

ON A COLLECTION OF FISHES FROM EAST JAVA

BY

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Through the courtesy of Mr. K. van Vuure, officer of the Fisheries at Pasoeroean, Java, the Leiden Museum received a very interesting collection of fishes from the eastern part of Java.

The collection was made in November 1938 and contained both fresh-water and marine species. On a joined list of each lot the vernacular name was given and the exact locality, giving the village (desa), district, regency (regentschap) and residence (residentie); these topographical names are stated in this paper as desa, distr., reg. and res. The vernacular names are partly Javanese, partly Madurese, indicated as Jav. and Mad.

The fishes are arranged according to the system of Günther's Catalogue of Fishes.

Epinephelus merra Bl., 1 specimen, desa Tandjoeng Petjinan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Krapoe-batoe (Jav.).

Lutjanus russelli (Blkr.), 1 specimen, desa Kalianjar, distr. Bangil, reg. Pasoeroean, res. Malang.

I received this specimen in a lot which moreover contained 2 specimens of *Pomadasys hasta* (Bl. Schn.) and 1 specimen of *Gerres poeti* C. & V., with the vernacular name: Gogokan (Jav.).

Ambassia nalua (H. B.), 4 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. names: Pengkat (Jav.), Rek-rek (Mad.).

Therapon jarbua (Forsk.), 1 specimen, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Kerong-kerong (Jav.).

Pomadasys hasta (Bl. Schn.), 2 specimens, desa Kalianjar, distr. Bangil, reg. Pasoeroean, res. Malang.

See note on *Lutjanus russelli* (Blkr.).

Pomadasys hasta (Bl. Schn.), 2 specimens, desa Tandjoeng Petjinan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Dá-tandá (Mad.).

?*Mulloidichthys auriflamma* (Forsk.), 3 specimens, desa Tandjoeng Petjinan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Sermong (Jav.).

Of the identification of these 3 specimens, which are not sufficiently preserved, I am not quite certain.

Scatophagus argus (Bl.), 4 specimens, desa Djarangan, distr. Pasoeroean, reg. Pasoeroean, res. Malang.

Vern. name: Kiper (Jav., Mad.).

Sillago sihama (Forsk.), 4 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Besot (Jav., Mad.).

According to Weber & De Beaufort, The Fishes of the Indo-Australian Archipelago, vol. VI, 1931, key on p. 170 and on p. 172, the preopercular and opercular scales should be cycloid in this species. The preopercular scales are cycloid, but, as stated already by Bleeker, Verh. Ak. Amsterdam, vol. XIV, 1874, p. 67, the opercular scales are ctenoid.

Pseudosciaena soldado (Lac.), 4 specimens, desa Djarangan, distr. Pasoeroean, reg. Pasoeroean, res. Malang.

Vern. name: Sileman (Jav.).

Cybium guttatum (Bl.), 2 specimens, desa Djarangan, distr. Pasoeroean, reg. Pasoeroean, res. Malang.

The lot contained these 2 specimens and 1 specimen of *Chorinemus lysan* (Forsk.), with the vernacular name: Talang (Jav., Mad.),

Caranx (Caranx) sexfasciatus Q. & G., 1 specimen, desa Tandjoeng Petjinan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Tangkolok (Mad.).

Caranx (Carangoides) armatus (Forsk.), 1 specimen, desa Tandjoeng Petjinan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Poetihan (Jav.).

The young specimens of this species are very alike to young specimens of *Atropus atropus* (Bl. Schn.). The principal difference is that in *C. armatus* the curved portion of the lateral line is longer than the straight portion, while in *A. atropus* the curved portion is shorter than the straight portion. The genus *Atropus* is separated, e.g. by Weber & De Beaufort, The Fishes of the Indo-Australian Archipelago, vol. VI, 1931, p. 192 and 201, by a deep median groove, containing the vent and detached praeanal spines and receiving the ventrals. At least in preserved young specimens, *C. armatus* shows a similar median groove, hardly different from the groove in

preserved young specimens of *A. atropus* of the same length. The ventral fins of *A. atropus* extend to the beginning of the anal fin. In *C. armatus* some specimens have the ventral fins extending to the insertion of the first anal spine, other specimens have the ventral fins not so long, not reaching the detached praeanal spines.

Another point of difference is that in *A. atropus* the bases of the ventral finrays are connected by membrane backwards with the belly, especially the third ray, giving a peculiar hollow between this membrane and the membrane connecting the fifth ventral finray with the belly. This hollow is absent in *C. armatus*, where the bases of the ventral finrays have not a distinct connecting membrane with the belly.

In the bottles in the Leiden Museum containing Bleeker's specimens, no. 6114, East Indian Archipelago, coll. Bleeker 1879, and no. 8371, East Indian Archipelago, Bleeker 1852, both labelled as *Carangoides atropus*, I found 2 and 5 specimens respectively which are young specimens of *C. armatus*. Among these was 1 specimen from bottle no. 8371 of 61 mm total length, which I regard to belong to *C. armatus*, but which has the curved portion of the lateral line as long as the straight portion. The lateral line becomes straight below the 9th dorsal ray. The ventral fins extend to the beginning of the anal fin.

Caranx spec., 1 young specimen, desa Tandjoeng Petjinar, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

This specimen could not be identified with certainty.

Chorinemus lysan (Forsk.), 1 specimen, desa Djarangan, distr. Pasoeroean, reg. Pasoeroean, res. Malang.

See note on *Cybium guttatum* (Bl.).

Monodactylus argenteus (L.), 3 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Lajaran (Jav., Mad.).

Leiognathus equulus (Forsk.), 2 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Lok-molok (Mad.).

Leiognathus equulus (Forsk.), 5 specimens, desa Karangajar, distr. Bangil, reg. Pasoeroean, res. Malang.

Vern. name: Dodog (Jav.).

Leiognathus brevirostris (C. & V. [Day]), 1 specimen, desa Karangajar, distr. Bangil, reg. Pasoeroean, res. Malang.

Vern. name: Slangat (Jav.).

The distinction of *Leiognathus brevirostris* and *daura* gives some difficul-

ties. Weber & De Beaufort, *The Fishes of the Indo-Australian Archipelago*, vol. VI, 1931, state in their key on the species of *Leiognathus* on p. 315:

- “a’. Lateral line continued to base of caudal.
 β. Breast destitute of scales *L. brevirostris*
 b’. Lateral line ending before, below or somewhat behind end of dorsal, the last sensory tubes getting obsolete.
 a’’. Breast naked; *L. daura*”

This character of the lateral line, as mentioned above, seems not useful to me. In examining specimens of the collection of the Leiden Museum, I found in those specimens in which the scales are not fallen out for the greater part, so that the lateral line is invisible in a part of the body, that the lateral line runs to the base of the caudal fin. These specimens were labelled no. 1440, 2 specimens *Equula dacer* Cuv., Java, Kuhl & V. Hasselt; no. 8211, 6 specimens *Equula brevirostris* (= *daura*), East Indian Archipelago, Bleeker 1852 (see footnote in Weber & De Beaufort, vol. VI, p. 330); no. 6144, 26 specimens *Leiognathus dacer* Blkr., *Equula dacer* C. V., *Leiognathus daura* Blkr., East Indian Archipelago, coll. Bleeker 1879.

Day, *The Fishes of India*, 1878, p. 238, states as an error for *Equula daura* that the height of the body is $3\frac{2}{3}$ in the total length. On p. 240 he gives the character as $2\frac{2}{3}$, just as in *The Fauna of British India, Fishes* vol. II, 1889, p. 188. In this last named publication, Day states on p. 186 in the key of the Indian species of *Equula*:

- “b’’. Chest scaleless.
 Supraorbital edge not serrated *E. daura*
 Supraorbital edge serrated *E. brevirostris*”

This character of the supraorbital edge is, I think, the best to distinguish the two species. This character is only inconspicuously mentioned in the descriptions of Weber & De Beaufort.

One specimen of no. 6144 and 1 specimen of no. 8211 of the Leiden Museum have a serrated supraorbital edge and belong according to my opinion to *L. brevirostris*. On the upper margin of the supraorbital edge are thorny spines. The specimen of no. 6144 has some spines at the anterior part and posterior part of the edge.

Pentaprion longimanus (Cantor), 3 specimens, desa Karanganyar, distr. Bangil, reg. Pasoeroean, res. Malang.

Vern. name: Lontong (Jav.).

Glossogobius biocellatus (C. & V.), 2 specimens, desa Tandjoeng Petjnan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

The lot contained these 2 specimens and 1 specimen of *Oxyurichthys tentacularis* (C. & V.) with the vernacular name: Mollon (Mad.).

Acentrogobius caninus (C. & V.), 1 specimen, desa Tandjoeng Petjnan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

The lot contained this specimen and 1 specimen of *Oxyurichthys microlepis* (Blkr.) with the vernacular name: Bedoel (Mad.).

Oxyurichthys tentacularis (C. & V.), 1 specimen, desa Tandjoeng Petjnan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

See note on *Glossogobius biocellatus* (C. & V.).

Oxyurichthys microlepis (Blkr.), 1 specimen, desa Tandjoeng Petjnan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

See note on *Acentrogobius caninus* (C. & V.).

Boleophthalmus boddarti (Pall.), 2 specimens, desa Penoemboekan, distr. Bangil, reg. Pasoeroean, res. Malang.

Vern. name: small specimens: Loendjat (Jav.), large specimens: Glodog.

Teuthis javus L., 1 specimen, desa Kalianjar, distr. Bangil, reg. Pasoeroean, res. Malang.

Vern. name: Limaran (Jav.).

Teuthis javus L., 1 specimen, desa Tandjoeng Petjnan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Masadar (Mad.).

Trichopodus trichopterus (Pall.), 4 specimens, desa Kalisat, distr. Kalisat, reg. Djember, res. Besoeki.

Vern. name: Sepat (Jav.).

Trichopodus trichopterus (Pall.), 3 specimens, desa Soember poetjoeng, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Sepat idjo (Jav.).

Ophicephalus gachua H. B., 7 specimens, desa Wonosari, distr. Wonosari, reg. Bondowoso, res. Besoeki.

Vern. name: Koetoeek (Jav.).

Gerres poeti C. & V., 1 specimen, desa Kalianjar, distr. Bangil, reg. Pasoeroean, res. Malang.

See note on *Lutjanus russelli* (Blkr.).

Gerres punctatus C. & V., 3 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Pengarat (Jav., Mad.).

Achirus poropterus Blkr., 2 specimens, desa Penoemboekan, distr. Bangil, reg. Pasoeroean, res. Malang.

The lot contained this species and 1 specimen of *Paraplagusia bilineata* (Bl.), with the vernacular name: Ilat-ilatan (Jav.).

Paraplagusia bilineata (Bl.), 1 specimen, desa Penoemboekan, distr. Bangil, reg. Pasoeroean, res. Malang.

See note on *Achirus poropterus* Blkr.

Cynoglossus lingua H. B., 1 specimen, desa Penoemboekan, distr. Bangil, reg. Pasoeroean, res. Malang.

Vern. names: Tatahan (Jav.), Ak-paäk (Mad.).

Clarias batrachus (L.), 2 specimens, desa Pakisadji, distr. Kependjen, reg. Malang, res. Malang.

Vern. names: Lèlé (Jav.), Seongan (Mad.).

Arius leptaspis (Blkr.), 3 specimens, desa Djarangan, distr. Pasoeroean, reg. Pasoeroean, res. Malang.

Vern. name: Doekang (Jav., Mad.).

Three young specimens of 65 mm total length are brought by me to this species. The species is according to Weber & De Beaufort, The Fishes of the Indo-Australian Archipelago, vol. II, 1913, p. 305, known from New Guinea and the Aru Islands. I found in the Leiden Museum 2 young specimens from Besoeki, Java, which I bring to this species too.

Glyptosternum platypogon (C. & V.), 3 specimens, desa Kependjen, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Tapelwatoe (Jav.).

Tylosurus strongylurus (V. Hasselt), 2 specimens, desa Djarangan, distr. Pasoeroean, reg. Pasoeroean, res. Malang.

Vern. name: Tjoetjoet (Jav.).

Tylosurus leiurus (Blkr.), 1 specimen, desa Djarangan, distr. Pasoeroean, reg. Pasoeroean, res. Malang.

Vern. name: Banon (Jav., Mad.).

Dermogenys pusillus V. Hasselt, 10 specimens, desa Soember poetjoeng, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Wader toetjoek (Jav.).

Zenarchopterus pappenheimi Mohr, 2 ♂ specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Loeng-djoeloeng (Mad.).

Life-bearing Poeciliinae, 2 ♂ specimens, 1 ♀ specimen, desa Soember poetjoeng, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Melati (Jav.).

These specimens, which are probably not full-grown, are probably of American origin.

Xiphophorus hellerii Heckel, 4 specimens, desa Soember poetjoeng, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Soewadakar (Jav.).

This is an introduced species.

Mystacoleucus marginalis (C. & V.), 5 specimens, desa Kependjen, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Bekepek (Jav.).

Puntius binotatus (C. & V.), 4 specimens, desa Soember poetjoeng, distr. Kependjen, reg. Malang, res. Malang.

The lot contained these 4 specimens and 8 specimens of *Rasbora lateristriata* (Blkr.), with the vernacular name: Wader pari (Jav.).

Puntius binotatus (C. & V.), 5 specimens, desa Bondowoso, distr. Bondowoso, reg. Bondowoso, res. Besoeki.

Vern. name: Klemar (Jav.).

Puntius binotatus (C. & V.), 4 specimens, desa Kependjen, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Wader tjakoel (Jav.).

Labeobarbus douronensis (C. & V.), 2 specimens, desa Bondowoso, distr. Bondowoso, reg. Bondowoso, res. Besoeki.

Hampala macrolepidota (C. & V.), 1 specimen, desa Pakisadji, distr. Kependjen, reg. Malang, res. Malang.

Vern. name: Paloeng (Jav.).

Rasbora lateristriata (Blkr.), 8 specimens, desa Soember poetjoeng, distr. Kependjen, reg. Malang, res. Malang.

See note on *Puntius binotatus* (C. & V.) of the same locality.

Nemacheilus fasciatus (C. & V.), 8 specimens from two localities: desa Kependjen, distr. Kependjen, reg. Malang, res. Malang and desa Wonosari, distr. Wonosari, reg. Bondowoso, res. Besoeki.

Vern. names: Oetjeng (Jav.), Kleon (Mad.).

Stolephorus tri (Blkr.), 4 specimens, desa Tandjoeng Petjinan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Teri (Jav., Mad.).

Engraulis mystax (Bl. Schn.), 4 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Boeloe-ajam (Jav.).

Dorosoma chacunda (H. B.), 3 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

Vern. name: Kapasan (Jav.).

Dorosoma chacunda (H. B.), 4 specimens, desa Tandjoeng Petjinan, distr. Sitoebondo, reg. Sitoebondo, res. Besoeki.

Vern. name: Linggoeling (Mad.).

Monopterus albus (Zuiew), 1 specimen, desa Pakisadji, distr. Kependjen, reg. Malang, res. Malang.

Vern. names: Weloet (Jav.), Beloe (Mad.).

Triacanthus brevirostris Schl., 2 specimens, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

This lot contained these 2 specimens and 1 specimen of *Triacanthus blochii* Blkr., with the vernacular name: Nang-sonang (Mad.).

Triacanthus blochii Blkr., 1 specimen, desa Boelang, distr. Gending, reg. Probolinggo, res. Malang.

See note on *Triacanthus brevirostris* Schl.
