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Notes on Birds from the Tamrau Mountains, New Guinea

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INTRODUCTION

During July and August, 1964, the late E. T. Gilliard spent four weeks surveying the avifauna of the westernmost part of the Tamrau Mountains, northern Vogelkop, West Irian (see fig. 1). Mt. Bantjiet, a peak separated by a broad valley from the main Tamrau Range to the east, was the focus of the expedition, which spent a period of some 15 days at approximately 6000 feet on this mountain. To reach Mt. Bantjiet it was necessary for the party to walk inland from the coastal village of Sausapor to the southern watershed of the Tamraus in order to recruit mountain natives to serve as carriers at the higher altitudes. The natives that live at 4000 feet in the southern watershed are the only people in the area of the western Tamrau peaks.

In detail the itinerary was as follows: On July 18 the expedition party left Sausapor and headed west along the coast. After walking along the beach for about two hours and crossing two large streams (the Wara Blei, a wide and swift but shallow stream, and another somewhat larger river) the expedition followed the trail into the forest at a point where the beach became narrow and rocky. The trail began ascending in a

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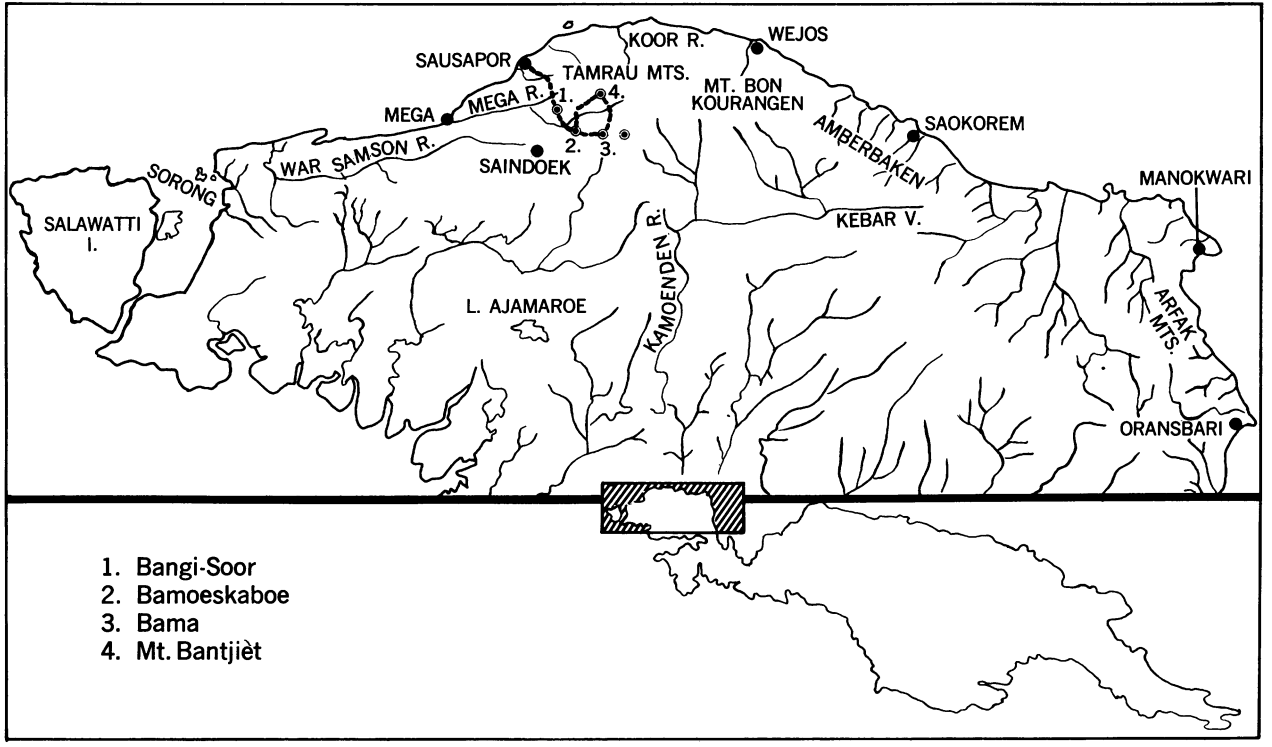

FIG. 1. Map of the northern part of the Vogelkop Peninsula showing itinerary and main collecting localities.

generally southward direction, first following the east bank of the Wisan River and then crossing it. Thereafter the trail ascended sharply and came out on a narrow grass-covered keel that separated the Aqua River to the west from the Wisan River to the east. Both rivers were perhaps 600 to 700 feet directly below. The grassy area, 400 to 600 yards long and extending down some 200 feet on each side of the keel, did not appear to be man-made, but may have been due to insufficient moisture to support tree growth on the thin ridge. After passing over this unusual landmark the trail ascended very steeply until a bivouac shed was reached after some seven hours on the trail. This camp, number five, was occupied on the night of July 18.

The following day the party covered 22 trail miles. The trail led through a forest of tree ferns, whose trunks were covered with small ferns and other plants and from which hung clusters of thin lianas; it then emerged onto the top of a 4000-foot ridge. Thereafter the trail descended sharply to about 2000 feet and the forest became quite dry, probably because of a rain shadow effect of the range just crossed. A fairly level trail continued to the village of Bangi-Soor at which camp number six was erected.

On July 20 the expedition moved from Bangi-Soor to camp number seven at Bamoeskaboe village. From camp six the trail dropped steeply to the Mega River, which was some 100 feet wide and swiftly flowing, and then ascended very steeply to approximately 3500 feet where it followed an undulating ridge south and southeast for about five miles, descending ultimately to the Susjan River. The Susjan is a small stream, only 10 to 15 feet wide and quite shallow; the trail crossed it four times. From here the trail climbed up to old Bamoeskaboe village, where Ripley had collected briefly in 1938 (see below), and on to new Bamoeskaboe on a mountaintop to the south of the old village, at which place camp was made.

The following day was spent in travel between Bamoeskaboe and camp number eight at Bama village (4000 feet). The trail between these two villages was very good and ascended steadily but nowhere steeply. From Bama village a fine panorama of mountains could be seen. To the northwest, two days walk distant, rose Mt. Bantjiet; to the southwest could be seen the Moraik Range, a long, low range, the highest point of which is some 500 feet below the Bama village site; far to the southwest the Ajamaroe Mountains could be seen. Two days were spent at Bama.

On July 23 the expedition moved from camp eight to camp nine, continuing eastward on the trail from Bama toward Bamford and then turning northeastward on the Mt. Bano trail. Mt. Bano was ascended

to just below the summit where a spur trail to the left was taken toward Mt. Bamay, and shortly after crossing the Su Dee River the bivouac area was reached.

After leaving camp nine on July 24, the trail inclined moderately upward, going northwest and north-northwest and then north. After about three hours of walking, the expedition party came upon a lookout from which there was a splendid view eastward to the main Tamrau Range. Mt. Tokil, which rises just north of Sedjak on the Kebar trail, was seen some 16 to 20 air miles eastward. In between was a deep valley in which, according to native informants, the Koor-Bamford trail lies. This is probably the trail followed by Ripley in 1938 (see Mayr and de Schauensee, 1939, p. 98). The trail continued to climb through thick forest to a fork. The left branch led to the summit of Mt. Bantjiet, the right one to camp number 10 at 6000 feet, where two weeks were spent surveying the mountain avifauna.

Camp number 11 was a one-night bivouac set up on the exit from camp 10 to Bamoeskaboe. The walk from camp 11 to Bamoeskaboe was on a somewhat different trail from the one followed in. The general direction was southwest and the trail eventually came out on a knife ridge between the Mega River to the north and the Su Dee River to the south. At one point this ridge was about 150 feet high and the rivers were only 150 feet apart. Thereafter the rivers separated and, after descending a steep face the trail crossed the Su Dee. After this crossing, the trail made several sharp ascents and descents and at last came out on the Bamoeskaboe-Bama trail.

Camp 12 was erected just below the summit of the long ridge trail between Bamoeskaboe and Bangi-Soor, about two hours' walk west of Bamoeskaboe. It was occupied for two and one-half days, from August 9 to 11, for the purpose of studying and photographing the bower of *Sericulus aureus* reported below.

In 1938 Dillon Ripley accompanied a Dutch Patrol Officer into this same area of the Tamraus, following essentially the same trail from Sausapor to Mt. Bantjiet, but he was forced to return to the coast after only two days of collecting beyond Bamoeskaboe. Later he ascended the Koor River to Sedjak, probably via the trail mentioned above and exited via Mt. Bantjiet to Sausapor, but this was a rapid march with little time for collecting. Ripley's main collecting was done on Mt. Bon Kourangen in the eastern Tamraus inland from Wejos, where he spent 16 days at 5200 feet (Mayr and de Schauensee, 1939, pp. 98–99). The birds collected in 1964 have in no case proved subspecifically distinct from those collected by Ripley, but noted below are those species which either had not

previously been collected in the Tamraus or are for various reasons particularly interesting. A complete list of species collected by Gilliard is in table 1.

In addition to the survey conducted by Gilliard, a collection of birds was made by Lawrence and Stella Quate in the Kebar Valley in 1961, while they were primarily engaged in entomological studies for the Bernice P. Bishop Museum, Honolulu. Thirty specimens from this collection are now in the American Museum of Natural History and notes concerning a few of them are included in the present report. The Kebar Valley is perhaps 10 trail days east of Bamoeskaboe, along the same trail followed by Gilliard from Sausapor to Bamoeskaboe. It is inland south of Saokorem on the Amberbaken coast of the Vogelkop and is situated at an altitude of approximately 1700 feet. Hoogerwerf (1964) also spent some time in the Kebar Valley and his report should be consulted for additional ornithological notes.

ACKNOWLEDGMENTS

The field party included, in addition to the senior author, Parum Suparlan, an Indonesian from Djayapura; Toha and Tojibun, Indonesian taxidermists who had also ably served the Batanta phase of the expedition in the same capacity (see Greenway, 1966); and carriers recruited at Sausapor and Bama. We gratefully acknowledge their assistance.

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SPECIES NOTES

Ardea sumatrana sumatrana Raffles

GIANT HERON

One immature specimen of this scarce species was obtained by the Quates in the Kebar Valley on January 17, 1962. This bird is generally confined to altitudes considerably lower than the 550 meters of the Kebar Valley.

Accipiter melanochlamys melanochlamys (Salvadori)

BLACK-MANTLED GOSHAWK

One male of this seemingly rare species was collected on Mt. Bantjiet at approximately 6000 feet; weight, 245 grams[1]. The iris was orange-yellow, the eye ring narrowly yellow, the cere and gape lemon yellow, the bill black becoming gray on the mandible and the basal cutting edges of the maxilla, the feet chrome yellow with black nails. The stomach contained the remains of a bird. In the light of recent evidence (Ripley, 1964, p. 18; Gilliard and LeCroy, 1968, p. 8) it seems that small birds may form a sizable part of the diet in this species, as they do in many accipiters.

The validity of the race *schistacinus* has been questioned by several authors, but now with additional recently collected material in hand it seems apparent that Vogelkop birds do differ from those occuring on the trunk of New Guinea. We have two males from the Vogelkop, including the Mt. Bantjiet specimen, and three males from the main trunk of New Guinea, one from Lake Habbema, one from the Weyland Mountains, and one from Mt. Kominjim in the Schraders. The two Vogelkop birds are very similar in coloration, darker maroon below and blacker above than the other three.

Measurements of wing and tail, respectively, of males of *Accipiter melanochlamys* are: *melanochlamys,* 218, 221; 157, 162; *schistacinus,* 218,[2] 220, 226; 150, 161.

Talegalla cuvieri Lesson

RED-BILLED BRUSH TURKEY

A male obtained at about 4000 feet on Mt. Bantjiet was found on the

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[1] Throughout the present paper, weights are given in grams; measurements are given in millimeters.

[2] In Gilliard and LeCroy, 1967, p. 8, the wing measurement of this specimen was incorrectly given as 211 mm.

floor of moss forest on a sharp ridge situated about a mile from camp 10. The testes were much enlarged, measuring 27 by 36. The wing measures 295; tail, 166; tarsus, 91; exposed culmen, 35. Native name: *Nang-wo.*

The altitude at which this specimen was collected is quite high, for the species occurs mostly in the lowlands and "occasionally up to 2500 feet." (Rand and Gilliard, 1967, p. 97). This upward extension of range in the Tamraus may be correlated with the apparent absence of *Aepypodius arfakianus.*

Mounds probably belonging to this species were observed at approximately 3000 and 1500 feet. Both were situated on gently rounded ridges in deep forest near the bases of large trees and were constructed of leaves and sticks. One mound measured 6 by 11 feet by 18 inches high and the other 8 by 9 by 2 feet high.

Porzana tabuensis tabuensis (Gmelin)

Sooty Rail

Two specimens were collected by L. and S. Quate in the Kebar Valley at 550 meters on January 16, 1962. From published reports, this rail seems to be largely confined in New Guinea to altitudes above 2500 feet, but it was collected at Astrolabe Bay in August, 1892 by Fenichel (see Stresemann, 1923, p. 89) and by Hoogerwerf at Kurik in southern West Irian in May (1964, p. 119). Hoogerwerf also observed it alive on Frederik Hendrik Island. Although Hoogerwerf spent some time in the Kebar Valley, he apparently did not encounter this species.

Ptilinopus ornatus ornatus Schlegel

Ornate Fruit Dove

One specimen of this rare subspecies characterized by deep magenta on the crown and sides of the head was collected by L. and S. Quate in the Kebar Valley. Wing, 150.

Pseudeos fuscata fuscata (Blyth)

Dusky-orange Lory

Two females were collected at 4000 and 6000 feet on Mt. Bantjiet; wing, 156, 158; tail, 87, 88; weights, 140, 153. This species was not obtained by Ripley in the Tamraus.

Geoffroyus simplex simplex (Meyer)

Blue-collared Parrot

One female was collected at 4000 feet on Mt. Bantjiet. Weight, 161.

This species was heard by Ripley in the Tamraus, but not collected

(see Mayr and de Schauensee, 1939, p. 115). It has hitherto been collected on the Vogelkop only in the Arfak Mountains.

Tanysiptera nympha Gray

PINK-BREASTED PARADISE KINGFISHER

Gilliard collected one female near Bama village and one, sex undetermined, was collected by the Quates in the Kebar Valley. This latter specimen has already been mentioned in a discussion of geographical variation in this species (Gilliard and LeCroy, 1967, p. 64). We also examined the specimen taken 30 years ago by Ripley's collectors on the Kela Gim River. Comparison of these three specimens confirms our earlier suggestion that the reddish apricot color fades considerably in collections. Ripley's specimen is a female that had almost completed the molt into adult plumage. It has the breast and abdomen a light pinkish apricot but the lower rump is as intense an apricot-red as that found on the abdomen and rump of the specimen collected by the Quates. The specimen collected by Gilliard has the under parts and rump a reddish apricot, with the red on the rump more intense than in the other two. On the other hand, the bird that was collected in the Tamrau Mountains in 1964 is indistinguishable from two recently collected in the Adelbert Mountains in color of the under parts and rump.

The three specimens from the Vogelkop agree with other older Vogelkop material in the American Museum in having ochraceous feathers growing from between the the rami of the lower mandible. Except for two unusual specimens mentioned in the 1967 report, which have the throat pale, this ochraceous stripe is of the same color as the throat.

Hirundo rustica gutturalis Scopoli

BARN SWALLOW

The Quates obtained three specimens of this uncommon migrant from Asia in the Kebar Valley on January 19, 1962.

Crateroscelis robusta ripleyi Mayr and de Schauensee

MOUNTAIN MOUSE-BABBLER

Two males, one immature male, one female and one, sex undetermined, were collected on Mt. Bantjiet at approximately 6000 feet. Wing, males: 60, 60; female: 57; tail, males: 38, 39; bill, males: 13, 14; female: 14. Iris, males: pale yellow, yellowish brown, sooty gray (immature).

Our freshly collected specimens compare well with the type of *ripleyi* from Bon Kourangen. They all differ, as stated in the original description

(Mayr and de Schauensee, 1939, p. 121), in having a more olivaceous tint than specimens of *peninsularis* from the Arfak Mountains. This poorly differentiated subspecies represents the only instance in which birds of the Tamrau Mountains differ from those of the Arfaks.

Eupetes castanonotus castanonotus Salvadori

MID-MOUNTAIN EUPETES

One male and one juvenile female were collected on Mt. Bantjiet. The male measured: Wing, 92; tail, 98; exposed culmen, 25. The juvenile female is similar to a somewhat less-advanced juvenile female collected at Ditschi on the Vogelkop, but is darker over-all, probably due to foxing of the older specimen. Underneath it is blackish gray with a white throat. Above the fluffy juvenile plumage is tipped with deep chestnut brown. The eyestripe is pale blue, some of the secondaries and secondary coverts are edged in blue, and the tail is blue above.

This species was not obtained by Ripley in the Tamraus.

Todopsis wallacii Gray

WALLACE'S WREN WARBLER

One specimen obtained at 4000 feet near Bama village was badly damaged and was preserved in alcohol. This species was previously collected by Mayr in the Arfak Mountains but was not encountered by Ripley in the Tamraus.

Acrocephalus arundinaceus orientalis Temminck and Schlegel

GREAT REED WARBLER

A specimen of this Asiatic migrant was collected by the Quates in the Kebar Valley on January 21, 1962. It constituted the first record of this larger subspecies for New Guinea (LeCroy, 1969).

Sericornis spilodera spilodera (Gray)

PALE-BILLED SERICORNIS

A male was collected at approximately 4000 feet on Mt. Bantjiet. Wing, 61; tail, 45; culmen from base, 13.

Sericornis virgatus imitator Mayr

PERPLEXING SERICORNIS

Two specimens, one male and one of undetermined sex, belonging to the *Sericornis nouhuysi-virgatus-beccarii* complex (see fig. 2), were collected

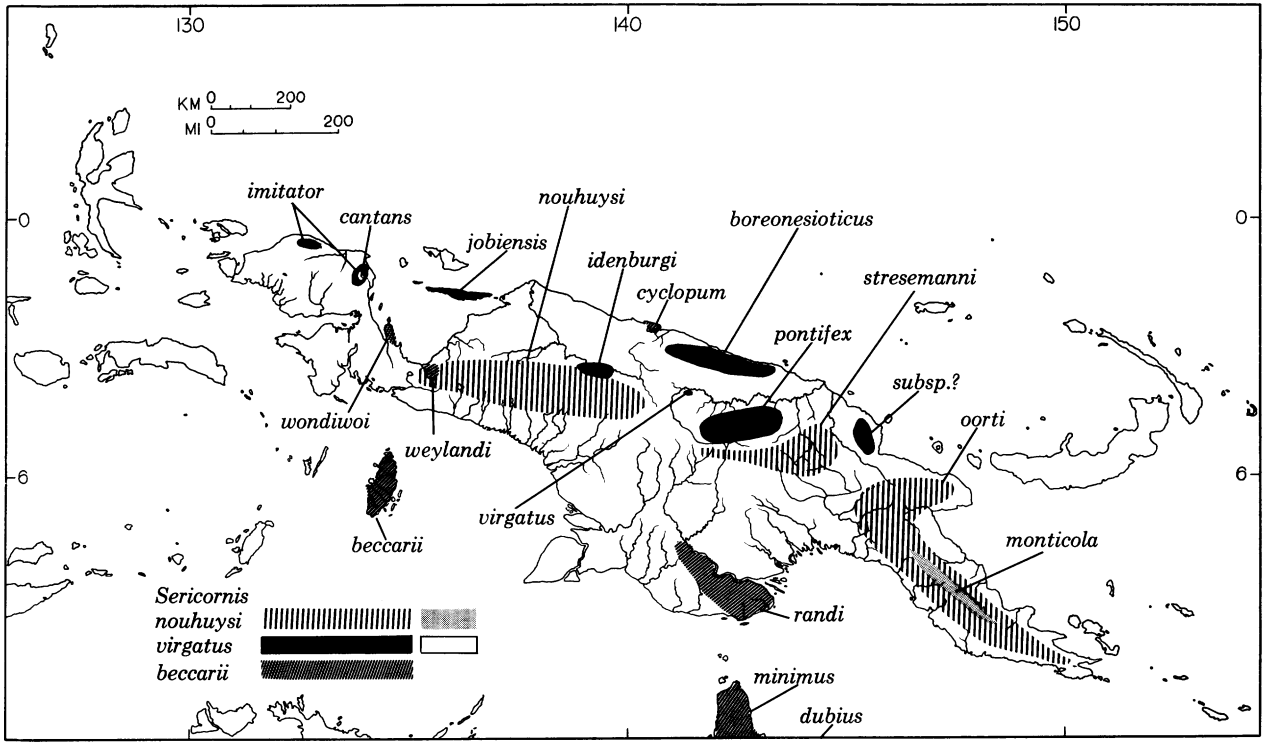

FIG. 2. Map showing the ranges of *Sericornis nouhuysi, S. virgatus,* and *S. beccarii.* See text for explanation.

on Mt. Bantjiet. While studying these two specimens, it became necessary to re-examine the populations in this difficult group. There have been numerous treatments proposed for the New Guinea representatives (for example, Mayr, 1937, 1941; Rand and Gilliard, 1967; Diamond, 1969) and while we hesitate to introduce yet another, we feel that the matter deserves further comment.

The populations do fall most conveniently into three species, as first suggested by Rand and Gilliard (1967, p. 359). We include in *S. beccarii* the following subspecies: *beccarii, weylandi, randi, wondiwoi,* and *cyclopum,* as well as *minimus* and *dubius* from Cape York (see Parker, In press). This treatment differs from that of Rand and Gilliard by considering *idenburgi* a subspecies of *S. virgatus* (see below). It differs from the arrangement proposed by Diamond (1969, pp. 21–31) in that he placed the subspecies *wondiwoi, weylandi,* and *cyclopum* in the species *virgatus,* since they have been collected at altitudes between 2500 and 4500 feet, like the *virgatus* races, and in contrast to the other *beccarii* races, which live at sea level. There is in the case of *cyclopum,* however, at least one record from sea level (a specimen from Hollandia collected by Rand) and the possibility of five more. These specimens were collected by Dumas "near Humboldt Bay" with no altitude noted on the labels; one is in the American Museum and four in the British Museum are mentioned by Ogilvie-Grant (1915, p. 112) as being near *S. b. beccarii* (*cyclopum* had not been described).

Morphologically *cyclopum* is near *beccarii* but it is more greenish on the back, with the browner head contrasting more than in the other subspecies. The ear coverts are lighter than the face, more gray-brown, and the spotting on the throat is either faint or lacking.

Specimens of nominate *beccarii* from the Aru Islands and of *weylandi* from the Weyland Mountains are very similar and the two populations may be separated only on the basis of a slightly longer wing in *weylandi* (males: 63, 63, 63.5; females: 57, 59, as against males: 58, 58.5, 60; females: 52.5, 52.5, 57 in *beccarii*).

Sericornis b. wondiwoi is nearest *cyclopum* but has the facial pattern reduced, with little or no black around the eyes or on the head in either sex. The white spots above and below the eye are smaller and the back is more olive, with the head contrasting very little. It is possible that this is a peripheral population which has lost its distinctive facial markings, just as Parker (In press) has suggested is true of *S. b. dubius* from the southern Cape York Peninsula.

Previous workers have for the most part been in agreement concerning the treatment of *S. nouhuysi.* The form *cantans,* from high elevations

in the Arfak Mountains, has however been considered by Mayr (1937) and by Diamond (1969) to be the Vogelkop representative of *S. nouhuysi* but by Rand and Gilliard (1967) to represent an altitudinal race of *virgatus*. This is discussed further below.

In our opinion *S. nouhuysi* should include the following subspecies: *nouhuysi* from the Weyland and Snow mountains; *stresemanni* from the Hindenburg Mountains, the Central Highlands, and the Schrader Mountains; *oorti* from the Huon Peninsula and southeastern New Guinea; and *monticola* a larger, paler form from the highest mountains in southeastern New Guinea.

Nominate *nouhuysi* is a well-differentiated subspecies, more brownish above and below than the other subspecies. *Sericornis n. stresemanni* and *oorti* are very similar, with *stresemanni* somewhat more rufous brown on the upper parts. Specimens collected in the Schrader Mountains in 1964 (see Gilliard and LeCroy, 1968, p. 17) are practically topotypical *stresemanni*. Some of these skins are now greener above than others. Presumably they are foxing at different rates, as we noted no variation in the back color within the series originally.

In re-examining the material from the Victor Emanuel and Hindenburg mountains we found that the situation is more complex than we had originally reported (Gilliard and LeCroy, 1961, p. 49). Specimens we had originally considered to be immatures of *S. n. stresemanni* now, with more material available, appear to be closest to *S. virgatus pontifex* (see below). These are all from the Victor Emanuel Mountains at about 4800 feet and are thus from the northern watershed of the main ranges. The specimens from the Hindenburg Mountains, southern watershed, are all *S. n. stresemanni* as originally reported and two immature specimens not previously identified are probably this subspecies. These young birds are quite dark on the under parts with a rufous wash; above they are somewhat more brownish.

One specimen from the Victor Emanuel Mountains is inseparable from *S. n. stresemanni*. Whether this means that both *virgatus* and *nouhuysi* occur in the Victor Emanuels or whether it indicates a very close relationship between the two populations can be resolved only by further collecting.

One specimen collected in the Adelbert Mountains and recorded by us (Gilliard and LeCroy, 1967, p. 67) as *S. n. oorti* has been questioned by Diamond (1969, pp. 29–30). Careful re-examination of this specimen and comparison with specimens of *S. virgatus pontifex* lead us to believe that it is closest to *pontifex* as Diamond suggested. It lacks a yellowish wash on the abdomen, the greenish cast to the plumage may very well

reflect the recent date of collection (1959), and the black bill also occurs in *pontifex* (see below). However, subspecific designation based on a single specimen does not seem feasible.

Perhaps the most important factor in our re-evaluation of this complex of populations was the availability of specimens of *pontifex*. This subspecies was described by Stresemann in 1923 from seven specimens collected by Bürgers at Lordberg and Mt. Hunstein. Mayr seems to have been the only reviser since then to examine the series. Fortunately we were able to borrow from Berlin the entire original series, including the type, and from Australia two additional specimens collected on Mt. Hunstein in 1966.

As Mayr (1937, p. 19) noted, the seven original specimens of *pontifex* are quite variable. The bill color varies from light to very dark in the skins and the upper parts of some individuals are more greenish than those of others. The face color is variable, but there is generally a buffy wash on the sides of the face and the throat. The greater primary coverts tend to be noticeably darker than the rest of the wing; the middle and lesser primary coverts may be faintly tipped with buffy. There is no yellowish wash on the belly. The specimens collected in 1966 tend to be greener on the back and have black bills. As mentioned above, all of the specimens from the Victor Emanuel Mountains except one are within the range of variation of *pontifex* and the Adelbert Mountain specimen also appears to be closest morphologically to this population.

We believe that *pontifex* is best treated as a subspecies of *S. virgatus*. As a species *virgatus* can best be separated from *beccarii* by its buffy face and throat, lack of a facial pattern in both sexes, lack of a clear yellow wash on the abdomen, and the almost complete lack of white tips on the middle and lesser primary coverts. When these tips are present, they are usually an indistinct buffy to olive. From *nouhuysi, virgatus* may best be separated by lack of a yellowish wash on the abdomen and by having the greater primary coverts darker than the rest of the wing.

Unfortunately we were able to examine only one specimen of nominate *S. v. virgatus*. It is very similar to the brownest specimens of *pontifex* and additional specimens may show that *pontifex* should be considered a synonym of *virgatus*.

Sericornis virgatus boreonesioticus, described by Diamond (1969, pp. 21–31) from the North Coastal Range is most similar to *jobiensis* but with the abdomen paler and the breast less washed with rufous.

The dark subspecies *idenburgi* is olivaceous below with the breast darker, the abdomen more olive. The throat is lighter and rather strongly spotted with blackish, and there is an indistinct facial pattern

in the two males we have seen, but none in the females. This population most closely resembles populations of *S. virgatus* in its darker coloration, lack of yellowish wash on the abdomen, faint buffy tips on the primary coverts, and lack of facial pattern in the female. But it could be argued that the indistinct facial pattern in the male and the spotted throat place it closer to *S. beccarii,* and that it is a peripheral population with reduced facial pattern as suggested for *S. b. wondiwoi.* However, we have weighted rather heavily the fact that two immatures are very brownish above and have an unstreaked throat washed with rufous. Young of *S. beccarii* tend to be similar in color to the adults but somewhat paler. Other subspecies of *virgatus* for which we have immatures—*jobiensis* and *imitator*—also have the plumage washed rufous. On this basis we have tentatively placed *idenburgi* in *S. virgatus.* As will be seen below, we think that immature plumage with a rufous wash indicates a very close relationship between *S. virgatus* and *nouhuysi.*

The birds from Japen Island, *jobiensis,* are similar to *idenburgi* in color of the upper parts; the abdomen is lighter and less olive. There is a rufous wash on the face and forehead and a buffy wash on the unspotted throat. One immature is very brown above. The throat, breast, and flanks are quite rufous and the center of the abdomen is washed with buffy.

The Arfak populations *imitator* and *cantans* have, as mentioned above, been variously treated. Lower altitude *imitator* seems to us closest to *jobiensis* and we would thus include it in *S. virgatus.* Specimens of *imitator* are somewhat more brownish olive above than those of *jobiensis* and on the average are slightly darker below; face color is similar in the two populations. The throat is clear gray and unstreaked in *imitator* and the tipping on the primary coverts is much reduced or lacking. Immatures are similar to immatures of *jobiensis* but are paler above and have the under parts somewhat less rufous.

We examined one of Ripley's specimens from Bon Kourangen in the Tamraus; it exactly matches *imitator,* although Ripley's second specimen, which we did not see, is reported to be intermediate between *imitator* and *cantans* (see Mayr and de Schauensee, 1939, p. 124). The two specimens collected by Gilliard are also closest to *imitator* but are more greenish above and below. This is presumably because they were only recently collected.

Typical *cantans* from the higher elevations in the Arfak Mountains seems to us most similar to specimens of *pontifex*; the lower breast and abdomen are a uniform brownish olive, less tan than in *pontifex.* Above, *cantans* closely matches some specimens of *pontifex* but is browner than others. The throat and upper breast are rufous. Two immatures are

similar to adults but are somewhat browner above.

It is possible to consider this population either as a very dull-colored subspecies of *S. nouhuysi* or as an altitudinal subspecies of *S. virgatus*. We prefer the latter as some specimens from intermediate altitudes are impossible to identify with certainty, and we believe that further collecting will show the differences to be clinal in nature.

Sericornis nouhuysi and *virgatus* are undoubtedly very closely related and might be treated as one species with the populations from areas peripheral to the main ranges having lost the yellowish coloration present in the other populations. However, as *idenburgi* and *nouhuysi* appear to exclude each other altitudinally on the north slopes of the Snow Mountains and there is the possibility of overlap without interbreeding between *stresemanni* and *pontifex* in the Victor Emanuels, it seems to us preferable to treat them as separate species for the present.

Diamond (1969) separated *S. beccarii* and *S. virgatus* on the basis of their known altitudinal ranges and geographical distribution. We prefer to retain morphological criteria for separating the two species for we feel that the altitudinal ranges of some of the populations are imperfectly known and that the following explanation of the distribution may be equally plausible.

It can be seen on the map (fig. 2) that populations of *S. virgatus* are confined to areas north of the central ranges and that in no instance do three forms replace each other altitudinally on the same range, as Diamond (1969, pp. 26, 27) described for *Sericornis spilodera, S. arfakianus, S. perspicillatus,* and *S. papuensis*. However, *S. beccarii* and *S. virgatus* do apparently exclude each other geographically, for the lower altitudes in areas which support *S. nouhuysi* populations may be inhabited by *beccarii* or *virgatus*—never both.

We would propose a double invasion of New Guinea, as Diamond (1969, p. 31) has suggested, of forms ancestral to the present ones, and we would agree that ancestral *nouhuysi* arrived first. But it seems possible to us that the forms we include in *S. virgatus* have arisen in the isolated northern ranges from *nouhuysi*-like ancestors and have since reinvaded the north slopes of the main ranges. Their close relationship is indicated by, among other things, the similarity of the young (see above).

The second invasion would then have been by a *beccarii* form from the south, which has apparently remained strictly a lowland form in the southern watershed (but an exception may be a specimen collected at Lake Kutubu; see Schodde and Hitchcock, 1968, pp. 45, 46). Once, however, it was able to cross the hilly country in the area of Geelvink Bay and enter the northern watershed it was able to exploit a broader

altitudinal range, bringing it into direct competition with the expanding *S. virgatus.* The present distribution of the *beccarii* and *virgatus* forms to the east and west of Geelvink Bay may reflect either ecological exclusion of one form by the other or chance arrival of only one form in a locality.

Sericornis (rufescens) rufescens (Salvadori)

ARFAK BUFF-FACED SERICORNIS

Three males and one female were collected on Mt. Bantjiet at approximately 6000 feet. One male had the testes enlarged. Wing, males: 51, 51.5, 52; female: 51; tail, males: 37, 37, 38; female: 39; culmen from base, males: 13, 14, 14; female: 13; weights, males: 8.3, 9; female: 8.5.

These specimens agree well with *rufescens* from the Arfak Mountains and with one specimen collected by Ripley at Bon Kourangen, except that our more recently collected birds are darker, less brownish above.

Sericornis arfakianus arfakianus (Salvadori)

GRAY-GREEN SERICORNIS

One male and one of undetermined sex were collected on Mt. Bantjiet between 4000 and 6000 feet. They agree well with birds from the Arfak Mountains in the green of the back and the greenish gray sides of the head. They are somewhat darker over-all, probably due to foxing of the older specimens. Compared with a series of *olivaceus* recently collected in the Adelbert Mountains, the Tamrau specimens are more greenish, less olive, on the back and head; the sides of the face are more grayish green, less tan, and the tail is a duller brown. Male: wing, 53.5; tail, 38; culmen from base, 14.5; tarsus, 19; weight, 9.

Sericornis spilodera, S. arfakianus, and *S. rufescens* evidently form an altitudinal sequence in the Tamraus such as Diamond (1969, pp. 26–28) reported from other New Guinea mountains.

Peneothello cryptoleucus cryptoleucus (Hartert)

GRAY THICKET-FLYCATCHER

Two males and two of undetermined sex were collected at approximately 6000 feet on Mt. Bantjiet. Males: wing, 81, 85; weight, 18.5, 19. Our birds compare well with three specimens from the Arfak Mountains except that one Tamrau bird has a lighter abdomen, as light as the darkest individual in a series of skins from the Weylands. The Weyland birds, however, in addition to being generally lighter on the abdomen, have a darker, more blackish, crown.

This species was not obtained by Ripley, and this record constitutes a westward extension of range from the Arfak Mountains.

Peneothello bimaculatus bimaculatus (Salvadori)

WHITE-RUMPED THICKET-FLYCATCHER

A male was obtained on Mt. Bantjiet. The specimen was brought into the 6000-foot camp, but it is possible that it was collected as much as 2000 feet below. This flycatcher was not obtained by Ripley in the Tamraus.

Pitohui nigrescens nigrescens (Schlegel)

BLACK PITOHUI

We have five specimens of the Black Pitohui from the Tamraus: one male, one female and three sex unknown. All are in black plumage. The male and two birds of unknown sex are quite black; whereas, the female and the other bird of unknown sex are blackish, but with the pigment less saturated and with a brownish cast to the wings. We also examined the eight specimens collected by Ripley. Five of these are black and three are brownish olive. One of the black birds is a female and two of the brownish olive birds are males.

In the collections of the American Museum of Natural History there are two other black female specimens of this species. One, collected by A. S. Anthony in the Owen Stanley Mountains, is a very black bird. The other, collected by A. S. Meek on the Angabunga River, is marked "female?." It is of a less intense black, similar to the Tamrau female, with a brownish cast to the wings and prominent rufous tips on the ear coverts. There were no birds sexed as males with brownish olive plumage.

It is not likely that the black specimens sexed as females were immature males, as there are six immature males in the museum collections. Five of these have the bill very light; the sixth has the bill darker, but not black. One, with a light bill, shows no other signs of immaturity. The other five all have scattered rufous feathers in the plumage. This rufous color is similar to that of adults in other species of *Pitohui,* such as *kirhocephalus,* and is presumably the color of the young bird. There is no trace of rufuous in any of the black females other than on the ear coverts, and the bills are all quite black.

Thus it appears that on occasion females of *Pitohui nigrescens* may assume the black male plumage, although with the color generally somewhat less saturated. Whether there are truly two phases present or whether some females become black with increasing age remains to be seen.

Our five specimens and almost all of the skins we studied were very heavily parasitized. Specimens of these parasites were sent to Jean Gaud in France who very kindly sent us the following information.

Gaud found six species of acarians, the two most common being *Hyperalges magnificus* Trouessart and *Hyomesalges ceratopus* (Bonnet), both of which have *Pitohui nigrescens* as their type host. *Hyperalges* is a monotypic genus, closely related to the genus *Hemialges* which is widespread among oceanic passerine birds, particularly among species of the genus *Pachycephala.*

Four other species of acarians were also present. Two belong to the genus *Ingrassiella*, Analgidae, Xolalginae, and two to the Proctophylloididae, one near the genus *Monojoubertia* and one belonging to *Trouessartia.* These four species are apparently as yet undescribed.

Drepanornis albertisii albertisii (Sclater)

BLACK-BILLED SICKLEBILL

One male and one female were obtained at approximately 6000 feet on Mt. Bantjiet. The male was shot on a sloping moss-covered limb about 35 feet from the ground; its stomach contained small beetles, three "worms," two long orange insect casings, and many additional small, hard insects. The female was reported to be solitary, at about the same height in a tree, and to be probing in the moss on the top and sides of a limb. Wing, male: 152; female: 143. Weights, male: 114; female: 105. This species was not encountered by Ripley.

Amblyornis inornatus (Schlegel)

VOGELKOP GARDENER BOWERBIRD

Two males and one female were collected on Mt. Bantjiet. The gonads were enlarged in all three. Weight, males: 129, 141; female: 146. Native name: *Nam dur.*

This extraordinary bird has been little studied in the wild; apart from descriptions of its elaborate bower, little appears in the literature concerning its behavior. Therefore every effort was made during the Tamrau Expedition to find bowers and to document on film the behavior of the bird. The senior author was fortunate to find a cluster of nine bowers in an area of about one square mile on Mt. Bantjiet, five of them in active use.

The most intensively studied of these bowers has been illustrated and described, including a description of a visit by a female to the bower, in Gilliard (1970). The other bowers differ greatly in shape and ornamentation. Figures 3 and 4 indicate some of this variation.

Sericulus aureus aureus (Linnaeus)

GOLDEN REGENT BOWERBIRD

One immature male was obtained at about 4000 feet on Mt. Bantjiet;

weight, 148. The iris and bill were brownish black, feet grayish black. The stomach was empty. Native name: *da doo.*

This immature male has the abdomen as yellow as that of the adult male, with some slight dark scalloping on the flanks, but has otherwise not begun to acquire adult plumage. The breast is bright yellow broadly scalloped with blackish brown. The throat is yellow with the feathers tipped with brown, giving a mottled appearance to the throat, quite different from the buffy throats of the other immature males available for comparison. The ear coverts are also tinged golden orange in our specimen.

Of three comparable males molting into adult plumage, two show traces of the mottled yellow and brown throat and one has traces of golden orange on the ear coverts. These birds have the base of the bill lighter as in the adult; whereas, our Tamrau specimen has the bill all black.

The lengthened feathers on the sides of the neck, mentioned by Gyldenstolpe (1955, p. 312), are present in the Tamrau specimen but are of the same rich brown color as the head and back.

This specimen, although in a plumage similar to that of some of the males molting into adult plumage, has numerous yellow shaft streaks on the upper back and pointed tail feathers. These two characters seem to vary individually in immature males in the museum collections, but the presence of one or both is apparently usually associated with the younger specimens.

Prior to 1964 the bower of this species had not been known for certain, although natives had shown to various collectors bowers reputed to belong to it. In August, 1964, the senior author was fortunate in being able to photograph the Golden Regent in its bower located two hours' walk west of Bamoeskaboe village at an elevation of 3500 to 4000 feet. A description of this bower and a color photograph of the male working on it are included in Gilliard (1970). At about the same time Major H. Bell (In press) discovered the bower of the southern New Guinea subspecies, *ardens,* and made important observations on its ecology.

This species was not collected by Ripley in the Tamraus.

Chlamydera cerviniventris Gould

Fawn-breasted Bowerbird

Two specimens of this bowerbird were collected by L. and S. Quate in the Kebar Valley in January, 1962. This species has only once before been recorded from the Vogelkop (see Hoogerwerf, 1964, p. 158).

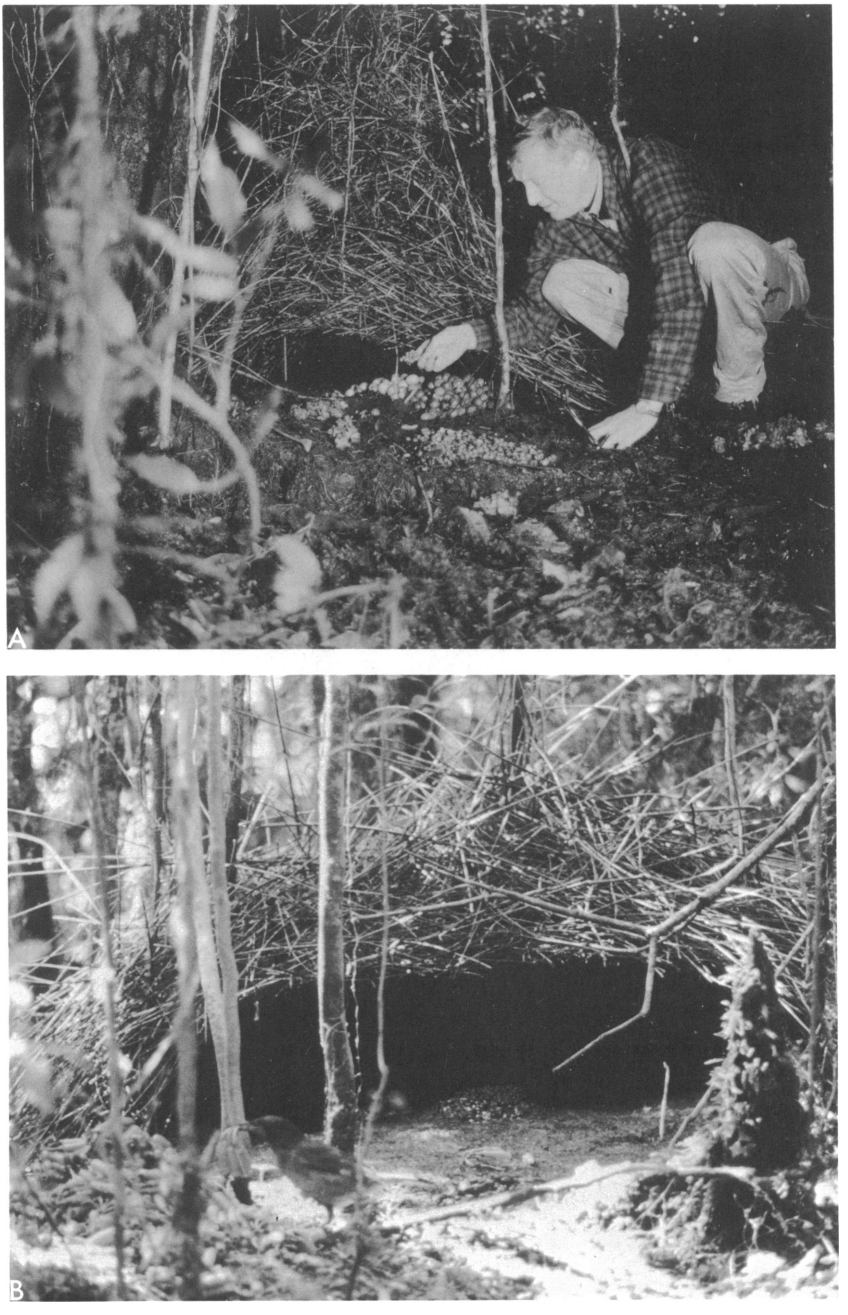

FIG. 3. Bowers of *Amblyornis inornatus*. A. "Lawn" decorated with large piles of green, brown and blue tree fruits and scarlet fleshy flowers. B. "Lawn" decorated with black beetle elytra and red tubular flowers. Piles of blue and red tree fruits are inside the bower.

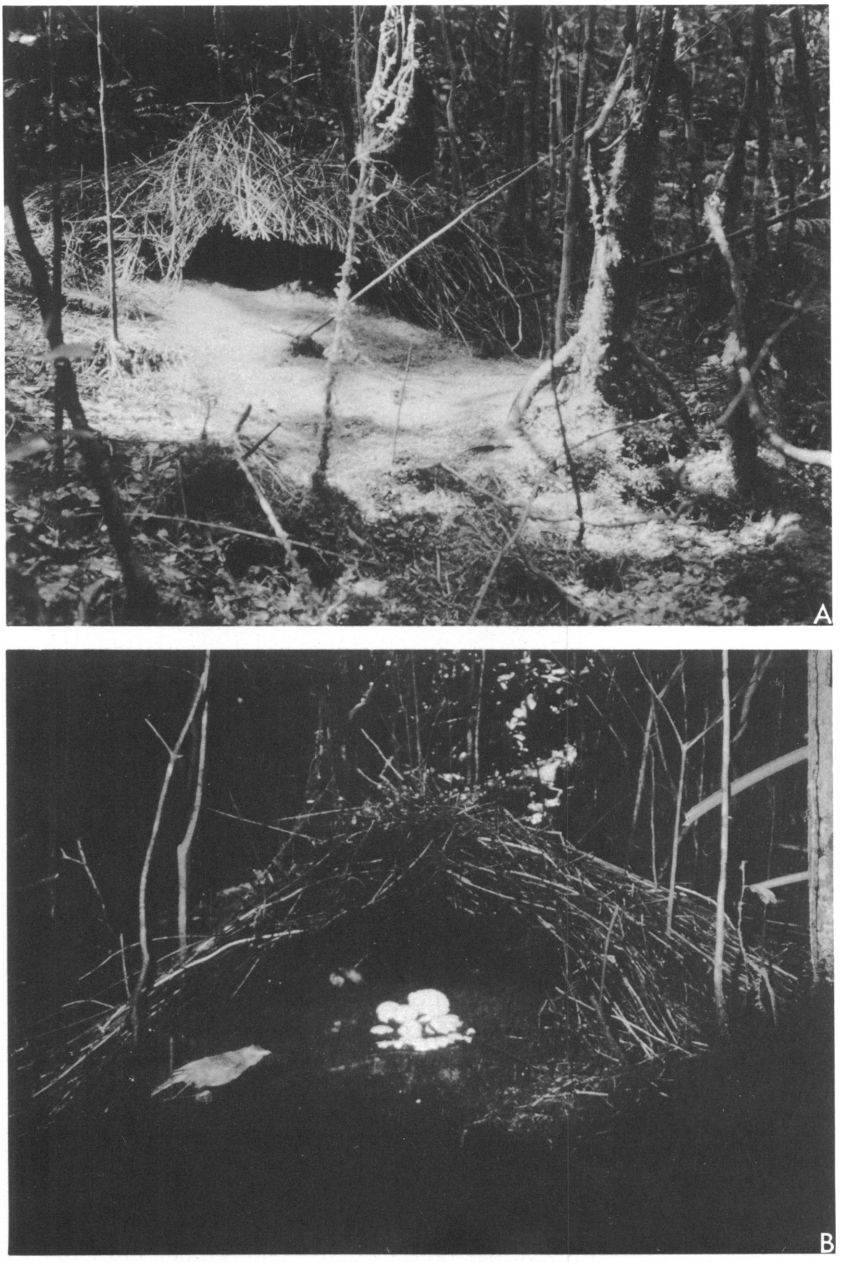

FIG. 4. Bowers of *Amblyornis inornatus*. A. "Lawn" almost entirely free of decoration, but with small piles of beetle elytra and orange flowers around periphery. B. "Lawn" with a large pile of white eggshells of *Talegalla cuvieri;* orange and black tree fruits within the bower. Bird on left is a mounted specimen.

Ailuroedus melanotis arfakianus Meyer

BLACK-EARED CATBIRD

One female was collected on Mt. Bantjiet. Wing, 154; weight, 218.

We follow Gilliard (1970) in considering *melanotis* as a species separate from *crassirostris.* This species was not obtained by Ripley, and this record is an extension of range westward to the Tamraus.

Timeliopsis fulvigula fulvigula (Schlegel)

MOUNTAIN STRAIGHT-BILLED HONEYEATER

A male was brought into camp by a native hunter; it was probably collected at about 4000 feet. Both testes were present but only the left one was enlarged. The iris was reddish brown, the maxilla blackish, the mandible slate, the feet gray. One bird, sex unknown, and perhaps immature, was collected at approximately 6000 feet. It had the iris dark gray; the maxilla blackish; the mandible pale gray, with the cutting edges of the bill narrowly buffy; the feet pale blue-gray. Male: wing, 79; tail, 59; culmen from base, 20; weight, 19.

Specimens of *T. f. fulvigula* were not available for comparison. However, our birds have the back darker green and the chin and breast browner than those of specimens of *T. f. montana* and *T. f. meyeri* which were available. Mayr (1931, p. 658) gave these as the characters by which *T. f. fulvigula* differs from all other races.

Ripley did not collect this rare species in the Tamraus.

Melilestes megarhynchus megarhynchus (Gray)

LONG-BILLED HONEYEATER

One specimen was collected on Mt. Bantjiet. Wing, 89; tail, 76; culmen from base, 44; weight, 46.

Salomonsen (1966, p. 1) has named the Vogelkop and western islands populations of this species *brunneus* (type locality, Siwi, Arfak Mountains), stating that these birds are more brownish, less olivaceous than nominate *megarhynchus* (type locality, Aru Islands). We have compared our specimen with the type of *brunneus,* as well as with a series from the Vogelkop and Misol and a series from the Aru Islands. We can find no consistent differences between Aru Island birds and Vogelkop and Misol birds. The type of *brunneus* is quite brownish but there is much overlap in the series. Our fresh specimen, on the other hand, is much more blackish than any of the other specimens from these localities, although not so dark as specimens of *stresemanni* from the Idenburg and Sepik rivers. The more blackish feather bases tend to make the bird appear more olivaceous above and below than the older specimens. As there is so

much overlap between these populations, perhaps due to variation in the amount of foxing which occurs, and because our fresh specimen from within the range of *brunneus* is more olivaceous than specimens from the Aru Islands, we believe that *brunneus* should not be recognized.

Meliphaga montana montana (Salvadori)

WHITE-EARED MOUNTAIN MELIPHAGA

A male was collected at approximately 6000 feet on Mt. Bantjiet. Wing, 87; tail, 73; culmen from base, 22; tarsus, 23; weight, 33.

This specimen agrees in all particulars with *Meliphaga m. montana* except that it is generally darker due to the blackish brown basal coloration of the feathers, which has foxed to a more brownish color in older specimens, including Ripley's specimen of *M. m. montana,* which we were able to examine. It is more blackish than specimens of *M. m. margaretae* (see Greenway, 1966, p. 22) the type material of which was collected on Batanta Island on the same expedition. The Tamrau specimen was not available to Greenway when he named the new race; however, *margaretae* differs in all particulars from *montana* as stated, except that *margaretae* is more brownish green than the freshly collected specimen of *montana.*

Ptiloprora erythropleura erythropleura (Salvadori)

RED-SIDED STREAKED HONEYEATER

Six males, one female, and two of undetermined sex were collected at approximately 6000 feet on Mt. Bantjiet. A male had the testes enlarged; one male had only the left testis indicated and it was enlarged. Weights, 18.8–25. One of the specimens of unknown sex has the throat and under parts, particularly the abdomen, washed with a creamy yellow. This is probably an immature specimen; the yellowness of the under parts may be an indication of affinities with *P. meekiana.*

This species was not collected by Ripley.

Melanocharis versteri versteri (Finsch)

FAN-TAILED BERRYPECKER

Two males, one female, one of undetermined sex were collected at approximately 6000 feet on Mt. Bantjiet. Weights, males, 11.5, 12; female, 15.5. This species was not obtained by Ripley in the Tamraus.

Oreocharis arfaki (Meyer)

TIT BERRYPECKER

Three males and one female were collected at about 6000 feet on Mt.

Bantjiet. One male had one testis enlarged, the other small. Weights: males, 20, 20.5, 21; female: 20.3. This species was not obtained by Ripley in the Tamraus.

This is the first adult female of this species in the museum collection from any locality on the Vogelkop. Comparison with a large series of females from the remainder of New Guinea revealed no consistent differences. Both throat color and amount and intensity of yellow in the under parts vary individually (see Gyldenstolpe, 1955, pp. 174–175). Although populations from southeastern New Guinea tend to have an average greater amount of brighter yellow on the under parts, there are specimens indistinguishable from our Tamrau bird. We could find no differences in the males. Therefore we suggest that *O. a. bloodi* (*ibid.,* pp. 174–175) be placed in synonymy.

Zosterops atrifrons chrysolaema Salvadori

BLACK-FRONTED WHITE-EYE

Mees (1961, pp. 63–64) included *Z. minor* in the species *atrifrons* from Celebes and the Moluccas, his primary reason being the very close resemblance between *Z. minor delicatula* and *Z. atrifrons sulaensis*. We agree with this decision.

Our two specimens from Mt. Bantjiet, both females, are indistinguishable from the female collected by Ripley in the same locality in 1938. These three specimens are indistinguishable from specimens of this species from the Hydrographer Mountains, previously called *tenuifrons*. Mees (*ibid.,* pp. 77–81) synonymized *tenuifrons* with *chrysolaema,* which has variable amounts of black on the forehead, and showed that the range of this subspecies, extends from the Vogelkop, across the southern watershed of New Guinea eastward almost to Mafulu, and includes the northern watershed birds in the Morobe District, Herzog Mountains, and Hydrographer Mountains. We do not have comparative material from the southern watershed, but in addition to Ripley's Tamrau specimen we examined four other Vogelkop skins: two from the Arfak Mountains, and two from Kapaur on the Onin Peninsula. The Siwi, Arfak, birds are virtually topotypical *chrysolaema.* The Kapaur birds match them very closely. Tamrau and Hydrographer mountain birds are very similar to these four birds in color of the back and width of the eye ring, but they have more extensive and more intense black on the forehead. However, Mees (*ibid.,* p. 79) has found overlap in the amount of black on the forehead between Arfak birds and birds from the type locality of *tenuifrons* (Wau, Morobe District). Thus it seems that although our Arfak-Onin peninsula birds are different from our Tamrau birds in the amount

of black on the forehead, the overlap cited by Mees makes it impossible to separate these two populations taxonomically or to separate northwestern New Guinea birds from those of the northeast coast that were formerly called *tenuifrons*. Additional specimens from the southern watershed are needed.

TABLE 1

LIST OF SPECIES COLLECTED BY E. T. GILLIARD IN THE TAMRAU MOUNTAINS, WEST IRIAN

	Locality	Study Skins	Spirit Specimens
Accipiter m. melanochlamys	Mt. Bantjiet	1 ♂	0
(Falco severus)[a]	Bama	0	0
Talegalla cuvieri	Mt. Bantjiet	1 ♂	0
Ptilinopus rivoli bellus	Mt. Bantjiet	5 ♂, 1 ♀	2
Ducula c. chalconota	Mt. Bantjiet	1 ♂	0
Gymnophaps a. albertisii	Mt. Bantjiet	2 ♂, 1 ♀	0
Macropygia amboinensis	Mt. Bantjiet	0	1 (head only)
Macropygia n. nigrirostris	Mt. Bantjiet	1 ♀	0
(Goura cristata)[a]	Mega River	0	0
Pseudeos f. fuscata	Mt. Bantjiet	2 ♀	0
Charmosyna p. papou	Mt. Bantjiet	3 ♀	1
Charmosyna p. pulchella	Mt. Bantjiet	1 ♂	0
Neopsittacus m. musschenbroekii	Mt. Bantjiet	2 ♂	0
Micropsitta b. bruijnii	Mt. Bantjiet	6 ♂, 1 ♀	2
Larius roratus	Mt. Bantjiet	0	1 (head only)
Geoffroyus s. simplex	Mt. Bantjiet	1 ♀	0
Alisterus amboinensis dorsalis	Mt. Bantjiet	1 ♂, 1 ♀, 1 ♀?	0
Psittacella b. brehmii	Mt. Bantjiet	1 ♂, 2 ♀, 2 ♀?	1
Cacomantis castaneiventris arfakianus	Mt. Bantjiet	1 ♀, 1 ?	1
Chalcites meyerii	Mt. Bantjiet	0	3
Collocalia vanikorensis granti	Bamoeskaboe	1 ♂, 1 ?	0
Dacelo gaudichaud	Mt. Bantjiet	1 ♂	0
Tanysiptera nympha	Bama	1 ♀	0
Pitta erythrogaster macklotii	Mt. Bantjiet	1 ♂	0
Coracina m. melaena	Mt. Bantjiet	1 ♂	0
Coracina s. schisticeps	Bama	1 ♂	2
Coracina montana	Mt. Bantjiet	3 ♂, 1 ♀	2
Crateroscelis robusta ripleyi	Mt. Bantjiet	3 ♂, 1 ♀, 1 ?	6
Eupetes c. castanonotus	Mt. Bantjiet	1 ♂, 1 ♀ juv.	0
Eupetes l. leucostictus	Mt. Bantjiet	1 ♂, 1 ♀, 1 ?	0
Orthonyx temminckii novaeguineae	Mt. Bantjiet	1 ♂	0
Todopsis wallacii	Bama	0	1
Sericornis sp?	—	0	4
Sericornis s. spilodera	Mt. Bantjiet	1 ♂	1
Sericornis virgatus imitator	Mt. Bantjiet	1 ♂, 1 ?	0
Sericornis (r.) rufescens	Mt. Bantjiet	3 ♂, 1 ♀	10

TABLE 1—(*Continued*)

	Locality	Study Skins	Spirit	Specimens
Sericornis a. arfakianus	Mt. Bantjiet	1 ♂, 1 ?	0	
Gerygone cinerea	Mt. Bantjiet	1 ♂	1	
Gerygone p. palpebrosa	Mt. Bantjiet	1 ♀	0	
Phylloscopus trivirgatus poliocephala	Mt. Bantjiet	2 ?	0	
Peltops montanus	Mt. Bantjiet	1 ♂, 1 ♀	0	
Rhipidura r. rufidorsa	Mt. Bantjiet	1 ♂	0	
Rhipidura a. atra	Mt. Bantjiet	1 ♂, 2 ?	0	
Rhipidura hyperythra muelleri	Bama	1 ♂	0	
Rhipidura a. albolimbata	Mt. Bantjiet	1 ♂, 1 ♀, 1 ?	0	
Rhipidura rufiventris gularis	Mt. Bantjiet	1 ♂	0	
(Rhipidura leucophrys)[a]	Mt. Bantjiet	0	0	
Monarcha guttula	Mt. Bantjiet	0	1	
Arses t. telescophthalmus	Mt. Bantjiet	1 ♂, 1 ♀ imm., 1 ♀	0	
Machaerirhynchus n. nigripectus	Mt. Bantjiet	2 ♂, 1 ?	4	
Microeca flavovirescens cuicui	Mt. Bantjiet	1 ♂	0	
Microeca papuana	Mt. Bantjiet	3 ♂, 3 ♀, 3 ?	1	
(Monachella muelleriana)[a]	Mt. Bantjiet	0	0	
Poecilodryas hypoleuca	Mt. Bantjiet	0	1	
Peneothello c. cryptoleucus	Mt. Bantjiet	2 ♂, 2 ?	1	
Peneothello c. cyanus	Mt. Bantjiet	2 ♂, 1 ?	2	
Peneothello b. bimaculatus	Mt. Bantjiet	1 ♂	0	
Heteromyias a. albispecularis	Mt. Bantjiet	2 ♂, 2 ?	1	
Pachycephalopsis h. hattamensis	Mt. Bantjiet	1 ?	1	
Pachycare flavogrisea	Mt. Bantjiet	0	1	
Rhagologus l. leucostigma	Mt. Bantjiet	1 ♀	0	
Pachycephala sp?	Mt. Bantjiet	0	5	
Pachycephala s. soror	Mt. Bantjiet	4 ♂	0	
Pachycephala s. schlegelii	Mt. Bantjiet	7 ♂, 7 ♀, 1 ?, 1 ♀ imm.	0	
Myiolestes megarhynchus	Bama	0	2	
Pitohui n. nigrescens	Mt. Bantjiet	2 ♂, 1 ♀, 1 ?	1	
Mino d. dumonti	Bama	1 ♂	0	
Chaetorhynchus papuensis	Mt. Bantjiet	2 ♂, 3 ♀	0	
Dicrurus hottentottus	Mt. Bantjiet	0	1	
Drepanornis a. albertisii	Mt. Bantjiet	1 ♂, 1 ♀	0	
Epimachus f. fastosus	Mt. Bantjiet	2 ♀, 1 ♂ imm, 1 ?	1	(head only)
Parotia sefilata	Mt. Bantjiet	1 ♀, 1 ♂ imm.	0	
Diphyllodes m. magnificus	Mt. Bantjiet	1 ♀	0	
Paradisaea m. minor	Mt. Bantjiet	2 ♂ imm.	1	
Amblyornis inornatus	Mt. Bantjiet	2 ♂, 1 ♀	0	
Sericulus a. aureus	Mt. Bantjiet	1 ♂ imm.	0	
Ailuroedus melanotis arfakianus	Mt. Bantjiet	1 ♀	0	
Timeliopsis f. fulvigula	Mt. Bantjiet	1 ♂	0	
Myzomela r. rosenbergii	Mt. Bantjiet	1 ♂, 1 ♀	0	
Toxorhamphus n. novaeguineae	Mt. Bantjiet	2 ♀	0	

TABLE 1—(*Continued*)

	Locality	Study Skins	Spirit Specimens
Toxorhamphus iliolophus affinis	Mt. Bantjiet	1 ♂, 1 ♀	3
Melilestes m. megarhynchus	Mt. Bantjiet	1[♀]	0
Melipotes gymnops	Mt. Bantjiet	4 ♂,7 ♀,2?	9
Melidectes o. ochromelas	Mt. Bantjiet	4 ♂,5 ♀,2?	*3*
Xanthotis c. chrysotis	Bama	1 ♂	3
Xanthotis polygramma	Bama	0	1
Meliphaga aruensis (?)	Bama	0	2
Meliphaga m. montana	Mt. Bantjiet	1 ♂	0
Meliphaga orientalis facialis	Bama	1 ♂,2 ♀	2
Ptiloprora e. erythropleura	Mt. Bantjiet	6 ♂,1 ♀,2?	1
(Philemon novaeguineae)[a]	Mt. Bantjiet	0	0
Dicaeum pectorale	Mt. Bantjiet	1 ♂	0
Melanocharis n. nigra	Mt. Bantjiet	1 ♂	1
Melanocharis v. versteri	Mt. Bantjiet	2 ♂,1 ♀,1?	4
Oreocharis arfaki	Mt. Bantjiet	3 ♂,1 ♀	2
Zosterops f. fuscicapilla	Mt. Bantjiet	1?	1
Zosterops atrifrons chrysolaema	Mt. Bantjiet	2 ♀	4

[a] Parentheses indicate sight record only.

LITERATURE CITED

BELL, HARRY

[In Press.] The Flamed Bowerbird (*Sericulus aureus*). Emu.

DIAMOND, JARED M.

1969. Preliminary results of an ornithological exploration of the North Coastal Range, New Guinea. Amer. Mus. Novitates, no. 2362, pp. 1–57.

GILLIARD, E. T.

1970. Birds of paradise and bower birds. New York, Natural History Press, 477 pp.

GILLIARD, E. T., AND MARY LECROY

1961. Birds of the Victor Emanuel and Hindenburg Mountains, New Guinea. Bull. Amer. Mus. Nat. Hist., vol. 123, pp.1–86.

1967. Annotated list of birds of the Adelbert Mountains, New Guinea. *Ibid.*, vol. 138, pp. 51-82.

1968. Birds of the Schrader Mountain region, New Guinea. Amer. Mus. Novitates, no. 2343, pp. 1–41.

GREENWAY, JAMES C., JR.

1966. Birds collected on Batanta, off western New Guinea, by E. Thomas Gilliard in 1964. Amer. Mus. Novitates, no. 2258, pp. 1–27

GYLDENSTOLPE, N.

1955. Birds collected by Dr. Sten Bergman during his expedition to Dutch New Guinea 1948-1949. Arkiv f. Zool., ser. 2, vol. 8, pp. 183–397.

HOOGERWERF, A.

1964. On birds new from New Guinea or with a larger range than previously

known. Bull. Brit. Ornith. Club, vol. 84, pp. 70–77, 94–96, 118–124, 142–148, 153–161.

LeCroy, Mary

1969. *Acrocephalus arundinaceus orientalis,* a new migrant from New Guinea. Emu, vol. 69, pp. 119–120.

Mayr, Ernst

1931. Die Vögel des Saruwaged- und Herzog-gebirges (NO-Neuguinea). Mitteil. Zool. Mus. Berlin, vol. 17, pp. 693–723.

1937. Notes on the genus *Sericornis* Gould. Amer. Mus. Novitates, no. 904, pp. 1–25.

1941. List of New Guinea birds. New York, The American Museum of Natural History, 260 pp.

Mayr, E., and R. de Schauensee

1939. Zoological results of the Denison-Crockett expedition to the South Pacific for the Academy of Natural Sciences of Philadelphia, 1937-1938. Part IV. Birds from northwest New Guinea. Proc. Acad. Nat. Sci. Philadelphia, vol. 91, pp. 97–144.

Mees, G.

1961. A systematic review of the Indo-Australian Zosteropidae (Part II). Zool. Verhandelingen, no. 50, pp. 1–168.

Ogilvie-Grant, W. R.

1915. Report on the birds collected by the British Ornithologists' Union Expedition and the Wollaston Expedition in Dutch New Guinea. Ibis, Jubilee Supp., pp. 1–336.

Parker, Shane

[In press] Taxonomy of the populations of *Sericornis beccarii* (Sylviidae) inhabiting the Cape York Peninsula.

Rand, A. L., and E. T. Gilliard

1967. Handbook of New Guinea birds. New York, Natural History Press, 612 pp.

Ripley, S. Dillon

1964. A systematic and ecological study of birds of New Guinea. Yale Univ. Peabody Mus. Nat. Hist. Bull., no. 19, pp. 1–87.

Salomonsen, Finn

1966. Preliminary descriptions of new honey-eaters (Aves, Meliphagidae). Mus. Comp. Zool. Breviora, no. 254, pp. 1–12.

Schodde, R., and W. B. Hitchcock

1968. Contributions to Papuasian Ornithology. I. Report on the birds of the Lake Kutubu area, Territory of Papua and New Guinea. C. S. I. R. O., Australia, Div. of Wildlife Res. Tech. Paper No. 13, pp. 1–73.

Stresemann, E.

1923. Dr. Bürgers' Ornithologische Ausbeute im Stromgebiet des Sepik. Arch. f. Natur., vol. 89, no. 7, pp. 1–96; no. 8, pp. 1–92.