

Dawkinsia uttara, a new species of filament barb (Teleostei: Cyprinidae) from the Western Ghats of India

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Abstract

A new species of filament barb of the genus *Dawkinsia* is described from upstream regions of west-flowing Kajali, Jagabudi and Terekhol river systems in the Konkan region of northern Western Ghats, India. The new species, *Dawkinsia uttara* is sister species of the widely distributed *D. filamentosa*. *Dawkinsia uttara* is diagnosed from its sister species, and other close congeners by a combination of characters including: 21 lateral-line scales; 4½ scales between dorsal-fin origin and lateral-line scale row; terminal mouth; posterior termination of the upper lip ending anterior to level of posterior nostril; cleithral spot small, confined to the scale below the first scale of lateral-line; no or miniscule maxillary barbels; caudal-peduncle blotch short, oval, covering 14th to 17th scales of lateral-line, and a unique colour pattern of caudal fin with a narrow elongate black subdistal band having maximum width of about one third of eye diameter covering the lateral margin of tips of caudal-fin lobes. Further, *D. uttara* differs from its sister taxon, *D. filamentosa* and other congeners by a raw genetic distance ranging from 2.1–19.7% in partial cox 1, and 3.2–21.6% in partial cyt b genes.

Key words

Dawkinsia filamentosa, freshwater fish, integrative taxonomy, Smiliogastrinae.

Introduction

Filament barb of the genus *Dawkinsia* Pethiyagoda, Meegaskumbura & Maduwage, 2012 (Cyprinidae: Smiliogastrinae), are medium-sized (80–120 mm standard length, SL) freshwater fishes confined largely to the Western Ghats-Sri Lanka biodiversity hotspot (PETHIYAGODA *et al.*, 2012), where they contribute to small-scale subsistence fisheries (MAITRA *et al.*, 2018), and are wild-collected for the aquarium trade (RAGHAVAN *et al.*, 2013). Currently, the genus *Dawkinsia* comprises 12 valid species distributed across peninsular India (including the Western and Eastern Ghats) and Sri Lanka (KATWATE *et al.*, 2020).

Filament barb has been subject to several recent taxonomic treatments (PETHIYAGODA & KOTTELAT, 2005; REMA DEVI *et al.*, 2010; PETHIYAGODA *et al.*, 2012; KATWATE *et al.*, 2020). In a recent study, using a combined morphological and molecular approach ('integrative taxonomy'), we described three new species within this genus, and suggested the possibility of the presence of an undescribed species in the rivers of the northern Western Ghats (KATWATE *et al.*, 2020). Based on morphological and genetic information, we describe this species here as *Dawkinsia uttara*.

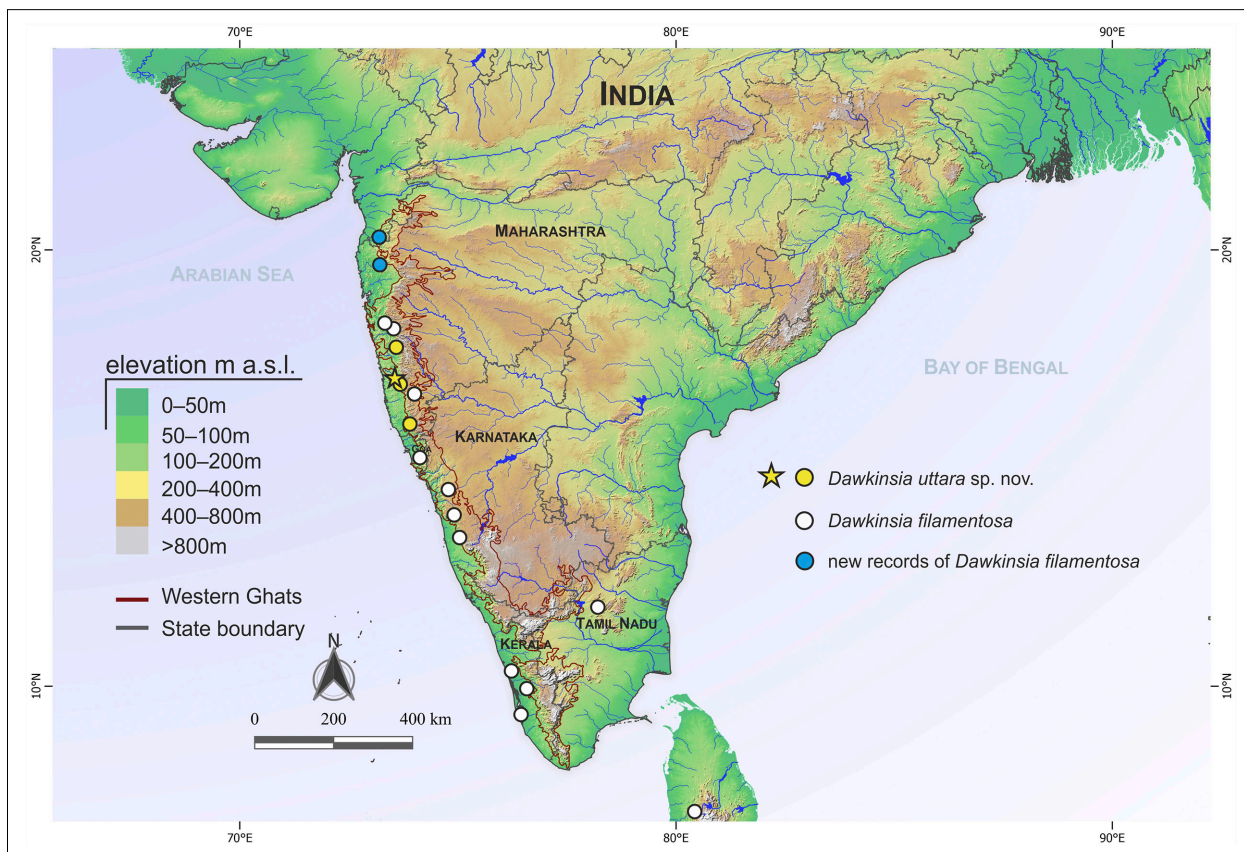


Fig. 1. Map of collection localities of *Dawkinsia uttara* and its sister species *D. filamentosa*. Star indicates type locality of *D. uttara*.

Materials and methods

Study site, sampling and voucher details

Type series of the new species was collected from the upstream regions of the west-flowing Kajali, Jagabudi and Terekhol river systems in the Konkan region of Maharashtra, India (Fig. 1). Fish specimens were photographed in the field immediately after capture and after preservation. Photographs were taken using a Canon Digital Single-Lens Reflex (DSLR) camera system and 100 mm macro lens following the methods described by SABAJPÉREZ (2009). Representative specimens collected were anesthetized using clove oil, fixed in 10% formalin and transferred to 70% ethanol for permanent storage at the museum collections of the Bombay Natural History Society (BNHS), Mumbai, India, and the Kerala University of Fisheries and Ocean Studies (KUFOS), Kochi, India. Details of the comparative materials examined are listed in the ‘Materials Examined’ section.

Morphology and morphometry

Measurements were taken point-to-point to the nearest 0.1 mm using Mitutoyo® CD-15CPX dial callipers. Methods of measurements and counts, and the principal colour patterns mentioned in the description follow KAT-

WATE *et al.* (2018) and KATWATE *et al.* (2020). Length is provided as standard length (SL). Body depth was measured at dorsal-fin origin. Head length includes the skin flap on the opercle. The number of lateral-line scales was counted up to the last perforated scale and includes one perforated scale on the caudal-fin base, which is unlike the way most other authors count these scales, but consistent with Katwate *et al.* (2020). The number of scales in a transverse row were counted from lateral-line scale row to dorsal fin origin, and from lateral-line scale row to pelvic fin origin. The length of the caudal-fin lobes was measured from the tip of the shortest middle caudal-fin ray to the tip of each lobe. Although the last two branched fin rays in the dorsal and anal fins are separate fin rays, they were counted as a single ray because they articulate with the same pterygiophore. Supernumerary rays were counted under transmitted light. Sex of all mature individuals was determined from secondary sexual characters: coloration, presence or absence of nuptial tubercles, and of the filamentous extensions of the first five branched dorsal-fin rays. In the species description, values in parentheses after a count represent the frequency of that count.

Genetic analysis

The genetic analysis was based on the dataset published in KATWATE *et al.* (2020), supplemented by additional se-

quences retrieved from GenBank. The sequences for the new species were derived from specimens with voucher number, BNHS FWF 725, 726 & 730 (KATWATE *et al.*, 2020). Details of specimens and GenBank accession numbers used are provided in Table 2. Pairwise distances of the cytochrome oxidase subunit 1 (cox 1) and cytochrome *b* (cyt *b*) sequences were estimated using MEGA ver. 7 (KUMAR *et al.*, 2016).

Results

Dawkinsia uttara, sp. nov.

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Fig. 2A–C, 3A–B, 4A, 5A–B and Table 1

Holotype. BNHS FWF 723, 69.8 mm SL, male; India: Maharashtra: Ratnagiri District: Kajali River, Shiposhi, 16°55'07.27"N, 73°37'59.39"E, 54 m a.s.l., coll. U. Katwate, R. Pawar and V. Shinde, 03rd June 2012.

Paratypes (n = 7). BNHS FWF 720–722, 3, 70.5–92.4 mm SL; India: Maharashtra: Ratnagiri District: Jagabudi River, Bijaghar, Khed, 17°41'35.53"N, 73°32'47.15"E, 85 m a.s.l., coll. U. Katwate, N. Dahanukar, M. Paingankar, A. Ali, P. Kumkar and R. Britz, 22nd March 2014; BNHS FWF 724–726, 3, 71.0–72.0 mm SL, same data as holotype; BNHS FWF 730, 1, 28.9 mm SL; India: Maharashtra: Sindhudurg District: Terekhol River, Madkhol, 15°55'41.76"N, 73°52'51.71"E, 42 m a.s.l., coll. U. Katwate, N. Dahanukar and M. Paingankar, 23rd August 2013.

Diagnosis. *Dawkinsia uttara* differs from its closest congener, *D. filamentosa*, by having a terminal (vs. subterminal) mouth, posterior corner of upper lip ending anterior to level of posterior nostril, with mouth closed as in Fig. 5A–B (vs. posterior termination of upper lip reaching beneath level of posterior nostril, Fig. 5C–D) and caudal fin with narrow elongate black subdistal band having maximum width of about one third of eye diameter covering the lateral margin of tips of caudal-fin lobes (vs. a broad elongate black subdistal band with maximum width of about eye diameter extending across middle of caudal-fin lobes). The new species differs from *D. arulius*, *D. rohani*, *D. rubroincta*, *D. srilankensis* and *D. tambraparniei*, by having a narrow elongate black subdistal band on caudal-fin lobes (vs. subdistal band absent) (see Fig. 4A), and by having only a caudal-peduncle blotch (vs. anterior and posterior dorsal blotches or bands in front of caudal-peduncle blotch in *D. arulius*, *D. rubroincta*, *D. srilankensis* and *D. tambraparniei*). *Dawkinsia uttara* differs from *D. crassa* by having 4½ scales between lateral-line scale row and dorsal-fin origin (vs. 5½ scales) and presence of cleithral spot (vs. cleithral spot absent), and from *D. exclamatio* by a short, oval caudal-peduncle blotch covering the 14th to 17th scales of the lateral line (vs. blotch elongated, covering 13th to 20th lateral-line scales). *Dawkinsia uttara* also differs from *D. apsara* by lacking the *kaadige* blotch (vs. *kaadige* blotch present,

broad, extending over infraorbital and opercular bones) and snout in adult males deep olive (vs. scarlet), in life no additional pigment on lateral-line scale row (vs. presence of deep scarlet spots arranged in line running along lateral-line scale row) and a short, oval caudal-peduncle blotch covering 14th to 17th lateral-line scales (vs. blotch elongated, covering 14th to 20th lateral-line scales). Furthermore, *D. uttara* differs from *D. assimilis*, *D. austellus* and *D. lepida* by having a terminal mouth (vs. inferior mouth), short or no barbels, not reaching the anterior margin of eye (vs. long barbels reaching anterior margin of eye), 2 (vs. 3) supernumerary dorsal-fin rays and a short, oval caudal-peduncle blotch covering 14th to 17th lateral-line scales (vs. blotch elongated, covering 14th to 18th lateral-line scales)

Description. For general shape and appearance see Figs. 2A–C and 3A–B. Morphometric and meristic data for the holotype and seven paratypes are provided in Table 1.

Body elongate, compressed, deep, its standard length 2.8–3.2 times body depth; pre-dorsal contour straight, slightly humped posterior to nape, steadily rising to dorsal-fin origin, thereafter running ventrad towards caudal-fin base (Fig 2A–C and 3A–B); ventral profile convex, rounded up to base of anal fin, thereafter sloping up sharply up towards caudal-fin base. Snout length nearly equal (0.9–1.1 times) to eye diameter and less than (0.7–0.9 times) interorbital width. Eye small, mid-laterally positioned, much closer to snout tip than posterior margin of operculum, diameter 0.6–1.1 times interorbital width. Mouth small, terminal, U-shaped in ventral aspect; jaws covered by thick dermal sheath. Lips smooth, fleshy, not interrupted, posterior termination of upper lip ending anterior to level of posterior nostril (Fig. 5A–B). Rostral fold present, overhanging posterior part of upper lip, lower lip fleshier than upper, folded backwards, resulting in continuous postlabial groove, thinning medially. Nuptial tubercles prominent in mature males, scattered across snout. Maxillary barbel miniscule (1) or absent (7) (Fig. 5A–B).

Dorsal fin originating over seventh lateral-line scale, one scale-width anterior to pelvic-fin origin, closer to tip of snout than to base of caudal peduncle; length of dorsal-fin rays with longest filamentous extension 0.9–1.6 times head length, distal margin of dorsal fin concave, extending beyond vertical line through origin of anal fin. Dorsal fin with 2 supernumerary and one serially-associated unbranched ray and 8 branched rays, 2nd to 5th branched rays with filamentous elongations reaching middle of caudal peduncle in mature males. Pectoral fin with one simple and 13(3) to 14(5) branched rays. Pectoral and pelvic fins short, when adressed not reaching pelvic-fin origin. Anal fin with 2 supernumerary and one serially associated unbranched rays and 5 branched fin rays; distal margin of anal fin deeply concave. Caudal peduncle deep, its depth 68.2–81.2% of its length. Lateral-line complete, with 21 perforated scales, curving ventrad up to 13th scale, with ventral-most point of curvature at 6th scale, then proceeding almost straight to middle of

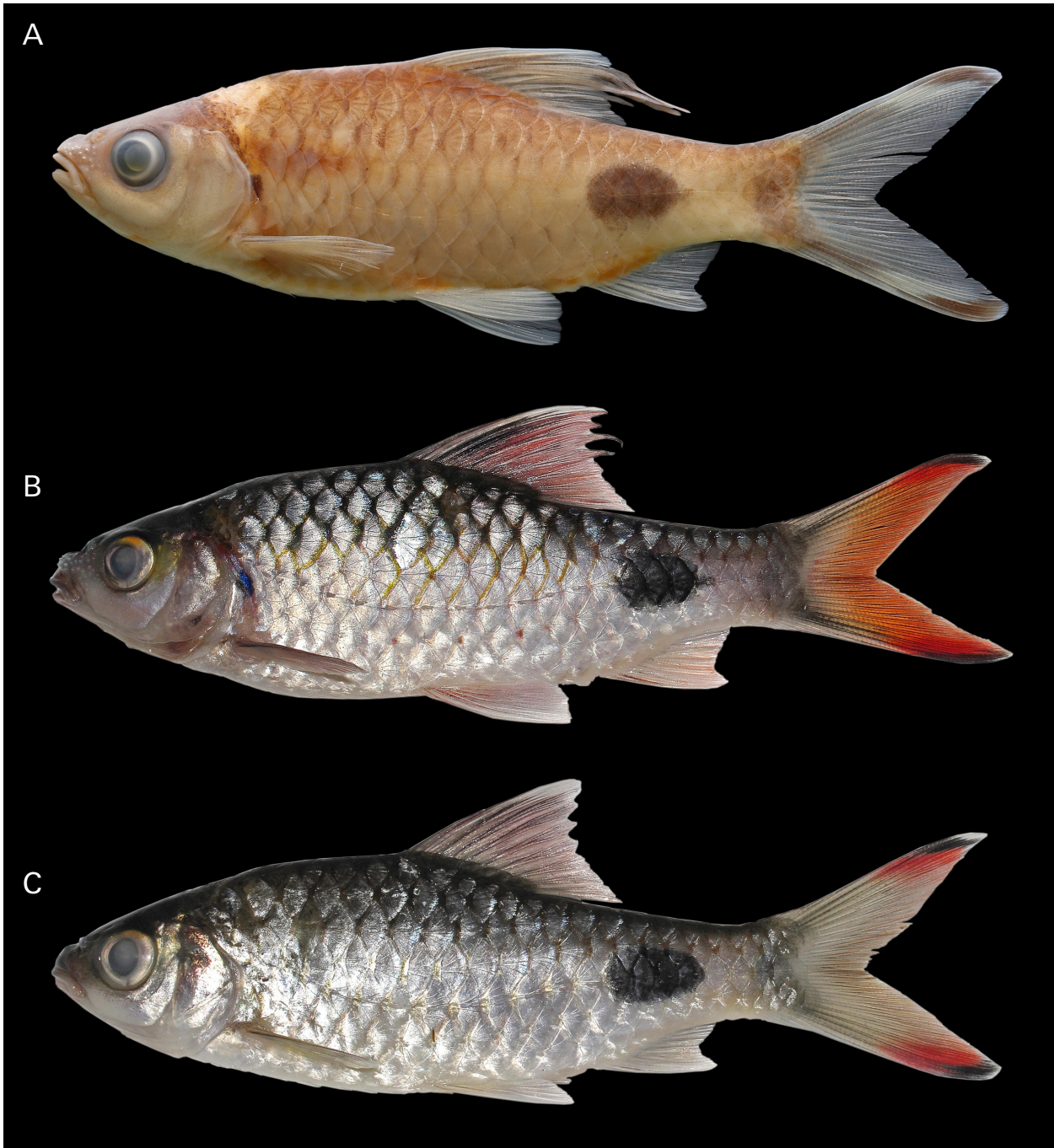


Fig. 2. *Dawkinsia Uttara*, in preservative: (A) holotype, male, BNHS FWF 723, 69.8 mm SL and shortly after collection (B) paratype, male, BNHS FWF 724, 72.0 mm SL, (C) paratype, female, BNHS FWF 725, 72.0 mm SL.

caudal-fin base. Caudal fin deeply forked, each lobe two-thirds of total fin length, tips pointed. Principal caudal-fin rays 9+8(8); procurrent rays dorsally 5(1) or 6(7) and ventrally 5(8). Scales between lateral line and dorsal-fin origin 4½(8); scales between lateral line and pelvic fin origin 2½(8); pre-dorsal scales 7(3) or 8(5); pre-pelvic scales 10(8); pre-anal scales 14(3) or 16(5); circum-peduncular scales 12(8). Pelvic-fin ‘axillary’ scale present, half the length of adpressed pelvic fin.

Coloration. Adult specimens in formalin with snout, head and dorsum brown, lower lip white, infraorbital re-

gion, cheek and opercle sparsely studded with melanophores; lower head, chest, and abdomen uniformly white (Figs. 2A and 3B). Iris white. Cleithral spot small, confined to scale below first scale of lateral line. Each body scale studded with sparsely arranged melanophores near anterior base. A short oval horizontally-elongate caudal-peduncle blotch, one scale high at its highest point, originating posterior to anal-fin origin, covering 14th to 17th lateral-line scales, its length not exceeding length of longest anal-fin ray. Dorsal fin hyaline, with dusky filamentously elongated 2nd to 5th branched rays in mature males. Pectoral, pelvic and anal fins hyaline. Caudal fin



Fig. 3. *Dawkinsia Uttara* in life (A) paratype, male, BNHS FWF 720, 70.5 mm SL and in preservative (B) paratype, male, BNHS FWF 721, 92.4 mm SL, collected from Jagabudi River, Maharashtra, India.

hyaline, with narrow elongate black subdistal band having maximum width of about one-third of eye diameter covering lateral margin of tips of caudal-fin lobes, proximally bordered in white towards middle of tip of each caudal-fin lobe; caudal fin tips white.

Freshly preserved (Fig. 2B–C) and in life (Fig. 3A), olive to bright yellow on margins of iridescent-white scales above lateral line, darker on dorsal surface of head and body. Cleithral spot iridescent blue, confined to scale below first lateral-line scale. Iridescence over opercle and cheek. Snout deep olive. Iris bright yellow in mature males. Dorsal fin reddish, first two branched rays with black tinge. Pectoral, pelvic and anal fins hyaline. Caudal fin deep red in mature males, with a narrow elongate black subdistal band having maximum width of about one-third eye diameter covering lateral margin caudal-fin lobe tips, proximally bordered in red band towards middle of tips. Caudal-fin tips hyaline. Caudal-peduncle blotch as described for preserved specimens.

Genetic distances. *Dawkinsia Uttara* phylogenetically belongs to the “filamentosa” species group (KATWATE *et al.*, 2020), and differs from *D. filamentosa*, its closest congener, by a raw genetic distance ranging from 2.1–3.0% in the partial cox 1, and 3.2–3.8% in the partial cyt *b* genes. Furthermore, the new species differs from its other congeners by a raw genetic distance ranging from 2.1–19.7% in partial cox 1, and 3.2–21.6% in partial cyt *b* genes (Table 2).

Etymology. The species is named for Uttara Katwate, the first-author’s mother (Uttara pronounced as ‘uttarā’). In Sanskrit, Pali, Hindi and Marathi, ‘uttara’ is also a feminine adjective meaning ‘northern’, applied here to distribution of the species in the northern Western Ghats. A noun in apposition.

Common name. Northern Filament Barb.

Table 1. Morphometric and meristic data of *Dawkinsia uttara* sp. nov. and *Dawkinsia filamentosa* collected across the Western Ghats range.

| Characters | <i>D. uttara</i> | | | | <i>D. filamentosa</i> | | | | | |
|--|------------------|---------------------------------|------------|---------------------------------|-----------------------|-------------|---|------------|--|-----------|
| | Holotype | Paratypes (> 50.0 mm SL, n = 6) | | Paratypes (< 50.0 mm SL, n = 1) | Topotypes (n = 7) | | Additional material (>50.0 mm SL, n = 18) | | Additional material (<50.0 mm SL, n = 7) | |
| | | Mean (sd) | Range | | Mean (sd) | Range | Mean (sd) | Range | Mean (sd) | Range |
| Morphometrics | | | | | | | | | | |
| Total length (mm) | 90.3 | 98.8 (11.1) | 92.2–120.7 | 32.7 | 112.1 (7.0) | 104.0–120.2 | 103.2 (12.9) | 86.7–132.9 | 38.3 (4.3) | 32.1–44.3 |
| Standard length (SL, mm) | 69.8 | 76.0 (8.6) | 70.5–92.4 | 28.9 | 87.1 (5.5) | 80.4–92.7 | 79.8 (10.6) | 65.9–101.6 | 30.8 (3.2) | 26.8–34.4 |
| %SL | | | | | | | | | | |
| Head length (HL) | 28.7 | 28.0 (2.1) | 25.3–31.1 | 33.9 | 27.1 (1.0) | 26.0–28.8 | 26.4 (1.2) | 24.7–28.6 | 32.2 (1.3) | 30.4–34.6 |
| Post-orbital head length | 12.7 | 12.0 (0.5) | 11.5–12.6 | 13.7 | 12.1 (0.6) | 11.3–13.0 | 11.6 (0.7) | 10.6–13.6 | 12.6 (0.4) | 11.9–13.2 |
| Head depth | 22.8 | 21.2 (0.8) | 19.9–22.1 | 23.5 | 21.1 (0.9) | 20.1–22.3 | 20.8 (0.9) | 19.5–22.8 | 24.0 (1.2) | 22.2–25.7 |
| Head width | 16.3 | 16.3 (0.9) | 15.3–17.8 | 14.6 | 15.6 (0.7) | 14.6–16.6 | 14.9 (0.8) | 13.5–16.9 | 16.6 (0.6) | 15.6–17.3 |
| Body depth | 33.8 | 34.1 (1.4) | 32.0–36.2 | 31.2 | 34.6 (1.8) | 31.8–37.7 | 35.2 (1.9) | 32.0–38.0 | 34.7 (1.7) | 32.0–36.4 |
| Body width at dorsal-fin origin | 15.6 | 15.6 (1.5) | 13.6–17.3 | 9.9 | 15.4 (2.0) | 11.9–17.9 | 14.5 (2.2) | 12.0–19.3 | 12.5 (1.2) | 11.2–14.1 |
| Body width at anal-fin origin | 12.2 | 11.3 (1.7) | 9.2–13.2 | 7.7 | 11.0 (1.3) | 8.9–12.8 | 10.3 (2.0) | 7.6–14.9 | 9.2 (1.0) | 8.1–10.9 |
| Pre-dorsal distance | 46.9 | 46.8 (2.0) | 45.2–50.5 | 47.6 | 46.6 (1.4) | 43.9–48.2 | 45.5 (2.4) | 42.0–50.4 | 48.7 (1.0) | 46.8–50.2 |
| Post-dorsal distance | 83.9 | 84.3 (3.0) | 81.1–89.7 | 67.1 | 83.0 (1.8) | 80.5–85.2 | 85.4 (4.4) | 74.9–93.3 | 79.4 (5.2) | 71.3–88.0 |
| Dorsal to hypural distance | 55.7 | 55.8 (2.1) | 53.1–58.4 | 50.0 | 55.5 (1.1) | 54.2–57.4 | 55.8 (3.6) | 44.1–60.1 | 53.2 (1.9) | 49.8–56.0 |
| Pre-pelvic distance | 49.9 | 49.8 (1.9) | 48.2–53.3 | 53.5 | 49.9 (0.7) | 48.6–50.9 | 51.1 (9.3) | 45.6–88.6 | 52.8 (1.2) | 51.0–54.7 |
| Pre-anal distance | 72.5 | 71.6 (1.5) | 69.6–74.0 | 72.2 | 72.5 (1.0) | 70.8–73.7 | 71.8 (2.3) | 68.7–79.4 | 72.8 (1.1) | 71.5–74.6 |
| Pre-pectoral distance | 27.5 | 27.8 (2.0) | 25.0–31.2 | 30.0 | 27.2 (0.9) | 26.1–28.5 | 27.6 (5.6) | 24.9–50.3 | 30.5 (2.8) | 26.5–33.5 |
| Length of last unbranched dorsal fin-ray | 28.5 | 27.0 (1.7) | 25.6–29.8 | 29.8 | 26.0 (2.3) | 23.2–29.9 | 26.8 (1.8) | 23.5–30.2 | 29.6 (1.1) | 27.8–30.8 |
| Length of dorsal fin rays with longest filamentous elongations | 40.9 | 32.9 (6.2) | 25.6–39.4 | 29.8 | 38.3 (11.5) | 24.8–51.7 | 31.0 (6.0) | 26.0–46.6 | 29.6 (1.1) | 27.8–30.8 |
| Length of dorsal-fin base | 18.0 | 18.7 (1.0) | 17.3–19.8 | 18.9 | 18.1 (1.4) | 15.9–19.8 | 18.5 (0.9) | 16.6–19.9 | 16.5 (1.6) | 13.6–18.4 |
| Pectoral-fin length | 22.3 | 21.6 (1.1) | 20.3–23.0 | 19.1 | 20.8 (0.4) | 20.2–21.3 | 21.0 (1.4) | 19.1–24.1 | 20.3 (2.8) | 14.5–23.8 |
| Anal-fin depth | 18.5 | 17.4 (0.6) | 16.6–18.2 | 15.7 | 16.4 (0.7) | 15.3–17.3 | 17.8 (2.3) | 10.5–21.4 | 16.3 (2.3) | 12.4–18.9 |
| Caudal-peduncle length | 17.1 | 18.6 (0.7) | 17.1–19.1 | 15.4 | 18.9 (1.6) | 16.7–20.6 | 18.3 (1.6) | 15.8–21.3 | 16.8 (1.4) | 14.7–18.8 |
| Caudal-peduncle depth | 13.4 | 13.2 (0.5) | 12.7–13.9 | 12.5 | 13.6 (0.6) | 12.6–14.5 | 13.2 (0.4) | 12.5–14.0 | 13.7 (0.4) | 13.1–14.2 |
| % HL | | | | | | | | | | |
| Post-orbital head length | 44.4 | 43.1 (2.1) | 39.4–45.3 | 40.5 | 44.7 (1.5) | 43.0–47.1 | 44.0 (2.2) | 41.3–47.6 | 39.3 (2.1) | 36.5–41.7 |
| Head depth | 79.5 | 76.1 (5.0) | 69.8–83.0 | 69.3 | 78.1 (3.9) | 73.1–84.8 | 78.8 (2.2) | 74.4–83.7 | 74.7 (4.7) | 67.0–80.1 |
| Head width | 56.7 | 58.1 (1.3) | 57.0–60.4 | 43.2 | 57.6 (1.9) | 54.1–59.8 | 56.6 (2.8) | 52.3–62.7 | 51.7 (2.3) | 48.1–53.9 |
| Snout length | 28.1 | 30.0 (1.2) | 28.3–31.0 | 29.1 | 28.4 (2.0) | 26.3–31.5 | 28.6 (1.2) | 26.0–30.5 | 28.7 (2.5) | 24.2–31.4 |
| Eye diameter | 30.9 | 27.9 (1.2) | 26.1–29.8 | 33.1 | 27.9 (2.5) | 24.8–31.3 | 29.6 (2.1) | 26.3–33.4 | 34.8 (2.3) | 31.6–37.8 |
| Internarial width | 22.2 | 21.3 (3.2) | 18.0–25.5 | 16.6 | 23.3 (1.7) | 21.3–25.5 | 21.8 (1.8) | 18.2–26.1 | 18.9 (1.8) | 15.7–20.7 |
| Inter orbital width | 38.1 | 39.3 (3.7) | 33.7–43.5 | 29.7 | 40.0 (1.9) | 36.4–42.0 | 39.6 (1.7) | 36.0–42.8 | 33.9 (2.6) | 29.6–36.4 |
| Maxillary barbel length | — | 0.2 (0.5) | 0.0–1.2 | — | 7.3 (2.0) | 3.1–9.1 | 1.1 (1.4) | 0.0–3.6 | 0.9 (2.3) | 0.0–6.0 |

Table 1 continued.

| Characters | <i>D. uttara</i> | | | <i>D. filamentosa</i> | | |
|----------------------------|------------------|---------------------------------------|---------------------------------------|-----------------------|--|---|
| | Holotype | Paratypes (> 50.0 mm SL, n = 6) | Paratypes (< 50.0 mm SL, n = 1) | Topotypes (n = 7) | Additional material (> 50.0 mm SL, n = 18) | Additional material (< 50.0 mm SL, n = 7) |
| | | Mean (sd) | Range | Mean (sd) | Range | Mean (sd) |
| Meristics | | | | | | |
| Lateral line series scales | 21 | | 21 | | 23–24 | |
| Transverse row scales | 4½/1/2½ | | 4½/1/2½ | | 4–4½/1/2½ | 21–22 |
| Pre-dorsal scales | 8 | | 7–8 | | 7–8 | 4–4½/1/2½ |
| Pre-pelvic scales | 10 | | 10 | | 10 | 7–8 |
| Pre-anal scales | 16 | | 16 | | 16–17 | 10–11 |
| Circumpeduncular scales | 12 | | 12 | | 12 | 16–17 |
| Dorsal-fin ray | ii-i-8 | | ii-i-8 | | ii-i-8 | 12 |
| Pectoral-fin ray | i-13 | | i-13–14 | | i-13–14 | ii-i-8 |
| Pelvic-fin ray | i-8 | | i-8 | | i-8 | i-13–14 |
| Anal-fin ray | ii-i-5 | | ii-i-5 | | ii-i-5 | i-8 |
| Caudal-fin ray (procurent) | 6+5 | | 5–6+5 | | 5–6+6 | ii-i-5 |
| Caudal-fin ray (principal) | 9+8 | | 9+8 | | 8–9+8 | 5–6+6 |

Distribution. *Dawkinsia uttara* is known from the upper reaches of the west-flowing Kajali, Jagabudi and Terekhol rivers of Maharashtra, in the northern Western Ghats of India (Fig. 1).

Habitat and ecology. *Dawkinsia uttara* occurs in the main river channel, in small adjoining streams, side channels with sluggish water current, as well as large natural ponds along the riverbank, with substrates of mud, sand, large boulders and gravel (Fig. 7). Co-occurring species at the collection localities of *D. uttara* included the cyprinids *Devario malabaricus*, *Rasbora dandia*, *Haludaria* sp., *Hypselobarbus* sp., *Pethia punctata*, *P. setnai* and the bagrid *Mystus malabaricus*.

Discussion

Currently the genus *Dawkinsia* comprises twelve valid species: *D. apsara* Katwate, Knight, Anoop, Raghavan & Dahanukar, 2020, *D. arulius* (Jerdon, 1849), *D. assimilis* (Jerdon, 1849), *D. austellus* Katwate, Knight, Anoop, Raghavan & Dahanukar, 2020, *D. crassa* Katwate, Knight, Anoop, Raghavan & Dahanukar, 2020, *D. exclamatio* (Pethiyagoda & Kottelat, 2005), *D. filamentosa* (Valenciennes, 1844), *D. lepida* (Day, 1868), *D. rohani* (Rema Devi, Indra & Knight, 2010), *D. rubrotincta* (Jerdon, 1849), *D. srilankensis* (Senanayake, 1985) and *D. tambraparniei* (Silas, 1954). With the description of *D. uttara*, the number of valid species of *Dawkinsia* is now 13, of which 11 are endemic to rivers originating in the Western Ghats of India, while *D. filamentosa* is widely distributed across the Western and Eastern Ghats of India, and Sri Lanka, and *D. srilankensis* is endemic to Sri Lanka.

In our recent study (KATWATE *et al.*, 2020), we observed *D. filamentosa* to be the most widely distributed species across the Western Ghats and Sri Lanka. The northernmost record of *D. filamentosa* was the Kal River of Raigad District, a major tributary of the west-flowing Savitri River, south of the city of Mumbai. In the present study, we also provide new records of *D. filamentosa* from the west-flowing Vaitarana and Daman Ganga river, which further extends the distribution range for this widely distributed species, by approximately 230 km north of Mumbai. The population previously identified as *D. filamentosa* from the Jagabudi River of Ratnagiri District (BNHS FWF 720–722 is now identified as *D. uttara*.

An important character that distinguishes *D. uttara* from its congeners is the shape and position of the elongate black subdistal band on the caudal fin lobes. In *D. arulius*, *D. rohani*, *D. rubrotincta*, *D. srilankensis* and *D. tambraparniei*, this band is absent, whereas in *D. exclamatio* it is greatly reduced, having a maximum width of about one-fourth of eye diameter, restricted to the region of the lateral margin of the caudal-fin lobe tips (Fig. 4D).

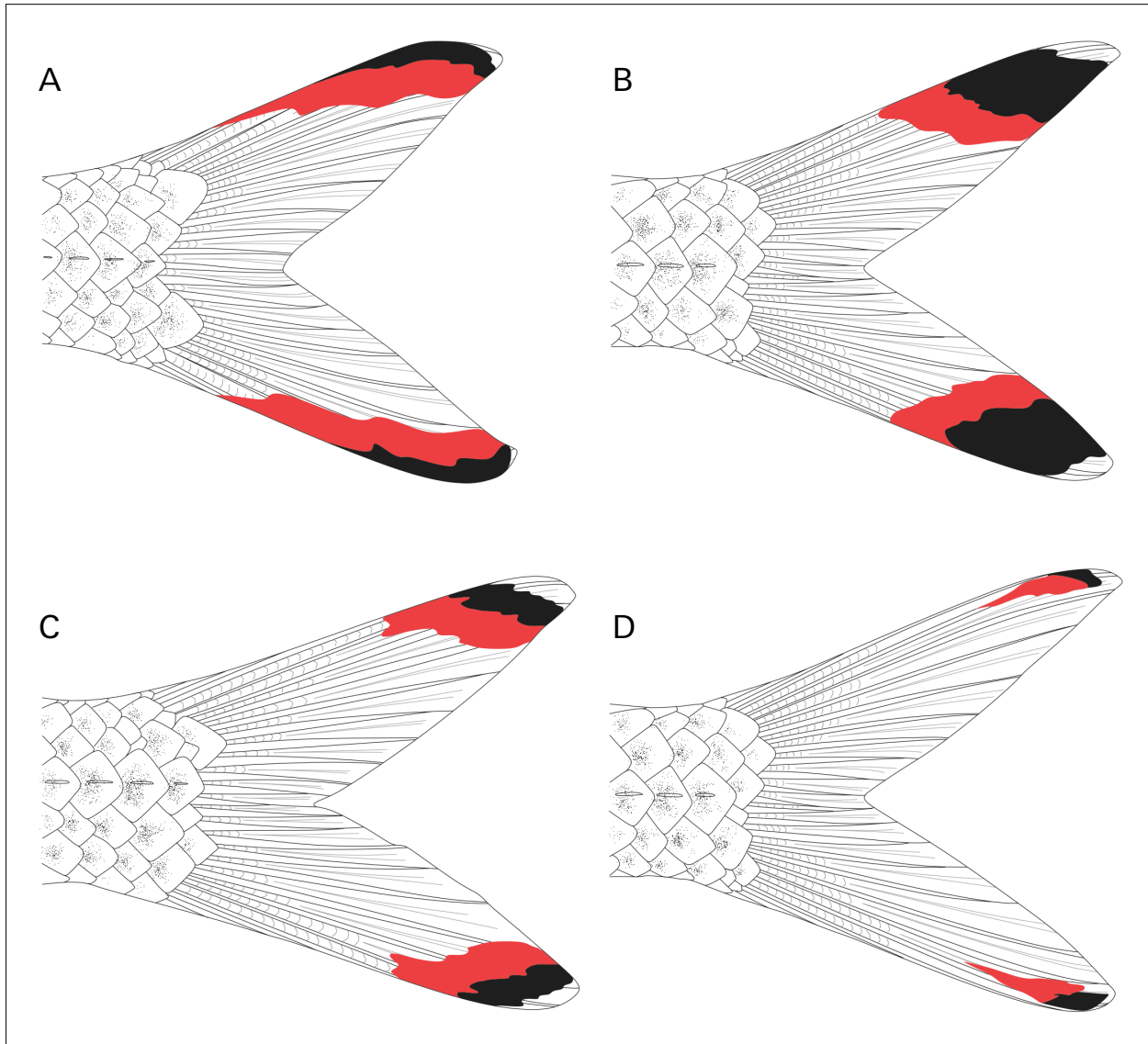


Fig. 4. Schematic drawing representing coloration pattern of caudal fin for species of *Dawkinsia* having elongate black subdistal band, (A) *Dawkinsia uttara* (B) *Dawkinsia filamentosa* (C) *Dawkinsia crassa* and (D) *Dawkinsia exclamatio*.

In *D. uttara*, the elongate black subdistal band is narrow, with a maximum width of about one-third of eye diameter covering the lateral margin of the tips of the caudal-fin lobes. In *D. apsara*, *D. austellus*, *D. filamentosa* and *D. lepida*, the elongate black subdistal band is broader, having a maximum width of about one eye diameter (Fig. 4B and Figs. 6A–C, 7A–C, 8C in KATWATE *et al.*, 2020), whereas in *D. crassa* and *D. assimilis*, the elongate black subdistal band is narrow, with a maximum width of about half an eye diameter, spread across the middle of the caudal-fin lobes (Fig. 4B and Fig. 4A–B in KATWATE *et al.*, 2020). Within the populations of *D. filamentosa*, we observed a greater range of variation in the number of lateral-line scales and in shape of the caudal-peduncle blotch (Fig. 6A–D and Table 1). We found that the number of lateral-line scales in a series of specimens (32) of *D. filamentosa* collected across the Western and Eastern Ghats landscape of India, varied between 21 and 24. In the topotypic collection (7) of *D. filamentosa*, the lateral-line

scale count is 23 (3) or 24 (4), whereas in the additional material examined (25), the lateral-line scale count is 21 (15), 22 (4), 23 (3) or 24 (3). The caudal-peduncle blotch in *D. uttara* is short, oval horizontally-elongate, covering 14th to 17th lateral-line scales, with a small variation of 14th to 16th (2) (Fig. 3A–B) and 14th to 17th (6) lateral-line scales (Fig. 2A–C). However, in *D. filamentosa* the caudal-peduncle blotch is broad, round to oval and horizontally-elongated in shape (Fig. 6A–D), covering 13th to 19th lateral-line scales, with the range of 13th to 17th (7), 14th to 17th (12), 13th to 18th (6) or 13th to 19th (7).

The ichthyofauna of the northern region of the Western Ghats is poorly explored, and this applies particularly to the west-flowing rivers in the Konkan region (DAHANUKAR *et al.*, 2011; KATWATE *et al.*, 2012, 2013, 2014). There are few records of filament barbs from this area of Maharashtra, mostly identified in the literature as *D. filamentosa* or superficially similar species (SINGH & YAZDANI, 1993; KATWATE *et al.*, 2013, 2014). SINGH & YAZDANI

Table 2. Minimum and maximum genetic distances (%) in mitochondrial *cox 1* and *cyt b* gene sequences for *Dawkinsia uttara* and species of *Dawkinsia*. Values in bold are intra-species distances for *D. uttara*.

| Species | GenBank accession number for <i>cox 1</i> | Pairwise percent distances (%) in <i>cox 1</i> | GenBank accession number for <i>cyt b</i> | Pairwise percent distances (%) in <i>cyt b</i> |
|--------------------------------|--|--|--|--|
| <i>Dawkinsia uttara</i> | MT329059, MT329060, MT329061 | 0.0 – 0.6 | MT334817, MT334818, MT334819 | 0.0 – 0.4 |
| <i>Dawkinsia arulius</i> | MT329026, KJ683752 | 4.3 – 5.1 | MT334787 | 8.1 – 8.1 |
| <i>Dawkinsia crassa</i> | MT329030, MT329032 | 3.1 – 3.6 | MT334790 | 4.5 – 4.6 |
| <i>Dawkinsia exclamatio</i> | JX975492 | 3.4 – 3.8 | JX975489 | 7.5 – 7.5 |
| <i>Dawkinsia filamentosa</i> | MT329033, MT329034, MT329035, MT329036, MT329037, MT329038, MT329039, MT329040, MT329041, MT329042, MT329043, MT329044, MT329045, MT329046, MT329047, JX181883, HE801574, MK681760 | 2.1 – 3.0 | MT334791, MT334792, MT334793, MT334794, MT334795, MT334796, MT334797, MT334798, MT334799, MT334800, MT334801, MT334802, MT334803, MT334804, MT334805, MT334806, JQ795448 | 3.2 – 3.8 |
| <i>Dawkinsia rohani</i> | MT329053 | 3.6 – 4.1 | MT334811 | 3.9 – 4.0 |
| <i>Dawkinsia rubrotincta</i> | MT329057 | 4.7 – 5.2 | MT334815 | 8.4 – 8.5 |
| <i>Dawkinsia srilankensis</i> | | | JF793618 | 6.9 – 6.9 |
| <i>Dawkinsia tambraparniei</i> | MT329062 | 5.8 – 6.3 | MT334820 | 6.8 – 6.9 |
| <i>Dawkinsia apsara</i> | MT329023, MT329024 | 17.8 – 18.3 | MT334785, MT334786 | 21.4 – 21.6 |
| <i>Dawkinsia assimilis</i> | MT329027, MT329028 | 18.0 – 18.4 | MT334788 | 21.2 – 21.2 |
| <i>Dawkinsia austellus</i> | MT329029 | 19.2 – 19.7 | MT334789 | 20.0 – 20.0 |
| <i>Dawkinsia lepida</i> | MT329048, MT329049, MT329050 | 17.0 – 17.7 | MT334807, MT334808, MT334809 | 20.3 – 21.7 |

(1993) recorded *D. filamentosa* (as *Puntius filamentosus*) from Danoli, Ratnagiri (the erstwhile Ratnagiri District, now a part of Sindhudurg District, Maharashtra State). The collection locality mentioned by SINGH & YAZDANI (1993) as “Danoli” is in the upper reaches of the Terekhol River, about 5–6 km upstream from the collection locality of *D. uttara*. Interestingly, while providing an account of the specimens studied, SINGH & YAZDANI (1993) described *D. filamentosa* from Terekhol as “Body elongate. Mouth moderate with one pair of small maxillary barbels, hidden in grooves around corners of the mouth... Lateral line complete with 21 scales”. We tentatively identify these specimens as *D. uttara* based on mention of the minute maxillary barbel and 21 lateral-line scales. We also note that the unidentified species from Terekhol River, referred as *Dawkinsia* cf. *filamentosa* by KATWATE *et al.* (2013) is *D. uttara*. However, the records of *Dawkinsia* sp. by KATWATE *et al.* (2014) from the west-flowing Kundalika River, and from the coastal rivers of Sindhudurg District, near Bandiwade, have subsequently been shown to represent *D. filamentosa* (KATWATE *et al.*, 2020).

DAHANUKAR *et al.* (2011) highlighted the need for exploratory surveys of rivers in the northern parts of the Western Ghats, combined with a thorough taxonomic analysis including a combination of morphological and molecular approaches to study freshwater fish diversity of this region. The description of *Dawkinsia uttara* and other recently described species of *Dawkinsia* (KATWATE *et al.*, 2020) from the northern Western Ghats are a testimony of this.

Revised key to the genus *Dawkinsia*

- 1 Adults with horizontally elongated blotch on caudal peduncle **2**
- Adults with two or more blotches on the body **9**
- 2 Mouth inferior **3**
- Mouth not inferior **6**
- 3 2 scales between lateral-line scale row and pelvic-fin origin **4**
- 2½ scales between lateral-line scale row and pelvic-fin origin *D. assimilis*
- 4 Caudal peduncle blotch reaching up to 19th or 20th lateral-line scale *D. apsara*
- caudal peduncle blotch reaching up to 17th or 18th lateral-line scale **5**
- 5 14 pre-anal scales *D. austellus*
- 17–18 pre-anal scales *D. lepida*
- 6 Mouth terminal **7**
- Mouth sub-terminal **8**
- 7 4½ scales between lateral-line scale row and dorsal-fin origin *D. uttara*
- 5½ scales between lateral-line scale row and dorsal-fin origin *D. crassa*
- 8 Caudal peduncle blotch not reaching caudal-fin base *D. filamentosa*
- Caudal peduncle blotch reaching caudal-fin base *D. rohani*
- 9 Two blotches on the body; W or M shaped blotch below dorsal fin in addition to the elongated caudal peduncle blotch *D. exclamatio*

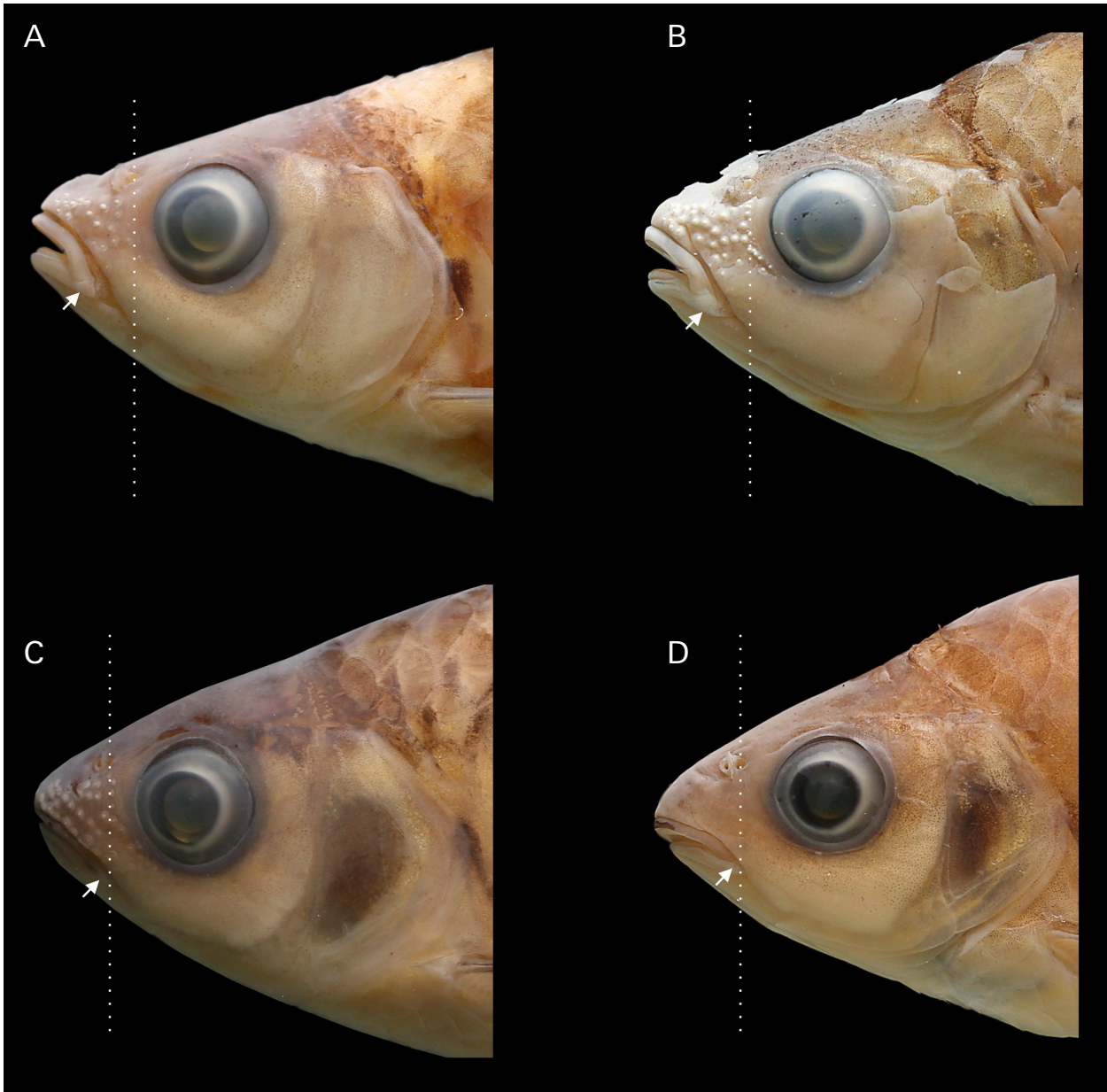


Fig. 5. The position of posterior termination of the upper lip (arrow) with respect to the position of level of posterior nostril (dotted line) in *Dawkinsia uttara* sp. nov., (A) holotype, male, BNHS FWF 723, 69.8 mm SL, Kajali River, Maharashtra; (B) paratype, male, BNHS FWF 721, 92.4 mm SL, Jagabudi River, Maharashtra and in *Dawkinsia filamentosa*, (C) topotype, male, BNHS FWF 737, 92.7 mm SL, Vembanad Lake, Kerala; (D) female, BNHS FWF 718, 91.5 mm SL, Savitri River, Maharashtra, India.

- | | | | |
|--|------------------------|--|-------------------------|
| – Three blotches on the body | 10 | – large diffused blotches 3–4 scales high on body ... | 12 |
| 10 Mouth sub-terminal | 11 | 12 Small blotch on the posterior base of dorsal-fin | |
| – Mouth inferior | <i>D. srilankensis</i> | | <i>D. tambraparniei</i> |
| 11 Well defined blotches two scale high and three scales wide on the body | <i>D. rubrotincta</i> | – No small blotch on the posterior base of dorsal-fin | |
| | | | <i>D. arulius</i> |

→ **Fig. 6.** *Dawkinsia filamentosa*, in life, (A) BNHS FWF 1059, 77.8 mm SL, Arjuna River, Maharashtra and (B) male, specimen not registered, Zuari River, Goa: representatives of the northern Western Ghats population and (C) topotype, male, BNHS FWF 740, 82.2 mm SL, Vembanad Lake, Kerala & (D) topotype, female, specimen not registered, Vembanad Lake, Kerala, representatives of the southern Western Ghats population.

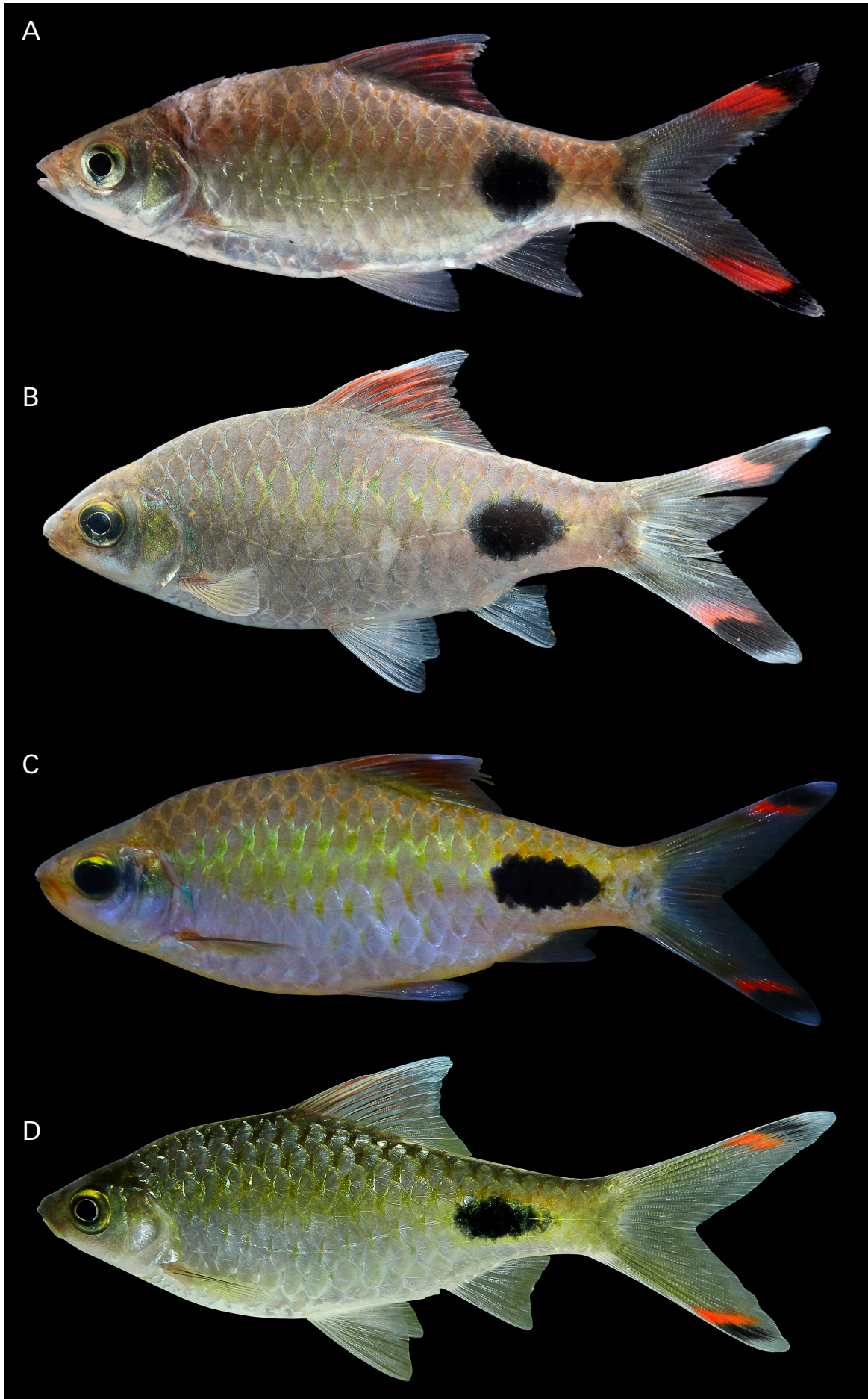




Fig. 7. Habitat of *Dawkinsia utara* at the type locality, upper reaches of Kajali River near Shiposhi, Ratnagiri District, Maharashtra, India.

Materials examined

Dawkinsia apsara: holotype, BNHS FWF 1007, 1, 63.3 mm SL, male; India: Karnataka: Sita River, 13°28'47.50"N, 75°00'16.73"E, 70 m a.s.l., coll. N. Sood, 21st June 2019. — paratype, KUFOS.19.06.21, 1, 56.0 mm SL, male; same data as holotype. — paratype, BNHS FWF 1025, 1, 64.3 mm SL, male; India: Karnataka: Sita River, 13°28'47.50"N, 75°00'16.73"E, 70 m a.s.l., coll. J.D.M. Knight, 01st June 2014. — paratypes, BNHS FWF 753–758, 6, 42.9–107.3 mm SL, male; India: Karnataka: Sowparnika River, 13°49'48.04"N, 74°48'15.15"E, 105 m a.s.l., coll. U. Katwate, N. Dahanukar, P. Kumkar and R. Raghavan, 30th June 2014.

Dawkinsia arulius: BNHS FWF 765, 1, 52.6 mm SL; India: Karnataka: Shivasamudram, Gaganchukki Falls, 12°17'55.63"N, 77°10'11.32"E, 486 m a.s.l.; U. Katwate, R. Raghavan and N. Dahanukar, on 1st March 2014. — BNHS FWF 1026, 1, 49.3 mm SL; India: Karnataka: Srirangapattanam, 12°25'15.6"N, 76°40'40.8"E, coll. J.D.M. Knight, 25th April 2014.

Dawkinsia assimilis: neotype, BNHS FWF 1010, 1, 70.6 mm SL, male; India: Karnataka: Nethravati River, Dharmasthala, 12°57'57.52"N, 75°22'12.14"E, 83 m a.s.l., coll. N. Sood, 20th June 2019. — topotypes, BNHS FWF 1011–1014, 4, 39.8–77.4 mm SL, same data as neotype. — BNHS FWF 1022, 1, 72.8 mm SL; India: Karnataka: Nethravati River, 12°50'31.2"N, 75°16'40.8"E, coll. J.D.M. Knight, 15th January 2013. — BNHS FWF 770, 1, 39.9 mm SL; India: Karnataka: Subramanya, Kumaradhara River, a tributary of Nethravati River, 12°40'42.64"N, 75°36'56.90"E, 133 m a.s.l., coll. Anoop V.K., 6th February 2018. — KUFOS.18.02.06, 1, 42.1; India: Karnataka: Subramanya, Kumaradhara River, a tributary of Nethravati River, 12°40'42.64"N, 75°36'56.90"E, 133 m a.s.l., coll. Anoop V.K., 6th February 2018.

Dawkinsia austellus: holotype, BNHS FWF 750, 1, 83.1 mm SL, male, India: Kerala: Muvattupuzha River, 09°59'09.90"N,

76°35'04.90"E, 123 m a.s.l., coll. U. Katwate and F. Baby, 31st May 2014. — paratype, WHT 296, 1, 105.0 mm SL; India: Kerala: Panamkulam, 26 km from Chalakudy on Valparai road, Chalakudy River, 10°17'31.2"N, 76°26'02.4"E, 133 m a.s.l., coll. R. Pethiyagoda, 27th April 1992.

Dawkinsia crassa: holotype, BNHS FWF 1015, 1, 60.1 mm SL, male; India: Karnataka: Nethravati River, Dharmasthala, 12°57'57.52"N, 75°22'12.14"E, 83 m a.s.l., coll. N. Sood, 20th June 2019. — paratype, BNHS FWF 1016, 1, 67.8 mm SL, male; same data as holotype. — paratype, BNHS FWF 771, 1, 60.0 mm SL, male; India: Karnataka: Nethravati River, Dharmasthala, 12°57'57.52"N, 75°22'12.14"E, 83 m a.s.l., coll. V.K. Anoop, 7th February 2018. — paratype, BNHS FWF 1039, 1, 58.0 mm SL; India: Karnataka: Kumaradhara River, Coorg, 12°27'25.20"N, 75°42'57.60"E, 83 m a.s.l., coll. N. Dahanukar, R. Raghavan, A. Ali and S. Philip, 11th May 2013. — paratype, KUFOS.18.02.07, 1, 57.5 mm SL, male; India: Karnataka: Nethravati River, Dharmasthala, 12°57'57.52"N, 75°22'12.14"E, 83 m a.s.l., coll. N. Sood, 20th June 2019. — BNHS FWF 1038, 1; India: Karnataka: Sullya, Kumaradhara, 12°33'32.4"N, 75°22'51.6"E, coll. J.D.M. Knight, 17th August 2014.

Dawkinsia exclamatio: topotypes, BNHS FWF 1019–1020, 2, 75.5–93.2 mm SL; India: Kerala: Kallada River, downstream of Tenmalai Dam, 08°57'20.88"N, 77°4'0.59"E, 84m a.s.l.; U. Katwate, J. Tharian and S. Raj, on 19th June 2019. — ZSI/SRS F5520, 1, 70.0mm SL; India: Kerala: Kallada River drainage, Varkala (8°53'N, 76°42'E), coll. P.T. Chierian, 03rd April 1998.

Dawkinsia filamentosa: topotypes, BNHS FWF 735–741, 7, 80.4–92.7 mm SL; India: Kerala: Vembanad Lake, 09°54'35"N, 76°20'34"E, 1–2m a.s.l., coll. U. Katwate and F. Baby, 29th May 2014. — topotypes, BNHS FWF 786–787 (cleared and stained specimens), 2, 39.2–44.6 mm SL; India: Kerala: Vembanad Lake, 09°54'35"N, 76°20'34"E, 1–2m a.s.l., coll. U. Katwate and F. Baby, 29th May 2014. — BNHS

- FWF 742–745, 4, 70.9–87.1 mm SL; India: Kerala: Kuttanad, 09°54'40.57"N, 76°19'1.02"E, 6m a.s.l., coll. U. Katwate and Anoop V.K., 05th June 2017. — BNHS FWF 749 & 752, 2, 48.3–54.2 mm SL; India: Kerala: Muvattupuzha River, 09°59'09.90"N, 76°35'04.90"E, 123 m a.s.l., coll. U. Katwate and F. Baby, 31st May 2014. — BNHS FWF 766–767, 2, 27.3–31.8 mm SL; India: Tamil Nadu: Yercaud, Yercaud Lake, 11°46'56.42"N, 78°12'35.68"E, 1354 m a.s.l., coll. M.E. Ramanujam, 07th March 2014. — BNHS FWF 731, 1, 34.4 mm SL; India: Goa: Zuari River, Sanguem, 15°14'02.40"N, 74°10'55.20"E, 72 m a.s.l., coll. U. Katwate, N. Dahanukar and M. Paingankar, 10th August 2013. — BNHS FWF 732, 1, 28.8 mm SL; India: Karnataka: Aghanashini River, Nanikatta, Siddapur-Sirsi Road, first stream after Jog Fall, 14°29'54.11"N, 74°51'53.30"E, 583 m a.s.l., coll. P. Kumkar, 30th May 2014. — BNHS FWF 733, 1, 26.8 mm SL; India: Karnataka: Aghanashini River, Nanikatta, Siddapur-Sirsi Road, first stream after Jog Fall, 14°29'54.11"N, 74°51'53.30"E, 583 m a.s.l., coll. P. Kumkar, 1st July 2014. — BNHS FWF 734, 1, 34.4 mm SL; India: Karnataka: Nagodi stream, Sharavati River, Nagodi Village, 13°54'58.00"N, 74°53'21.00"E, 742 m a.s.l., coll. U. Katwate, P. Kumkar, N. Dahanukar and R. Raghavan, 30th June 2014. — BNHS FWF 727, 1, 31.8 mm SL; India: Maharashtra: Sindhudurg District, Gad River, Bandiwade, 16°08'60.00"N, 73°32'60.00"E, 64 m a.s.l., coll. U. Katwate and S. Rane, 15th September 2013. — BNHS FWF 728–729, 2, 67.1–70.8 mm SL; India: Maharashtra: Ratnagiri District, Bav River, Sakharpa, 17°06'06.08"N, 73°37'16.11"E, 173 m a.s.l., coll. U. Katwate and N. Dahanukar, 13th June 2013. — BNHS FWF 718–719, 2, 68.0–91.5 mm SL; India: Maharashtra: Raigad District, Savitri River, Mahad, 18°05'35.52"N, 73°27'06.05"E, 44 m a.s.l., coll. U. Katwate and N. Dahanukar, 27th December 2015. — BNHS FWF 704–711, 8, 72.6–81.7 mm SL; India: Dadra and Nagar Haveli UT: Silvassa, Daman Ganga River, Madhuban Reservoir, 20°09'37.96"N, 73°05'28.31"E, 80 m a.s.l., coll. A. Chaudhari, 15th August 2018. — BNHS FWF 712–715, 4, 77.8–100.4 mm SL; India: Maharashtra: Palghar District, Vaitarana River, Tilase, Wada, 19°39'10.81"N, 73°12'33.71"E, 56 m a.s.l., coll. U. Katwate & B. Survase, 04th June 2014. — BNHS FWF 1059, 1, 77.8 mm SL; India: Maharashtra: Ratnagiri District, Arjuna River, Dhaulvalli, Rajapur, 16°38'49.97"N, 73°21'41.08"E, 7 m a.s.l., coll. U. Katwate, 07th August 2012. — BNHS FWF 716–717, 2, 65.9–101.6 mm SL; India: Maharashtra: Raigad District, Kal River, Mangaon, 18°13'59.20"N, 73°17'06.98"E, 8 m a.s.l., coll. U. Katwate and C. Katwate, 05th July 2014. — BNHS FWF 1021, 1, 23.5 mm SL; India: Karnataka: Nettoor 13°54'57.6"N, 74°53'20.4"E, coll. N. Dahanukar, U. Katwate and P. Kumkar, 30th July 2014. — BNHS FWF 1027, 1, 86.5 mm SL; India: Kerala: Karuvannoor, 10°23'31.2"N, 76°13'30.0"E, coll. R. Raghavan, 3rd March 2013. — BNHS FWF 1028, 1, 72.5 mm SL; aquarium trade, coll. J.D.M. Knight, 1st April 2012. — KUFOS.19.06.22 & 23, 2; India: Karnataka: Sita River, 13°28'44.4"N, 75°00'18.0"E, coll. N. Sood, 21st June 2019.
- Dawkinsia lepida*: syntype, BMNH 1868.10.27.22, 1, 44.4 mm SL, subadult; India: Tamil Nadu: Bhavani River at Mettapolliam (=Mettupalayam). — BMNH 1889[1].2.1.672, 1, 83.4 mm SL, adult; India: Tamil Nadu: Bowany (=Bhavani) River, coll. Francis Day. — BNHS FWF 1023, 1, 73.9 mm SL; India: Tamil Nadu: Bhavani River, Mettupalayam, Coimbatore, 11°19'15.6" N 76°57'43.2" E, coll. J.D.M. Knight, 25th April 2014. — BNHS FWF 751, 1, 72.4 mm SL, male; India: Kerala: Muvattupuzha River, 09°59'09.90"N, 76°35'04.90"E, 123 m a.s.l., coll. U. Katwate and F. Baby, 31st May 2014. — BNHS FWF 784 (cleared and stained specimen), 1, 44.9 mm SL, male, coll. data same as BNHS FWF 751. — BNHS FWF 785 (cleared and stained specimen), 1, 47.6 mm SL, male; coll. data same as BNHS FWF 751. — BNHS FWF 747, 1, 49.7 mm SL; male; India: Kerala: Chalakudy River, 10°17'55.84" N, 76°34'18.95" E, 171 m a.s.l., coll. R. Raghavan and A. Ali, 03rd June 2011. — BNHS FWF 1024, 1, 79.8 mm SL; India: Kerala: Chalakudy River, 10°17'52.8" N 76°34'15.6" E, coll. J.D.M. Knight, 13th October 2014. — KUFOS.14.05.31, 1, 49.7 mm SL; India: Kerala: Muvattupuzha River, 9°59'09.6" N 76°35'06.0" E, coll. U. Katwate and F. Baby, 31st May 2014.
- Dawkinsia rohani*: holotype, ZSI/SRS F.8336, 1, 69.0 mm SL; India: Tamil Nadu: Kanyakumari District, Kodayar River drainage, near Mayilar, KWS, 08°30'18.72"N, 77°18'05.40"E, 135m, coll. S. Prabhakaran, 27th March 2009. — BNHS FWF 1029, 1, 65.3 mm SL; India: Tamil Nadu: Manavalakurchi near Nagercoil, 8°08'38.4"N 77°18'28.8"E, coll. J.D.M. Knight, 6th May 2014. — BNHS FWF 1030 – 1033, 4, 48.5 – 69.1 mm SL; aquarium trade, coll. J.D.M. Knight, 23rd July 2014.
- Dawkinsia rubrotincta*: topotypes, BNHS FWF 762–764, 3, 50.5–59.9 mm SL; India: Kerala: Wayanad, Muthanga, Kabinini River, 11°40'41.20"N, 76°22'06.28"E, 856 m a.s.l., V.K. Anoop., 23rd April 2017.
- Dawkinsia tambraparniei*: topotypes, BNHS FWF 759–761, 3, 36.3–65.9 mm SL; India: Tamil Nadu: Mukkudal, Tambaraparini River, 08°43'45.86"N, 77°31'2.84"E, 52 m a.s.l., V.K. Anoop., 20th September 2015. — BNHS FWF 1034, 1036 & 1037, 3; India: Tamil Nadu: Cheramadevi, Tirunelveli, 8°40'37.2"N 77°34'08.4"E, coll. J.D.M. Knight, 13th September 2013. — BNHS FWF 1035, 1; aquarium trade, coll. J.D.M. Knight, 1st April 2012.

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