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Mystus nanus, a new striped catfish from Sri Lanka (Teleostei: Bagridae)

Hiranya Sudasinghe*, Rohan Pethiyagoda**, Kalana Maduwage*** and Madhava Meegaskumbura****

Mystus nanus, new species, is described from lowland streams, rivers and reservoirs throughout Sri Lanka. Previously misidentified in Sri Lanka as *M. vittatus*, the new species is distinguished from its Indian and Sri Lankan congeners by having two cream stripes along the flanks, a black hypural blotch, the distal margin of the dorsal fin rounded, eye diameter 19–22 % head length, adipose-fin base length 25.3–31.4 % standard length, and the posterior cranial fontanelle ending about an eye-diameter anterior to the base of the supraoccipital process.

Introduction

The genus Mystus has been considered to be represented in Sri Lanka by four species: M. ankutta Pethiyagoda, Silva & Maduwage, 2008, M. gulio (Hamilton, 1822), M. vittatus (Bloch, 1794) and M. zeylanicus Ng & Pethiyagoda, 2013. The only striped species of Mystus in the island was originally identified as Macrones tengara by Günther (1864). Almost all subsequent authors, however, uncritically followed Day's (1877) identification of this species as Macrones vittatus (e.g., Duncker, 1912; Deraniyagala, 1932; Munro, 1955; Mendis & Fernando, 1962; Senanayake, 1980; Pethiyagoda, 1991). This fish, however, has been suspected for some time to be distinct from M. vittatus s. str. (type locality: Tranquebar, Tamil Nadu, southern India) (e.g., see Ng & Pethiyagoda, 2013). Here, based on fresh collections from Sri Lanka, we show the Sri Lankan striped *Mystus* to be a distinct species and provide it with a description and a name.

Materials and methods

All measurements were made using digital calipers and recorded to the nearest 0.1 mm. Counts and measurements were made on the left side of specimens wherever possible, following the methods of Ng & Kottelat (2013). We refer to the 'white of the eye', the region surrounding the pupil, as the sclera. Head length (HL) and measurements of the body are represented as proportions of standard length (SL), while subunits of the head are given as proportions of head length. Values in parentheses after a count represent the frequency of that count. Specimens

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referred to in the text are deposited in the collections of: CAS-SU, Stanford University collection now in the California Academy of Sciences, San Francisco; DZ, Department of Zoology, University of Peradeniya; MKC, collection of Marcus Knight, Chennai; MNHN, Museum National d'Histoire Naturelle, Paris; NMSL, National Museum, Colombo; WHT, Wildlife Heritage Trust of Sri Lanka, now in NMSL; and Zoologisches Museum der Humboldt-Universität, Berlin (ZMB). Osteological descriptions are based on two cleared and alizarin-stained specimens following the singe-staining method of Taylor & Van Dyke (1985). Osteological nomenclature follows Conway (2011) and Mo (1991).

Mystus nanus, new species (Fig. 1)

Macrones tengara (not Hamilton, 1822): Günther, 1864: 81, in part.

Hypselobagrus tengara (not Hamilton, 1822): Day, 1865b: 189, in part.

Macrones vittatus (not Bloch, 1794): Day, 1877: 448; Day, 1889: 160; Duncker, 1912: 38; Munro, 1955: 56; Mendis & Fernando, 1962: 103; Senanayake, 1980: 200.

Aoria vittatus (not Bloch, 1794): Deraniyagala, 1932: 283.

Mystus vittatus (not Bloch, 1794): Deraniyagala, 1952: 52; Mendis, 1954: 89; Pethiyagoda, 1991: 151; Goonatilake, 2007: 52; Pethiyagoda et al., 2008: 238; Ng & Pethiyagoda, 2013: 161.

Holotype. NMSL 2015.12.01.NH, 48.2 mm SL; Sri Lanka: Western Province: Colombo District: Bolgoda drainage, stream at Mawathgama, 6°49' N 80°00'E, 16 m asl; H. Sudasinghe, 30 Dec 2014.

Paratypes. NMSL 2015.13.01.NH, 2015.13.02. NH, 2015.13.03.NH, 3, 42.4-44.0 mm SL; DZ 3008, 3009, 3014, 3015, 3016, 3017, 6, 37.7-54.8 mm SL; same data as holotype. – DZ 3006, 3045, 2, 73.1-80.9 mm SL; Sri Lanka: North Western Province: Kurunegala District: Deduru Oya basin, stream Kolamunu Oya, 7°36'N 79°57'E, 26 m asl; H. Sudasinghe, 12 Jan 2015.

Other material. Identified but not measured. WHT 1880, 3, 83.4–99.3 mm SL; Sri Lanka: Puwakpitiya. – WHT 7740, 1, 74.6 mm SL; Sri Lanka: Kottawa, near Galle. – WHT 7741, 3, 60.2–76.2 mm SL; Sri Lanka: Ve-

liweriya, near Gampaha. – CAS 130152, 1, 85.8 mm SL; Sri Lanka: Peradeniya; A. W. Herre, 1934. – CAS 130153, 9, 82.4–106 mm SL; Sri Lanka: Colombo; A. W. Herre, Apr 1934.

Diagnosis. *Mystus nanus* is distinguished from all Indian and Sri Lankan species of *Mystus* except *M. bleekeri, M. carcio, M. tengara* and *M. vittatus* by possessing two distinct cream stripes along the entire length of the flank (vs. stripes absent on body). It differs from the four named striped species by the combination of the following characters: eye diameter (19–22 % HL); maxillary barbel extending up to or slightly beyond origin of anal fin; distal margin of dorsal fin rounded; adipose-fin base length 25.3–31.4 % SL; serrae along posterior margin of pectoral fin 9–12; sclera blackish grey in preserved specimens; and posterior cranial fontanelle ending about one eye-diameter anterior to the base of the supraoccipital process.

Description. For general appearance, see Figure 1; morphometric data are given in Table 1. Head depressed, dorsal profile uniformly ascending to dorsal-fin origin, flat to middle of adipose fin, sloping gently ventrad to posterior extremity of adipose fin, then rising gently to caudal-fin base; ventral profile flat or slightly convex to pelvic-fin origin, rising gently thereafter to caudal-fin base. Body moderately compressed anteriorly, strongly compressed posteriorly. Caudal peduncle wide, its depth 1.4–2.1 times in its length.

Bony elements of dorsal surface of head covered by thin skin. Eyes ovoid, horizontally elongate, dorsolaterally oriented on head. First branchial arch with 6+15 (2) long, slender gill rakers.

Mouth subterminal; upper lip fleshy, projected anteriorly slightly beyond lower jaw. Oral teeth small, villiform, in irregular rows. Premaxillary tooth band rounded, of equal width throughout. Tooth band on dentary slightly narrower than that on premaxillary, tapering laterally. Vomerine tooth band as wide as premaxillary band, its breadth at midline greater than that of premaxillary band.

Barbels in four pairs: maxillary barbel long, slender, extending to or slightly beyond anal-fin origin; nasal barbel short, slender, extending to vertical through base of pectoral spine; medial mandibular barbel slender, its origin close to midline, longer than nasal barbel, extending to vertical through posterior extremity of pectoral fin; lateral mandibular barbel originating posterolateral of



Fig. 1. Mystus nanus, about 70 mm SL; Sri Lanka: Kalu basin; in life, aquarium specimen, not preserved.

medial mandibular barbel, thicker, extending to vertical through middle of dorsal-fin base.

Dorsal fin with spinelet, spine and 7 (11) rays. Dorsal-fin origin anterior to mid-body, midway between origins of pectoral and pelvic fins. Dorsal-fin distal margin rounded, branched rays 2 and 3 longer than others. Dorsal-fin spine slightly more than half length of longest ray, straight, slender, smooth (9) or with its posterior edge bearing 3(1) or 4(1) indistinct serrations. Pectoral fin with stout spine and 6(1) or 7(10) branched rays, its anterior margin smooth, posterior margin with 9(1), 10(9) or 11(1) serrae along entire length. Pectoral-fin margin straight anteriorly, convex posteriorly. Pelvic-fin origin beneath vertical from posterior extremity of dorsal-fin. Pelvic fin with one unbranched and 5 branched rays (11), its anterior margin slightly convex, its tip when adpressed not reaching anal-fin origin. Anal-fin origin located beneath middle of adipose-fin base, its posterior margin not reaching beyond that of adipose fin. Anal fin with 4 unbranched and 7 branched rays (11). Caudal fin deeply forked, with i,7,7,i (1), i,7,8,i (1) or i,8,9,i (9) principal rays, upper lobe slightly longer than lower, both tips gently rounded; procurrent rays extending slightly anterior to medial fin base. Adipose fin originating about a half dorsal-fin base length (or slightly less) posterior to dorsal-fin base, base extending somewhat beyond vertical through base of last anal-fin ray (Fig. 2a).

Anus and urogenital openings positioned around middle of adpressed pelvic fin. Males with a distinct genital papilla of length subequal to eye diameter, reaching anal-fin base.

Anterior cranial fontanelle extending from posterior margin of mesethmoid to line through posterior orbital margins or ending just anterior to it. Posterior cranial fontanelle extending to within about an eye-diameter of base of poste-

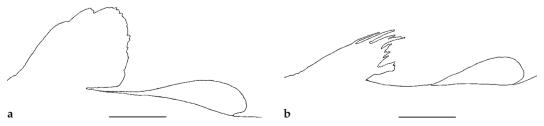


Fig. 2. Shape of adipose fin in: a, Mystus nanus, DZ 3006, 73.1 mm SL; and b, M. vittatus, MKC 425, 105.7 mm SL.

rior process of supraoccipital in adults (Fig. 3a). Supraoccipital process elongate, blunt-tipped, continuing to contact anterior nuchal plate. Vertebrae 35 (5 weberian, 9 precaudal and 21 caudal). Superior border of opercle even, not corrugated, lacking a projection (Fig. 4a). Dorso-median lamina of metapterygoid curved posteriorly, its tip rounded. Metapterygoid superior border with a process, anterior border without one (Fig. 4b). Posterior angle of posterior ceratohyal pointed. Suture of anterior and posterior ceratohyal corrugated. Anterior angle of ventral hypohyal blunt, with a process (Fig. 4c). Postero-median angle of basipterygium blunt, with a well-defined neck. Foramen of basipterygium absent; posterior bor-

der of basipterygium with a medially-projected spine (Fig. 4d).

Coloration. In 70 % ethanol: dorsal surface of head and body brownish gray. A dark spot composed of a dense aggregation of melanophores on nuchal-plate elements. Sclera blackish-gray. A diffuse gray humeral blotch present, about as high and twice as wide as eye diameter. A distinct black hypural blotch present, about as wide, or slightly wider than eye diameter, about two-thirds eye diameter in height. Body overall light brown laterally, with two distinct cream stripes of width about half eye diameter: first stripe originating anterior to dorsal-fin origin, above middle of

Table 1. Morphometric data for *Mystus nanus* (n=12; NMSL 2015.12.01.NH, NMSL 2015.13.01.NH, NMSL 2015.13.03.NH DZ 3006, DZ 3008, 3009, 3014, 3015, 3016, 3017, 3045), *M. vittatus* (n=4; MKC 425), and *M. tengara* (n=6; MKC 342). Standard deviation not given for measurements of fewer than three specimens. Holotype values included in range, mean and standard deviation. H, holotype.

| | M. nanus | | | M. vittatus | | M. tengara | |
|----------------------------------|----------|-----------|------------------|-------------|------------------|------------|-----------------|
| | Н | range | mean±s.d. | range | mean ± s.d. | range | mean ± s.d. |
| Standard length (mm) | 48.2 | 37.7-80.9 | | 85.9-115 | | 59.5-85.2 | |
| Percent of standard length | | | | | | | |
| Predorsal length | 38.7 | 37.1-39.7 | 38.1 ± 0.7 | 37.8-39.7 | 38.8 ± 1.0 | 36.5-39.5 | 38.2 ± 1.1 |
| Preanal length | 71.1 | 69.1-72.0 | 70.6 ± 0.9 | 70.4-72.5 | 71.3 ± 1.0 | 68.6-73.8 | 70.5 ± 1.9 |
| Prepelvic length | 50.5 | 50.5-53.1 | 51.5 ± 1.0 | 50.5-54.4 | 53.0 ± 1.9 | 48.6-53.4 | 50.6 ± 1.7 |
| Prepectoral length | 25.4 | 22.1-25.8 | 24.6 ± 1.1 | 22.4-24.4 | 23.3 ± 1.0 | 22.9-25.4 | 24.1 ± 1.2 |
| Dorsal-fin base length | 17.6 | 14.5-19.0 | 17.0 ± 1.3 | 15.0-15.7 | 15.3 ± 0.4 | 15.7-17.4 | 16.7 ± 0.7 |
| Dorsal-fin length | 26.6 | 24.4-29.7 | 27.8 ± 1.8 | 23.6-28.8 | 26.2 ± 2.6 | 26.2-26.5 | 26.4 ± 0.2 |
| Dorsal-spine length | 12.8 | 11.9-17.6 | 13.6 ± 1.7 | 10.7-12.8 | 12.1 ± 1.0 | 11.6-15.2 | 13.3 ± 1.2 |
| Anal-fin base length | 13.5 | 10.2-16.0 | 13.3 ± 1.7 | 11.0-11.1 | 11.1 ± 0.1 | 11.8-15.2 | 13.6 ± 1.7 |
| Pelvic-fin length | 14.9 | 12.6-17.8 | 15.4 ± 1.3 | 13.2-16.1 | 14.5 ± 1.3 | 14.8-17.3 | 15.6 ± 1.4 |
| Pectoral-fin length | 22.9 | 17.0-24.6 | 19.8 ± 2.3 | 18.9 | _ | 19.4-21.8 | 20.8 ± 1.3 |
| Caudal-fin length | 32.4 | 27.4-33.0 | 30.2 ± 1.8 | 28.5-31.4 | 29.6 ± 1.3 | 29.0-29.5 | 29.3 ± 0.4 |
| Adipose-fin base length | 25.3 | 25.3-31.4 | 28.6 ± 1.6 | 18.2-27.2 | 22.9 ± 4.6 | 20.8-29.5 | 26.8 ± 3.1 |
| Adipose fin maximum height | 6.6 | 5.1 - 7.8 | 6.7 ± 0.8 | 4.2 - 6.0 | 5.1 ± 0.8 | 4.6 - 6.1 | 5.3 ± 0.6 |
| Dorsal to adipose distance | 6.1 | 3.4 - 6.2 | 4.8 ± 0.9 | 7.3-16.8 | 12.1 ± 4.5 | 6.4 - 8.8 | 7.2 ± 1.2 |
| Post-adipose distance | 14.7 | 12.5-17.9 | 14.9 ± 1.5 | 15.6-17.3 | 16.3 ± 0.8 | 10.7-16.7 | 15.0 ± 2.3 |
| Caudal-peduncle length | 19.0 | 17.0-24.3 | 19.6 ± 2.0 | 15.5-19.8 | 18.1 ± 1.9 | 16.6-19.2 | 18.2 ± 1.0 |
| Caudal-peduncle depth | 12.1 | 9.8-13.3 | 11.9 ± 0.9 | 10.6-13.5 | 11.8 ± 1.3 | 10.4-11.7 | 10.8 ± 0.6 |
| Body depth at anus | 21.3 | 17.2-22.8 | 20.6 ± 1.4 | 17.8-23.2 | 20.2 ± 2.4 | 18.2-22.6 | 19.9 ± 1.6 |
| Head length | 29.8 | 26.8-31.3 | 29.2 ± 1.1 | 26.2-27.5 | 26.9 ± 0.6 | 27.0-29.0 | 27.8 ± 0.8 |
| Head width | 22.2 | 18.5-24.4 | 21.0 ± 1.7 | 18.1-21.7 | 19.7 ± 1.6 | 16.7-19.6 | 18.3 ± 1.0 |
| Head depth | 19.2 | 16.5-21.1 | 18.8 ± 1.1 | 16.4-18.4 | 17.5 ± 0.8 | 17.3-20.3 | 18.2 ± 1.1 |
| Percent of head length | | | | | | | |
| Snout length | 32 | 32-38 | 34.5 ± 2.4 | 34-37 | 35.0 ± 1.3 | 34-37 | 35.8 ± 1.3 |
| Interorbital width | 34 | 34-40 | 37.0 ± 1.7 | 35-38 | 36.4 ± 1.5 | 34-38 | 36.2 ± 1.4 |
| Eye diameter | 22 | 19-22 | 20.7 ± 1.1 | 17-19 | 17.9 ± 0.9 | 22-24 | 23.7 ± 0.7 |
| Nasal-barbel length | 50 | 39-69 | 55.1 ± 10.1 | 48-60 | 53.4 ± 5.0 | 68 | _ |
| Maxillary-barbel length | 223 | 223-251 | 234.0 ± 12.0 | 150-244 | 190.0 ± 39.0 | 311 | _ |
| Medial mandibular-barbel length | 39 | 39-83 | 71.2 ± 14.9 | 63-77 | 69.3 ± 6.5 | 63-100 | 81.8 ± 26.3 |
| Lateral mandibular-barbel length | 105 | 99-130 | 113.0 ± 11.0 | 95-104 | 99.0 ± 4.3 | 139-141 | 140.0 ± 1.6 |

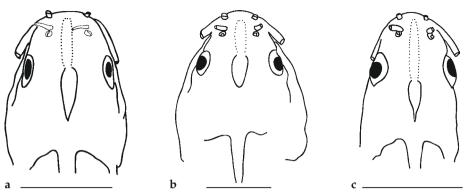


Fig. 3. Dorsal aspect of head, showing extents of anterior and posterior fontanelles of: a, Mystus nanus, DZ 3006, 73.1 mm SL; b, M. vittatus, MKC 425, 118.5 mm SL; and c, M. tengara, MKC 342, 65.9 mm SL. Scale bars 10 mm.

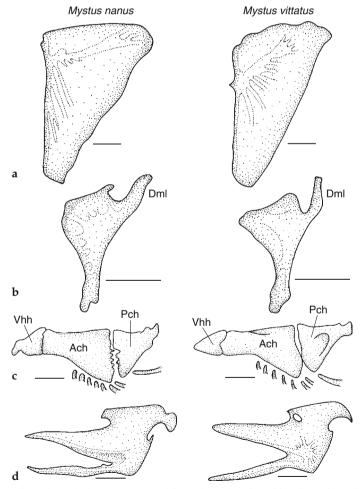


Fig. 4. a, Operculum (lateral view); **b,** metapterygoid (lateral view); **c,** hyoid bar (lateral view); **d,** basipterygium (dorsal view) of *Mystus nanus*, WHT 11094, 50.2 mm SL and *M. vittatus*, WHT 11089, 74.1 mm SL. **Ach,** anterior ceratohyal; **Dml,** dorso-median lamina; **Pch,** posterior ceratohyal; **Vhh,** ventral hypohyal. Scale bar 1 mm.

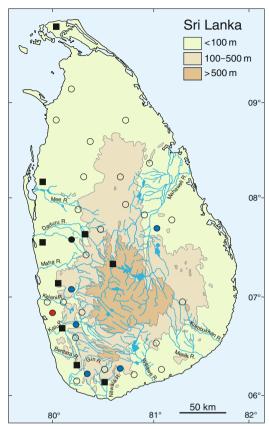


Fig. 5. Distribution of *Mystus nanus* in Sri Lanka: ●, specimens examined in this study (●, type locality); locations indicated by ■ Deraniyagala (1932), ● Pethiyagoda (1991), and ○ Senanayake (1980).

humeral blotch, extending distinctly to below mid-base of adipose-fin, then more or less faintly to above hypural blotch; second stripe originating beneath dorsal-fin origin, postero-ventral to humeral blotch, extending to beneath hypural blotch. Head and body ventrally cream. Adipose fin hyaline-gray, proximally darker. All rayed fins hyaline, with melanophores lightly scattered along margins of their rays and interradial membranes. Barbels dorsally gray, ventrally cream.

In life, color pattern as for preserved specimens, but overall body color light tan with two distinct cream stripes laterally (Fig. 1). Sclera and humeral blotch appearing silvery gray, hypural blotch black. All rayed fins hyaline, with scattered melanophores; a vague black spot on medial caudal-fin rays in males.

Distribution. Records from the literature (Deraniyagala, 1932; Senanayake, 1980; Pethiyagoda, 1991), examined museum specimens and our personal observations indicate that *M. nanus* is widely distributed in rivers and reservoirs up to about 500 m elevation throughout Sri Lanka (Fig. 5). The species appears to be abundant wherever it occurs.

Etymology. The specific epithet *nanus* is a masculine noun meaning "dwarf" in Latin, a reference to its diminutive size when compared with *M. vittatus*. The species has hitherto been generally known as the striped dwarf catfish (e.g., Mendis & Fernando, 1962; Senanayake, 1980; Pethiyagoda, 1991).

Discussion

Four species of striped Mystus are known from India, namely M. bleekeri, M. carcio, M. tengara and M. vittatus. Mystus nanus (Fig. 6a) is distinguished from M. vittatus (Fig. 6b) by its somewhat smaller maximum adult size (106, vs. 115 mm SL), greater horizontal eye diameter (19–22 % HL, vs. 17–19), blackish gray (vs. white) sclera in preserved specimens; hypural blotch more rounded, subequal to or greater in width than eye diameter (vs. more elongate, about twice eye diameter; see Fig. 2); distal margin of dorsal fin rounded (vs. triangular; see Fig. 2); a lesser distance between posterior extremity of dorsal-fin and adipose-fin origin (3.4-6.2 % SL, vs. 7.3-16.8); adipose-fin base usually longer (25.3-31.4 % SL, vs. 18.2-27.2); and posterior serrae on pectoral-fin spine 9-11 (vs. 16), though this difference could be due to the differences in size of the two series. Mystus nanus is further distinguished from M. vittatus by the following set of osteological characters: posterior cranial fontanelle in adults ending about an eyediameter short of base of supraoccipital process (vs. about $1\frac{1}{2}$ eye diameters or more from base of supraoccipital process; Fig. 3); superior border of opercle even (vs. uneven), not corrugated (vs. corrugated; Fig. 4a); dorso-median lamina of metapterygoid curved posteriorly (vs. curved anteriorly; Fig. 4b), its tip rounded (vs. acutely pointed; Fig. 4b); superior border of metapterygoid with (vs. without; Fig. 4b) a process; posterior angle of posterior ceratohyal pointed (vs. blunt Fig. 4c); suture between anterior and posterior ceratohyal



Fig. 6. a, *Mystus nanus*, NMSL 2015.12.01.NH, holotype, 48.2 mm SL; Sri Lanka: Mawathgama: Bolgoda drainage; **b,** *M. vittatus*, MKC 425; 115 mm SL; India: Tamil Nadu: Marshes in Porayar; and **c,** *M. tengara*, MKC 342, 65.9 mm SL; India, West Bengal, ponds in North 24 Parganas.



Fig. 7. a, Mystus keletius, lectotype, MNHN A-9011, 82.8 mm SL; India: Pondicherry; b, dorsal aspect of head showing extent of posterior cranial fontanelle.

corrugated (vs. straight; Fig. 4c); anterior angle of ventral hypohyal blunt (vs. pointed; Fig. 4c) with (vs. without) a process; postero-median angle of basipterygium blunt (vs. pointed; Fig. 4d), with a well-defined neck; foramen of basipterygium absent (vs. present; Fig. 4d); and posterior border of basipterygium with a medially projected spine (vs. spine absent).

Mystus nanus differs from M. tengara (Fig. 6c) by its smaller eye diameter (19–22 % HL, vs. 22–25); maxillary barbel extending only up to or slightly beyond anal-fin origin (vs. beyond posterior extremity of anal-fin); two (vs. three; see Fig. 6) light lateral stripes on the flank; hypural blotch present (vs. absent); and having the humeral blotch diffuse grey (vs. distinctly black) in preserved specimens.

Mystus nanus is distinguished from M. carcio by the presence (vs. absence) of a hypural blotch; having the humeral blotch diffuse grey in preserved specimens (vs. distinctly black); and having the adipose-fin base longer than (vs. shorter than or equal to) the dorsal-fin base. Mystus nanus is distinguished from M. bleekeri by its distinctly

shorter adipose-fin base and having the adpressed last dorsal-fin ray not overlapping (vs. distinctly overlapping) the adipose fin.

Mystus nanus is immediately distinguished from the three other species of Mystus known from Sri Lanka (M. ankutta, M. gulio and M. zeylanicus) by possessing two distinct light stripes on the side of the body (vs. stripes absent). It additionally differs from M. ankutta by having a more rounded hypural blotch (vs. hypural blotch sub-triangular); from M. gulio by having the adipose-fin base length greater than (vs. distinctly less than) the dorsal-fin base length; and from M. zeylanicus by its distinctly shorter adipose fin and having the adpressed last dorsal-fin ray not overlapping (vs. distinctly overlapping) the adipose fin.

It is necessary to address one further name that arguably threatens *M. nanus*, namely *M. keletius* (Valenciennes, in Cuvier & Valenciennes, 1840). This species was originally described from two syntypes, one from Pondicherry (now Puducherry, Tamil Nadu, India) and another from Java, Indonesia. Although Ng (2002) designated the Indian specimen (MNHN A-9011, 82.8 mm SL;

Fig. 7a) as lectotype, the identity of this species remains in doubt. Ng (2002) considered it to be a synonym of either M. armatus (Day, 1865a) or M. vittatus. Ferraris (2007) and Pethivagoda et al. (2008), however, considered it to be a synonym of M. vittatus. In any event, the lectotype of M. keletius is immediately distinguished from M. nanus by the extent of its posterior cranial fontanelle, which ends about one and half eve diameters or slightly more from the base of the supraoccipital process (see Fig. 7b), whereas in M. nanus the posterior cranial fontanelle ends about one eye diameter or slightly less from the base of supraoccipital process (Fig. 3b). The lectotype also differs from M. nanus by having the upper caudal-fin lobe distincly longer than the lower (vs. slightly longer in M. nanus) and having the sclera distinctly white (vs. blackish-grey in M. nanus), although this may be a consequence of different methods of preservation. We note, however, that this character is consistently present in all 29 specimens of M. nanus examined in this study, which have been preserved by different collectors over a period of eight decades. The lectotype of M. keletius also does not at present exhibit any distinct colour pattern: no lateral stripes are discernible. Indeed Ng (2002) too, probably observed no colour pattern, for he considered it could be M. vitattus, a striped species, or M. armatus, which is not striped. Interestingly, even in the orginal description, Valenciennes (in Cuvier & Valenciennes, 1840: 411) himself made no mention of stripes or any other coloration in M. keletius, noting only that its colours were "roughly the same" as M. cavasius (Hamilton, 1822), a species that lacks stripes. Thus, although the identity of M. keletius continues to be in doubt, it is clear that it is not conspecific with M. nanus.

It appears that the closest congener of *M. nanus* is *M. tengara*, type locality 'Ponds of India' (Hamilton, 1822). Darshan et al. (2013), based on D. D. Mukerji's analysis of Hamilton's manuscripts, gave Goalpara (Assam State) on the Brahmaputra River, a tributary of the Ganges, as Hamilton's collection locality of this species. They redescribed *M. tengara* based on a series of specimens from a wide range, including Assam, West Bengal, Bangladesh and Uttar Pradesh. Our characterization of this species, based on specimens from West Bengal, also in the Ganges basin, is entirely consistent with theirs. The identity of '*M. tengara*' in southern peninsular India, however, remains to be established: we think it likely that the species

identified as *M. tengara* in Tamil Nadu, India, is in fact *M. nanus*.

Based on casual inspection of fisheries catches, *M. nanus* is abundant throughout the streams, rivers and reservoirs of the Sri Lankan lowlands, up to about 500 m altitude; it does not appear to warrant conservation concern at present.

Comparative material. *Mystus ankutta*: WHT 7727, holotype, 77.2 mm SL; WHT 11, 2 paratypes, 68.9–78.4 mm SL; Sri Lanka: Kelani River drainage.

- M. bleekeri: MKC 52, 10, 102–133 mm SL; India: Tamil Nadu: Chembarampakkam lake.
- M. carcio: MKC 341, 6, 37.7-48.4 mm SL; India: West Bengal, ponds in Dhubulia.
- M. gulio: WHT 280, 2, 120–121 mm SL; India: Kotteyam fish market: Kerala.
- M. keletius: MNHN A-9011, lectotype, 82.8 mm SL; India: Pondicherry [Puducherry].
- M. tengara: MKC 342, 6, 59.5–85.2 mm SL; India: West Bengal, ponds in North 24 Parganas.
- M. vittatus: ZMB 2939, holotype, 81.2 mm SL; India:
 Tranquebar [Tharangambadi]. WHT 7738, 6, 67.2–82.7 mm SL; India: Tamil Nadu: Mammallapuram. MKC 425, 5, 85.7–119 mm SL; India: Tamil Nadu, Tharangambadi Taluk, Nagapattinam, Marshes in Porayar.
- M. zeylanicus: CAS-SU 30150, 1, 107 mm SL; Sri Lanka: North Western Province: Galatabendiyawa, Nika-weratiya; CAS-SU 68938, 1, 92.8 mm SL; Sri Lanka: Western Province: Yakkala. – WHT 1011, 1, 48.6 mm SL; Sri Lanka: Western Province: Kelani river drainage: Wak oya.

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Cover photograph Nothobranchius streltsovi (Photograph by Sergey Torgashev) Stefano Valdesalici (this volume pp. 153–161)

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