BIRDS COLLECTED BY DR. W. L. ABBOTT ON THE COAST AND ISLANDS OF NORTHWEST SUMATRA.

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The collection noticed in the following pages was received by the United States National Museum in July, 1902. It consists of about 450 specimens, representing nearly 140 species, many of which are of great interest, and was made by Dr. Abbott in the course of a five months' cruise on the northwest coast of Sumatra. This untiring traveler sailed from Singapore in the latter part of October, 1901, for the purpose of visiting certain zoologically unexplored islands on the west side of Sumatra. His first stopping place was Loh Sidoh Bay, a few miles south of Acheen Head, where, owing to the unfriendliness of the natives, work was carried on for a few days only (November 5–8). Simalur (Babi, Simulor, or Si Malu of some maps), a hilly and well-wooded island about 55 miles in length, was next visited. Here several weeks (November 16, 1901–January 3, 1902) were very profitably passed at various points (Telok Dalam, November 17–December 1; Sibaboh Bay, December 8–17; Sigoeli River, December 19; Pulo Asu, December 25–26; Pulo Siuat, December 27–30; and Labuan Badjau Bay, January 1–3) on the Sumatran side. Early in January Dr. Abbott sailed to Pulo Lasia and Pulo Babi, small islets lying 14 miles southeast of Simalur, and separated from one another by a narrow strait only 1½ miles wide. Pulo Lasia is about 2½ miles long by 2 miles wide, while Pulo Babi is even smaller. Both are uninhabited, low, wooded islands (the "Flat Islands" of some maps) of coral formation. After a few days (January 4–14) spent here, the Banjak Islands were visited. This group consists of Pulo Bangkaru (or Beng Karu), Pulo Tuangku (or Tunangku), and about four unnamed islets. Pulo Bangkaru, heavily forested, with an area of about 20 square miles, was first visited (January 16–22), and later Pulo Tuangku (January 22–February 6), which is 17 miles long by about 5 miles wide. On the latter, birds were found in abundance, both species and individuals outnumbering those observed on Simalur. Many species additional
to those given in the list at the end of this paper were seen, but the collector writes that "no large parrots, hornbills, or barbets were seen or heard, and no drongos or orioles were noticed;" also, "no partridges or pheasants were found on any of the islands visited." From the Banjak Islands Dr. Abbott proceeded to Tapanuli Bay (February 11–March), on the coast of Sumatra, where he remained for six weeks, visiting various points on the bay, including a short trip to Pulo Mansalar, situated about 7 miles from the mainland. Tapanuli Bay and Pulo Mansalar are both heavily forested, and birds were abundant at the former place, but the time spent here was mainly occupied in collecting mammals.

The birds enumerated below are referable to 152 species, of which 19 are believed to be new, namely: *Macropygia simalurenseis, Spilornis abbotti, Pisornina umbra, Ptilornis major, Psittinus abbotti, Pellarzopsis simalurenseis, P. solaldis, Thripomax parvus, Macropygia perlonga, Cyanoderma fulviventris, Stachyrhis banjakensis, Malacoptera notatum, Hypothymis abbotti, H. consobrina, Tchitraa proceru, Granulagus sabiensis, G. simalurenseis, Campephaga compa, and Oriolus mundus.*

All measurements in this list are in millimeters. Those of total length were taken from the fresh bird by the collector, and have been reduced from English inches to millimeters.

**Family CHARADRIID.E.**

**CHARADRIUS DOMINICUS FULVUS** (Gmelin).


Three specimens from Simahir. Length, 235–248 mm. "Feet slaty."

"Common about river mouths and on the padangs."

**OCHTHODROMUS GEOFFROYI** (Wagler).

Ochthodromus Geoffroyi Wagler, Systema Avium, 1, 1827 [p. 61], (Pondichery; Java).

Three examples from Simahir, where they were common. One specimen, a female, has an unbroken dusky band across the chest.

**OCHTHODROMUS PYRRHOTHORAX** (Gould).

Charadrius pyrrhothorax Temminck MS., Gould, Birds of Europe, IV (Pt. 20), 1837 [p. 299], pl. ccxcix ("Russia").

Two females from Simahir. Length, 191–197 mm. "Common on the seashore, in company with the last."

* Eight of these were described in Proc. Biol. Soc. Washington, XV, 1902, pp. 187–190.
Family SCOLOPACIDEAE.

GALLINAGO STENURA (Bonaparte).


One pair from Simalur. Length, 267 mm.

"Common in the paddy fields and in the wet padangs (meadows)."

TOTANUS TOTANUS EURHINUS Oberholser.


"A few seen along the Sigoeli River," in Simalur.

ACTITIS HYPOLEUCOS (Linnaeus).


"Common" in Simalur.

LEIMONITES RUFICOLLIS (Pallas).

*Tryngus ruficollis* Pallas, Reise Russischen Reichs, III, 1776, p. 700 ("circa Lacus salsos Damuriae campestris").

A single female, from Simalur.

NUMENIUS ARQUATUS (Linnaeus).


A female from Pulo Tuangku. Length, 539 mm.

NUMENIUS PHÆOPUS (Linnaeus).


One female, from Simalur, where it was "common." Length, 445 mm.

ARENARIA INTERPRES (Linnaeus).


A female was collected December 20, on Simalur. Length, 235 mm.

Family ÆDICNEMIDEÆ.

ESACUS MAGNIOSTRIS (Vieillot).


An adult male, from Pulo Babi, where "a pair frequented a sand beach at the east point of the island." It was noted on Tuangku, and at Simalur "three were seen on the seashore at Sigoeli." Length, 553 mm.; weight, 1.134 kg. "Iris yellow."
Family RALLIDÆ.

HYPOTÆNIDIA STRIATA (Linnaeus).


"Common in the sowahs. One caught in a rat trap" (Simalur).

This specimen, a female, measures 241 mm. "Iris pale yellow brown."

AMAUORNIS PHÆNICURUS (Forster).


Three specimens, from Simalur, where it was "common in the paddie fields." These examples, all males, measure 298-318 mm. "Iris brown; bill green, brownish over nostrils; forehead red."

Family ARDEIDÆ.

ARDEA SUMATRANA Raffles.


No specimens were shot, but the species was observed both on Bab and Tuangku. On Simalur it was noted as "common. This species seems to nest singly, not in heronries. A nest, with two well-grown young ones, was found in a tree overhanging the fresh-water creek at Telok Dalam."

DEMIGRETTA SACRA (Gmelin).


One female, from Simalur, where it was "common along the seashore." Also noted as "common" on Tuangku.

BUTORIDES JAVAICA (Horsfield).


"Common" on Simalur, where two males were obtained. These measure: Length, 470, 476; wing, 192, 180; culmen, 66 and 64 mm respectively.

ARDEOLA, species.

"Ardea grayi (or bacchus). One seen in Telok Dalam."

Family TRERONIDÆ.

SPHENOCERCUS OXYURUS (Temminck).

Columba oxyura "Reinw." Temminck, Pl. Col., IV (Pt. 41), Dec. 1823, pl. 39 (Java).

One specimen, from Tapanuli Bay. This is sexed as a female, but agrees with Salvadori's description of the young male. *Length, 32.*

ing, 158; tail, 127 mm. "Iris, inner circle blue, outer circle pink; beat bright red; bill leaden, base green, cere blue; naked orbital space dust green; claws pale hornv brown."

BUTRERON CAPELLEI (Temminck).

Columba capellei Temminck, Pl. Col., IV (Pt. 24), July, 1822, pl. cxliii (Java).

Four adult males, from Tapanuli Bay. The wing and tail measurements of these individuals agree with those given by Salvadori in his account of this species in the British Museum Catalogue, but the length, in the flesh, is much greater (387-400 mm., instead of 330 mm.). "Iris dull red; eyelids, orbital skin, and feet yellow."

TRERON NIPALENSIS (Hodgson).

Toria nipalensis Hodgson, Asiat. Researches, XIX, Pt. 1, 1836, p. 164, pl. ix, fig. (Nepal).

Three adults, from Tapanuli Bay. The length of the wing varies from 129-137 mm. in two females, while that of the male is 129. "Iris pale orange, with an inner blue circle; naked orbital skin greenish blue; feet deep purple red; bill hornv yellow, base deep red."

TRERON FULVICOLLIS (Wagler).


One pair from Tapanuli Bay. The male is 281 and the female 273 mm. in length. "Bill leaden, base dark red; feet deep red."

TRERON VERNANS (Linnaeus).


Three specimens, from Simalur, where it was "common, and the only small fruit pigeon seen." Length of a male, 298; of a female, 280 mm. The wing measurements are: Male, 153-156; female, 152 mm.

A species of Treron was common on Tuangku, but no specimens were preserved.

CARPOPHAGA CONSOBRINA Salvadori.


A fine series of 18 skins, from the islands of Simalur, Babi, Lasia, and Tuangku, on each of which it was found to be "common, and not at all shy."

These birds agree with the original description of C. consobrina, and in the absence of Nias examples for comparison, I am content to refer them to this species.

As is the case with a number of other species common to several of the islands, the birds living on the insignificant islets Babi and Lasia prove to be larger than their neighbors. In the present species the length of males from Simalur and Tuangku varies from 400 to 432 mm.
(wings, 218–232), while those from Babi and Lasia measure 432 to 440 mm. (wings, 241–245); females from the first-named localities are from 381 to 407 mm. (wings, 211–231); those from Babi and Lasia are 419 mm. (wings 232–234). "Iris deep red, eyelids red; bill leaden dark beneath at base; cere dull purple; feet purplish red."

**MYRISTICIVORA BICOLOR** (Scopoli).

*Columba* (bicolor) Scopoli, Del. Flor. Faun. Insub., 11, 1786, p. 94 ("new Guyana").

Reported as "common" on Tuangku, less so on Simalur; noted also on Babi and Lasia.

Two examples (Simalur and Babi).

**Family COLUMBIDÆ.**

**COLUMBA PHASMA**, new name.

This is *Columba grisea* (Bonaparte, ex Gray), which is preoccupied by *Columba grisea* Bonaterre, 1790.

Three adult males of this rare species, from Simalur, are apparently not different from an individual collected by Dr. Abbott on Pulo Tay (southeast of Singkep and Lingga). Length, in the flesh, varies from 403 to 419 mm.; wings, from 231 to 245 mm.

"Only seen at two places: one was up a fresh-water creek at Telu Dalam, where it was common, and at Labuan Badjau Bay. I only saw four or five in all, and they were in very poor plumage. Only thin skinned. It was shy and hard to get." The colors of the soft parts are noted as "iris orange red; bill greenish horny, base, cere, an naked skin about eye dull purple; feet leaden, distal parts of toe pinkish white, claws white; anterior parts of tarsi, purple." Another specimen the iris was "bright red."

**MACROPYGIA SIMALURENSIS** Richmond.


Three specimens, from Simalur, where it was "common."

*M. ruficeps* (Temminck) appears to be its nearest relative, but we have no specimens of this form for comparison. The Simalur bird differs from Salvadori's description of *M. ruficeps* in not having the "pectoral feathers more or less broadly tipped with whitish buff and in lacking a whitish throat; the colors of the soft parts are also different.

"Iris bluish gray; feet dark purple brown; bill dark brown, black at tip."

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CHALCOPHAPS INDICA (Linnaeus).


"Occasionally seen in the jungle" on Simalur, and "quite common on Pulo Siamat." It was also "heard in the forest" on Babi. No specimens were preserved.

CALCENAS NICOBARICA (Linnaeus).


"A few seen at Telok Dalam," on Simalur, and noticed on Pulo Babi. No specimens.

Family FALCONIDÆ.

ASTUR SOLOÆNSIS (Horsfield).


"A single male, shot in Labuan Badjau Bay," Simalur. Length, 280 mm. "Iris dark brown, eyelids green; bill black, leaden at base, cere orange; feet yellow, claws black."

ACCIPITER VIRGATUS (Temminck).

Fulco virgatus "Reinw." TEMMINCK, Pl. Col., 1 (Pt. 19), February, 1822, pl. cix (Java).

Four immature females, three from Simalur and one from Lasia. The stomach of one individual and the crop of another contained the remains of small birds.

"A number were seen, both in the forest and about the clearings. Also seen on Pulo Siamat."

SPIZAETUS ALBONIGER (Blyth).


"A single male, shot on Pulo Asu, in dense jungle." Length, 514; wing, 311; tail, 208 mm. "Bill and cere black; lores dull leaden; toes yellow, claws black."

A Spizætus, probably of this species, was seen on Bulo Bangkaru.

HALIÆETUS LEUCOGASTER (Gmelin).


On Simalur it was "generally common along the sea shore. One pair was nesting on Pulo Asu and two or three on Pulo Siamat. One nest on the latter island was completed about Christmas day.
There were probably eggs, but the natives were afraid to climb and get them, the tree being large and rotten." It was common on Tuangku, and individuals were observed on Babi, Lasia, Bangkaru, and Mansalar.

Two fine adult males were collected. Length, 660 mm.; weight, 2.154 kg. "Iris brown, mottled with dark spots."

**Genus ICHTHYOPHAGA** Lesson.


Type, _Icthyophaga javana_ Lesson (= *Falco ichthyactus* Horsfield).

**ICHTHYOPHAGA ICHTHYÆTUS** (Horsfield).


An adult female, from Tapanuli Bay. Length, 660 mm.; weight, 2.494 kg. "Iris straw yellow."

_Icthyophaga_, of Lesson, has priority over the other generic names employed for this eagle.

**SPILORNIS BACHA** (Daudin).


An immature female, from Tapanuli Bay, appears to belong to this species. Length, 612; wing, 369; tail, 253 mm. "Iris grayish olive; feet pale yellow; bill leaden, black at tip; lores pale yellow."

**SPILORNIS ABBOTTI**, new species.

*Type.*—Adult male, No. 179094, U.S.N.M.; Simalur Island, west coast of Sumatra, December 1, 1901; Dr. W. L. Abbott. Cap black the feathers white at base; longest nuchal feathers pale cinnamon at tips; mantle, scapulars, back, rump, tertaries, greater and middle wing coverts, dark brown, with a purplish gloss, most of the feathers tipped with pale cinnamon; lesser wing-coverts black, sparsely dotted with small white spots; primaries, and primary coverts, glossy black, some of the latter narrowly spotted with white at the tips; secondaries like the tertaries, becoming black terminally, most of them narrowly tipped with white; upper tail-coverts like the back, rusty at the tips some of the feathers with small lateral white spots at the tips; tail black, most of the feathers narrowly tipped with whitish; near the outer third of the tail there is a band of grayish white, about 20 mm wide, extending across all of the feathers; this band obscurely mottle with brownish gray above, but paler and of a more uniform shade on the under surface; near the base of the tail, and concealed by th
coverts, there are indications of a second pale bar. Ear-coverts and malar region dark brown (between sepia and clove brown); sides of neck similar, each feather tipped with pale cinnamon; chin, throat, and chest brown (paler than the ear-coverts), barred and tipped with Mars brown, the bars darker and broader on the latter; breast and sides Mars brown, narrowly barred with blackish brown, with occasional lateral white spots; abdomen, flanks, and under tail-coverts Mars brown, with more numerous lateral white spots, which are surrounded by dark brown; under wing-coverts and axillaries like the abdomen, the edge of the wing being more prominently mottled with white; under surface of wing dusky, with a broad obscure pale bar on the inner webs of the feathers about 95 mm. from their tips; near the base of each feather there are one or two white spots of irregular shape and size.

Length, 527; wing, 347; tail, 228; tarsus, 82; bill, from gape, 38 mm.

Iris yellow; cere and naked face deep yellow; bill horn blue, black at tip; feet yellow, claws black.

There is some variation in color shown in this series, especially in the markings of the tail, under surface of the wings, and of the throat and chest, but the general appearance of each bird is very like that of the type.

In some younger individuals many feathers of the scapulars, tertiaries, and greater wing-coverts are narrowly tipped with white, or have small lateral white spots at the tips, while the black crown feathers have pale rusty edges.

The dimensions of this species are: Males, length, 502-546; wing, 328-360; tail, 217-233; tarsus, 77-83 mm.; females, length, 495-559; wing, 315-358; tail, 210-235; tarsus, 75-87 mm.

This species seems to have its nearest relative in S. darisomi Hume, but differs in being smaller, and in having the bend of the wing mottled, instead of uniform white or yellowish white; in S. darisomi the tibial plumes are barred, but in the new species they are spotted.

The dimensions of S. darisomi, as given by Hume, are: Length, 559-609; wing, 356-394; tail, from vent, 254-280; tarsus, 79-97 mm.

Dr. Abbott found the new species "common in the jungle, and especially on the edges of clearings. Not at all shy, and easily called up." Snakes, centipedes, lizards, and remains of crabs were found in the stomachs of the specimens collected.

All of the specimens, 15 in number, were obtained on Simalur.

A bird of this genus may occur on Tangkoko, where "the peculiar cry of Spilornis was never heard, but a large hawk was seen once or twice in the forest which may have been Spilornis."

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*a Stray Feathers, I, p. 306; II, p. 147.
*b Measurements originally in inches.
HALIASTUR INDUS INTERMEDIUS (Blyth).

*Halostur* intermedius Blyth (Gurney MS.), Ibis, 1865, p. 28 (Java).

"Common at Sigoeli, and several seen at other places" on Simalur; also noted on Tuangku and on Mansalar. Two specimens, one of them from Tapanuli Bay.

MICROHIERAX FRINGILLARIUS (Drapiez).


Four adults, from Loh Sidoh Bay. One specimen a male, has indications of a white collar on the nape.

? FALCO PEREGRINUS Tunstall.


"A falcon was seen in Telok Dalam and fired at twice, when it dropped a *Calornis* which it had in its claws. The dark cheek stripe was plainly visible."

Family BUBONIDÆ.

PISORHINA UMBRA, new species.

*Type.*—Adult male, No. 179101, U.S.N.M.; Simalur Island, west coast of Sumatra, November 29, 1901; Dr. W. L. Abbott. General color of the upper parts, brown (between Mars brown and russet), paler on the wings, all of the feathers finely dotted with dusky, those of the crown being prominently marked with irregular black streaks and bars; feathers of the crown, ear tufts, and mantle with more or less concealed russet bars or bases, mingled with blackish bars or markings; outer scapulars with conspicuous white spots, tipped with black and russet; wing-coverts mainly like the mantle, the greater coverts somewhat paler; primary coverts and alula more prominently marked with dusky, the feathers of the latter with three or four pale bars on the outer webs. Primaries narrowly bordered with dusky, the outer webs with several deep buff or cinnamon bars; rump, upper tail-coverts, and tip of tail like the mantle, basal two-thirds of the tail darker, with several pale cinnamon bars, each one with dusky borders. Sides of neck and chest like the mantle, but with distinct narrow blackish bars or vermiculations, some of the feathers of the chest with blackish shaft spots; throat paler, with irregular blackish markings base of malar region with more prominent black spots, mingled with white and russet, forming a well defined patch; ear-coverts and side of face russet, with obscure dusky markings; chin white; forehead and feathers above eyes, white, mottled with russet and black. Breast sides, flanks, and abdomen like the chest, but the feathers barred and freckled with white, especially on the latter; thighs and tarsus russet.
freckled with dusky; under tail-coverts white, barred and mottled with russet and dark brown at the tips; under wing-coverts and axillaries pale russet or buff, with blackish markings; under primary coverts buff, with broad dusky tips; under surface of wings dusky, paler and obscurely dotted at tip; inner feathers buff, basally, barred with buff for about two-thirds of their length (outer primary barred at base only).

Length, 191; wing, 143; tail, 61; tarsus, 23; bill, from gape, 19 mm.

"Iris greenish yellow; bill pale brown, black at tip; feet pale fleshy brown. Stomach contained insects. Shot in bright sunlight while sitting on a bush by a fresh-water creek at Telok Dalam."

This species appears to be nearest to P. alfredi Hartert, from Flores, but is smaller, has the tail plainly barred, and differs from it in various details.

SYRNium niasense Salvadori.


One pair, from Pulo Bangkaru. The dimensions are: Male, length, 381; wing, 297; tail, 156; female, length, 406; wing, 303; tail, 170 mm. "Toes and bill leaden; cere dark leaden."

These birds appear to be S. niasense, but the measurements are somewhat greater than those given by Salvadori.

Family PSITTACID.E.

PALÆORNIS MAJOR Richmond.


Six specimens from Babi and one from Lasia. The latter, a male, is even larger than the type, measuring: Length, 445; wing, 194; tail, 229 mm. Another male, from Babi, has a wing 196 mm. long. The females are a little smaller (wing about 186 mm). The color is exactly that of P. fasciatus.

"Upper mandible red, tip yellow; lower mandible black; iris pale yellow, with an inner circle dull green; cere greenish leaden; feet pale green." In the female the whole bill is black. "Much larger than the Paulornis of Simulur, about 16½ inches long. Common. In pairs, evidently breeding. Owing to the dense jungle difficult to see and shoot."

PALÆORNIS FASCIATUS (Müller).


"Generally common" on Simulur. Nine specimens were obtained, agreeing in size with Andaman birds. Males measure: Length, 368-394; wing, 171-176; females, length, 351-368; wing, 165-175 mm.
PROCEEDINGS OF THE NATIONAL MUSEUM.

PSITTINUS ABBOTTI Richmond.


Eight specimens, all from Simalur.

This species is conspicuously unlike the only previously known member of the genus, P. incertus, differing in having the mantle, rump, upper tail-coverts and lower surface green, a brighter blue head, a greenish patch on the crown, and a black band across the nape. It is also considerably larger than the common species.

The female is duller in color, has no blue on the head (which is like the mantle), and no black band on the nape. The upper mandible is brown instead of red. The cere is dull green in both sexes, but in two males is marked as "dark brown." In males the length of the wing ranges from 139 to 144 mm.; in females from 134 to 141.

"Pretty common, but I only obtained them at Sibaboh, where a flock used to frequent two or three trees that were bearing a small wild fruit. The parrots were very tame, and would allow me within a few feet. I often used to see them flying over the forest, and saw a few on Pulo Siamat, but never obtained them again."

LORICULUS GALGULUS (Linnaeus).


One example, from Pulo Tuangku, where "common."

This specimen was sexed as a male, but appears to be in the plumage of the female, a specimen of which is not available for comparison. In the Tuangku bird there are traces of a golden band on the lower back, separating the green from the scarlet, and the longer upper tail-coverts extend to the tip of the tail.

"Cere dark brown; upper mandible dark brown, lower one pale brown; tarsi greenish; toes pale fleshy brown." Length, 133 mm.

Family CUCULIDÆ.

CACOMANTIS SEPULCRALIS (S. Müller).


Two immature birds, male and female, from Simalur. The former has the "iris gray brown; eyelids greenish yellow; feet yellow, claw black; bill black, brownish yellow beneath at base; inside of mouth orange;" in the latter the iris is "reddish brown, becoming gray externally." Length of the male, 235; wing, 115; of the female, 232; wing, 113 mm. "One shot in dense forest and one sitting on a dead tree in a clearing."
BIRDS OF NORTHWEST SUMATRA—RICHMOND.

EUDYNAMYS HONORATA MALAYANA (Cabanis and Heine).

E[dynamis] malayana Cabans and Heine, Mus. Hein., IV, Pt. 1, 1862, p. 52 (Sunda Islands; Sumatra).

“Common” on Simalur and Babi; also noted on Lasia.

One specimen each, from Simalur, Babi, and Loh Sidoh Bay. The first (female) measures, length, 397; wing, 187; the second (male), length, 438; wing, 205; bill, from gape, 43: the third (male), length, 419; wing, 195 mm.

RHOPODYTES DIARDI (Lesson).

Melias diardi Lesson, Traité d’Orn. (Pt. 2), May, 1831, p. 132 (Java).

An adult female, from Tapanuli Bay. Length, 368 mm. “Iris dark brown?; sclera blue; naked skin about eye deep crimson; feet dark leaden; bill green, with a pale blue spot above nostril.”

PHOENICOPHAUS ERYTHROGNATHUS Bonaparte.


One adult male, from Loh Sidoh Bay. Length, 457 mm.

The differences in plumage between males and females of the allied P. microrhinus, pointed out by Berlepsch and confirmed by Büttikofer, are equally evident in this species. Another sexual character, apparently not before mentioned, is the color of the iris, which is blue in the male and orange yellow or yellow in the female. Büttikofer found the color of the iris in P. microrhinus to be very variable, but considered it to be independent of age or sex.

Family CORACIDÆ.

EURYSTOMUS CALONYX Sharpe.


“A few seen” on Simalur, where an adult male was obtained December 15.

a Nov. Zool., II, p. 73.
b Notes Leyden Mus., XXI, p. 172.
c Iden, p. 171.
d This locality is not specifically mentioned in the original description, where only the general distribution of the species is given (“extends throughout the Himalayan Terai from Kumaon to Darjiling and upper Assam, probably breeding throughout the whole of this range”). Later, we learn (Catal. Birds Brit. Mus., XVII, 1892, p. 38) that the type is from Nepal. It is a common practice with many European authors to give the entire distribution of a new species, at the same time omitting the all-important type locality.
Family MEROPIDÆ.

MELITTOPHAGUS URICA (Swainson).

Merops urica Swainson (from Horsfield, M.), Zool. Illustr., I, No. 2, November, 1820, pl. viii (Ceylon).

This is Melittophagus swinhoii of authors, but Swainson's name has clear priority and should be used.

Dr. Abbott saw a single individual at Sibaboh Bay, Simalur, which he identified as "M. swinhoii," but no specimens were obtained.

MEROPS PHILIPPINUS Linnaeus.


Specimens are in the collection from Simalur and Tapanuli Bay. It is reported as "common about the clearings" at the first-named locality and also on Tuangku.

FAMILY ALCEDINIDÆ.

PELARGOPSIS JAVANA FRASERI (Sharpe).


An adult female from Pulo Mansalar measures, length, 368; wing, 147; three adults from Tapanuli Bay give the following measurements: Female, length 381, wing 160; male, length 368, wing 144; male, length 356, wing 146 mm. These examples have slightly darker caps and somewhat deeper blue upper parts than specimens from Singapore, Lingga, and eastern Sumatra.

PELARGOPSIS SIMALURENSIS, new species.

Type.—Adult male, No. 179205, U.S.N.M.; Simalur Island, west coast of Sumatra, November 29, 1901; Dr. W. L. Abbott. Crown, nape, lores, ear-coverts, and infraorbital region Isabella color, with a buff line above the lores, eyes, and ear-coverts, and a wash of buff under the eyes; mantle and wing-coverts dark brownish green (near bottle green), each feather edged with greenish blue (near verditer blue); wings dusky black at the tips, sea green externally, except on apical part of outer primaries (first primary without any green and second with basal part only green); tail sea green, the inner webs of all but the middle pair of feathers dull black; shaft, and a narrow line bordering the shaft of each feather, dull black. Back, rump, and median upper tail-coverts pale turquoise or silvery blue; lateral upper tail-coverts and longest median ones, like the mantle; under parts, including under wing-coverts, axillaries, sides of neck, a narrow line across nape, and malar region, ochraceous, paling to deep buff on throat; under surface of wings (basal portion), buff.
Length, 369; wing, 141; tail, 94; tarsus, 17; culmen, 81.5 (bill, from gape, 92); width of lower mandible, at base, 26 mm. “Feet red, claws brown; bill red, with black tip.”

The green shades of the upper surface are changeable, as in other birds of this genus, becoming deep purplish blue in certain lights. The above description was taken with the bird held in Gadow’s position “A.”

This form differs from fraseri in having a paler cap (the feathers without darker centers), darker mantle, and less of a bluish shade on the upper parts, especially on the wings and tail. The bill appears to be slightly longer and broader than in fraseri; but birds of the same sex should be compared, as females are usually larger than males. A female of P. simalurensis has the following dimensions: Length, 381; wing, 152; tail, 97; tarsus, 17; culmen, 83 (bill, from gape, 95) mm.

Five specimens, from Simalur, where it was “common along the sea coast and creeks.”

**PELARGOPSIS SODALIS, new species.**

*Type.*—Adult female, No. 179208, U.S.N.M.; Pulo Tuangku, Banjark Islands, west coast of Sumatra, January 25, 1902; Dr. W. L. Abbott. Color as in P. simalurensis, but cap rather lighter and grayer; size larger.

Length, 407; wing, 160; tail, 101; tarsus, 19.5; culmen, 88 (bill, from gape, 100); width of lower mandible, at base, 29 mm. “Bill red, brownish above at tip; feet red, claws dark brown.”

A second female measures: Length, 394; wing, 158; tail, 103; culmen, 87 (bill, from gape, 99); width of lower mandible, at base, 27 mm. “Remarkably large sized. A female was 16 in. long.”

**ALCEDO ISPIDA BENGALENSIS** (Gmelin).

*Alcedo* bengalensis Gmelin, Syst. Nat., I, Pt. 1, 1788, p. 450 (Bengal).

Four specimens, collected on Simalur and at Tapanuli Bay. It was seen, but not obtained, on Tuangku.

**ALCEDO MENINTING** Horsfield.


Several specimens. “A small bright-colored kingfisher, either this or *barrani* was seen on a fresh-water creek in dense forest at Telok Dalani. Probably the same as that afterwards obtained in Pulo Tuangku and at Tapanuli Bay.”

**CEYX, species.**

“Frequently heard in the forest and once or twice seen” on Simalur. A *Ceyx* was also seen on Bangkaru.
HALCYON COROMANDA (Latham).

[Alcedo] coromanda Latham. Index Ornith., I, 1790, p. 252 ("Coromandela").

Two from Tapanuli Bay. It was also noted on Simalur and Lasia.

HALCYON PILEATA (Boddaert).


Four from Simalur and one from Tapanuli Bay, all males. The stomach of one specimen contained a lizard. Total length varies from 292 to 299 mm.

On Simalur it was "found along fresh-water creeks and streams: not so common as the last" [A. chloris]. Seen also on Babi.

HALCYON ARMSTRONGI Sharpe.


An adult male, from Loh Sidoh Bay. This individual has greener ear-coverts than those recorded above as H. chloris. Loh Sidoh Bay is practically the same as Acheen, whence Sharpe has recorded H. chloris.

Family BUCEROTIDÆ.

DICOCEROS BICORNIS (Linnaeus).


One specimen, from Tapanuli Bay. Length, 109.2 cm.; weight, 2.381 kg.

ANTHRACOCEROS CONVEXUS (Temminck).

Buceros convexus Temminck, Pl. Col., II (Pt. 89), Feb., 1832, pl. dxxx (Java).

"Common" on Pulo Mansalar. Length, 787 mm.

RHYTIDOCEROS UNDULATUS (Shaw).

Buceros undulatus Shaw, General Zool., VIII, Pt. 1, 1811, p. 26 (Java).

"Common" on Pulo Mansalar, but no specimens were obtained.
ANORRHINUS GALERITUS (Temminck).

*Buceros galaritus* Temminck, Pl. Col., II (Pt. 88), May, 1831, pl. dxx (Sumatra; western part of Borneo).

Three males, from Tapanuli Bay. Length, 800–813 mm.

“Iris dull red; gular space and naked orbital ring white, dull blue in front of eye.”

Family CAPITONIDE.

CHOTORHEA CHYSOGOPON (Temminck).

*Bucco chrysopogon* Temminck, Pl. Col., III (Pt. 48), July, 1824, pl. cclxxxv (Sumatra).

An adult male, from Tapanuli Bay. Length, 305 mm.

CHOTORHEA MYSTACOPHANES (Temminck).

*Bucco mystacophanes* Temminck, Pl. Col., III (Pt. 53), Dec., 1824, pl. cccxv (Sumatra).

Three adults from Tapanuli Bay, where “common in heavy forest, sitting on high trees.” Length, 232–235 mm.

“Iris dark brown; bill black, leaden at base, beneath; feet greenish.”

CYANOPS HENRICII (Temminck).

*Bucco henricii* Temminck, Pl. Col., III (Pt. 88), May, 1831, pl. dxxiv (Sumatra).

Tapanuli Bay; one adult female. Length, 226; culmen, 27.5; width of bill, at base, 20 mm.

MEZOBUCCO DUVAUCELII (Lesson).

*Bucco duvaucelii* Lesson, Traité d'Orn. (Pt. 3), July, 1830, p. 164 (Sumatra).

Three adults, from Tapanuli Bay.

Family PICID.E.

CALLOLOPHUS MALACCENSIS (Latham).


An adult male, from Loh Sidoh Bay.

BLYTHIPICUS PORPHYROMELAS (Boie).

*Picus porphyromelas* Boie, “Briefe geschr. aus Ostind., p. 143 (1832).”

An adult male, from Tapanuli Bay. Length, 229 mm.

“Iris deep red; feet dark leaden.”

MEIGLYPTES TUKKI (Lesson).


Three specimens; a pair from Tapanuli Bay, and an adult female from Pulo Tuangku. In color the Tuangku bird is identical with *tukki*, but it is larger than any other specimen in our series of this species. Length, 225; wing, 110; bill, from gape, 30 mm.
MICROPTERNUS PHAIOCEPS BRACHYURUS (Vieillot).


An adult female, from Tapanuli Bay.

**TIGA JAVANENSIS** (Ljungh).


One specimen, an adult male, from Loh Sidoh Bay.

**THRIPONAX JAVENSIS** (Horsfield).


A female, from Pulo Mansalar, shot March 13, "contained well-developed eggs." This individual has distinct white tips to some of the primaries, as is often the case in this species.

**THRIPONAX PARVUS** Richmond.


Twelve specimens, from Simalur. This species is indistinguishable from *T. javensis*, except by its smaller size. Not one of the specimens, however, shows any white on the tips of the primaries. The wing measurement in the male varies from 166 to 179; in the female, from 169 to 176 mm. Length, in the male, from 359 to 381 mm. "Common. The only woodpecker seen. A miniature of *T. javensis*. Iris straw yellow; bill black; feet dull leaden."

Family **TROGONIDÆ**.

**PYROTROGON DUVAUCIELII** (Temminck).

*Pyrosgon duvaucelii* Temminck, Pl. Col., III (Pt. 49), August, 1824, pl. ccxcr (Sumatra).

One adult male, from Tapanuli Bay.

Family **MACROPTERYGIDÆ**.

**MACROPTERYGIX PERLONOA**, new species.

*Type.*—Adult female, No. 179109, U.S.N.M.; Simalur Island, west coast of Sumatra, January 2, 1902; Dr. W. L. Abbott. Color that of the female of *M. longipennis*, but size larger.

Length, 232; wing, 184; tail, 113.5 mm. In *M. longipennis* the wing is about 165, and the tail 102 mm., or less.
M. perlonga doubtless occurs on other islands off the west coast of Sumatra, as it has been recorded from Engano by Salvadori, with a wing measurement of 185 mm.

"Common, but flies very high, and when settling does so upon very high trees, so that though I fired a number of times I only got one, a female. This seems much larger than longipennis."

MACROPTERYX COMATA (Temminck).

Cygnus comatus Temminck, P1. Col., IV (Pt. 45), April, 1824, pl. cclxviii (Sumatra).

An adult female, from Tapanuli Bay.

Family MICROPODIDÆ.

? SALANGANA FRANCICA (Gmelin).

"Many seen. The nests are gathered in considerable quantities," on Tuangku. Identified as above by Dr. Abbott. Possibly S. inexpectata (Hume).

SALANGANA FUCIPHAGA (Thunberg).


One pair, from Simalur, where it was "common."

Family EURYLAIMIDÆ.

EURYLAIMUS OCHROMALUS Raffles.


Three females, from Pulo Tuangku.

"Common. A partly finished nest obtained January 29, hung from the extremity of a branch of a lime tree in a clearing; 30 feet from the ground."

CYMBIRHYNCHUS LEMNISCATUS (Raffles).


An adult male, from Tapanuli Bay. Length, 235 mm.

The white spots are almost obsolete on the tail of this specimen, occurring on the two outermost feathers only. The crissum and longer upper tail-coverts are orange-rufous, instead of crimson.

"Iris, emerald green; feet leaden blue, soles pale fleshy."
Family PITTIID.E.

PITTA MOLUCCENSIS (P. L. S. Müller).

Turdus moluccensis Müller, Natursyst., Suppl., 1776, p. 144 ("moluccischen Inseln").

A single adult female from Pulo Tuangku. Length, 200; wing, 116; tarsus, 40; bill, from gape, 29 mm. Compared with a series of fresh specimens from the Malay Peninsula, this bird is rather small, with more yellowish in the green of the upper parts; the white patch on the primaries is much restricted, the black tips of the feathers occupying more space than in any of our other specimens.

"Common. Feet pale purplish fleshy."

Family MOTACILLID.E.

Genus DENDRONANTHUS Blyth.


Type, Motacilla indica Gmelin.

DENDRONANTHUS INDICUS (Gmelin).

[Motacilla] indica Gmelin, Syst. Nat., I, Pt. 2, 1788, p. 962 (Sonnerat's "La bergeronnette grise des Indes").

Two specimens, one from Simalur, the other from Loh Sidoh Bay. It was "common" at the first-named locality, and was noted also on Pulo Bangkaru.

This bird has received several generic names, the earliest of which appears to be Dendronanthus Blyth (1844). The next is Nemoricola "Blyth," which may clash with Nemoricola of Hodgson, for a species of snipe, Limonixironus, of Gould, commonly used for the species, dates from 1862, and Fitzinger's Nemorivaga was proposed about the same time. Budytanthus, of David, is still later.

MOTACILLA MELANOPE Pallas.

Motacilla melanope Pallas, Reise Russischen Reichs, III, 1776, p. 696 ("Ha Daunuria circa ripas glareosas rarius occurrat").

An adult male, from Simalur, where "common."

BUDYTES FLAVUS LEUCOSTRIATUS (Homeyer).

Budytes leucostriatus Homeyer, Journ. für Orn., 1878, p. 128 (Baical region).

One specimen, an adult male, from Simalur. "Common."

"Jerdon, Madras Journ., X111, p. 132, dated 1844, but not published before August, 1845.

"Journ. Asiat. Soc. Bengal, VI, 1837, p. 491. Hodgson writes: "I have set it down in my notebook as the type of a new genus or subgenus, under the style of Nemorica Nipalensis, but I forbear, for the present, from so naming it." Gray used this name in 1842 (Appendix to List Genera Birds, 1842, p. 14).

"Nouv. Arch. du Mus., III (Bull.), 1867, p. 33."
Family PYCNONOTIDE.

CHLOROPSIS CYANOPOGON (Temminck).

Phyllornis cyanopogon Temminck, Pl. Col., IV (Pt. 81), October, 1829, pl. ixii, fig. 1 (Sumatra).

An adult male, from Tapanuli Bay. Length, 178 mm.

IRENA CRINIGER Sharpe.


Six specimens, from Pulo Mansalar, Tapanuli Bay, and Tuangku. These birds are identical in color with I. criniger, but the Tuangku specimens, four in number, differ in having larger and heavier bills, with rather larger wings (bill, from gape, 30; wing, 123-129 mm.). “Common,” on Tuangku.

HEMIXUS MALACCENSIS (Blyth).


Four specimens, all from Tapanuli Bay. Length, 219-229 mm. “These two pairs shot in heavy forest on Gunong Kebong, where they were pretty common. Iris’ clear brown; feet dark fleshy brown.”

IOLE OLIVACEA Blyth.


An adult male, from Tapanuli Bay. Length, 194 mm. “Iris gray.”

EUPTILOSUS EUTILOSUS (Jardine and Selby).

Euphtilospus eutilosus Jardine and Selby, Illustr. Orn., new ser., No. 1, February, 1837, pl. iii (Singapore).

One specimen, from Tapanuli Bay. Length, 206 mm. “Iris red; bill and feet black.”

MICROTARSUS MELANOCEPHALOS (Gmelin).

[Leucoma melanocephalos Gmelin, Syst. Nat., I, Pt. 1, 1788, p. 309 (“in insulis Sandwich maris australis”).]

Seven adults from Simulur and one from Tapanuli Bay. The Simulur birds do not differ in color from those of Borneo and the Malay Peninsula, but the bills are perceptibly stouter. Length, 172-184; wing, 77-79 mm. “The only bulbul noticed. Common about the clearings in scrubby jungle” (Simulur).

TRICHOLESTES CRINIGER (Blyth).


Three specimens are in the collection, from Pulo Mansalar and Tapanuli Bay.
TRACHYCOMUS OCHROCEPHALUS (Gmelin).


A female, from Loh Sidoh Bay. Length, 267 mm. "Iris brownish red."

PYCNONOTUS ANALIS (Horsfield).


One male, from Loh Sidoh Bay. Length, 203 mm. "Iris dark brown; bill and feet black."

PYCNONOTUS PLUMOSUS Blyth.


Adults from Tuangku, Mansalar, and Tapanuli Bay. These do not differ from Singapore specimens. "Iris brownish yellow; feet fleshy brown."

PYCNONOTUS SIMPLEX Lesson.

Pycnonotus simplex Lesson, a Revue Zool., II, June, 1839, p. 167 (Sumatra).

Seven specimens, from Loh Sidoh Bay, Tuangku, and Bangkaru. It was found to be "common" on both of the Banjak islands. Length, from 181 to 191 mm. The irides in six of the skins are noted as "red," but in one male from Tuangku are stated to be "brownish yellow."

PYCNONOTUS, species.

One pair, from Tapanuli Bay. Length of male, 178; of female, 158 mm. "Iris pale yellow; feet fleshy brown."

This species is related to P. simplex, but is easily distinguished by its paler color below, paler sides and under tail-coverts, smaller size (or slenderer appearance in the prepared skin), and white or pale yellow irides. We have about thirty skins of this form and an equal number of P. simplex, all nicely prepared and properly sexed, with color notes, and no difficulty is experienced in dividing them into two lots, except in the case of birds from Subi and Sirhassen, in the Natunas, which have the plumage of the present bird, with the red irides of P. simplex. We have P. simplex, with red irides, from Trong, Pulu Lankawi, the Dindings, the Butang Islands, Singapore, Pulo Tiongan the Anambas, Indragiri River (Sumatra), Borneo, Loh Sidoh Bay, and the Banjak Islands. The present species (white or yellowish whitish irides, except as mentioned above) is represented from Tapanuli Bay Lingga Island, Singapore, east coast of Johore, Borneo, Trong, and from the Anambas and Natunas.

Lesson’s description is as follows: "Corporé suprâ griseo-luteolâ, albo luteo tinoto infra; rostro corneo; pedibus bruneis. Hab. Sumatra."
Lesson, in his description of *P. simplex*, did not give the color of the irides, but it may be assumed that he had the red-eyed form. The status of the white-eyed bird can be properly determined only by an examination of the types of *P. brunnescens* and *P. modestus* Blyth, and of *Microtarsus olivaceus* Moore, any one of which may refer to it.

**PYCNONOTUS ERYTHROPTHALMOS** (Hume).


One adult male from Pulo Tuangku. Length, 165 mm. "Iris red; eyelids orange; angles of mouth and inside of mouth orange; feet brownish fleshy."

This is *P. pusillus* Salvadori (not *Hematornis pusillus* Blyth), renamed *P. salvadorii* by Sharpe.

**Family TIMALIID.E.**

**ANUROPSIS MALACCENSIS** (Hartlaub).


One pair from Pulo Tuangku. "Common in the forest."

These are similar to Malaccan birds.

**MIXORNIS PILEATUS** (Blyth).


One adult male from Pulo Bangkaru. This is as dark on the upper surface as *M. crevetti*, from the Natunas, but in other respects is similar to Singapore birds.

*Mixornis gularis* (*Motacilla gularis* Raffles, 1822) as commonly applied to this species is preoccupied (*Motacilla gularis* Shaw, Cimelia Physica, 1796, p. 61).

**CYANODERMA FULVIVENTRIS**, new species.

Type.—Adult male, No. 179359, U. S. N. M.; Pulo Tuangku, Banjak Islands, west coast of Sumatra, February 1, 1902; Dr. W. L. Abbott. Similar to *C. erythroptera*, but throat, breast, sides of head, and neck darker slate color; abdomen, sides, flanks, and under tail-coverts deeper fulvous; bill slightly longer and total length a trifle greater.

Length, 146; wing, 59; tail, 50; tarsus, 21; culmen, 17 (bill, from gape, 20) mm. "Iris brownish red; naked skin on throat pale blue; naked skin about eyes dark blue."

*a*The type was in the collection of Dr. Abéillè, of Bordeaux, and may still be extant.

Two males and two females from Tuangku, all agreeing with the above characters; the females, as in *C. erythroptera*, being a little smaller than the males. "Common."

**STACHYRIS BANJAKENSIS** Richmond.


Two adult males from Tuangku.

This species has a longer bill than typical *S. maculata*; is more heavily spotted below, and has a paler nape, back, and wings. Both species have a large pale-blue bare space on the side of the neck, which is ordinarily hidden by the feathers.

"**ALCIPPE CINEREA** Blyth."


An adult male from Tapanuli Bay. Length, 153 mm. "Iris brownish gray; feet fleshy brown; bill dark horn brown, pale leaden at base, beneath."

I am unable at present to consult Blyth's paper; my recollection is that he did not intend to name a new species, but merely included what he thought to be Eyton's *Malacopteron cinereus* in his new genus *Alcippe*.

**MALACOPTERON MAGNIOSTRE** (Moore).


Three males from Pulo Mansalar and Tapanuli Bay. The length of the wing varies from 77 to 81 mm.

**MALACOPTERON NOTATUM** Richmond.


Five specimens from Pulo Bangkaru. "Iris brown; bill dark brown, leaden beneath; feet leaden." It was found to be "common on both Tuangku and Bangkaru.

In the original description this species was compared, in part, with "*M. cantori* (Moore);" this should have been "*M. magnirost* (Moore)."

**CHALCOPARIA SINGALENSIS** (Gmelin).

[*Motacilla* singalensis* Gmelin, Syst. Nat., 1, Pt. 2, 1788, p. 964 ("in insu Zeylon").

One adult female from Tuangku. Length, 108 mm. "Iris red. The lower surface in this specimen is of a brighter yellow than in four females from the Malay Peninsula.
Family MUSCICAPIDÆ.

MUSCITREA GRISOLA (Blyth).


One female from Simulur, where it was "not plentiful." Length, 155; wing, 86; culmen, 14.5 mm. This specimen agrees fairly well with the description of *Pachycephala vandepolli* Finsch, a species from the Batoe Islands said to be nearly related to *M. grisola*. Our bird, however, can be matched by examples from Lingga and the Natunas both in color and dimensions.

HYPOTHYMIS ABBOTTI Richmond.


Seven specimens, from Babi and Lasia. Length, male, 178 to 187; female, 178 mm.

The male, as originally described, is wholly blue, without the black occipital spot and band across foreneck of *H. azurea*. The color is bright light cyanine blue (of Ridgway's Nomenclature of Colors), with a tinge of deep campanula blue on breast, abdomen, and sides. Wings and tail black, with a bluish shade above; under wing-coverts and axillaries, dusky gray, with bluish tips; wing feathers, from below, with dusky gray edges.

Length (in flesh), 181 mm.; wing, 76; tail, 77; tarsus, 19; culmen, 13 (bill from gape, 20). In another male the wing measures 79 mm.

"Iris blackish; feet dull leaden blue; bill blue, tip and a narrow line along commissure black; inside of mouth yellow."

While there is no visible black nape patch, or black band across the chest, the feathers of these areas have black tips on their under surfaces.

The female has the head, neck, and throat as in the male, but duller; the thighs and bend of wing are of the same color. The remainder of the plumage is brownish black, with a blue wash, most prominent on breast and center of abdomen, less so on back, wing-coverts, outer edges of primaries, and tail feathers. Wing, 78 mm.

The immature male is like the female, but the thighs are dusky, while the wing-coverts and secondaries (possibly new, adult feathers) are similar to those of the adult male.

From its solid blue color this species appears to be considerably larger than *H. azurea*, but in its various dimensions it hardly exceeds specimens of the latter from the Anambas and Tambelans. *H. abbotti* was "common" on Lasia, and on Babi it was "the commonest bird."

*Notes, Leyd. Mus., XX, p. 224.*

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HYPOTHYMIS AZUREA (Boddaert).

Muscicapa azurea Boddaert, Tabl. Pl. Enl., 1783, p. 41 ("Philippines").

Five specimens, from Tapanuli Bay, Pulo Tuangku, and Bangkuru, Males from the Banjak Islands (length, 165; wing, 72-73) are just a trifle larger than those from Tapanuli Bay (length, 162; wing, 71-72), and have a bluish wash on the under tail-coverts. This species is reported as common on the Banjak Islands.

"Feet dull leaden blue; bill blue; tip black; inside of mouth yellowish green."

HYPOTHYMIS CONSOBRINA Richmond.


Two adult males, from Simalur, where it was "common." H. tytleri has been recorded from Engano by Salvadori, but the bird from that island will doubtless prove to be H. consobrina.

"Bill blue, black at tip; inside of mouth yellow; feet leaden blue."

RHIPIDURA JAVANICA (Sparrman).

Muscicapa javanica Sparrman, Mus. Carls., Pt. 3, 1788, pl. lxxv (Java).

One adult male, from Loh Sidoh Bay.

TCHITREA PROCERA, new species.

Type.—Adult male, No. 179415, U.S.N.M.; Simalur Island, west coast of Sumatra, December 12, 1901; Dr. W. L. Abbott. This species closely resembles T. nicobarica in the white plumage, but has shorter wings, and the color of the head is glossy blue black, without a greenish sheen.

Length, 445; wing, 86; tail, 320; tarsus, 17.5; culmen, 17 (bill, from gape, 26.5) mm. "Iris dark brown; eyelids blue; inside of mouth green; bill blue, tip and commissure black; feet leaden blue."

The central rectrices in procera are broad, as in nicobarica and floris, not much narrowed as in affinis and incii. The wings of nicobarica, affinis, incii, floris, sumbaensis, and insularis are 90 mm. or over; in procera they vary from 81 to 87 (both sexes). In affinis, incii, nicobarica, and floris (I have not seen the others) the head is of about the same shade of glossy greenish black, but it is glossy bluish black in procera. In nicobarica the feathers of the mantle are white, almost to the base, with narrow black shaft lines; in procera they are similar, but a little darker at the base; in affinis and incii these feathers are largely dark gray at the base, with the shaft stripes broader and more pronounced in the last-named. It has been stated that T. incii has no white plumage, but we have several in this phase from the Malay Peninsula, and one from north China.
The female and immature male (with short tail) of *T. procera* resemble the female of *T. nicobarica*, having the back brown (between wood brown and tawny olive), instead of cinnamon rufous, as in *T. affinis*; the under tail-coverts are russet, and the abdomen, sides, and flanks are pale buffy cinnamon, like *nicobarica*, not white as in *affinis*. They may be distinguished from *nicobarica* by the rather bluer shade of the cap, while the young male has a gray throat, lores, and sides of head, as in the females, not glossy greenish black as in the young male of *nicobarica*.

The white plumage of *T. insularis*, if it has one, does not appear to have been described. In the dark phase the cap is gray, instead of black; it has a longer wing (93 mm.), but shorter tail than *T. procera*.

Six specimens, from Simalur, where it was found to be "common."

**PHILENTOMA VELATUM** (Temminck).

*Drynophila velata* Temminck, Pl. Col., III (Pt. 56), March, 1825, pl. cccxxxiv ("Timor; et isolément ou par paire dans celle de Java").

One pair, from Tapanuli Bay. Length, 203; wing, of male, 104; of female, 99 mm.

**RHINOMYIAS PECTORALIS** (Salvadori).


One adult, from Pulo Mansalar. Length, 162; wing, 81; tail, 68 mm. "Iris brown; bill black; feet purplish fleshy." This specimen is very like one from Lingga, in color, but the bill is a little larger.

**CULICICAPA C E Y L O N E N S I S** (Swainson).

*Platyrynchus ceylonensis* Swainson, Zool. Illustr., I, No. 3, December, 1820, pl. XIII (Ceylon).

Two males, from Simalur. "Common."

**Family TURDID.E.**

**PRINIA**, species.

One male, from Loh Sidoh Bay. "Iris brownish gray; feet pale brownish fleshy."

This bird is in very poor plumage, with the feathers of the tail worn down to the shafts. It resembles *P. flaviventris*, but is much less greenish olive on the back, and has no yellow on the underparts, which are white with a slight buffy tinge. The tail is very long, measuring (although much abraded) 85 mm.; wing, 50 mm.

**? ORTHOTOMUS ATROGULARIS** Temminck.

*Orthotomus atrogularis* Temminck, Pl. Col., III (Pt. 101), 1836, text only (Malacca, Borneo).

"Common" on Tuangku, but no specimens were preserved.
CISTICOLA CISTICOLA (Temminck).

*Sylvia cisticola* Temminck, Manuel d'Orn, 2d ed., I, 1820, p. 228 (Portugal).

Three males, from Simalur, where it was "common in the paddy fields and in long grass."

KITTACINCLA MELANURA Salvadori.


Five specimens, from Simalur, Babi, and Lasia. These specimens are smaller than typical *K. melanura*, having a wing measurement of 86–95 mm.; for the Nias bird Salvadori gives 95–97 mm. In our birds the outermost tail feather has a bare suggestion of white at the tip. Length, male, 258–286; female, 216–241. The two females in this series are slightly paler on the underparts than the males.

"Iris dark brown; feet dull purplish brown; bill black."

On Simalur the species was found to be "not very common, and very shy." It was "common, but very shy," on Babi and Lasia.

KITTACINCLA MALABARICA (Scopoli).


Five adult males, from Pulo Mansalar, Tuangkan, and Bangkaru. In color these birds can be matched with examples from various islands in the China Sea, from the Mergui Archipelago, etc., but two of them have unusually long tails, measuring 198 and 218 mm. The wing measurement (five males) varies from 95 to 99 mm.

"Common" in the Baujak Islands.

The name *malabarica* antedates both *tricolor* and *macronura*, and is of unquestionable application, but Scopoli's reference to "tab. 111" of Sonnerat's work is erroneous.

COPSYCHUS SAULARIS MUSICUS (Raffles).

*Lanius musicus* Raffles, Trans. Linn. Soc. Lond., XII, Pt 2, 1822, p. 307.a

Five specimens from Loh Sidoh Bay and Simalur.

It was "common about clearings" on Simalur.

"It appears to me doubtful whether Raffles's name should be used for this form. He certainly did not give a recognizable description, and apparently had no intention of describing a new species, as will be seen from his account: "The Dial Bird, or *Turdus modestinus* of Gimelin and *Gracula saularis* of Linnaeus; now with more propriety placed under *Lanius.*

It is one of the few singing birds of India, and its note is pleasing. It is about eight inches and a half in length. In the female the feathers of the throat and breast are whitish, mottled with grey and brown; and several of the wing-coverts are also white with reddish-brown shades. All the colours are duller than in the male."
Family HIRUNDINIDAE.

HIRUNDO GUTTURALIS Scopoli.


Two specimens, from Simalur, where it was "common." It was also noted as "common" on Tuangkan.

Family CAMPEPHAGIDÆ.

GRAUCALUS BABIENSIS, new species.

_Type._—Adult female, No. 179220 U.S.N.M.; Pulo Babi, west coast of Sumatra, January 13, 1902; Dr. W. L. Abbott. Head, back, scapulars, rump. and upper tail-coverts gray (No. 7 of Ridgway's Nomenclature), the feathers of the rump and upper tail-coverts indistinctly edged with grayish white; underparts gray, like the back, but slightly paler, becoming still lighter on the abdomen, which is unbarred; thighs gray, like the back; under tail-coverts grayish white, with obscure grayish bars; under wing-coverts white, with blackish bars; axillaries pale gray, with dusky grayish bars; wings black, the lesser, middle, and greater coverts and outer webs of tertiaries, secondaries, and of primary coverts gray like the back; inner primaries washed on edge of outer webs with the same color; under surface of wings pale gray, with a whitish line on edge of inner webs of inner primaries. Tail black, the middle pair of feathers with a wash of dark gray, the outermost pair with grayish tips.

Length, 305; wing, 168; tail, 117.5; tarsus, 29; exposed culmen, 28 (bill, from gape, 41); width of bill at base, 20 mm. "Iris pale yellow; bill and feet black."

A second female measures: Length, 318; wing, 170; tail, 123 mm. This is a large bird, like _G. kammejecteri_, but the lower breast and abdomen are entirely unbarred; there are no black bars on the upper tail-coverts, and the iris is pale yellow instead of white. "Common. Larger and differently colored from that of Simalur."

GRAUCALUS SIMALURENSIS, new species.

_Type._—Adult male, No. 179215, U.S.N.M.; Simalur Island, west coast of Sumatra, November 19, 1901; Dr. W. L. Abbott.

This species is very like the female of _G. babeiensis_ (the shade of gray on the upper and lower surfaces is exactly the same as in that species), but smaller; the under tail-coverts and axillaries are unbarred, and there are only a few obscure grayish bars on the under wing-coverts.

Length, 299; wing, 166; tail, 121; tarsus, 26; exposed culmen, 26 (bill, from gape, 39.5); width of bill, at base, 20 mm. "Iris pale greenish white; bill and feet black."
The female differs from the male in having the under wing-coverts and axillaries white, conspicuously barred with slaty black; the under tail-coverts are grayish white, less plainly barred with gray and darker slate; the breast is like that of the male, but on the abdomen and flanks there are almost obsolete bars of gray (the bars being of about the same shade as the breast). Wing, 165-167 mm.

An obviously younger female has the primaries, primary-coverts, and secondaries narrowly edged with white; the rump and upper tail-coverts are barred with blackish slate and tipped with white; the breast and abdomen are white, with slaty black bars, mingled on the breast with new, unbarred, gray feathers.

The male resembles that of G. sumatrensis and G. bangurensis, but is a little paler, both above and below, and the under wing-coverts are obscurely barred. It is larger than G. sumatrensis, and about the size of G. bangurensis, but the bill is longer and broader (about 18 mm. broad in bangurensis, and 20 mm. in simalurensis).

"Common in the forest, generally in parties of three to five."

In addition to G. babiensis and G. simalurensis, the following species, related to G. sumatrensis, have been described from islands off the west coast of Sumatra: G. crissalis Salvadori (Mentawai group), G. enganeensis Salvadori (Engano), and G. kannegieleri (Büttikofer) from Nias.

**Campephaga Compta**, new species.

*Type.*—Adult female. No. 1799222, U.S.N.M.; Simalur Island, west coast of Sumatra, November 28, 1901; Dr. W. L. Abbott.

Top of head, lores, nape, back, scapulars, rump, and upper tail-coverts bluish slate color; the feathers of the rump and upper tail-coverts with narrow white tips, immediately preceded by still narrower obscure blackish slate bars; some of the feathers of the crown with blackish centers; a narrow fringe of feathers on the forehead, a distinct line over the lores, eyes, and above ear-coverts, white; ear-coverts and malar region white, with conspicuous bluish slate stripes (darker than the upper surface); a broad line between ear-coverts and white superciliary stripe dark bluish slate color; entire under parts, including sides of neck, under wing-coverts and axillaries, white, prominently barred with slaty black, with a grayish suffusion on the sides (thighs almost uniform slate); the black and white spaces on the under surface are of nearly equal width, except on the axillaries, under wing-coverts and under tail-coverts, where the white spaces are much wider than the black ones; on the under tail-coverts the black markings are mainly U-shaped. Wings black, the coverts, secondaries, and tertiaries with the outer webs washed with bluish slate color; feathers of the inner greater coverts and secondaries with a narrow white border on the outer webs; primaries and primary coverts black, with a narrow dark-gray edging to most of
the feathers; secondaries obscurely and very narrowly tipped with white: under surface of inner primaries largely white on basal half of inner webs (some of the secondaries also edged with white). Tail black, the middle pair of feathers washed with bluish gray, except at the tip; some of the other feathers edged with gray, and all of them tipped with white, the middle feathers very narrowly so, the white becoming more extensive toward the outermost pair, on which there is a narrow white line bordering the shaft on the outer web, extending almost to the base.

Length, 203; wing, 101; tail, 85; tarsus, 21; culmen, 14 (bill, from gape, 21) mm. "Iris clear brown; bill black, pale brown beneath, at base."

Another female, apparently a younger bird, is less distinctly barred on the breast, abdomen, and sides, these areas being much suffused with gray.

In this species the color of the under parts suggests that of the lower breast in Graucalus sumatrensis (typical); on the upper parts C. compta is of a darker and clearer color.

This species is related to C. neglecta, but is darker above, much more strongly barred below, has a distinct white superciliary stripe, etc.

PERICROCOTUS FLAMMIFER Hume.


Ten specimens, from Simalur, where "common."

The males are identical in color with P. flammefer from Tenasserim and Trong, but they average slightly larger. I have no females for comparison with the three contained in the present collection, but these appear to be very dark above (almost slaty black, with a slight gloss), not "ashy brown tinged with green," as described by Oates.a

Length, males, 190–207; wing, 90–94; tail, 81.5–88 mm. Females are smaller, measuring, length, 190–197; wing, 87–89; tail, 80–82 mm. "Iris dark brown; bill and feet black."

PERICROCOTUS IGNEUS Blyth.


Two males, from Simalur.

These have rather long wings (78–80 mm.), and the two middle pairs of rectrices are wholly black. In the descriptions of P. igneus, given by both Sharpe and Oates, the two central feathers are said to be black, the next pair with an "orange-red mark at the tip,"b or "with some red at the tip."c

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Length, 168-172; wing, 78-80; tail, 75-76; bill, from gape, 17 mm. "Apparently not common, but several that were shot were lost in the dense underbrush."

P. igneus has been recorded from Nias. *

Family DICRURIDÆ.

DISSEMURUS BRACHYPHORUS (Bonaparte).


Ten specimens, from Loh Sidoh Bay, Simalur, Babi, and Lasia, those from the last-named island having longer tails and wings than the others. The dimensions of this series are given below:

Measurements of Dissemurus brachyphorus.

<table>
<thead>
<tr>
<th>Locality</th>
<th>Sex</th>
<th>Length</th>
<th>Wing</th>
<th>Tail</th>
<th>Bill, from gape</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loh Sidoh Bay</td>
<td>Male</td>
<td>470</td>
<td>118</td>
<td>301</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>445</td>
<td>136</td>
<td>287</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>do</td>
<td>474</td>
<td>139</td>
<td>306</td>
<td>32</td>
</tr>
<tr>
<td>Simalur Island</td>
<td>Male</td>
<td>474</td>
<td>138</td>
<td>307</td>
<td>34.5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>445</td>
<td>136</td>
<td>287</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>do</td>
<td>474</td>
<td>139</td>
<td>306</td>
<td>32</td>
</tr>
<tr>
<td>Pulo Babi, Flat Islands</td>
<td>Male</td>
<td>540</td>
<td>153</td>
<td>363</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>521</td>
<td>152</td>
<td>347</td>
<td>35.5</td>
</tr>
<tr>
<td></td>
<td>do</td>
<td>534</td>
<td>151</td>
<td>370</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>do</td>
<td>540</td>
<td>152</td>
<td>367</td>
<td>37</td>
</tr>
</tbody>
</table>

*Bill, from gape.

The Simalur birds have less of a greenish gloss than those from Loh Sidoh Bay and the Flat Islands, but otherwise the color is about the same. In length of wing the birds from Babi and Lasia are approached and even exceeded by others from widely different localities, but no specimens in our series (from the Natunas and Anambas; Pulo Tioman; Lankawi; Lingga, etc.) have tails quite as long as these Flat Islands examples.

"Common in the forest" on Simalur; also "common" on Babi, and "common, apparently larger than that of Simalur" on Lasia.

BUCHANGA ATRA (Hermann).


One adult male, from Tapanuli Bay. Length, 279; wing, 142; tail, 124 mm.

BUCHANEA CINERACEA (Horsfield).


Six adults, from Simalur, where it was "common about clearings, sitting on dead trees. Less common in forest." Length, 257-280 mm.

* Büttikofer, Notes Leyd. Mus., XVIII, p. 177.
Family LANIIDÆ.

LANIUS TIGRINUS Drapiez.


Two males, from Simalur, where it was "not common." Length, 178 mm. "Iris dark brown."

PLATYLOPHUS CORONATUS (Raffles).


Three specimens, from Tapanuli Bay. Length, 270 (female) to 280 (male) mm. "Feet leaden blue."

Family ORIOLIDÆ.

ORIOLUS MUNDUS, new species.

_Type._—Adult male, No. 179268, U.S.N.M.; Simalur Island, west coast of Sumatra, November 19, 1901; Dr. W. L. Abbott. General color bright lemon yellow, inclining to cadmium yellow, especially on back, breast, and sides of neck; paler on greater wing-coverts, axillaries, under wing-coverts, abdomen, and under tail-coverts; wing feathers, including alula, black; third to sixth primaries very narrowly edged with white on outer webs; secondaries with almost obsolete pale yellow tips, the yellow extending down the shaft on the innermost feather; primary coverts all black, without a yellow speculum; under surface of primaries with a narrow white border on inner webs. Lores, a line over and under the eye, passing back to and including the nape, black (the black 11 mm. wide, on nape); middle tail feathers black, narrowly tipped with yellow, and very narrowly edged with yellow on both webs for a short distance; remainder of tail black, tipped with yellow, the outermost feathers black on basal half, the inner ones with the black extending progressively toward the tips. Length, 280; wing, 151; tail, 103; tarsus, 26; culmen, 35 (bill, from gape, 40 mm.). "Iris dull red; feet leaden."

The female is duller than the male, with a greenish-yellow wash on the back, central tail feathers, wing-coverts, and outer webs of tertaries.

Oriolus mundus belongs to the black-naped section of the genus, in the group of species having no wing speculum, but it is not very nearly allied to any described species. It differs from most, if not all, of the members of this group in having the back and mantle clear rich yellow, not sordid or greenish.

Four specimens, from Simalur.

ORIOLUS MACULATUS Vieillot.


One adult female, from Loh Sidoh Bay. Length, 260; wing, 142 mm. "Iris red."
Family CORVIDÆ.

PLATYSMURUS LEUCOPTERUS (Temminck).

Glaucopsis leucopterus Temminck, Pl. Col., II (Pt. 45), April, 1824, pl. cclxv (Sumatra).

Three adults, from Tapanuli Bay. Length, 407–438; wing (male), 197–199, (female) 181 mm. "Iris deep red; inside of mouth white."

CORVUS COMPILATOR, new name.

Three specimens, from Simalur, where "tolerably abundant and not at all shy." Length, 445–457 mm. "Iris dark brown."

Corvus tenirostris Moore, used for this form by Büttikofer, is preoccupied by C. tenirostris, C. L. Brehm, and as no other name appears to be available, I have given it a new one.

Family STURNIDÆ.

AGROPSAR STURNINA (Pallas).

Gracula sturnina Pallas, Reise Russischen Reichs, III, 1776, p. 695 ("In salicetis Dauriae australioris, circa Ononem et Argunum").

One immature female, from Simalur. "A flock seen at Sibabo."

Family EULABETIDÆ.

LAMPROCORAX ALTIROSTRIS (Salvadori).


Four specimens, from Simalur and Pulo Babi.

Dr. Sharpe thought this form might be closely related to L. tytleri, but tytleri has the small bill of chalybea, with green, rather than bronzv, upper parts, and differs also in size and in the more prominent lanceolate feathers surrounding the head. In other words, L. altirostris is allied to L. chalybea rather than to L. tytleri.

Lamprocorax altirostris was seen on Pulo Lasia, and "common" or Babi; on Simalur it was "common, especially on the small islets."

The measurements of the specimens are given below:

Measurements of Lamprocorax altirostris.

<table>
<thead>
<tr>
<th>Locality</th>
<th>Sex</th>
<th>Length Mm.</th>
<th>Wing Mm.</th>
<th>Tail Mm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simalur Island</td>
<td>Male</td>
<td>207</td>
<td>100</td>
<td>62</td>
</tr>
<tr>
<td>Pulo Babi</td>
<td></td>
<td>213</td>
<td>105</td>
<td>65</td>
</tr>
<tr>
<td>Do</td>
<td>Female</td>
<td>216</td>
<td>100</td>
<td>62</td>
</tr>
<tr>
<td>Do</td>
<td></td>
<td>210</td>
<td>100</td>
<td>63</td>
</tr>
</tbody>
</table>

b Notes Leyden Mus., XVIII, 1896, p. 185.
c Vollständige Vogelfang, 1855, p. 57.
EULABES JAVANUS Cuvier.


Six specimens, from Simalur, with lappets larger, and the fleshy portion which passes anteriorly toward the eye wider, than in true _javanus_; but in color and measurements these Simalur birds can be matched by individuals from various localities. "Iris dark brown; feet yellow; wattles bright yellow." Length, 299–318 mm.

EULABES ROBUSTA (Salvadori).


Eight specimens, from Babi and Tuangku. Length, 343–372 mm. "Iris dark brown; bill red at base, yellow at tip; feet and wattles yellow; claws horn brown, base whitish."

This species was found to be "common" on Pulo Babi, and on both of the Banjak Islands (Tuangku and Bangkaru).

Family NECTARINIIDE.

ARACHNOTHERA FLAVIGASTRA (Eyton).


An adult male, from Tapanuli Bay. Length, 197; wing, 97; culmen, 39 mm. "Iris dark brown; bill dark horn brown, paler beneath, at base."

ARACHNOTHERA CHRYSOGENYS (Temminck).

_Nectarinia chrysogenys_ Temminck, Pl. Col., IV (Pl. 65), May, 1826, pt. ccclxxxviii, fig. 1 (Java).

Three adult males, from Tapanuli Bay. Length, 178; wing, 87–88 mm. "Iris dark brown; bill black, with a narrow dull yellow line on edges of both mandibles; angles of mouth white; feet pale brownish fleshy."

ARACHNOTHERA LONGIROSTRIS (Latham).

_[Certhia] longirostra_ Latham, Index Ornith., I, 1790, p. 299 (Bengal).

Three specimens, from Bangkaru and Tuangku. Length, of male, 171–174; wing, 67–69; culmen, 41–43; of female, length, 156; wing, 62; culmen, 37 mm. The bills of these individuals are rather longer than those of Malay Peninsula birds. "Common" on Tuangku.

ARACHNOTHERA MODESTA (Eyton).


Three adult males, from Loh Sidoh Bay and Tapanuli Bay. Length, 172; wing, 80–82 mm. "Iris dark brown; feet pale brownish fleshy; bill dark horn brown above, paler beneath."
ANTHREPTES MALACENSIS (Scopoli).


Five adults, from Simalur, where "common about cocoanut plantations." These are perceptibly longer than Malay Peninsula examples, but color is identical. Length, 134-143 mm.

ARACHNECTHRA BRASILIANA (Gmelin).

*Certhia* brasiliiana Gmelin, Syst. Nat., I, Pt. 1, 1788, p. 474 ("Brasilia").

One adult male, from Simalur. Length, 108; wing, 49; culmen, 16 mm. This specimen agrees in all respects, except that of bill, with birds from other localities. Ordinarily the culmen measures about 12 mm., but in this individual it is 16 mm. Some specimens from islands in the China Sea have long bills, but they do not quite match this Simalur bird.

"Not very common." Also seen on Tuangku.

ÆTHOPYGA SIPARAJA (Raffles).


Twelve specimens, from Tapanuli Bay, Simalur, Babi, Lasia, and Bangkaru. The males from Babi and Lasia are a little darker on the abdomen than any others in our collection, and the color of the female is rather brighter than in those from other localities.

On Simalur it was "generally in thick jungle about the edges of clearings, and in cocoanut plantations. Most plentiful on Pulo Baba in Telok Dalam." It was "common at edge of jungle on the shore" of Lasia, Babi, and on the Banjak Islands.

CHALCOSTETHA INSIGNIS (Jardine).

*Nectarinia insignis* Jardine, Naturalist's Libr., XXXVI (Birds, XIII), 1843, p. 274 (Java).

Four specimens, from Simalur and Tapanuli Bay. On Simalur it was "common in the mangroves about Telok Dalam."

Family DICAÉIDÆ.

DICÆUM TRIGONOSTIGMA (Scopoli).

*Certhia* (trigonostigma) Scopoli, Del. Flor. Fann Insbr., II, 1786, p. 91 ("Chine").

Three specimens, from Simalur and Lasia. At the first-named island it was "common."

Family PLOCEIDÆ.

MUNIA MAJA (Linnaeus).


Five from Loh Sidoh Bay and three from Simalur. It was found "in large flocks upon the fields of paddy" on Simalur.
LIST OF SPECIES MENTIONED IN THE PRECEDING CATALOGUE, BY LOCALITIES.

LOH SIDOH BAY.

BIRDS OF NORTHWEST SUMATRA—RICHMOND.

521

Pycnonotus simplex.
Rhipidura javanica.
Primia, sp.
Copsychus saularis musicus.
Dissemurus brachypodius.
Oriolus muculatus.
Arachthothera modesta.
Munia maja.

SIMULUR ISLAND, INCLUDING PULO ASU AND PULO SUMAT.

Alcedo isipda Bengalensis.
Alcedo meninting.
Ceyx, species.
Haleon coromanda.
Haleon pileata.
Haleon chloris?.
Thripoxyx perurus.
Macropteryx perlungh.
Salangana fuciphaga.
Dendronanthus indicus.
Muscitrea grisoa.
Hypothymis consobrina.
Tchitrea proctera.
Calicicapa clydonensis.
Cisticola cisticola.
Kittacincla melanura.
Copsychus saularis musicus.
Hirundo gutturalis.
Graculea simulurensis.
Campephaga capula.
Pericrocotus igneus.
Pericrocotus flammifer.
Dissemurus brachypodius.
Buchanu cineracea.
Lanica liririna.
Oriolus munda.
Corvus compileragi.
Agropsar sturnina.
Lamprocorax aulostomus.
Eulabes jarra.
Anthus malaccensis.
Arachanaehtra brachyana.
Ethopyga siparaja.
Chalcostoma pectorale.
Dicrurus trigonostigma.
Munia maja.
THE FLAT ISLANDS.

PULO BABI AND PULO LASIA.

Esacus magnirostris (B.).
Ardia sumatrana (B.).
Carpophaga consobrina (B. L.).
Myristicora bicolor (B. L.).
Calvus indicus (B.).
Calvus nicobarica (B.).
Accipiter virgatus (L.).
Halietus leucogaster (B. L.).
Palaearctic major (B. L.).
Eudynamys honorata malayana (B. L.).

Halcyon coromanda (L.).
Halcyon pileata (B.).
Hypothymis abotti (B. L.).
Kittacincla melanoa (B. L.).
Graucus babiensis (B.).
Dissemurus brachyphorus (B. L.).
Lamprocorax altirostris (B. L.).
Eulabes robusta (B.).
Ethopyga siparaja (B. L.).
Dicrurus trigonosigma (L.).

THE BANJAK ISLANDS.

PULO BANGLES.

Spizaetus, species.
Halietus leucogaster.
Syringum minense.
Colyer, species.
Dendrorhynchus indicus.
Pycnonotus simplex.
Mizornis pileatus.

Numenius arquatus.
Esacus magnirostris.
Ardia sumatrana.
Demiecetra sacra.
Treron, species.
Carpophaga consobrina.
Myristicora bicolor.
Halietus leucogaster.
Halastur indicus intermedius.
Loriculus galgulus.
Merops philippinus.
Pterococcyx sodalis.
Alcedo ispida bengalensis.
Alcedo macrura.
Meiglyptes tokki.
Salvadora "francica."
Eurypygus ochromalus.
Pitta moluccensis.

Malacopteron notatum.
Hypothymis azurea.
Kittacincla malabarica.
Eulabes robusta.
Arachnothera longirostris.
Ethopyga siparaja.

PULO TUANGKU.

Irena criniger.
Pycnonotus plumosus.
Pycnonotus simplex.
Pycnonotus erythropthalmus.
Anurophus malaccensis.
Cygnoderma fuscicollis.
Stachyris banjakensis.
Malacopteron notatum.
Chalcoparia singalensis.
Hypothymis azurea.
Orthotomus atragularis.
Kittacincla malabarica.
Hirundo gutturalis.
Eulabes robusta.
Arachnothera longirostris.
Arachnothera brasiliana.
Ethopyga siparaja.
Sphenocerus oxyurus.
Buterorn capellei.
Treron nipalensis.
Treron jiliecolis.
Halieetus leucogaster.
Icthyophaga ichthyopterus.
Sphenornis bicha.
Halastur indicus intermedius.
Rhopodytes diardi.
Merops philippinus.
Pelargopsis gural fraseri.
Alecto ispida bengalensis.
Alecto meninting.
Halycon coromanda.
Halycon pileata.
Dichocerus bicornis.
Anabocerus convexus.
Rhytidoceros undulatus.
Anorrhinus galaretus.
Chororhena chrysopogon.
Chororhena mystacophanes.
Cyanops henricii.
Mezobucco duvauceli.
Blythipicus porphyromelas.
Meiglyptes tukki.
Micropterus brachyurus.
Trithopax javensis.

Pyrotoxon duvauceli.
Macropteryx comata.
Cymbirhynchus lemniscatus.
Chloropsis cyanopogon.
Irena criniger.
Hemicus malaccensis.
Iole oliviacea.
Eupiilosus castilus.
Microtarsus melanocephalus.
Tricholetes criniger.
Pyconotus plumosus.
Pyconotus, species (white iris).
"Alcippe cinerea."
Malacopteron magnirostre.
Hypothymis azurea.
Philentoma relatum.
Rhinomajias pectoralis.
Kittacinela malabarica.
Buchanga atua.
Platyphus coronatus.
Platysmurus leucopterus.
Arachnothera flariguastra.
Arachonthera chrysogony.
Arachnothera modesta.
AThyopia siparaju.
Chalcostetha pectoralis.
Northwestern Sumatra and adjacent islands.