



Oreoglanis infulatus, a new species of glyptosternine catfish (Siluriformes: Sisoridae) from central Vietnam

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A new species of glyptosternine catfish, *Oreoglanis infulatus*, is described from the Lam River drainage in central Vietnam. The new species is distinguished from all its congeners by possessing the following combination of characters: a dark band running across the anal fin, a lunate and uniformly dark caudal fin, the lower lip lacking a medial notch and with a lobulate posterior margin, maxillary barbel with a rounded tip, length of caudal peduncle 19.0–22.6 % L_S , depth of caudal peduncle 2.6–3.2 % L_S , post-adipose distance 6.8–8.0 % L_S , eye diameter 10.5–12.1 % L_H , 12 principal caudal-fin rays.

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Key words: *Oreoglanis*; central Vietnam; new species.

INTRODUCTION

Catfishes of the sub-family Glyptosterninae are rheophilic fishes with strongly depressed heads and bodies, flattened maxillary barbels and greatly enlarged pectoral and pelvic fins modified to form an adhesive apparatus. One such genus, *Oreoglanis* Smith, 1933, is characterized by a continuous postlabial groove of the lower jaw and unusual (heterodont) dentition: pointed teeth in the upper jaw and inner rows of the dentary (lower jaw) tooth patches and truncate-spatulate teeth in the outer rows of the dentary tooth patches.

The systematic relationships within glyptosternines are poorly understood despite numerous studies (Hora & Silas, 1952; Chu, 1979). *Oreoglanis* may not represent a natural group, its paraphyly with *Pareuchiloglanis* and *Pseudexostoma* (and possibly including *Myersglanis* and *Parachiloglanis*) having been demonstrated (He, 1995, 1996). Be that as it may, a systematic reappraisal of the validity of the various glyptosternine genera is difficult, given the paucity of material and the difficulty in gaining access to many types, which are deposited in Indian and Chinese museums. Following the rationale of Ng & Kottelat (1999), *Oreoglanis* is considered tentatively to be a valid genus as originally defined (see above) for easier comparisons. During an ichthyological survey of the river drainages in central Vietnam undertaken by the second author, specimens of *Oreoglanis* were obtained, which on comparison with other known species were found to represent an undescribed species. This species is described here as *O. infulatus*, a new species.

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MATERIALS AND METHODS

All fish were caught using a DEKA 3000 portable electroshocker and fixed in 5% formaldehyde and transferred to 70% ethanol for long-term storage. Measurements were made point-to-point with dial callipers and recorded to 0.1 mm. Ng & Rainboth (2001) is followed for all measurements and counts. Drawings of the specimens were made with a Wild M5 fitted with a camera lucida. Eschmeyer (1998) is followed for all institutional codes.

RESULTS

OREOGLANIS INFULATUS SP. NOV. [FIGS 1 AND 2]

Holotype

ZFMK 35719, 76.1 mm L_S ; Vietnam: Ha Tinh province, stream at Son Kim, a tributary of Song Lam (18°24'25" N; 105°11'10" E); J. Freyhof, F. Herder & D. V. Serov, 11 April 1999.

Paratypes

UMMZ 238025, 6 ex., 42.2–72.6 mm L_S ; ZFMK 35720–35725, 6 ex., 40.3–72.4 mm L_S ; data as for holotype.

Diagnosis

Oreoglanis infulatus is distinguished from all its congeners by possessing the following combination of characters: a dark band running across the anal fin, a lunate and uniformly dark caudal fin, the lower lip lacking a medial notch and with a fimbriated posterior margin, maxillary barbel with a rounded tip, length of caudal peduncle 19.0–22.6 % L_S , depth of caudal peduncle 2.6–3.2 % L_S , post-adipose distance 6.8–8.0 % L_S , eye diameter 10.5–12.1 % L_H , 12 principal caudal-fin rays.

Description

Head and body moderately broad and very strongly depressed. Mouth and gape inferior with broad, thin and papillate lips. Lower lip lacking median notch, posterior margin with fimbriate projections. Postlabial groove on lower jaw present and uninterrupted. Teeth on upper jaw pointed and in large broad band with small median indentation and rounded ends on both sides. Teeth on lower jaw present in two well separated patches of roughly triangular shape (with a medial toothless gap) and of two kinds: outer teeth truncate-spatulate, with a curved inner face; inner teeth pointed as in those of upper jaw. Eyes small, dorsolaterally situated and subcutaneous. Gill openings extending to middle of pectoral-fin base. Maxillary barbels flattened, with surrounding flap of skin and rounded tip; ventral surface with numerous plicae, posterior edge with lobulate projections (Fig. 2).

Dorsal fin without spine and i,5,i (6) rays. Adipose fin with long base. Anal fin with ii,3,i (6) rays. Caudal fin lunate, with 5/6 (1) or 6/6 (5) rays; lower principal rays extended into a long, thin strap in mature males. Pelvic fin greatly enlarged, with convex distal margin and i,5 (4) rays; first ray greatly flattened and with numerous plicae on ventral surface. Pectoral fin greatly enlarged, without spine and with i,17 (3), or i,18 (3) rays; first ray greatly flattened and with numerous plicae on ventral surface.

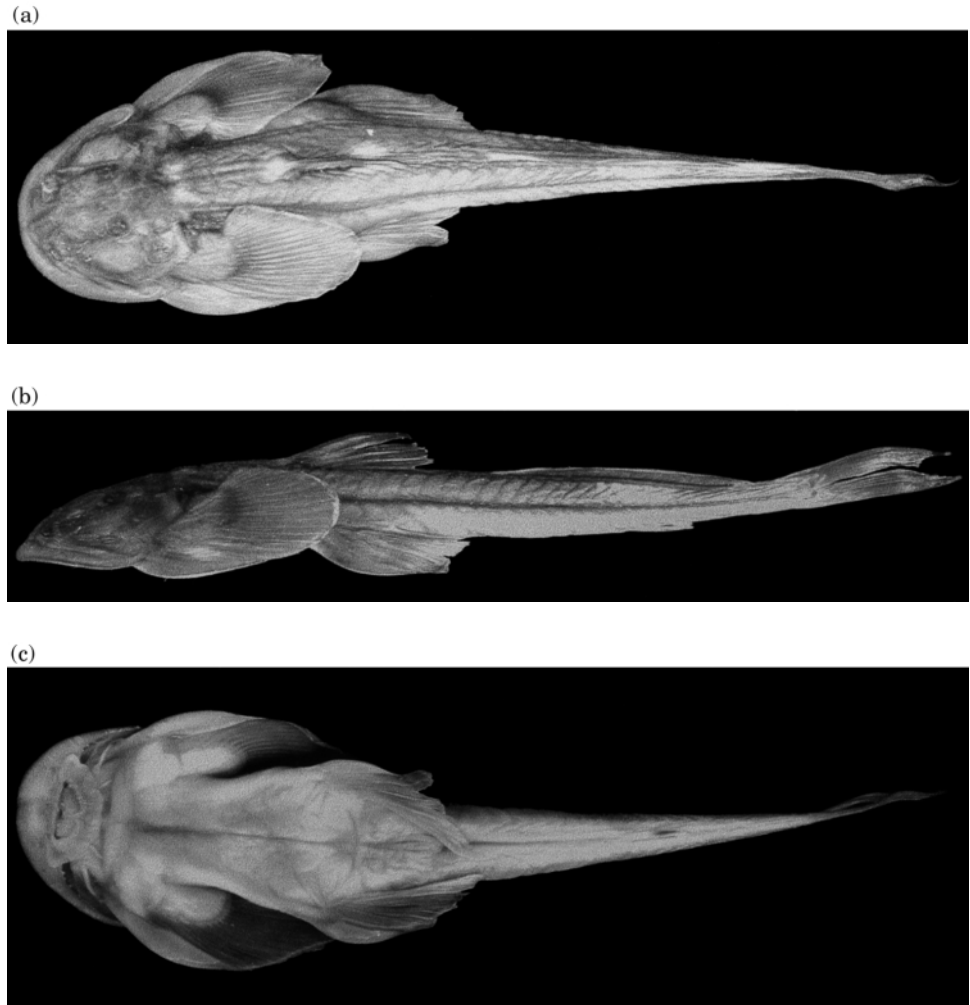


FIG. 1. *Oreoglanis infulatus*, UMMZ 238025, paratype, 70.9 mm L_S ; Vietnam: Song Lam basin. (a) Dorsal view; (b) lateral view; (c) ventral view.

In % L_S : body depth at anus 6.3–8.4, predorsal length 32.4–36.5, preanal length 73.0–75.9, prepelvic length 35.8–39.4, prepectoral length 14.8–19.7, length of dorsal-fin base 9.4–10.2, length of adipose-fin base 31.7–36.0, dorsal to adipose distance 13.2–15.7, post-adipose distance 6.8–8.0, length of anal-fin base 2.6–5.1, length of pelvic fin 20.4–21.7, length of pectoral fin 25.3–26.4, depth of caudal peduncle 2.6–3.2, length of caudal peduncle 19.0–22.6, length of caudal fin 17.9–18.3 (males), 15.2–17.8 (females), head length 21.4–24.7, head width 19.3–21.3, head depth 7.7–7.9; in % L_H : snout length 58.8–61.3, interorbital distance 24.0–29.1, eye diameter 10.5–12.1, length of nasal barbel 17.6–32.0, length of maxillary barbel 63.0–68.4, length of inner mandibular barbel 5.3–11.2, length of outer mandibular barbel 13.7–20.0. Vertebrae 24+16=40 (4) or 25+16=41 (2).

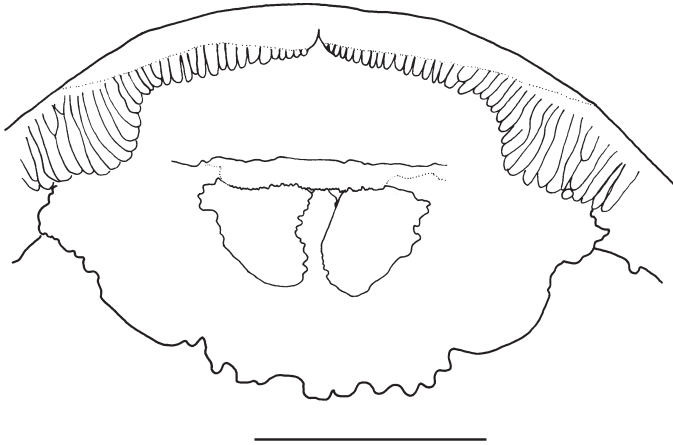
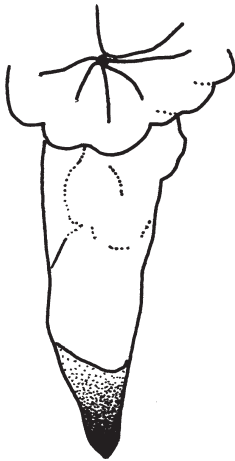


FIG. 2. Schematic illustration of the lower lip margin of *O. infulatus*, paratype, 70.9 mm L_S . Scale bar=5 mm.

(a)



(b)

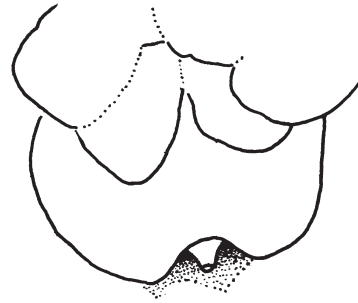


FIG. 3. Schematic illustration of the ventral view of the anus and external genitalia of *O. infulatus*: (a) male, UMMZ 238025, paratype, 70.9 mm L_S ; (b) female, UMMZ 238025, paratype, 68.2 mm L_S . Scale bar=1 mm.

Males with a small genital papilla located immediately posterior to anus in a V-shaped depression [Fig. 3(a)]. Females with a small genital papilla located in a small depression posterior to a rounded protuberance located immediately posterior to anus [Fig. 3(b)].

Colouration

In 70% ethanol: brown on dorsal and lateral surfaces of head and body, light yellow on ventral region. Dorsal surfaces of head and body with a series of small faint light yellow patches: two ovoid patches on occipital region, an ovoid patch on base of first dorsal-fin ray, an elliptical patch on anterior base of adipose-fin

and another on posterior base of adipose-fin. Faint pale yellow stripes occasionally present on dorsolateral surface, running along entire length of body above lateral line. Dorsal and caudal fins brown; dorsal surfaces of pectoral and pelvic fins brown, with ventral surfaces of pectoral and pelvic fins light yellow. Anal fin light yellow, with a brown transverse band running across middle third. Dorsal surface of barbels brown, ventral surface light yellow.

Distribution

Presently known only from one headwater of the Lam River drainage in central Vietnam.

Etymology

From the Latin *infula*, meaning band, in reference to the dark band on the anal fin. Used as an adjective.

Notes on biology

The species was collected in a steeply sloping rainforest stream 1–3 m wide. *Oreoglanis infulatus* was obtained only in waterfalls where the fish were found adhering to vertical surfaces of rocks. The fish were found along with *Schistura antennata* Freyhof & Serov, 2001 and *Schistura hingi* (Herre, 1934).

Remarks

To date, eight species of *Oreoglanis* are recognized as valid (Ng & Rainboth, 2001), viz. *O. macropterus* (Vinciguerra, 1890), *O. siamensis* Smith, 1933, *O. delacouri* (Pellegrin, 1936), *O. hypsiurus* Ng & Kottelat, 1999, *O. frenatus* Ng & Rainboth, 2001, *O. insignis* Ng & Rainboth, 2001, *O. lepturus* Ng & Rainboth, 2001, and *O. setiger* Ng & Rainboth, 2001. This now raises the number of known species in the genus to nine. *Oreoglanis infulatus* differs from all congeners in having a dark band running across the anal fin (v. absence of dark colouration on anal fin). It belongs to the *O. delacouri* species group (Ng & Rainboth, 2001) and thus differs from *O. insignis*, *O. macropterus*, *O. setiger* and *O. siamensis* in having a lunate (v. truncate) caudal fin and a lower lip lacking a medial notch (v. notched medially) and with a lobulate (v. entire) posterior margin (Fig. 2). *Oreoglanis infulatus* also has a more slender caudal peduncle (2.6–3.2 % L_S v. 3.8–8.7) than *O. macropterus*, *O. setiger* and *O. siamensis*, and maxillary barbels with a rounded tip (v. pointed tip in *O. siamensis*).

Oreoglanis infulatus differs from *O. delacouri*, *O. lepturus* and *O. hypsiurus* in having fewer principal caudal-fin rays (12 v. 14), a smaller post-adipose distance (6.8–8.0 % L_S v. 8.5–15.4) and a uniformly dark caudal fin (v. light-coloured upper principal caudal-fin rays), and from *O. frenatus* in having the adipose fin separate from (v. confluent with) the upper principal caudal rays, a shorter caudal peduncle (19.0–22.6 % L_S v. 23.6–27.1) and larger eye (10.5–12.1 L_H v. 7.5–9.8). It further differs from *O. hypsiurus* and *O. lepturus* in having a larger eye (eye diameter 10.5–12.1 % L_H v. 8.2–10.6).

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