- swifts, wagtail, common kingfishers, and a young long-tail. No one reports the cockatoo at this anchorage; one was taken at Vaitasoli. The Doctor has shot a number of pigmy parrots here.

November 13. (Sunday). My leg is much improved so that I shall be able to be back with the field party during the coming week. The Doctor, G. R., the Captain and I visited the skull caves in the long-boat after breakfast. The Doctor and I took numerous photographs and we all collected interesting mementa mori. There are three divisions of catacombs, two having two shelves cut to hold the skulls and one four shelves; two of the three are at the end of the plantation beside the salt-water. Each has at present about 100 skulls, the best of which



lie arranged in single rows on shelves cut in the soft volcanic rock five feet above the ground. These are the "skull caves" per se, there being nothing else. The shelf is 18 inches high and varies from four to six feet in depth; those at the higher cave located 100 yards along the shore from the two at the edge of the coconuts are 15 feet long. The smaller ones are not over six. Two of this size comprise the first cave, cut side by side with a rude face carved in the small space of rock between. The larger shelves had a rude bas-relief edge around the exterior. The higher cave was 50 feet above the water about midway up a steep cliff of volcanic buff. Here we found much the best-preserved skulls and one, evidently an important chief, set in a little niche by itself. A. small pile of skulls in varying states of decomposition lay on the ground in front of each shelf giving evidence of vandalism, since they had undoubtedly been pulled out. Those left intact had the jaw-bone attached by lashings of vines and many still retained shell rings set in the eye-sockets with mud plaster. Most of them had offerings of polished rings tied on with vines. Shell rings and a few broken spear heads lay scattered about on the floor of the shelves. There were occasional group of skulls tied two or three together, perhaps near kinsmen. No body bones were present. According to a Malaita boy, a plantation laborer, only the corpse of a warrior merited such honor; the carcass was left to decay, the head cut off, cleaned and decorated, and finally placed on the shelf in an appointed place. Women,



children, and insignificant males were buried unceremoniously on Turnivilu Island, which lies 1/4 mile from Nyanga. Most of the skulls evidently came from middle-aged men, the frontal suture rarely showing. There were a few very immature skulls. This funeral practice was not typical of all the natives of Vella Lavella because we have since learned of other methods of dealing with the dead that were used in villages further north on the island. The most common seems to have been a sort of mummifying process, the entire body wrapped after preparation in leaves, bark, and vines. This is the only "skull cave" that we have heard of on the island and hardly seems large enough to accomodate the "great men" of every tribe. There are so few aboriginal natives on the island that no knowledge can be gained first-hand. The Malaita boys savvy a good deal; apparently they feel no fear of the ghosts of any but their own people. We pulled back to the France late for lunch. I soon developed my films most of which turned out poorly. I started a rough land-survey map of Vella Lavella on tracing paper based on the drawing of the Admiralty chart which only approximates the coast and leaves the topography untouched except to give the maximum altitude as 3000 feet. I go simply by compass sights and rough interpolation.

November 14. Mr. Beck and G. R. went out for a morning's collecting. The Doctor developed his films with very successful result, while I sketched in my map the coastline and drainage of the vicinity. At noon we took kindly leave of Mrs. McEachran and stood out on a



N by NW course for Mundi Mundi, reaching the anchorage at 3 P.M. During the trip we were busy putting up birds-starlings, swallows, a blackhead, megapode, mina, and green heron. Rain kept us aboard after arriving, but Mr. Beck went off to interview the residents, who should be missionaries according to the chart. The rain abated, giving him a chance to shoot a few birds- fantails, both brown and black, thickhead and blackhead, and one flying fox. Instead of a mission he found a prosperous plantation under the direction of Mr. McPherson, about 150 acres under cultivation. A number of the labor boys paid their respects and with them came a fine assortment of bananas, pawpaws, and pineapples. All were Malaita men.

November 15. All ashore except Hicks; my leg is practically back to old form. Mr. Beck took a trail that follows the ridge in back of Mr. McPherson's house. The Doctor and I hunted along a river, which has outlet just opposite our present anchorage. It averages 25 feet in width and from three to six in depth except over the last 1/2 mile before the mouth where it gets much larger. G. R. went upstream, salmon-fashion. The Doctor took one side and I the other. As expected rain came about 11 o'clock and continued until 3. I followed a river trail for a mile and found birds plentiful, taking both brown and black fantails, bald flycatchers, brown-winged blackbird, white-eyes, red-rumped honeysuckers, and one red-billed kingfisher, the only significant catch. I also heard the cockatoo, mina, long-tail, parrots and paroquets, and megapodes; I saw a brown heron on the way



up and missed a bittern on the way down. The ground dove occurs in the usual reddish-brown. The Doctor shot a new species of ground dove, a fine male, purple and black with white throat and head patches. Mr. Beck thinks it similar to one taken on Ramos Island in the southern Solomons. The honey sucker here is very dark and the adult male shows a slight red marking on the top of the head in addition to the rump. The little kingfisher I shot right beside the stream just after the rain. One hears their shrill pipe at such times, particularly if it is near evening. They are never found high up in trees but invariably near the ground usually perched on some dead log or bare limb. In flight they are like a streak. The bittern was near the base of a huge root-tree, a species of wood unknown to me; the trunk proper begins anywhere from 10 to 30 feet above the ground surmounting a great pyramid cluster of roots that forms its base. The thickhead and blackhead are rare at the low altitude of the river bottom. Mr. Beck collected several above 1000 feet on his trek that took him to the top of the high ground about 5 miles inland. The France entertained Mr. and Mrs. McPherson at dinner after the Doctor had extracted an ulcerated tooth belonging to the latter. The Doctor has proved a most welcome visitor both at plantations and native villages by virtue of his profession.

November 16. The Doctor went along the river flats again, while Hicks and I took the high ridge trail and climbed steadily until noon. On the way I took one ground dove, a red-throated dove and a few small birds.



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At 12:30 the rain came down in tropical torrents and continued all afternoon. We had an old native leaf lean-to for shelter; when this collapsed upon our heads we came down, finding no birds in the welter of the storm. The river was greatly swollen and the entire basin in the coconuts inundated. Rising water had driven the Doctor out; no one else came ashore.

November 17. Raised anchor at 6 A.M. and stood out N half E for Choiseul Island, a large body of land with numerous outlying islands; this should give us the balance of bird-types indigenous to the Solomons. We start a 35 mile run with a fair breeze. Like Vella Lavella, Choiseul Island is very inadequately charted. At the north end of Vella Lavella Mr. Beck had it in mind to collect again and spend the night at Saliva village, but finding no suitable anchorage stood out definitely for Choiseul, a distance of 35 miles. On board after lunch I typed a few notes, worked at water-colors, and read. Toward evening a fair wind came up. A very pleasant night at sea.

November 18. Developed some photographs in the A.M. We dropped anchor between Moli Island and the mainland of NW Choiseul at 3 P.M. Saw one small flock of shearwaters, but Mr. Beck could not reach them in time. While awaiting his return Mrs. Beck collected a bunch of marine invertebrates in a bucket. Terns were numerous—sooty and young Bergi; brown gannets and frigate birds (the latter I have previously called "bellamas", - this I find is derived from the French "belle de mer"). A plantation owned by Mr. Hamilton of Sydney is operated



here by Malaita labor; the overseer comes down once a week from Choiseul Bay. Close by there is a small salt-water village, population about 30. G. R., Hicks, and I went up a small river that empties nearby; Mr. Beck took the long boat to see if any white person stopped at the house on the island. I heard thickheads when we had landed about 1/2 mile up; I shot a white-eye, which revealed a new variation- dark olive bill and olive-green feet, the head a lighter shade of the same color and the breast shows a great deal of white, yellowing toward the head. Hicks and I took black fantails, which show a darker plumage in head and back and more white secondaries. Returning we heard the hornbill. On the way down the river G. R. and I each shot a white-eared kingfisher. Yellow honeysuckers and the white-headed "ku-ku" kingfisher (called "kekeow" on Choiseul) seemed plentiful among the coconuts along the shore. Mr. Beck had ten birds- starlings, black fantails, and a female thickhead. Natives from the village as well as a boatload of labor boys visited the France. The former are very black as contrasted to the lighter Malaita men; they are very quiet and friendly. They brought pawpaws, yams, bananas to trade. Fishhooks and calico were the desiderata. The island of Choiseul is 80 miles long and from 10 to 15 miles wide extending from NW to SE by the compass. The highest ground is found around the southern end where altitudes of 2500 feet are reported. The maximum altitude at our present anchorage is, perhaps, 1500; the ground has the appearance of rising gradually in consecu-



tive ridges that drain lengthwise of the island. The largest rivers at this end flow into Choiseul Bay. From our position we can see the Shortlands and Bougainville on a clear day. Fringing reefs lie along the shore here with a heavy barrier about 2 miles out.

November 19. All ashore by 7 A.M. I followed a trail that led up a main ridge crossing the stream we investigated yesterday about 2 miles up. Thickheads, black fantails, and brown flycatchers were common; I shot several. The brown flycatcher does not show any white about the head like those recently taken on other islands eastward. I heard both the pigmy parrot and the midget, but could not get a shot at either. I took a common ground dove and a brown heron. The red-knobbed and gray-headed pigeon are abundant. The long-tail is not present here, verified by the natives. I shot a hornbill as he was hanging upside down reaching for fruit; he caught in a liana vine and I was forced to cut an 8 inch tree to bring him down; he proved to be an old male with six notches. Black honeysuckers are not plentiful in the high country; they seem to prefer river bottoms. I often get their tiny whistle confused with the pipe of the red-billed kingfisher. The red-breasted dove called from the tops of high trees; cockatoos, minas, parrots, and paroquets were also heard. G. R. brought in a little mountain kingfisher exhibiting a new plumage- black bill, lighter blue mottled head, and light yellow and sienna colored breast, iris brown, feet flesh-pink. It proved to be a female and since the natives positively report



the presence of the red-billed "shinga", I think it is the same in a young plumage. Hicks shot two of the bright blue kind similar to those taken on Ysabel. We put up 68 birds by 9:30.

November 20. (Sunday). Awoke with a sour cold. Worked a bit with water-colors and notes. Read during the late afternoon. Mr. Beck shifted the anchorage more to the leeward of Moli Island to avoid the heavy roll which we have experienced of late.

November 21. Heavy rain throughout last night and continuing in the A.M. I ventured up the river about 9:30, the rain having abated some and had the experience of missing three kingfishers on the wing- two white-eared and one little blue. One gets little time to prepare to shoot; one heralds his approach with a sharp call. They live along the banks and up the small tributaries that flow into the main stream. The entire bottom is thickly vegetated with small timber, vines, and weeds of every description. Whenever one is found perching it is invariably in a bare limb, usually a dead one; frequently on mangrove roots. When one alights it will usually sit for a minute or two unless frightened. The red-billed impresses me as the most rapid in flight. The white-eared and little blue are very speedy and usually keep to the bank under the overhanging limbs, making it doubly hard for a mediocre marksman. The big white-headed fellow and the common land type are fine targets because of their size and loud calls. None of the kingfishers seem to pay any attention to calling, probably because their



calls are so difficult to imitate well. I saw a pair of brown herons too far away to shoot. After lunch all the field party except Mr. Beck went ashore along diverse trails. The Doctor and G. R. have been fortunate in securing good natives for guides and retrievers. I followed the same nygali nut path that takes one in a SE direction for about 3 miles to an altitude of approximately 800 feet. There are three little camping places along the trail with good leaf houses where one could spend a comfortable night. I shot only six birds- thickheads, male and female, black fantail, cockatoo, brown flycatcher, and graybird. The thickheads here are most plentiful, black fantails a close second; they come readily to calling. Brown fantails, doves, the little mountain kingfisher, and in particular the crested pigeon (*Microgura meeki*) are the desiderata. Mr. Beck has found that the natives savvy the latter, but they give the impression that it is rare. Meeks collected them somewhere on Choiseul in the eighties.

November 22. G. R. laid up with a knee infection. Hicks down with grippé and indigestion. Mr. Beck, the Doctor, and I went ashore. I again took the usual trail, climbing as far up as it went to the ultimate nygali nut outpost; here were planted coconuts in poor bearing and a small shed and a sort of lean-to had been built. On Vella Lavella, I recall, we found coconuts in full bearing at 1500 feet. I flushed three ground doves, getting one; I reconnoitered many ravines and intersecting ridges where underbrush was sparse- good places for ground birds, but no crested head showed itself. The common



ground dove is often encountered near places where the natives have cracked nuts. I took a brown and a black fantail, pigmy parrot, white-eye, gray-bird, and brown flycatcher. A black snake wiggled away from me after I had shot it in the tail with the aux. Snakes have been scarce here so far. I missed a blackhead in addition; although I waded the river for 1/4 mile upstream and followed many little brooks in my sallies down various ravines I saw no little kingfishers. The up-country is serrated with ravines that lead into three or four main ridges running lengthwise of the island (NW to SE); two central ridges surmount a large river canyon which drains the high land. The average width of the stream is 30 feet and is easily forded. I found a number of craters at 1000 feet, many of the ravines leading into such places. Birds I met in small bunches- fantails, the black seem to run together while the brown is usually taken singly, flycatchers, thickheads, pigmy parrots; the blackheads I have noticed in pairs very often. Midgets travel in flocks like the little parrots and the calls of both are easily confused. Of all the birds the pigmy comes to calling most readily, probably because its tiny squeak is so readily imitated. I have shot a number hanging upside down from vines and clinging to the bark of large trees. The fly-catchers frequent fairly low foliage when they are getting insects; and the other varieties of small birds are usually most plentiful, and are certainly most easily taken in groves of small timber and underbrush. The black honey sucker is represented on Choiseul with dark yellow



breast, red head, and dark yellow wings; it feeds particularly on the blossom of a tall tree. White-eyes are abundant and are the songsters of the islands. The bald flycatcher shows no white on the head, but is black with reddish-brown breast. The common black-headed flycatcher does not have the pronounced red inside its bill as formerly the case on Vella Lavella, Gizo, Kulambangra, etc. Hornbills, minas, parrots, cockatoos, graybirds, and crow as well as the common red-knobbed and gray pigeon inhabit the taller trees. I have seen hornbills, minas, parrots, cockatoos, and both pigeons feeding in the same tree, a great gnarled forest giant; they eat the small red berry-like fruit. No one has yet taken any of the doves which we can hear calling daily high up in the tree tops. The white-tailed "nickabar" pigeon is also common here. The crested ground pigeon (*Microgura meeki*) remains a mystery bird. Both the Doctor and G. R. have found natives here very useful as guides and retrievers; they have collected lots of snails upon the suggestion of the former. The community here is small and very friendly; one can get a boy simply by starting along one of the bush trails. There are other villages up the coast; we have been visited by several large canoes. A Methodist Mission teacher came from one with the name of Wesley as a patron saint. There is a school house at the nearby village with plenty of good slates (made in Pennsylvania) which have not seen much use.

November 23. Mr. Beck, the Doctor, and I ashore for the day. The remarkable forbearance of rain has been



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most fortuitous. I followed Mr. Beck along his trail and struck little luck until the afternoon after crossing the large river that flows northward in the central canyon. Along the ridge over there I took a brown fantail, black-head, red-breasted flycatcher, and midget; as I was quietly eating my sardines a male and female hornbill flew into the tree above me. They were added to the collection. The male had six notches and the female three. I climbed down to the river bottom, suggested by Mr. Beck as a likely place for the evanescent crested pigeon; I waded downstream for 1/2 mile. I saw two brown herons and missed a rapid shot at a duck, a common teal. I shot a red-crested dove, mina, and a common sand piper; then a red-billed kingfisher flew and lighted on a log not more than 100 feet distant offering me a perfect shot, which I missed by squeezing the aux instead of the trigger on the big shell. It is the worst skull I have pulled yet; we have only one of the wood kingfishers and that had a black bill and a light yellow breast, evidently a young plumage. The natives report the red-billed "shinga"; this one I missed was in plain sight and I am positive of its red bill and orange breast. Returning to the ship I collected several unusual spiders and a large lizard.

November 24. (Thanksgiving Day). Breakfasted on fried hornbill breasts; then skinned a hornbill and helped the Doctor clean snails. In the evening we had a sumptuous dinner thanks to Mrs. Beck; the Doctor wrote some appropriate stanzas, which were read on the occasion.

November 25. Raised anchor and steamed 11 miles



north to Choiseul Bay; we let go the iron off Mr. Everett's, manager of one of Hamilton's plantations. Mr. Beck, the Doctor, Hicks, and I went ashore about 10 A.M. We had to walk a mile through the coconuts to reach the bush where we found no trails for considerable distance. I ventured into a mangrove swamp where the going was rough over broken coral and roots; here I took a few birds- white-eyes, brown fantail, red-breasted flycatcher, black fantail, and young male thickhead. This plumage in many of the small birds resembles the female adult. Reached higher ground and got on a ridge where I heard hornbills and cockatoos, but few small birds. Met the Doctor and later Hicks. We returned together and in the coconuts I shot a rusty-winged blackbird and a common land kingfisher, large. Mr. Beck had come back to the ship early and had gone up a large river that empties into the bay nearby. He returned with a white-eared kingfisher and knowledge that the river is navigable for 3 miles.

November 26. All the field party went up the river in the longboat to a point where further progress was prevented by a considerable waterfall. At this place the river branches. I followed the left for about a mile finding the river drainage extremely rough; the ground was full of holes and rocky knolls, small precipitous ravines, mostly lava and crumbly volcanic rock. The river bed had an intermixture of clay at the surface. Bird life was very sparse. We went up the river at ebb tide and mangrove roots on either bank were exposed for considerable distance inland. Five little blue kingfishers



were seen. There are plenty of curlew up the river and around the bay. Mr. Beck shot one and a duck in addition. The little kingfishers nest in holes up in dead trees or in the bank itself along small tributary streams and are out on the main streams at low tide. We saw none returning when the tide was full. One huge tree near the falls might be called "the hornbill tree"; there were at least 30 hornbills feeding in the branches. I found a similar tree in my ramble which harbored crows, minas and gray pigeons; some of the birds pick the inside of the fruit out, the ground being covered with shucks. These could be heard dropping all around mingled with the peculiar gurgling and chuckling of the contented birds. I did my best to secure the nest of a common land kingfisher, which was 20 feet up a large dead trunk, but did not make the grade. The mother bird would visit it about every five minutes, evidently feeding the young ones. I found a black honey-sucker, female, teaching a pickininnny to fly; I took the young one up and the mother hovered about in distraction. Just above the place where we had tied the long boat Mr. Beck found a pigmy parrot's nest in a black ant's nest, which was about 7 feet up on the side of a large white-barked tree 150 feet high. There were two eggs in the nest undiscovered at first because they lay up on a little shelf above the aperture. Both Mr. Beck and Hicks saw the pair fly out. In the main stream of the river in the fork of dead limbs protruding above the surface of the water we saw two wagtail's nests; one had two eggs in it nearly incubated. Returning Mr. Beck shot two long-tailed



swifts and a small green parrot, a gray-headed female.

November 27. Up the river after breakfast to acquire some photographs and to bathe. Saw two little blue kingfishers and a dozen curlew; small green parrots inhabit the mangrove trees near the mouth; white-eyes and midgets were heard along both banks.

November 28. Mr. Beck and I went up the river in the dinghy; the Doctor and Hicks went ashore on the plantation. On the way up we got a large eagle hawk and one little blue kingfisher. I got ashore about a mile below the falls on the north bank and followed a ridge until noon, when I found myself lost since I had crossed some intersecting ridges. I stopped frequently to call, but only got a crow. By 2 o'clock I had found my way out to the river somehow where I shot a pair of young hornbills in "the hornbill tree". I had covered at least three square miles of country and felt very poorly compensated; all the small birds I found were along the river bank. Mr. Beck had poor luck; he shot at a small chocolate-colored ground dove previously taken on San Cristoval and on the Santa Cruz islands. He shot a green parrot, male of the small species; this bird had a yellow head and beak (female- gray head and black beak), and is similar to the small parrot taken further south in the group. The weather has continued clear of rain, excellent conditions for collection, but very few birds. We have had only one light rain in the evening for the last four days. Mr. Everett visited the France in the evening.

November 29. Raised anchor and stood out for the Shortlands. Mr. Beck and I went ashore on a small



islet (Redman) at the entrance to Choiseul Bay. We waded over reefs to get to it and took two lesser yellow legs; other common shore birds were about- golden plover and sand-pipers in abundance. Sooty and noddy terns were also plentiful. The island itself was completely surrounded by fringing reef that stretched out to sea in some places for 1/2 mile; the harbor is protected by a barrier reef 3 miles out through which passage can be gained in only one safe place. The island was very low and wet, covered with mangroves near the shore and a few coconuts. It proved to be a haven for the gray pigeon; Mr. Beck shot enough for a meal (6) in a half hour. I collected three white-headed kingfishers and some yellow honeysuckers.

Mr. Beck got three gray-headed flycatchers, a species that has been taken previously on small islands similarly located. The only other birds I observed were the gray-backed shrike and the white-tailed (nikabar) pigeon. Returned to the ship at 11 o'clock and the captain stood out SW by W for the Shortlands. Under sail all afternoon due to engine trouble. Laid to off Oema Island and Oema Atoll for the night with a course set for Fauro Island.

November 30. Dropped anchor in passage between Fauro Island and Tauno Island in North Bay at 11 A.M. The Doctor and I went ashore for the afternoon. We found a trail that took us about 300 feet up the mountain to a spot where a native had a canoe dug-out in the process of completion. The canoe here is an outrigger, frequently equipped with sails; most of them are dug-outs in contrast to the seamed canoes, sealed with teeta nut putty typical of all the southern islands even to Choiseul. We saw one



such canoe equipped with an outrigger at Nyanga on Vella Lavella. We struck just one pocket of small birds in a large tree quite high up. We took a brown fan-tail, blackhead, both the black-headed and red-breasted flycatchers, midget. Starlings and shrikes were found in a swamp near the shore. The black honeysucker shows a darker plumage than the Choiseul species. The red-breasted flycatcher shows a white patch in front of the eye, which is brown in tinge in the female. The common green parrot, cockatoo, common red "coconut" parrot, and hornbill are present. I heard no little paroquets. Both red-knobbed and gray pigeon are plentiful; we heard them feeding with hornbills and parrots in a great many-rooted tree like a banyan, but much taller; the fruit is a small red berry the size of a small green gage. The ground under such a tree is covered with them, both the whole fruit and others that have been shucked. The blackhead resembles the Choiseul species closely. We heard neither white-eyes nor thickheads. Mr. and Mrs. Beck visited Tauno Island with considerable profit; as he was landing back on Fauro to pick us up he got a night-hawk, one bird out of three that he flushed. Mrs. Beck caught a fine sphinx moth.

December 1. Fauro Island is 11 miles long N and S and is very irregular in shape; the northern half is not over a mile and a half in width and the southern half four at the greatest. It is the second largest one of the Shortland group. The maximum altitude is about 2000 feet in the southern half. The land goes up to



1100 fairly steeply at the present anchorage. Fauro lies on the 7th parallel of latitude. The Doctor, Hicks, and I went ashore on Fauro today, Mr. Beck on Tauno again. I went to the top of the ridge to a point from which I could see Choiseul to the south and Ovau Island to the north. Near the top I took three blackheads, one in the peculiar young brown plumage. Also brown fantails, red-breasted and black-headed flycatchers and black honey-sucker; I shot one male graybird which showed brown patches on the base of the tail and under the wings, the finish of the moult. No thickheads or white-eyes today. The Doctor took a red-breasted dove and Mr. Beck a white-breasted hawk similar to one taken by G. R. and I on Florida Island. Several large lizards and three snakes were gleaned, the latter light brown. The common lizard is a dark brown; as usual the brilliant blue striped lizard is common. One of the lizards was new- a brilliant grass green with gray mottled hind legs. I took several highly colored hard-shell spiders. Kingfishers are not plentiful here; we have heard the white-headed once and the bright blue is heard often up in the woods. The latter are usually found around the coconuts.

December 2. Raised anchor as soon as the tide (which runs 3 knots here) changed to favor our passage to Sinasora Bay. Steamed nine miles passing Karike village, a Methodist station under native supervision. Reached Kalia plantation in Sinasora Bay at 10:30, where we met Mr. Pinneau who manages a plantation for an estate. The altitude here goes up to nearly 2000 feet. Hicks,



the Doctor and I went ashore for the afternoon. Mr. Beck down with a dose of fever. Hicks and I found an old trail up a ridge which we followed climbing to about 800 feet. Birds were very scarce; I took only a honeysucker and a flycatcher. The Doctor fared a little better.

December 3. Mr. Beck better this morning and G. R. also in shape to go ashore for the first time since his knee got infected. I climbed up as far as Hicks and I had cut yesterday without getting a bird; instead of keeping on to the top I foolishly turned back. As a result I rambled all afternoon covering very little territory and taking only three common flycatchers. I collected a number of hard-shelled spiders and two other kinds and one frog.

December 4. (Sunday). Mr. Pinneau entertained us ashore for the greater part of the day. He served an excellent midday dinner in a fly-proof room- egg-plant soup and roast duck. We used his room for writing afterward. Our host can spin some swift yarns about the islands; like many other planters he is a blown-away mariner who was induced to come to the Solomons to "help out" a bogus uncle. He reports that he has had naturalists staying with him before. One free-lancer caught a number alive to sell to zoos. Pinneau says he got a number of small quail, which may have been young megapodes, since the reporter does not distinguish a nikabar pigeon from one of the common red-knobbed or gray. Mr. Beck suggested today that we shall go to Bougainville after the next steamer.



December 5. Raised anchor at 5:30 and stood out for Mono (Treasury) Island 45 miles SW by our course. Passed Shortland Island and it shows very little high land. Spent the day developing film and writing letters for the coming Mataram. Dropped anchor at 8 P.M. in passage between Mono Island and Stirling Island. Natives came out from a salt-water village immediately in outrigger canoes of all sizes; the largest was seven fathoms (42 feet) long and capable of carrying fifty persons. It was hewn out of a single tree trunk and very simple in design and decoration. A fine-looking Fijian, who is a Methodist missionary, came aboard. The village, which boasts a population of over 200 pays a head tax to the Mission of one pound yearly. The Rev. Goldie of the Methodist Church in the Solomons handles most of their copra output. The natives looked clean in white singlets; they are very friendly and most of them speak good "pidgin". They imparted much information about the island, although they seemed to know little about its bird life.

December 6. Mono Island is 6 miles E X W and 4 miles N X S. The island is mound-shaped and has a maximum altitude of about 1200 feet at its center. There are three small islets between Stirling Island and the main island, none of any size. Two are planted with coconuts and one is the residence of a Chinese trader. The whole force went out this morning on trails that started at the village and led in all directions. After some butting about I struck a good trail that took me up to the top of the central ridge about two miles inland. The only birds



I saw or heard were the megapode, red-knobbed and gray pigeon, and the small flycatcher; cockatoos, minas, red and green parrots, and starlings were also present. Returning from the top where one could look down 150 feet into an old crater, the forest was as silent as a morgue except for a couple of white-breasted flycatchers, which I shot and could not find. After lunch I got into one of the many streams that apparently flow from the central area around the crater; here I was encouraged by the sight of a brown heron, a white-eared kingfisher, and the acquisition of a mina. I also saw a large eagle-hawk, too high to try for. The usual Solomon Island avifauna of the smaller species are certainly absent. The rest of the collectors reported the same lack of fantails, thickheads, red flycatchers, blackheads; the white-eared seems to be the only kingfisher that is common. Mr. Beck took seven at the mouth of one of the larger streams and Hicks one. The island is abundantly stocked with insects and both small and large lizards; snakes, flying foxes, and possums are reported abundant by the natives. The Doctor suggests that the presence of such a host of large black lizards (from 6' to 24') is one cause of the absence of small birds that nest in low trees. I believe that the island is younger in origin than the surrounding ones. The streams which are numerous show bottoms composed of hard, grey clay and great loose boulders of volcanic rock. I saw four that had this kind of formation. All the bird life I saw was around these drainage areas- very little on top of the ridges although they are heavily



wooded. Most of the trees high up are very old and tall, however; the "scrub" is down in the valleys where the water flows. One common ground dove was taken; the Doctor saw three. The village is the most interesting thing about the island. It is the only one and extends all the way across a peninsula at southern end. The most extensive coconut grove is around the village itself, although there are coconuts and gardens planted all over the island. The natives evidently visit them periodically on short trips; one finds many sheds for copra and poi manufacture along the numerous trails as well as rest houses for sleep. The leaf houses of the village extend in orderly rows across the island forming several streets; each house has its food supply of yams, coconuts, and taro stored under the raised floor and a canoe resting close by. Each man heading a family has at least two meris and plenty of pickininnies. The village streets all conjoin at a point on the south shore around several communal houses; one is the Mission station and the others are for the separate use of men, women, and children. The chief has a large domicile at this location and is the first to greet anyone coming ashore. Neither the meris or the children show any fear of the white man. I was impressed by the clean and healthy look of the little children; they were eager to accompany us into the bush. There were very few cases of yaws or skin disease of any kind and all seemed casually occupied with the duties of maintenance; the men cutting copra or working on houses or canoes, the meris carrying water or making poi for pudding, the children on their own taking it all in. Even their betelnut



trees are planted in little groves in the woods in back of the village and each shows the mark of its owner carved on the green bark. This reveals how well such a community fared in isolation before the white man came; and in a rather unhealthy part of the group. This is their dry season and a number of men have died from the heat. Evidence of the dignity still accorded to the chief was shown by a dance held this evening to appease the testy god of the salt-water that recently upset the master's canoe and caused him to lose all his tobacco and his pipe. A number of women and children gaily decked with flowers and bright lavalavas were gathered around one female, who beat time by jumping and pounding the ground with a heavy piece of wood. There were a number of old men present and some few young taking part; the dance was nothing more than a monotonous swaying of bodies to the slow rhythm of the beater; those in the rank closest to the drum held a kind of baton made of fibre matting rolled up. All revealed a considerable spirit of merriment. And there was a community singing. Besides the few birds collected we managed to get six different kinds of lizards, five frogs, one a tree-frog, and a small variety of insects. There were fifty natives on board when we arrived, all laden with trade stuff- taro, yams, bananas, oranges, pineapples, pawpaws, and a sort of sweet potato. They soon exhausted the ship's supply of calico, which was what they wanted most. I bought a pair of pearl fish-hooks, come water bottles made out of clay and of coconut shell, and three adzes. We even secured five fowls and



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some eggs. The quality of this produce evidenced their prosperous state. The Chinaman proved a friend when he presented the ship with a nice little pig, which will be stuck for Christmas.

December 7. All ashore with instructions to shoot cockies, minas, and starlings. I soon got into a stream and collected a pair of little flycatchers, a yellow honeysucker, and a white-eared kingfisher. The latter were numerous about the mouth but very scarey. The majority of those that I have seen on other islands have been around the mouths of rivers or streams. Missed a perfect shot at a ground dove and met both G. R. and Hicks, neither of whom had seen anything extraordinary. Hicks and I ran into a flock of cockatoos and we shot five; as each one was shot, the other would circle around screaming angrily and soon return to offer a perfect target. I shot three starlings and one large blue butterfly with a yellow body. I collected several lizards—one brown, another green with grey hind legs, and another light brown with silver stripes. I took a couple of longicorn beetles; the Doctor has collected a number, as well as other insects. Mr. Beck visited Stirling Island this afternoon. When we got aboard the natives again had the ship, this time with all manner of live specimens of frog, snake, possum. The snake, a white one with brown markings, struck the Doctor when he was unpacking it; fortunately it proved non-venomous. There were eight possums, all alive, and with the number of flying foxes taken from the coconuts behind the village will make a



nice series of mammals taken from Mono. This material has somewhat balanced the lack of birds. At 8 P.M. we hove anchor and stood out NW for the Shortlands.

December 8. The mammal department was busy until 3 o'clock. After lunch Mr. Beck and G. R. went ashore on a small island, the easternmost of the Shortland group on the chart; it is unnamed and lies about miles south of Bougainville on approximately the 7th parallel of longitude. It is 1/2 mile long and not over 200 yards wide, sandy, covered with mangroves, low bush, coconuts, and a few high trees; a large blue lagoon lies on one side surrounded by a barrier reef. About 20 birds were collected- the ashy-headed flycatcher, thickheads, small eagle-hawk, white-headed kingfisher, and blue-headed paroquet. Mr. Beck shot two lesser noddies while returning to the ship. The reef harbors a number of terns of various species, the noddy being the most common. I did very little after the possum session on account of some new infections that have developed on my feet from innocent-looking mosquito bites.

December 9. Stood out early for another small island to the westward, the next in line toward Shortland Island itself; anchor was dropped inside the reef at 9 A.M. and Mr. Beck and G. R. again went ashore. My feet are still not so good; I stayed aboard and took the hide off the eagle-hawk and a kingfisher. A brief shower early this morning is the first rain we have seen in ten days. Birds were plentiful- ashy-headed flycatcher, thickhead, common white-breasted flycatcher, fantails in



abundance, cockatoos, green and red parrots, blue-headed paroquets, reef herons of the blue order- these were the birds collected; sea birds- terns of at least three or four species are always passing and the big plover is frequently heard. Momulufu is the name of the island which is a mile and a half long and 1/2 mile wide; a small grove of coconuts is at one end. The island itself is mostly coral. There is a difference of four feet in the tide now that the moon has just waxed to its fullest. One can walk from Momulufu to two other little islets at low tide.

December 10. G. R. and I went over to Momulufu and Mr. Beck to Aikiki Island. Small birds, the fantail in particular, can be summoned by calling almost anywhere; flycatchers and thickheads are encountered in small flocks. I heard the long-tailed dove call and saw a female graybird. I missed two cinch shots on ground doves and got a cockatoo; this specimen showed a brown eye instead of the usual orange. They differ this way on the same island. The black-crowned (yellow bib) paroquet of the larger size is present; I was unable to shoot one. Starlings are abundant; I collected several. All these small islands recently visited have an abundance of gekos. They are found around the shore under the bark of dead logs; here they are especially numerous, and are often seen running in the open over the coral. We have taken a number. We returned for lunch, all having contracted an infernal itch, which I think must come from some plant. Both G.R. and I wore shorts and golf stocking, and found our ankles



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and calves affected. After lunch we skinned birds until 3 o'clock when Mr. Beck and I went over to Aikiki (Mrs. Beck and three of the boys were along) to shoot pigeons for kaikai. Mr. Beck took three land kingfishers of the common species here this morning and one blackhead. The island is about 1/2 mile long and from 100 to 500 yards wide; one end is wooded with nothing but ironwood trees, the rest is thick bush. There were at least 1000 gray pigeons feeding in the tall trees on their favorite red berry-like fruit; many were clustered in small trees so that we could take plenty. The noise of their cooing as they were eating was like the roar of the sea. Apparently they come to this island from distant ones daily to feed. I saw no small birds but one common ground dove; Mr. Beck took another kingfisher and a gray-backed shrike. The abundance and variety of birds on these small islands visited in the last few days lead me to think that Mono Island must be of later origin to have escaped population by such common small birds as the red flycatcher, thick-head, blackhead, and fantails; its distance, 45 miles from the main Shortland group made the isolation complete.

December 11. (Sunday). Steamed to Faisi as soon as we could get the anchor up, arriving after lunch and learned that the Mataram is expected at 4 P.M. We anchored in the middle of a little bay opposite Faisi Island and so were the first craft to sight the steamer. The mail came aboard after supper. G. R. and I read ours in the smoke-room of the Mataram over cold beer. In addition to word from home in such a location we could pick up the



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latest dope on the Malaita "war", Norman Wheatley, deceased acquaintances of Tulagi, who were thriving only two months ago when we were residents, and any Solomon scandal. The ship's officers reported a very poor passenger list. We were introduced to and consequently bought whiskey for "Jock" Cromar, the oldest living graduate of the brass knuckle days. He has had 45 years in the Solomons; in 1883 he was put ashore on the beach of Malaita with a few presents to induce the natives to listen to one of the first encomiums about recruiting for the Queensland plantations; he is a dead pistol shot; knows the history of everything down here- undoubtedly because there is no living person to verify his version. Anyway- we took it in.

December 12. No business. Steamer day proper with letters to get off, beer and dinner on the steamer for a change.

December 13. The France is at anchor in a small bay opposite Faisi Island. The entire waterway around the island is sheltered by a great reef barrier a couple of miles to seaward. Shortland Island lies approximately 10 miles W of the intersection of Long. 156 W and Lat. 7 S. The island is a low body of land, poorly drained with very irregular coastline, measuring 15 miles E X W and 9 miles N X S. 676 feet is the highest altitude recorded on the chart; from our position we can see no high land, that is, more than about 200 feet. Five rivers are reported on the chart and two of them only of navigable repute for any distance. The western part of Shortland Island is well planted; some of the coconut tracts



are of 20 years standing. Fauro Island can be seen off to the NE and the neighboring islets of Poparang and Alu to the east. A larger island -Morgusaia is separated from Shortland by a narrow but navigable channel. There are numerous small islands lying between the Shortland group and Bougainville; Ballale is the largest; all of these are included in the mandated territory under the administration of Australia. G. R. and I went into the field via Lofa Plantation, which is owned (in shares of stock) by B P & Co. The present manager is Percival Bedford, who helped us by showing us a trail into the bush. In extent of planted acreage this is one of the largest in this part of the group; the march to the bush itself is quite convincing. We went into a low flat full of small trees and cane-like reeds. There were numerous trails which led to clearings where wood had been cut; the ground was a base of old coral mixed with red clay. Beyond this lay a steep ridge of heavily wooded coral, which I tried with futile result. I returned and wandered about the cane flat. I flushed four ground doves and shot one on the wing which got away. White-eyes were plentiful and proved to be of a new variety in plumage- dark bill and very white breast. I shot a red-breasted flycatcher which appears to be similar to the type found on Fauro Island. Blackheads and fan-tails, both the brown and the black, were heard, but I could not call them up. I shot a female graybird and could not find it. After lunch I went further into the bush, finding one trail that led through a narrow canyon in the ridge into a much larger stretch of flat country.



beyond, densely wooded, many of the trees of great height and age. The birds were all in these forest monarchs (hack phrase)- the call of the mina drowned out about everything else; doves could be heard and I distinguished the green red-crested, the black-bib, and the yellow-bib, although the low-almost single note of the latter may be confused with the call of the more common black-bib. Hornbills and crows are present but were not heard in any abundance. I only heard one crow far away. Small birds I could not find within range; the small white-breasted flycatcher, the red-breasted, blackheads and fantails, white-eyes and midgets- they were all high and seemed to be feeding with much activity. Everything we have found before on the larger islands appears to be present except the black honeysucker and the pigmy parrot. Two of the ground doves that I saw looked small, swift in flight like quail- with fast wing-beat; and being in low ground of basic coral formation may be similar to the small, chocolate-colored ground dove taken on San Cristoval and Santa Anna. Mr. Beck shot at one of this species in the rough coral up the river at Choiseul Bay. Blackbirds and starlings frequent the iron-wood trees with graybirds; these three species and the pigmy parrot are more communal than any of the other birds. As expected, cockatoos, green parrots (female- red), red coconut parrots, and the "kooru" pigeons (red-knobbed and gray) are quite common. When we were walking through the coconuts along the shore we noticed a large flock of frigate birds evidently feeding; we marked it was the first time we had



ever seen them so low. Mr. Beck was quick in smelling them out and had put up over a dozen by the time we returned to the ship. They proved to be lesser frigata. The thickhead of Shortland Island compares to those taken on the small islets Momulufu and Aikiki near the main island; some few of these, as has been the case before, showed marked whiteness or blackness of plumage, especially around the neck. Probably albinism and melanism resulting from inbreeding, such a dominant characteristic prevailing.

December 14. The Doctor, G. R., and I tramped out to the same flat behind the plantation. At the first clearing I came upon a host of birds- minas, starlings, blackbirds, and graybirds- most of them in two large iron-wood trees that towered above the surrounding bush, presenting the birds in excellent silhouette against the sky. I managed to get two black and two gray birds; the only black-bib dove I have found in range I blew to bits. The small birds in the forest beyond were all in the branches of high trees; it was all I could do with No. 10 shells to bring down a male and female flycatcher (white-breasted). This thickly wooded country is a challenge to one's sense of direction and can make the compass seem crooked. And there is no water anywhere. After some fruitless wandering I returned to the cane lot and shot several white-eyes, a brown fantail, and a red-breasted flycatcher. Again I saw two ground doves without offering at them. I heard the common land kingfisher today; the white-headed "ku-ku" has not put in appearance or call as yet. Coming out



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we took a few wagtails and a pair of coconut parrots just for bad luck.

December 15. Hicks joined the field party again and we all penetrated the same territory back of the plantation. I think that these white-eyes are just in a new plumage, very thick, because they are so hard to bring down with the aux even at point-black range. The midget seems to be the same- tough as nails. Both sing out in plain view and after gleaning three or four with a dozen shots I became fed up and began to hunt for new stamping ground. I went northward to the end of the coconuts and got into a grassy draw that ran between two ridges. There were a number of cattle paths; one of these tracks through the tall swale, matted ferns and weeds took me well into the bush where I found myself walking on an old trail. Probably left by the natives who are very nearly defunct on this island. The D. O. informs us that there are not more than a dozen pure-blooded people left. Many years ago they were completely ravaged by the vigorous Mono men, who slew many and carried the rest off in bondage. Rumors of a still large and thrivingly heathen village have been wafted from the center of Shortland, probably untrue. Although one old man, who ran away from Lofung plantation years ago, has been reported at various times to be leading a comfortable life somewhere in the interior. There is also a rumor of a lake. Both have not yet revealed themselves to the patrols of O.H.M.S. Miller. More of this later. Following the old cuttings for a mile I shot a blackhead and a red-bellied flycatcher.



This is the best collecting ground I have struck. Minas and red-breasted doves and the omnivorous "Kooru" pigeons, the red-knobbed and the gray were feeding in the tops of the tall timber, dropping the shucks of their delectable repast everywhere. I flushed a common ground dove, getting a good look at it and nothing else. In the afternoon I shot another blackhead and a hawk, apparently one of the blue-backed variety, but could not find it. Many birds slip away from us in this mysterious manner; they are knocked down and then manage to crawl or flutter off to die. In repeated doses these misses try the spirit and can only be purged by a selected and vociferous exhalation of profanity. Strange to relate I came upon the same hawk in about the same vicinity later, and added it to the collection. Compensation came also in the approach of one lone crow, which came almost immediately to my crafty calling. He was shot and proved to be much larger than the species taken to date on the larger islands to the southward. Differing from the Choiseul type, the beak is entirely black and the iris a peculiar whitish color. I tried to stalk a hornbill several times without avail; he, too, may be different. I think that the birds here are closer to the Fauro species than any other. It seems doubtful that Bougainville can be represented although Shortland is part of the same volcanic arc. Certainly it is older-- that is, above the surface of the sea longer; for there are two active volcanoes on Bougainville, while Shortland is unusually low, poorly drained and shows evidence inland of age-old coral deposition. The only good



water gushes up in cool springs. We all spent a cool evening at the D.O.'s with beer and conversation. He (Mr. Miller) is a well-educated product of Warwickshire, and has put in quite a term in the Gilbert Islands. He told us that the original Shortland natives, known as Alu people, were wiped out by the braves from Mono and to his knowledge only one survivor is still living. Long before that the first settlers on the island were migrants from Mono. The cross-bred remains of this population now live on the salt water in scattered villages, fearing to venture any distance inland because of the story of a "lost village" and its savage inhabitants that is still supposed to be in existence somewhere in the interior. He said that the run-away labor boy is reported to be surviving on his own in the back country as he has been for over four years. He verified our observations concerning the drainage, and mentioned several fine springs, some very large. He has patroled through the island to the other side opposite Faisi with foreign police boys and carriers, who knew nothing about the legend.

December 16. Returned to the trail I found yesterday. G. R. and the Doc set off to another landing place in the bay of our anchorage where the bush comes down close to the beach. I went in about two miles by noon getting two blackheads and a thickhead. Then it rained, but my collecting continued under a leaf shelter made of the huge leaves of what looks like a banana tree (without the fruit). I found two unusual walking sticks and a few snails. For the past three days I have been



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picking up spiders as I go along and have found six species represented as has been the case on all the larger islands visited. Returning I bagged a hornbill by very clever deception, a couple of brown fantails, and a striped hawk similar to those of Bagga Island. Of all the birds the brown fantail comes most readily to calling, - strange that the black is not as susceptible. There is no variation in the hornbill; at least no visible difference. Both the crow and the hornbill were males evidently looking for mates, which explains how readily they came to my somewhat questionable calling. The kau-kau of the crow is easily imitated, but the low, grating noise of the "bena" is hard to fake. In the evening of this day there was argument on board the France.

December 17. Raised anchor at 8 A.M. after Mr. Beck had closed business with B P's, the Faisi Branch, more execrably run than ever by M. Jennings, an insignificant ass. Father Shank, a R.C. missionary of the Society of Mary is a passenger to Kieta, the southern port of entry to the Mandated Territory of New Guinea. Stood out on a NE course- 60 miles. The last few days have been very hot, sea calm with no evidence of the touted NW gales. A good rain squall cooled us off. Anchored when dark about two miles south of Koramira, the Father's mission station. The Catholics have been here as an organization over 22 years- longer than any official government. Good Master Shank expressed great trepidation for our safety from the NW storms. None came.



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December 18. A clear day dawned and offered some fine views of the Kronprinzen Giberge. Passed numerous salt-water villages and a few plantations. Entered Kieta harbor at 4 P.M., the ensign flying. Messrs. Alday, Ryan, and Goad came aboard to administer entry-Customs Officer, Postmaster, and Medical Assistant. The Doc, G. R., Capt. Lang. and I went ashore and had kai-kai at Wong Sei's, a pleasant repast and change.

December 19. It rains every afternoon during this moon. January and February have the heaviest average rainfall of the year- the breaking of the NW monsoon. Mr. Beck interviewed Major McAdam, the D.C. We can collect anything but must have permits to carry guns; these were requested from Rabaul via wireless.

December 20. This morning Mr. Beck proposed that the Doc, G.R. and I collect Bougainville, while he takes the ship to Rabaul, New Britain for much-needed repairs. This should be the most interesting experience so far. Penetration will be easy. The Germans in their administration revealed the characteristic genius for organization and thoroughness. There are many roads, one that goes practically all the way around the island. An expedition started from Arawa just above Kieta, and shot its way right across to the other salt-water, leaving a permanent track that is in frequent use today. This is probably the way we shall go in. Kieta is smaller than Tulagi in population, but greater in area; a wide shore road connects the scattered residences, stores, and offices. Ebery & Walsh are the only white merchants.



In six years the Australian Administration has accomplished much more than the British in the Solomons Protectorate. They had the solid foundation of the Germans to build on and set about opening the country by peaceful penetration so that now only the very central and most mountainous areas are colored "unknown" on the government map; when they started only the coast for a distance of five or ten miles inland was considered safe. Their predecessors were bent upon the commercial development first, and they used the natives in achieving what they did. Penetration occurred only when a scientific party shot its way across the island on one or two occasions and in retaliation for native reprisals which came, swift and vindictive. At present, practically all of the Buin district at the south end north to Arawa and diagonally across the island from there (striking the west coast about fifteen miles below the volcano Bagana) has been opened. Meaning that one of the head men of each village has been appointed kukurai (luluai) or government representative, and, if possible, another man, who savvies pidgin, appointed tultul (interpreter). This is the first step and is accompanied with gratuitous gifts like axes, bush knives, tobacco, and seeds from His Benificial Britainic Majesty. The second is the advent of the tax levy of ten shillings per year per head. Later after some of the village have spent time in the district hospital for treatment one of the brighter patients is kept three months after being discharged during which time he is trained in the rudiments of bush medicine. Then he returns to the village sporting a blue, peaked cap with a red cross insignia.



He is the medical tultul. The other tultul has two thin red stripes on his cap, and the kukurai one thick one. This process would take from six months to a year for each village, after which they are visited once or twice a year by a police patrol tax-collecting, and once a year, if they are lucky, by a medical patrol. In this way the most remote bushmen are gradually brought into contact with the white men. On the whole this is a weakening thing because the young men and even the meris leave the home of their ancestors to work on plantations, for the government, or as servants in one of the coastal ports. However, many enterprizing youths working on plantations come from unopened districts whence they return after their three years indenture is up to tell fabulous tales and become big men. I must not forget to mention the Marist Catholic Mission, which was the first force of white civilization on Bougainville and Buka. The Methodist and 7-Day Adventist have since put in their ears much to the annoyance of everyone else, although the latter are quite harmless. Numbers of natives are employed by two larger societies in their propagation of the faith and in their commercial enterprises. Most traders, recruiters, plantation managers, etc., have plenty of toleration for the Catholics, who have a reputation for fair-play and kindness and a broad-minded viewpoint. All are unanimously hateful of the Wesleyan brethren (Methodist) composed of ex-waiters and vaudeville comedians, who practice extortion on the innocent natives and selfish crookery in their business.



methods. For such a piebald coterie of jack-a-napes have the original martyrs of religion (Christianity) in these islands died. Each Mission has its own method which is not published; the Catholics have it over the others like a tent. Most of the Fathers are French, but I learn that there are two Americans- Wade from Providence, R.I., and Connolly, who chose the Church over a career as a professional baseball player (probably a Holy Cross graduate).

To return to the government- the patrols operate to map the villages in each district, their populations, and general attitude toward the No. 1 Kiup (District Officer). Medical patrols take health census and dispense medicines, the principal one being injections of NAB for yaws. Any serious cases of illness they rouse to the hospital. The police patrol includes twenty armed police boys, mostly from New Guinea, and one police officer. He is under orders not to fire except in absolute necessity. Attacks are very infrequent and not the rule; they are occasioned by fear or in indignant retaliation for the trouble some former white visitor has inflicted. The usual thing is to enter a new village and find it wholly deserted except, perhaps, for a few old men, meris, and children. Much of this was imparted by company at the home of Messrs. Ebery & Walsh, where G.R., Doc and I had dinner. Mr. Samson, a patrol officer who was just recently shot in the ankle from ambush while attempting to enter the village of Mingetta in the Bagana district, is recuperating there. Major McAdam, the D.O.



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visited the France today.

December 21. Very heavy rains today. By visiting the store and chatting with everybody, we have picked up much local knowledge concerning trails, natives, carriers, etc. Traders and missionaries come in and each one has something casually to offer. The steamer S. S. Marsina is expected on the 23rd or 24th. All of us have been writing letters, and of much weight and opinion.

December 22. The Doc and I visited the hospital where Mr. Goad, the medical assistant showed us around a rather good plant for natives. For the first time I saw some really bad cases of yaws. We gathered more local dope by talking to him and reading reports of medical patrols. He presented us with a dozen bottles of methyl spirits containing about 25 specimens of snakes, lizards, one iguana showing the dorsal scales, a few fish, some insects- mostly ugly centipedes. Gun permits to collect (really to carry a gun), which were sent for to Rabaul a few days ago arrived today. This law is in effect to protect the natives from violence by possible vigilante parties in retaliation for offence. Major McAdam said we could shoot anything; there are no protected birds on Bougainville. G. R. walked over the hill to Arawa plantation, which we hope will be our base, to interview Mr. Esson, the manager.

December 23. The Doc and I purchased all the required stores for our trip at the lone store of Ebery & Walsh. In the afternoon we paid another call on Mr. Goad at the hospital.



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December 24. The Marsina came in about 9 A.M. Numerous small craft are in Kieta harbor to pick up mail and Sydney or Rabaul shipments of goods. Among them is the A.V. Marqueen from Marqueen or Mortlocks Island, which is peopled by semi-Polynesians. George, our mate, who has a sincere interest in the migrations of his people, was not slow in making friends with the boat's crew. Mr. Chinnery, chief government anthropologist for the territory paid us a call, which resulted in some very interesting information. He has been in Rabaul for over 20 years, advising about methods of penetration and native control. He has done all kinds of this work, but stays in Rabaul most of the time now to give the young men a chance. Gregory Bateson (Cantab.), who was with Beebe on the Arcturus venture, is one of his present assistants. These young scholars go into newly penetrated country and remain in close association with the natives for a year or more until they have derived all the ethnological dope they can. Then they return to England or Australia to publish. This means they must acquire a knowledge of the local language, an unearthly undertaking. Fox is the best example I can think of, and it took him ten years to gather the stuff he has put into "Threshold of the Pacific". Mr. Chinnery had great things to say about the gold fields up in Aitape on the Eadie Creek. Real pay dirt and completely baffling all hitherto dicta about where, geologically, gold should be found. All of it is around 6000 feet, reached by the toughest sort of climbing. Airplane service has been



established and is doing splendidly. It costs more to fly in than out (a consideration for corpses). He was also eloquent about the possibilities of bird-life in New Guinea, rapidly getting ripe for collecting. How many different kinds. What beautiful plumage. And the means- three immense rivers: the Sepik, navigable for 600 miles with a vessel like the France. The Fly, also navigable for 150 or 200 miles. And the Ramu, navigable for 200 miles. There is another large river which empties at Brecher (Broken Water) Bay and the Ramu and Markham rivers, all giving ready access to the vast interior. But on most of them there are expanses of swamps where the culex, stegomia, and anopheles are "simply shocking", particularly the Sepik. He left us to depart on the Mar-sina en route to some scientific congress in Hobart, New Zealand. The New Guinea natives must be studied in the next fifty or hundred years or not at all, because of the possibilities of disintegration and even extinction. The birds will last, as they have in all other places, and it is high time that the American Museum began to think about collecting systematically on New Guinea. The possibilities of penetration with safety are very great now, enough for collecting purposes; and being extended every year.

December 25 (Our Lord's Day). Everyone celebrated Christmas. Both the store and wireless office, not to mention the government offices, were closed. In the early morning Chinatown fired off salvos of fire-crackers. All the crew of the France went over to a



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plantation owned by a Samoan lady for a sing-song and general bust-up. The Mono pig was killed and Teora cooked a lavish dinner for evening kai-kai. Liquers were served, but no songs or poems read (no bard sang).. Sentiment was well maintained when some few simple presents were distributed amongst us. All the collecting gear has been assembled for the start tomorrow. We met our host, Mr. Esson, today. He gave G. R. a very hospitable evening, and is a most likeable person. He will accompany us on the ship around to Arawa bay.

December 26. Delays about a clearance permit and the arrival of Mr. Esson prevented an early departure. Hove up about 9:30, arriving at Arawa Bay at 11. We all had lunch on board. The boys landed everything in two boatloads and the France promptly set sail for Rabaul. Luckily all the stuff was under a boat on the beach before a heavy afternoon rain. Later everything was moved into the plantation store where it can be arranged for transport and checked. The Doc, G. R. and I were shown to comfortable quarters in Jock's house, which is characteristically on a hill where one has a lovely view of the sea and mountains. In the afternoon we talked to the tultul from Amio village, who did not seem very enthusiastic about getting carriers. Mr. Esson used his best tactics of persuasion; the lad did not savvy Kupei, which we intend to make our highest camp.

December 27. The SS Maiwara suddenly appeared a day ahead of her schedule, an unheard of thing for a B P inter-island boat, which entailed much rousing on



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the part of Jock to get his copra loaded. He went over to Kieta to sign on some new boys; and we spent the day sorting supplies and packing them for the trip up the mountain. We intend to leave almost half here at Arawa to be sent for when we need it. Jock will be our agent. There is nothing he will not put himself out to do for us.

December 28. More work making up bundles. A 50 lb. bag of rice is missing; probably left on board the France. No carriers reported this morning as expected, so G. R. and I went up the mountain trail and visited three villages- Chiai, Sirwana, and Amio. At the first one the medical tultul joined us and took us over to Sirwana where we picked up the local kukurai and tultul as interpreters to Amio. This is an excellent example of the diversity of language on Bougainville. These three places are not more than three miles from one another. At Amio we were enlightened about the non-appearance of carriers: their village is a couple of miles off the mountain trail that leads to Kupei. Indeed the men of Kupei were once bitter enemies of the Amio warriors and tradition inspires a somewhat frigid atmosphere between the two. Berenge, the Sirwana tultul, offered to procure "plenty fellas kanaka" and have them down at the plantation tomorrow morning. A bargain- and we returned, guided by the old "doctor tultul" from Chiai. It was well after dark when we got in with much wind and rain. Jock was about to "make bello", which would summon his labor line to organize a search party.

December 29. The first contingent of carriers



came up the hill to Jock's house about 8 A.M. Berenge, the trusted tultul, was with them, proven faithful. The Doc had already been down to the store tying in loose ends and all the safari needed was locomotion. Three boys from Arawa (Kakarika) village on-the-salt-water have jumped at the chance to accompany us-Waggi, who holds a brief as a cook, having worked for a Captain Jolly in Rabaul. He will be boss-boy over three youths, Kokeri, Kelas, and Monto- cook-boy, wash-boy, camp-boy, and a personal attendant for each of us. It is doubtful that we shall keep them all. As we were getting the first of the packs out and the kanakas were busy lashing them to liwoi (wooden poles), another bunch put in appearance, about 25 in all. Chiai, Sirwana, Monkontoro, and Kaino were represented. The villages we saw yesterday were quite small, the male population numbering about 10 or 15. The caravan was put under way- G. R. and I up ahead and the Doc bringing up the rear. Over 30 carriers, including the little monkeys who carried odd stuff; and stretched out for about 300 yards. We entered the bush at the spear-line back of the plantation at 11 o'clock. When they got under way the kanakas stepped right out so that we carrying only our guns had difficulty keeping up. No rain all day, but the trail was very slippery anyway. The wonderful prehensile power of his big, splayed toes is the secret of the bushman's performance on a steep trail in six inches of mud with one end of a pole on his shoulder loaded with not more than 120 pounds (govt. regulation). They do carry 160 pound copra bags full-up down



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to Jock to sell them. They rested just once all the way to Kaino (about 6 miles), crossing four good wide rivers with plenty of quick water and boulders. Here we set up camp in the house kiup (govt. rest house built by the village and reserved for the use of patrols). Well-fixed before the rain started. All the men came over to have a yarn and we traded tobacco and marks (shillings), Teutonic survival, for raffia arm-bands. All the carriers from villages roundabout finish their trek here. We must send for the tultuls of villages higher up toward Kupei to get on tomorrow. Waggi, who we call Baki, showed he could cook, and we spent a comfortable night on the bark floor. All the houses for sleeping up this way are built on poles; cook-houses and common-use-of-all buildings set on the ground. Drainage seems to be the principal reason for this. Mosquitoes were scarce.

December 30. No carriers appeared on account of heavy rain. I started out for Kupei with a tultul, who arrived from somewhere and we met all the Kupei men on the trail. I returned and the tultul went on to stir up other villages. The Doc decided to carry on to Kupei by himself to break ground. In the afternoon, a note written in burnt match on newspaper informed us that Kupei was only about four miles distant- "Come on". Willing carriers miraculously appeared, the monkeys grabbed the smaller stuff, and we were off. We were forced to leave a box of food, a bag of rice, and two packed benzine tins; these will be guarded by two of our



personal boys and brought up in the morning. We reached Kupei in time for evening kai-kai. The Doc had fixed up the old house kiup with a ladder and a sac-sac (leaves sewn together) wind-break to shelter the sleeping compartment which was open to the weather when he arrived. A smaller house stands across the trail, which we shall use as a laboratory, cook-shack, and boys' sleeping quarters. The altitude is only 2300 feet, but from here on the trail goes right up incessantly to the top. Kupei village is located on an opposite ridge, voiding us of all pigs, children, and smells. The view is very fine- Arawa bay and the peninsular that shelters Kieta. Water from a cold mountain stream is close by. The kukurai of Kupei was loath to have us stay at first. Through the tultul he told the Doc that there were no birds about and that we had better stay at Kaino. By much diplomacy and the present of a bush knife, the old man warmed up to our visit, and even sent over some cooked taro. The boys of Kupei are a sturdy lot, and should make fine bird-retrievers. The prevailing cost of carriers was one mark per man for each trek. Many who were on the ends of extra heavy boxes demanded two, which they got- mean pay considering the condition of the trail. One stretch went up beside a waterfall for about a hundred feet sheer. The government patrol pays them sixpence and they can do nothing but accept it. Since it is so important to acquire their cooperation, we gave them tobacco as well and they went away happy. All the men of Kupei visited us before nightfall. There



were a dozen old men- most picturesque, sans clothes, sans teeth, sans everything. Except the inevitable clay pipe. Besides Kupei there are three villages on corresponding ridges all within a radius of a half mile. The night made one think of Vermont or the Adirondacks, so cold and clear.

<sup>1927</sup>

December 31. The area we have chosen for this trip seems to be excellent judging from the number of bird calls we heard on the way up; plenty of common varieties were seen- mina, kingfishers, shrikes, black-birds, crows, hornbills, long-tailed doves, red-breasted doves, and gray pigeons. After the day's effort we decided to team up on the climbing, G. R. and myself alternating while the Doc remains in camp to lead in the taxidermy and to be ex cathedra director. In case of a paucity of skins any number of small stuff like white-eyes, flycatchers can be taken right around the government rest house. I reached 5200 feet in my first venture, and found the avifauna most interesting but intermixed with fog, cold, and rain. The trail is a goat path with practically no level walking until you reach about 4800 feet. At 3200 there is a little look-out with an admirable view of the surrounding country, the coast, and outlying islands- provided there is no fog. This range of mountains (Kronprinzen Gebirge) runs generally NW X SE, draining into precipitous ravines, forming many streams that flow rapidly over rocky bottoms, cold and clear. Along the trail up to Kupei we crossed



four good-sized ones; some wonderful scenery, the water tumbling over the edge of great crags and boiling into a shaded caldron below. Real Midsummer Night's Dream bowers with dripping moss and dark, watery caverns.

Above the camp the trail winds through thick bush following a giddy ridge that takes you right over the range. Above 4000 there are two additional spots that offer majestic views. Looking straight out- the sea; to the right and left- parallel ridges and the green woods way down. Usually, however, not much is visible because of the fog which sifts in ghostly fashion through the dank moss-hung trees, blown by a restless wind. The bush off the trail (and down), which is itself unusually wide, is the most forbidding I have yet encountered. The sloping ground is uneven and full of sink holes, rotting logs and bamboo, and roots. Everything is covered with heavy moss or long-leaf plants and drips cold. Bamboo and tree liana form a fretwork that is often impenetrable. Without these bushmen to retrieve the fallen birds we should lose about a third. Their eyes are marvellous, and they can go down a sheer bank with incredible speed where a white man would have difficulty crawling; and they find the bird. Lord, the amount of time I have wasted in fruitless searching on these islands. Even the monkeys (kids) are expert. They beat any dog over bred. It shows what a relative thing human intelligence is.

A question of environment. The plantation manager expects the natives to exhibit immediate adaptation to the work on a coconut patch; they invariably tell us that the



natives are stupid to the point of imbecility as a race. Certainly untrue. They may be morally deficient, but their mentality is as good as ours for its environment. They have no need to count to a thousand or to register interest in foreign trade when they are at home in their villages. As soon as the white man has to depend upon them for help in the bush he realizes how the native uses his natural environment. He knows the woods and vines that are useful, all birds and animals and their habits, and is thoroughly at home. In this sort of situation the white man stumbles around with only enough sense to ask the native what to do when a puzzle or difficulty arises. We are all victims of the "suspended response" when it comes to mental work. In addition to retrieving they often point out birds sitting that we should never see; and while retrieving, the hunter can keep a watch out for others. Among the birds I took today were two thrushes; there were about 20 in all.

On January 8, 1928, the Doc had a bad dose of gastric malaria. At this time after seven days shooting we had 217 skins representing 33 species.



Under Grant of Protection, I have the right to collect specimens  
of all species of animals, birds, insects, fish, and plants, and to  
examine them. Authority given by the Government of the  
United States, to study the natural resources and flora and  
fauna of the islands, including the animals and birds, fishes,  
insects, plants, which have been introduced to  
the Islands.

The authority is given, however, that no  
specimens shall be taken, excepting in the following  
manner, namely, on land or water, in  
the Islands.

### WHITNEY SOUTH SEA EXPEDITION

1928



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FIELD NOTES OF BOUGAINVILLE I.

Note: Since I found very little time for writing sensibly in the two bush camps maintained from December 31, 1927-February 10, 1928 by Dr. F. P. Drowne, G. Richards, and H. Hamlin, I wrote up the entire experience while at Arawa Plantation awaiting the arrival of the France from Samarai, Papua, where she had been undergoing repairs.

The situation at Kupei is ideal for collecting since it is located approximately at the midpoint of two "Bird Zones", the elevation being 2300 feet. By descending the trail from the camp one can find a half dozen branch trails leading to nearby villages; these tracks circle the feet of the ridges that lead up to the top of the range, and give access to the birds of the lower and middle "zone" (1500-3000); this would include most of the avifauna between Kupei and the shore excepting the shore and salt-water birds per se. Ascending the trail, which passes right through our front yard, and reaches a maximum altitude of 5200 feet on top of the mountain, the species encountered begin to vary about 1/4 mile up-3000 feet. The brown and black fantails give way to the ashy-gray fantail; the yellow (black-bib) thickhead is replaced by the drabber mountain variety (the calls of the two are distinctly different); and the yellow-bib dove, black-winged pigeon, white throated pigeon, and green parakeet make their appearance. Proceeding higher additional species are encountered- the warbler, and



above 4000 the red-breast and thrush. So we are in excellent position to penetrate both "zones", while concentrating on the higher. G. R. and I alternate in daily trips to the top and as far down on the other side as our legs warrant. Thus each man is fresh for his climb and can work faster and better. There was never a day in camp when anyone could rest from bird-skinning. The Doctor remained constantly at the bench. The daily catch was augmented by the hunting of two natives- Waggi and Tutepe (the former the official cook for the outfit). They would rumage the area around Kupei in half-day jaunts and often bring in excellent material; indeed, the only specimen of the much-desired pitta or ground thrush was taken by Tutepe. G. R. has a worthy assistant in Ona, a youngster of 10, who is the son of the Kupei kukurai. My companion, bird-retriever, spotter, et al., is called Waggi, a youth of about 15. He can climb anything that grows. Both Waggi and Tutepe never go out unaccompanied; there are always at least two young monkeys with each, eager for the work of retrieving in hopes that the hunter may shoot a common gray pigeon which they can take home to the kai-kai pot. The personnel of the camp-followers is ever changing. Sometimes a monkey (often called "maggi") goes up with the altitude party for a day; Ona and Waggi have been the two regulars. In a week's time they knew exactly what was expected of them, although neither could speak a word of pidgin. They were well worth their tobacco (a stick a day). When I happened on the only "yellow-legged ground pigeon" I



had a lad with me from one of the distant villages, who was quite untutored in white folk ways; he was somewhat nonplussed by my activity and rather slow to savvy his job, but he seemed to bring good fortune. It was very rainy and cold; I was in low spirit and much chagrined by the day's luck. Suddenly we flushed this large bird and it was promptly shot and retrieved. When the kid showed it to me I though I immediately recognized a common red-knobbed pigeon and so gave it to him for kai-kai. This rara avis would have been cooked whole and digested if the Doctor had not happened to see it when we got back to camp. All the local natives remarked that "this fella stop too much along mountain- no got plenty". Without native help we should have been about one half as efficient.

Dr. D. acts as director of the whole enterprise, remaining in camp all the time. His particular function is the most important of all. He makes up most of the skins; G. R. and I do most of the skinning on our alternate days at the bench. This system has proven most successful. The Doc and I put up nearly fifty birds of various kinds from warblers and midgets to pigeons and crows. The average bag from the upper region is about 20-25 specimens. Rain and fog have hampered the work considerably, but we have been unusually fortunate for this time of year. The rainfall for last January in Kieta was 36"; we have not had a sixth of that amount. The register shows more average rainfall for January and February, than any other part of the year.



After breakfast the hunter is off and the two native collectors assemble their respective gangs and set out with a dozen shells apiece until lunchtime. They only have one aux tube between them, since one of the three originally brought was broken the first week. By noon they usually have a dozen birds between them; after lunch one or both again go out, returning by sundown with ten or more. And they know enough to look for good stuff. Accordingly there have been plenty of birds to put up with the burden of proof depending chiefly on the Doc, who gets no change from the bench. In addition to this he writes all the labels, keeps the field book, and buys material in all phylums of natural science from natives. Salt, tobacco, calico, and shillings (occasionally) are paid for good specimens of land snails, insects of any kind, butterflies, beetles, centipedes- phalangers, rats, iguanas, lizards, snakes, frogs, and what have you. All this stuff is extra curriculum and bought at a ridiculous price. A stick of tobacco buys four frogs, or twenty snails, or a leaf-ful of beetles, or one rat; one bob was paid for a large phalanger from Kokeri, a village on the other side of the mountain. They even caught prawns and fresh water eels. A two mark inducement was offered for the big bush rat. Small cave bats, fruit bats, and flying foxes have been purchased in like manner. The series of the small swift was sporadically collected by the natives in caves where they sleep at night. Since these are very difficult to get on the wing, it saved us



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many no. 10 shells. Add to this the fruit and vegetable barter, which brings us taro, kau-kau, coconut pudding, tapioca (manioc), bananas, pumpkins, beans, and paw-paws; and the part played by the general manager is no small one. The trade in arrows, spears, mats, baskets, and native paraphenalia has been booming all the way from Kupei to Siwoi on the other coast. The Doc has also watched the status of our supplies and with help from us has made up lists to send down to Messrs. Ebery & Walsh; boxes of birds go down to Mr. Esson's house, where he lays out the skins in drawers with moth balls, and the order returns from the store by the same runner and his few carriers. We have lived like kings as far as food is concerned.

By winning over the natives who held themselves in abeyance at first, the cycle of cooperation is complete, and with their remarkable assistance both in the maintenance of the camp (they gather wood, chop, wash, and police the front yard, in addition to bringing native food, insects, snails, bats, etc.), and in the collecting of birds, I think we are as nearly efficient as such a party could be. Our collecting supplies have been sadly inadequate- only ten sheets of wrapping cotton (enough for approx. 500 skins); ammunition- we are short of the Ajax U. S. no. 10, the most dependable shell we use; of preservative we have only one pint of formaldehyde to keep the horde of interesting stuff brought in. It was all there was on board the France at the time of our



departure. We were able to secure two gallons of methylated spirits from Ebery & Walsh, Kieta. However, by such expediencies as unwrapping birds three or four days old and reusing the cotton we have managed to put up everything taken and look forward to a good set of skins on our return to Arawa. During the month at Kupei over 600 skins were carried down to Mr. Esson's house. One large biscuit tin of material in formalin was also sent. The gentleman mentioned has been invaluable in his kind assistance. Besides boarding us for over five weeks while we were waiting for the France.

The period of stay at Kupei was thirty-three days; December 31, 1927-February 1, 1928. We departed to spend a short period at Kaino Village on the latter date, a location at 1300 feet which enabled us to complete the collection of the "lower zone" birds. The major portion of the work was done at the Kupei station. The goal set was 1000 skins. We took 612 from the higher camp. On January 31 the field book showed 49 different species. At this time we also took account of the following:

10 rats (small Pacific)
2 bats
3 flying foxes
In Solution
14 small cave bats
17 snakes
7 centipedes
3 iguanas
8 geckos
8 lizards
4 rats
1 fresh-water eel
1 nestling hornbill
1 thrush



We lost track of frogs, insects, and snails, but estimate 150-200 frogs, 1500 snails, and 100 insects. All this stuff, brought by natives of various nearby places, some even 10 miles distant, reveals great variation. The total terrain represented in this department is something like 64 square miles.

Both G. R. and I have taken the aneroid up on several occasions and have marked certain elevations - 3000, 3500, 4000, 5500, the last being the maximum (the trail goes to 5200). Based simply on rough observation while hunting I offer the following table as a general indication of bird ranges eliciting what we have called "zones". Naturally the limit of the "zone" as estimated does not necessarily restrict a species entirely to that particular area; but judging simply from our hunting experience the 72 different species of birds taken may be thus classified as to altitude (where to go to find the greatest number): Note; this table includes work done on Bougainville after Mr. Beck, Dr. Drowne, and G. R. had left for America during which time additional species were taken.

4000-5500

Thrush

Redbreast

Warbler

3500-5500

Yellow-leg ground Pigeon

Black Hawk

White-breasted Hawk

Crested Pigeon

3000-5500

Mt. Thickhead

Ashy Fantail

Green Parrakeet

Yellow-bib Dove

Black-winged Pigeon

Yellow-eyed Pigeon

White-throated Pigeon



2500-5500	Shore-3000
Large White-eye	Small White-eye
Curve-bill Olivebird	Rustywing Blackbird
	Mina
Shore-5500	Bluebird b
Midget	Yellow(Black-rib) Thickhead
Black Honeysucker	Brown Fantail
Red-bellied Flycatcher	Black "
Small Swift	Gray-back Shrike
Cuckoo	Blackhead
Long-tailed Dove	Long-tailed Swift
Crow	Red-breasted Dove
Cockatoo	Red-capped "
Hornbill	Red-knobbed Pigeon
Eagle Hawk (not taken)	Gray Pigeon
	Brown Heron
Shore-4000	White-footed Kingfisher
Blue-headed Parrakeet	Yellow-eyed Graybird
Large Green & Red Parrots	Black-bellied "
Red (coconut) Parrot	Common "
Shore-3500	Shore-2000
Common Flycatcher	Pitta (Ground Thrush)
Land (ee-ee) Kingfisher	Yellow Honeysucker
Blue-backed Kingfisher	Owl
Striped Hawk	Teal Duck
Blue-back Hawk	Yellow-headed Parrot
	Sand Piper
	White-headed Hawk
1000-3000	
Pigmy Parrot	

Shore
White Heron
Green Heron
Small Swamp Heron
White-headed Kingfisher
Red-billed Parrakeet
Little Blue Kingfisher
White-eared "
Curlew
Lesser Yellow Legs
Wagtail
(two species of ground dove seen but not taken- range; shore-2000)
Grebe (taken on pond at 2400)
(Tihitian Swallow)

Total- 74 known species



Beginning at the top of the mountain we find the thrush and the little redbreast to be the only small birds confined to the very topmost altitudes- between 4000-5500 feet (there are other higher peaks on the island). Here one usually meets inclement weather, fog and mist prevailing when there is neither a good rain or drizzle. This renders the higher branches of the trees invisible most of the time, making a screen for birds sitting in the upper regions. It is interesting to note that the flora seems to change on these islands with high elevations just as the fauna does. Around 4000 feet the bush gets more thick- densely entwined with vines and hung with pale green moss. The struggle for existence has covered the uneven ground with dead wood that failed to get enough sunlight. Most of the big trees are landmarks, their size so dwarfs the surrounding forest. Here the great majority of the trees are from 20-50 feet high, intermixed with tall ferns, giant wild banana trees, and all manner of strange green stalks that branch out into metallic-looking leaves with or without spines; and then liana of many varieties, the worst of which is the so-called "lawyer", hard as nails and covered with short thorns, close together. Not to forget the bamboo, which seems to thrive best from 2500-3500 alt. The pandanus is common; there are several kinds that look very much alike, all having the wigwam roots. The hard leaves make a queer crackling sound when twisted by the wind or pelted by the rain. The two largest species of wood are



the kalafila and the kuela. Both are much sought after for building timber. The former has light colored bark and wood, the latter quite red and of fine grain. From the base the roots diverge in ridge formation sloping into the ground. I have noticed very few wild flowers except the apparently hardy orchid that winds its roots about the trunk of big timber. The hanging moss and liana retain moisture in the shade so that the atmosphere of the bush, especially when there is fog, is like a submarine river or cave-wet. The thrush is exceedingly timid and when disturbed by the hunter crashing through the bush or even stepping on a twig, flies away with a few low chirps. We have often flushed them feeding in low trees and bushes. All of those taken by me appeared while I was quietly resting or looking for the whereabouts of another bird. On several occasions I found one in the company of a small, friendly crowd of thickheads, the latter whistling and calling full blast. We came to recognize this as a signal to look out for a thrush or two in the neighborhood. This bird frequents the low bush; I don't recall taking any from a branch higher than 25 feet from the ground. The ones that I saw in passing flight were invariably scooting along low. The first two that I shot proved to be a male and a female, evidently mating. They undoubtedly nest near the ground (not more than 15-20 feet up) in very leafy trees. They favor a well-hidden rendezvous. Its call is seldom heard except when disturbed one will fly away uttering a series of short low whistles, all the same note. But the species is



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unusually mute. They do not travel together but are often found in company with other birds of other species. The redbreast should be described first from the stand-point of beauty. The only striking thing about the thrush is the contrast between the cadmium bill and feet and the dark brown plumage. In the female and in the young birds the feathers of the breast and belly are mottled noticeably. Neat is the proper qualifying adjective for the redbreast, particularly the mature male. Red, the most effective of all colors, is well placed below the darker throat being softened by an interspersion of white, the whole brilliantly set off by black. White patches on the primaries and just in front of the eyes make the complete appearance trim. The redbreast is not at all scary; most of those taken by me have been gleaned from small companies of four or six of both sex. They also frequent the low bush and like the thrush are seed-eaters. The call is a faint metallic-sounding peep-peep-peep-, which is very deceiving to the ear, for it sounds to be much further away than it really is. The rare crested pigeon is similar in this respect. It is a somewhat bewildering experience trying to locate a redbreast. You often hear the call and accordingly plunge into the bush in its apparent direction. After trying to peer beyond all the encircling leaves, you discover the ventriloquist just above your head; then the duel commences with the agility of both in competition. Although the redbreast does not fly away like the thrush, it hops from twig to branch quite lively. But the clumsiness and



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peculiar eyesight of the hunter are compensated by the insoucience of the bird, which often offers three tries with the aux. About half of the number collected were females and young males- breast pinkish and back and wings light brown. The white patches on the secondaries and just in front of the eyes are lacking- quite unlike the mature male. This plumage varies, brown sometimes predominating and nothing but a suggestion of red in the full feathering on the breast. Both the thrush and redbreast are primarily seed-eaters. The stomachs of the thrushes often revealed a small berry-like fruit, which is such a favorite with the long-tailed dove. It grows in clusters on a smallish tree- never over 30 feet high.

As the trail starts decidedly downward and becomes permanently steep for a few thousand feet the thrush and redbreast disappear. The two principal small birds from 3500 to the top are the mountain thickhead and the warbler. The thickhead is the most abundant species on the Kronprinzen Gebirge. Smaller than the usual yellow type, its plumage is much darker- black entire even on the throat except for the dull yellow breast; the female shows a gray head and throat. The call is unmistakable and has three distinct variations- a clear whistle ending in a chirp after a rising crescendo of tone, a series of chirps and a sharp trill, and a low disconcerted whistle. This is not dissimilar to the call of the various Solomon species, which has seemed to me pretty much the same on all the islands I have visited. Again, this multiple call is quite different from that of



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the black-bibbed cousin lower down, generally below 3000 feet. Yet I have taken specimens of both kinds at the same height of elevation (around 3000). This would indicate sexual specialization or some cross-breed would be found in a still different plumage. Some of the thickheads taken on Aikiki and Momolufu Islands, near Shortland Island, showed marked melanism and albinism due to inbreeding, I thought. Bougainville is the first island to give us altitude variation in the thickhead. Of all the birds it comes most readily to calling, and offers an easy target for the aux. The grey fantail, too, sings out with more volume than either the brown or the black. I have usually met them in small groups- from four to eight, piping their short, pert note, hopping about in lively fashion, and perking their tails. They do not occur below 3000 feet. I have taken a great many quite close to the ground, apparently feeding. The "curve-bill olive bird", which is probably another species of honey-eater, is somewhat similar in its habits. The call is not distinguishing- a peculiar chirping whistle not unlike the general sound of the smaller black honeysucker. They are often seen in pairs, frequently on ferns, reeds, and young tree sprouts not over 6" off the ground. All three species, however, inhabit trees of all sizes to the topmost branches. It is only above 3500 or 4000 feet that I noticed how they seemed to favor the low bush; it may be the almost constant fog, and moist, cold upper atmosphere that causes this.



Of all the altitude birds taken the pigeons are the most interesting, because of their feeding habits, distribution, and beauty. They include some of the rarest birds taken. Only one species is a ground-feeder. There may be some species that we have missed, but I doubt it; remaining as long as we did in the Kupei camp we should have at least seen any that eventually might have escaped our eagle eyes. (In my subsequent visits to high land at other localities on the island, I saw only one pigeon that we lack in the collection. It looked about the same size and build as the long-tailed dove, so much so that I did not offer at it. Then some natives who were with me informed me that it was not "bokute" but "nother fella- stop along ground, kai-kai along ground"; this fellow and the common, chocolate-colored ground dove are not represented). The most common above 3000 feet is the long-tailed or black-winged pigeon. I think it has been taken before on the larger islands of the Solomons. One does not fail to bring in a couple or more every day. They are in small flocks of ten or so and like the rest of the family are fruit eaters, and very graceful in flight, often vol-planing long distances. Their favorite food is a large brownish-black berry, more of a nut perhaps, which is very plentiful and grows on fairly tall trees. As usual, the whole fruit is swallowed and the pit and epidermis digested. I have not noted their call; but I have frequently heard a low- hollow cooing up in the tree tops, which must have been their work. It sounds just like the



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ordinary "baluse" or grey pigeon, which is not seen much above 2500 feet. The noise of the wing-beats is the best harbinger of their approach. On hearing the hunter in the bush as high up as they are they become wary and usually hop off, but invariably alight in a close-up tree, frequently returning to the same perch. Evidently another species or subspecies of this pigeon occurs which is similar in every respect except for its smaller size and yellow iris. The larger bird has an orange iris. This presented a puzzle for it is not at all common, although inhabiting the same terrain. The real ones are the yellow-leg ground pigeon, the crested pigeon, and the white-throated pigeon, all found above 3500 feet. We have taken four of the crested species and one of each of the other two. (Later we added another crested and one black-winged during the Balbi trip). The ground pigeon I shot one rainy afternoon while coming down the mountain. It flew from somewhere behind me and wheeled off to my right. After a climb down the side of the ridge I saw it sitting on a large limb. We exchanged glances, the bird crooking its head around in a most querulous fashion. I mistook it for one of the red-knobbed until we got back to camp where the others quickly noted its marked differences that I had been too fed up to notice, particularly after I thought I had slid down the ridge to shoot a bird not desirable. Our experience with the crested pigeon has been like hunting some elusive wraith. G. R. first saw one, whose mournful call we both had heard, and brought



it down but minus the handsome tail. The call is a low, muted whistle with a rising and falling tone, then a short note following in the same key as the ending of the first. And it sounds much farther away than the bird actually is, which deceived us at first. Certainly it is a remarkable bird with its fine tail and elongated crest. In Stewart's "Handbook of the Pacific", it is mentioned as "extremely rare"; (the long-tailed Turcaena crassirostris of Guadalcanal is also referred to as scarce and highly desirable to ornithologists- probably our "black-winged pigeon"). It is among those birds hypothetically protected by the list made out years ago by former Resident Commissioner Woodford, who collected insects primarily. The purpose was, no doubt, to keep planters from shooting them for kai-kai; but very few venture up to 3000 feet above the cultivated lowland. Mr. Beck had a specimen of a crested pigeon taken on Florida Island on board; it was smaller than the Bougainville type. The infrequency that occasioned its weird call is evidence of its scarcity; I heard three times in two weeks before G. R. shot the first one. The one from Florida was taken at 1500 feet, I think. I have not heard them below 3500 here. Like the other larger pigeons it favors the big trees for its fruit, perching usually on a bare limb in plain sight (provided you can trace the call). The primal specimen, shot by G. R., became entangled in a mass of vines during its precipitous descent, losing its elegant posterior appendage and thereby hangs the tail of this mystery bird.



The only white-throated pigeon obtained was shot within a hundred yards of the camp at Kupei. From all appearances it is very much like the Solomon Island species. (I only saw one other- at the grebe pond up in back of Tiop, 2400 feet). We can include the doves with the fruit-eaters and cite the yellow-bib, long-tail, red-breasted, and red-cap as the prevailing aboreal types. It really seems that the yellow-bib is the most plentiful. Hitherto it has been a prize rarity. We have put up a series of fifty. Their call is heard about as consistently as that of the mountain thickhead- in a slightly descending scale, more of a melodious hooting than the traditional coo-coo, with an apparent loss of breath toward the end. Above 3000 feet they feed in the early morning in fruit-bearing trees of thick foliage that makes the birds difficult to see with their excellent camouflage. Our native attaches have been most helpful in pointing out shots that we should never have noticed. These feeding areas seem to flourish at about 3000-3500 feet, where the doves are plentiful in the early morning and toward evening; but they can be found at any higher elevation. I do not think they can be present in such numbers at all heights above 3000 feet on the island. This particular terrain above Kupei is endowed with an abundance of their favorite fruit tree, laden with dark bluish berries. Indeed such birds must be somewhat limited in range by the location and extent of feeding areas. Many have been shot in succession while eating in the same tree, often with the aux. Their resonant,



well-carrying call, the whirr of their short flights (like a flushed quail), and the dropping of stems, twigs, and shucks, which occurs when any of the fruit-eaters are at work, all serve to betray their presence. The only difficulty is to see them against the green background. The red-breasted and red-cap are found up to the 3000 mark from the salt water. Both male and female of the former species have the same plumage and appearance. The female of the latter shows a gray cap; both male and female have the black-bib. The calls of both species are the same- a low "coo-coo" at long intervals. Due to their segregation over the lower terrain their distribution is greater than that of the yellow-bib. We have found them common enough on all the large islands to collect good series. The brilliance of their plumage, as is the case with so many other birds, obscures them by its very obviousness. All the doves are called "kukumi" by the natives of this district (Kieta). Only the long-tail species is accorded the dignity of a separate name, "bokute"- doubtless because of its different build and distinguishing two-note call, the first an octave above the second- short and long. We have found this species also to be quite common in this vicinity. It ranges from the low ground in from the beach to the topmost ridge of the mountains. The flight is like the black-winged pigeon- very direct with much volplaning and an upward glide on to the perch. The female is smaller than the male and has a black eyelid



where the male has red. The irises are orange. One specimen that I shot (sp. no. 637) showed some puzzling variation; the iris- light brown, eyelid black, feet- a lighter shade of brown instead of the usual red, and the upper breast feathers tipped with black. The body was smaller and the formation of the bill around the nostrils different. Maybe a young plumage, but what about the iris? They feed in medium-sized trees that bear bunches of very small green berries, something like an elder. One of the natives discovered a nest a few feet off the trail at about 4500 feet. It was quite simple- a small flat pile of twigs and a little moss laid on a small, bare branch eight feet off the ground. Two eggs were present, well incubated. Unfortunately they were broken in the portage down to the camp.

The smaller birds that inhabit the higher land are as follows: warbler, ashy fantail, thickhead, large white-eye, green parrakeet, curve-bill, small cuckoo, red-bellied flycatcher, small swift, midget, and black honeysucker. Of these the last five span the range of altitude in the area we are working from sea-level to 5500 feet. Of the little warbler not much can be said except that it possesses a true warble- high and clear; the song of the white-eye is longer but lacks the liquid quality. They are often seen in pairs and are primarily seed-eaters. On the whole it is much like the white-eye in its visible habits. The two are sometimes together- a dozen feeding in the matted liana leaves that blanket



the trunks of the larger trees. However, they are not as common as either the white-eye or fantail. These three species hang together as a general rule; when you see one you will probably see another. In larger groups they attract attention by incessant calling and lively activity. The large white-eye and the curve-bill can be found most readily in the terrain from 2500-5500 feet. We have observed the latter taking nectar from blossoms; but several stomachs have revealed seeds and insects. They seem to be attracted to the thick, lower bush in the high elevations. When they have been suddenly disturbed I have mistaken them for thrushes on several occasions. The small cuckoo is one of the few birds that ranges at all elevations. Bougainville is the first island that has yielded such a large series. Its three note call of descending sharps is heard everywhere, particularly toward evening. The small, green parakeet fans the air in the high treetops above 3000 feet, flying about in flocks and swift as arrows. They feed up there with much squeaking, mostly seeds and bark insects; we have also found the little berries (so favored by the long-tailed dove) in their crops. Of the rest- red-bellied flycatcher, small swift, midget, and black honey-sucker, I have nothing new to offer.

Bougainville hawks present an interesting array of six species- black hawk, white-breasted hawk, striped hawk, blue-beaked, white-headed (fish) hawk, and the eagle-hawk. The last has been seen several times, but has not been taken. The range of the hawk is so pro-



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tracted due to its great cruising power, that one cannot put any species in a category of altitude. Still, the black hawk is the only kind taken above 3500. And the white-breasted hawk. The others were collected below 3000. The eagle-hawk I have seen sailing around up about 4000 feet, and it surely has the strength to fly over the mountains with ease. But it seems to favor the coast and is believed to nest on lonely, rocky islets a short way out to sea. I once saw one flying along the shore with a stout branch in its talons. G. R. got the only specimen of the beautiful black hawk somewhere around 5000 feet on a rainy afternoon. In its stomach we found the remains of a small bird, evidently a white-eye, also what looked like much-decomposed lizards and large insects. I was lucky enough to shoot the white-breasted one. It is a close counterpart of the one taken by me on Tulagi Island, when G. R. and I first arrived. Mr. Beck took another on Tauno Island off Fauro. They were smaller but like the Bougainville bird in every other detail- iris, straw-feet, yellow; beak, blackish grey, lightening toward the tip. Both of these were in luxuriant plumage. I recall I was coming down the mountain after a laborious day on the other side along a trail of sloshy mud when I heard this weird cry something reminiscent of loons on a Maine lake. I plunged into the surrounding bamboo thicket all ears (the eyes followed in the person of Wagga, the official spotter and retriever). He found it after considerable jockeying around a big tree, sitting



on an upper limb. It refused to come down after being shot, so Waggi with about as much effort as it takes to describe the action climbed up about 80 feet to shake the prize loose. He knew all the birds, their habits, and comparative numbers; the difficulty was that he could not savvy pidgin. The remains of a small rodent and other indistinguishable material were found in its stomach. The three remaining species have been taken before in the Solomons; these showed no obvious variation except that the white-headed fisher seemed to have more white on its breast and shoulders than usual. The blue-beaked and the striped are often to be found close to native gardens where they can sit quietly with a good eye out for prey. On several nights we heard night-hawks calling, but failed to get a look at one.

Bougainville is represented by three different kinds of gray-birds- the yellow-eyed (with striped belly), the black-breasted, and the ordinary- just plain "graybird". In the last-named, the female and young male have a rich light brown plumage that is entirely unlike the mature male. The black-breasted species is rather rare; of the other two we have a good representation, and, as usual, more males than females. All inhabit the same terrain- from the shore to 3000 feet, being more in evidence around 2500. Most of them were taken on the tracks near the camp. They evidence similarity in their habits by preference for one type of tree- anything having thin foliage, and especially one that looks like an iron-wood. When ever we see a tree of this description we look for a



graybird sitting quietly somewhere. Apparently the dove family is not on amicable terms with them. I have often watched a dove chase a graybird off a limb selected for its own comfort. The call is uniformly a two-note screech something like the mina in one of its variations; for this reason it is hard to remember. As far as I can recall the three species are alike in this respect. They are seed and fruit-eaters, principally, and fond of the small, green berry clusters that attract the longtailed dove. Stomachs have also shown large insects. The black-bellied graybird we did not distinguish as a separate species, thinking it a novel plumage of the ordinary type. When both sexes were found to show parallel differences from the "graybird" we marked it as another species. The females of all three have richer plumages than the males; and most handsome is the female of the usual "gray" species. The entire series should present interesting, slight plumage variations among the individual specimens. The gray-backed shrike, the butcher of the family, is present in good numbers up to 3000 feet. The majority favor the lowland near the salt-water, and the river estuaries. It is a voracious eater and appears to be always in quest of food. The call is not unlike the graybird's chorus- a raucous whistle without variations.

On February 2nd we broke camp and moved down to Kaino, a village of about 1400 feet elevation. For the next two days the Doctor experienced another dose of gastric malaria, which caused anxiety and delay. On



the 4th I had a very slight attack, which responded to quinine immediately. G. R. took his share in a couple of small editions at Kupei. Undoubtedly this business was contracted at Irawa where the anopheles maintain considerable operation. Camp was set up in the government rest house and made comfortable by evening. Our stay here was originally planned for ten days or two weeks; but we cut it down to eight days for numerous reasons, principally shortage of ammunition and a relative scarcity of birds as compared with the Kupei vicinity. Since the two native hunters were well-trained by this time we allowed them to do most of the shooting: And they turned in some very good material. Tutepe contributed the only specimen of the "pitta" or ground thrush to the collection. Their knowledge of their fauna and its habits is unfailing. When questioned they do exaggerate, but it is always in the right direction. For instance- if it is the starling, "plenty too much, he stop"; the thrush or redbreast, "too much"; the crested pigeon or "pitta", "plenty". Habitual over statement which you simply allow for. In discussing the yellow-legged ground pigeon, Waggi informed me through an interpreter that "he stop along mountain- no got plenty". One of the aux tubes busted during the first week (it was made in the engine-room of the Mataram); and my gun went crooked in the right-hand barrel about the same time. So we had more workmen than tools. However, G. R. and I went out for a short excursion every day. Collectors were always in the field, the monkeys with the insect net, and

on hibernation period, because regular visitors can be disturbed  
during their hibernation period. If the introduced animals  
survived after hibernation, they can contribute to the  
reproduction of the species and increase the population size.  
However, it is not clear whether the introduced animals  
will have negative effects on the local species. The new species  
introduced may be able to coexist with the local species, but they may also  
cause competition with some of them or even be replaced by  
them. Therefore, it is important to monitor the changes in the  
local ecosystem and to take appropriate measures to prevent  
any negative impacts. In addition, it is important to study the  
local ecosystem to understand its dynamics and to develop  
strategies to protect it. This will help to maintain the  
balance of the ecosystem and ensure its long-term survival.

we always had birds to skin. The favorable weather continued into a lovely new moon and we garnered 117 birds by February 10. In the sidelines- no mammals except two Pacific rats brought down from Kupei. They went into solution. Some of the stuff in pickle did not look to be keeping very well, undoubtedly because we did not have the mixture laced with sufficient formalin. The gallon of methylated spirits that came up from Ebery and Walsh was much needed. It occurred to me that in such a pinch one might distill alcohol by using the fermentations of fruits like pawpaw and bananas and running a bamboo pipe through one of these cold mountain streams from an improvised condenser. This department was augmented by about a hundred frogs- one very large, probably the guppyi; snakes- 10, lizards and geckos- 10, and one centipede; land snails- 500, fresh-water snails- 150, and insects- 350 specimens. Many of these differed from the Kupei collection. Twenty-nine species of birds are represented from the Kaino station. Of these, possibly four or five can be considered rare- the white-footed kingfisher, owl, pigmy parrot, yellow-headed parrot, and the cuckoo. Several series begun at Kupei were increased in number by specimens taken at Kaino, particularly the graybirds. Of the small birds well-represented in this lower area, the white-eye leads, travelling about in little flocks among the branches of the bushes and the smaller tree-tops. With song and dance. The common black and white flycatcher is in prominent evidence with no apparent



variation. The most interesting thing about the fly-catchers is just that. They seem to make a merry business of preserving mankind from annihilation by the insect kingdom- chirping and whistling away as they nab their prey. I believe they can actually stalk the bugs; they keep their heads so low and look so alert. Both the brown and black fantail are present, the former more plentiful. At Kupei the order was reversed. The black-head is fairly scarce. Their call is so much like that of the red-bellied flycatcher that it fools even my excellent ear. Several in the youthful, brown plumage have been taken. One of these up in a tree looks just like a flycatcher. The divergence in call lies in the chirping sound that follows the liquid whistle that both practice- the flycatcher (red-bellied and white and black) sort of chatters while the blackhead, being more of a purist, clearly chirps. The two are alike in habits, too. The blackhead is found in the same kind of woods and will take an insect anytime. More yellow thickheads were added also, chiefly males. They are not so ubiquitous as their mountain brethren, who have a smaller stamping ground. Now there remains the long-tailed swift, rusty-winged blackbird, and mina before I discuss the aristocratic kingfishers and the obstreperous parrot family, and the rest, which includes the shore birds.

What more could be said for any bird than what I have in mind for the long-tailed swift- "silent, solitary, and beautiful in flight?" You find many around



stream bottoms, perched motionless on bare limbs. They like insects, which are caught, no doubt, with much success in their weaving flight. What can I say about the rusty-winged blackbird and the mina? So much has been said already, I can simply add- they are easy to skin.

Regarding the "pitta" or ground thrush ("kokorbi"), which has already been mentioned, I cannot put down much, only having seen one (on a later camping trip at Tiop, May 2-4) and then just a glimpse. It is the most interesting of the Bougainville avifauna since it is probably peculiar to the island. Very light, almost a faded blue, yellowish breast like the land king-fisher, and silvery feathers in the lower breast region under the wing and in the upper wing coverts. The wings are rudimentary for it nests and feeds on the ground (according to the native savants and undoubtedly true). Like the mountain species of thrush this one feeds on seeds and small insects. The head and bill suggest a relationship. It is extremely wary and obtained simply by good luck. The one I saw flashed before my feet on the trail and was gone in the grass and scrub before I could raise my gun. Tutepe must have seen his quarry while he was sitting quietly resting or smoking; else, he did some ingenious stalking because he got it with the aux. They do not range much above 2000 feet. Tutepe shot his at about 1800; I saw mine at 2300. The natives of Kupei did not know the bird with any familiarity. Its call I have not heard but is described by



the natives as a fairly long whistle, commencing on one note, then raising a note with a slight stop in between, and continuing steady on an ascending scale for about three more notes where it ends fortissimo- hence the name, which is onomatopoeic- "ko-k-o-r-bi". He "sing out all the same."

We have been fortunate in securing three specimens of a small screech owl. Two were shot in the daytime and the other caught by a native at night. It is small and in very rich plumage, resembling a specimen from Vanikoro, which was presented by Captain "Bertie" Hall of the Malaita Company's fine schooner "Royal Endeavor". We have heard a night hawk on a few occasions; unfortunately none are in the collection. The brown inland water heron has also been identified but not taken. I saw the same fellow twice on a stream branch below Kupei. They sit in the ferns and grass beside the water where they hide their nest somewhere. They are quick to sense an intrusion. Once it flew up close to my feet; I found a place hollowed out in the grass where he had been hiding. Then, very often, they roost in the lower branches of trees close to the water. The fine male we got up at the grebe pond back of Tiop in May came and alighted on a dead limb and so helped to complete the collection.

The varieties of parrots and parrakeets are distributed from the shore to the mountain top in all sizes and colors. The only species I have seen at 5000 feet are the green parrakeet and the omnipresent cockatoo.



The large green and red parrots, male and female, and the noisy red coconut parrot range up to about 4000. The few examples that we collected were taken along the shore for reasons of convenience. The blue-headed parrakeet is also present up to 4000 feet. The two larger birds are regarded as pests by plantation managers who are generally glad to see us hunting them; it seems they often kaikai the young nuts, drilling right through the tough fibre and shell. At 3000 feet you begin to hear the shrill squeals of the little green parrakeets that inhabit the high treetops in large flocks. I have seen over a hundred fly in unison from one tree to another. They get the kind of seeds they like up there and rarely descend to any plebian level. All this makes them very hard to persuade with a shot-gun- lively as crickets, always on the move- they do not sit still even while eating. To shoot one the hunter's head must remain at right angles to his body for at least ten minutes; this when practiced for an hour or two guarantees a stiff neck and spots before the eyes. However, we collected a good series without paralysis. The pigmy parrot for quite some time remained an enigma since neither G. R. nor I could report sight of one, although we thought we had heard them; but perhaps we were confusing the squeaks with those of the parrakeets. Was this remarkable species (*Nasiterna*) on Bougainville or not? The natives affirmed its presence in the vicinity when questioned with descriptive gesticulation. At last Tutepe brought one in the day before we left Kaino. (This shows what a



native hunter can do if he is interested). The size and build of this first example looked similar to those taken on other large islands. It happened to be blind in the starboard eye, but that didn't matter much. We had the bird. The natives said, "this fell a kai-kai skin belong big fell a tree; now, one fell a he got mark- this fell a no got." And "he make place belong him along house belong anis (ants)." All very satisfying, but why had we not run across a few in our rambles? Because we did not scan the treetops with enough persistence when we heard them calling; and because there were very few of the large trees that attract them both for feeding and for nesting in the neighborhood of Kaino. The hospitable species of ants that harbor the parrots (not more than one pair to an ant-house- see the specimen from Choiseul), build on the whitish-grey trunks of huge trees (califila, I think) about 8-12 feet above the ground. Later, fortunately, on the Balbi and Tiop trips we obtained additional specimens, which proved remarkable variation from types hitherto collected. Altogether we got five more. Two of these were mature males, irises brown, feet olive, and beautifully colored plumage- red, orange, blue, green, black- more striking than the species taken from the high land of Guadalcanal and Kulambangra, but marked on the same order. The other three were the usual green like the Kaino specimen, dark on the back and light on the breast. There is a bluish tinge on the top of the head, and a bit of orange and blue under the bill which is black. In the flamboyant



fellow the bill is whitish. How could the same species vary so? Looks to me like two different kinds. The singleton of Kaino was a female, iris orange like the other four. Possibly we have obtained no females of the bright-colored type. But it seems to me that with such divergence in the male birds there must be two species represented. Lack of good series of both gives me little evidence to work on.

The kingfisher is well established on Bougainville, but yielded no new forms, which was somewhat disappointing. Guadalcanal gave us that big, brown species; surely this great land mass ought to have contributed another new one. The most common are the "land" (ee-ee) and the blue-backed, found up to 3500 feet. We invariably heard their snappy calls in the early morning; the one sings straight out (ee-ee-ee) and the other does the same but with a sort of yodel. One rare mountain kingfisher, the "white-footed", similar to one taken by G. R. on Choiseul, is in the collection. It lives near these wonderful streams, admirable bird, and is seldom at home. I saw two on the same ford which I visited twice; both had urgent appointments. The call is a pert sort of pipe- three sharp notes at a time. Stomach contents revealed insects. Along the shore we found three additional species- the big white-headed Solomon Islander, the white-eared, and the "little-blue". Of the two latter only one specimen each was obtained, both up rivers. The white-eared likes true bush on the bank, and is generally close to



the mouth; the "little blue" prefers the mangroves where he can fish well-hidden at high tide. Other shore birds we took were the white and the green heron, and a smaller green swamp-heron, sand-piper, lesser yellow-legs, and curlew. (Later at Numa Numa I saw two kinds of plover on a small island off shore- the golden and another which I did not know).

February 10-26. Well spent at Arawa Plantation where we used the scanty balance of our cartridges along the shore and up the small rivers. The rest of the time we developed film, wrote notes, smoked, conversed, and rested. On February 27 I left for a short camping and collecting trip up the coast to Numa Numa; the Doctor went to Rabaul, G. R. remaining with Mr. Esson. On March 10 the "France" arrived from Samarai, Papua.

Note: these are the last of my notes to appear typewritten. My first drafts are quite readable. Any stenographer in the department will receive a feather for her hat for every word that is judged "illegible" by a committee of sufficient acumen.



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February 27th. Arrived Numa Numa, 60 miles up the coast from Kieta at 8 a.m. after a fitful night at an angle of 45 degrees on a sand bank which the A V Marqueen got on and gradually off - very, during the night. The Doctor went on for a holiday in Rabaul, G. R. holding down the residence at Arawa. The Thompson, the manager of the plantation very kind and hospitable. Numa is the largest in the T. N. G., comprising 4000 acres and carrying a labor line of 260. The equipment includes about 5 miles of narrow-gauge railway, dry-kilns for curing copra, an ice-machine, and a good-sized schooner. Wonderful food, all fresh, and sleep in a real bed. I talked to Paipekoi, tul tul of Kiviri village on the salt water, and arranged for carriers.

February 28th. We got started after lunch. Paipekoi and I walked 2 miles along the beach. The gear went over by canoe. We passed through a place called Tavis and arrived at Eropauvia where we made camp before dark. The villages in this district are quite small - 5 or 6 houses built with semi-circular roofs of sac-sac, the walls being made of plaited bamboo in a diagonal pattern. This is the cleanest place I have seen on Bougainville. The ground is well drained by ditches dug around the village proper and the meris keep the open space in the center well swept with bush beesoms and clear of pigs. The houses are not on piles as they are in back of Kieta. I made my home under a projecting shed of the kukurai's abode.



A few mosquitoes called during the night.

February 29th. Went out shooting in the morning with most of the male population. One teal duck, a long-tailed swift, yellow-headed parrot, and some kingfishers. Saw a white-eared kingfisher on a large river and a peculiar ground dove with a long tail, which at first I mistook for the long-tailed dove (bokuté), but the natives informed me "this fella belong ground all together he make him kai kai and make him house". They seemed to know the pigmy parrot. Saw a small flock of what looked like the red parakeet (yellow-bib and black head). One village visited - Viakoia, in the process of moving which illustrates the nomadic practice of the natives of this and surrounding districts. Two large bush rats were brought in at Eropauvia as I had inquired about them. When I set to work to put up the material and looked in the two cartridge boxes the Doctor had so carefully packed when he offered to help, I found cornmeal. I had a biscuit tin of the stuff and had asked the Doc to tie up a box of arsenic. Thus, the result of not checking up. I could not make up the rat skins, so skinned them out and used salt and ashes on the hide. These are the first specimens of the large bush rat taken since I have been out in the field. The natives quote two kinds- one a ground dweller, and the other aboreal. Both eat fruit, roots, and are vegetarians like the phalanger. The ground species is the larger. Their coats were thick, iris brown with a bulge to the eyeball like the possum, long whiskers and



sharp teeth. The tail is quite strong and has a slight prehensile ability. The natives kai kai them like the possum and often conduct little hunts for them with bows and arrows and dogs. They promised to get more. Also put up the duck since it is the first one taken. I feel discouraged.

March 1st. Paipekoi has a "charley-horse" this morning and decides he cannot climb. So Mukwarapin, Eropauvian warrior will "look out along me". We reached this village - Mukikekow, a few hours walk up a lazy grade and our friend refused to go any further. The Kanakas higher up were not friendly, "savvy make fight-savvy nothing along government" - and so we stuck. Saw a pigmy parrot - they must be plentiful somewhere on Bougainville. I have had several excellent angles on Balbi, the mountain I would like to climb; it doesn't look any 10,000 feet to the crater. But the bush is certainly impenetrable from this side - about 20 miles of saw-tooth peaks right up to the summit. The thing has been attempted twice. Went out collecting and got a cuckoo and two more kingfishers; with no arsenic my eye is not "on the ball". The local men showed me their garden of great extent. The soil up in this region (2000 feet) grows beautiful taro. We sat down to a feed of watermelons (introduced by the government) and returned to the village. Slept on a half dozen lengths of bamboo - very comfortable compared to the three slabs of tree trunk at Eropauvia. Since the language differs here with every district, it seems foolish to give



native names for birds. These are all vastly different in around Kupei and Kaino.

Kingfishers	- tituia
White-footed Kingfisher	- blé-kuakura
Cuckoo	- piwi
Shrike	- cresida
Yellow-headed Parrot	- kubato
Red-bellied Flycatcher	- kowekera (Arawa - betu)
Black Fantail	- tatapedia
Hawk	- bakawa
Bush Rat	- gutuguturé
Red-knobbed Pigeon	- urugo
Mina	- skopiu
Thickhead	- watako
Dove	- kukutau
Pigmy Parrot	- tuligorut (Arawa- koi-
Megapode	tintin)

March 2. Back to Eropauvia with the kukurai and what's his name. Another cuckoo. During my little ramble I have seen only one long-tailed dove. On the way up to Kupei we saw plenty. I think certain birds are somewhat restricted by feeding areas. The weather has been splendid the last two days with a great moon at night. My trip has not been a howling success except for the bush rats. I am afraid most of the bird skins will go bad. I shall always check all equipment for future camping trips.

March 3. Arrived at Numa Numa plantation about 4 p.m. Saw a large eagle hawk while crossing a river but could not reach it. He was flying along the coast with a big piece of wood for his nest clasped in his talons. At the plantation I met M. Yotoshi, the Jap captain of the Numa schooner. He has climbed higher than anyone else up Bagana, the other volcano to the S., which is always fairly active. He got within 600 feet



of the crater where sulphur fumes prevented any further ascent. A German party, well equipped, almost lost their lives, according to report when a sudden outburst came as they were climbing up with instruments for meteorological investigations. Balbi has certainly never been climbed. And it is true that birds do not show variation above 3000 feet? I should like to have a look.

March 3-5. Pleasantly spent waiting for the "Marqueen". Since she is undoubtedly held up I shall take another jaunt up to see small Buka on the invitation of Mr. Thompson where I can visit a real, live American -- Father Wade, a Marist missionary, who at one time was thinking about his chances of getting into big league baseball. Saw two alligators today when out on a small island off shore. This harbor has a reputation for them and sharks. I also saw golden plover and what I think were turnstones.

March 6. Left in the "Malaguna" for Buka. We spent the night at Tiop Island which lies close to the plantation of a gentleman who wrote the Doctor about a peculiar water bird that lives on a "sunken lake at 3500 feet" in back of his place. Probably something common, a gallinule or something. He declares they are "about the size of a pigeon with red bill and feet and swimmers!"

March 7. We made Bonis at Buka Passage at nine and were immediately commandeered to carry a sick man to Kieta - very ill with malignant malaria. So



we left for points south as soon as possible and got back to Numa Numa before dark. It is the worst case of fever that I have ever seen.

March 8. Off for Kieta at daybreak with the patient apparently better; but the poor wretch died about two hours before our arrival. I found both the Doctor and G. R. camped in Tom Ebery's house. They sent another cable to A.M.N.H. yesterday, applying for more money and particulars about our future. G. R. returned to Arawa. The Doctor and I slept at Kieta, the guests of the local merchant.

March 9. After the funeral of our deceased friend I walked over to Arawa. The case of Georges Ganday, the unfortunate Frenchman who died before my eyes, is one that illustrates a phase of island life. He had been a heavy drinker and under the stress of hard work with pinched diet he collapsed. G. R. was at Arawa in good fit and humor. And with Jock Esson we had a pleasant reunion. The Doctor remained in Kieta with eyes seaward to pick up the France. He met Mr. and Mrs. Beck unexpectedly in Rabaul, who imparted a lot of information - the ship left Samarai over a week ago. Mr. Beck has decided to relinquish his long leadership.

March 10. Having no ammunition we cannot collect We do some business with the natives of Arawa village in snails and insects. A meri died there yesterday and Jock and myself accompanied a bunch of the plantation



boys to what was a kind of memorial celebration. About thirty of them presented themselves at the house of the deceased and were conducted to a paw paw tree by the husband. Here they lined up twenty yards off and in very orderly fashion each shot three arrows. Something like our custom of leaving flowers on graves. When it was over the kukurai of the village gave them betel-nut and a feed of coconut pudding.

March 11. Sunday and little activity. I developed a few films I had taken up at Numa Numa.

March 12. The France hove into sight at 10 a.m., giving us quite a thrill. The Doctor, Captain Lang, and all hands on board plus a new lad - Philip, from Rabaul. Hove up anchor after we had loaded all the birds and our gear from Mr. Esson's house, and proceeded to Kieta.

March 13-18. Many cables were sent to New York. Mr. Beck has turned the directorship over to me. Dr. Drowne, after much discussion, has decided to leave. G. R. will remain until the new real leader arrives - Dr. Murphy, who will join us in May somewhere in the Solomons. The condition of the France and the affairs of the expedition are not in exactly correct shape to be transferred into the hands of one as young and inexperienced as I.

However, I shall do my best. The leak up forward has been repaired, but the vessel makes just as much water as she did before she went on the slip



through the inner stern gland. Captain Lang says the resetting of the shaft and packing and installing the glands was a hurried job late on a Saturday, and not properly done. Mr. Beck wanted to get the vessel back to work as quickly as possible. The magneto is lacking, taken off to be sent to Sydney for repairs. Our total ignition depends upon three fairly old "Hot-Shot" batteries and a half-used storage battery. Sixty-nine pounds and seventeen shillings were handed over to me by the Captain. Fortunately, we have a supply of 100 cases of benzine delivered by Captain Lang on arrival. All the ship's papers are made out for Samarai, Papua to Faisi, British Solomon Islands. The France came into Kieta on a false plea of engine trouble. I shall have to go to Rabaul, primarily to repair the leak, which requires pumping every half-hour even while at anchor, and also primarily to enable Dr. Drowne to catch the Montoro for Sydney. It seems to me necessary that I see Mr. Beck personally. The instructions he left are quite inadequate. So we leave Kieta on March 18.

March 18. Hove up and steamed 60 miles in less than 6 hours, arriving at Numa Numa at 2:45 p.m. Since her cleaning the France is certainly faster.

March 19. Reached Buka Passage at 4 p.m., where Mr. Vivian came on board, also Mr. Kertell, the medical assistant, or "lik-lik doctor", who is stationed at the passage, and his dull wife and children.

March 20. Off at 6:30 for Rabaul via the



direct sea route. On account of the report of Mr. Vivian that the Montoro is leaving Rabaul very shortly and having just about enough ignition power to take us the distance with allowance for 50 miles of sailing, we shall not have much time to spend on sea birds.

March 21-22. The vessel made good time into Rabaul. We sailed about 1/3 the total distance; a strong counter-current forced the use of the engine in channel between New Britain and New Ireland. Previously, from Kieta to Rabaul took 3 weeks. The ship was anchored and pratique granted by 11 o'clock. G.R. suddenly decided to go home in order to marry the girl; it happened yesterday morning; so I shall evidently be alone until Dr. Murphy arrives.

March 22-April 3. Herewithin a multitude of business took place. The leak was fixed by having longer screws made for the inner gland. Komine took the contract. I had conference with Mr. Beck which proved very informative. He gave me 433 pounds for expenses and paid for 150 more cases of benzine (18 shillings a tin here). I also got the ship's code book from him and he came cognizant of many things that puzzled me. G. R. will take passage for home from Manila for which port he sailed on the S. S. Calulu on March 31. Dr. Drowne takes the Montoro and left to spend the interim before she sails with Jock Esson's brother-in-law at Tokua-Kokops. Mr. and Mrs. Beck will take the Mar-sina. He has been doing considerable collecting here.



I saw many of the specimens and they are remarkable for their beauty. We shipped all the Bougainville stuff except the insects and part of the material in solution; the former was not entirely dry. I purchased ship's stores and supplies ashore, paying cash for everything. We have had a carpenter on board and the vessel leaves in tip-top shape, except for the seedy engine with no magneto, (12 Hot Shot Batteries had to be secured at one pound each; these with the recharged storage battery will see us through until the old magneto returns repaired from Sydney or a new one is obtained), and the need of a new foresail. Material for new main rigging is on board. So we got clearance and hove up at 4:30 p.m. after a touching farewell from Mr. and Mrs. Beck. She made new curtains for the cabin while we were in Rabaul. Good luck to them. We are off to Buka.

April 4. Kept an eye out for the Blanche Bay shearwater with no avail. Very few seabirds about.

April 5. Arrived and anchored in Queen Carola Hafen off Buronotui, Father Wade's (American) mission station.

April 6. Good Friday. No work. Spent most of my time with Father Wade, who hails from Providence, R. I., and is a great scout. He forsook his chances as a big league 2nd baseman to take the orders of the Marist brotherhood, choosing South Sea Mission work because it had the reputation of being the most arduous.



Took many photographs of the station, its church and school, etc.

April 7. Hicks, David, and I collected on Pororan Island about 3 miles off shore from Buka. Here we found the ashy flycatcher with the red belly, differing so radically from the type found on the mainland. Consistently, we have taken this bird on outlying islands not more than five miles away from a large island that supports a species of the ordinary bald flycatcher in one of its many intra-island variations. This has always puzzled me. The mainland type is not present. I shot a small hawk similar in plumage to the great eagle hawk, and David one of the blue-backed hawks. Pororan village is under the Marist ecclesiastical See. The natives are well-built and live in two villages at the northern extremity. Father Wade has taught them to make cane chairs and tables so that the interiors of the houses give the appearance of modern beach bungalows. They are built in long lines, raised on short piles, and with one connecting porch covered by adjoining roofs. The houses are divided into rooms. The village has extensive coconut groves and does much fishing. We purchased a lot of fine fish. Shillings were the only thing accepted. I got some photographs of the village and the residents. Also took the church interior and the Mission Station over on Buka.

April 8-9. Attended Easter service in Father Wade's church on Pororan. David and Fraser accompanied



me. I was given a separate little seat on the chancel where I could appreciate everything. The ritual was strictly correct with a dozen cute monkeys as altar boys in uniform lava lavas. In performing mass Father Wade had three well-trained acolytes. Over a hundred took communion; on the whole they seemed to take it seriously although how much of it is imitative and not understood I cannot say. They certainly do not understand our religion. They simply have a hankering for anything mystical and Catholicism is the best form for them.

Father Wade declares his parishoners "most devout", and well worth saving. He is a beautiful character, receives no compensation and is resigned to die somewhere around the "Bukas". He conducts a remarkable school, using the most ingenious analogies to illustrate knowledge. Then he administers to the sick and advises them on everything. Wholly unselfish and sincere. He is the only person in this district who is respected and more often loved by all of the white residents. I listened to a sermon in "pidgin", at the conclusion of which he called for prayers for the expedition's success and my victory over Balbi, the volcano. I have decided to take a camping trip up there. Father Wade can lend great assistance. For this purpose he and I went inland on Buka to Gaga where Father Chaize dwells. He knows more about Bougainville than anyone, having been here 18 years. We arrived about 6 p.m. after a five mile canoe trip up a river- me with a rising tide of fever. Father Chaize had just finished evening mass. He was very



cordial and intensely interesting. The evening meal was truly monastic. We talked until very late-mostly about Buka and its natives. He said, "I have been wiz them for eighteen years, and I am just realizing how little I know about them". The ordinary white resident knows nothing about the real native according to him. He showed me numerous photographs and a grammer and dictionary of the Buka language. It is highly inflected, like Greek, with a very limited alphabet and about eight verb moods, with a corresponding number of tenses. Apparently there is one language on Buka and many dialects. Fifteen years ago, the greater part of them practiced cannibalism. In attestation of their sincerity as Christians he said they came regularly to church, men, children, and meris with pickanninies, through all kinds of weather, some of them many miles. The church itself will seat about 500, and he declares it is far too small now. Today he had them sitting in the aisles. He is most enthusiastic about my proposed ascent of Balbi, and gave me all kinds of advice and information. He made a map showing how I could avoid the most dangerous sections, Kunua and Kiviki. He will give me two boys who were brought up in the villages on the coast which we shall probably start from, Hamon or Pukuito, the latter being recommended. The government said Hamon. "If you go up in back of Hamon, they will kill you surely," said the reverend Father. All this transpired while I was wrapped in blankets. This kindly,



be whiskered, ghostly, confessor is also my nurse for the present, feeding me hot lime drinks and quinine. Next year he makes an extensive tour (by special demand, understand, for he would much rather stay at Gaga with his boys), lecturing on the Marist Mission. He includes New York and I made him promise he would visit the A.M.N.H. The only part of the conversation that waxed ornithological was one statement of his that he, himself, had shot a pelican on a river in Banoni (Boug'ville). Can you beat it?

April 10. Woke up with a giddy head. After our ascetic breakfast of coffee, jam, and murky bread, I shot a kingfisher and demonstrated the Beck method before Father Chaize and some of his trusties. With two guides, retainers, or what have you, I started back for Bei, passing through two villages, quite close together—one Catholic and the other Methodist. The grim competition between these two is keener than it is between Christ and the Devil. Fortunately, the Catholics are way ahead, as they should be. All the Fathers are sincere workers and gentlemen. They receive no stipend (the lowest paid Methodist receives 400 pounds per annum) and they are in the work for life. Most of the Methodists seem to be in it for what it is worth. As neophytes they may commence with the light of Jesus in their eyes, but they soon become disillusioned and go in for blackmail and muckraking, playing the government off against the planters and vice versa, or worse.



Rev. Cropp, the head Moohoogab of this district, has just been scathed by the Rabaul court to the tune of 250 quid for slander. One gent who manages Dewan Plantation near Buronotui and claims he is American-born, is an ex-Methodist. His wife also. I never hope to meet two slimier beings. Because of his ability to intrigue the natives he is called "the uncrowned king of small Buka". But enough.

I took a bluebird, the first taken here, several honeysuckers and white-eyes, and blue-backed kingfishers. All the species noted to date resemble the Bougainville types except the ashy kingfisher of Pororan. This is undoubtedly also present on Petats, Yame, and Matsungun, islands similarly located but which we shall not have time to visit this trip. In spite of my two day rest at Gaga, I boarded the France with high temperature. David and Hicks have been collecting during my absence. Hicks returned a white-footed kingfisher represented hitherto on Choiseul (by G. R.) and on Bougainville (by native hunter).

April 11. Hicks and David ashore with instructions to return early at which time we hove up and shifted back to Buronotui to pick up the two boys who belong on the west coast of Bougainville, Katu and Kove, the former from Hamon, and his mate from Pukuito. They seem very intelligent, especially Katu, who has been an engineer on a big schooner around the Bukas for many years before he worked for the Mission. He is a genuine



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convert; for he receives practically no pay and has much longer hours and harder duties than formerly, but better and more human treatment. Father Wade gives us God-speed before we leave for the south end. The government launch came by and Mr. Vivian came aboard and examined our papers from Rabaul. He is out tax collecting. Fever still with me.

April 12. The boys filled the water tanks between showers. Hicks and David had little success on account of the heavy rain. Hove up after lunch and proceeded down to an anchorage opposite Matsungun Island. I am convinced I have Dengue Fever; there is nothing malarial about a four day stretch of it with no variation in temperature.

April 13. Hicks and David off early. The Dengue rash has begun to speckle my face, chest, and shoulders. Manuel has been ill with true malaria for the past three days, a sicker though not a more ugly man than me.

April 14. Decided to carry on to Big Buka today. The time we have put in on the smaller island is enough to give a representative collection of birds. Buka Passage is only 1/2 mile across, and a matter of a couple of hundred yards in some places. Variation in fauna is not to be expected, although there are certainly species present on Bougainville that are not found here. I told both the boys to keep a sharp look-out for pigmy parrots, but they have not seen any yet. Buka Island has no high elevation, nothing exceeding



1300 feet. Its dimensions are 30 miles long by 18 miles at the greatest breadth. The northern half is mostly low land. There are no large rivers suitable for small boats on the west coast. Reached the Passage at noon and I visited the D. O., leaving instructions about receiving our guns from Kieta. We could not take them because permits had not come through. Friend Vivian would like very much to accompany us up Balbi and inferred we should have little success without the "big fella Kiop" and his police boys. He has too many taxes to glean. King George makes between 30,000 and 40,000 pounds a year on this, a rather raw deal from the natives' point of view. All villages in the so-called "controlled areas" must pay the 10 shillings a head. Very few receive yearly visits either by medical patrol or police patrol, and when they are so fortunate it is simply to collect taxes in arrears or to take census. This shows how many have died, which means less work for the doctor and his assistants; and how many have been born, which means more tax money. A few are sent to the hospital if they can be caught; medicines are left with the medical tul-tul. Conditions are much better in Southern Bougainville (Buin-Siwai-Kieta districts). It is unfortunately true that all the villages with government kukurais which are situated above the coconut growing level (a little under 2000 feet) are totally ignored. Having no coconuts from which to make copra to sell,



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they can get tax money only by barter or by a common fund supplied by plantation wages, which the young working bucks are loath to part with. The villages have not retained the communal spirit as they have on Malaita. Here, all tax revenue comes from the wages of men working for white people. So up with the pick and on to Soraken, arriving at 2:30. Here we found quite a community, 5 white men and a good engineering outfit. The place runs two schooners, one the "Rogeia", captained by Philip Palmer, supplied us with a magneto. This is most fortuitous. With all our batteries we should never have been able to keep going until the old one comes back, and if there is anything our engine requires as indispensable it is a fat spark. Our supply of meat has gotten low since the last purchase in Kieta. We obtained some from a Chinese trade store on Buka and more here. We have been lucky in obtaining good batches of fresh fish, taro, yam, kau-kau, and fruit on both Bucas. The natives always ask for shillings- thinking of their taxes.

April 15. Sabbath observed. I secured some photographs of boys with "hoopès" or tall hats. This custom of putting hats on adolescent males is similar in effect to the canoe-initiations of the Solomons. The women are absolutely taboo from any knowledge of the business; when the man takes a wife his hat mysteriously disappears. The custom prevails on the northern part of Bougainville (from Rotokas District on the east coast



and Kiriaka on the west up through and including all of small Buka). Mr. Whitehead of the C. P. L. told us rumors of another mountain lake in the high range west and south of Soraken. This part is not as populous as Kunua and Kivika, located on the fertile slopes of Balbi and the Emperor Range.

April 16. Sailed for Kunua at 6:15 arriving about noon. I took mail ashore for Tom Latimer, manager of the plantation. It is a subsidiary of Soraken and he has the unique distinction of being in communication by telephone. He had some swell tales about the Kunua natives. They have threatened him several times indirectly, once sending word around about that the whole place was to be sacked and his hands and feet were to go in the stew pot. Mr. Latimer gave me some fresh bread and fruit in return for a promise to call in on our return. Hove up and proceeded on to Hamon where Katu went ashore with us to interview the kukurai and his tul-tul. They refused to come because of personal enmity with the chief of Pukuito- concerning the usual thing- women. We spent the night here, Hicks and David collecting during the afternoon. Very heavy breakers on the blacksand beach making landing quite difficult. It is typical of this coast. The outside, however, is no where near as foul as it is reported in Rabaul. The France rolled considerably, but the holding seemed quite safe.

April 17. Hicks, David, and I ashore shooting.



We had great ructions landing with the small boat. I shook off the last dregs of my Dengue Fever yesterday. Manuel is also much improved. The sandflies on this beach are "simply shocking". Hicks met some natives on a bush trail that ran up toward the high land; they beat it on sight. This is an ominous harbinger. Will the Pukuito men help us along?

April 18. Left Hamon at 7:15 a.m. and steamed to a 1/4 off shore from Pukuito, which is situated on a large clearing on top of a high bluff about 2 miles inland and visible a few miles off shore. We only stopped to look around. The vessel continued on to Piruatu, 15 miles further down the line. Here we hoped to secure carriers up as far as Pukuito village, at least. The kukurai came aboard and agreed to help me. There is a good safe anchorage there between two small islands. The natives are well-built and look healthy. They came out to see the ship- they are evidently rarely visited, if at all. Hove up at 1 p.m. and sailed back to holding ground off Pukuito with 8 Piruatu natives on board. They received kai-kai from our galley. Fine during the night but for a heavy swell from the N.W.

April 19. Hicks, David and I were landed with all our gear in two boatloads. The Piruatu boys and we reached Pukuito by noon. It is much farther than I estimated. Elevation 1600 feet. The natives but for the old kukurai seemed friendly. It is the first time a white man has visited their village, although they



have seen plenty on the beach at costal villages.

Riavite, the tul-tul is Kove's brother. Having been to see him at the Mission and being travelled he has learned pidgin English and was made tul-tul at the Passage and told by the "kiop" to build a government rest house. The government, however, has not yet occupied that domicile. He cut a door in it for us, the first tenants. Riavite was rather dubious about the projected penetration but promised to help, urged by his brother. There is one village that gives access to Balbi with which Pukuito is at present on friendly terms; Hanna. But the men of this place have declared their intention of knocking the first white intruder on the head, presumably the District Officer. Confidentially, he said they would probably all run off to the bush; and this means danger because they might tell others and arrange a nice wholesale ambush. I said we could dodge all trouble by keeping on the move up the mountain where they would not easily find us. The higher, the fewer- no villages above 3000 feet at the most. So, we shall leave in the morning. All villages except Hanna, including Toreta, which was recommended as a camping place by the government, are on-sight enemies of the Pukuito men. At that, Hicks learned that certain of the locals have personal hatreds for certain of the Hanna lads,-again, women. But this will not deter us. No collecting was done today. Balbi rises about N.W. We were very comfortable in the new house. The natives



brought plenty of taro for the boys, who love it. We saw the France steaming south to Gazelle Harbor where the skipper will put in new main rigging.

April 20. Left Pukuito with 15 carriers at 11:30. Some of them most picturesque, old men entirely naked carrying their taro in a leaf package, young bucks with long hair, just out of their hoopes, and lithe monkeys (or maggis) just in their hats. We shot several birds on the way and camped in the bush at dusk, building a big leaf lean-to. We gave the bearers a good feed of rice and fish. All the youngsters slept under the waterproof tarpaulin, packed longitudinally like sardines. We sure did eat after this first hike up and down over saw-tooth ridges on an abominable trail. It took us a few miles over varied creek bottoms with moss-covered stones and cane brakes. Again I wonder at the native's ability to balance himself with an unwieldy bundle on the point of a needle.

April 21. Up at dawn and broke camp right after kai-kai. Then more saw-tooth, roller-coaster grades until we halted about noon about two miles from Hanna. Here we loaded the Winchester and all shotguns to "be prepared" like good boy scouts in case of any reprisal. We had our defence all figured out. It would not have been another Braddock's defeat. Fortune came our way. One of the carriers who went off a short distance from the trail happened to hear some people from Hanna at work in the bush cutting bamboo. Riavite and I tried



to sneak up on them but we could not get on top of the knoll where they were without making a racket. The idea was to grab them and have Riavite talk savvy to them before they could run away. We adopted the next best scheme, namely, to circle around them and camp on the trail over which they would have to return. They soon approached-a man, two kids, and a young girl. He was armed to the teeth- bow and arrows and tomahawk, and was scared out of his wits. He jumped back and assumed a Marquis of Queensbury attitude but quickly acceded to the talk of our bunch- evidently assuring him that everything was quite O.K. With such a gang he couldn't very well refuse anything, so he led us along. He had agreed to preceed us into the village and sooth chief and his men just as we did him. What a stroke of luck. Through his mediation a general evacuation was prevented, although Riavite had to hold the chief by the arm until I got close enough to grin at him. The first move was to shoot a few birds that were sitting around the place to prove the authenticity of our purpose. We did no shooting after we got close enough to the village for them to hear us. How they started at the first bang. Hanna is a community of three villages located on three ridges about 1/2 mile apart, all under the one chief and pooling the produce of their gardens and household arts. We learned later that all the people in the other two villages, who could look over and see the excitement in the main burg, cleared out in toto. Even the meris and



youngsters of the principal place made their exit. And it was this that scared some of the Pukuito men and caused a bit of a crisis. A few of them had nothing but spite for some of the Hanna boys. One old cross-eyed chap with a face like a Cheshire cat told Hicks he was more at loggerheads than any of the others. "They are coming simply to see what happens to me". He carried a mean-looking weapon- a German police-boy bayonet rammed on the end of a hardwood stick- evidently salvaged from an old bush murder. David said he saw nine such inside a house at Pukuito. None of the feud supporters were around. This led them to believe they had gone off to incite hostile villages to their aid against a common foe. Riavite came up while we were eating and said his men were leaving- "Kanak he speak he like make'em fight". They had dumped all our gear, and would leave us in a nice pickle. Hicks got excited and wanted to beat it with them. Katu and Kove came to the rescue with the suggestion that Riavite stay and with as many men as Hanna could produce we continue right up the mountain. It worked. We left part of our stuff with the old kukurai. I gave him a lot of calico, 25 pounds of salt, knives, and pipes. By this time he was quite friendly. Most of our new bearers have seen 40 summers or 50, but they are as stout a crowd of old men as I have ever seen. Stocky, hairy as apes, and well-muscled. The Pukuito party set out for home and we climbed from 3 o'clock until dark, reaching 2900 feet where another leaf house



was built. Fine during the night. Hicks and David put up the few birds.

April 22. Breakfast of cold sardines and taro (our last night's meal was also cold because of lack of water and a suggestion on the part of the boys not to attract attention). The apparent danger was nullified by the late arrival of about a half dozen men who had been among those who had scooted upon our arrival. Returning to the village they found there was nothing to fear and curiosity led them to join the party. Their advent was very impressive, all carrying bamboo flares which shone on their sleek, jetty limbs. Most of them were youths, will-built, with fine teeth. We had no stop for kai-kai until we reached 5900 feet about 4 o'clock. The ashy fantails and mountain thick-heads came into evidence about noon. We all collected, taking these two species, yellow-bib doves, red-breasts, and a thrush on the way. We crossed numerous streams, cold and precipitous. One was pointed out as a place for obtaining the red oxide or iron that occurs in clay formation, which the natives use for paint. Very foggy but no rain; the weather so far has favored us. It was advised that we make a camp at this altitude because no large leaves for thatching a house occur higher up. The bush on this trek was particularly bad - between 3500 and 4500 feet we hacked our way through about 3 miles of bamboo. The brother of the old kukurai is the trail -maker and guide. He knows the way. Undoubtedly



the natives have been up here before. But a long time back, since no track is every visible. The old boy leads us along by instinct. Occasionally we come across old sac-sac stumps, the stalks of which had been previously cut down for food (the center of the calyx where the leaves wrap themselves on to the trunk is quite tasty). The bamboo was tough- some of the stalks 6 inches in diameter. I received numerous and sundry cuts, although the natives did not mind it under their feet. We had two hand axes and about six knives at work up in front, myself included, wielding a mean cleaver. We enjoyed a hot meal with cocoa, biscuits and jam. The retainers had a feed of rice. It was the first time they had tasted it. How they smacked their lips over it with a good dusting of salt. So, about ten more joined us this evening, late arrivals being fashionable like the others who came last night. And three or four meris brought taro up. A separate house was constructed for them a good distance off. We never saw them. We put up our birds before it got too dark. The temperature at 11 p.m. last night was about 21 degrees F. Unfortunately, the thermometer was broken in this day's transit- outside of my barometer, the only other meteorological instrument. I should have the gear for recording pressure, humidity, etc., since this is the highest peak in the Solomons and nothing can stop us now. Rain during the night.

April 23. I decided to leave David in the



camp here to collect and look after the equipment and supplies. Hicks and I left with as little food as possible- for 48 hours. The old chief and his brother, the pathfinder, with about ten others, three little monkeys, set out for the last leg. The bush reminds me very much of that around 5000 feet above Koupei in the Kronprinzen. Moss-covered, tree ferns everywhere, and stacks of pandanus and sac-sac. Whenever we passed a sac-sac tree someone would fall out to cut it down. They all had good axes, knives, and pipes. I learned from Riavite, who also sticks with me, that they obtain them by barter from natives from villages in the Piruatu District to the southward, who get them from other natives who got them from someone else who originally purchased them in the store at Numa Numa. The only road across the northern or central part of Bougainville connects Piruatu with Numa, a distance of over 40 linear miles. The government sent a patrol through this line twelve months ago after rumors of bush fighting had leaked through. During the morning we passed the remains of former leaf shelters, one spot where it was explained a bush pig had been cooked, and more sac-sac stumps. Without the wonderful aid of these wild Kanakas, so-called, I should have been helpless. They are glad to lug the bundles simply for the privilege of watching us as curiosities. Anything, no matter how trivial, is noticed and remarked on; and a discarded tin can, or wrapper, any bit of paper with a mark on it, newsprint or sardine advertisement,



they seize avidly and hang on the string about the neck or on the breech clout fore or aft, according to taste. No one has as yet suggested any fear of the mountain and its fire. We made camp at 7300 feet about 3 p.m., since it started to rain. Hicks and I have taken around a dozen birds each. I lost the Mammal Department a brand new species of flying fox. It took three shots to bring it down and it was a beauty, the largest I have ever seen with long, glossy-black fur. I gave it to one boy who retrieved it and told him, like a fool, that he could have the meat to kai-kai after I had taken the skin. He merely got the gist of my declaration, namely, that it was for him to eat. When I asked for it in camp, the whole works had already been cooked. He shared it with those in his house (there were three up here, on account of lack of roofing material; they use the big broad base of sac-sac leaves). The most impressive thing about these untouched bush Kanakas is their perfect communal spirit with their friends of their own village. They share everything; I have never seen the slightest argument; and the chief's word is absolute law. Hicks and I had one tin of Victory corned-beef; Katu and Riavite, two cans of sardines and biscuits. I spent most of the night dodging drips from the leaky roof. It must have been close to zero weather. The floor area of our house was about 25 square feet, and in it were 10 men and 4 large fires. The natives used the pandanus leaf base as sleeping pads. In spite of their



[nakedness they were not cold. The old men are really protected by the thick hair on their bodies. Saw the new moon through the fog and rain.

April 24. Three biscuits, a tin of meat, and two tins of sardines served to carry us all to the top; the natives cut a lot of sac-sac as well.] We started about 7:30 and in an hour came up under the southernmost peak. Circling around it to the N.E. we could catch glimpses of the summit above us. This is a higher elevation than the crater. [The bush began to thin out a little and seemingly the birds. Yesterday Hicks and I did quite a bit of collecting, - thickheads, honeysuckers, and a thrush. My ornithological expectation in hoping to find new variation with such high altitude was not satisfied. The only birds seen by me during our stay above 8000 feet were black-winged pigeons and a white-footed kingfisher. (The camp last night was at 7300 feet).] Before arriving at a sort of look-out from which you can see the bald peak to the N.E. of the crater and its smoke, we came to a clearing with a flat stone in the center. A large piece of leivoi (wood) was planted at one end. This, the tul-tul explained to me, covered the bones of two Hanna men who had first broken the trail we were using. Desiring a route down the other side they had ventured up and never returned. A few years after, another party went up and found the skeletons of the original blazers. Evidently they had perished from hunger. And so they buried the bones. It is the custom to burn corpses just at sun-up, when the first rays



appear and to bury the remains.. So only half a funeral was accorded these gentlemen. All this happened about 20 years ago as far as I could ascertain, in the "German time". This explained the evidences of the trail having been once broken- the sac-sac stumps and the remains of shelters. Indeed, from the "look-out" the trail looked as though it did continue down the other side. Just below to the west lay a large marsh with a considerable amount of visible water. No bird life apparent. The bunch of natives waited at the "look-out" place while Hicks and Katu and I journeyed on to the summit. It took us three hours to climb about 500 feet, over a distance of about a mile. The scrub just below the bare, crusted ground of the crater was the thickest and hardest to break through I have ever seen. You had to fight it. The final ascent was begun at 11:45 and completed at the lip of the main crater at 12:30. This was about 500 yards across and about 300 feet deep. We could see the lava seething around at the bottom, exuding steam and yet low, sulphurous smoke. I collected some geological samples and left a can signifying another spot on the earth's crust where homo sapiens has set foot (and rejected as unfit for prolonged habitation). On the western side there are two smaller craters, one 25 yards long by 15 feet wide, the other 150 yards by 25 feet. The latter is by far the most active, belching forth clouds of sulphur smoke. We could not get very close. To the east the side of the big crater is broken down,



and below it are many sheer drops. The entire extent of the lava bed, hot and cold, measures over 5 square miles. The comparative inactivity of this active volcano should make it very interesting geologically. One can reach the very center of thermic activity. After taking all the rest of my exposure we hurried back to our friends and the safari started back down with the main camp at 5800 feet as the objective. Arrived just in time for a tremendous kai-kai. David had done quite well with his part of the collecting, augmenting the red-breast series considerably. Additional natives from Hanna have come up during my absence. We now number about 40 in toto.

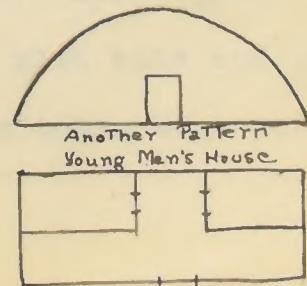
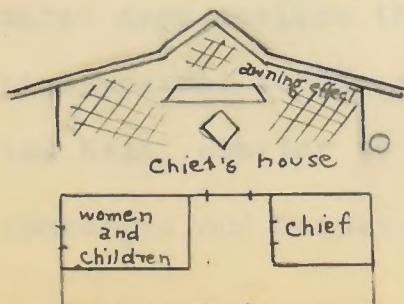
April 25. I could recognize a great deal of iron and sulphur around the crater; water which flowed in numerous springs, cold as ice, had a decided taste. In the strata just below the crater around 8000 feet  $\text{CaCO}_3$ ,  $\text{FeO}_2$  and greenish sulphur deposits could be seen, the principal base being volcanic rock. I also noted crystalline formation- copper pyrites and agate quartz. Hematite, calicite, silicon and galena were also present in small quantities. This is as far as my geology knowledge would take me. Balbi ought to be a fine place for scientific investigation; a geologist with meteorological instruments, etc., could go up and spend a week. The botany around such a place should also provide interesting material; I collected several specimens of hardy plants- reminding me for all the world of Maine



forests- juniper, pine, and cedar. The native name for the mountain means "house belong big master". None have ever looked at the craters. They are content to peer cautiously from that look-out from which one can see the steam and smoke drifting up behind the peak to the north. If any native happened to look upon the crater he would get sick and die. Katu is , therefore, a man among thousands on Buka, having looked into the "pipe belong Devil". His only remark on the wonderful sight was "pipe belong Devil, he stink too much". I tried to tell the old chief, through the tul-tul, that he could go to the fire now- that I had chased the Tamburan away; also that no one would get sick because there was medicine up there in the water. This was of no avail. But we were honored men, so it seemed. On this day we broke camp about 10:15 a. m. after finishing the birds. It is wonderful how well they keep at this elevation. Hicks and I carried some over 48 hours. The gang coming down stretched out about a half mile. I got a crested pigeon and David missed another. Heavy rain commenced about noon and drenched us right down to Hanna village. Hicks, David, and I had a wonderful bath just before we arrived, although all the soap in Christendom couldn't get the dirt off my legs. The same legs looked as though they had come through a shinny match- covered with cuts and scrapes. No matter- we have climbed one of the highest unclimbed volcanoes in the world and collected fifty birds in the bargain.



I took several pictures around the village much to the amusement of the residents. As usual all the women had cleared to the bush. Now the old chief invited me into his house and gave me to eat of cooked breadfruit and bananas. After the kai-kai, he taking a bite out of everything handed to me, he showed me some of his prize belongings, bone ornaments and dyed wood, none of which he would part with. The final exhibit was a yellow double-page spread from the "Illustrated London News", acquired by purchase from someone who had gotten it at Numa Numa. The date was almost to a day 3 years ago-April, 1925. On one side were views of Tutankhamen's tomb and on the other a picture of Rabinadrath Tagore and another of a Duk-Duk mask from New Ireland- a strange coincidence all round. He wrapped carefully in dried leaves and replaced it in its bamboo case. The interior of the houses are divided into rooms by walls of plaited bamboo. The women and children are in a separate one with no entrance from the interior. All the young men and monkeys with hats live in a special abode until they take wives, when they are privileged to have a house to each man, and all help in the building. Long strips of bamboo are split into longitudinal sections and plaited over five and under five, reserving the green side of the wood every other strip.





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I was very fortunate in obtaining one of the coveted hats after much persuading. Riavite discussed it with the chief in whispers. I assured them I had no meri and would never show it to a female. He made me bring a benzine case into the house where the sacred article was carefully packed into it and covered up. As a parting gesture he presented a little suckling pig. I left plenty of presents with the village, including an old cloth hat of Mr. Beck's that David had brought along. The chief set it on his wooly head immediately. During the evening David was clowning with all the younger men, even up to pulling their hats off (no women were about). By a goodly amount of kidding he and Hicks got half their bows and arrows away. Katu was having a lesson in Kiriaka tongue just as I dozed off, repeating words after the teacher. Fine during the night with the new moon.

April 27. Left Hanna at 8 o'clock and reached Pukuito by evening- a long haul. Some of our friends carried for us on this jaunt. It was the first time many had come all the way over this road. We could see the France anchored between two islands at Piruatu, and so I decided to send Katu along the beach with a message for the captain to bring the ship along. We are back three days earlier than expected. Hicks got a new pigmy parrot today- red breast, with blue and orange on the head, similar to the species taken high up on Kullambangra and Guadalcanal.



April 28. Collected all day and took a few more pigmy parrots. They represent two species apparently- the fiery-colored one has a brown iris, the plain green one- orange. Both inhabit terrain of the same altitude. In the afternoon I finished the last film pack. We expect the France tomorrow morning.

April 29. The France got down at 10 o'clock and all the gang whooped us down to the beach; nearly every man of the forty or fifty odd representing two villages- Hanna and Pukuito carried something. They split up the gear and what supplies were left. One had the lamp; another the cornmeal and arsenic; others a few stray tins of kai-kai. Even the meris followed- about twenty with pickaninnies. They had bundles of taro which I had requisitioned, promising calico and tobacco and knives. After a couple of dozen photographs we took our leave. The kukurai of Pukuito gave me a fine little dog which is descended from a pure-bred dachshund of the old German time. He will make a great companion and mascot on board. I gave Riavite, the tul-tul, some salt, sugar, and a quantity of medicines. The others got trade goods and some shillings for the pile of taro: two barrels full. We hove up and proceeded up the coast, anchoring at Kunua Plantation for the night. Shot two storm petrels just at twilight. Mr. Latimer, the plantation manager came out for the evening.



April 30. Started at daybreak, reaching Buka Passage at 1 p.m., where I interviewed Vivian, the D.O. The new shot-guns have not arrived from Kieta as promised by the customs officer. Mr. and Mrs. Beck passed through on the Marsina. Cleared the Passage by three o'clock and stood out for Teop. I had a dose of fever that gave me an uncomfortable night. Since we left to camp on Balbi, all the boys have had attacks, and the skipper as well. He reports Gazelle Harbor and its environs a most desolate place. No good drinking water and the natives quite wild and unkempt.

Arrived and anchored in Teop Anchorage at 11:30, coming in by moonlight. I forgot to mention that Teora went ashore around Gazelle Hafen to look for Father Chaize's so-called pelicans. There were none, of course. But for the good Padre's Jesuit education I should have dismissed his idea of such a thing when it was mentioned. Could he mean hornbills?

May 1. Feeling the fever still I did no collecting. Hicks and David ashore at 7. The skipper and I received Mr. Faulkner, who described the "lake" and its strange birds, which he wrote about in his letter to Dr. Drowne while we were working in the Kronprinzen behind Kieta. He very kindly offered all manner of assistance including the procura of carriers and even insisted on joining the party. During the forenoon and after lunch I was busy with the stack of film taken on the Balbi trip. Hicks and David returned



with about 30 birds, including the first white-headed "ku-ku" kingfisher from Bougainville. This species, common as it is in the Solomons is not plentiful around these shores. The blue-backed type is the most populous resident. Ashore to dinner in the evening at which we conducted further discussion about the lake. Our host was taken with gastric malaria just before we left and so will not accompany us in the morning.

May 2. Mr. Faulkner was better, thanks to the Plasmochin which I administered, I think. Hicks, David, and I left the beach about 10:30, after the usual delays about preparation. We had 15 carriers and the kukurai of Anataupin, a village near the lake. The captain and "Balbi" (the dog) walked as far as the edge of the bush. We got two hawks before the first stop, which proved to be Anataupin where we had kai-kai about 3 o'clock. Persuaded the tul-tul to conduct us to the final destination by moonlight. Tewarita is the village - has no government connections, but has been visited by Mr. Faulkner and a missionary. I suspect the government is not interested because they are too high to grow coconuts from which to make copra to turn into tax money. The whole train waited on the hillside until the tul-tul went into the place to make sure of our invitation. The elevation is about 2400 feet. The chief made us welcome, presenting a stick of fire for our comfort. The night was clear as a bell. We made a cup of cocoa before turning in- 11 p.m.



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May 3. Reached the "lake" which proved to be a marshy pond lying in an enclosed ravine into which several small brooks drain. Those are dry usually so that the water is half stagnant, all except about 20 square yards in the center covered with green scum (algae). The entire expanse of the place measures about 150 yards by 50 yards. Mountainous ridges rise up three upland sides and are densely wooded to where the marsh begins. Clear water can be seen in the center covering 25 square yards, and studded with tiny islets of reeds and grass. The greater portion is mud and big patches of swale grass that gives way under foot. Hicks and I climbed in and swam around. We found no spot over 3 feet deep, but deep only to an unsteady bottom overgrown with water-logged vegetation. There were seven of the birds paddling around on the lake. We got four. The others dived. They were grebes- red iris, black bill with creamy-white lore, black lobate feet with actual toe-nails, shadings yellowish and greenish. No trace of any nests although we stirred up a lot of the foul ground. The wings are rudimentary and no tail in evidence at all. Found tracks of heron in the mud around the edge of the pond. We had another shot at one that came up and hastily dived again. Took a few photographs and hung around watching until noon. All four were males. I put one body into pickle to be sent for dissection. In the evening the tul-tul told me the yarn about the birds. They belong to a Tamburan, who is a



great and powerful spirit- he makes the thunder, lightening and rain. The name of this, one of his sanctuaries is Namatui (in Teop dialect) and he keeps the water for the birds. All the water comes from another place that is similar to this farther north called Tomori. Whenever the god is angry with any part of his water, he puts it in Tomori and thence into Namatui. So all water here has vexed the Father of Waters in some way, and is performing penance; it must suffer this stigmata in addition to its natural desire to seek its level in the sea. The grebes are the only birds whose nesting habits mystify the natives into fear. According to the tul-tul they hatch out young every three months. At such times, every three moons, the water in the pond is made to rise by the Tamburan about two or three feet. The female builds its nest on a little structure that rises about six inches above the water. Here the young hatch out and are fed until they become large enough to swim, when their weight is enough to break the frail nest, and down they go into their natural habitat. At such times the Tamburan is down under the water and causes the nests to rise up. Each nest has one pickaninny. Now when the water is high there are snakes about its edge, put there by the Tamburan to protect the birds. These can kill man. The last native found dead in a low tree was from a village higher up the mountain from Tewarita. His name was Kaa. The pond is used as a theater for holy ordinance; such as cutting cicatrices on the children, which



is quite common in this district. The breast, shoulders, and belly seem to be the parts of the anatomy favored. Some showed the results on their faces- circles with surrounding straight lines resembling the sun and its circumvent rays. Those on the body were cut across latitudinally in no pattern or number. At such a time all people, including the meris gather near the water. Pig and taro are kai-kaiied, the monkeys are cut, usually with bamboo, now sometimes with broken glass, and the sing-sing (piu) follows, accompanied by the Buka pipes and the big wooden horns (mamboo); these were called kalulu in the Kieta district. The children after their incising are dowsed in the water. None of the natives ever catch, kill, kai-kai, or in any way disturb the birds. Needless to say they were shocked at our performance, but explained by their faultless logic "fashion belong white man". The ceremony of endowing the young boys with the hats is done in a secret place in the deep bush far from the eyes of any women. Formerly if any meri saw a man without a hat or a hat without a man, both the meri and the owner of the initials on the hat were killed without ado. This custom has gone defunct with their habits of warfare.

May 4. I wonder if the reason for the grebes survival is the native's strict taboo on them. There are certainly not a great number; the pond could not house very many. Knowing nothing about



grebes I cannot check the fairy tale with what actually happens. Undoubtedly there are a great many more than we saw yesterday morning (7). They are such expert divers and can conceal themselves in the heavy grass. The tul-tul said there were no such birds on the other pond or swamp (Tomori) which is supposed to supply this one with its water. We visited the place again and secured one. When we arrived there were two on the water. One dived. Watched the water for two hours and saw two more, but none offered a shot- just out and down again. Spread out after lunch to hunt and a heavy rain came on. I saw a ground thrush, but that was all. It is the first I have ever encountered in the bush, and I can believe they are scarce and hard to get. Just a glimpse and a brief stirring of the grass or weeds in its wake, hardly giving time to lift the gun. However, I shot a fiery pigmy parrot and several other birds. Hicks and David had kept under cover from the rain in a nearby village. Returning by way of the pond I shot at another grebe and missed. A collapsible boat would be an excellent adjunct to the field equipment for such a trip. A note came up from Mr. Faulkner with a batch of biscuits by his wife. We shall leave in the morning to get down for the week-end.

May 5. Hicks and I paid a final call to the pond and he got one more of the desiderata. He has been using a 129 gun and has killed most of the



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grebes taken. After a few photographs we broke camp. On the way down I saw a white throated pigeon. This is only the second I have seen, the other having been shot by G. R. right in front of the camp at Kupei. Reached the beach about 2:30 and went right aboard. Mr. Faulkner entertained at a fine dinner of fresh lamb at which we met the gentlemen from Teopasna Plantation. He was much gratified to learn that the birds were worth going after. It seems he had been joshed considerably by friends and neighbors; Faulkner and his "bloody birds" had been a standing joke. As a matter of fact he is the first layman out here whose information has led to anything. Most of the ready informers know nothing and have not seen half the birds represented on their own property. One man-  
Pinnock, of Fauro Island told us in Gizo he had saved a "red-eye" for us until it had died- a starling, one of the most common and being communal in its habits can be shot in bagfuls. Missionaries, especially, are most boring since they consider their intellectual place somewhat elevated above that of the ordinary resident; thus, the more simple-minded ones discourse on ornithology and the bush, etc., whenever they get aboard. Such a find as the grebe shows the possibilities of Bougainville. There are undoubtedly other lakes. We heard of another at Soraken, and the southern districts- Buin, Siwai, etc. should be visited.



May 6. Sabbath Day observed.

May 7. Hove up at 8 and stood out under sail as soon as we cleared the reefs for Numa Numa. We arrived at 4:30. Took dinner with Mr. Thompson and his wife and kids, who have just returned from south. He was full of congratulations both on the ascent of the volcano, and on the new bird from Tiop.

May 8. Made Arawa Bay by 4 P. M., where Jock Esson came out for a meal on the little pig presented by the Hanna Kukurai. The best pork I have yet tasted in the islands. Mr. Esson had found the field book of the Kupei trip which had been mislaid during the packing for departure. Heavy rain and strong squalls from the S. E. during the night; the skipper thinks the break of the monsoon.

May 9. Arrived in Kieta harbor and anchored off the government wharf at 9:30. Hicks and David landed for collecting. I told them to keep their eyes cocked for the small colored parrakeet. During the day the captain and I purchased some stores and I settled all bills with Messrs. Ebery and Walsh. A wire came on May 7th for me from A. M. N. H. Dr. Murphy has cancelled his trip and my father is coming out, arriving in Sydney on June 25. The cable enquired how long Richards intended staying- evidently the Museum has not received the wire he sent from Rabaul informing of his departure.

May 10. The guns which I instructed the customs officer here to hold for our arrival have



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been sent to Buka Passage- even after my letter came. They passed us on the A. V. Sapasar while we were at Tiop. The official, a Melbourne mental lightweight, thought to take matters into his own hands. Well- they will be sent to Faisi by courtesy of Captain Palmer, of the Rogeia, the same chap who let us have a magneto. Cleared the ship by noon; our bill for stores consumed in the T. N. G. since the France arrived is simply shocking. We gypped them on as many items as possible, in fact- all. Hicks and David got a few more of the red-billed parakeets this morning, which augments a somewhat reduced series. Hove up at 1:30 and proceeded down the coast under power. We got permission to drop a passenger in a dinghy with his boys at Toiemonapu- a certain Pasley. Then stood out under sail for Oema Atoll and Island. These islands are in the T. N. G., and we are not legally allowed to visit them; however, we shall visit them. Quite uninhabited.

May 11. Anchored at 7:30 off Oema Island, and the three of us landed. I collected a few Nikoba pigeons, flycatchers, (the ashy-headed species not present). The terrain is all rough coral rock, full of corrugations. Hicks took a fine large cuckoo. We all returned after lunch when we hove up and steered for Ovan Island, another forbidden land protuberance. Anchored about 5:30 on the south side under the highest land. During the night a half-caste trader, evidently smelling unwelcome competition in another trading craft, came over from Fauro



Island to enquire who it was. This man- a MacDonald, supposedly, has a shady reputation around Gizo. So we cannot land and collect tomorrow as planned. He might find out and make a noise. Ovan is uninhabited and larger than Oema (one 4-5 miles long, oval in shape- the other about 2 miles at its greatest length, irregular in shape; the atoll is not more than a mile and a half in circumference and not worth visiting, I considered. No sea-bird life; the land is heavily wooded.)

May 12. Hove up at 6 A. M. and steered for Shortland Harbor, Faisi Harbor, where we arrived and were granted pratique at 10:30 A. M. The new dog, "Balbi", was successfully smuggled in. One of their most unique laws- this ban on foreign dogs. I wonder where the originator of it thinks they came from. The skipper and I visited B. P.'s inefficient shack of a store and purchased a few things needed for the ship. We received a case of Keds and pants and shirts ordered by Mr. Beck while in Gizo. There are far too many for our use. We shall have to return a part of the clothing. No collecting. I decided to push on south with a fair wind that came up. So we cleared the port- once more in the "bloody Solomons" and set our course with hopes of reaching Tetipari under sail. Mr. Miller, our friend of the previous visit is still D. O. at Faisi. Sighted Rononga Island before dark.

May 13. At sea, beating to best advantage. Vella Lavella abeam during the morning. No shearwaters



sighted.

May 14. At sea. Continued tacking in endeavor to pass Narovo Island. Saw flocks of black shearwaters intermixed with terns. They were travelling fast and it is really too rough to use the small boat. I keep a loaded gun up on the quarter in hopes of getting one that might approach close enough; I had several shots with no luck.

May 15. At sea. Numbers of birds sighted but it is too rough to collect. The shearwaters and terns are together- all the former appeared to be the usual black species.

May 16. At sea. By two long tacks we managed to pass Simbo Island. Wind from the south and east, but variable. As usual unreliable.

May 17. At sea. Too rough to do any sea-bird shooting. Rendova Island in sight, so I decided to put in. My original plan was to try to work Tetipari and Rendova- both before the Mataram gets to Gizo.

May 18. Used engine during the forenoon and came in close to Banyetta Point. Here I sighted some migrating birds and lowered the small boat. There were terns and shearwaters as previously encountered. Also saw two of the common gannets and two black storm petrels (evidently Wilson's). Due mostly to the heavy swell running, my shooting was very bad; but I got one shearwater that I cannot identify- white breast, graying at the throat, black feet with pink dots and pinkish legs.



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Anyway, I tried hard enough and gained some much-needed experience in this branch of collecting. As soon as I had landed we steamed for Rendova Harbor and just got inside at dark through a blinding squall of rain, and dropped the pick in 17 fathoms.

May 19. Shifted at dawn to a point between Tambusolo Island, and the mainland. Hicks, David and I landed immediately. Rendova is 20 miles at its greatest length, but the most of this is taken up by the peninsula running south; the body of the island is 8 miles in diameter and several peaks exceed 3000 feet elevation. Wwile peak is a former volcanic crater. We found no trails and simply followed drainage; the high land is certainly too far from the ship in its present situation to reach in a day. The birds are recognized as the familiar Solomon Island types- the bald flycatcher, common flycatcher, black and brown fantails, the "long-tail" with his odd cries, and the rest. Some are in new variation- the flycatcher and blackhead appear new. I found the going very hard without a track and missed old Bougainville. I took about a dozen birds all day. Hicks and David had somewhat better luck. We shall have to camp.

May 20. Sabbath observed. A launch from Rendova Plantation just at the edge of which we are anchored came alongside and took us down to Kenelow to see Mr. Pierce; coincidentally the manager of "Lever's Rendova" is also Mr. Pierce- the only two in the Solomons.



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Mrs. Pierce served tea and we gained much information concerning steamers. I had hoped to catch the steamer, perhaps at Tetipari, sending instructions for our cargo to be sent to Tulagi, but the Mataram does not call this trip. It is best that we go to Gizo since we have so much cargo to look after and business to check with the inevitable B. P's. When I returned Hicks and George presented themselves for an interview, stating that they wanted to leave. However, Hicks says he would like to return in six months time.

May 21. Hicks, David and I left for camp for the rest of the week. Two of the boys came to help carry the kai-kai and gear. We followed a river bed, climbing over slippery stones until it became too steep, and then cut our way up a ridge. We could only reach 1900 feet since there is no water higher. Pitched camp and while Hicks and David went after water and straightened things out, I rambled about and collected a few birds.

May 22. We climbed to over 3000 on the same ridge, occasionally following pig trails. David got a yellow-bib dove, female, and I another of the same. Thickheads are more plentiful up here than lower down; the rest of the avifauna is the same. Evidently, we are too high for the bush kingfisher, which we have heard. David reports seeing a small flock of the long-tailed, black-winged pigeons (the type so common on Bougainville). The great drawback about camping is the comparative slowness with which the stuff comes in. We have brought



one of the benzine lights with us so we can skin at night.

May 23. Heavy rain in showers intermittent from noon on. This is the greatest drawback, the damn weather. We put up a few birds anyway. I missed a fine eagle-hawk, a propensity I seem to have; he was on the wing but close up. I have been "greasing" Hicks plenty during the evenings about returning after his six months leave.

May 24. The rain yesterday gives us water sufficient for the stay. Until it came we carried about 1/2 mile from the stream. We put in some good work today, but I missed another eagle-hawk on the wing. We should be getting more rare stuff since we are well up around 3000 feet every day; evidently we have not struck a good feeding area, for the fruit-eaters, at any rate; for the insectivorous birds it makes little difference. But I am convinced after Bougainville with its segregation of avifauna- yea, all fauna (Numa Numa was the only place for bush rats of the big variety) that the varieties which depend upon the flora for food, which necessarily includes most of the birds, animals, and reptilia, are distributed in no uniform manner. Hence, the advisability of penetrating an island, especially a large one, in as many places as possible. I think we shall have another go at Rendova since we shall have to come back to this side of New Georgia to collect Tetipari Island. David collected down to the ship and back, re-



turning with a few needed stores and my camera. Fraser came up to take down the birds taken to date.

May 25. Rain incessant all day. We ventured out during a morning lull, but only received manifold drenchings. Only a few birds collected. I captured a tiny bush pig, found lying under a log. We have heard pigs about almost every night. Rendova has not yielded any snakes; the common brown lizard is present with the striped variety.

May 26. All out hunting during the morning with some success. I saw several pigmy parrots but failed to get a single specimen. Took several young blackheads in the brown plumage and a starling, which is unique, having a white iris and a pronounced feather process about the nostrils- suggestive of the crow. We shall certainly call later to get more of these and the other species missed, long-tailed pigeon, pigmy parrot. Hicks shot a red-billed kingfisher the other day. Fraser and Charlie arrived about 1 P. M. to help us carry the gear down; we left after lunch and were all on board by 5 P. M. Hove up immediately and stood out for Gizo, using the sails. Rendova Island used to be very populous and its men had the reputation of being fierce head-hunters, great enemies of the Rubiyana cannibals on the mainland. Their attacks helped to exterminate them with contingent disease and falling off of food. Not a single native remains in the bush or on the salt water. There are cursory survivors around the New Goergia group. I found



no evidence of any habitation during our penetration, except the wild pigs- once domestic. In the eighties and nineties several occasions witnessed the landing on Rendova of whale-boats of convicts, escaped from New Caledonia penal settlements. They were killed and devoured with all possible dispatch and avidity.

May 27. After laying to under the foresail outside the passage, we set all sail at daybreak, and sailed in, anchoring at 7:00 a.m. Gizo Harbor presents a rather unusual appearance, there are two steamers, three, in fact, in the harbor with the numerous small craft awaiting the Mataram's arrival. She came in at noon and Gizo entertained more shipping than ever before or probably ever again. The S. S. Calulu, which carried G. Richards from Rabaul to Manila, is taking cargo as salvage out of the burnt wreck of the S. S. Yarra, and the S. S. Maianbah is the salvage ship from Queensland. We counted eight master mariners in the port, including those blown away on shore. Nothing startling arrived on the Mataram from A. M. N. H. But all stores ordered from Sydney arrived. In addition there is a lot of stuff which was landed months ago. This includes 13 cases of California assorted fruits, which I shall try to sell. Then there is a fine tangle of business to straighten out - B. P's, with characteristic highhandedness, have sold most of the Sydney ordered stuff that has been awaiting our arrival here. So we shall have to make adjustments- His Excellency, the Manager, is too busy with



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the shipping rush just now. Hicks and I packed the birds for shipment in the afternoon.

May 28. Hicks and David out collecting. The skipper and I went into B. P.'s, but could accomplish nothing much. The steamer left last night and will return on the 30th from Faisi, bringing our much-belated shot guns from Kieta, and any returned mail. Captain Middenway visited us, he is the present D. O. here, having replaced Mr. Barley, who lately broke his arm. The Captain (army) entered the France months ago at Vanikoro where he used to be stationed. David and Hicks brought back a number of white-eyes, which are Gizo desiderata.

May 29. George and Hicks are preparing to leave. I have made all arrangements with B. P.'s to board them and assume their respective bonds while in Australia and to tranship them to Nukualofa and Apia respectively. David ashore today collecting. He brought in a brand new bird which I fail to recognize. It resembles the small cuckoo in build but is even smaller-iris, brown, short straight-edged tail, and long sharp wings, breast faintly striped brown on a whitish background. In the evening the crew sent a "round robin" aft, stating that Fraser, sailor, had stolen benzine in Rabaul. It was signed by all hands. We shall investigate in the morning.

May 30. The Captain and I had all hands on the quarter to question them about Fraser, and to offer him a chance for defense. He said he took a case of gas,



but told Mr. Richards, who, he expected, would inform me. We decided to ship this fellow home along with the other two. He is one of the most useless men on the ship, from the point of view of the Museum. All details were settled- wages in full paid (Fraser is in debt to the ship), credentials and letters of recommendation given to the deserving (in this case just George; to Hicks I gave a letter of "appreciation" to his mother and another to B. P.'s Apia, Samoa, instructing them about returning Hicks in six months' time should he so desire. We and the rest of the crew saw them off on the steamer. Thank the stars the guns came through. Last night we were aboard the S. S. Calulu and learned that G. R. took an "Empress" boat across the Pacific from Manila so that by this time he is home. Also had much of a yarn with the Chief Engineer, who had much to impart about small Diesel engines.

I got a long communication off to Dr. Murphy and another to Dr. Sanford. Most of my personal correspondence suffered. Shipped birds insured both by freight and mail; also sent in notes and color sketches.

May 31. Entered into adjustments with B. P.'s, Mr. Booth very affable because I consented to take the California fruit. It is in 2 lb. tins- too large for his trade. Secured credit for all our cargo that has been willfully sold, and finished paying a bill of a couple of pounds. This includes a vast amount of clothes (shirts and trousers made to order for the slop chest)



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and Keds, over half of which I returned. A bill of something like 150 pounds remains in Mr. Beck's account. I have neither funds, instructions, or intentions of paying this, so I told the gentleman to send it to Beck in Sydney. Secured a fairly good motion picture camera from Booth, who had purchased it for a client and then refused delivery because of incumbent debts. The lens is very keen and the rest should do some decent work. Very cheap with 500 feet of film. The magazine holds 100 feet. I am paying for it until I feel it is worth the price to A.M.N.H. I shall, however, charge any film I get in the future.

June 11. We took a Malaita boy named Paul as a general hand- casual labor as far as Tulagi anyway. From now on David, Charlie, and I,-possibly, Teora will do the shooting with Philip, who is fast learning as additional bird-skinner. Finally hove up at 2 p.m., having left the final mail for the S. S. Maianbah, which leaves the end of the week. This makes three mails in all- the Mataram, the Calulu yesterday, and the Maianbah to follow. Set all sail and butted into some heavy easterly weather- making for Ferguson Passage to enter the Rubiyana Lagoon. No sea birds sighted- weather too rough for collecting anyhow.

June 2. Lay to under fore and staysails in stress of swift squalls and heavy seas. Could not get the engine started to put us inside Ferguson Passage, and so let her slip through Blackett Strait, using power



when the breeze fell. Anchored for the night off the entrance to Hathorn Sound.

June 3. Hove up at 6 a. m. and used sails until noon when we started the engine and kept her off the land until 10'clock. Tacked all afternoon and night to best advantage. Saw terns and a few shearwaters, but they were moving fast and it was too late in the day to lower the boat.

June 4. Started engine at 6:30 a. m. and steered for Lever Harbor where we anchored at 9 o'clock in 15 fathoms. David, Charlie, and I landed for the day. A Methodist village is situated on the south shore and we found some trails leading in to gardens, where they inevitably petered out. However, there are a few streams which can be followed with ease. Charlie brought in two large graybirds- a new species to me. David said the same occurred on Guadalcanal. He went out to the village, bringing back, incidentally, a dozen eggs and the report of having seen a small blue salt water king-fisher with white band around the throat, also represented on Guadalcanal. This is also unknown to my experience. There is variation in the bald flycatcher, contrasting slightly to the Rendova type, having white feathering almost completely around the eye where the Rendova species shows the white patch up to the eye. The long-tail is quite in evidence and I noticed more than usual both here and on Rendova in the young brown, mottled plumage. We returned late and found a few natives trading with the captain. Bananas, paw paw, eggs, and two fowls were



secured and a quantity of kau kau (sweet potatoes). Biscuits, benzine tins, bread, tinned goods and shillings were asked in exchange. Only a few speak pidgin and on the whole they are a vapid crowd as typical of the Methodist Mission influence.

June 5. All landed early and had a good day.

The island of New Georgia is the largest of the New Georgia group of which it is the focal land mass. It is approximately 45 miles long and measures 26 miles across in the northern end, backing the Rubiyana Lagoon and about 15 miles for its greatest length to the southward, backing the Marovo Lagoon. The island runs northwest and southeast. The highest land is 2700 feet at the southern portion. There are several peaks in the Karu Mahimba Range that top 2000 feet beginning with Mt. Vina Roni at the center of the widest part. All are centrally located, which will make the maximum elevation difficult to reach from the shore in one day, especially as there are no longer any natives living in the bush, and consequently all trails are defunct. The distribution of the avifauna impresses me to be similar to Vella Lavella where there is little high land over 2000 feet and uniform vegetation and drainage. This side of New Georgia is filled with rivers, all of which deposit sediment in the lagoon bottoms, making navigation somewhat precarious. But I do not consider the elevation high enough to necessitate a camp. A fairly good indication on any island having maximum



elevation below 3500 feet (or more) is the locality of the thickhead- its environs are indicative of the possibility of altitude variation. On smaller islands like Ganonga, the thickhead was found above 1500 feet, or better 2000 feet; similarly Kulambangra, although they were lower than 1500 feet because of the greater height of the island. Where you find the thickhead preferring altitude, the yellow-bib dove and possibly the bush kingfishers in greater number will also be encountered. Finding the thickhead directly in from the beach indicates that the doves also range lower. This was the case on Vella Lavella. Dr. Drowne shot a yellow-bib dove at a surprisingly low elevation. In fact, we took nothing unusual by climbing on Vella; similarly New Georgia main island. The idea is to penetrate at as many possible points. Gatukai and Vanguna for rare stuff will be far more yielding around the clouds. The latter is the most important of the groups- from the standpoint of varieties of birds. New Georgia, itself, will give numbers for series. I do not anticipate much intra-variation within the group. Including the small outlying islands, the barrier islands fronting the lagoons, islets within the lagoons, Wana Wana and Arundel, etc., the total comprises about a hundred odd. Most of these are negligible for our purpose. The broad-bill bluebird is in prominent evidence here and is found to best advantage around native gardens. They utter a raucous



parrot-like whistle and are quite inclined to fight when brought down wounded. The large gray-bird seems to prefer river bottom land; its call is a rather pretty series of whistles quite unlike its smaller relation. I saw a red-billed kingfisher, but did not get a shot. The blackhead, white-eye, and both brown and black fantails are found anywhere together. I note also the presence of the gray-headed flycatcher similar to the Gizo species and those taken on small outlying islands. The bald and gray-headed types travel together in little flocks, often blackheads and fantails are with them-all hunting insects. I have heard the pigmy parrot and have urged all hands to go after it. Of course the two varieties of Solomon Island pigeons are present- the gray and the red-knobbed. It is only the latter type that inhabits the mainland of any group inland any distance. The gray is found most plentiful along the shore and abundant on small islands where they go to nest, I feel sure, since there are not very many laden fruit trees on a dinky coral mound- most of the timber very scrubby. They fly to the mainland to feed for the most part; one sees groups on the wing in both directions, particularly at early morning and at twilight.

When all were on board we hove up and steamed out of the entrance, setting all sail to let the land breeze carry us down the coast during the night.

June 6. Entered lagoon again at 6:30 a.m. by Solomo Entrance, anchoring south of Keru Island off



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Helingeri Inlet. The vessel scraped the bottom on a dark patch coming in- very light, no apparent damage. David, Charlie, and I landed via a fairly large river. Here we took three of the little blue kingfishers- their favorite habitat, a tidal river with mangroves on its banks. The waterway took us in for about a mile and a half, but gave access to no elevation.

June 7. Collected all day with heavy rain in the afternoon. We go by no trails and it is not speedy. I imagine New Georgia resembles most of the islands of the Hebrides in this regard- formerly inhabited with plenty of tracks but now quite overgrown. Five are at the skinning table every night now; H. H., David, Charlie, Teora, and Philip. The little engineer is learning rapidly, and is going to make a good assistant in a few months. Charlie and Teora are clumsy and careless as clowns. They have been putting up some punk specimens. Manuel helps, but is not enthusiastic.

June 8. Teora joined the field party for the afternoon today. David took two more "little blues" today. He and Charlie went up the river in canoes- a very good dodge. I heard a crested pigeon today, and tried to stalk it, but evidently the coward heard me. The fact that this comparatively rare bird and one usually encountered with altitude is present so low is another indication that distribution is more uniform on this island. The majority of the large fruit trees are precisely in these fertile river flats; and there is not



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sufficient altitude to attract birds permanently to elevated residence. Florida Island is similar; Mr. Beck took a crested pigeon there around 1000 feet.

June 9. David and Charlie went up the river in canoes, while I again went inland, crossing a big mangrove swamp. Here I shot a large brown heron of the usual bush type, but he got away from me, wounded, into the bush. David brought back a couple more "little blues". He is taking Hicks' place to perfection. Charlie and Teora are good simply as utility men. I hope to locate some good Solomon boys- probably Malaita in Tulagi, who will bring in much more bacon. The new lad- Paul, shows an inclination to shoot. He brought in a fine mess of pigeons for kai-kai in about two hours hunting along the shore. I returned early today; David and Charlie at the usual time. At 4 p.m. we hove up and proceeded out safely and set all sail, moving down the coast during the night with the land breeze.

June 10. Started engine at 11 a.m. and made Singutu Entrance inside of which we anchored in 12 fathoms off the mouth of a large river. The rest of the Sabbath observed.

June 11. Teora again joined us. Four hunters will be kept out from now on. We penetrated up the river which is one way of getting inland on this deserted place. We have been taking the white-eared king-fisher quite regularly inside the lagoon and around these rivers. Another Mission Station is here, located



on a small island. These places are rarely visited by any of the head Moohoogabs, but are maintained by native teachers. The Mission schooner calls for the copra. This bunch do not even approach the ship. The Marovo has a reputation for being a poor locality for obtaining native foods. There is only one white resident on this side from Hathorn Sound, where Lever Bros. are located on Arundel Island, to Charapoana Entrance-Mr. Newall at Ramada Bay, Hameri Island. G. R. and I visited his plantation when we came up to join the France at Kulambangra in the schooner Awa. Rain most of the afternoon. We do all our skinning on deck, which is much more efficient and comfortable than the sweat-box (the hold), where six of us used to jam ourselves around three reeking benzine lamps. With air to breathe we can do more birds and turn out better skins in the long run, sleep better, avoid prickly heat, etc. Since Teora and Charlie are so flat-footed with their fingers in making up the birds (I am no rose yet), I have decided to let them skin while David and I make them up. Philip will go on because he has the adaptive instinct. Charlie and Teora, however, can finish big birds quite well. So instead of putting the operator's (sic) name on the skin he (per se) turns out, I shall mark all our products with simply my initials, H. H., and take all consequences.

June 12. Four of us ashore by 7 a.m. I got three red-billed kingfishers. I have learned how to



stalk them. Their shrill knife-like call has a slight deflection in tone toward the finish, so that it gives the impression of travelling. I once thought they only called when on the wing. I tried going toward the sound of the call, which in this case was repeated; there the rascal was close up, cocking his eye at me and screwing his neck up and down in most quizzical fashion. In some cases they are relatively tame. I have approached very close- within 10 feet, following the direction of a call, and have not seen the kingfisher until he shifted a few feet to another tree, apparently eyeing me all the time. The running mountain stream is the place to look for them- in the steep ravines that lead into it. They nest in the walls of these; mostly volcanic soil mixed with red clay. I presume all the river kingfishers are ground dwellers. The land "ee-ee" in trees, or tall dead stumps; and the shore "ku-ku" in trees. Of the two types of the "ee-ee", the small one lives around rivers and is settled further inland; the big one seems to prefer proximity to salt water. The latter is usually the one taken on small outlying islands.

June 13. All ashore by 7 a.m. I took another kingfisher and several pigmy parrots. The latter have been coming in regularly of late. They are the typical species- irides orange and feet a dark olive-brown. I have seen them here in bunches of six or ten, clinging to the bark of large trees- feeding. I shot another red-billed kingfisher- simply by stalking its call. Unlike most rare birds they are quite tame and can be



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approached, if one does not move too conspicuously. The little fellow will cock his eye and perhaps shift to a different perch to get a good look. New Georgia along the rivers of the Marovo has yielded a fine series of little kingfishers. It is good collecting country, but for the rough going inland with no trails and puzzling topography. David is doing every bit as well as Hicks now; Charlie and Teora are slow and not particularly keen hunters, but they can be depended upon for the numbers in common species.

June 14. Hove up at 7 a.m. and proceeded down the coast via Lingutu Entrance to Monzo, where we entered and anchored off the mainland by 9. Here we find another good-sized river; the Hire. David, Charlie, and Teora investigated this while I started out at noon in the small boat, landing a short way up the stream. Took several flycatchers- both gray-headed and bald, and some white-eyes. The highest part of New Georgia mainland is inland from our present location; yet the thickheads are found at every elevation. The broad-bill bluebird and the large graybird favor these river bottoms; evidently good feeding area.

I have been neglecting the side-lines of late- due principally to the dearth of native contributors. None have been interested in catching snakes or frogs for tobacco; the few that have come aboard have preferred nothing but eggs, paw paw, and sweet potatoes, or baskets, Mission-taught design- desiring money in



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exchange. We have had little time for them. Nothing of photographic interest except the Lagoon itself.

June 15. Three of us took the big boat and pulled south along the shore to look for a better place to penetrate to the high land. Sent the boys ashore at the Ruhana River while I signalled the ship to come up. Navigation in these waters is extremely precarious. Charlie came off and together we went up the river. I started climbing about a mile inland (missed an eagle hawk at the river) and reached about 1000 feet by 2 p.m. The ground steep, rocky and mean. Took several thickheads and flycatchers- two pigmy parrots. Every day, lately, I have heard the yellow-bib dove calling within apparent range. Yet none actually seen. The longtail dove is in the flat terrain around the rivers; the boys have taken two.

June 16. Fine weather. We heard the crested pigeon while going up the river. David and I landed on either side and had several tries. They were all very high up. Later on David got one, which makes the first. Today I intended to reach 1500 feet at least, but had the luck to lose the whole cocking piece of my gun and had nothing to do but return to the ship to replace it from the other new gun. It must have caught on a vine and been snapped off; I only became aware of its absence when I started to shoot. Nothing to do but return. At 1 p.m. I took the small boat and landed on the fore-shore, where I did some good collecting in a short time.



Thickheads, flycatchers, and fantails. Now we have just enough guns for four collectors- and one of them Hicks' old blunderbuss with no safety catch.

June 17. Sunday. Hove up at 8:45 and proceeded south through the lagoon in very foul water to Ngari Ngari, where we anchored off Captain A. H. Austen's plantation. He informed us that we were very fortunate not to touch on the way; the light was excellent, however, and we took it very slow and circuitous. The old man got a pilot for us to take us off the mouth of the Kolo River where there are some tracks in to gardens, thank Heaven. Spent the evening ashore with the residents.

June 18. Hove up at 6 a.m. and with "Sinny", the pilot, a Seven-Day adherent, we reached our destination in an hour. All landed and proceeded up the river. Took two kingfishers en route and again landed to try to locate crested pigeons. Teora and Charlie landed on one side and David and I on the other after the boat took us about a mile and a half. It is the longest inland water way in the lagoon. Canoes can go up more than two miles. I took a number of common species and found a trail after lunch, just as it started to rain. Saw two ground doves of the usual type. These river bottoms harbor all kinds of birds- the fertile soil supports the greatest variety of fruit or seed trees, insects abound with the damp warmth and the river adds the natural habitat of the two little kingfishers- the "little blue" and the white-eared. David and the others



met some natives who took them to their garden trail. I added another red-billed kingfisher. New Georgia has augmented the series of small kingfishers considerably- with its many rivers. The pigmy parrots have come in rather well of late, too. As far as I can remember, there is no species seen here that has not been taken, except the brown bush heron and the eagle hawk. We have penetrated in so many places and have found different birds in different areas; the common types prevail right through. But only at two positions did we encounter hawks; the crested pigeon heard only once before we got to Mongo Entrance, and this place (Kolo River) seems to be their most favored spot. I have been hoping we should take yellow-bib doves in our short ascents of not more than 1000 feet; I feel that is the only species that would be added by camping, which would entail more than the ordinary expenditure of time and effort. The yellow-bib will come from Gatukai and Vangunu.

June 19. Today we went up the river in canoes and took the trail up to the garden. It took us five or six miles inland to a miserly little settlement- about the last in the bush around here. About 1200 feet- excellent view of the island to the north- Rendova and Tetipari plainly in view. David took two crested pigeons and I got another. And another red-billed kingfisher. All the hunters did well today. We have nearly 500 birds from New Georgia; I shall leave it at that. It is per-



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plexing to know where and how to work the myriad of islands that lie before us and still meet the steamer.

June 20. Hove up at 7 a.m. and steamed through Ngai Passage to call on H. M. Markham. Heavy rain in the morning prevented any collecting on the intervening islands. Markham took the skipper and me ashore and showed us the most beautifully-kept plantation I have yet seen. He has planted all kinds of fruits and vegetables- mangostines, Chinese raisins, avocado pears, oranges, tomatoes, melons- a bower of plenty. Japanese clover is planted through the coconuts as far as one can see from the comfortable house which has a porch like a promenade deck. From our host we found out that the Mataram is a week late, which is a great help- we can finish this side of the group and my father will probably be able to catch the steamer. We listened to Markham's yarns about the islands until a late hour.

June 21. Hove up at 10 a.m. and proceeded through Ngai Passage across the lagoon, anchoring inside Charapoana Entrance. "Sunny" piloted us all the way over very foul ground. David, Teora, and I landed on Charapoana and Uepi Islands, and collected until dark. These islands are all built upon the barrier reef and support numerous trees but very little undergrowth. The ground is rough, sharp coral rock. We found nothing but flycatchers (and the gray pigeons); I found the expanse of reef on the seaward side interesting- herons, curlew- plover, "ku-ku" kingfishers- all extremely wary



of approach. I got one each of the first two. Undoubtedly the islands all the way down on the outside of the Marovo are similar and not worth collecting except for shore birds. The numerous islets inside the lagoon are not accessible for the Frans on account of the foul water all about. Here is the function for an outboard motor- attached to the dinghy we could go anywhere and often save shifting the ship. Native canoes are not available. I tried to charter Captain Austen's launch for a visit to some of the islands between Ngari Ngari and Vangunu, but was unsuccessful. Charlie has been laid up with swollen glands since yesterday.

June 22. Hove up at 6 and steered for the entrance. The vessel bumped the edge of a reef extending from Ngoeti Island, but lost no way and did not damage herself. A quick swing to port, however, prompted by my cry from the masthead narrowly averted a serious smash-up. The tide also favored us when she swung away from it. Set all sail to make a beat for Gatukai.

June 23. At dawn Mbulo Island to the southward. Set our course to pass close. At 10:30 Kicha Island close up. David, Teora, and I landed while the vessel hove to. Kicha is quite small, not 1/4 mile wide and nearly circular. It proved well worth the visit. We got both bald and gray-headed flycatchers, land kingfishers and yellow honeysuckers. I ruined a ground dove at close range, and shot a small brown heron (bittern) with peculiar rich, reddish plumage.



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David got two eagle hawks- this is just the kind of spot for their nests. All three of us saw ground doves- the common species and hornbills! A remarkable occurrence since they were certainly not present on the mainland of New Georgia. The ship picked us up at 2 p.m. Too late to visit Mbulo where we could not anchor, all those outlying islands are steep-to. So set our course for Kawo Lavata on the southeast side of Gatukai, given as protected but very deep anchorage; indeed 22 fathoms. Methodist village- they did not come out until after dark.

June 24. At dawn the wind came fresh out of the northeast with rain squalls and our stern was a quoit's toss from the ugly rocky shore. So we started the engine and manned the windlass. Thank Heaven the engine did not fail us- we got out of it all right, passed between Malemale and the mainland and sought another position. I thought we should have to go all the way around through the Wickham Passage, but noted a small opening marked "boat passage" on the chart on the western side. Natives came out in canoes when we got close and informed that we could get over the bar. The captain took the long-boat and took soundings, finding nothing less than 2 fathoms. So, with a native pilot we ventured through and quite safely to a fine, calm anchorage on the inside off Penjuka, Seven-Day village in excellent position for collecting.

June 25. The "Pacific Island Pilot" cites



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Kicha, Malemale, and Mbulo as sacred to the natives- being used as burial places- skull caves, etc., similar to the one we visited on Vella Lavella. We found no evidence whatsoever- evidently time-worn (the report dates from 1895). All ashore this morning by 6:30. Charlie is still nursing painful glands; I started him on a course of iodide. We found no trails, as reported, and small variety of species. However, we saw hornbills in flight from the main island off to the outlying ones. Flycatchers, minas, and starlings- but no evidence of blackheads or fantails. I heard the brown but not the black. The village is very clean and well-populated, although devoid of any interest because of the destroying effects of Christianity. The big canoe house still stands, but all the remarkable shell and mother-of-pearl inlaid decorations, feathers, inlaid and figurine prows have been removed from the craft by order of this insane sect.

June 26. Yesterday I fell down a hole amongst the roots of a great banyan-like tree, but did no particular damage except to tear all the skin off one knuckle to the bone. I returned to the vessel early. I had very few birds; blackheads are conspicuous by their absence. Today I did not go ashore, having a temperature and feeling very flabby. Charlie is still unable to go ashore. David and Teora landed at 7 a.m. David brought in a crested pigeon taken on the mountain slope at about 200 feet elevation.



June 27. David, Paul, and I landed with stores and make-shift equipment at 8 a.m. and started up the mountain about 9. About 10 of the Penjuku men accompanied us, carrying the stuff. By noon we reached 1500 feet and decided to continue. It proved foolish since the topo got increasingly rougher and from 2000 feet on up we found no available camping site and were forced to sit up right on the top at an altitude of slightly over 2800 feet.. The island is nearly circular and about 7 miles in diameter. No running water exists above 1500 feet, so we shall have to depend on rain catchment. No birds taken today. The natives started back down almost immediately (about 3 p.m.). We set up a sturdy camp since the top is cleared of all but the low bush and is quite exposed.

June 28th. The three of us out by 8 o'clock. There are two trails leading down the steep slope. I took one, and the boys the other. I got several thickheads and one yellow-bib dove. Saw one white-throated pigeon and heard the red-billed bush kingfisher. It is quite a new departure- climbing back up to camp toward evening. Paul had a yellow-bib dove and David also with a number of thickheads and other small birds. But Paul pulled the best catch with a pair of white-throated pigeons, which he said he stalked when he heard them calling; he found them perched in low trees.

June 29. The weather is favoring us. Finished breakfast by 7:30 and down the mountain. I took the



same route I followed yesterday, which runs along a saddle-back ridge that gives access to many draws which offer good hunting ground, though rather steep. Today I contributed two yellow-bibs and two little kingfishers, with six thickheads. The steep peak of the very top of the cone is covered with low fruit trees. With the roots of other trees the ground is seldom touched by the trail. One climbs over them, sinking to the knees in heavy moss. It is evidently choice feeding ground for doves and pigeons. We have taken practically all specimens here. (I have missed several by not using caution when climbing up or down into a hidden brake.) The first thing I know is a rustle amongst the leaves, a whir of wings, and another dove is lost to the collection. Both David and Paul got lost and had to spend the night in the bush. Luckily they located each other and managed to find a native garden where they made a rude lean-to and had a feed of bananas. I tried my best to find them after dark, venturing down the hill with a Colemanlite and firing successive shots. Unfortunately, they had to throw away most of their birds. David said he had nothing but common stuff, but he is a liar undoubtedly. Well, if we do not have the weather agin' us in camp it has to be something else. I was up until 2 A.M. skinning my birds.

June 30th. I got out of camp by 8 A. M. and took a yellow-bib dove in the short trees along the steep slope below the peak. I met David and Paul with



woebegone faces and bananas about ten o'clock. The latter had another white-throated pigeon which makes me very glad I brought him along. We hunted until 1 P.M. and then returned to pack up and make a stab at getting down.

Left the top about 3 o'clock and reached the beach at 7 with the aid of the new moon and a flashlight. With all the gear piled on our backs it was a gruelling descent, what with various stumbles, trips, and falls. The captain had just finished painting the cabin, and we shall heave up in the morning.

July 1st. Hove up and proceeded out the entrance under pilotage. We took it very slowly on account of the swell. The vessel took the bottom twice, but not hard enough to do any damage. We made a good run till midnight, when the Russel Group was abeam.

July 2. Light airs, but we kept generally on our course. No sea birds sighted (and an excellent sea for collecting). Tacking against the wind to best advantage.

July 3. Decided to visit Rua Dika, a lonely pile between Ysabel Island, and Buena Vista, which Mr. Beck tried to make on two occasions. Had to start engine about 11 o'clock to bring us up to it in daylight - arrived at 1 and David and I set off in the dinghy. I landed after much searching for a descent approach; the swell breaks heavily on all sides. Rua Dika proved to be nothing but a chain of rocks, the largest rising about 50 feet. I climbed to the top and found no birds



but the usual evidence that sea birds use it as a resting place. It was infested with a species of crab in great numbers. I returned to let David pick me up and took several photographs of it. We pulled around to the other side, which is a long ledge sometimes awash. Here was a lone booby in contemplation, and I rendered it the distinction of adding it to the collection; the only bird on Rua Dika. At least, the place is off my mind. It looks quite alluring on the chart and is described in the "Pilot" as being covered with low bushes and grass. This is absolute buncombe - it is bald volcanic rock and never could have supported any kind of vegetation - not even coconuts.

July 4. Making for Tulagi with fresh south-east trades. By continuous tacking we reached the entrance by 10 P.M. where we lined up the leading lights under sail and could have let the wind take us right in but for the Mataram coming up close on our stern. We anchored about a half hour before she arrived. Just a year ago today the France left Tulagi (July 6th, to be exact) after five weeks of delay with engine repairs, men in hospital, and one thing on top of another.

July 5-16. At anchor in Tulagi Harbor. My Father was not on the steamer as I had confidently expected. Received word, however, on July 7th that he had arrived on the 5th and to cable instructions. I wired that he catch the S. S. Morinda to Samarai, whence he can be picked up for the Solomons by the S. S.



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Koonookarra, Lever Bros. steamer, which is doing an inspection trip- very lucky, unusual, etc., but just in the nick. This was through the courtesy of Major Hewitt, general manager at Gavutu. They will bring him to the Russel Group where we can pick him up with no delay to the work of the expedition en route to Buena Vista, when we have finished the New Georgia group entire. I got confirmation of this on the 12th. David and Charlie and I (for one day) collected on Tulagi Island, taking some interesting stuff, including long-tailed doves, midgets, the yellow-headed (female-gray) green parrot, graybirds, and blue-backed kingfisher. I purchased some stores from Carpenter's on credit- also at B.P.'s where I took ten drums of benzine at a reduced figure (25 shillings) and got a promise for similar supply for the future in amounts over 20 drums at less than 23 shillings a drum. Some cargo arrived that I ordered from Sydney last steamer through Tait & Co., but we had to wait along side the wharf for a night until it was cleared. I shipped two cases of skins by freight and a box by mail. An interesting letter arrived from Doctor Murphy describing the sudden cancellation of his proposed trip out here. The weather during our stay has been very unhospitable. Continuous southeast trade fresh across the harbor with rain squalls- (when we go outside it will fall calm). We had to put the big anchor down to hold her as she had dragged considerably. During our entire visit to Tulagi the skipper



has been dead drunk- absolutely out like a light. And with his ship shearing about at her cables and causing me anxiety. He spent most of his nights (and days) passed out in the Chinese hotel- a filthy dive. The denouement is interesting. In talking with Captain Cruickshank of the Resident Commissioner's yacht "Ranadi", I found that he would be attracted toward the command of the "France". So we discussed the possibility and turned it into a certainty. On July 13 I gave Lang his notice; it was one bolt through his drunken haze that had a slightly sobering affect. Cruickshank will be perfect- a retired Lieut. Commander of the Royal Navy, a thorough gentleman and a skilled navigator, who knows the Solomons and the waters east of New Guinea. In addition he will have his wife, who, I know, is the rare type that can be an addition to a ship- look after the galley and keep the form up. They will bring two Malaita kids with them at 10 bob a month to wash, iron, and wait on table, and the rest. Mrs. Cruickshank has promised to find me a cook who will take Teora's place, which will put all his time (and David's) on the birds; when at sea they will stand watch. The new skipper will take command after the next steamer (about the middle of August). He and I are excellent friends; I like Mrs. Cruikshank; we shall get on famously. On July 11th I signed on two Solomon Island natives as boat's crew- Ferai (Timothy- Mission christened) of Malaita, and Unga of Kia- Ysabel- each at 25 shillings per month. Paul, the Gizo hand, jumped



the ship to "make paper" with the government, and so he received no pay from me. He simply worked his passage and did it very well. The crew refused to sail on Saturday night- July 14th- just when I had the skipper aboard and fairly conscious. So we had to wait until Monday, the 16th, when we got away from Carpenter's wharf where we lay since Saturday night at 8:30 A.M. steaming out of the harbor and setting all sail as soon as possible with a fair wind for New Georgia. The captain fell desperately ill of sea-sickness, which continued much to my sardonic glee throughout the passage.

July 17. Passed the Russel Group this A.M. Reached Vangunu about 4 P.M., when we started the engine in order to get inside Wickham Anchorage before dark, the wind falling light. Anchored at 6.

July 18. Charlie, David, and I started in the long-boat to visit a village seen about a mile off when we entered the Passage last night. I decided that we might not be able to get through the break on the barrier reef and so put the boat about. Took a pair of noddy terns. Shifted the ship over to the mainland of Vangunu Island just inside Emma Point, and started up a river. Took two little blue kingfishers. We were able to navigate about 1/2 mile. Tied the boat at the beginning of the quick water and spread out. I worked my way up on top of a likely ridge, but found the bush as tough as ever and birds scarce. Strong southeast trades all day and an overcast sky. Took a female



graybird, several flycatchers, and a large graybird. Heard the redbilled kingfisher, longtail, and hornbill. Remarkable occurrence again as on Gatukai, when not present on the adjacent mainland of New Georgia. Vangunu Island is approximately 18 miles north and south by 15 miles east and west and is nearly circular except for the Mbariki peninsula extending to the northeast. Like Kulambangra it is a volcanic cone of ancient origin, the summit rising 3,686 feet, the highest elevation in the New Georgia Group. Years ago it was inhabited (1895), most of the villages being in the bush; at present there perhaps are a half dozen small salt water villages, all mission controlled - Methodist or Seven Day. David and Charlie, who had been rambling around the river bottom, turned more birds than me. We returned on board by 5 P.M.

July 19. A lad from the village we tried to reach yesterday came while we were away, saying he knew a trail up to the top of Vangunu, and had been instructed by Captain Middenway, D. O. at Gizo, to look after all the wants of the France and to take us into the bush. He said he would return this morning to interview me- I waited two hours, after sending David and Charlie ashore- then I followed. I took a little blue kingfisher before landing up the river. We always look for them close to the mouth among the mangroves. Shot several flycatchers of the three species and a new bird to me- small graybird with black throat, belly



and undertail- the underpart of the primaries and secondaries also black- irides brown. David remembers the type from Ysabel. There seems to be an apparent parallel between the New Georgia Group and Ysabel, indicating geological relationship. The large graybird is another Ysabel product. Saw two hornbills today, but have not come upon any in the bush yet. I gathered a few insects today- hard-shelled spiders and hemiptera. Have seen no snakes, the common brown lizard is present. Charles brought in a red-billed kingfisher and two pigmy parrots- both similar to the mainland types. Returning I found the native had returned. He promised to conduct us up the mountain on Monday.

July 20. Teora added to the field party today. Started off at 7 in the rain, which continued intermittent all day. Southeast squalls with consistently over-cast sky. We took another "little blue" and one white-eared kingfisher. David contributed a night hawk yesterday- the first since Fauro Island. There were not many birds about today. I got a red-breast dove and a large graybird. Doves I have heard calling daily, but always in the highest branches of the highest trees and very difficult to see. The red-knobbed pigeon is much in evidence; I have seen none of the gray "koorus"; they favor the little islands in the neighboring lagoon and outside. David contributes three frogs; and he found a thickhead, which is unusual at such a low elevation. Vangunu is similar, I think, to



Gatukai in its distribution of bird-life. Yellow-bib doves, thickheads, and red-billed kingfishers will be above 2500 feet; the latter are also lower, but not so plentiful (strictly, this species is not "plentiful"). This island goes up to almost 4000 feet, which makes me hope for possible thrushes and fiery pigmy parrots. On Gatukai we found very few fantails, no blackheads, and no pigmy parrots; yet we took both the white-throated pigeon and the crested, the one high up and the other in terrain similar to that inhabited by the species on New Georgia mainland. Intermittent rain and wind has hampered our collecting for the past few days.

July 21. Thinking this day Sunday, like an ignoramus, I had the ship moved to her former position just inside the long barrier island (Wickham, Auckland Island) which runs across to connect with the boat passage that we entered to anchor off Gatukai. Nothing to do but collect this and Wickham Island; David and Charlie on "Wickham, Auckland Island", and myself over to Wickham Island, taking a few terns on the way. Heavy sea and strong southeast trades outside with the sky still lowering. I collected several flycatchers. These barrier islands are basically coral and support high trees but sparse undergrowth. Along the outer reef I took a golden plover and a reef heron. The marine life in the little pools and low-water lagoons is wonderfully variegated- a dozen different kinds of crabs and starfish, peculiar oblate fish that scoot



about your feet, sting-rays occasionally, and many weird coral animals and growths. The boys brought in two fine hawks- one the true osprey, I believe. All on board by 4 P.M.

July 22. (True Sabbath). I developed some much overdue films with fair results and tried the movie camera for the first time; it actually works. Wrote notes and got some things ready for tomorrow's sally up the hill. Today we made the unwelcome discovery that rats have invaded us- while we were alongside B. P.'s for one night waiting for our cargo to be cleared. (God damn!). Means sulphur fumigation as soon as we get back to port. It would be B. P.'s from which come rodents. I do not entertain the slightest trace of that sentiment known as affection for Burns Philp & Co. We took every precaution and would have moved away to anchor if it had not been blowing so hard, and Tulagi harbor such an unspeakable place for small vessels- nothing less than 23 fathoms and the southeast comes winging in at this time of year. It is a bitter lesson that teaches me to avoid every wharf in the future.

July 23. David, Charlie, and I landed with the rest of the crew to carry the gear as far as the garden of the little village- Kokwana. There are only 7 men and a native teacher. He made it known that Captain Middenway, the D. O. at Gizo (formerly Vanikoro), instructed them to lend every assistance possible to



the "France" if she called. The first instance of natives (especially missionized) offering aid unsolicited with promise of reward. Four men and the teacher and the three of us hooked on to the stuff and cut our way over an old trail. About a mile and a half inland we came upon an old monument- a small square sarcophagus built of coral slabs about 2 1/2 feet high surrounded by four upright stones at the corners. Inside the stone cavity, which was covered by a flat rock, were several skulls surrounded by rings (doughnut shape) cut out of clam shell, all sizes, spear heads made by cutting through a section of shell, thus giving the impression of artistic filigree, and other broken ornaments, evidently worn around the neck. This is the ikon worshipped by one old man, who still lives in the bush with his three daughters. (This from the mission teacher). He has eschewed all missions with vehemence, speaks no pidgin, and has lately gone blind. He clings to his old beliefs and shelters his daughters from intrusion; they work his garden, and he will not hear of any attachment with any of the Vangunu natives because they are all either Seven-Day Adventists or Methodists. Here is a real patriarch. By 10 A. M. it had commenced a heavy downpour, which stayed with us right through the night after we had set up a camp and made the best of a wet situation. No dry wood and consequently cold food. O, Miserere. One bird- a large graybird was shot through the fog.



July 24. We made a show of collecting after another cold meal this morning. It rained all night so that everything is slowly becoming saturated. The best house we can construct out of the piece of water-proof canvas and leaves is far from leak-proof. I shot a bittern at about 3000 feet and later a thickhead. The boys got nothing but a lone white-eye. I realize that the bird I shot on Kicha Island and cited as a strange kind of heron was indeed a bittern, similar to the species taken today. Well, the rain stayed with us with a brief let-up during the night. If it is the same tomorrow we shall get down to the ship for a dry-out, at least. No fire and cold food is rather wearing. In the ship we have a haven of refuge after the day's drenching, which is not so bad.

July 25. Rain showed no inclination to cease and by 9 A. M. we were on our way down, leaving the camp and the equipment well-covered. We took a bluebird and some long-tailed swifts. By the time we reached the beach the sky had broken- always the case. There is a shallows near at hand inside the reef which always has a few terns feeding. Shoals of little fish abound, furnishing food for small reef sharks and the watchful birds. We shot several. Teora had about 20 birds put up, which I labelled as soon as I got on board. Hope has it that we shall be able to start again in the morning.

July 26. The Captain accompanied us as far as



the little ikon which I photographed. We had a fair day of it taking the first hornbill and a number of thickheads. It is an odd specimen of this tribe that fools around below 1000 feet. The camp is at 2100 feet and thence one can struggle up to 3500 feet. The drainage goes up easily to the camp, which is on top of a sharp ridge that steadily narrows into a steepsided razor-back from there on up. We brought up a quantity of dry wood from the sunny slopes and so had hot kai-kai. We had left the few birds well-covered, but rats managed to chew the feet completely off a flycatcher. To construct a dry and inviolable shelf for the birds is one of the few problems of camping on these windy, rain-swept peaks. We have nothing that one might call "camp equipment". Make the best of a bum and exceedingly damp situation.

July 27. A completely clear day, thank Heaven. I climbed to the top of the peak, which is devoid of high trees but covered with thick bushes. It resembles the top of Gatukai on which we camped. The terrain below from 2000 feet up, is also similar- the ground knee deep in rich moss. Most of the timber about 20 feet in average height with patches of tall trees. The fruit-bearing trees are the smaller. Here feeds the yellow-bib dove, the long-tailed, black-winged pigeon, and the common gray-knobbed species. I saw two white-throated pigeons. On the way down I took three long-tailed pigeons and two yellow-bib doves. The



former appears to be similar to the type so plentiful on Bougainville. The long-tail dove is present above 2000 feet, which contrasts with its segregation on the low river bottoms of New Georgia. David and Charlie contribute a good bag of thickheads, a red-billed kingfisher, and one long-tailed pigeon. Species of graybirds, the blackhead, brown fantail, and both bald (white-headed) and gray-headed flycatchers are the only other species of the more common birds that are found above 2000 feet. The black honeysucker is also present and the white-eye; these last two command the whole range of every large island. None of us have yet seen any pigmy parrots; the thrush is certainly not present.

July 28. Clear until the afternoon when heavy fog and light rain set in again. Charlie got two white-throated pigeons. I saw another, but disturbed it before I could shoot. You come upon them roosting calmly in low trees right in front of your face; I haven't been able to sneak up on one yet. David shot a crested pigeon to compensate for one I missed. They usually respond and come to calling, but sit down so high up in the fog that it is only a lucky shot that will bring one down. The long-tailed dove attends imitation, but the yellow-bib, no. The call of the white-throated pigeon is a low two-note coo- something similar to the mellow sound that the common gray pigeon makes when it is contented with life. This has been the best day for variety; several blackheads and thickheads were added.



Heavy rain most of the night.

July 29. This day being Sunday we did not venture out far. David and I had a wash in the forest where streams poured everywhere. Shot a yellow-bib dove and a red-billed tyrannus rex, which came too near the camp. They don't know its Sunday. Kokana came up for a chat and took down all the birds.

July 30. Rain again all day. We made the best we could out of this No Man's Land by a few thick-heads and another little kingfisher. The camp is slowly reaching saturation again.

July 31. Rain- a splendid title for any play, novel, poem, or memoir of the tropics; the very essence in a word. Waited until ten o'clock and then we cleared out. I sent Charlie down yesterday afternoon to bring up the boys from the village, if the rain continued this morning. David and I hunted until the early afternoon; another dove and two more kingfishers. We packed up and got down to the ship by dark. Teora had collected about 20 birds between the drop. The world seems to be streaming.

August 1. Ashore in the rain, four of us. Teora added another crested pigeon. David and I have heard one each calling right in from the shore, which gives evidence of their breadth of range. It is the same on all the large islands of the New Georgia group, the mainland, Vangunu, and Gatukai; one can be taken anywhere if the collector can shoot straight enough and



far enough. It is most tantalizing because of the bird's comparative rareness, the boldness of its call, and yet the high perch that lends considerable immunity from either No. 10 or No. 6 shot. On Bougainville we never took one below 3500 feet, but I dare say the species may be found at low elevations in certain areas where the peculiar, tall fruit tree is found. The natives questioned, affirmed this, which, based on my experience, I scoffed at in my notes. I must declare that everything I say must be taken with reservation. No conclusions, but all kinds of observations. David brought in a yellow-headed parrot. This species appears to be uniform throughout the group. Are we ever going to see the sun also rising?

August 2. Hove up at 7 A.M. and steamed out the passage, taking her ~~well~~ off the land before we set sail. Rain squalls blew us across the shoals that lie between Vangunu and Tetipari and appear very fearsome in passing over. Wind left us at one o'clock off the south end of Tetipari and then came with a vengeance about 4:30, increasing to a gale with buckets of rain. It kicked up the worst sea I have yet experienced out here. The ship was safely hove to off the channel between Rendova and our objective, but jumped about like a Coney Island joyride.

August 3. The ship anchored with an exhausted bunch on board in the only known depth off the island-21 fathoms close to the shore of the plantation. Here



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we were greeted by two lonely gentlemen, Messrs. Seaton and Stewart, operating Tetipari Plantation of the Solomon Island Development Company (optimistic nomen). Rain again; Charlie, David and I ashore. It has been a record month for rainfall here- 3 clear days in all July- and in the last three days  $1\frac{1}{2}$  inches, over 3 inches a day! The skipper and I breakfasted up at the house and rain began again before I had finished my cigarette. I got out about ten A.M. and followed a stream. Intermittent rain all day. Tetipari Island is 14 miles long and a little over 3 miles in breadth, rough and ridgey with no prominent peaks, maximum altitude 1300 feet. The channel between this land and Rendova is about 1/2 mile across. I took very few birds, flycatchers, a blackhead and several kingfishers, white-eared and the small land "ee-ee". The former is quite plentiful, Charlie bringing three. They live around the mouths of several streams that flow through the coconuts, and amongst the mangroves at the south end of the plantation. The island seems to be a haven of kingfishers, the big white-headed fellow is here in numbers and appears to show an insular variation in a small blue-green spot back of the eye; I am not sure. It is so long since we have found them common. Purple Gallinulas are extremely common, running half-tame about the plantation.

August 4. Ashore early with Teora for half a day. I had a boy with me to point out a scant trail



they use for pig hunting. It is the first fair morning we have had for a week. I shot about 20 birds before lunch. The hornbill, crested pigeon, and the other altitude fruit-eaters are not present. The long-tail dove is lacking. Both the blackhead and thickhead show new plumage variation; the latter seems to be unusually large. Parrots and the blue-headed paroquet are quite common. And the red-knobbed pigeon. I heard megapodes and the red-billed kingfisher. David brought in one of the latter. Charlie found a little lagoon in the mangroves and picked up 8 ducks (*Pacificus*), the usual teal. All on board by 3 o'clock and finished the birds by dinnertime, at which our friends on shore joined. They have placed the "place at our disposal." The manager supplied a case of kerosene, which we are out of, and a large pail of fat (dripping) from fresh beef killings (which we also lack). Shore birds abound- the blue-green reef heron, golden plover, little sandpiper, and some stray curlew. The terrain in the bush is very rough- the upper strata mostly soft red clay and loam and crumbly rocks. The timber is very large, the great trees with the twisted banyan-like roots prevailing; these were not common either on Gatukai or Vangunu. We have taken snakes and frogs both here and on Vangunu. The common brown lizard is the usual species. I have noticed new land-snails, but have not collected any. The insect bottles are pretty near defunct, but I intend to make up some new ones.



August 5. Sunday and a clear and calm day-  
the first in a month.

August 6. Four hunters ashore by 7. I  
climbed to the top of the central ridge- took black-  
heads, brown and black fantails, and thickheads. Saw  
three red-billed kingfishers, but only captured one.  
David took a ground dove yesterday. I heard the red-  
breast dove and the red-cap way up in the "banyan" tops.  
As yet no one has seen any graybirds. The bush has  
numbers of wild pigs judging from the amount of tracks  
and rooting I saw. The island has been uninhabited  
since 1893, exterminated by the head-hunters of Rendova  
and Roviana (New Georgia). The most common small bird,  
apparently, is the black fantail. Thickheads are con-  
stantly calling and the flycatchers run in little  
bunches, both the grayheaded and the bald, the latter  
in greater numbers. Charlie and Teora evidently  
hugged the shore because they bagged very few small  
birds. Today it rained, heavy showers both morning  
and afternoon.

August 7. The first clear day for this moon  
when we could hunt. We took something under fifty  
birds. And a good variety. I managed to get a female  
graybird and a new bird- the longtailed "kekow" that  
Mr. Beck so often ventured after about twilight in  
various places- the Shortlands especially. This one is  
the first I have ever heard calling in the daytime  
except for one occasion on New Georgia Island, when we



*Eudynamys scolopaceus*

were working at Mongo Entrance. I tried to call the birds without success. But I recall several- numerous times in the evening that I remarked on hearing one- a clear note with a slight crescendo and a short musical yodel very like an abridged edition of the thickhead. I remember it distinctly on Shortland Island, New Georgia, and Gatukai. David said he thought it was the large graybird. Being, therefore, a night roamer it makes the species about as rare in the daylight as the night-hawk. I imitated the sound easily and the quarry circled through the trees over me and alighted three times before I finally got the shot. It proved to be male- large and the stomach (or crop) was full of fruit- small red things like tiny carrots that grow on a low tree and green berries about the size of cherries. Both the thickhead and white-eye show plumage differences from the New Georgia types; the latter has yellow legs. This anchorage, the only possible one known and right off the plantation, is unique in the access it gives to the avifauna of the island. Usually we dread the terrain around such places- no decent bush trails and a long march to reach them. Here we take desirable stuff as we go along- kingfishers sitting on fence-posts and threading over the streams; gallinules are literally tame. They walk about everywhere and could be mistaken for domestic fowls of some description. Good places for shore birds on the steep-to coral beach and among the mangroves. There



are no trails leading any distance inland, but plenty of small water-ways to follow. Rain during the night.

August 8. David, Charlie, and I ashore, leaving Teora and Philip to tie in the rest of yesterday's birds. We hunted till noon and returned for lunch. I took a hawk and blasted another red-billed kingfisher so badly that he is fit only for pickle-as far as I can recall, the first to be so renounced. Charlie took a yellow-eyed graybird, representing now the other usual species of that genus. At 8 bells we hove up and proceeded towarded Renard Cove on Rendova across Blanche Channel. We visited Blanche Island on the way and found it completely coral and supporting nothing important in bird-life. Such ground does not seem to support the usual species except the hardy bald-flycatcher. Mr. De Courcy Brown, a trader, came out from his house in his dinghy to advise us and informed us that all the coast is steep-to right along. In the cove we are snug, but shall have to boat it about a mile and a half to hit into the high land. Discovered today that all our supply of new and decent aux cartridges has gone- been used up- only another inconvenience. We shall carry on somehow to keep busy until we see the steamer in Tulagi the week of the 26th.

August 9. Four of us were taken across to Mr. Brown's place in his little launch, towing the dinghy (although if we had refused his kindness we should have been ashore much earlier). Got into the



bush about 9 A. M. and did my best to get up above the old crater, but reached only 1000 feet by one o'clock. No trails, bush very thick and rough going. Took white-eyes, gray-headed, and bald flycatchers. Heard two hawks and numerous doves (red-breast), but the density of the smaller trees and interlocking vines afforded no vision. Returning I waded the swift-flowing stream and shot a white-eared kingfisher. Alternating this mode of travel with runs into the forest, I took two red-bills and had a flying shot at a brown heron. The boys had been down the beach about a mile to a village where they found plenty of trails; they had a good bag, including several doves and another bush kingfisher. I met some men from the commune, working on a canoe in the bush and enlightened them regarding the frog, snake, phalanger, etc. market. The cursed engine in the obliging gentleman's boat would not start and we got back on board after seven. Put up about 40 birds, finishing about midnight. With this unhandy position we certainly cannot hope to get up over 2000 feet, a linear distance of 4 1/2 miles. We shall simply do our best to supplement the rather meagre Rendova series. Perhaps we shall enter Rendova Harbor again, if we cruise southward through the group once more, and have another camping fit. The only uncommon altitude stuff recorded are two miserable female yellow-bib dove skins. The long-tailed (black-winged) pigeon was seen but not taken. The white-



throated species undoubtedly is present. Our camping site seemed to embrace a rather barren area for such a large island; and then, the weather. The last two nights have been rain and squalls. I have positively heard the "kekow" calling, which induces the conclusion that it is present on all the larger islands of the New Georgia group; Vangunu is the only one where I cannot recall hearing it. About twilight the species will start serenading when it is too dark to see anything.

August 10. All ashore in the long boat by 8 o'clock after a half hour pull. We scattered on the trails in back of the village (there are two; one Seven-Day and one Methodist close together). There is no rivalry and the inhabitants often live in one another's houses for long periods. The Methodists are very dirty and unkempt- all their tangible means of decent maintenance going to the headquarters of the Mission at Roviana- "to make the Mission strong". They have no church and are visited by the organization's schooner for copra gathering alone. Methodism! There ought to be a law-. I got up amongst the thickheads- heard plenty, but took none. The trails finish at a great grove of ivory-nut trees (sac-sac) around 1000 feet. I cut my way up to the top of a ridge where I found a pig trail. Here I took two red-billed kingfishers in quick succession. In addition to the usual run of fly-catchers, white-eyes, minas, starlings, etc., the others had three bush kingfishers. The addition to this

Ceyhup



species in the last two days gives us a decent series -  
the only one of the rarer birds from the island. A  
number of pigmy parrots have also come in. Charlie  
got the brown bush heron. The starlings proved to  
simulate the usual red-eye species; so that the one I  
remarked on in my notes on the camping trip at Rendova  
Harbor in May (or June) must have been a young one or  
else an unusual product of albinism or something -  
~~unusual~~  
white iris and minor differences. The boys of the  
village came through splendidly with five phalangers,  
several snakes, and two of the guppyi frogs, one the  
largest I have yet seen. They took calico, tobacco,  
and butcher knives. I, myself, snared four snakes  
today, two of them (brown and white, white iris) in a  
garden shack. The natives say this type is always  
present in the rafters of their houses. Teora also  
killed a couple.

Mr. Cullen, Brown's assistant, spent the  
night on board preparatory to an early start in the  
morning on a trading trip. Rain most of the night.  
We have been very thankful for the last two clear days.

August 11. Hove up at 8 when it looked  
like rain for a considerable period and proceeded out  
of Renard Cove to Mr. Brown's place. He loaded us up  
with fresh fruit and unimportant reading matter. Yes-  
terday the captain purchased 14 eggs and 2 fowls for  
14 sticks of tobacco. We let the engine take us across  
Blanche Channel past the whole length of Tetipari, which



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gives us smooth water to run in and 16 miles to windward when we stopped the machine off the Hele Islands, setting all sail for a dead beat to the Russel Group.

August 12. (Sunday). At sea beating to best advantage. Saw a few black shearwaters, but too rough to lower the small boat.

August 13. Murray Island abeam at dawn. Strong trades southeast and east southeast make it a slow haul. The Russel Group in sight all day. We hope to make it tomorrow. Lowered the small boat and chased a flock of terns and shearwaters without avail about 4 P.M.

August 14. Wind freshened and blew hard most of the day. Russel Group about 6 miles off (Pepasala Bay) at 3, so we started the engine to get us in by night. I had another venture after sea-birds this morning, but only took a toothsome gannet. Missed one shearwater. The sea and wind were too strong to do any maneuvering. Went out about 9:30 and caught the ship on the reverse tack. Arrived and anchored off Lever Brothers big plantation at the head of the bay (Pepasala). Here I fully anticipated picking up my father, who was to come from Samarai on the Koonookarra, Lever's steamer, which was to have taken the general manager and the chairman of the Board of Directors over to inspect some of their holdings. Everything had been apparently arranged to perfection and satisfaction when we were last in Tulagi. I find that the cursed Koonoo-



karra (fittingly hideous name), never got to Samarai, so my father has been marooned there some time. Never depend on anybody out here for anything. I was an utter fool. The outcome conjures up an appalling coil of possibilities. Spent the night but slept not.

August 15. Hove up at dawn and proceeded out, setting all sail as soon as possible, and stopping the engine. A 65 mile beat to Tulagi where I can learn something definite. Beating to best advantage all day and night. Wind fresh. Saw very few birds-- no shearwaters within range, but had a try with the small boat. The sea, however, was too rough and the flock kept to windward of me.

August 16. Savo Island ahead at sunset last night. Wind variable-- E-SE to ENE, which pushed us on considerably. Decided to start the engine about 1 A. M. when light airs had us drifting back to a position from which we could see the smaller islands of the Russell Group. Passed Savo about 9 o'clock and stopped engine. Tacked with small gain until 1 P. M. when we started up again and with the sails all set steered for Tulagi, making 7-7 1/2 knots with the aid of the wind. Entered the harbor at 4 P. M. and anchored in "Ellis Cone," well-sheltered from the wind and waves. I dropped ashore at the P. O. and was fortunate enough to get many important letters and cables before closing time, and to interview Lieut. Commander Crookshank. Father has been marooned in Samarai since July 25.



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The failure of the Koonookarra to go to Samarai, as definitely planned and assured me, completely upsets my rather propitious plans for finishing the Solomons, except Malaite and outlying islands north of San Cristobal, before this unusually fine SE season declines. Concerning the great firm of Lever,-- I am certain now on inquiry and auricular perception that their lousy tub put back because Herr Fulton, Chairman of something or other to do with soaps, felt seasick and saw opportunity to get to Sydney on the Marsina, which made a special trip through the Solomons just recently to pick up excess copra. I can think of no blasphemy nor can I invent desecration of sufficient strength.

Capt. Crookshank will take command on Monday , Aug. 20. We shall proceed to Samarai via Rennell and Bellona Islands. It is against the law, which signifies nothing. My father will simply have to wait. The business of changing commanders and taking Solomon natives out of the group will require considerable effort and reams of documentary red-tape. The sea-gear of the vessel is not too sound.

August 17. Thank the stars Tait & Co. sent our cargo from Sydney without pre-remittance. This means we can work in the domain of Papua before returning to Faisi, whence we shall proceed to Choiseul. If the adjustment goes as planned, the expedition will not suffer. No collecting accomplished.

August 18. Rainy. More business, mostly with the administration. The R. Commissioner's yacht 'Ranadi' is left without a skipper, the idea of having to secure a new one occurring rather late. Lang is to take the job temporarily. Secufed sulphur for fumigation by scouring all the stores in Tulagi.



August 19 (Sunday). Prepared vessel for fumigation.

Packed birds. Rain forced us to postpone the stink until tomorrow.

August 20. All benzine and ammunition out of the hold.

Sulphur pots ignited at nine o'clock, with instructions for careful look-out. Negotiated a loan from W. R. Carpenter & Co. through the Tulagi Manager, Mr. R. G. Scrymgour, a good friend of mine. This enables me to pay off Lang, -- he goes to the government. Capt. Crookshank officially took over command of the France today. Opened the ship at ten p.m.

August 21. Delays. No reply yet to my cable to Samarai.

David and Charlie ashore collecting. One large rat killed on deck, evidently escaped out of the hold when it was opened. I hope it is the last survivor. Dinner at Mr. Scrymgour's.

August 22. Samarai wireless came today. Captain and Mrs. Crookshank moved their dunnage on board this afternoon. We cannot sail before noon tomorrow due to devious complications involving customs, cargo, duty on same, clearance, sea-gear, and other things. No collecting.

August 23. Hove up at two p.m. and at last got out of Tulagi. A dirty night in the dangerous channel between Guadalcanar and Florida Islands. Used engine until four a.m. when we cleared the Asses' Ears.

August 24. At sea. Rain squalls and adverse tidal currents. Saw terns interspersed with shearwaters. Wind variable. Sea rough for collecting.

August 25. Cleared Marau Sound and set course for Rennell Island. Wind fresh; squalls all night, but with helping blasts from the N.E.; sea rough. Saw a few isolated shearwaters, the common, large black species and three storm petrels. The



latter looked identical with the pair taken off Kinua on the west coast of Bougainville. David and I stood by with loaded guns on deck. We took numerous shots without success.

August 26. Sighted Rennell at 9:45. A good passage so far. But we cannot escape the twenty mile beat up the windward side to the only possible anchorage. Capt. Crookshank has been here five times assisting Australian scientists, - Hogben (Anthropology) and Stanley (Geology) of Sydney U., who spent about six weeks on the island. The former is at present out at Lord Howe.

Passed around to the lee end of Rennell about 4 p.m. A white breasted gannet flew around the ship toward evening. Have seen shearwaters of at least three different species and the little storm petrels. None in sight when we were in the lee of the land and might have lowered the boat. Fine clear night, - busting trades E.S.E.

August 27. Tacking to best advantage. Kept good lookout for sea birds, as the wind has gone down somewhat. Set a course for the bay of the anchorage with the engine helping at 11:15. Made Kunyawa Bay at 3:15 p.m. and anchored in fifteen fathoms. David and I landed immediately. Some of the salt-water natives came out to the ship. Birds are prolific. Since I am anxious to complete the work here I shall simply record our daily routine, saving any rapid notes for a complete sketch of Rennell Island and its avifauna. We returned with a dozen specimens each by six o'clock.

August 28. David, Charlie, Teora and I landed at 7:30 amongst swarms of natives. We had as many birds as we could comfortably handle by 3 p.m.

August 29. All landed yesterday. Very rough



terrain inland, but plenty of birds. The natives are a wholesale nuisance, and we must use diplomacy. They are quite "uncontrolled", but very friendly -- too much so.

August 30. All landed except me. I developed photographs taken yesterday afternoon. The boys returned at 2 p.m. with good bags. The natives are most obnoxious, interfering with everything.

August 31. All landed and hunted all day. I made arrangements with the chief of Kasivola, the big bush chief, to visit his lake and villages inland. We go on Monday.

Sept. 1. I remained on the ship to finish yesterday's birds with Philip's aid. Prepared movie camera for use at a dance this afternoon. Knocked the crew off to go, leaving a couple to watch the ship. The Rennell people are prime thieves. The ladies are unusually affectionate, which has had a demoralizing effect on the crew. There are always about fifty on the ship, but I plan to institute a taboo while we are camping. Aux ammunition very near finished; we are using the 410 shells and the small "Bay State" guns.

Sept. 2. Sabbath Day observed. Throngs of natives.

Sept. 3-6. Marched inland about seven miles to Lake Tengano where the Kasivola villages are situated. Here we had perfect weather for three days' hunting. It was mainly on the lake, where we found a new species of grebe and an egret (or cormorant). It is a remarkable body of water. Unfortunately we missed two very valuable species, -- a large white crane and a rail. Our ammunition gave out before we had accomplished this purpose. All the aux cartridges are gone now. We have no hope of going to Bellona Island, and we must visit Rennell again. This can be



done with Bellona when we are on the south coast of San Cristobal.

We reached the "white sands" about 2 p.m. on Thursday the 6th, tired and discouraged.

Sept. 7. Hove up at 8:30. Proceeded out under power and set all sail immediately, setting course direct for Rossel Island, the eastermost of the Louisiade Group.

Sept. 8th. At sea. I shall be reluctant to lower the small boat as long as the wind holds fair and strong. Petrels and gannets seen today.

Sept. 9. At sea. Saw black shearwaters and terns. Did not lower the boat. Beautiful weather.

Sept. 10. At sea. Shot two storm petrels from the deck. Sighted a large flock of Noddy Terns, a few shearwaters intermixed. Favorable opportunity, but did not lower the boat. We are steadily logging off the knots. Sighted land at sunset, - Rossel Island.

Sept. 11. At sea. Numerous sea birds about. Got one common gannet. Weather continues fine. S.E. trade has been rather weak. Took one long-tailed tern.

Sept. 12. At sea. Entered Jomard Passage at noon. Sighted flocks of terns, mostly noddies.

Sept. 13. In amongst the islets and atolls close to Samarai. Started engine at 10 a.m. Anchored off B.P.'s wharf in six fathoms at 11:30. The doctor granted pratique after lunch and informed me that my father has departed for American via Honolulu on the Matson freighter "Golden Cloud." Customs boarded and passed entry.

Sept. 14. Picked up a wire sent from the Museum on September 7, instructing me to proceed to Sydney and put the



vessel in first class condition, including the installation of a Diesel. I wired New York, "Proceeding as instructed", but I expect complications.

Sept. 15- Oct. 5. The interim of twenty days was spent in Samarai during which time considerable communication with New York was carried on to the final effect that the overhauling of the France be done by Handley & Clay of this port. The advisability of this was immediately apparent upon consideration of only one, not the multitude of difficulties presented by a trip to Sydney. On Saturday the 15th we watered the ship at the Steamship & Trading Company's wharf, and on the 17th steamed over to the slip where a shipwright braced the top of the foremast, which was almost cut through by the action of the heavy ring which holds the weight of the two jibs. This extremely serious fault had gone unnoticed, at least unmentioned, until 'Timmy', a Malaita boy, one of the new boat's crew warned us about it. To attempt a passage to Sydney with this would have been fatal. At this time I had not controverted the Museum Committee's plans because I imagined particular reasons for the trip, regarding itinerary. When I urged the purchase of a new engine in my letters from Gizo in June I had no idea of the facilities of Samarai. Handley & Clay and the local engineer, Mr. Izod, can meet our requirements cheaper, quicker, and much more to our satisfaction. David went out shooting behind the slip on Sept. 17, and I went out on the next day. The result was several interesting birds, most of them new to my limited range of recognition. A yellow bird of paradise is the only protected species rumored to be in these parts. A white-eared kingfisher taken along the mangrove creek resembles the Solomon type.



The final result of my negotiation with Dr. Murphy was that I ordered the engine and placed the contract for the entire job in Samarai. On Sept. 22 B.P.'s manager wired to London the exact specifications, which had been measured when we were upon the slip, for a 55 h.p. DEUTZ diesel, a German engineering product of the latest type. It has an excellent reputation and is reasonably priced. Since we found seven plates of the copper sheathing off, the captain and I decided that it was most advisable to put the ship up now and have that part of the overhaul put in order before the engine is installed, at which time the ship will be on the slip for at least two weeks. Some of the copper has been off since May and three months is the maximum risk of penetration by the toreda worm. In view of our having to go up twice, Mr. Fletcher, the slip manager, deducted ten pounds from the total cost of pulling the vessel up (usual charge thirty pounds -- once). The France was on the slip from Sept. 24 to Sept. 27, during which time over sixty plates of copper were replaced and a surprising amount of miscellaneous work done. Indeed, she was in sorry need of repair. On the 26 and 27, David and I went out shooting with good results. David brought in a night hawk and I contributed a beautiful little bush kingfisher, a woodpecker, and a peculiar ground runner, almost like the Solomon Islands' "longtail" on a smaller scale. Its stomach showed insects. I had to stalk it to get a shot; it never flew but ran very swiftly in the thick grass that covers the terrain around the plantation and dairy farm near the slip. The bird ran across my path and I had about twenty minutes of rambling before I got the shot. Unfortunately, this took most of the feathers off its back. There were three kinds of small birds



found about this grassy section, which is quite indigenous to the landscape, -- an olive bird, something resembling the Rennell I. species; a honey sucker, unusually short-billed; and two tiny birds, one with a perky tail, which I called a wren, and a brown and white chap with a large, blunt bill like the American grosbeak or a finch. All the other species were found in the bush, except kingfishers, which came from the plantation area or near the shore. All the stomachs I thought to examine revealed insects. I saw numerous species, not taken, one a large kingfisher, almost like the laughing jackass. The crow was a fruit-eater, and the parrot also.

Lack of time because of other occupations concerning our future makes the results primarily "filling-in." From Sept. 28 to Oct. 5 I was waiting for cash from New York and was held up, in addition by the government of Papua. I applied for permission to use the three boys as assistants, due to a law I was told existed, the explanation I leave to someone of greater perspicacity of imagination. No natives of the South Pacific may obtain permits for firearms in the domain except Papuans. The Government Secretary communicated the "strongest objection" of the supreme council that I collect any birds at all. I asked, please might I have up to twenty as a limit, having specified in my original request that no protected species were desired (undoubtedly they do not occur in the islands). Approval to take "ten each unprotected species for museum" came on Oct. 4, and requisite funds followed on the 5th, enabling us to get under way at 4 A.M. on Saturday, the morning of the 6th.

Oct. 6. Stood out for the Bonvouloir Islands, via passage between Hall and Grace Islands. These we passed at 2:15 P.M. This course takes us through waters dotted everywhere with



small islets, sand cays, reefs, and foul ground. Cleared the Lasinie Islands before dark. Terns and gannets about, mostly sooties and sumatras.

Oct. 7. At sea, beating to best advantage for Strathord Islands of Bonvouloir Group. Anchored in lee of this bit of land at 6:15, but dragged off during night into deep water and so set all sail and stood out for Hastings I. Strathord consists of two small, low islands, almost completely planted and not worth the landing.

Oct. 8. At 8 A.M. anchored the vessel in rather a precarious position at NW end of Hastings. Charlie, David, and I landed and found a sheer climb up jagged coral and the ensuing terrain an appalling mix-up of broken ridges, holes, and uneven footing. We took only eight species, the most interesting a white-bib dove, so like the Solomon Island bird except for the bib. They were numerous, calling continuously from the fruit tree-tops. The white-eye, flycatcher, and thickhead are in a new variation; the brown fantail is quite the same as the type taken hitherto. The honeysucker is a gray-green bird of rather drab appearance, but calls like other kinds of honeysuckers. The song of the white-eye is familiar, but both flycatcher and thickhead offer a new note: the former chatters like the Solomon species, but retains a continual trill in its long whistle. The thickhead calls with a chirp and a trill, but with no vigor and variability like the big Solomon chap. The male of the species here is a prettier bird with its white throat; the female appears quite like the usual type. Charlie caught a Nikoba pigeon and David a lesser eagle hawk. The stomach was empty; it looks quite like the Solomon Island type; we took one on Pororan I. off "little



Bukka." In all we found the morning's work not as fruitful as it could have been, had the topography of the place allowed us to cover more ground. Boarded at 1 P.M., when the captain hove up and set a course under all sail for East I., the easternmost and largest of the three. Tacked twice during night.

Oct. 9. Beating toward destination, clear of intervening reef and anchored finally at 5 P.M. off NW corner of island in very rough water but sheltered from SE wind.

Oct. 10. Four of us landed at 7 A.M. I returned at noon, having used up all my aux shells. Found that Charlie had returned during the morning with fever, his temperature 104. The avifauna here is just similar to that taken on Hastings. I was fortunate in getting a new ground dove, a rather fine bird. The dove is the same white-bib. No one reports any pigeons; I have not heard any calls. A hawk also came my way, a small, striped species. Its stomach showed lizards. Both the striped and the short, brown lizard are common on the Bonvouloir, similar to the Solomons. I shot three megapodes. They are in rich plumage, the usual brown, but the legs are yellow with black markings on the toes, which have particularly long claws. Again, the call is different, a loud, fast trill, quite unlike the weird yodel of the Solomon malau. I observed no nests or egg posses. This bird is not like the New Guinea bush turkey, which builds the great cumbersome mound communally; this would compare with the genus Megapodus described by Wallace in the "Malay Archipelago." This island was reported inhabited by the H.M.S. Basilisk in 1874. Wild pigs abound; David shot at four today. We also came upon a hole inordinately filled with broken skulls and bones. The former inhabitants have undoubtedly moved to another place, if they did not die



out, which seems unlikely. No signs of actual habitation in the interior, only coconuts near the anchorage and pig trails.

Oct. 11. Manuel very ill with fever, and both Teora and David have asked for quinine. Charlie still laid up. Undoubtedly infection from the slip. David, Teora, and I landed at 7 A.M. The typical land "ee-ee" kingfisher is common here; we have taken several. I heard the same chap at Hastings. The same run of birds were brought in. Teora shot a gray flycatcher, not unlike the kind so common on small out-lying islands and in the New Georgia group, Solomons. This is a larger bird, unfortunately it lacks its tail through a bad shot. The species cannot be common. I have seen none. David reports missing a ground dove, but he brought home two pigs, in the capture of which our dog, "Balbi" had a good hand. One little suckling we shall keep on board to fatten up. All on board by 2:30, when I decided to clear out. Last night we experienced NE squalls and the ship rolls continually worse than when in a sea-way. One could not pick a tougher situation for a pile-up. Stood out at 3 for Alcester I. before a fair wind. Could not sight it before midnight and hove to on port tack, making SSE.

Oct. 12. The starboard after shroud-plate of the foremast broke during the night. Lucky we did not lose the mast. Effected temporary repair and put about at 6:30, setting a course again for Alcester. Raised the island at 8:30 to split it in the middle. Anchored at 12:30 in sheltered cove off a native village on the northern side. Teora, David, and I landed immediately. Charlie still down with malaria; Manuel, I think, has Dengue. The birds here are similar again to the Bonvouloir Group, in spite of the distance between them. All three islands are similar in respect to topography, steep, with sheer cliffs of coral and lime-



stone. The terrain inland is rough, broken coral and wooded, but not densely as described by the sailing directions; the smaller bushes, creepers, ferns, etc., cannot get the footing. Consequently, walking is impeded by the uneven ground; on the other islands it is the profusion of undergrowth.

The Bonvouloir group lies approximately Lat. 10° 20' S.; Long. 152° W. Strathord and Hastings Islands are about five miles apart. East I. lies thirteen miles in its named direction. These were given their original appellation by Bougainville. Alcester lies at Lat. 9° 30' S., Long. 152° 25' W., about thirty miles SW of Woodlark I.

The native village is very poorly, all the young men being signed away fishing beche-de-mer. However, the old man (one) and wives cultivate two stony gardens. These produce good sweet potatoes; yams and taro and paw-paw very meagre. Coconuts are resplendant, as would be expected.

The new bird here is a large fruit-eating pigeon, gray breast and head and glossy dark blue back; iris dark red. It is not far from the Solomon gray kooru. David and I took five. Other species were, thickhead, flycatcher, and white-eye; kingfisher and fantail are present. I missed a ground dove. The megapode does not occur here. The old native reports a long-legged bush bird, I think a heron. We saw the usual reef species along the shore. None of these islands support parrots or cockies, as far as we have ascertained. Returning to the ship I found that Teora had returned with fever at 2 o'clock. David, Philip, and I finished the birds by 11:30.

Oct. 13. With most hands sick and a precarious run necessary to make Woodlark I. I decided to set out for our destin-



ation immediately, rain threatening. I want to make Woodlark, if possible, before Sunday to give all hands a rest. Illness is always a cursed handicap. So we hove up at 8 A.M. and made sail N. by W. Passed through several squalls and made the entrance to the deep-water passage for Kulamadau (gov't station) at noon. It is necessary to go to this place because the opera bouffe of a government for Papua makes everybody take a clearance wherever they go,-- except yachts, and our registration to this effect is not valid because we are not a member of any recognized yacht club.

The passage into Kwarapau Bay is about ten miles from the outer beacon, very tortuous, but fortunately well-marked. Dropped anchor in 2 1/2 fathoms. The aspect of the shore is desolate. The government holds out two miles up a hill. We found that the magistrate was out "on patrol" but expected back this weekend. The whole aspect ashore is most dreary and clearly evidences the disintegration following the evacuation of the big wireless staff maintained during the war and subsequently of all the gold miners. Two dink companies are just about making a living at present. Rain intermittent but continuous.

Oct. 14. Sabbath observed. The Resident Magistrate, Mr. Rogerson, came in and boarded us from his official whale-boat. All details about clearance, cargo, mail, etc., were cleared up. We have to acquire an outward "transire" (excellent word) to leave this miserable island. Thank Heaven it entitles us to go unmolested by officialdom wherever we want via island ports to Samarai. I hope this will be an end to it, for this trip, anyway.

Oct. 15. Sent David and Charlie up a dismal creek in pouring rain while the skipper and his Mrs. and I hiked up to the center of the settlement. Here we made a few purchases at the



little store and indulged about two hours with the loyal royal servant before we could get away. On Saturday we stole a heavy iron plate from the junk pile at the wireless station that will do for a chain plate. We hope to get it drilled at the bush establishment of a mining company located near Suloga Bay. Arrived back on board about 2P.M., far too late to leave for Suloga, which is bound to be an onery passage. I wrote some and read Johnson's "Table-Talk", being too chagrined to go out shooting. The boys got only two birds, a white-eared kingfisher, again like the Solomon species that inhabits mangroves and river entries; and a crow, which is new, having a white iris and a considerable tail. This would be a hell of a place to hunt with at least a mile of fringing mangroves all around the land. Rain again during the night. Manuel and Teora are still shaky. No one aft has had a dose of fever, praise be accorded.

Oct. 16. Cleared out of Kulamadau at 8 A.M. with all requisite documents, steering out by channel and making for Suloga under power. Heavy continuous rain until we anchored inside Rubana Point. David, Charlie, and I landed. Teora has fever. This is the one point where there is any altitude on the island. Terrain mostly a brown, crumbly soil with plenty of stones, rough as usual. The natives have decreased 33.3 in the last ten years, so there are no tracks. I noticed the lack of small birds immediately. Managed to call up three honeysuckers, a new species, black with a faint tinge of red on the top of the head (male) like the Solomon honeysucker; iris, dark brown and white on the inner side of the secondaries. A gaudy, red-billed parrot, resembling the one of Rennell I. and San Cristobal is very common. They are tough and feed very high. The call is unusually variegated,-- a buzzing whine most the time. David got two beautiful, white pigeons, which natives



say are quite common, -- iris, a dark brown; feet, lavender; bill, green, a lighter shade at the tip. He also took one flycatcher, glossy blue with a peculiar mouth, bright orange, like a pumpkin on the inside. Sologa peak, the top of Woodlark reaches maximum 1300 feet, so there can be no bird variation by elevation. The only aboreal dove present is the black-bib, similar to the Solomons. This a native verified. So the white-bib species taken on the small islands en route here are a special variety, I think a variation of the yellow-bib. Often the feathers in the bib are so tinged; the rest of the bird looks the same. I shall be interested to see whether the large ground dove compares to the island species (East).

The skipper arranged today for one of the men to guide him up to the Mining outfit to get the iron plate drilled.

Oct. 17. Teora still recovering. David, Charlie, and I landed at 7:30. Usual scarcity of small birds. I took a honey-sucker, dark, blue-black with a sheen, very like the New Britain species; also another with yellow breast and gray head, which proved a female, evidently the correspondent of the black male, taken and described yesterday. It rained like hell from 10:30 to 2:30. David and Charlie got back aboard about 1 o'clock. I stayed out and got properly lost, being rewarded for my pains by another red-billed parrot, a cockatoo with a rather fine yellow crest, and one of the orange-mouthed flycatchers. Charlie had a pair of new birds, brown flycatchers, evidently the female of the blue-black male. The small birds seem to keep to the tree-tops and only come on persistent calling. The calls of both flycatchers and honeysuckers here are like other species of the same genera encountered in the Solomons. The screech of the parrot, so common here, drowns out all the other birds; it sounds more like the swing of a rusty gate than anything else.



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The captain was eminently successful in getting the shroud-plate made. He report numerous white pigeons amongst the mangroves.

Oct. 18. David down with high fever. Charlie and Teora went away close to the ship and I made a wild goose chase in the small boat up to the head of Suloga Light, where I saw numerous birds but only got four, a white-eared kingfisher and two honey-suckers and a flycatcher. I have at last got the species straight; there are only two, the black and the one with the blue sheen; of the latter we have taken several young, which show the gray head which I confused as a new species. The female of the black species is a greenish gray with slight red on the head. Teora contributed a hawk. Both boys did much better than I. I visited three mangrove patches and took one trail int the bush up to a native settlement. I saw several species not yet taken, a large white heron, ground dove, and two others. Everyone seemed to appear at the most inopportune moments and I was ashore during all rain showers, about five.

The mining men say that geologists who have examined Marua reckon that it has formerly subsisted below the sea, indicated by something. The soil is very porous, draining readily. The scarcity of birds, small kinds especially, reminds me of Mono I. which was so unproductive. Not only is there an apparent delinquency in numbers, but also in number of varieties; no graybirds, thick-heads, only one species of flycatcher. Natives say that Guasopa is the place for birds. They say more small kinds are found around mangroves. Everything here is inacessible. There are 800 odd inhabitants here and most of them are at Guasopa; so we shall have trails to get about on, which helps infinitely when it rains every day.



I wish now that we had risked more time in the Bonvouloir and Alcester Islands, for the birds there are evidently of special interest. This Suloga is a miserable place; however, effecting such a sound repair of the shroud plate is return enough for our otherwise relatively unprofitable visit.

Oct. 19. Teora, Charlie, and I up to the head of the bay in the whale-boat for the day. We spent it mushing around in the mangroves where we garnered numerous honeysuckers, mostly the shiny kind. A half dozen crows, two white-eared kingfishers, a white pigeon; these pigeons are seen continually around the mangroves. They sit near the marge or in high trees right on the shore and being very wary are hard to get. Truly a beautiful bird, dark V.D., brown iris, and a dark green bill, lightening to a yellowish green at the tip. The crow, true to form, is very readily called up.

A half-caste of long residence here visited us today. He recalls that butterfly collectors had been to Woodlark, but no one on birds.

Oct. 20. Four collectors over to Mapas I. with George, the half-caste. We separated and traversed the island from S. to N. It is three miles long and a mile wide, fringed with mangroves. We found starlings about the native gardens. This is invariably their habitat. David took a broad-billed bluebird, and in all we shot six "Nikoba" ground pigeons, the irides, whitish gray. Two of the white pigeons were taken amongst the mangroves. Saw one ground dove. This makes the second. I hope to shoot some around Guasopa. Golden Plover and the little sand-piper are common. Two frigate birds, probably the lesser species, were taken on the way back to the ship.

The half-caste is mission educated and quite intelligent



and conversant with most of the fauna. He does not report anything we have missed except the white heron. Ground doves we must get, and, if David's information that he saw two is correct, the little bush kingfisher. The phalanger is present; very few snakes; and the butterflies are unusually beautiful. For variety of species in birds, Woodlark is not as productive as its size would promise: about 35 miles by 8; the highest point here, Suloga Peak, 1300 feet; most of the terrain is flat.

Oct. 21. Sabbath observed. No heavy rain for the past two days; it came on again today. Three men from the Bowater Mine visited us.

Oct. 22. Hove up as soon as the light was good and stood out for Guasopa, the big harbor around the point to the southward. Used sails and entered passage into bay at 2 P.M. Anchored off main village an hour later. Charlie and Timothy down with fever. David, Teora, the half-caste, who rode down with us, rowed over to Buk-ua, a small island, where we shot about 30 pigeons, gray, like the Solomons, and the white, like New Ireland. I also got a starling and a white-beaded "ku-ku", the prototype of the famous Solomon salt-water kingfisher. The birds of Woodlark are scarce, yet interesting for the relative species of other archipelagoes represented, mainly the Solomons and Bismarck. The island stretches E. and W., the most part of which is low at either extreme and of coral formation; a central belt of porphyry rock rises to the 1300 feet centrally. It is here they find the gold. The miners have a more productive vocation than we have.

Oct. 23. Four hunters ashore at 7:30. Timothy and Unga, Solomon boys, are now ill. We turned in a decent day's work, adding two additional species, gray-headed flycatcher and graybird,



again similar to Solomons. Several bluebirds taken, called here the "dollar bird". The elusive ground dove is fairly common here about the plantation; it is the first time I have ever seen them so bold. Moreover they are timid and hard to stalk. Mr. Eade, the coconut-king of Woodlark, says they are always around the copra driers. Took two brown and very sluggish snakes of a brown, with whitish cross-pattern. Rain most of the morning.

Oct. 24. Four ashore at 7. Out for ground doves. We got five today. An eagle-hawk was taken and a smaller brown fellow, making two from Woodlark. The ground dove is similar to the Bonvouloir species; iris, dark brown, feet and bill, reddish, a hue of carmine. Honeyeaters are typical in their habits, feeding in flowery trees and the coconut palms; the "sheen" species is far more abundant than the black. Flycatchers call like the Solomon "bald" species; the gray-headed variety is not plentiful, and looks a larger bird than the Solomon kind. No fantails, land kingfishers, etc. Nothing new seen today. Swifts are present, but none have been taken; they are the usual species. I do not want to waste any cartridges. Cockatoos have been added, a larger type than the Solomons with a fine crest. This bird is found near Samarai, and is probably on most the neighboring islands. To my knowledge, the only birds missed are the white heron, seen in the mangroves, and a small bush kingfisher, reported by /David to resemble the one representative taken on New Guinea.

Oct. 25. Hove up at 7 and set sail outside harbor, standing out for Gawa I. Clear day for passage through shoal water at westward of Woodlark. We counted nine patches detached in the channel. Numerous terns around the exposed reefs and cays. I saw a gray (Solomon type) pigeon in flight eight miles off Woodlark.



We anchored off western side of Gawa at 8 P.M.

Oct. 26. Four hunters ashore. Found nothing new and birds as scarce as on Woodlark. Gawa is about 15 miles NW of Woodlark. It is an elevated atoll, coral fringed, with a great central declivity, there there are over a dozen villages. Extensive cultivation. Natives similar to Maruans, friendly, and productive of food. In its basic formation it is a prototype of Rennell I., probably of more remote origin, since the brackish lake has subsided in the center. Such water may be obtained anywhere by digging.

Oct. 27. Under way with fair wind for the others of the Marshall Bennet Group. I passed Kwarawata, also inhabited and centrally cultivated, lying about five miles NW of Gawa. Anchored off leeside of Dugumenn, the only uninhabited island of the group. Four of us landed at 8 and returned at noon. The interior is all coral and supports sparse bird-life, as typical. The ground dove is the only significant yield of the Marshall Bennets. Natives of the three eastern islands of the group use this, the smallest, wholly lacking in soil, as fishing quarters. All on board by noon when we hove up and stood out for Iwa I., but passed it by about two cables to leeward in a heavy squall from due N. It is steep all around, offering no anchorage. The structure is similar to the others neighboring. Natives hailed us from the top of the coral lime cliff; they are reported to be migrants from the Trobriands. We soon sighted Kitava and ran the engine for an hour, reaching anchorage off the western side between the mainland and a small islet. Kitave lies nine miles eastward of the middle of Kiriwina. The natives number about 400 and cultivate big gardens in the central fertile plain. In this, the terrain again resembles the islands just visited.



Mr. Cameron, the sole white resident, bringing up a plantation, came off to see us. He seemed very knowledgable about the birds, having been here 16 years.

Oct. 28. Sabbath observed. Teora down with fever.

A great host of natives visited us, bringing lashings of fine food, fruit, fowl, and vegetables, even to sweet corn and beans. Heavy rain most of the day.

Oct. 29. David, Charlie, and I out at 7. Charlie returned at 10 A.M. with high fever. I took the track up to one village and found walking quite easy after the coral cliff had been ascended. Kinds here indicate the beginning of real Papuan birds. Three species immediately come to mind as mainland kinds,-- a magpie (or butcher bird), a woodpecker (Cameron calls it "leatherneck"), and a black insectivorous bird, having a flare on its extreme lateral tail feathers. Sequoiquoi is the native term. The little bluish green "sheen" honeysucker is here and with the glossy flycatcher makes just two species of small birds. Mr. Cameron is quite intelligent about the birds and informs that several kinds he believes to be migratory,-- the "ee-ee" kingfisher, two species of pigeons, the white (known as the Torres Strait pigeon) and the gray "kooru" (Solomons). There is also a large bird known as "pulo" in native; Cameron calls it the "storm bird." This and the white-headed eagle-hawk we have not yet seen. The ground dove is the same as the Bonvouloir-Woodlark species. The cockatoo is lacking and very few of the red parrots. On the whole the avifauna shows a marked transition from Woodlark and the Marshall Bennet Group. We have here, perhaps, the meeting point of two migratory chains, diverging generally E. and W. I was very careful to inquire from several natives whether or not the new species encountered by us here,



coming from the East are present on Iwa, the nearest of the Marshall Bennet Group. All were positive in the negative. This island is inhabited but affords no sort of anchorage. We passed it within a hundred yards to leeward in a heavy northerly squall. Undoubtedly we should have found the same kinds of birds, similarly meagre in numbers, as on Gawa and Dugumenn Is., and Woodlark for that matter.

Oct. 30. Charlie still sick. Teora, David, and I ashore at 7. Mr. Cameron sent one of his labor boys out with Charlie's gun (he has a Papuan license) to look for this "pulo" and the white and gray pigeons. We have seen nothing of these species. The flycatcher is hard to get here because of the lack of navigable bush. The whole central declivity of the island is cultivated, and except where trails go through, the forest is very thick and the ground entirely broken coral, precipitous, making penetration too difficult. There is only one track beyond the plantation which extends all along the shore for four miles and continues on to the other side of the island. This is the path Mr. Cameron's boy will follow; if there are pigeons there he usually gets some. Lately he has not been getting any. These pigeons are shot for food regularly by residents. We are expressly allowed to take ten skins. I took nothing new today. It was very hot, true NW weather.

I talked long with Mr. Cameron about Kitava and its natives. He knows the language thoroughly and told me some of their folk-lore. He assisted Malinowski when he was on the main island (Kiriwina) in his extensive ethnographic study. These people are undoubtedly different from Papuan races. The maladjustment caused by the Methodist Mission has destroyed all their acquisitive instincts and rendered the race a dying one,-- just another case. There are other disintegrating factors but the mission is the most



vicious. I have found this to be true wherever Protestant Missions are operating with any effect. For appositive instance, no mission has had any real hold on Malaita. I learned a great deal more, but it is extraneous, I think, to this journal.

The natives have brought us a good representation of snakes, frogs, and gekos. I have noticed remarkable butterflies and insects; but I have no cyanide bottle at present. My conscience is continually pricking me to do something in this line and in malacology. Little has been accomplished since Dr. Drowne left the expedition.

Oct. 31. Hove up at sun-up and set sail to pass around the northern extremity of Kiriwina I., which is Bomatu Pt. Kiriwina, the main island of the Trobriands, lies at approximately 151° W and 8° S. It is over 40 miles long but not over 15 miles wide anywhere. We shall spend a few days first at Kaileuna I., just four miles west of the main island. There is no high land in the Trobriand Group. All the islands are coral and indicate similar atoll origin. Winds light from N. and NW. Started the engine in the early morning after the day's beating. Arrived and anchored off a village on the eastern coast of Kaileuna at 6:30 A.M. the morning of the 1st.

Nov. 1. I awoke with a swollen gland in the groin, the result, I think, of the successive doses of scrub-itch I have been undergoing of late. Four of us landed (the other hunters are well); but I only remained out until noon. I found additional species here, as Mr. Cameron indicated. I took a male and female (green and red) parrot and two peculiar birds, like the crow in build, shiny blue; iris, dark red. The internal structure appears unique to me; so much so that I put a couple in solution. A com-



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parative anatomist would understand it. Apparently, the wind-pipe divides just where it enters the upper diaphragm, one branch entering the body beside the gullet and another branch convolving itself double around the outside of the ventral frame just under the skin. Upon examination other specimens of the same bird, both male and female lacked this peculiar development. One was evidently commencing, the wind-pipe having a slightly curled elongation around the region of the lower neck. The sexual organs in all cases were mixed, both large and small. The relative ages of the specimens were undoubtedly different. The bird is a crow, I think; a fruit eater, known to the natives as "buli-buli". It is quite common. Both the leatherneck and the large magpie or jackdaw are present, also the black "spread-tail." These three species, I believe, are omnivorous, their stomachs showing both insects and vegetable matter. Teora brought in a fine night-hawk of a large species. Its stomach showed insects and a quantity of brownish matter, indicating omnivorous feeding capacity again.

I returned today at noon with a fever.

Nov. 2. Teora, David, and Charlie ashore at 7. I am very ill and miserable, mentally depressed. The boys did fairly well, bringing in a new bird, a sort of small dove, gray with a brownish striped breast; iris, dark brown; bill and feet, grayish. David says it feeds in low trees on fruit, like the dove. It is entirely new to me; I call it a "flat-head". A striped-breasted hawk was also brought in. The natives provide plenty of good food here. They are a scaly, lean and cadaverous looking bunch, all Methodized.

Nov. 3. I sent the three hunters out and busied myself with cleaning up the hold; as a result, my temperature



jumped up again and I spent more misery in stinking blankets. Another new one today, a thickhead, dark olive color, with no markings. David got the female "flat-head" or whatever it is, to match the male taken yesterday. Other species were added to. The natives brought in a fine, large snake, about  $7 \frac{1}{2}$  feet long, evidently of the "carpet" variety. In its digestive tract we found a fully grown magpie (or jackdaw); male small, evidently only recently taken. I forgot to mention the flycatcher's egg and nest that I got on Kitava. It was in a croton behind Mr. Cameron's house. I had to keep constant look-out for the three days we were there before I finally saw the bird, which proved to be the female of the one species of flycatcher found here, light brown with white breast. The male is a glossy blue-black with the brilliant orange mouth. A native caught one (male) sitting on a nest; the male apparently assists the female in this duty.

Nov. 4. Sabbath observed. I am still sick and poisoned and utterly black.

Nov. 5. Hove up and set a course under power for Sineketa or Kiriwina, a place recommended by Cameron. We found too much foul ground and stopped to anchor while a squall passed over. In picking our way out the vessel went hard aground. She came off with a kedge-line and the engine. I had her taken back to her former position, but anchored off Kiriwina instead of Kaileuna.

Today I am slightly better. No collecting done.

Nov. 6. Teora, David, and Charlie went ashore yesterday afternoon while I was abed. They brought back two new species, - an olive-bird similar in respects to Rennell and mainland New Guinea types (Samarai); but it is larger and has a dash of white skin showing just behind the eye. Otherwise it is quite plain.



The other is a thickhead; this old friend is in a drab gray-brown plumage, quite uniform throughout. The bird I call "flat-head" is a fruit-eater, most stomachs revealing small berries. The ground dove also favors these; the stuff grows in low trees close to the shore as a rule. The bill and feet of the mature bird are black; grayish in the young bird. It is quite tender to skin, like a gray bird.

This morning we moved the ship around as close to Kavatari, the main posse here, as possible and four of us landed. The immediate terrain is completely mangroves and broken coral. We followed a path that took us eventually to the Mission outfit and the government station. Tracks here lead into the bush. I sent the boys out while I went to call on the A.R.M. (Assistant Resident Magistrate, although there are many more appropriate terms that fit the initials). He said, "Have you bought your permits (note the "s") to collect birds? You can't start shooting here until I see them." Herewith I returned to the ship in a most humorous perplexity. Rogerson at Woodlark did not pull this gag; this gent did not seem to tumble to the fact that I had been shooting on Kitava and Kaileuna Islands for days, for I told him that we had just come from there. He said he had first taken us for a Japanese pearl poacher! This is the best government yet.

We got a few good birds but the roads go mostly through gardens. David and Teora both saw the "pulo" described by Cameron, not yet taken. There are flocks of waders here; two young yellow-legs were shot today, I think, and plenty of herons. The latter, first mentioned to me by Mr. Lumley, a pearl buyer here, as an "egret" in Samarai is the wonderful species that M. Lyons established what I believe to be a personal protectorate over. This is a



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theory. These herons are similar to the reef species of the Solomons and none of us have seen or heard of an egret yet. We shall see. The kingfisher must be migratory and in its off-season; we have seen none yet on any of the Trobriands.

Nov. 7. The inaccessibility of this place is perplexing. We have to walk 2 1/2 miles to get to tracks that lead only to gardens. The best collecting ground is swamp and matted vegetation, mangrove and broken coral; about the first place I have yet struck out here where we simply cannot get about. Both Kitava and Kaileuna, the Marshall Bennett Group and Bonvouloir Group were similar but presented no patch of terrain like this NW end of Kiriwina. Four of us landed at 6:30. I had to show Mr. Rentoul my permit, which I did and he made no further inquiries or imputations. The attitude he assumed yesterday, which put me somewhat on guard, was prompted by the novelty of his being confronted in official capacity by a bird-collector with gun. I was also determined to find out about the egret, so I walked two miles further to Mr. Lumley's place. He confirmed the species' presence by good description. It is probably protected, so I am evidently mistaken about M. Lyons. Charlie got one of the "pulo" birds today. It is quite striking, - carmine iris, a beak like a hawk, legs and feet gray. It is a fruit-eater and is frequently found with the Torres Strait white pigeons. It is shot consistently by residents for kai-kai. I want more thickheads and olive-birds, but we cannot reach them from here. These were not seen on Kaileuna, which seems unusual and we penetrated bush over there.

A most peculiar bat and a large insect were taken today by me. The insect life here is unusually varied. I wish I could do more in this line and others.











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