ON A COLLECTION OF BIRDS FROM ENGGANO

by

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From the end of May till the beginning of July 1937 my cousin Dr. W. J. LÜTJEHARMS stayed on the island Enggano (west off Sumatra) for botanical collecting purposes. He was accompanied by Dr. J. K. DE JONG as zoologist and some native taxidermists from the Buitenzorg Museum. The birds were collected by Dr. J. K. DE JONG and by SAÄN, who brought together 149 skins belonging to 29 species. I am much indebted to Dr. K. W. DAMMERMAN, director of the Buitenzorg Museum, who placed this collection in my hands and allowed the Leiden Museum to keep a part of the material, the rest to be returned to Buitenzorg.

Though this collection does not contain anything new, it is important enough for a full report, as after SALVADORI's paper in 1892 (Ann. Mus. Civ. Stor. Nat. Genova, vol. 32) only a few scattered notes have been published about the birds of this island. The collection contains 5 species which have not yet been collected on Enggano.

Remarkable for the races of this island seems to be that they are as large or even larger than the races from Simalur with the exception of *Halcyon chloris azela*, which is smaller than the race *chloroptera* occurring on the other West Sumatran islands.

For a good map of the island with the names of the localities where has been collected I refer to Treubia, vol. 16, 1937, p. 48. My best thanks are due to Dr. O. DE BEAUX, Genoa; Dr. H. FRIEDMANN, Washington and Mr. N. B. KINNEAR, London for their kindness in sending me material for comparison.

Treron curvirostra hypothapsina OBERH.

Treron curvirostra hypothapsina OBERHOLSER, SMITHS. Misc. Coll., vol. 60, no. 7, 1912, p. 3 (Enggano island).

Meok: 2 ♂♂, 1 ♀ (nos. 84, 85, 120).
Boeah-Boeah: 3 ♀♀ (nos. 69, 72, 73).
Kaja-Apoe: 1 ♂ (no. 138).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
85	♂	19-6-1936	150	82	17	26
120	♂	26-6-1936	145	83	17	24
138	♂	3-7-1936	152	89	16.5	25

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
69	♀	11-6-1936	147	84	15	22
72	♀	12-6-1936	151	88	16	23
73	♀	12-6-1936	144	82	16.5	24
84	♀	19-6-1936	138	82	15	23

Enggano birds are larger than Sumatran birds and as large as Simalur birds, but between these two there are some differences in colour. The upper tail-coverts in Enggano birds are darker green (less yellow), the underparts are more yellowish green, in ♂♂ as well in ♀♀, though greener in the ♂♂ than in the only ♂ from Pulu Babi I have before me. In the ♂♂ some other differences exist, the posterior parts of the flanks, the thighs and vent are green mixed with yellow, while in Simalur birds these parts are mixed with white. Moreover in Enggano birds the under tail-coverts are slightly paler brown and the grey on the head extends a trifle further backwards.

Unfortunately I have not seen material from Nias or the Mentawei islands.

In all ♂♂ the gonads were enlarged, they were small in the ♀♀.

Treron vernans subspec.

Kiojoh: 1 ♂, 1 ♀ (nos. 61, 62).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
62	♂	9-6-1936	151	98	15	19
61	♀	9-6-1936	144	—	15	21

The primaries of the ♀ are in a very worn state, some are moulting. Compared with birds from Simalur, Nias and one from North Pagi, the ♂ does not show much difference in colour, the abdomen is slightly less yellow and more green. It may be, however, that this is individual variation. The ♀ lacks the greyish hue on the back which is found in the Simalur and Nias specimens before me, which agrees, however, with the worn state of the plumage.

The wing measurement of the ♂ is larger than I found for Nias birds, in which the variation range for 5 ♂♂ was 144 - 147 mm (TEMMINCKIA, vol. 1, 1936, p. 6). This corresponds with the variation range of birds from the Mentawei islands (Ibis, 1926, p. 274) as reported by CHASEN and BODEN KLOSS (♂♂ 142 - 148 mm).

The only difference between the latter and birds from South Sumatra (*griseicapilla*) seems to be that Sumatran birds have smaller minimum measurements and may be smaller on an average. The ♂ from Enggano exceeds the maximum measurements of ♂♂ from Nias as far as I found and comes nearer to *miza* from Simalur. The ♀ agrees in wing measurement with ♀♀ from Nias, but the wing is in a worn state. Having too few specimens from Enggano I must leave the question to what race they belong unsettled. More material is needed to prove if they are really larger than Nias birds and this being the case, if there are constant differences with Simalur birds.

The gonads were large in the ♂, small in the ♀.

Ducula aenea oenothorax (SALVAD.)

Carpophaga oenothorax SALVADORI, Ann. Mus. Civ. Stor. Nat. Genova, vol. 32, 1892, p. 139 (Enggano island).

Boeah-Boeah: 3 ♂♂, 1 ♀ (nos. 23, 25, 28, 29).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
23	♂	28-5-1936	244	144	21	34
28	♂	30-5-1936	245	148	21	33
29	♂	30-5-1936	249	149	23	32
25	♀	30-5-1936	235	130	22	31

An easily recognizable race by the greenish blue instead of dark brown under tail-coverts. These birds seem also to be slightly larger than birds from the other West Sumatran islands, especially the tail is longer. The skins before me are exceedingly fat, which makes it impossible to use the colours for comparison.

Eye: red-brown. Bill: black with leaden blue rhamphotheca and line along the edge of the lower mandible. Feet: red.

Gonads large in all ♂♂, the ovarium was rather small.

Myristicivora bicolor bicolor (SCOP.).

Columba bicolor SCOPOLI, Del Flor. et Fauna Insubr., 2, 1786, p. 94 (New Guinea).

Kiojoh: 2 ♂♂, 1 ♀ (nos. 42, 44, 49).
Meok: 2 ♂♂ (nos. 83, 144).
Kaja-Apoe: 1 ♂ (no. 127).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
42	♂	4-6-1936	233	117	22	28
49	♂	5-6-1936	223	119	21	29
83	♂	19-6-1936	226	121	22	27
127	♂	30-6-1936	211	112	21	27
144	♂	8-7-1936	222	113	22	29
44	♀	4-6-1936	225	115	22	28

In nearly all the ♂♂ the gonads were moderately enlarged, large only in no. 42. Ovarium small.

Macropygia cinnamomea SALVAD.

Macropygia cinnamomea SALVADORI, Ann. Mus. Civ. Stor. Nat. Genova, vol. 32, 1892, p. 140 (Enggano island).

Meok: 1 ♂, 2 ♀♀, 1 — (nos. 4, 87, 88, 121).
Kaja-Apoe: 1 ♂ (no. 139).
Boeah-Boeah: 1 ♀ (no. 27).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
87	♂	20-6-1936	195	177	20	27
139	♂	3-7-1936	200	178	20	25
27	♀	30-5-1936	192	—	—	23
88	♀	20-6-1936	201	173	20	22
121	♀	26-6-1936	193	173	20	22
4	—	23-5-1936	194	181	19	21

I list these birds as a species and not as a race of *M. phasianella*, it is quite unlike any of the races of *phasianella* I saw. Besides the much larger wing and stronger bill, there is also much difference in colour. The adult birds differ in being of a much paler brownish colour, especially on the upperside with no trace of a purplish gloss. The throat-feathers possess black lateral margins. The birds which I consider to be immature have the head, neck and throat darker. The upperparts are much darker, since they are washed with black and in one specimen (no. 87) the feathers possess a subterminal black band. The two central pair of tail-feathers are brownish black instead of brown.

The eyes in the ♂ ad., blue with yellow ring, in the ♀ ad., brown with pale ring. Bill and feet in the ♂ ad. red, the ♀ ad. bill blue-grey, feet black.

In the immature birds eyes reddish brown, bill dark grey till blue, feet dark blue.

Chalcophaps indica indica (*L.*)

Columba indica LINNÉ, Syst. Nat., 10th ed., 1758, p. 164 (East Indies).

Dakoaha: 1 ♂ imm., 1 ♀ imm. (nos. 93, 110).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
110	♂ imm.	24-6-1936	137	71	18	24
93	♀ imm.	21-6-1936	136	79	17	25

Rallina fasciatus (RAFFL.)

Rallus fasciatus RAFFLES, Trans. Linn. Soc. London, vol. 13, 1822, p. 328 (Bencoolen).

Boeah-Boeah: 1 ♂, 2 ♀♀, 1 ♀ juv. (nos. 24, 36, 50, 66).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
24	♂	30-5-1936	123	44	22	41
36	♀	2-6-1936	128	48	20	40
66	♀	10-6-1936	124	53	20	41
50	♀ juv.	6-6-1936	120	51	20	44

Amaurornis phoenicurus javanicus (HORSF.)

Gallinula javanica HORSFIELD, Trans. Linn. Soc., London, 13, pt. 1, 1821, p. 196 (Java).

Meok: 1 ♂ (no. 89).

Kaja-Apoe: 1 ♀ (no. 129).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
89	♂	20-6-1936	149	58	37	53
129	♀	1-7-1936	137	53	33	48

These birds are unseparable from a series of *javanicus* from different localities. For measurements of specimens from various localities see Temminckia vol. 1, 1936, p. 5. This species was not yet collected on Enggano.

Testis moderately developed, ovarium rather small.

Ardea purpurea manillensis MEYEN

Ardea purpurea var. *manillensis* MEYEN, Acta Acad. Leop. Carol., 16, Suppl. 1834, p. 102 (Manila, Philippines).

Meok: 1 ♀ (no. 5).
Dakoaha: 1 ♂ imm. (no. 117).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
117	♂ imm.	25-6-1936	351	116	135	134
5	♀	24-5-1936	350	117	121	130

Demigretta sacra sacra (GM.)

Ardea sacra GMELIN, Syst. Nat., 1 pt. 2, 1789, p. 640 (Tahiti).

Kiojoh: 3 ♂♂ (nos. 42, 77, 78).
Kaja-Apoe: 1 ♂ (no. 126).
Poelau Doewa: 1 ♀ (no. 128).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
42	♂	3-6-1936	274	90	77	72
77	♂	14-6-1936	269	95	81	76
78	♂	14-6-1936	257	86	82	75
126	♂	30-6-1936	275	91	82	72
128	♀	30-6-1936	251	80	75	70

The ♀ is an immature bird in the dark phase with brownish lesser upper wing-coverts and primary-coverts. Besides this specimen also no. 42 is in the dark phase, the other ones are in the white phase.

Gonads small till moderately enlarged.

Ixobrychus cinnamomeus cinnamomeus (GMEL.)

Ardea cinnamomea GMELIN, Syst. Nat., 1, pt. 2, 1789, p. 643 (China).

Dakoaha: 1 ♂ (no. 97).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
97	♂	22-6-1936	141	43	50	45

First record of this species for Enggano, it has never been reported from any of the islands west off the Sumatran coast.

Otus sunia enganensis RILEY

Otus umbra enganensis RILEY, Proc. Biol. Soc. Washington, vol. 40, 1927, p. 93 (Enggano island)

Dakoaha: 2 ♂♂, 3 ♀♀ (nos. 103, 107, 111, 112, 116).

No.	Sex	Date	Wing	Tail	Culmen from cere	Tarsus
107	♂	23-6-1936	160	78	14.5	27
111	♂	24-6-1936	163	74	16	27
103	♀	22-6-1936	166	82	15	29
112	♀	24-6-1936	163	75	16	28
116	♀	25-6-1936	163	78	16	28

Thanks to the kindness of Mr. N. B. KINNEAR, London, I could compare these skins with three specimens of *Otus sunia sunia* from British India and four of *Otus sunia malayanus* from Malacca. Of the latter race the Leiden Museum possesses one specimen from Deli, Sumatra, collected by HAGEN on 31-1-1887 (cf. Dr B. HAGEN, Die Pflanzen. und Thierwelt von Deli auf der Ostküste Sumatra's. Tijdschr. Kon. Ned. Aardr. Genootschap, 2e ser., deel 7, 1890, pp. 1—240). In this paper HAGEN lists this bird sub nomen *Scops sunia* (p. 131). CHASEN in his Handlist of Malaysian Birds (1936, p. 85) could not confirm the locality Sumatra given by ROBINSON in his Birds of the Malay Peninsula (I, 1927, p. 81), but probably ROBINSON based his opinion on this specimen, which I consider to be a migrant.

I agree with TICEHURST (Ibis 1923, p. 241), who treats *sunia* and its allies as a distinct species. The wing formula is different from *Otus scops* and its allies and it seems more natural, therefore, to keep the *sunia* group separate and not to lump it with *Otus scops*.

In wing formula the Enggano birds agree with *sunia*, they are larger, darker and heavier built than *sunia* or *malayanus*. The darkest bird (no. 103) is nearly uniform russet brown below with many black vermiculations, only the under tail-coverts possess small white bars. The upperparts are very dark blackish brown. The palest bird has whitish spots on the throat-feathers, whitish bars on the lower abdomen and much white on the under tail-coverts. This specimen is very near a specimen of *malayanus* from Kuroo (Brit. Mus.) in colour. Breast and abdomen are more uniform brown in the Enggano bird. Feathers in front of the eye white in *enganensis*, brownish in *malayanus*. The upperparts of both birds correspond nearly completely. I have not seen *umbra* from Simalur, but certainly *enganensis* can be treated as an ally of *sunia* and in all probability *umbra* too. This is interesting since *sunia* seems not to breed in Sumatra, Java and Borneo and it reminds of the case of *Lyncornis macrotis jacobsoni* from Simalur, in which the same is found.

My measurements of the Enggano birds are a good deal larger than those given for the type by RILEY, but the variation range is mostly large in these small owls.

Eye: yellow; upper mandible: bluish; under mandible: dirty yellow; feet: bluish grey. Gonads in the ♀♀ small, in the ♂♂ moderately enlarged.

Nos. 103 and 112 show wingmoult.

Psittacula longicauda modesta (FRASER)

Palaeornis modestus FRASER, Proc. Zool. Soc., 1845, p. 16 (no locality).

Meok: 4 ♂♂, 1 ♂ imm., 2 ♀♀ (nos. 3, 7, 16, 17, 18, 19, 119).
Kaja-Apoe: 1 ♂ (no. 141).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
7	♂	24-5-1936	192	248	29	19
16	♂	25-5-1936	206	256	30	20
17	♂	25-5-1936	205	282	30	20
119	♂	26-6-1936	202	233	29	21
141	♂	3-7-1936	196	233	29	20
19	♂ imm.	25-5-1936	200	131	—	21
3	♀	23-5-1936	194	140	28	21
18	♀	25-5-1936	195	139	30	19

This race is very well described by SALVADORI in the Catalogue of the Birds in the British Museum, vol. 20, pp. 471—472. They are remarkable larger than *longicauda* and differ also in colour from the nominal race.

The males are rather uniform, only 2 (nos. 17, 119) show more reddish on the upper breast and also the mantle can vary slightly in colour, in nos. 7 and 119 being paler and more bluish than in the other specimens.

The immature ♂ differs from the ♀♀ by the slightly greener tinged head and in the colour of the bill. In the ♀♀ the bill is black, in the young and the adult ♂♂ the upper mandible is red, the lower mandible blackish.

The colour of the eyes in all birds is reported as white, the colour of the feet as blue-grey.

The gonads in the ♂♂ nearly all moderately enlarged, some were large, rather small in the ♀♀.

Loriculus galgulus (L.)

Psittacus Galgulus LINNÉ, Syst. Nat., ed. 10, 1, 1758, p. 103 (India, i.e. Malacca).

Meok: 1 ♂, 1 ♀ imm. (nos. 6, 82).
Dakoaha: 1 ♂ (no. 113).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
6	♂	24-5-1936	83	32	11	11
113	♂	24-6-1936	84	32	10	10.5
82	♀ imm.	18-6-1936	86	34	11	11

I am convinced that the race *dolichopterus*, which OBERHOLSER founded on one specimen (♀) from Enggano (cf. RILEY, Proc. U.S. Nat. Mus., vol. 75, no. 4, 1929, p. 13), cannot be upheld. OBERHOLSER described it (Smiths. Misc. Coll., vol. 60, no. 7, 1912, p. 5) as being decidedly larger than birds from Sumatra and Borneo and being darker. Compared with 6 ♂♂, 6 ♀♀ from Sumatra, 11 ♂♂, 5 ♀♀ from Borneo, 2 ♂♂ from Banka, 1 ♂ from Nias I cannot detect any difference in colour, nor is there any difference in measurements.

			Wing	Culmen
Sumatra	♂♂	(6)	82-86	10-12 mm
	♀♀	(6)	80-88	10-12 „
Banka	♂♂	(2)	85	11-12 „
Borneo	♂♂	(11)	78-84	10-12 „
	♀♀	(5)	82-84	10-11 „
Nias	♂		82	10 „
Enggano	♂♂	(2)	83-84	10-11 „
	♀		86	11 „

The ♀ immature differs from the adult birds by being more green, less yellow below and in having the red of the rump duller. The forehead shows a bluish tinge. The colour of the bill in this specimen is dull brown with a blue edge along the uppermandible.

The testis is reported as small in no 6, large in no. 113.

Alcedo meninting subspec.

Kaja-Apoe: 1 ♂ (no. 142).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
142	♂	4-7-1936	63	26.5	36	8

An new record for Enggano again.

The small wing measurement of this single bird makes it difficult to decide to what race the kingfishers from Enggano belong. The difference between *meninting* from Java and *verrauxii* from Borneo, Sumatra and Malay Peninsula in my opinion is mainly a difference in measurements as I pointed out before (Temminckia, vol. 1, 1936, p. 34). This bird fits in the variation range of both, so more material is needed to give a definite opinion, especially as Simalur birds are unseparable from Javan birds.

This specimen is rather dark violet blue coloured, but specimens of this colour are found as well in Borneo, Java and Simalur.

The only specimen from the race *proxima* I have seen is a bird from North Pagi which is slightly greener blue on the upperside than all our other birds, and therefore agrees with RICHMOND's original description of this race (Proc. Biol. Soc. Washington, vol. 25, 1912, p. 104).

Halcyon chloris azela (OBERH.)

Sauropatis chloris azela OBERHOLSER, Proc. U.S. Nat. Mus., vol. 55, 1919, p. 377 (Enggano island).

Meok: 1 ♂ (no. 2).
Kiojoh: 1 ♀ (no. 47).
Boeah-Boeah: 1 ♀ (no. 67).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
2	♂	23-5-1936	103	66	40	14
67	♀	11-5-1936	101	65	38	14
47	♀	5-6-1936	99	60	37	15

Differs from *chloroptera* from the other West Sumatran islands and from *cyanescens* from Java and Sumatra by smaller size. The colour of the auriculars is darker than in a series of *cyanescens* and agrees with *chloroptera*, the breadth of the black and white nuchal bands, however, is nearer to *cyanescens*. The ♂ is purer greenish blue above than the 2 ♀♀, in which the upperparts are strongly washed with blackish green.

Gonads are reported as being small.

No. 47 has the breast-feathers edged with small blackish bars.

Hemiprocne longipennis perlonga (RICHM.)

Macropteryx perlonga RICHMOND, Proc. U. S. Nat. Mus., vol. 26, 1903, p. 502 (Simalur island).

Meok: 1 ♂, 1 ♀ (nos. 86, 123).
Dakoaha: 2 ♂♂, 1 ♀ (nos. 95, 96, 104).
Kiojoh: 1 ♀ (no. 58).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
95	♂	21-6-1936	180	103	7	8
104	♂	23-6-1936	176	108	6	9
123	♂	27-6-1936	175	117	6	9
58	♀	7-6-1936	177	109	7	8
86	♀	19-6-1936	181	94	7	8
96	♀	21-6-1936	180	115	6.5	9

This species is already reported from this island by SALVADORI (1892). He mentioned that these birds were larger than specimens from Malacca and Borneo. This is perfectly right, in size these birds agree with Simalur birds (cf. Temminckia, vol. 2, 1937, p. 198) and I cannot see constant differences in colour either. The extension of the white on the abdomen is variable in this series, in no. 123 the abdomen is rather greyish, the same is found, however, in a Simalur specimen. The birds of Simalur are perhaps slightly more brownish on throat and breast, but this certainly is more a question of wear than of geographical

variation [1]). Three specimens from the Batu islands, which Dr. H. FRIEDMANN, Washington was so kind to send me, in my opinion are not separable from *perlonga* too, and OBERHOLSER's race *thoa* from these islands therefore I consider a synonym of *perlonga*. The wing measurements of these birds are ♂♂ (2) 177—179, ♀ (1) 176 mm. *Ocyptera* from Nias I have not seen.

Cacomantis variolosus sepulcralis (S. MÜLL.)

Cuculus sepulcralis S. MÜLLER, Verh. Nat. Gesch. Land- en Volkenkunde, 1839—1844, p. 177 (Java and Sumatra).

Meok: 1 ♂ (no. 124).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
124	♂	27-6-1936	115	128	16	18

A ♂ in change.

Hirundo tahitica javanica SPARRM.

Hirundo javanica SPARRMAN, Mus. Carlson, vol. 2, 1789, plate 100 (Java).

Meok: 1 ♂ (no. 13).
Dakoaha: 2 ♂♂, 1 ♀ (nos. 94, 109, 115).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
13	♂	24-5-1936	103	48	9	9
109	♂	24-6-1936	105	50	9	10
115	♂	25-6-1936	105	46	9	10
94	♀	21-6-1936	103	45	8	10.5

In Temminckia vol. 1, 1936, pp. 46 and 47 I discussed already the material in the Leiden Museum. The Enggano birds are not separable from the Javan birds before me and I do not hesitate to list them as *javanica*. These birds were not previously collected on Enggano.

Gerygone fusca sulphurea WALL.

Gerygone sulphurea WALLACE, Proc. Zool. Soc., 1863, p. 490 (Solor).

Meok: 1 ♂ (no. 1).
Kiojoh: 1 ♂ (no. 65).
Boeah-Boeah: 2 ♂♂ (nos. 32, 38).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
1	♂	23-5-1936	52	37	10	16
32	♂	31-5-1936	50	38	10	17
38	♂	2-6-1936	51	35	10	17
65	♂	9-6-1936	52	34	10	17

[1]) Dr. FRIEDMANN, who was so kind to compare some specimens from Engano and Simalur, present in the U. S. National Museum, did not notice any difference in colour in throat and breast between these birds.

I have seen too scanty material from different localities to give a definite opinion and therefore follow MEISE, who in his careful monograph (Novit. Zool., vol. 36, 1931) considers *muscicapa* described by OBERHOLSER from Enggano as a synonym of *sulphurea*. Compared with the birds from Java described by VAN OORT as *G. modiglianii jacobsoni* (Notes Leyden Mus., vol. 31, 1909, pp. 207 - 208) and which MEISE placed also into the synonymy of *G. fusca sulfurea*, the Enggano birds are much more yellow below and greener tinged on the upperparts. The Enggano birds were collected in May, the Java birds, however, in October and November, and the latter have a very worn plumage. The culmen in the Enggano birds is larger than in the Java birds (7.5 - 8.5 mm), but according to MEISE this also is a variable character in this species. The shape of the bill is even variable in the 4 birds from Enggano before me, in no. 1 it is broad at base, in no. 32 the bill is much slenderer (fig. 1).

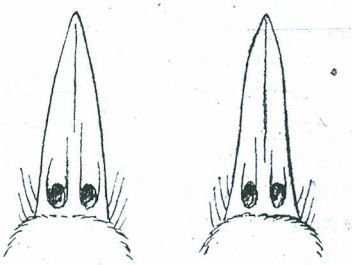

Fig. 1. Shape of the bill (seen from above) in 2 specimens of *G. f. sulfurea* WALL. from Enggano (3 ×).

The gonads were small in all specimens.

Hypothymis azurea richmondi OBERH.

Hypothymis azurea richmondi OBERHOLSER, Proc. U. S. Nat. Mus., vol. 39, 1911, p. 607 (Enggano island).

Boeah-Boeah: 3 ♂♂, 3 ♀♀ (nos. 26, 35, 55, 59, 70, 71).
Kaja-Apoe: 1 ♂, 1 ♀ (nos. 136, 137).
Kiojoh: 1 ♀ (no. 64).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
35	♂	1-6-1936	75	70	12	17
59	♂	7-6-1936	74	67.5	11	16
71	♂	12-6-1936	72	69	13	16
137	♂	2-7-1936	74	69	11	17
26	♀	30-5-1936	72	66	11	17.5
55	♀	6-6-1936	73	68	12	17
64	♀	9-6-1936	72	68	—	17.5
70	♀	12-6-1936	70	64	12	16
136	♀	2-7-1936	72	67	12.5	17

I could compare the ♂♂ with a series of *prophata* from Java, Sumatra, Borneo, with 2 ♂♂ from Simalur (*consobrina*) and 1 ♂ from Nias (*amelis*). The latter is nearest to *prophata* by having the same greyish blue abdomen, but is separable by the darker (violet) blue, especially of the head and by the smaller black neckpatch. The ♂♂ from Simalur are paler blue than *prophata* and the black throatband is nearly lacking, the black neckpatches are even slightly smaller than in *amelis* from Nias, the abdomen is more washed with blue than in

amelis and *prophata*. In the Enggano birds the blue of the upperparts is about of the same tone as in *prophata*, but in the latter the blue of the breast is slightly paler, while the abdomen is greyish. In *richmondi* the underparts do not show a difference in tone and the blue colour extends also over the abdomen. The neck-patch is large again and the throatband well developped.

The ♀♀ could be compared with 2 ♂♂ of *consobrina*, 1 ♀ of *amelis*, 1 ♀ of *leucophila* (North Pagi) and a series of *prophata*.

The ♀ of *amelis* is not well separable from the series of *prophata* neither is the ♀ of *leucophila*. The ♀♀ of *consobrina* are characterized by the paler blue head, the greyish blue wash of the underparts and the markedly blue tinge on the upperparts including the outer edges of the tail-feathers. The ♀♀ of *richmondi* are separable from *prophata* by the underparts which are strongly washed with blue again (the blue mixed with a brownish tone, which is lacking in *consobrina*). The upperparts have hardly any blue wash and therefore resemble strongly *prophata*. Also the blue of te head in *richmondi* and *prophata* is about of the same colour. The ♀ of *leucophila* measures 69, of *amelis* 68, of *consobrina* 68 - 73.5 mm, so size differences do not seem of much use for distinguishing the races.

Coracina sumatrensis enganensis (SALVAD.)

Graucalus enganensis SALVADORI, Ann. Mus. Civ. Stor. Nat. Genova, vol. 32, 1892, p. 129 (Enggano island).

Meok: 1 ♂, 1 ♀ (nos. 118, 122).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
122	♂	27-6-1936	162	117	27	25
118	♀	25-6-1936	163	114	26	26

Besides these specimens I saw 1 ♂, 1 ♀ from Enggano, cotypes, kindly sent to me by Dr. O. DE BEAUX, Genua. It is difficult to see difference between these 4 birds from Enggano and a series of *simalurensis*. They seem to be of about the same size. It may be, however, that in series Enggano birds are a trifle darker grey, though it is hardly visible in the birds before me. The only marked difference I can point out is that the abdomen and under tail-coverts in *enganensis* are darker, especially in the ♀♀. In *simalurensis* the abdomen in the ♀♀ is whitish grey, the under tail-coverts white with black bars, in the ♀♀ from *enganensis* the latter are grey with white and indistinct black bars. Also the upper tail-couverts in *simalurensis* seem to be a trifle paler, slightly more whitish coloured. Therefore I do not want to synomymize *simalurensis* with *enganensis*, though a larger material must prove if there are constant differences. I have not seen *crissalis* from the Mentawei islands.

The ♂ is a not fully adult, the underparts are slightly barred, the under wing coverts are barred with black.

Pericrocotus flammeus modiglianii SALVAD.

Pericrocotus modiglianii SALVADORI, Ann. Mus. Civ. Stor. Nat. Genova, vol. 32, 1892, p. 130 (Enggano island).

Meok: 1 ♂, 1 ♀ (nos. 11, 12).
Boeah-Boeah: 3 ♂♂, 2 ♀♀ (nos. 30, 31, 34, 37, 39).
Kaja-Apoe: 1 ♂, 1 ♀ (nos. 133, 135).
Kiojoh: 1 ♀ (no. 63).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
11	♂	24-5-1936	94	83	13	17
30	♂	31-5-1936	93	84	14	16
31	♂	31-5-1936	97	89	13	18
39	♂	3-6-1936	95	83	14	17
133	♂	2-7-1936	91	78	14	16
12	♀	24-5-1936	93	84	13	17
34	♀	1-6-1936	89	85	14	16
37	♀	2-6-1936	93	85	13	16
63	♀	9-6-1936	93	89	14	17
135	♀	2-7-1936	93	92	14	16

In my paper on the birds from Simalur I pointed to the differences between the races *xanthogaster* from Sumatra and *minythomelas* from Simalur. The difference between the ♂♂ is mainly a difference in size, which is also found in the ♀♀. *Modiglianii* from Enggano is averaging larger again.

xanthogaster: wing in ♂♂ 82 - 87 mm
♀♀ 80 - 87 „
minythomelas: ♂♂ 88 - 94 „
♀♀ 87.5 - 90 „
modiglianii: ♂♂ 91 - 97 „
♀♀ 89 - 93 „

Between the ♂♂ of *minythomelas* and *modiglianii* I cannot see any difference in colour, seen in a series the red in the ♂♂ in both races is of a slightly more yellowish tinge than it is in *xanthogaster*.

The ♀♀ of *modiglianii* in colour are intermediate between *minythomelas* and *xanthogaster*. The yellow of the underparts in Enggano birds is not so golden yellow coloured as it is in Simalur birds, though the colour is more vivid than in *xanthogaster*. The frontband is as small as in *xanthogaster*, not so broad therefore as in *minythomelas*. The upperparts on the countrary are nearer to those of Simalur birds, perhaps slightly less bluish.

In all ♂♂ the gonads are reported as large, in the ♀♀ as small.

Geokichla leucolaema SALVAD.

Geocichla leucolaema SALVADORI, Ann. Mus. Civ. Stor. Nat. Gen., vol. 32, 1892, p. 135 (Enggano island).

Meok: 1 ♂, 1 ♀ (nos. 90, 125).
Kaja-Apoe: 2 ♂♂, 1 ♀ (nos. 130, 131, 134).
Boeah-Boeah: 3 ♂♂, 2 ♀♀, 1 ♀ imm. (nos. 34, 35, 56, 74, 75, 81).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
74	♂	13-6-1936	101	70	16	30
75	♂ imm.	13-6-1936	95	62	17	32.5
81	♂	15-6-1936	99	66	17	32
90	♂	20-6-1936	101	64	17	32
130	♂	1-7-1936	105	70	16	32
134	♂	2-7-1936	97	66	16	32.5
34	♀	2-6-1936	102	66	17	32
35	♀ imm.	2-6-1936	97	62	17	33
125	♀	27-6-1936	100	61	16	32.5
131	♀	1-7-1936	97	61.5	15	32.5
56	♀ juv.	7-6-1936	97	62	15	32

I do not follow CHASEN, who in his important Handlist of Malaysian Birds (1935) listed *leucolaema* as a race of *Geokichla interpres*. This goes too far in my opinion.

After SALVADORI's good original description and SEEBOHM's description and plate in his Monograph of the Turdidae, pt. 2, 1898, p. 53, it seems unnecessary to describe this species in detail. The differences between *interpres* and *leucolaema* are large enough to regard *leucolaema* as a separate species. The colour of the head and neck in *leucolaema* is much less bright than in *interpres* and of quite a different tinge. The russet brown upperparts in most specimens of *leucolaema* are not so strongly contrasting with the head as is given in SEEBOHM's plate. The median wingcoverts are only tipped with white, which is nearer to *erytronota* and *dohertyi* than to *interpres*, in which species the white median wing-coverts cause a large white patch on the wing. *Leucolaema* lacks the white on the auriculars and the lores are black and not white as in *interpres*. The olive brown colour of the flanks of *leucolaema* is not found in *interpres*.

In *leucolaema* the first primary is much longer than the primary coverts, in *interpres* this distance is much smaller, in the latter species the third primary is clearly longer than the sixth, in *leucolaema* both are about equal in length, or the third is a trifle longer.

There is a great difference in the juvenile plumage of both species too.

The juvenile of *interpres* possesses a reddish brown head, nape and mantle with slightly paler shaftstreaks. The median wing-coverts are white, the lesser and greater wing-coverts are tipped with white. The white tips of the greater wing-coverts are rather large. The breast is whitish brown with dark spots caused by the blackish tips of the feathers. Behind the eye there is a whitish brown patch, the lores are of the same colour.

In the juvenile of *leucolaema* head and upperparts are nearly black, the feathers with small pale brown shaftstreaks. There are some feathers which show already the russet brown tinge of the adult. The median wing-coverts are black with a fan shaped brown terminal spot. The greater wing-coverts are tipped with small brown spots. In the lesser wing-coverts there are only shaftstreaks

of this brown colour. The breast is much blacker than in *interpres* with brown spots. Lores and auriculars are black.

Both immature birds still have the dark heads and there are still many median and greater wing-coverts with brown tips, especially in no. 35. The new feathers are white tipped. The black of the breast still shows brownish spots. The mantle is more reddish brown in no. 75, olive-brown in no. 35. The same variation in the colour of the mantle is also found in the adult birds.

Eye: brown. Bill: black. Feet: ochre, in the juvenile pale yellow.

In all specimens the gonads are reported as being small, in one specimen (♂) only moderately enlarged.

Cisticola juncidis malaya LYNES

Cisticola juncidis malaya LYNES, Ibis, Suppl. number, 1930, p. 92, pl. 2, fig. 2 (Klang, Malacca).

Meok: 1 ♂ (no. 143).

Dakoaha: 2 ♂♂, 4 ♂♂ imm., 1 ♂ (?) imm., 2 ♀♀ (nos. 91, 98, 99, 100, 101, 102, 105, 106, 108).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
91	♂	21-6-1936	49	—	9.5	20
99	♂ (?) imm.	22-6-1936	49	44	9	21
100	♂ imm.	22-6-1936	50	—	—	20
101	♂	22-6-1936	51	38	—	21
102	♂ imm.	22-6-1936	50	43	10	22
105	♂ imm.	23-6-1936	49	44	10	20
108	♂ imm.	24-6-1936	48	40	—	20
143	♂	7-7-1936	50	—	10	20
98	♀	22-6-1936	47	—	10	19
106	♀	23-6-1936	47	—	10	19

According to the yellowish underparts 5 specimens of this series are not fully adult birds, the gonads were small. The adult birds are in a very worn dress, the gonads are reported as moderately enlarged, in no. 143 only as large.

The immature birds in a series of Simalur birds are probably younger as the yellow is more vivid and the upperparts slightly more rufous.

A new record for Enggano.

Zosterops aureiventer salvadorii MEYER and WIGLESWORTH

Zosterops salvadorii A. B. MEYER and WIGLESWORTH, Journ. für Ornithol., 1894, p. 115 (Enggano island).

Meok: 5 ♂♂ (nos. 10, 21, 22, 145, 146).

Kaja-Apoe: 1 ♂ (no. 132).

Boeah-Boeah: 2 ♂♂, 2 ♀♀ (nos. 40, 60, 76, 79).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
10	♂	24-5-1936	59	39	11.5	17
21	♂	25-5-1936	56	40	11	17

In nearly all specimens the gonads were small, in one specimen (♂) only moderately enlarged.

Aplonis panayensis enganensis (SALVAD.)

Calornis enganensis SALVADORI, Ann. Mus. Civ. Stor. Nat. Genova, vol. 32, 1892, p. 137 (Enggano island).

Meok: 3 ♂♂, 1 ♂ imm. (nos. 8, 9, 15, 20).

Boeah-Boeah: 1 ♂ (no. 41).

Dakoaha: 1 ♂ (no. 11).

Kiojoh: 1 ♂ (no. 48).

No.	Sex	Date	Wing	Tail	Culmen	Tarsus
9	♂	24-5-1936	115	76	18	25
15	♂	25-5-1936	114	71	17	24
20	♂	25-5-1936	116	76	18	24
41	♂	3-6-1936	110	72	17.5	25
48	♂	5-6-1936	112	71	17	25
114	♂	25-6-1936	115	76	18	26.5
8	♂ imm.	24-5-1936	111	68	17	26

This well distinguishable race is easily recognized by the greater size. It is larger than *altirostris* from Sumatra and Nias and though the culmen is slightly larger it is slenderer than the bill of *altirostris*. I could not see any constant difference in colour between these birds, specimens of *altirostris*, and a series of *strigatus* from Java, Sumatra and Borneo.

The immature bird shows pale edges along the feathers of the breast and abdomen.

In all specimens except the immature bird the gonads were rather large.

APPENDIX

Some time after I finished this report, we received here Natuurkundig Tijdschrift voor Nederlandsch-Indië, vol. XCVIII, 1, March 1938. In this periodical Dr. J. K. DE JONG gives an itinerary of the expedition with many details on the geographical situation of the island and some remarks on the fauna. It is interesting to learn about the absence of any birds of prey and of *Passer montanus*. As the most common birds Dr. DE JONG mentions: *Ducula aenea oenothorax, Myristicivora bicolor bicolor, Chalcophaps indica indica, Ardea purpurea manillensis, Demigretta sacra sacra, Halcyon chloris azela, Psittacula longicauda modesta, Loriculus galgulus, Cacomantis variolosus sepulcralis* and *Zosterops aureiventer salvadorii*.

As an appendix of this paper a list of the collected birds is found as they were identified by HOOGERWERF. Consequently Dr. DE JONG used these names in his paper. Apparently when compiling this list the author could not critically examine the material, and therefore bis identifications differ in many respects from mine. It must be added, however, that it is a preliminary list, which originally was not meant for publication.