NOTE XXXII.

ON THE GENUS PYCNONOTUS AND SOME ALLIED GENERA,

WITH ENUMERATION OF THE SPECIMENS IN THE LEYDEN MUSEUM

BY

Dr. J. BÜTTIKOFER.

This paper, based especially upon the material in the Leyden Museum, may be regarded as a little attempt to show how much a revision of the Pycnonotidae is needed. A fundamental revision only, embracing the whole group, will be able to thoroughly differentiate the many genera, and it will be a thankful task, for instance, to thoroughly separate Xenocichla from Criniger 1) and Pycnonotus. This latter genus is very unsatisfactorily defined, and undoubtedly contains too many heterogenous elements, which ought to be just as well excluded as are Otocompsa and Kelaartia. In fact the genus Pycnonotus should be restricted to the African and Syrio-Arabian species, which are sufficiently characterized by their plain earthy brown or sandy brown color, without white upper tail-coverts, without white-tipped tail and without any olive-green on the quills 2).

The Asiatic forms with paler edgings to the feathers on

¹⁾ See my note on this subject in N. L. M. 1888, p. 78, and also Captain Shelley's remarks, Ibis 1896, p. 232.

²⁾ P. Falkensteini, with its green upper surface (Sharpe, Cat. VI, p. 46) should be brought back under Criniger, as which it is originally described by Reichenow.

the mantle, with white or ashy white upper tail-coverts and white tips to the tail-feathers, combined with the absolute want of any olive-green in their plumage should form a separate group with the generic name *Molpastes* Hume.

The other Asiatic Pycnonoti with gray or brown plumage, but wanting the above mentioned peculiarities of Molpastes, and characterized by always having the outer margins of the quills more or less strongly tinged with olive-green, ought to form a separate genus under the name Laedorusa Reichenb.

Then follow all the different aberrant forms, which better would be placed under other, already existing or new genera, as will be shown in the following key to the genera.

Key to the genera.

A. Tarsus longer than culmen.

- a. Feathers on centre of crown much longer than the surrounding ones, forming a distinct crest.
 - a'. Feathers of crest sword-shaped, not pointed, and somewhat bent downward.
 - a". Bill pyrrhuline, general color of plumage green. Spizizus 1).
 - b". Bill pycnonotine, plumage not green. . . . Otocompsa.
 - b'. Feathers of the crown pointed, the longer ones
 - slightly bent upward, forming a pointed crest . Centrolophus.
- b. Feathers of crown all equally lengthened, or not lengthened at all, never forming a long crest.
 - a'. General color earthy brown or ashy brown, no olive tinge whatever on the plumage.

b". Upper tail-coverts uniform in color with the back, tail-feathers never tipped with white . Pycnonotus.

1) I introduce this genus here, though it is sufficiently distinguished from

all the pycnonotine forms by its quite different bill, and though only the typical species is provided with a distinct crest.

b'. General color grayish or olive-brown, or olive-	
green, outer edge of quills more or less strongly	
tinged with olive.	
a". Sides of head entirely feathered.	
a'''. No post-superciliar tust of long, pointed	
feathers.	
a4. Tail not strongly graduated.	
a ⁵ . No brush-like saffran-yellow feathers	
above the lores.	
a6. General color grayish brown or olive-	
brown, crown-feathers not lengthened,	
no nuchal color	Laedorusa.
b. General appearance pachycephaline,	
crown-feathers lengthened, richly de-	
veloped, black and silky.	
a^{7} . No red spot on the lower jaw	Pachucenhalixus.
b^{7} . A red spot on the lower jaw	Stictognathus.
5. A bunch of saffran-yellow feathers	
above the lores	Crocopsis.
b4. Tail strongly graduated, difference be-	•
tween central and outermost feathers	
equal to the length of the tarsus	Xanthixus.
b'". A long post-superciliar plumelet of pointed	
yellow feathers	Kelaartia.
b". Sides of head above and behind the eye	
naked	Gymnocrotaphus.
B. Tarsus equal to culmen in length.	
a. Head distinctly crested.	
a'. Feathers of crown all lengthened, plumage	
striated	Alcurus.
b'. Feathers on centre of crown only lengthened,	
plumage not striated.	
a". Crest not surpassing the culmen in length,	
rump-feathers subterminally barred with	
black.	
. a'''. Eyelid not wattled	
b'''. Eyelid wattled	
b". Crest very long, much surpassing the culmen	
in length, rump not barred	mesotopnus.
b. Head not crested, or very faintly so.	
a'. Lengthened rump-feathers unbarred, tail nearly	
square, with no dark subterminal bar a". Throat-feathers red, narrow and stiff	Dallingto
b". Throat-feathers soft, like lower surface in color	
b'. Lengthened rump-feathers subterminally barred	inuu.
Notes from the Leyden Museum, Vol.	XVII.

GENUS Spiziaus Blyth.

Type: Spizixos canifrons Blyth.

Bill stout, not pycnonotine, culmen very strongly curved, yellow, nostrils hidden by dense plumes, nasal aperture circular, tarsus longer than culmen, wing longer than tail, this latter nearly square, general color green, tail broadly tipped with black. — Three species known.

Range. Assam, China and Formosa.

Key to the species.

- Crest shorter than tarsus, ear-coverts streaked with white.
 - a'. Crown black, hind neck gray semitorques.
 - b'. Crown gray like hind neck cinereicapillus.

1. Spizixus canifrons.

Spizius canifrons Blyth, J. A. S. Beng. XIV, p. 571 (1845); Sharpe, Cat. B. VI, p. 172 (1881); Oates, B. Br. Ind. I, p. 280 (1889); Baker, J. Bomb. N. H. Soc. VII, pl. I, fig. 1 (1892).

Hab. Assam.

Two specimens, said to be from Nepal.

2. Spizixus semitorques.

Spizixus semitorques Swinh. Ibis 1861, p. 266; Sharpe, Cat. B. VI, p. 173 (1881).

Hab. China.

One specimen, collected by Swinhoe.

3. Spizixus cinereicapillus.

Spizixus cinereicapillus Swinh. P. Z. S. 1871, p. 370; David & Oust. Ois. Chine, p. 144 (1877); Sharpe, Cat. B.VI, p. 173 (1881).

Hab. Formosa. Eight specimens, collected by Swinhoe.

Genus Otocompsa Cabanis.

Type: Otocompsa emeria (L).

General aspect brown, lower surface much lighter, head strongly crested, the lengthened feathers restricted to forehead and centre of crown, on which latter they are very long, sword-shaped (not lanceolate) and slightly bent downward. A considerably long tuft of crimson-red, silky feathers below the eye, partly covering the pure white cheeks, under tail-coverts crimson. Tarsus longer than culmen, wing longer than tail. — Two species known.

Range. Indian Peninsula and Himalaya, extending through Assam to Cochin China and Tenasserim, Nicobars.

Key to the species.

- a. Tail-feathers tipped with white emeria.
- b. Tail-feathers not tipped with white. fuscicaudata.

1. Otocompsa emeria 1).

Lanius emeria L. Syst. Nat. I, p. 137 (1766).

Lanius jocosus L. Op. cit. p. 138.

Muscicapa emeria L. Op. cit. p. 326.

Otocompsa jocosa Sharpe, Cat. B. VI, p. 157 (1881).

Otocompsa emeria Hume, N. & E. p. 287; Oates, B. Br. Ind. I, p. 276 (1889).

Hab. South from the Himalayas throughout Bengal,

1) Linné (Syst. Nat.) mentions this bird under three different names: Lanius emeria, based upon Brisson's Lanius bengalensis, from Bengal, further Lanius jocosus, based upon Brisson's Merula sinensis cristata minor, from China, and Muscicapa emeria, based upon Albin's "Bengal Redstart", from Bengal. All three names belonging to either birds from Bengal or China, where only the species with a white-tipped tail is found, they must be considered synonyms, and the first of them, Lanius emeria, bestowed upon this species.

The second species of this genus, which has the tail not tipped with white, is neither found in Bengal nor in China, and therefore not entitled to bear any of the names given by Linné.

ranging eastward to Cochin China and southward to Malacca, the Andamans and Nicobars.

Seven specimens from the Himalaya, Darjeeling, Malacca, Andamans, and one said to be from Java.

2. Otocompsa fuscicaudata.

Otocompsa fuscicaudata Gould, P. Z. S. 1865, p. 664; Oates, B. Br. Ind. I, p. 277 (1889).

Otocompsa emeria Sharpe, Cat. B. VI, p. 159 (1881).

Hab. Western part of Southern India. Not represented.

GENUS Centrolophus, n. g.

Type: Centrolophus leucogenys (Gray & Hardw.).

General color ashy, upper surface, the head excepted, tinged with olive, feathers of the crown lanceolate, those on the centre very much lengthened, forming a sharply pointed crest which is more or less bent upwards, tail tipped with white, under tail-coverts yellow. Tarsus longer than culmen, wing longer than tail. Differs from all the allied genera by the pointed crest. — One species known.

1. Centrolophus leucogenys.

Brachypus leucogenys Gray, in Hardw. Ill. Ind. Orn. I, pl. 35, fig. 3 (1830).

Otocompsa leucogenys Jerd. B. Ind. II, p. 90 (1863); Sharpe, Cat. B. VI, p. 460 (1881).

Molpastes leucogenys Oates, B. Br. Ind. I, p. 272 (1889).

Hab. Himalayas, from Afghanistan to Bhutan. Six specimens from Nepal, Darjeeling and Bhutan.

GENUS Molpastes Hume.

Type: Molpastes haemorrhous (Gm.).

General aspect ashy brown, no green whatever in the plumage, head black, crown-feathers thickly set and lengthened, but not pointed, forming a sort of short crest

which does not reach far beyond the occiput; tail broadly tipped with white, upper tail-coverts pure white or ashy white, under tail-coverts red or yellow, strongly contrasting with the ashy under surface of the bird. Tarsus longer than culmen, wing longer than tail. From the African genus *Pycnonotus*, which is also destitute of any green in the plumage, it differs by the stronger and more thickly set crest, by the white tip to the tail and the white upper tail-coverts. — Ten species known.

Range. From Persia throughout British India and Ceylon eastward into Southern China and southward to Tenasserim; one species found in Java.

Key to the species.

 a. Under tail-coverts red. a'. Entire head and hind neck black, ear-coverts cho- colate-brown, strongly contrasting with the sur- 	
rounding plumage. a". Chin, throat, chest and upper breast black bengalensis. b". Chin and throat only black, chest brown intermedius. b". The black of the crown not extending upon hind	
neck and mantle, ear-coverts not chocolate-brown. a". Ear-coverts black, undistinguishable from crown. haemorrhous b". Ear-coverts sandy brown, contrasting with crown. a"". Chin, throat and chest black burmanicus.	,
b'''. Chin and upper throat only black nigripileus. c''. Ear-coverts sandy white like lower surface atricapillus. b. Under tail-coverts yellow.	
a'. Chin and upper throat black. a''. Back mottled with black centres aurigaster. b''. Back uniform	
broadly so. a". Under tail-coverts saffron-yellow leucotis. b". Under tail-coverts sulphur-yellow	

1. Molpastes bengalensis.

Pycnonotus bengalensis Blyth, J. A. S. Beng. XIV, p. 566 (1845).

Pycnonotus pygaeus Horsf. & Moore, Cat. B. Mus. E. I. Co. I, p. 239 (1854); Sharpe, Cat. B. VI, p. 128 (1881).

Molpastes bengalensis Oates, B. Br. Ind. I, p. 271 (1889).

Hab. From the North-Western Provinces of British India through Nepal and Bhutan to the Assam Valley.

Seven specimens from Nepal and Darjeeling.

2. Molpastes intermedius.

Pycnonotus intermedius (ex Hay, M.S.) Jerd. B. Ind. II, p. 95 (1863); Sharpe, Cat. B. VI, p. 130 (1881).

Molpastes intermedius Oates, B. Br. Ind. I, p. 272 (1889).

Hab. From Afghanistan to the Punjab and Cashmere. Not represented.

3. Molpastes haemorrhous.

Pycnonotus haemorrhous (Gm.) Blyth, J. A. S. Beng. XIV, p. 566 (1845); Sharpe, Cat. B. VI, p. 124 (1881).

Molpastes haemorrhous Oates, B. Br. Ind. I, p. 268 (1889).

Hab. From Sindh through Central and Southern India to Ceylon.

Nine specimens from the Continent and Ceylon.

4. Molpastes burmanicus.

Pycnonotus burmanicus Sharpe, Cat. B. VI, p. 125 (1881). Molpastes burmanicus Oates, B. Br. Iud. I, p. 269 (1889).

Hab. From Assam through Manipur and Burma to Martaban.

Not represented.

5. Molpastes nigripileus.

Pycnonotus nigripileus Blyth, J. A. S. Beng. XVI, p. 472 (1847); Sharpe, Cat. B. VI, p. 126 (1881).

Molpastes nigripileus Oates, B. Br. Ind. I, p. 270 (1889).

Hab. British Burma.

Two specimens from Tenasserim.

6. Molpastes atricapillus.

Pycnonotus atricapillus (Vieill.) Wald. in Blyth's Birds Burm. p. 136; Sharpe, Cat. B. VI, p. 127 (1881).

Ixus chrysorrhoides Lafr. Rev. Zool. p. 367 (1845); David & Oust. Ois. Chine, p. 142, pl. 46 (1877).

Molpastes atricapillus Hume & Dav., Str. Feath. VI, p. 322 (1878); Oates, B. Br. Ind. I, p. 270 (1889).

Hab. Southern China, Burma and Tenasserim. Nine specimens from China and Tenasserim.

7. Molpastes aurigaster.

Pycnonotus aurigaster (Vieill.) Gray, Gen. B. I, p. 237 (1847); Sharpe, Cat. B. VI, p. 137 (1881).

Pycnonotus crocorrhous Strickl. Ann. Nat. Hist. XIII, p. 412 (1844)

Hab. Java.

Eight specimens.

8. Molpastes Germaini.

Ixus Germaini Oustalet, Bull. Soc. Philom. Paris (7) II, p. 54 (1878). Pycnonotus Germaini Sharpe, Cat. B. VI, p. 138 (1881).

Hab. Cambodia. Not represented.

9. Molpastes leucotis.

Pycnonotus leucotis (Gould) Blyth, J. A. S. Beng. XIV, p. 567 (1845); Sharpe, Cat. B. VI, p. 136 (1881).

Molpastes leucotis Oates, B. Br. Ind. 1, p. 273 (1889).

Hab. From Persia eastward through Sindh to North Western and Central India.

One specimen from Persia.

10. Molpastes Humii.

Molpastes Humii Oates, B. Br. Ind. I, p. 274 (1889).

Hab. Punjab.

Not represented.

Genus Pycnonotus Boie.

Type: Pycnonotus capensis (L.).

General aspect ashy brown, no green in the plumage, upper tail-coverts uniform in color with back, no white tips to the tail-feathers, feathers of crown equally lengthened,

but not forming a long crest; tarsus longer than culmen, wing longer than tail. — Seven species known.

Range: Africa and southern Spain, Arabia, Palestine and Syria, and the islands of Cyprus, Rhodos and the Cyclades.

Key to the species.

a. Under tail-coverts yellow. a. Head brown.
a". Equal in color above and below, centre of
abdomen only white, eyelid red capensis.
b". Breast, abdomen and flanks white, eyelid black. tricolor.
b'. Head black.
a". Ear-coverts brown Layardi.
b''. Ear-coverts black like crown.
a'''. Eyelid red nigricans.
b'''. Eyelid gray xanthopygus.
b. Under tail-coverts white.
a'. Head brown barbatus.
b'. Head black arsinoë.

1. Pycnonotus capensis.

Turdus capensis L. Syst. Nat. I, p. 295 (1766).

Pycnonotus capensis Boie, Isis 1826, p. 973; Dresser, Birds Europe, III, p. 361, pl. 143, fig. 2 (1875); Sharpe, Cat. B. VI, p. 130 (1881).

Hab. Cape Colony, South Africa.

Seven specimens.

2. Pycnonotus tricolor.

Ixos tricolor Hartl. Ibis 1862, p. 341.

Pycnonotus nigricans var. minor Heugl. Orn. N. O. Afr. I, p. 398 (1869). Pycnonotus tricolor Gray, Handl. I, p. 269 (1869); Sharpe, P. Z. S.

1871, p. 131, pl. 7, fig. 2; Bocage, Orn. d'Ang. p. 244 (1881); Sharpe, Cat. B. VI, p. 131 (1881).

Pycnonotus minor Rchw. Vög. Deutsch O. Afr. p. 207 (1894).

Hab. Congo-region, extending northward to the Ogowe River, southward to the Cunene River and eastward to the Upper Nile and the Central Lake-region.

Two specimens from the Bahr el Ghazal, collected by

Heuglin in February 1863 and received under the name of P. xanthopygos.

This species is distinguished from *P. capensis* by its white breast, abdomen and flanks, and the black eyelids. The two above mentioned specimens from the Bar el Ghazal agree in every respect with Hartlaub's short diagnosis and also with the figure on pl. VII, given by Sharpe in P. Z. S. 1871, and with the description in the above quoted work of Reichenow's.

After a conscientious study of the literature and the materials at my disposal, I feel convinced that this species interbreeds with its northern congener *P. barbatus* as well as with its southern neighbour *P. nigricans*. The result of the interbreeding with *P. barbatus* in the places where both species occur in common, is the form described by Sharpe as *P. gabonensis*, which is characterized by having the white under tail-coverts more or less strongly tinged with yellow.

From the typical P. nigricans, our species differs in having the head brown instead of black, in the pure white breast and abdomen and in having the iris dark brown instead of red, and the eyelid black instead of orange red.

Barboza du Bocage, Orn. d'Ang. p. 242, in treating of *P. nigricans*, tells us that amongst numerous individuals from Angola there are only two which fully agree with the types of *P. nigricans*, while in all the others the head is not black, but scarcely darker brown than the back, and the eyelid black instead of orange red, so that these specimens make the impression to belong rather to *P. tricolor* than to *P. nigricans*, and I should say that they really belong to *P. tricolor*.

The occurrence of both forms in the same localities has caused some doubts as to the specific distinctness of the two forms, and Prof. Bocage does not decide whether the black head, yellow eyelid and red iris are merely the characteristicals of the adult male in breeding plumage or those of a distinct species.

With the aid of some specimens of both sexes, collected Notes from the Leyden Museum, Vol. XVII. at different times of the year by Sala and by van der Kellen, I do not hesitate to declare both species as valid and distinct, but frequently interbreeding in the hinterland of Mossamedes and the Upper Cunene region.

Besides five specimens from Mossamedes, unquestionably belonging to *P. nigricans*, our Museum is in possession of three individuals, collected by van der Kellen in the Upper Cunene region and erroneously mentioned in N. L. M. 1888, p. 228 and 1889, p. 196 as *P. Layardi*, which represent as many different forms of hybridism. The first, shot on Febr. 23rd 1888, a female with black head, orange eyelid and red iris, should make the impression of a true *P. nigricans*, were it not for the white breast and abdomen, which is a characteristical of *P. tricolor*.

The second specimen, a male, shot on Sept. 28th 1891, resembles *P. nigricans* by its entirely black head and dirty grayish white under surface, while by the black eyelids and the dark brown iris it resembles *P. tricolor*.

The third specimen, a female, shot on April 14th 1886 near Huilla, belongs to *P. tricolor* on account of its white under surface, the black eyelid and brown iris, but the head is blackish brown, much darker than in the two specimens from Bahr el Ghazal and for this reason may represent another form of hybridism.

3. Pycnonotus Layardi.

Pycnonotus Layardi Gurney, Ibis 1879, p. 390; Sharpe, Cat. B. VI, p. 132 (1881).

Hab. South Africa as far north as Lake Nyassa and Damara Land.

Two specimens from Port Natal.

4. Pycnonotus nigricans.

Pycnonotus nigricans (Vieill.) Gray, Gen. B. I, p. 237 (1847); Sharpe, Cat. B. VI, p. 134 (1881).

Hab. South Africa, from Transvaal to Damara Land, extending north to the Quanza River:

Five specimens from Mossamedes.

About the hybridisation between this species and P. tricolor see antea, p. 235.

This species is based by Vieillot upon Levaillant's plate of the "Brunoir", which is represented as having a red eyelid.

5. Pycnonotus xanthopygus.

Ixus xanthopygus Hempr. & Ehr. Symb. Phys. fol. bb; Rüpp. Neue Wirbelth. Vög. p. 83.

Pycnonotus xanthopygus Dresser, Birds Europe, III, p. 357, pl. 143, fig. 1 (1875); Sharpe, Cat. B. VI, p. 135 (1881).

Hab. North-eastern Africa, Arabia, Palestine, Syria, and the islands of Cyprus, Rhodos and the Cyclades.

Four specimens from Syria, three from Palestine and one from Akaba in Arabia. This latter specimen differs considerably from the others by the much paler color above and below; also the under tail-coverts are paler than in the Syrian and Palestine specimens.

6. Pycnonotus barbatus.

Pycnonotus barbatus (Desf.) Dresser, Birds Europe, III, p. 353, pl. 142 (1875); Sharpe, Cat. B. VI, p. 146 (1881).

Hab. North-western Africa, from Algeria and Marocco through Upper Guinea down to the Gaboon, where it probably interbreeds with *P. tricolor* (see antea, p. 235).

The Leyden Museum contains the following specimens: One said to be from Andalusia (Spain) received from the Paris Museum in 1838, one from Algeria, five from Liberia, five from the Gold Coast and two from the Gaboon. The two latter specimens do not show any yellow color on the under tail-coverts.

7. Pycnonotus arsinoë.

Ixus arsinoë Hempr. & Ehr. Symb. Phys. sig. aa.
Pycnonotus arsinoë Gray, Gen. B. I, p. 237 (1847); Sharpe, Cat. B. VI, p. 148 (1881).

Hab. North-eastern Africa, from Egypt through Abyssinia to Somali Land; Southern Arabia.

Four specimens from Egypt and one from Akaba in Arabia.

GENUS Laedorusa Reichenbach 1).

Type: Laedorusa analis (Horsf.).

General aspect dull earthy brown, olive-brown or olivegreen, quills always more or less edged with olive-green, feathers on the crown not or only feebly lengthened, never forming a long crest; tarsus longer than culmen. — Ten species known.

Range. British India with inclusion of Ceylon; Sumatra, Banka, Java, Borneo and the Philippine Archipelago.

Key to the species.

a. Under tail-coverts distinctly yellow.
a'. A white superciliary stripe.
a". Upper surface earthy brown.
a'''. Ear-coverts like sides of head analis.
b'''. Ear-coverts dark brown, conspicuous goiavier.
b". Upper surface olive-green.
a". Lores black, moustachial streak tinged with
yellow luteola.
b". Lores white like the rest of the face leucops.
b'. No white superciliary stripe, head olive-yellow xantholaema.
b. Under tail-coverts not distinctly yellow.
a'. Ear-coverts with narrow white shaft-streaks.
a". Back ashy brown, no tinge of olive-green Blanfordi.
b". Back brown, tinged with olive-green.
a'''. Abdomen grayish brown plumosa.
b'''. Abdomen yellowish white cinerei frons.
b'. No white shaft-streaks to the ear-coverts.

1) The present genus contains a number of somewhat heterogeneous elements. Some of the species (L. analis, goiavier, luteola, plumosa, cinereifrons, simplex and pusilla) have the wing longer than the tail, while in L. leucops, xantholaema and Blanfordi the wing is equal to the tail or shorter. In some species the tail is nearly square, and in others more rounded, but this difference is not sufficient and does not fully coincide with the difference in the length of the tail, so that no generic characters can be based upon.

a". Larger, no orange eyelid, throat not ashy white simplex. b". Smaller, eyelid orange, throat ashy white. . . pusilla.

1. Laedorusa analis.

Turdus analis Horsf. Tr. Linn. Soc. XIII, p. 147 (1820); Raffl. t. c. p. 310.

Loidorusa Reichenb. Av. Syst. Taf. 54, fig. 11 (1850).

Laedorusa analis Cab. Mus. Hein. I, p. 109 (1850 ex Reichenb.).

Pycnonotus analis Sclater, P. Z. S. 1863, p. 216; Sharpe, Cat. B. VI, p. 140 (1881); Oates B. Br. Ind. I, p. 287 (1889).

Hab. Malay Peninsula, Siam, Cochin China, Sumatra, Java, Lombok, Borneo.

Twelve specimens from Sumatra, six from Banka, three from Java, sixteen from Borneo, and one from Labuan.

2. Laedorusa goiavier.

Muscicapa goiavier Scop. Del. Faun. et Flor. Insubr. 11, p. 96 (ex Sonn.).

Pycnonotus goiavier Gray, Gen. B. I, p. 237 (1847); Sharpe, Cat. B. VI, p. 144 (1881).

Laedorusa goiavier Cab. Mus. Hein. I, p. 109 (1850).

Hab. Philippine Archipelago.

Four specimens from Marinduque, Mindanao, and Sulu.

3. Laedorusa luteola.

Haematornis luteolus Less. Rev. Zool. 1840, p. 354.

Pycnonotus luteolus Gray, Gen. B. I, p. 237 (1847); Sharpe, Cat. B. VI, p. 143 (1881); Oates, B. Br. Ind. I, p. 290 (1889).

Hab. Ceylon, (?)Banka, (?)Java.

The Leyden Museum is in possession of six specimens from Ceylon, and moreover of two from Banka and of one from Java.

4. Laedorusa leucops.

Oreoctistes leucops Sharpe, Ibis 1888, p. 388, pl. IX, fig. 1. Hab. Kina Balu, between 7000—8000 feet. One specimen.

5. Laedorusa xantholaema.

Pycnonotus xantholaemus Jerd. Madr. Journ. XIII, p. 122 (1844) Sharpe, Cat. B. VI, p. 146 (1881); Oates, B. Br. Ind. p. 289 (1889).

Hab. South India.

One specimen from Madras.

6. Laedorusa Blanfordi.

Pycnonotus Blanfordi Jerd. Ibis 1862, p. 20; Sharpe, Cat. B. VI, p. 151 (1881); Oates, B. Br. Ind. I, p. 291 (1889).

Hab. Pegu and Burma, extending eastward into Cochin China.

Not represented.

7. Laedorusa plumosa.

Pycnonotus plumosus Blyth, J. A. S. Beng. XIV, p. 567 (1845); Sharpe, Cat. B. VI, p. 452 (1881); Oates, B. Br. Ind. I, p. 292 (1889).

Hab. From southern Tenasserim through the Malay Peninsula, Sumatra, Nias, Banka, Borneo, Java, Ceylon (Diard 1859).

Three specimens from Sumatra, one from Banka, three from Borneo, one from Java and one from Ceylon.

8. Laedorusa cinereifrons.

Brachypus cinereifrons Tweedd. P. Z. S. 1878, p. 617. Pycnonotus cinereifrons Sharpe, Cat. B. VI, p. 153 (1881).

Hab. Palawan, Philippine Archipelago.

Three specimens.

9. Laedorusa simplex.

Pycnonotus simplex Less. Rev. Zool. 1839, p. 167; Sharpe, Cat. B. VI, p. 153, pl. IX (1881).

Pycnonotus plumosus Büttik. N. L. M. 1887, p. 61.

Hab. From Tenasserim through the Malay Peninsula, Sumatra, Nias, Banka, Java and Borneo.

One specimen from Wellesley (Malacca), three from Sumatra, four from Banka, and six from Borneo.

10. Laedorusa pusilla.

Pycnonotus simplex (nec Less.) Bp. Consp. I, p. 263 (1850); Büttik. N. L. M. 1887, p. 61.

Pycnonotus pusillus Salvad. Ucc. Born. p. 200 (1874); Sharpe, Cat.
B. VI, p. 155, pl. X (1881); Oates, B. Br. Ind. I, p. 293 (1889);
Murray, Avif. Brit. Ind. II, p. 43, pl. (1889).

Pycnonotus Salvadorii Sharpe, Cat. B. VI, p. 401 (1881).

Hab. From Southern Tenasserim through Malacca to Sumatra and Borneo.

Five specimens from Sumatra and one from Borneo.

GENUS Pachycephalixus, n.g.

Type: Pachycephalixus sinensis (Gm.).

General appearance more pachycephaline than pycnonotine. Head thick, feathers on the crown black, equally lengthened, thickly set and silky, not forming a distinct crest; a collar round the hind neck purplish brown, distinct from rest of upper surface, which is gray, all the feathers, quills and tail-feathers included, edged with oliveyellow, lower surface white, laterally also edged with yellow, a broad purplish brown band across the chest, tail nearly square, tarsus longer than culmen, wing longer than tail. — Two species known.

Range: From the Yangtze Kiang through South China into Siam, Formosa, Hainan and Naochow.

Key to the species.

a.	Forehead	and	Cei	atre	of	cro	wn	bla	ıck,	nape	fr	om	b	ehii	ad	
	the eye w	vhite														sinensis.
7	TO 45	1	L I	.1.												, .

1. Pachycephalixus sinensis.

Muscicapa sinensis Gm. Syst. Nat. I, p. 942 (1788).

Pycnonotus sinensis Blyth, J. A. S. Beng. XIV, p. 569 (1845);

Sharpe, Cat. B. VI, p. 149 (1881).

Hab. South China and Formosa; Japan (teste Salvadori, Mem. Ac. Tor. XXXIX, p. 123).

A great number from both localities.

2. Pachycephalixus hainanus.

Ixus hainanus Swinhoe, Ibis 1870, p. 253; David & Oust. Ois. Chine, p. 141 (1877).

Pycnonotus hainanus Sharpe, Cat. B. VI, p. 150 (1881).

Hab. The Islands Hainan and Naochow.

One specimen from Naochow Island.

Genus Stictognathus, n.g.

Type: Stictognathus taivanus (Styan).

Closely related to *Pachycephalixus* as to its pachycephaline character, but easily distinguished by the scarlet spot on the base of the lower mandible, and by the want of the olive-yellow lateral edgings to the feathers on upper and lower surface. — Two species known.

Range. The mountainous regions of Southern China and of Formosa.

Key to the species.

- a. Upper surface of wing and tail richly tinged with olive-yellow, under tail-coverts white, edged with olive. taivanus.
- b. Upper surface brown, the quills but slightly edged with olive, under tail-coverts golden yellow . . . xanthorrhous.

1. Stictognathus taivanus.

Pycnonotus taivanus Styan, Ibis 1893, p. 470; id. id. 1894, p. 337, pl. IX.

Hab. The mountainous regions of South Formosa. Not represented.

2. Stictognathus xanthorrhous.

Pycnonotus xanthorrhous Anderson, Pr. A. S. Beng. 1869, p. 265; Sharpe, Cat. B. VI, p. 139 (1881).

Ixus xanthorrhous Swinh. P. Z. S. 1871, p. 369; David & Oust. Ois. Chine, p. 141, pl. 45 (1877).

Hab. The mountainous regions of South China. Not represented.

GENUS Crocopsis Reichenbach.

Type: Crocopsis bimaculatus (Horsf.).

Upper surface more or less tinged with olive-green, underneath earthy brown or whitish, under tail-coverts yellow, feathers on crown not lengthened, a bunch of brush-like feathers above the lores, at the base of the upper mandible, golden orange, tarsus longer than culmen, wing equal to the tail in length, the latter much rounded. — Three species known.

Range. From Burma to Cochin China, and southward through Tenasserin and Malacca to Sumatra and Java.

Key to the species.

- a. Golden yellow spot above the lores large, no yellow on crown and throat bimaculatus.
- b. Golden yellow spot above the lores small, fore-head, cheeks, chin and throat olive, with broad yellow shaft-streaks.
 - a'. Fore-head only yellow, hinder part of crown gray. Finlaysoni.
 - b'. Entire crown dull olive-yellow Davisoni.

1. Crocopsis bimaculatus.

Turdus bimaculatus Horsf. Trans. Linn. Soc. XIII, p. 147 (1820). Pycnonotus bimaculatus Blyth, J. A. S. Beng. XIV, p. 567 (1845); Sharpe, Cat. B. VI, p. 138 (1881). Crocopsis Reichenb. Av. Syst. Taf. 54 (1850).

Crocopsis Reichenb. Av. Syst. Taf. 54 (1850). Crocopsis bimaculata Reichenb. J. f. O. 1854, p. 150.

Hab. Sumatra and Java.

Two specimens from Sumatra and five from Java.

2. Crocopsis Finlaysoni.

Pycnonotus Finlaysoni Strickl. Ann. Nat. Hist. XIII, p. 411 (1844); Sharpe, Cat. B. VI, p. 144 (1881); Oates, B. Br. Ind. I, p. 287 (1889).

Hab. From Burma to Cochin China and through Tenasserim to Malacca.

Two specimens from Cochin China and one from Tenas-serim.

3. Crocopsis Davisoni.

Ixus Davisoni Hume, Str. Feath. 1875, p. 301.
 Pycnonotus Davisoni Sharpe, Cat. B. VI, p. 145 (1881); Oates, B. Br. Ind. I, p. 288 (1889).

Hab. Western Burma.

Not represented.

GENUS Xanthixus Oates.

Type: Xanthixus flavescens (Blyth).

Above olive-green, underneath strongly tinged with yellow, feathers on the crown not much lengthened, tarsus longer than culmen, tail longer than wing, much graduated, the difference between the central and outermost feathers equal to the length of the tarsus. — One species known.

1. Xanthixus flavescens.

Pycnonotus flavescens Blyth, J. A. S. Beng. XIV, p. 568 (1845); Sharpe, Cat. B. VI, p. 143 (1881).

Xanthixus flavescens Oates, B. Br. Ind. I, p. 275 (1889); Baker, J. Bomb. N. H. Soc. VII, pp. 1-4, pl. I (1892).

Hab. Khasia Hills, Burma and Tenasserim. Not represented.

GENUS Kelaartia Jerdon.

Type: Kelaartia penicillata (Blyth).

Phacalias, Nom. emend. pro » Kelaartia", F. Heine, Nomenclator Mus. Hein. p. 67.

Above green, underneath olive-yellow, on the hinder part of the upper eyelid a long tuft of yellow, pointed feathers, crown-feathers broad, somewhat lengthened, feathers of the lores also lengthened, erect, white, tarsus longer than culmen, tail nearly square, and equal to the wing in length. — One species known.

Range. Ceylon.

1. Kelaartia penicillata.

Pycnonotus penicillatus Blyth, J. A. S. Beng. XX, p. 178 (1851).
Kelaartia penicillata Jerd. B. of Ind. II, p. 86 (1863); Legge, Birds
Ceylon, p. 480, pl. 21 (1880); Sharpe, Cat. B. VI, p. 162 (1881);
Oates, B. Br. Ind. I, p. 296 (1889).

Hab. Ceylon. One specimen.

GENUS Gymnocrotaphus, n.g.

Туре: Gymnocrotaphus tygus (Вр.).

Above and below olive-green, feathers underneath broadly centred with white; sides of head above, below and behind the eye naked, ear-plumes yellow, bill muscicapine, tarsus longer than culmen, wing longer than tail, the latter nearly square. — One species known.

Range. Sumatra.

1. Gymnocrotaphus tygus.

Brachypus tygus Bp. Consp. I, p. 262 (1850). Pycnonotus tygus Sharpe, Cat. B. VI, p. 156 (1881).

Hab. Sumatra.

The two typical specimens.

GENUS Alcurus Hodgson.

Type: Alcurus striatus (Blyth).

Upper surface and chest olive, with white or yellowish white shaft-streaks, head strongly crested, crest-feathers sword-shaped, tarsus equal to culmen in length, wing longer than tail, the latter but faintly rounded or nearly square. — Two species known.

Range. From the Eastern Himalayas through Burma and Tenasserim to Sumatra.

Key to the species.

a.	Throat yellow			• .					striatus.
h	Throat white								leucogrammicus.

1. Alcurus striatus.

Alcurus striatus Blyth, J. A. S. Beng. XIV, p. 570 (1845); Sharpe, Cat. B. VI, p. 91 (1881); Oates, B. Br. Ind. I, p. 266 (1889).

Hab. From the Eastern Himalayus through Burma to Tenasserim.

Four specimens from Sikkim, Nepal and Thibet.

2. Alcurus leucogrammicus.

Pycnonotus leucogrammicus S. Müll. Nat. Tijdschr. Ned. Ind. 1835, p. 362; Sharpe, Cat. B. VI, p. 155 (1881).

Hab. Sumatra.

The three typical specimens from Sumatra.

GENUS Pinarocichla Sharpe.

Type: Pinarocichla euptilosa (Jard. & Selb.).

Above olive-brown, underneath ashy white, head slightly crested, the feathers on the centre of the crown being the longest, rump-feathers very long and dense, and with a broad black subterminal bar, tarsus equal to culmen in length, tail shorter than wing, not much rounded. — One species known.

Range. That of the species.

1. Pinarocichla euptilosa.

Brachypus euptilosus Jard. & Selb. Ill. Orn. IV (new ser.) pl. III. Pinarocichla euptilosa Sharpe, Cat. B. VI, p. 62 (1881); Oates, B. Br. Ind. I, p. 279 (1889).

Hab. From Southern Tenasserim down through Malacca to Sumatra, Java, Banka and Borneo.

Four specimens from Sumatra, two from Banka, and two from Borneo.

Genus Poliolophus Sharpe.

Type: Poliolophus urostictus Sharpe.

Resembling the preceding genus, but smaller, tail-feathers

more broadly tipped with white, a fleshy wattle round the eye. — Two species known.

Range. Philippine Islands.

1. Poliolophus urostictus.

Brachypus urostictus Salvad. Atti R. Acad. Tor. V, p. 509.
Poliolophus urostictus Sharpe, Trans. Linn. Soc. new series, Zool. I, p. 334 (1877); id. Cat. B. VI, p. 63 (1881).

Hab. Philippine Islands.

One specimen from Samar Islands and two from Mindanao.

2. Poliolophus basilanicus 1).

Poliolophus basilanicus Steere, List Birds and Mamm. Philipp. (see Ibis 1891, p. 303, note); id. Ibis 1891, p. 313.

Not represented.

GENUS Mesolophus, n.g.

Type: Mesolophus flaviventris (Tickell).

General color olive-yellow, head black, a long crest of sword-shaped (not lanceolate) feathers springing from the centre of the crown, while the rest of the crown-feathers are not lengthened, tarsus equal in length to the culmen, wing longer than tail. — Two species known.

Range. From the Central Provinces of British India northward to the Himalayas, eastward to Cochin China and southward to the Malay Peninsula; Borneo.

Key to the species.

- a. Chin and throat black like rest of the head flaviventris.
- b. Chin and throat yellow, like rest of lower surface. . montis.

1. Mesolophus flaviventris.

Vanga flaviventris Tickell, J. A. S. Beng. II, p. 573 (1833).
Otocompsa flaviventris Sharpe, Cat. B. VI, p. 161 (1881); Oates B. Br. Ind. I, p. 278 (1889); Baker, J. Bomb. N. H. Soc. VII, pl. XV (1892).

1) Having neither description nor specimens of this species at my disposal, I am unable to give a diagnosis of it by the way of a key.

Hab. From the Himalayas southward to the Central Provinces and to the Malay Peninsula and Cochin China. Five specimens from Nepal and Tenasserim.

2. Mesolophus montis.

Rubigula montis Sharpe, P. Z. S. 1879, p. 247; id. Ibis 1889, p. 276;
Everett, List Birds Born. p. 115 (1889); Sharpe, Ibis 1890, p. 277; id. id. 1892, p. 433; Hose, Ibis 1893, p. 392; Sharpe, Ibis 1894, p. 543.

Otocompsa montis Sharpe, Cat. B. VI, p. 162 (1881).

Hab. Mountain-regions of Borneo.

Two specimens from Mount Dulit (N. W. Borneo).

GENUS Rubigula Blyth.

Type: Rubigula dispar (Horsf.).

Upper surface yellowish olive, head black, no distinct crest, feathers on throat red, narrow and bristly, tarsus equal in length to the culmen, tail almost square. — Two species known.

Range. Southern India, Sumatra and Java.

Key to the species.

- a. Larger, chin conspicuously black, throat brilliant scarlet. dispar.
- b. Smaller, black chin-spot scarcely visible, throat orange-red. gularis.

1. Rubigula dispar.

Turdus dispar Horsf. Trans. Linn. Soc. XIII, p. 150 (1820); Raffl. t. c. p. 310; Temm. Pl. Col. II, pl. 137 (1838).

Rubigula dispar Blyth, J. A. S. Beng. XIV, p. 576 (1845); Sharpe, Cat. B. VI, p. 167 (1881).

Hab. Sumatra and Java.

Three specimens from Sumatra and two from Java.

2. Rubigula gularis.

Brachypus gularis Gould, P. Z. S. 1835, p. 186; Bp. Consp. I, p 264 (1850).

Rubigula gularis Blyth, J. A. S. Beng. XIV, p. 576 (1845); Sharpe, Cat. B. VI, p. 167 (1881).

Pycnonotus gularis Oates, B. Br. Ind. I, p. 289 (1889).

Hab. Southern India.

Not represented.

GENUS Ixidia Blyth.

Type: Ixidia cyaniventris Blyth.

Upper surface greenish yellow, head black or gray, no distinct crest, feathers on throat smooth, not different from rest of under surface in color or shape, tarsus equal to the culmen in length, tail shorter than wing, square.—Four species known.

Range. Indian Peninsula and Ceylon, Malay Peninsula, Sumatra, Java and Borneo.

Key to the species.

a. Under surface	yellow												melanictera.
b. Under surface	gray .												cvaniventris.
c. Under surface	scaly.							•					J
a'. White tips	•	mc	st	tai	l-fe	atl	ers	s sł	ori	ter.	. n	ot	
exceeding 1													
b'. White tips	on outer	rme	osť	tai	l-fe	ath	ers	lo	nge	r.	mo	re	•
than two c													

1. Ixidia melanictera.

Muscicapa melanictera Gm. S. N. I, p. 941 (1789).

Rubigula melanictera Wald. Ibis 1866, p. 321; Legge, Birds Ceylon, p. 477 (1880); Sharpe, Cat. B. VI, p. 168 (1881).

Pycnonotus melanicterus Oates, B. Br. Ind. I, p. 288 (1889).

Hab. Ceylon. Six specimens.

2. Ixidia cyaniventris.

Pycnonotus cyaniventris Blyth, J. A. S. Beng. XI, p. 792 (1841); Oates, B. Br. Ind. I, p. 290 (1889). Ixidia cyaniventris Blyth, J. A. S. Beng. XIV, p. 578 (1845); Horsf. & Moore, Cat. 1, p. 247 (1854).

Rubigula cyaniventris Sharpe, Cat. B. VI, p. 169 (1881); Oates, B. Br. Ind. I, p. 200 (1889).

Ixidia paroticalis 1) Sharpe, Ibis 1878, p. 418; id. id. 1879, p. 256.
 Rubigula paroticalis Sharpe, Cat. B. VI, p. 170 (1881); Hose, Ibis 1893, p. 391; Sharpe, Ibis 1893, pp. 547, 551; id. id. 1894, p. 543.

Hab. Malay Peninsula, Sumatra and Borneo.

One specimen from Wellesley, four from Sumatra, and two from Borneo.

3. Ixidia squamata.

Turdus squamatus Temm. Pl. Col. II, pl. 453, fig. 2 (1838). Pycnonotus squamatus Gray, Gen. B. I, p. 237 (1844—1849). Ixidia squamata Nichols. Ibis 1881, p. 147. Rubigula squamata Sharpe, Cat. B. VI, p. 170 (1881).

Hab. Java.

The two typical specimens.

4. Ixidia Webberi.

Ixidia squamata (nec Temm.) Salvad. Ucc. Born. p. 200 (1874); Sharpe, Ibis 1878, p. 419.

Ixidia Webberi Hume, Str. Feath. 1879, pp. 40 and 63; Reichenow & Schalow, J. f. O. 1879, p. 432.

Rubigula Webberi Sharpe, Cat. B. VI, p. 171 (1881).

Hab. Malay Peninsula, Sumatra and Borneo.

Two specimens from Sumatra and one from Batu Song (Borneo).

GENUS Brachypodius Blyth.

Type: Brachypodius melanocephalus (Gm.).

General color olive-yellow or gray, head not crested, rump-feathers lengthened, somewhat stiff, subterminally barred with black, like in *Pinarovichla*, tail strongly rounded, subterminally barred with black, wing longer than tail (in *B. phaeocephalus* only faintly so), tarsus equal to culmen in length. — Five species known.

1) See my remarks upon this species in my list of the Birds of the Dutch Borneo-Expedition, which shall be published in the next volume of this periodical.

Range. Southern part of the Indian Peninsula, Burma, Malay Peninsula, Andamans, Sumatra, Borneo, and the Philippine Archipelago.

Key to the species.

- a. Head black.
 - a'. General color yellowish olive. melanocephalus.
 - b'. Olive-yellow, mantle and under surface gray . cinereiventris.
 - c'. Entire upper and under surface gray chalcocephalus.
- b. Head not entirely black.
 - a'. Hind head olive-green, like rest of head,
 - throat black fusciflavescens. b'. Hind head gray , throat gray phaeocephalus.

1. Brachypodius melanocephalus.

Lanius melanocephalus Gm. Syst. Nat. I, p. 309 (1789).

Brachypodius melanocephalus Blyth, J. A. S. Beng. XIV, p. 576 (1845); Salvad. Ucc. Born. p. 201 (1874).

Micropus melanocephalus Sharpe, Cat. B. VI, p. 65 (1881); Büttik. N.L.M. 1887, p. 62; Oates, B. Br. Ind. I, p. 294 (1889).

Hab. From British Burma down to the Malay Peninsula; Nias, Sumatra, Banka, Java, Borneo, and Palawan (Philippine Islands).

Two specimens from British Burma, one said to be obtained in Cochin China (Deyrolle 1867), one from Malacca, four from Sumatra, four from Banka, two from Java, one from Bawean (Java Sea), three from Borneo, one from Labuan and two from Palawan.

2. Brachypodius cinereiventris.

Brachypodius cinereiventris Blyth, J. A. S. Beng. XIV, p. 576 (1845). Micropus cinereiventris Sharpe, Cat. B. VI, p. 67 (1881); Oates, Birds Br. Ind. I, p. 295 (1889).

Hab. From Tipperah through British Burma to Rangoon and down to Malacca.

Not represented.

3. Brachypodius chalcocephalus.

Ixos chalcocephalus Temm. Pl. Col. II, pl. 453, fig. 1 (1838).

Micropus chalcocephalus Sharpe, Cat. B. VI, p. 68 (1881).

Hab. Java and Bawean.

The two typical specimens from Java and Bawean.

4. Brachypodius fusciflavescens.

Brachypodius fuscoflavescens Hume, Str. Feath. 1873, p. 297.

Micropus fusciflavescens Sharpe, Cat. B. VI, p. 66 (1881); Oates,
B. Br. Ind. I, p. 295 (1889).

Hab. Andamans.

Not represented.

5. Brachypodius poiocephalus.

Brachypus poiocephalus Jerd. Madr. Journ. X, p. 246 (1839).
Brachypodius poiocephalus Blyth, J. A. S. Beng. XIV, p. 576 (1845).
Micropus phaeocephalus Sharpe, Cat. B. VI, p. 68 (1881); Oates,
B. Br. Ind. I, p. 296 (1889).

Hab. Malabar.

One specimen.

GENUS Microtarsus Eyton.

Type: Microtarsus melanoleucus Eyton.

General color black, head not crested, rump-feathers stiff and very long, reaching nearly the tips of upper tail-coverts, tail much rounded, uniform black, tarsus shorter than culmen, wing longer than tail. — One species known.

Range. That of the species.

1. Microtarsus melanoleucus.

Microtarsus melanoleucus Eyton, P. Z. S. 1839, p. 102; Salvad. Ucc. Born. p. 202 (1874).

Micropus melanoleucus Sharpe, Cat. B. VI, p. 69 (1881).

Hab. Malacca, Sumatra and Borneo.

One specimen from Malacca, four from Sumatra, and two from Borneo.

Leyden Museum, April 1896.