

AMERICAN MUSEUM NOVITATES

Published by

Number 1102

THE AMERICAN MUSEUM OF NATURAL HISTORY February 17, 1941
New York City

RESULTS OF THE ARCHBOLD EXPEDITIONS. NO. 32

NEW AND INTERESTING BIRDS FROM NEW GUINEA

By A. L. RAND

This paper contains additional accounts of new and interesting birds discovered in working out the bird collections of the 1936-1937 expedition to south New Guinea and the 1938-1939 expedition to north New Guinea. Twenty new subspecies are described in this paper. I am indebted to Mr. James C. Greenway of the Museum of Comparative Zoölogy, Cambridge, and to Mr. Rodolphe de Schauensee of the Academy of Natural Sciences of Philadelphia for the loan of pertinent material.

Butorides striatus idenburgi, new subspecies

TYPE.—No. 305667, Amer. Mus. Nat. Hist.; ♂ ad.; Bernhard Camp, 50 meters altitude, Idenburg River, Netherland New Guinea; March 25, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—This is a pale form with little rufous color on the underparts and almost white edgings to the upper wing-coverts. From *moluccarum* it differs in having the throat unmarked white, not rufous gray and white; front of neck and upper breast mixed white and gray, with a few brownish streaks, not rufous gray heavily streaked with brownish and little white; breast and flanks pale gray with a faint rufous tinge, not darker gray distinctly rufous washed; abdomen pale buffy, white in some specimens, not gray, little different from the breast; edgings of upper wing-coverts buffy white, not pale ochraceous.

WING.—♂ ad. 181 mm., 185; ♀ ad. 175, 176, 176, 177, 181.

CULMEN.—♂ ad. 64 mm., 64, 67; ♀ ad. 63, 63, 63, 65, 66.

RANGE.—Known only from the type locality.

REMARKS.—The sexes are practically alike in this series and there is little individual variation. It is surprising how different this race is from the dark form *papuensts* which replaces it to the west.

Accipiter fasciatus dogwa, new subspecies

TYPE.—No. 421685, Amer. Mus. Nat. Hist.; ♂ ad.; Dogwa, Oriomo River, Territory of Papua, New Guinea; February 16, 1934; Richard Archbold and A. L. Rand.

DIAGNOSIS.—In the adult plumage, differs from *polycryptus* in the paler underparts, the dark bars being narrower and paler vinaceous brown, the white bars wider; and in the tendency toward reduction of the barring on the thighs, abdomen, under tail-coverts and under wing-coverts: from *hellmayri*, differs only slightly in the average heavier barring on the thighs, abdomen and under tail-coverts. In the immature plumage, differs from *polycryptus* in the slightly paler brown markings below; from *hellmayri*, differs in the very much paler, not dark brown, markings of the underparts.

WING.—♂ ad. 223 mm.; ♀ ad. 245, 255, 256; ♂ imm. 221, 225; ♀ imm. 240, 250, 250.

RANGE.—Known only from south New Guinea.

REMARKS.—Stresemann (1935, Orn. Monatsb., pp. 110, 111) has pointed out that two adult males from Merauke were very similar to Timor birds, and included them in *hellmayri*, while suggesting that the immature plumages might be different. The material compared includes *polycryptus* (SE. New Guinea) 7 ♂ ad., 2 ♂ imm., 2 ♀ ad., 2 ♀ imm.; *dogwa* (S. New Guinea) 4 ♂ ad., 2 ♂ imm., 3 ♀ ad., 3 ♀ imm.; *hellmayri* (Timor, Savu and Alor) 9 ♂ ad., 6 ♀ ad., 2 ♀ imm.

Circus spilonotus spilothorax Salvadori and D'Alberty

Lake Habbema: 1 ♀ ad.; August 11.

Balim River: 1 ♂ ad., 1 ♀ ad.; December 7, 14.

Found at 1600 and 3225 meters altitude.

WING.—♂ 378 mm.; ♀ 400, 405.

The December female had its ovary slightly enlarged.

The understanding of the status of the New Guinea *Circus* is unsatisfactory, due to lack of material. But what data and material I have accumulated suggest that New Guinea is inhabited by an endemic form of *Circus* in which the adult male assumes a silvery, black and white plumage. On Mt. Albert Edward in June, 1933, silvery males and light brown females were not uncommon. About Lake Daviumbu on the middle Fly River in August and September, 1936, silvery males and brown birds of various shades of darkness were fairly common. About Lake Habbema in August, 1938, gray, black and white males and light brown females were fairly common; few were seen along the Balim River in December, 1938. Though not uncommon in certain localities, these birds were always difficult to secure and besides the above three specimens I have only one other, an adult male, from Mt. Albert Edward (wing 441).

In size, the Balim River male and the type of *spilothorax* (wing 380, Salvadori, 1880, Ornith. Pap., p. 71) fall below the range of that of *spilonotus* (10 ♂ ad. 395-417, while Stresemann, 1924, Jour. für Orn., p. 28, gives ♂ 385-425) and the females fall below the average (*spilonotus* ♀ ad. 420, 420, 425, 428, 451; Stresemann, *loc. cit.*, gives ♀ 400-440). However, the adult male from Albert Edward is much larger (wing 441). This may indicate different populations in New Guinea, a point only further material can settle.

In color, the Balim River male has the upperparts extensively black above, including the crown and most of the upper wing-coverts, but it is not as extensively black as one Philippine male which has the sides of the head black. Most of the males seen about Lake Habbema had much black in the mantle at least; this was not the case in the Fly River area nor on Mt. Albert Edward. On the underparts the Balim River male compares well with ten adult males of *spilonotus*. The Mt. Albert Edward bird, apparently fully adult, has the black feathers of the crown conspicuously edged with rusty, those of the hind neck with white, the mantle and lower back uniform brownish black, and

the streaking on the underparts dark brown instead of black and extending onto the abdomen, differing in this from *spilonotus*. Both specimens differ from the 10 adult *spilonotus* in having the spotted outer rectrices washed with rufous, a character mentioned for the type of *spilothorax*. Both specimens have dark subterminal spots in the central rectrices and the Albert Edward bird has an indication of these in some of the other rectrices, as occurs in the subadults of *spilonotus*, but there is no band as recorded for the type of *spilothorax*.

The two adult females are very similar to each other, and differ considerably from six adult female *spilonotus* in the paler underparts, lacking the rufous wash on the breast, having only a light rufous wash on the thighs and abdomen. and having the streaking narrower; on the upperparts they differ in almost entirely lacking the rufous wash which is pronounced in *spilonotus*.

Since Salvadori's time there have been few specimens of *Circus* recorded from New Guinea. Stresemann (*op. cit.*, p. 263) has recorded an immature of this race from New Guinea in March and pointed out how it differed from the young of *spilonotus*; Mayr and Camras (1938, Zool. Series Field Mus. Nat. Hist., XX, p. 465) recorded a May juvenile from east New Guinea which they referred to *spilonotus*.

From the above data we have records of the marsh hawk in New Guinea in March, May, June, August, September, December. In the color of the outer tail-feathers of the two adult male specimens they differ from *spilonotus* and agree with the description of *spilothorax*. The two adult female specimens differ considerably in color from those of *spilonotus* available. On this evidence it seems advisable to consider these New Guinea specimens as representing an endemic race *spilothorax*.

***Circus approximans gouldi* Bonaparte**

Lake Daviumbu: 1 ♀ imm.; September 8.

Found near sea level.

WING.—391 mm. +.

This specimen, with worn wing, is provisionally referred to this race. It is very

dark above and below, with the white basal edgings to the feathers of the hind neck showing.

The taking of this specimen in an area where gray and white examples of this genus, probably *C. spilonotus*, were seen in August and September is further evidence for keeping *spilonotus* and *approximans* as separate species.

Somewhat similar cases, in which a "New Guinea" form and an "Australian" form, usually considered geographical representatives, have been found together in south New Guinea are: *Aegotheles bennettii* and *cristatus*, *Eudynamys scolopacea* and *cianocephala*, and *Dicrurus carbonarius* and *bracteatus*.

Capella hardwickii (Gray)

Mt. Wilhelm, 6 miles northeast: 1 ♂; August 27.

Found at 3550 meters altitude.

WING.—161 mm.

Though this migrant from the palaearctic was known to winter in Australia, it has hitherto not been recorded for New Guinea.

Ducula spilorrhoa

In identifying birds of this species from south New Guinea it was immediately apparent that this species was divisible into four clearly marked races, instead of the two usually recognized. In the following I have reviewed the material in the American Museum and four specimens from Biak Island from the Academy of Natural Sciences of Philadelphia, which Mr. Rodolphe Meyer de Schauensee kindly loaned me.

Ducula spilorrhoa subflavescens (Finsch)

Carpophaga subflavescens FINSCH, 1886, Ibis, p. 2—extreme north corner of New Ireland.

This very distinct race is characterized by the general yellowish tinge to the white plumage; the great amount of black on the tip of the outer pair of tail-feathers, which varies between 15 and 36 mm. in width, measured along the shaft; the large size of the black spots in the under tail-coverts, which tend to be apical; the reduction in

the amount of black spotting in the lower flanks, the tendency for these markings to be on the ends of the feathers, and to form a solid black area; and the primary coverts beneath the alula being black, or mixed black and white.

WING MEASUREMENTS

	Male	Female
New Britain (sea level)	(10) 239–247 mm. (av. 243.6)	235, 236, 238, 239, 244, 247
(2500–3000 ft.)	250	247
New Ireland	241, 242, 249	236
New Hanover	(sex? 245, 254)	
Admiralty Islands	258	

SOFT PARTS.—Iris brown or dark brown; bill bluish or bluish slate, tip yellowish (in skins the distal third is yellowish); feet slate blue or lead blue.

RANGE.—The Bismarck Archipelago and Admiralty Islands; up to 3000 feet altitude.

REMARKS.—There is considerable variation in the intensity of the yellowish tinge in New Britain birds; this is not due to fading, as a series of seven collected in 1925 is yellower than a series of eleven collected in 1932–1933. New Ireland and New Hanover birds average paler yellow than New Britain birds, and are as pale as the palest of them. New Ireland birds that have been in museum cases since 1889 and 1893 are about as yellow as specimens collected in 1928. The Admiralty Islands bird is as yellow as the yellowest New Britain bird. It is interesting that in New Britain this species was taken inland at 2500 and 3000 feet altitude, and that these birds should be at the upper limit of the size variation for birds of that island.

MATERIAL.—Admiralty Islands (Manus), 1 ♂; New Hanover, 2 sex (?); New Ireland, 3 ♂, 1 ♀, 3 sex (?); New Britain (Talesia, Bainings, Tarobi, Balayang 2500 ft., Lobi 3000 ft.), 11 ♂, 7 ♀.

Ducula spilorrhoa spilorrhoa (Gray)

Carpophaga spilorrhoa G. R. GRAY, 1858, P.Z.S. London, pp. 186, 196—Aru Islands.

DIAGNOSIS.—Very different from *subflavescens* in the white or only palely yellow-tinged body plumage; in the primary coverts under the alula being white; in the much less black in the end of the outer

pair of tail-feathers, which varies between 0 and 12 mm. in width, measured along the shaft; the average smaller size of the black markings of the under tail-coverts, which tend to be subapical; in the black markings in the lower flank-feathers being subapical and more scattered to form an area of spotting.

	WING MEASUREMENTS	
	Male ad.	Female ad.
Aru Islands	245 mm.	237
Biak Island	227, 231, 231	233
Takar	230	
Jamna Island		232
Konstantinshafen	239	
Vulcan Island	242, 245	242
Dampier Island	253	242
Normanby and Fergusson Islands		242, 246
Trobriand Islands	229, 232, 237, 238, 244	239
Woodlark Island	231, 234, 235, 237, 244	(10) 225-237 (av. 231)
Misima Island		243
Rossel Island	240, 244, 244, 246, 247, 251	240
Sudest Island	241, 245	239
Grange Island	240	234

RANGE.—Apparently many scattered, isolated populations occur both on islands and the mainland of New Guinea: on the north coast east of Geelvink Bay; on the south coast east of Grange Island; Aru Islands, islands of Geelvink Bay, Dampier, Vulcan, D'Entrecasteaux, Woodlark, Trobriand, and Louisiade Islands.

REMARKS.—There is some variation in size in different populations, and birds from the eastern part of the range have on the average larger black markings on the under tail-coverts, but these differences are not great enough to be used in separating races. One Woodlark and one Rossel Island female, both apparently adult, have the plumage of the back tinged with gray, but not the head. An immature bird from Jobi (the only one I have from Jobi) has the upperparts tinged with gray and no black in the tips of the outer pair of tail-feathers, agreeing closely with an immature bird from the Aru Islands.

SOFT PARTS.—Ripley (1939, Proc. Acad. Nat. Sci. Phila., XCI, p. 18) pointed out that the Biak birds have the bill and feet bluish slate in contrast to the pale yellow-

greenish tint of these parts in mainland birds, so I made a survey of the soft parts of this series as recorded on the various labels.

LOCALITY	BILL	FEET
Aru Islands	Greenish yellow or greenish sulphurous	Ash gray or bright ash gray
Biak Island	Gray slate or bluish slate with greenish tip	Blue slate or pale blue slate
Takar	Slate blue, tip olive yellow	Slate blue
Jamna	Slate blue, tip horn	Slate blue
Vulcan and Dampier Islands	Slate blue and dull or greenish yellowish or dull greenish yellow and slate	Slate blue
Normanby and Fergusson Islands	Brown	Gray
Woodlark Island	Green or bluish slate, yellowish at tip or yellow, gray at base	Gray or gray slate or grayish lavender or lavender
Sudest Island	Yellow, tinged green or green slate or sage green	Blue slate or zinc blue
Rossel Island	Greenish yellow or greenish slate, yellowish tip or olive green or greenish yellow, slate base	Lead blue or zinc blue or dark slate blue

From this it appears that the birds with bluish bills are not restricted to Biak Island. Perhaps there is a seasonal change in this character.

Ducula spilorrhoa melvillensis (Mathews)

Myristicivora bicolor melvillensis MATHEWS, 1912, Austr. Av. Rec. I, p. 27—Melville Island.

DIAGNOSIS.—Differs from *spilorrhoea* in having the head distinctly gray-tinged.

WING MEASUREMENTS

	Male ad.	Female ad.
Melville Island	234, 234, 236, 238 mm.	233 (type)
Northern Territory (Alligator, Daly, Mary rivers)	235, 236, 239	230, 232, 247, 247
Cape York	227, 232, 238, 239	223, 238
Central Queensland (Cooktown to Mackay)	228, 229, 229, 231, 232, 232, 235, 237, 240	236, 238
Lord Howe Island	241	
Nicura		235, 237

RANGE.—Northern and eastern Australia and the Hall Sound region of New Guinea.

REMARKS.—This is a fairly distinct race. The five birds from the type locality, Melville Island, show the characters clearly. Some of the other Northern Territory birds have a slight grayish tinge on the upperparts, and three have some dusky instead of white shafts in the tertials and wing-coverts. The two Nicura (New Guinea) birds are very like this. The Cape York birds are badly stained and dirty, but all have a rather distinct gray head and some have a faint grayish tinge on the back. The Central Queensland birds have whiter plumage, with little or no gray tinge in the back; some, including a Mackay bird, have a distinctly gray head, others have it barely indicated. The Lord Howe Island bird has a distinct gray head, a faintly gray-tinged back, and some of the tertials have dusky shafts.

***Ducula spilorrhoea tarara*, new subspecies**

TYPE.—No. 425391, Amer. Mus. Nat. Hist.; ♂ ad.; Tarara, Wassi Kussa River, Western Division, Territory of Papua, New Guinea; December 30, 1936; Richard Archbold and A. L. Rand.

DIAGNOSIS.—Differs from *melvillensis* in having the head deeper gray and the body plumage above and below gray-tinged, much more so than in any of the examples of *melvillensis* which are gray-tinged.

WING.—♂ ad. (10) 234–248 mm. (av. 239.9); ♀ ad. 226, 231, 236, 241, 242, 247.

RANGE.—South New Guinea, from the Fly River westward at least to Merauke.

REMARKS.—This is a very distinct race. There is considerable variation in this series; some are rather dark gray in general coloration, others pale gray, but none has the body plumage white, and none lacks the gray head. Some specimens have a slight yellowish tinge to the plumage. Some but not all have the tertials and wing-coverts with dusky colored shafts.

The grayness of south New Guinea birds has been remarked on a number of times (Siebers, 1930, Treubia, VII, Suppl., p. 186—Netherland south New Guinea, and Stresemann and Paludan, 1935, Mitt. Zool. Mus. Berlin, XX (3), p. 452—Wamal and Welbuti) but apparently lack of comparative material precluded recognition of its status. I have no material from the western part of south New Guinea, and Ogilvie-Grant (1915, Ibis, Jub. Sup., p. 304) made no comment on Mimika River birds.

MATERIAL.—Tarara, 3 ♂, 1 ♀; Mabaduan, 2 ♂, 1 ♀; Daru, 1 ♀, 1 sex (?); Wuroi, 1 ♂; Dogwa, 1 ♂; Lake Daviumbu, 5 ♂, 6 ♀.

***Macropygia amboinensis balim*,
new subspecies**

TYPE.—No. 306381, Amer. Mus. Nat. Hist.; ♀ ad.; 1600 meters altitude, Balim River, Netherland New Guinea; December 11, 1938; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Differs from *kerstingi* of north and south New Guinea, and from *cinereiceps* of eastern New Guinea in its larger size (♂ 175–182 mm. against 157–168, north New Guinea, 160–173, south New Guinea); in the much paler and more whitish breast and abdomen; and in the duller, less rufous brown upperparts. These color differences are more pronounced in the female, which also has the top of the head much paler, less brownish.

WING.—♂ ad. 175 mm., 176, 177, 180, 181, 182; ♀ ad. 167, 171, 173, 175, 176, 177.

RANGE.—Known only from the type locality; perhaps restricted to this high mountain valley.

REMARKS.—It is interesting to find this sharply differentiated population in a high, ecologically isolated valley in the center of New Guinea, while large series from various other parts of New Guinea show only slight variation from locality to locality, making separation into only ill-defined subspecies possible.

Gallicolumba rufigula

There has been doubt cast on the validity of the two proposed races in this species (Hartert, 1930, Nov. Zool., XXXVI, p. 117; Peters, 1937, Check-list of Birds of the World, III, p. 134). Junge (1937, Nova Guinea, p. 141), however, recognized two races.

An examination of forty-one specimens of adults from various parts of New Guinea and the Aru Islands (I have no material from the western Papuan islands) reveals that geographical variation in this species is greater than has been realized and three hitherto unnamed subspecies as well as the two named forms must be recognized. The main characters on which I separate these five races are (1) the presence or absence of a pronounced gray area on the side of the head; (2) the width and shade of the gray edgings of the upper wing-coverts. There are other, less pronounced characters which also vary geographically but are subject to more individual variation, such as the brownish or vinaceous shade of the upperparts, and the intensity of this color; the distinctness of the dark area on the nape; and the color of the forehead and crown.

The birds of the fresh (1939) series from north New Guinea all have the breast orange yellow. Only one other bird in the rest of the series approaches them in this (a Weyland Mountains, 1930, ♂). Of this bird Rothschild wrote that the whole breast and upper abdomen were bright orange golden (1931, Nov. Zool., XXXVI, p. 275); this certainly would not be said of the specimen now. All the old specimens have the breast whitish. In more recent specimens, with yellowish in the breast, the concealed portions of the feathers are brighter yellow than the exposed tips. Thus the yellow color of the breast appears to fade greatly, and though there may be geographical as well as individual variation in this character, I cannot use it.

Some specimens have the tips of some feathers of the abdomen blackish, apparently the result of staining.

***Gallicolumba rufigula rufigula* (Pucheran)**

Peristera rufigula PUCHERAN, 1853, Voy. Pole Sud, III, p. 118—Triton Bay.

DIAGNOSIS.—Characterized by the presence of the distinct gray area on the side of the head; and the wide, clear gray edgings of the upper wing-coverts, contrasting sharply with the color of the wing and back.

WING.—♂ ad. 132 mm., 133, 136, 140; ♀ ad. 139.

RANGE.—Arfak to the Weyland Mountains; probably the birds from the Mimika River discussed by Ogilvie-Grant (1915, Ibis, Jub. Sup., p. 313) belong here.

REMARKS.—The Arfak birds are slightly more brownish above than the Weyland Mountains birds, but this difference is slight.

MATERIAL.—Arfak, 3 ♂, 1 ♀, 1 sex (?); Triton Bay, 1 sex (?); Weyland Mountains, 4 ♂.

***Gallicolumba rufigula septentrionalis*,
new subspecies**

TYPE.—No. 306380, Amer. Mus. Nat. Hist.; ♂ ad.; at 50 meters altitude, Bernhard Camp, Idenburg River, Netherland New Guinea; April 16, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Differs from *rufigula* in the very much narrower gray edgings to the upper wing-coverts; in the somewhat darker and more brownish crown; in the less pronounced dusky area on the nape; and in the slightly more intensely colored upperparts.

WING.—♂ ad. 128 mm., 130, 131; ♀ ad. 125, 129, 131.

RANGE.—North New Guinea, from the Huon Peninsula to the Mamberamo River at least; found up to 850 meters altitude.

REMARKS.—The upperparts of this series are slightly more red-brown than in Arfak birds; less vinaceous than in Weyland Mountains birds.

MATERIAL.—Bernhard Camp, 4 km. southwest, 2 ♀ ad.; Bernhard Camp., 2 ♂ ad., 1 ♀ ad.; Humboldt Bay, 1 ♂, 1 sex (?); Sattelberg, 1 sex (?).

***Gallicolumba rufigula orientalis*,
new subspecies**

TYPE.—No. 419462, Amer. Mus. Nat. Hist.; ♂ ad.; Kubuna, 100 meters altitude, Central Division, Territory of Papua, New Guinea; December 15, 1933; Richard Archbold and A. L. Rand.

DIAGNOSIS.—Differs from *rufigula* and *septentrionalis* in having the edgings of the upper wing-coverts intermediate in size between those

of the above two forms; and in their gray color being considerably duller, offering less contrast with the coloring of the wing and the back; and in having the gray area of the side of the head less distinct. From *rufigula*, also differs in having the crown averaging browner. From *septentrionalis*, also differs in having the dusky area on the nape more pronounced; and the upperparts slightly duller and paler.

WING.—♂ ad. 129 mm., 133, 133, 133, 134, 136, 137, 137, 139; ♀ ad. 126, 138.

RANGE.—Southeast New Guinea westward on the north coast to the Mambare River; on the south coast to the Yule Island area; found up to 100 meters altitude.

REMARKS.—Hartert (*loc. cit.*) said that both *rufigula* and *helviventris* occurred in southeast New Guinea, but this is not apparent in this material. All specimens distinctly have the gray area in the side of the head, although it is less distinct than in the above two forms.

MATERIAL.—Lower Mambare River, 1 ♀ ad.; Milne Bay, 2 ♂ ad.; Port Moresby to Yule Island area, 8 ♂ ad., 2 ♀ ad.

Gallicolumba rufigula alaris, new subspecies

TYPE.—No. 425514, Amer. Mus. Nat. Hist.; ♂ ad.; Lake Daviumbu, Fly River, Territory of Papua, New Guinea; August 28, 1936; Richard Archbold and A. L. Rand.

DIAGNOSIS.—Differs from *rufigula*, *septentrionalis* and *orientalis* in lacking the gray area on the side of the head. The edgings of the upper wing-coverts are of medium size and contrast sharply with the color of the wing and back.

WING.—♂ ad. 133 mm., 138, 138, 139; ♀ ad. 131, 132, 134, 137.

RANGE.—South New Guinea, from the Setekwa to the Fly River; found up to 100 meters altitude.

REMARKS.—There is some geographical variation in the birds I have included in this subspecies; the upper Fly River birds and the Setekwa River birds are about like the southeast New Guinea *orientalis* in the color of the upperparts; the middle Fly River birds are somewhat lighter in general coloration above, with more of a brownish tinge to the plumage.

MATERIAL.—Sturt Island Camp, Fly River, 1 ♂ ad., 1 ♀ ad.; Lake Daviumbu, 1 ♂ ad., 1 ♀ ad.; Palmer Junction Camp, Fly River, 1 ♀ ad.; Black River Camp, Fly River, 1 ♀ ad.; Setekwa River, 2 ♂.

Gallicolumba rufigula helviventris (Rosenberg)

Ptilopus helviventris ROSENBERG, 1867 (1866), *Natuurk. Tijdschr. Nederl. Indie*, 29, p. 144—Aru Islands.

DIAGNOSIS.—Agrees with *alaris* in lacking the gray area on the side of the head; differs from it in having the gray edgings of the upper wing-coverts, which are of medium width, heavily tinged with vinaceous so that they contrast little with the color of the wing and back.

WING.—♂ 134 mm., 137.

RANGE.—Aru Islands.

REMARKS.—Both specimens I have are rather dark above, tinged with brownish; the fore crown is rather brownish; and the dusky area on the nape fairly well developed.

MATERIAL.—Aru Islands, 2 ♂.

Trichoglossus haematodus caeruleiceps D'Albertis and Salvadori

Tarara: 7 ♂, 8 ♀; December 7–January 23.

Daru: 4 ♂, 1 ♀; March 11–June 16.

Gaima: 1 ♂, 1 ♀; November 18, 19.

Lake Daviumbu: ♂, 4 ♀; September 14–18.

Found near sea level.

WING.—♂ (10) 134–148 mm. (av. 140.4); ♀ (10) 132–140 (av. 136.9).

These average considerably smaller than *nigrogularis* from the Aru Islands (♂ (10) 149–158 (av. 153); ♀ 147, 148, 150, 152) as van Oort (1909, *Nova Guinea*, p. 74) had pointed out.

Psittaculirostris salvadorii (Oustalet)

Bernhard Camp: 1 ♀; May 4.

Found at 50 meters altitude.

WING.—109 mm.

This specimen compares well with the description of a female given by Salvadori (1891, *Cat. Bds. Brit. Mus.*, XX, p. 90). This is a very rare bird in collections. It is so unlike *edwardsii*, which has been recorded from Humboldt Bay, that it seems advisable to consider it a different species giving us three species in the genus: *desmarestii* with several races, *edwardsii* and *salvadorii*. According to present knowl-

edge the forms in this genus represent each other geographically.

***Psittacella modesta subcollaris*, new sub-species**

TYPE.—No. 305668, Amer. Mus. Nat. Hist.; ♂ ad.; at 1800 meters altitude, 15 km. southwest of Bernhard Camp, Idenburg River, Netherland New Guinea; January 19, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Closest to *collaris* Ogilvie-Grant, from which it differs in the male by the narrower, and average brighter yellow band separating the brown of the head from the green of the back; by the darker brown top and sides of the head; by the darker brown throat; and by the slightly darker green upperparts. In the female it differs by the reduction of the yellow band on the hind neck, almost lacking in most specimens; by the much darker top and sides of the head; and by the much darker throat. From *modesta* it differs in the male by the presence of the yellow band on the hind neck; and by the darker brown top and sides of the head: in the female it differs chiefly by the darker brown of the head.

WING MEASUREMENTS

	Male	Female
<i>modesta</i>	96 mm. (1928) ¹	93 (1890) ¹
<i>collaris</i>	94, 97 (1911) ¹	91, 92, 92 (1911) ¹
<i>subcollaris</i>	94, 94, 96, 98, 99, 100	92, 95, 95, 96, 98, 102, 105

RANGE.—The north slopes of the Snow Mountains.

REMARKS.—Fading may have affected somewhat the shade of brown of the older material (dates of collection are given after the measurements) but the extent of the yellow of the hind neck would be unaffected. It is interesting that this new race is intermediate between *modesta* and *collaris* in characters, but not in geographical position. The male is closest to *collaris* in having a yellow band on the hind neck, the female is closest to *modesta* in having the yellow of the hind neck very much reduced or lacking.

***Psittacella madaraszi major* Rothschild**

Bernhard Camp, 8 km. southwest: 1 ♀; February 12.

Found at 1600 meters altitude.

WING.—95 mm.

This specimen agrees very well with two Weyland Mountains females of *major*.

¹ Year in which collected.

The forms *madaraszi* and *modesta* have variously been considered species, or races of the same species. The finding of this specimen so close to a locality where I found *modesta* makes it seem probable that they occur together in this area, and consequently it is necessary to consider them species. There is the less probable possibility that they represent each other altitudinally and that their ranges do not overlap. But since in addition there are two very different groups of closely related forms involved, the relationships of the two groups are better brought out by treating them as species as Rothschild (1936, Mitt. Zool. Mus. Berlin, XXI, p. 233) has done. These two species, with their races, are:

<i>Psittacella modesta</i> <i>modesta</i> Schlegel	Arfak
<i>collaris</i> Ogilvie-Grant	South slopes of the Snow Mountains
<i>subcollaris</i> Rand	South slopes of the Snow Mountains
<i>Psittacella madaraszi</i> <i>madaraszi</i> Meyer	Southeast New Guinea
<i>huonensis</i> Mayr and Rand	Huon Peninsula
<i>major</i> Rothschild	North slope of the Snow Mountains and the Weyland Mountains

***Eudynamys scolopacea rufiventer* (Lesson)**

Daru: 1 ♂ ad., 1 ♂ imm.; March 30.
Lake Daviumbu: 1 ♂ ad.; September 25.

Palmer Junction Camp: 1 ♀ ad.; June 3.

Found up to 80 meters altitude.

WING.—♂ ad. 185 mm., 188; ♂ imm. 180; ♀ 189.

The adult male is referred to this form because of its size; the immature male because of the dark rufous color of the remnants of the immature plumage; the adult female has the rufous plumage and patterned head characteristic of this form. In 1934 I secured two immature males in mixed plumage (wing 176, 187) at Daru. The validity of *minima* seems very doubtful (see Junge, 1937, Nova Guinea, p. 182, and Mayr and Rand, 1937, Bull. Amer.

Mus. Nat. Hist., LXXIII, p. 67). Apparently specimens of this race from the mainland of New Guinea are rare in collections.

Eudynamys cyanocephala subcyanocephala Mathews

Daru: 7 ♂ ad., 1 ♂ imm., 7 ♀; March 7–July 8.

Gaima: 1 ♂ imm.; November 11.

Sturt Island Camp: 1 ♂ imm., 1 ♀; October 29–November 1.

Lake Daviumbu: 2 ♀; September 9, 24. Found near sea level.

WING.—♂ ad. 200 mm., 204, 204, 207, 209, 212, 219; ♂ imm. 198, 199, 207; ♀ 199, 200, 202, 203, 203, 205, 205, 207, 209, 215.

The males are distinguishable from *rufiventer* only on the basis of size; the immature males still retain part of their immature plumage, which is distinguishable from that of *rufiventer* by the paler, less rufous coloration; the females' plumage differs from that of *rufiventer* in having the crown and hind neck immaculate glossy black, a large solid black malar stripe and paler, less rufous general coloration.

Some of these birds breed in south New Guinea, as is shown by the following data:

Daru, March 3, ♀ recently finished laying;

Lake Daviumbu, September 24, ♀ ovary enlarged.

Since this form breeds in south New Guinea where *rufiventer* also occurs, it is necessary to consider them different species, not both races of *scolopacea*, as has been done hitherto.

The subspecific identity of these birds is puzzling. There is great variation in color in the series. This may be complicated by possible migrants from Australia. It is necessary to say a word about the variation in the Australian birds. The northern territory females have the crown and nape black; wing, ♀, 194–214; birds, presumably residents from Cairns and Cape York, are similar but have more black in the throat and have the white spots of the upperparts smaller; wing, ♀, 207–227. Possibly they should be separated, and the name *findersii* might apply to the eastern birds. For the present I am considering

all these as *subcyanocephala*. All New South Wales and southeast Queensland birds (*cyanocephala*) differ in having the crown and malar stripe conspicuously streaked with pale rufous; wing, ♀, 205–220. A number of birds from Cairns and Cape York, presumably winter visitors from farther south, are indistinguishable; wing, ♀, 204–217.

All the females from south New Guinea have the head and nape black. The two breeding females compare well with Cairns and Cape York resident females. Four other females (March 7, 19, July, and September 9) agree with Cairns and Cape York females on the character of the amount of black in the throat, but have larger white spots on the upperparts, agreeing better with northwest Australian birds in this; one female (October 29) has little black in the chin and larger white spots on the upperparts than in any Australian bird. Two females (April 4 and July 8) have the chin mottled black and rufous, the underparts more rufous than any Australian birds, approaching *rufiventer* in this, and the spotting on the upperparts and the barring of the tail as rufous as *rufiventer*. These are unlike any Australian birds. It is hardly likely that these last birds are hybrids with *rufiventer*, as one would expect an indication of mottling in the crown, which does not occur, if this were so.

Since part of this series is inseparable from *subcyanocephala*, I am including them all under this name despite the wide variation which is inexplicable at the present time.

I may mention here a specimen of this species from the Kumusi River (A. S. Meek, May 9, 1907, ♀, wing 212). It is indistinguishable from some specimens of *cyanocephala*, having the crown and malar area plentifully streaked, the spotting of the upperparts and the barring of the tail white, and only a rufous wash on the breast.

Thus we must consider at the present time that *Eudynamys cyanocephala* is a species with two races, *cyanocephala*, which reaches New Guinea on migration, and *subcyanocephala*, which breeds in south New Guinea, and perhaps has its numbers aug-

mented during the non-breeding season by migrants from Australia.

***Aegotheles albertisi archboldi*, new subspecies**

TYPE.—No. 305669, Amer. Mus. Nat. Hist.; ♂ adult; at 2800 meters altitude, 9 kilometers northeast of Lake Habbema, Netherland New Guinea; October 28, 1938; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Differs from *albertisi* and *salvadorii* in the darker, richer color of the upperparts; the considerably coarser dark barrings and light markings of the back, instead of vermiculations; the average darker, more richly colored and more heavily marked underparts.

WING.—♂ (10) 115–126 mm. (av. 119.3); ♀ (10) 115–127 (av. 121.7).

RANGE.—Known from the north slope of Mt. Wilhelmina, between 2200 and 3600 meters altitude.

REMARKS.—The much coarser pattern of the back is fairly constant throughout the series, but there is great individual variation in the color of this series, as in the species generally. The rufous phase is deeper and more intensely colored than the rufous phase of *albertisi*; the gray phase has more rich rufous in the back than the gray phase of *albertisi*. The race *salvadorii* is duller than *albertisi*, the rufous phase is not as bright, and the much more common gray phase has hardly any rufous in the upperparts. The markings in the back also average finer in *salvadorii*. Three Huon Peninsula birds must be included with *salvadorii*, though they average more heavily marked below, as must a Weyland Mountains and a Mount Goliath (south slope) bird, though these last two birds differ somewhat from most *salvadorii* in having the abdomen grayish buff, not whitish. The type of *wondiwoi*, which is a much larger bird, is in bright pale rufous plumage.

The ranges of the forms of this mountain species are as follows:

<i>A. a. albertisi</i>	Arfak Peninsula
<i>A. a. wondiwoi</i>	Wandamen Peninsula
<i>A. a. archboldi</i>	North of Mt. Wilhelmina
<i>A. a. salvadorii</i>	Southeast New Guinea, extending in the north to the Huon Peninsula, in the south to the Weyland Mountains

***Aegotheles insignis tatei*, new subspecies**

TYPE.—No. 426001, Amer. Mus. Nat. Hist.; ♀ adult; 80 meters altitude, 5 miles below the Palmer Junction, Fly River, New Guinea; June 2, 1936; Richard Archbold, A. L. Rand and G. H. H. Tate.

DIAGNOSIS.—Differs from the other two races of this species in the much smaller size; in the considerable reduction in the size and abundance of the white markings in the underparts and above the eyes; in the remiges having the brownish-black color restricted to the inner portion of the basal half or two-thirds of the inner web, giving a rufous brown under wing, instead of having the inner webs of the remiges brownish black; and in having the tail crossed by distinct whitish bars just below narrow indistinct dark bars.

WING.—♀ 138 mm., 145.

RANGE.—Only known from the type locality.

REMARKS.—The other two races of this species are only slightly different from each other. This new race is strikingly distinct. Both specimens are in a bright rufous plumage, as bright as the brightest specimen I have of *pulcher*, and are very similar to each other.

This species elsewhere in New Guinea is a mountain bird, in south New Guinea coming to near sea level, as do a number of other New Guinea species. This species apparently has not previously been recorded from south New Guinea.

***Collocalia whiteheadi papuensis*, new subspecies**

TYPE.—No. 305670, Amer. Mus. Nat. Hist.; ♂ adult; at 1800 meters altitude, 15 kilometers southwest of Bernhard Camp on the Idenburg River, Netherland New Guinea; January 20, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Similar to *whiteheadi* from north Luzon but differs in having the throat considerably paler, more silvery gray, contrasting with the brownish abdomen; and the upperparts slightly more iridescent.

WING.—♂ (9) 124–142 mm. (av. 134.1); ♀ 130, 134, 139, 141.

RANGE.—New Guinea; known from the Hollandia, Idenburg River, area, between sea level and 1800 meters; Mount Goliath, 5000 feet; and Baroka, near sea level.

REMARKS.—The thirteen specimens from north New Guinea all have the tarsus fairly well feathered; the Mount Goliath bird has it unfeathered, as does the Baroka

bird. There is some variation in the gloss of the upperparts; it may be either bluish or greenish. The character of the paler throat is more marked in the north New Guinea birds than in the Mount Goliath and Baroka birds.

***Alcyone pusilla laetior*, new subspecies**

TYPE.—No. 305907, Amer. Mus. Nat. Hist.; ♂ ad.; altitude 50 meters, Bernhard Camp, Idenburg River, Netherland New Guinea; April 10, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Closest to *pusilla*, from which it differs in the considerably paler, brighter blue of the upperparts, sides of the breast and flanks.

WING.—♂ ad. 51 mm., 52; ♀ ad. 51, 51.

RANGE.—Probably north New Guinea; two specimens examined from Hollandia in addition to the four from the type locality.

REMARKS.—Mayr and I (1937, Bull. Amer. Mus. Nat. Hist. LXXIII, p. 78) have already pointed out this difference of north New Guinea birds. Additional material from both north and south New Guinea shows this is not the result of individual variation.

***Campochaera sloetii sloetii* (Schlegel)**

Bernhard Camp: 3 ♂ ad., 1 ♀ (?) ad.; March 18-29.

Found at 50 meters altitude.

WING.—♂ 103 mm., 104, 104; ♀ (?) 103.

Through the kindness of Mr. Rodolphe de Schauensee, I have been able to compare this series with a series of Arfak material collected in 1938. The Arfak birds have wing measurements ♂ 101, 103, 105, 105, 107; ♀ 108. The present males differ from the Arfak males in being slightly more yellow on the back, slightly brighter orange on the rump and underparts and in having the bill slightly broader at the base. The single female differs from the Arfak female in the slightly brighter orange of the underparts, the considerably paler gray throat and the bill being slightly broader at the base. The Arfak female has more of an olive band on the breast below the gray throat, than the north New Guinea female, but the skin of the former is somewhat distorted, perhaps accounting for this in part. This suggests that with more material the

two populations may prove to be separable on the basis of the coloration of the females.

This is the first record of this species for north New Guinea.

***Sericornis beccarii idenburgi*, new subspecies**

TYPE.—No. 305908, Amer. Mus. Nat. Hist.; ♂ adult; at 1200 meters altitude, 6 kilometers southwest of Bernhard Camp on the Idenburg River, Netherland New Guinea; February 15, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—In the adult male this race has the color pattern of the *cyclopum*-group (see Mayr, 1937, Amer. Mus. Novitates, No. 904) on the forehead. It is closest to *weylandi* in the male in the general color of the upperparts; from all the *cyclopum*-group it differs in the wings in having the light markings reduced to narrow white or grayish edgings, not broad white margins; and in having the underparts much more brownish olive. From the *virgatus*-group it differs in the presence of the black and white pattern of the forehead, which is variable but always present; in the presence of an incomplete white circle about the eye; and in the average more brownish-olive underparts.

The brownish olive of the underparts suggests an approach to the variable *S. pontifex*, but that form (of which I have no material) appears to have no black and white pattern on the head.

WING.—♂ 57 mm., 60, 62, 62, 63; ♀ 58, 59, 60, 60.

RANGE.—Only known from the slopes above the Idenburg River, between 850 and 1200 meters altitude.

REMARKS.—This is one of the races of *beccarii* which show an approach to the species *nouhuysi*. However, it is still unquestionably *beccarii* and could never be referred to *nouhuysi*, as have some intermediate races, such as *pontifex*.

***Gerygone palpebrosa tarara*, new subspecies**

TYPE.—No. 426737, Amer. Mus. Nat. Hist.; ♂ ad.; Tarara, Wassi Kussa River, Territory of Papua, New Guinea; January 4, 1937; Richard Archbold, A. L. Rand and G. H. H. Tate.

DIAGNOSIS.—Intermediate between the quite different *personata* and *inconspicua*. From *personata* from Cape York it differs in the male in the much blacker, less brownish chin, throat, ear-coverts and forehead; the paler yellowish breast and abdomen; and the darker upperparts. The females differ in the considerably paler yellowish underparts; in the white throat being less sharply separated from the yellowish breast; and in the darker upperparts. In both sexes the bill averages slightly smaller (bill *tarara*—♂

11.5–13 mm., ♀ 12; *personata*—♂ 12.5–13.5, ♀ 12.5–13.5). From *inconspicua* the present race differs in the male by having the black of the throat and head distinctly brownish tinged, not pure black; by having less black on the forehead; by having the underparts paler yellow and the upperparts considerably paler.

WING.—♂ (10) 51–58 mm. (av. 53.2); ♀ (8) 49–54 (av. 50.9).

RANGE.—Known from the area between the Morehead River and the mouth of the Fly River.

REMARKS.—This is a very distinct race. In 1937 (Bull. Amer. Mus. Nat. Hist., LXXIII, p. 128) when Mayr and I referred Wuroi birds to *personata*, we had no comparative material. It is interesting that on the east bank of the Fly River at its mouth and on the west bank of the middle Fly River (at Lake Daviumbu) the form of *palpebrosa* which occurs is the quite different *inconspicua* Ramsay.

Myiagra rubecula rubecula (Latham)

Daru: 1 ♂ imm., 1 ♀, 1 sex(?); March 21–April 8.

Gaima: 1 ♂ imm.; November 21.

Sturt Island Camp: 1 ♂ imm., 1 ♀, 1 sex(?); October 11–31.

Lake Daviumbu: 3 ♂ ad., 5 ♀; August 19–September 29.

Found near sea level between March 21 and October 31.

WING.—♂ ad. 75 mm., 79, 80; ♂ imm. 74, 76, 79; ♀ 74, 74, 74, 75, 77, 80; sex(?) 75, 80.

This is the first record for this form from New Guinea, though Australian ornithologists have long assumed that it winters here.

This series differs from the resident New Guinea race in the larger bill, the longer wing and tail, and in the male in the darker, more iridescent throat and blacker lores; in these characters it compares better with the typical race *rubecula*, than with *yorki* from Cape York, where *rubecula* also occurs on migration, or with *concinna* Gould from northwest Australia.

The resident race is strictly a savanna bird, while this winter visitor is sometimes found in the edge of the forest as well as in the savanna.

Pachycephala schlegelii viridipectus Hartert and Paludan

15 km. northeast Lake Habbema: ♂, ♀; Oct. 9–Nov. 7.

Bele River Camp: ♂; Nov. 18–Dec. 1.

18 km. southwest Bernhard Camp: ♂, ♀; January 18–28.

18 km. southwest Bernhard Camp: ♂, ♀; February 2–7.

Found from 1800 to 2800 meters.

WING MEASUREMENTS

Altitude	Male	Female
2800 meters	90–94 mm.	87–91
2200 "	94	
2150 "	83–88	83–87
1800 "	87	82–86

The above shows that there is an increase in size with increase of altitude. In addition the birds from 2200 and 2800 meters have the back slightly more olive, less clear greenish than those from the lower altitudes on the Idenburg slopes. The present series compares well with a series from the Weyland Mountains.

This race is but slightly differentiated from *obscurior* on the basis of the slightly greener and broader breast band in the female and the less intense coloration of the abdomen in the male (though the original description states that males are alike).

Under *P. lorentzi* I have shown how Snow Mt. birds of this species have been confused with *lorentzi*.

The races of this species are:

<i>P. s. schlegelii</i> Schl.	Arfak and Wandamen Peninsulas
<i>P. s. viridipectus</i> Hart. and Paludan	Weyland and Snow Mts.
<i>P. s. cyclopum</i> Hart.	Cyclops Mts.
<i>P. s. obscurior</i> Hart.	Mountains of southeast New Guinea, Huon Peninsula and ? Sepik area

Pachycephala lorentzi Mayr

Mt. Wilhelmina to 7 km. northeast: ♂ ad., ♀ ad.; September 5–29.

Lake Habbema: ♂ ad., ♀ ad.; Aug. 3–Oct. 6.

Camp 9 km. northeast of Habbema: ♂ ad., ♂ imm., ♀ ad., ♀ imm.; October 11–31.

Bele River Camp: ♀ ad.; November 13–24.

Camp 18 km. southwest Bernhard Camp: ♂ ad., ♀ ad.; February 5-7.

Camp 15 km. southwest Bernhard Camp: ♀ ad.; January 9-18.

Found from 2200 to 3800 meters on the north slope of Mt. Wilhelmina and from 1800 to 2150 meters on the slopes above the Idenburg River.

WING MEASUREMENTS

Altitude	Male	Female
3600-3800 meters	91-95 mm.	88-93
3225 "	90-94	84-94
2800 "	86-91	85-89
2200 "		85, 86
2150 "	86	83, 83
1800 "		82

Three specimens in the American Museum from Mt. Goliath (Meek coll.), one of them taken at 5000 ft. altitude, measure, male 80, females 82, 85.

This species has always been confused with the geographical representative of *Pachycephala schlegelii* which also occurs in the Snow Mountains. It differs from *P. schlegelii* in having the male and female alike and similar to the female of *P. schlegelii*. From this it differs in the finer and usually shorter bill and in lacking the green breast band.

This species was described by van Oort in 1910 (1910, Notes Leyden Mus., XXXII, p. 213) as *Poecilodryas caniceps pectoralis* from the Hellwig Mountains.

When Rothschild and Hartert received three specimens of this species, one labeled a male and two females, they recorded them as three females of *P. s. schlegelii* (1913, Nov. Zool., p. 508). Ogilvie-Grant (1915, Ibis, Jub. Sup., p. 91) evidently received one specimen of this species from 8000 ft. on the Utakwa River and discussed it and the three Mt. Goliath birds; he received specimens of *P. schlegelii* from the same locality and called them all *obscurior*, considering van Oort's description to apply to the young male.

Mayr (1931, Mitt. Zool. Mus. Berlin, p. 673) considered examples of this species to be the females of *P. schlegelii* and, since van Oort's name was preoccupied, proposed the name *P. s. lorentzi* which must be used for this species. Junge (1939, Nova Guinea, p. 39) working over the collection

of *P. schlegelii* and *P. lorentzi* from the south slopes of Mt. Wilhelmina considered that the examples of *lorentzi* labeled male and female were the females of *P. schlegelii*, and that females of *P. schlegelii* were immature males.

However, the material from the third Archbold expedition shows clearly that *Pachycephala lorentzi* is a species with male and female similar and lacking a green breast band, inhabiting the slopes of the Snow Mts. from 1800 meters to 3800 meters, while *P. schlegelii* in which the female has a green breast band also occurs in this area from 1800 meters to 2800 meters.

The range of this species is restricted to the Snow Mountains where it is known from the southern slopes of Mt. Wilhelmina, Mt. Goliath 5000 ft., and the Utakwa River 8000 ft., in addition to the present localities.

The preceding table, giving wing length, shows that there is an increase in size with altitude. It might be possible to separate two races on the basis of size but until the distribution of such mountain forms is better understood it seems inadvisable to do this.

Three immature males and one immature female have the top and sides of the head rusty red, the chin and throat mixed rusty red and gray, under tail-coverts rusty red, and a few rusty feathers in back, wing-coverts, rump, abdomen and flanks; the rest of the plumage is similar to that of the adult.

Toxorhamphus poliopterus maximus, new subspecies

TYPE.—No. 305909, Amer. Mus. Nat. Hist.; ♂ ad.; 15 kilometers southwest of Bernhard Camp, Idenburg River, Netherland New Guinea, altitude 1500 meters; January 29, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Differs from the other two races in the longer bill, longer wing, darker greenish-gray crown and darker green back.

RANGE.—The north slope of the Snow Mountains, between 1200 and 1500 meters, west to the Weyland Mountains, between 1200 and 1700 meters altitude.

REMARKS.—Two specimens from the Weyland Mountains, collected by Stein, are still larger (♀ ad. wing, 66, bill 31; ♀

		MEASUREMENTS			
		♂ ad.	♂ imm.	♀ ad.	♀ imm.
<i>poliopterus</i> (southeast New Guinea)	Wing	67, 68 mm.		59, 61, 62	
	Bill	33, 33		28, 28, 28	
<i>septentrionalis</i>	Wing	71		63, 64	63
	Bill	30		27.5, 27.5	27.5
<i>maximus</i>	Wing	73, 78	68	62	62
	Bill	35, 36	36	30	

imm. wing 72, bill 31). Hartert et al. (1936, Mitt. Zool. Mus. Berlin, p. 193) considered the sexing incorrect because of the large size of the birds.

***Melidectes torquatus mixtus*, new subspecies**

TYPE.—No. 306378, Amer. Mus. Nat. Hist.; ♂ ad.; Balim River, 1600 meters, Netherland New Guinea; December 12, 1938; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—This new race has a mixture of characters found in a number of other races, without obviously being intermediate between any two races. It is a large race, like *polyphonus*, but differs from it in the much paler underparts. On the upperparts it is closest to *polyphonus*, but differs in being even darker and more somberly colored, lacking the ochraceous tinge on the blackish-brown nape; and having a more blackish rump. In the color of the underparts it is closest to *nuchalis*, differing from that race in the darker, more somberly colored upperparts, the wider white margins to the back feathers and the larger size. The white throat patch is slightly larger than in any other specimens before me except some specimens of *polyphonus*, but this may be due in part to the manner of preparation of the skins. The throat wattle is rudimentary or absent.

WING.—♂ 119 mm., 120, 120, 122, 122, 123; ♀ 111, 112, 117.

RANGE.—My material is from the Balim River area, between 1600 and 2200 meters.

REMARKS.—In 1931 Mayr (Mitt. Zool. Mus. Berlin, p. 661) suggested that the Snow Mountains bird might be an undescribed race, and in 1936 described *nuchalis* from the Weyland Mountains, which is intermediate in characters between *torquatus* and *cahni*. He suggested that the Snow Mountains birds were the same. Hartert (1932, Nova Guinea, p. 475) had listed birds from the Doormanpad-Bivak (Idenburg slopes, wing ♂ 115, 117, 118, ♀ 108) as *torquatus*. Junge (1939, Nova Guinea, p. 59) compared birds from the south slopes of Mt. Wilhelmina (wing ♂ 117, ♂(?) 103) with two Doormanpad-

Bivak specimens and found them identical. Junge referred them to *nuchalis*, apparently without comparing them. These birds are definitely smaller than my series. They must be compared with other material in the light of recent discoveries before it can be decided whether they should be included with *mixtus*, or if *mixtus* is confined to high valleys in the center of the Snow Mountains.

***Meliphaga analoga citreola*, new subspecies**

TYPE.—No. 306377, Amer. Mus. Nat. Hist.; ♂ ad.; Bernhard Camp, 6 km. southwest, Idenburg River, altitude, 1200 meters, Netherland New Guinea; March 5, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Differs from *flavida* in the shorter wing; the more slender, though not shorter bill; the slightly more yellowish underparts, especially the throat; in the much brighter, clear olive-green upperparts; and in the slightly softer, less dense rump tuft.

	Male	Female
Wing	(10) 73-79 mm. (av. 76.1)	72, 72, 74
Bill	(10) 15-17 (av. 15.8)	14, 14.5, 14.5

RANGE.—The slopes above the Idenburg River between 850 and 1200 meters.

REMARKS.—This is an altitudinal representative of *analoga*, differing in smaller size and brighter coloration. It is the most brightly colored of any of the "*Meliphaga analoga* and its allies" complex, and in wing length differs little from the smallest, *gracilis* and *orientalis*. The population of *flavida* on the Idenburg River is somewhat yellower than those at Hollandia, and on Jobi, indicating a tendency toward this race in color, though not in measurements.

***Dicaeum geelvinkianum setekwa*, new subspecies**

TYPE.—No. 698101 Amer. Mus. Nat. Hist.; ♂ ad.; Setekwa River, 2000 ft., Netherland New Guinea; September 1, 1910; A. S. Meek.

DIAGNOSIS.—Differs from *diversum* in the much less blackish, more olive upperparts, especially on the back of the neck. The red in the plumage averages slightly lighter in color, and the red breast patch in the male is slightly larger.

WING.—♂ 50 mm., 51, 51, 54; ♀ 47, 47.

RANGE.—Known from the Setekwa River up to 3000 feet; probably occurs along the south slopes of the Snow Mountains. Its range at higher altitudes is probably taken by the larger and much darker *centrale*.

REMARKS.—Rothschild and Hartert (1903, Nov. Zool., X, p. 215) described the race *diversum* on the basis of a male from the Ambernoh [= Mamberamo] River, a male from Humboldt Bay and a female from Takar. Later series from south of the Snow Mountains were referred to this race (van Oort, 1909, Nova Guinea, p. 98; Rothschild and Hartert, 1913, Nov. Zool., XX, p. 511; Ogilvie-Grant, 1915, Ibis, Jub. Sup., p. 81; Junge, 1939, Nova Guinea, p. 48).

When Hartert received an additional specimen, a male, from Hollandia (1930, Nov. Zool., XXXVI, p. 51) he separated the two birds from the Humboldt Bay area as *simillimum*, keeping the other two north New Guinea birds and the south Snow Mountains series as *diversum*.

The additional material from north New Guinea shows that the birds from Takar, Mamberamo and Hollandia fall within the range of variation of a series from the Idenburg River, while the series from south of the Snow Mountains is different.

Thus in the lowlands north of the Snow Mountains we have *diversum* with *simillimum* Hartert as a synonym; south of the Snow Mountains lives another race, *setekwa*, and in the Snow Mountains another, dark, larger race closest to *diversum*.

***Dicaeum geelvinkianum centrale*, new subspecies**

TYPE.—No. 306379, Amer. Mus. Nat. Hist.; ♂ ad.; Balim River, 1600 meters, Netherland

New Guinea; December 16, 1938; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Closest to *diversum* from which it differs chiefly in its larger size. It also differs slightly in the more grayish breast; in the lighter flanks; and in the slightly darker upperparts.

	WING MEASUREMENTS	
	Male	Female
<i>centralis</i>	56, 57, 57, 58, 58, 58, 59, 59 mm.	51, 51, 52, 52, 52, 53, 55
<i>diversum</i>	49, 50, 51, 52, 52, 52, 54, 55 ¹	46, 48, 48, 48, 49, 49

RANGE.—Known only from the type locality.

REMARKS.—This is apparently a higher altitude representative of *diversum*, which is interesting, as the series was taken on the southern drainage slope of the Snow Mountains, where the much paler race *setekwa* lives in the lowlands.

***Melanocharis longicauda umbrosa*, new subspecies**

TYPE.—No. 305910, Amer. Mus. Nat. Hist.; ♂ ad.; 6 kilometers southwest of Bernhard Camp, at 1200 meters, Idenburg River, Netherland New Guinea; February 27, 1939; Richard Archbold, A. L. Rand and W. B. Richardson.

DIAGNOSIS.—Tail as in *longicauda* and *chloris*. In the male this race differs from both these others by having the underparts much darker olive gray. From *chloris* it also differs in the much less yellowish wash on the underparts in both sexes; the female is also slightly darker below.

WING.—♂ ad. 62 mm., 62, 62, 66; ♀ 61.

RANGE.—Known only from the type locality.

REMARKS.—Three females from Arfak, one from the Weyland Mountains, and one from 6 km. southwest of Bernhard Camp all have a small white subterminal mark on the inner web of the outer tail-feathers, which is lacking in the males. Junge (1939, Nova Guinea, p. 49) records a female from Arfak as without white on the inner web of the outer tail-feathers. Junge (*loc. cit.*) records *chloris* from the south of Mt. Wilhelmiana.

¹ Includes the types of both *diversum* and *simillimum*.

