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Cirrhilabrus shutmani, a new species of fairy wrasse from the Babuyan Islands, northern Philippines (Teleostei: Labridae)

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Abstract

Cirrhilabrus shutmani, new species, is described on the basis of four specimens from Didicas Volcano, Babuyan Islands, Cagayan province, northern Philippines. The holotype and three paratypes were collected at a depth of 50–70 m, along denuded rubble slopes. The new species belong to a complex consisting of *C. blatteus, C. claire, C. earlei, C. jordani*, *C. lanceolatus, C. roseafascia, C. rubrisquamis* and *C. sanguineus.* Aside from similar nuptial male colouration, the nine species share the following character combination: relatively short pelvic fins (not or barely reaching anal-fin origin, except for *C. claire* with relatively long pelvic fins); a pair of stripes on head (in both sexes); and, dorsal and anal fins without obvious stripes or spots. It differs from the other members of its group in lacking any stripes on the upper and lower body, and in having the following live colouration details: upper part of nape dusky red; dorsal and anal fin bright red with dusky markings; pelvic fins bright red, dusky anteriorly; caudal fin bright yellow basally with distal half bright red. We also present new distribution records for *C. claire, C. earlei* and *C. lanceolatus*, as well as a brief mention of a possibly new, related species from the Ogasawara Islands.

Key words: ichthyology; taxonomy; Didicas Volcano; colouration

Introduction

The labrid genus *Cirrhilabrus* Temminck & Schlegel (1845) consists of small, planktivorous fishes found mostly on rubble slopes spanning the tropical Indo-Pacific region. Allen *et al*. (2015) listed 51 nominal species in the genus. Five other species have been described since: *Cirrhilabrus isosceles* Tea *et al*. (2016), *C. hygroxerus* Allen & Hammer (2016), *C. rubeus* Victor (2016), *C. africanus* Victor (2016), and *C. efatensis* Walsh *et al*. (2017), bringing the current nominal species count to 56. Increased deepwater exploration and aquarium fish collection has allowed for the discovery of several new species, as well as the expansion of previously documented geographical distributions of various species. We herein describe an additional species in the genus from four specimens collected for the aquarium trade from Didicas Volcano, Babuyan Islands, northern Philippines. We also present new distribution records for *C. claire*, *C. earlei,* and *C. lanceolatus*. Additionally, we discuss a possible new species of *Cirrhilabrus* with similar combination of colour patterns and fin characters from Ogasawara, which currently remains known only from photos taken in the field.

Materials and methods

Methods of counting and measuring follow Randall & Masuda (1991), except gill raker counts were counted as upper (epibranchial) + lower (ceratobranchial), with the angle raker included in the second count. In the description that follows, data are presented for all type specimens, followed where variation was noted by data for the holotype

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in parentheses. Where counts were recorded bilaterally, both counts are presented and separated by a slash; the first count is the left. Types are deposited in the Australian Museum, Sydney (AMS), National Museum of the Philippines, Manila, Philippines (PNM), Western Australian Museum, Perth (WAM) and the Zoological Reference Collection of the Lee Kong Chian Natural History Museum at the National University of Singapore (ZRC). Distribution records for various *Cirrhilabrus* species are based on published photos (in particular, those in Kuiter 2010), underwater photographs, and verifiable literature accounts.

***Cirrhilabrus shutmani* n. sp.**
Magma Fairy-wrasse
Figures 1–6, 8A, Tables 1–2

Holotype. PNM 15354, 55.7 mm SL male, northern Philippines, Cagayan province, Babuyan Islands, Didicas Volcano (19.08 N, 122.21 E), 50–70 m, rubble slopes, collected by M. Baghukan & D.G. Acutin, 25 August 2016.

Paratypes. AMS I. 47290-001, 44.2 mm SL male, WAM P.34787-001, 45.2 mm SL male, ZRC 55885, 39.5 mm SL male, all collected with holotype.

Diagnosis. *Cirrhilabrus shutmani* shares similar meristic counts to the other species in its complex, but differs from congeners in the following live colouration details: upper part of nape dusky red; dorsal and anal fin bright red with dusky markings; pelvic fins bright red, dusky, and unmarked; caudal fin bright yellow basally with distal half bright red.

Description. Dorsal-fin rays XI,9; anal-fin rays III,9; dorsal and anal-fin soft rays branched except first ray unbranched; last dorsal and anal-fin ray branched to base; pectoral-fin rays 15/15, upper two unbranched; pelvic-fin rays I,5; principal caudal-fin rays 7 + 6, upper and lowermost unbranched; upper procurrent caudal rays 4–5 (5), lower procurrent caudal rays 4–5 (5); lateral line interrupted, with dorsoanterior series of pored scales 15/15–16 (15/16) and midlateral posterior peduncular series 6–8/6–8 (6/6); scales above lateral line to origin of dorsal fin 2–3/2–3 (3/3); scales below lateral line to origin of anal fin 7/7; median predorsal scales 4; median prepelvic scales 6; rows of scales on cheek 2; circumpeduncular scales 16; gill rakers 3–5 + 8–9 = 11–14 (5 + 9); pseudobranchial filaments 7–9 (9).

Body moderately elongate and compressed, depth 3.5–3.8 (28.9) in SL, width 7.0–10.8 (7.0) in SL; head length 3.2–3.4 (3.2) in SL; snout pointed, its length 3.3–3.9 (3.3) in HL; orbit diameter 3.5–3.7 (3.5) in HL; depth of caudal peduncle 2.2–2.4 (2.2) in HL. Mouth small, terminal, and oblique, with maxilla almost reaching a vertical at front edge of orbit; dentition typical of genus with three pairs of canine teeth present anteriorly at side of upper jaw, first forward-projecting, next two strongly recurved and outcurved, third longest; an irregular row of small conical teeth medial to upper canines; lower jaw with single stout pair of canines anteriorly which protrude obliquely outward and are slightly lateral to medial pair of upper jaw; canine teeth in lower jaw followed by two smaller, conical teeth; sides of lower jaw with a series of small conical teeth, which continue across front of jaw behind canine; no teeth on roof of mouth.

Posterior margin of preopercle with 23–32 (32/32) very fine serrae; margins of posterior and ventral edges of preoperculum free to about level of middle pupil. Nostrils small, located anterior to upper edge of eye in a short membranous tube. Scales cycloid; head scaled except snout and interorbital space; 7 large scales on opercle; broad naked zone on membranous edge of preopercle; row of large, elongate, pointed scales along base of dorsal fin, one per element, longest about two-fifths length of spines, scales progressively shorter posteriorly on soft portion of fin; anal fin with similar basal row of scales; last pored scale of lateral line (posterior to hypural plate) enlarged and pointed; one scale above and below last pored scale also enlarged; horizontal series of greatly enlarged scales extend two-thirds distance to central posterior margin of caudal fin; pectoral fins naked except for few small scales at extreme base; single large scale at base of each pelvic fin, about three-fourths length of pelvic spine.

Origin of dorsal fin above second lateral-line scale, predorsal length 3.0–3.3 (3.3) in SL; first 1–3 dorsal-fin spines progressively longer, third and fourth subequal, fifth longest, 2.4–2.8 (2.4) in HL; interspinous membranes of dorsal fin in males extend beyond dorsal-fin spines, with each membrane extending in a pointed filament beyond spine; fifth dorsal-fin soft ray longest, 2.0–2.2 (2.0) in HL, remaining rays progressively shorter; origin of anal fin below base of ninth dorsal-fin spine; third anal-fin spine longest, 2.8–3.0 (3.0) in HL; interspinous membranes of anal fin extended as on dorsal fin; anal-fin soft rays relatively uniform in length, fifth longest, 1.6–1.9 (1.6) in HL;

dorsal and anal-fin rays barely reaching caudal-fin base; caudal fin of TP males rounded, length 1.1–1.2 (1.2) in HL; pectoral fins short, reaching a vertical between bases of 5th or 6th dorsal-fin spines, longest ray 1.5–2 (1.5) in HL; origin of pelvic fins below lower base of pectoral fins; pelvic fins moderately long, but not reaching anal fin spine, longest ray 1.9–2.1 (1.9) in HL.

FIGURE 1. *Cirrhilabrus shutmani* **n. sp.**, freshly euthanized male holotype, PNM 15354, 55.7 mm SL, Didicas Volcano, Babuyan Islands, northern Philippines. Photo by S.K. Tea.

FIGURE 2. *Cirrhilabrus shutmani* **n. sp.**, preserved male holotype, PNM 15354, 55.7 mm SL, Didicas Volcano, Babuyan Islands, northern Philippines. Photo by Y.K. Tea.

FIGURE 3. *Cirrhilabrus shutmani* **n. sp.**, male holotype, PNM 15354, 55.7 mm SL, from Didicas Volcano, Babuyan Islands, northern Philippines. Image reversed. Photo by B.P. Shutman.

FIGURE 4. *Cirrhilabrus shutmani* **n. sp.**, male, approximately 50 mm TL, from Didicas Volcano, Babuyan Islands, northern Philippines. Specimen not retained. Photo by B.P. Shutman.

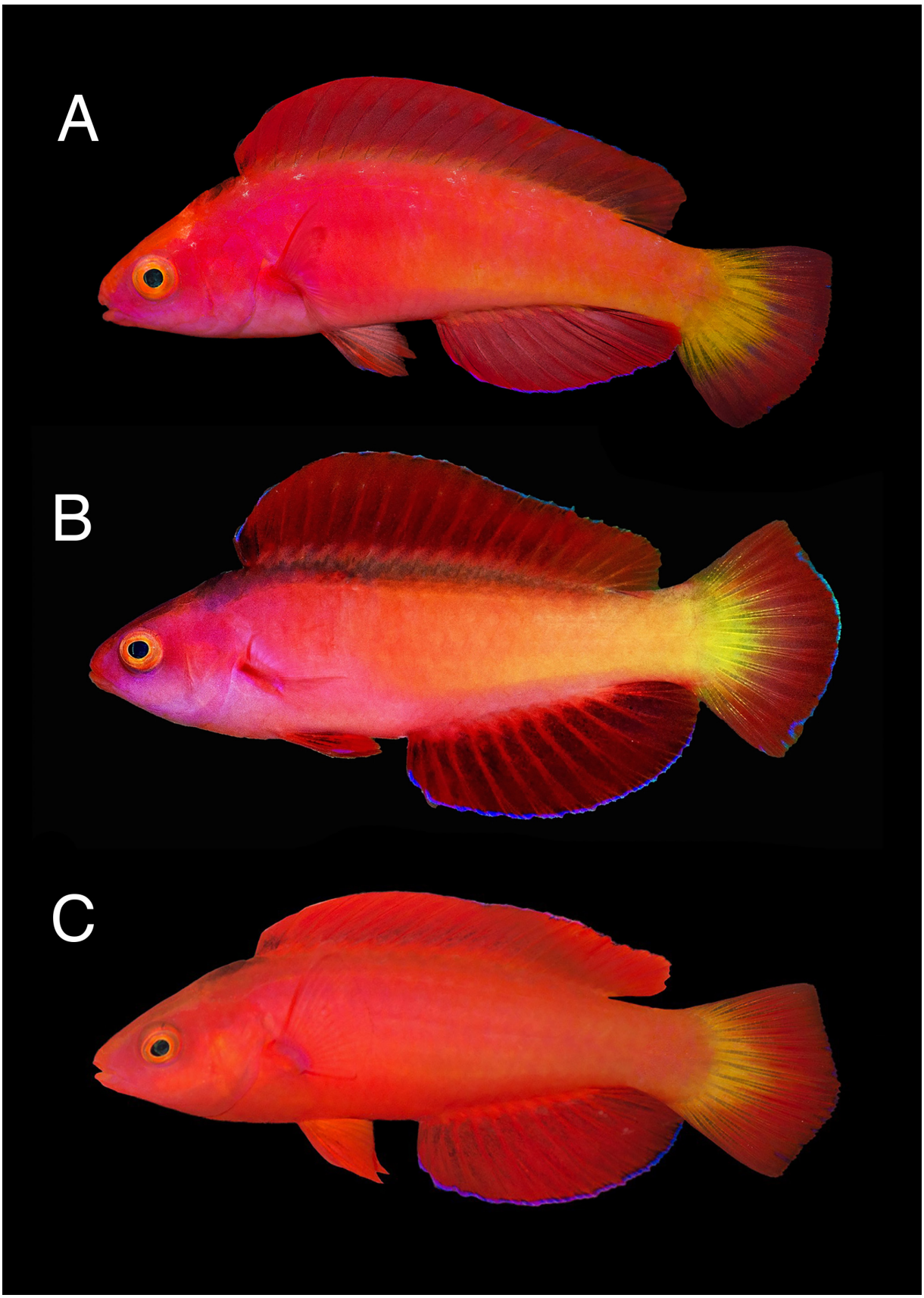

FIGURE 5. *Cirrhilabrus shutmani* **n. sp.**, males, A) approximately 57 mm TL, B) approximately 60 mm TL, C) approximately 65 mm TL, all from Didicas Volcano, Babuyan Islands, northern Philippines. Specimens not retained. Photos by B.P. Shutman.

Colouration of male in life (based on colour photographs of the holotype and paratype when freshly dead, and aquarium photos of live individuals; Figures 1, 3, 4, 5 & 8A): head and body bright red to orange; lower part of head sometimes washed with magenta; lilac to magenta stripe weakly present from behind upper orbit to upper edge of operculum; second stripe of same colour weakly present from behind lower orbit to lower part of cheek; lilac to magenta stripes continue past eye anteriorly on to snout, the upper stripe reaching mid-upper lip; lower part of operculum sometimes washed with magenta; upper part of nape and sometimes narrow area below dorsal-fin dusky red; interorbital and upper part of snout sometimes with 3–5 fine white stripes; iris bright yellow to orange, dusky dorsally, with bluish grey submarginal ring around pupil; lower part of abdomen bright red to orange-red, sometimes washed with magenta; anterior two-thirds of body bright red, fading gradually to bright orange posteriorly; dorsal fin bright red with single row of large orange scales basally, often dusky anteriorly between first and second dorsal fin spines; more extensive dusky grey-red area sometimes present on anterior three quarters of fin; distal margin of fin narrowly bright blue to purple; anal fin similar to dorsal fin, but usually without dusky markings; caudal fin bright yellow, orange basally, with distal half of fin bright red; pelvic fins bright red, dusky anteriorly, narrowly bright purple-blue on leading edge; pectoral fins reddish hyaline.

TABLE 1. Proportional measurements of type specimens of *Cirrhilabrus shutmani* expressed as a percentage of the standard length.

	Holotype	Paratypes		
	PNM 15354	AMS I.47290-001	WAM P.34787-001	ZRC 55885
Sex	male	male	male	male
Standard length (mm)	55.7	44.2	45.2	39.5
Body depth	28.9	27.4	26.5	26.8
Body width	14.2	9.3	12.4	11.6
Head length	29.3	29.6	30.5	30.9
Snout length	8.8	8.6	8.8	7.8
Orbit diameter	8.3	8.4	8.4	8.4
Interorbital width	7.7	7.5	7.1	7.3
Upper jaw length	8.2	8.5	7.3	5.4
Caudal-peduncle depth	13.3	13.1	12.8	12.9
Caudal-peduncle length	12.6	12.2	13.5	13.2
Predorsal length	30.5	31.9	32.1	32.9
Preanal length	58.7	57.7	58.0	58.5
Prepelvic length	34.8	32.6	36.1	34.4
Dorsal-fin base	61.2	58.6	58.8	58.2
First dorsal spine	4.8	5.4	6.0	5.3
Longest dorsal spine	12.2	12.2	12.8	10.9
Longest dorsal ray	14.9	14.5	15.3	13.9
Anal-fin base	29.4	28.3	28.3	28.4
First anal spine	6.1	5.7	6.2	4.6
Second anal spine	9.7	8.8	10.0	8.6
Third anal spine	9.9	9.7	10.8	10.6
Longest anal ray	17.4	17.6	17.7	16.2
Caudal-fin length	23.7	25.6	27.2	26.1
Pectoral-fin length	19.4	18.3	18.8	15.4
Pelvic spine length	8.3	8.2	7.7	8.0
Pelvic fin length	15.8	14.7	14.4	15.7

Colouration of initial phase in life (based on colour photographs and aquarium photos of live individuals): Similar to males; dorsal and anal fins hyaline red without dusky markings; pelvic fins hyaline red; caudal fin pale yellow hyaline at base, translucent to reddish hyaline distally.

Colouration in preservative; Figure 2: similar to colour in life; dusky markings remain; red markings become pale tan; dorsal, anal and pelvic fins greyish hyaline; caudal fin greyish hyaline, base pale yellow; pectoral fins hyaline.

Etymology. Named in honour of Barnett Paul Shutman, who first provided photos as well as the type specimens of the new species (via Aquarium Iwarna, Singapore). The common name, magma fairy wrasse, alludes to its live colouration, as well as the type location of Didicas Volcano, an active volcano part of the "Pacific Ring of Fire" at the southern end of the Luzon Volcanic Arc.

Distribution and habitat. *Cirrhilabrus shutmani* is known only from the type locality, Didicas Volcano in the Babuyan Islands at the northern tip of the Philippines (Figure 6). It appears to inhabit steep slopes comprised mostly of volcanic rubble at depths ranging from 50–70 m.

Comparisons. *Cirrhilabrus shutmani* appears to be closely related to *C. blatteus* Springer & Randall (1974), *C. claire* Randall & Pyle (2001), *C. earlei* Randall & Pyle (2001), *C. jordani* Snyder (1904), *C. lanceolatus* Randall & Masuda (1991), *C. roseafascia* Randall & Lubbock (1982), *C. rubrisquamis* Randall & Emery (1983) and *C. sanguineus* Cornic (1987). The nine species are distinguished from congeners in having the following character combination: relatively short pelvic fins (not or barely reaching anal-fin origin, except for *C. claire* with relatively long pelvic fins); a pair of stripes on head (in both sexes); and, dorsal and anal fins without obvious stripes or spots. *Cirrhilabrus shutmani* is readily distinguished from the other eight species in live colouration (Figure 7–8; Table 2), and further from *C. blatteus*, *C. earlei*, *C. lanceolatus, C. roseafascia* and *C. sanguineus* in lacking a lanceolate caudal fin (however, see Remarks). Aside from live colouration, *C. shutmani* differs from *C. jordani* in having one fewer median predorsal scales (4 vs 5) and fewer lower gill rakers (8–9 vs 11). Based on Randall & Pyle's (2001) morphometric data for similar-sized specimens of *C. earlei*, *C. shutmani* differs in having a shorter head length (29.3–30.9 vs 34.0–35.4 % SL), a smaller orbit (8.3–8.4 vs 8.9–10.2 % SL), a greater caudal peduncle depth (12.8–13.3 vs 15.5–16.0 % SL), a shorter 1st dorsal fin spine (4.8–6.0 vs 9.4–10.5 % SL), a longer anal fin base (28.3–29.4 vs 24.2–25.6 % SL), shorter first, second and third anal fin spines (4.6–6.2 vs 8.1–8.9; 8.6–10.0 vs 11.1–13.3; 9.7–10.8 vs 12.8–13.5 % SL, respectively), shorter pelvic fin spine (7.7–8.3 vs 12.4–13.4 % SL) and shorter pelvic fin (14.4–15.8 vs 20.4–24.7 % SL).

Remarks. The live colouration and absence of a lanceolate caudal fin in *C. shutmani* should be treated as provisional. Members of the genus *Cirrhilabrus* are sexually dimorphic and protogynous, and often diagnosed by their terminal phase (male) colouration. Males of *C. blatteus, C. earlei*, *C. jordani*, *C. lanceolatus* and *C. roseafascia* often attain standard lengths greater than 70 mm, with total lengths frequently exceeding 100 mm (especially for *C. lanceolatus* and *C. roseafascia*). The largest known specimen of *C. shutmani* is the male holotype, at 55.7 mm SL, leading us to believe that the specimens in the type series are not fully mature. Its close relationship with the other members of the species complex suggests that it may be capable of attaining greater lengths, and may develop a lanceolate caudal fin. In describing *C. earlei*, Randall & Pyle (2001) alluded to its small size (largest specimen 69.1 mm SL). B.D. Greene and R. Whitton later collected a specimen measuring approximately 100 mm SL (140 mm TL), showing that the species does attain lengths greater than previously thought (Figure 9). The new specimen also possessed a strongly lanceolate caudal fin, a feature noted as absent in the original description of *C. earlei*. Whereas Tea *et al*. (2016) commented on the unreliability of using caudal fin morphology as a character for classification (indeed, *C. claire, C. jordani* and *C. rubrisquamis* lack a lanceolate caudal fin), the character might be expected in larger individuals of *C. shutmani*. In support of this, B. Shutman sent us a photograph of an aquarium specimen of approximately 65 mm TL that shows a weakly lanceolate caudal fin (Figure 5C).

We here provide new, previously unrecorded distribution records for *C. claire, C. earlei*, and *C. lanceolatus* (Figure 6). *Cirrhilabrus claire* was previously known only from the type locality of Rarotonga, Cook Islands. It has since been collected and observed from Mo'orea, French Polynesia (Figure 8I). *Cirrhilabrus earlei* was previously known only from Palau. It has since been collected in Kwajalein Atoll, Marshall Islands, for the aquarium trade (Figure 8B) and by B.D. Greene (BPBM 39701). B.D. Greene, R.L. Pyle and J.L. Earle have also photographed and collected the species from across the Federated States of Micronesia, in Pohnpei (Figure 9), Majuro, Puluwat (BPBM 40802), Gray Feather Bank, Ulithi and Yap. *Cirrhilabrus lanceolatus* was previously known only from

Okinawa and the Izu Peninsula, Japan, but has since been collected from Scarborough Shoals, South China Sea, western Philippines, by aquarium fish collectors (Figure 8F).

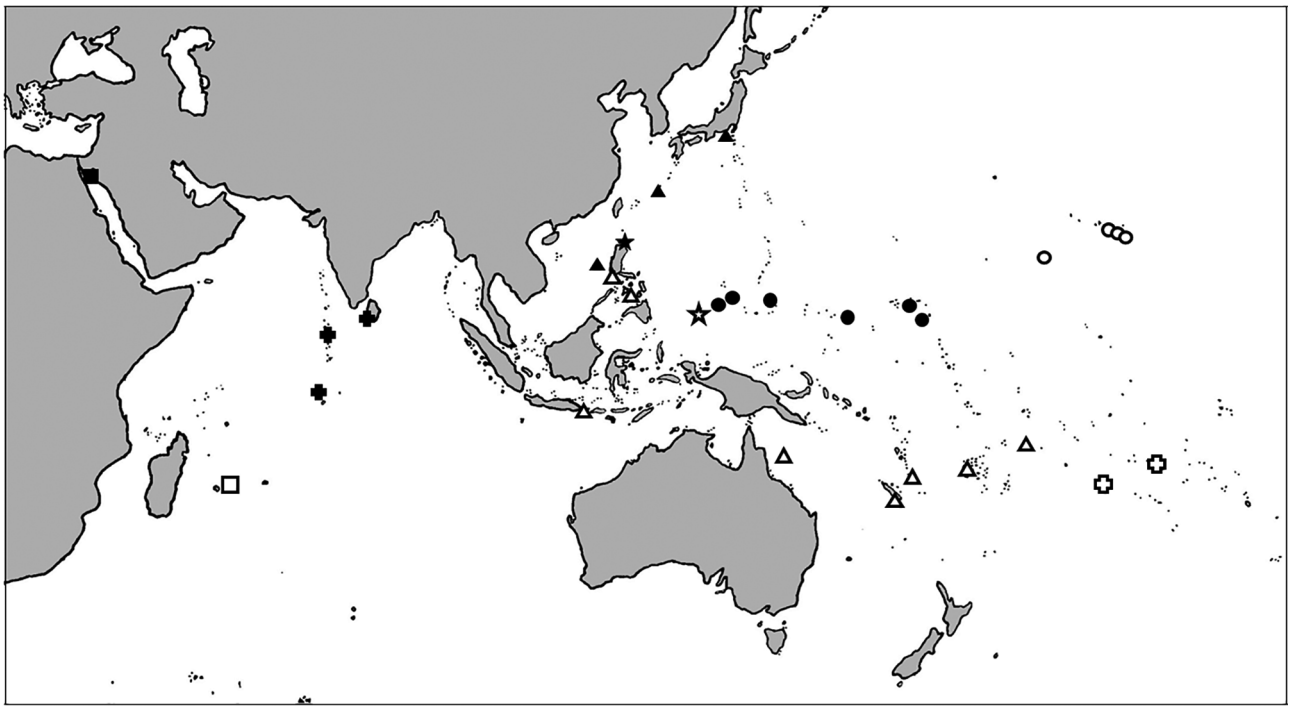

FIGURE 6. Distribution records for selected species of *Cirrhilabrus*: closed star, *C. shutmani*; open circles, *C. jordani*; closed circles, *C. earlei*; closed triangles, *C. lanceolatus*; open triangles, *C. roseafascia*; open star, *C. earlei* + *C. roseafascia*; closed square, *C. blatteus*; open square, *C. sanguineus*; closed crosses, *C. rubrisquamis*; open crosses, *C. claire*.

FIGURE 7. *Cirrhilabrus jordani*, male, approximately 95 mm TL, aquarium specimen from Hawaii. Image reversed, specimen not retained. Photo by Y.K. Tea.

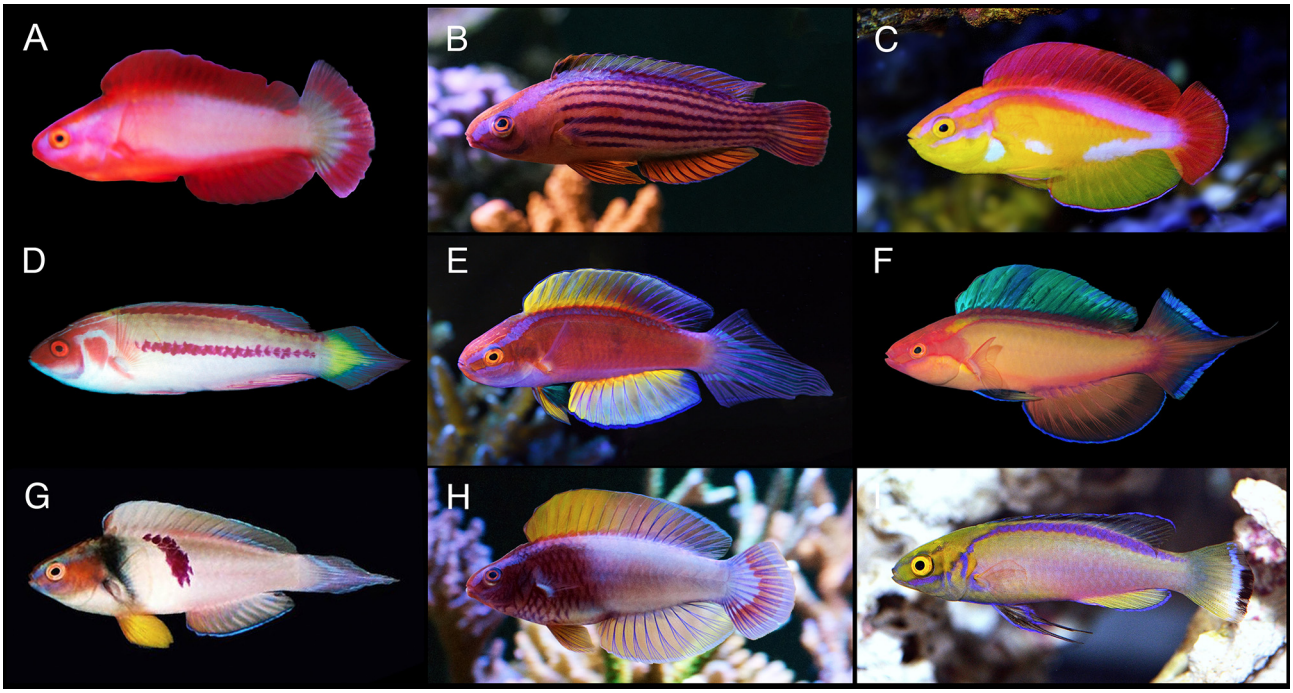

FIGURE 8. Males of selected *Cirrhilabrus* species. All are in nuptial display except D, F and I. A) *C. shutmani* **n. sp.**, aquarium specimen from Didicas Volcano, Babuyan Islands, northern Philippines (photo by D. Laux); B) *C. earlei*, aquarium specimen from Kwajalein Atoll, Marshall Islands (photo by T. lauderdale); C) *C. jordani,* aquarium specimen from the Hawaiian Islands (photo by Y.K. Tea); D) *C. blatteus*, Israel, Gulf of Aqaba (photo by J.E. Randall); E) *C. roseafascia*, aquarium specimen from Coral Sea, Australia (photo by Y.K. Tea); F) *C. lanceolatus*, aquarium specimen from Scarborough Shoal, South China Sea, western Philippines (photo by B.P. Shutman); G) *C. sanguineus*, aquarium specimen from Mauritius (photo by H. Tanaka); H) *C. rubrisquamis*, aquarium specimen from the Maldives (photo by T. Lauderdale); I) *C. claire*, aquarium specimen from Mo'orea, French Polynesia (photo by Y.K. Tea).

FIGURE 9. *Cirrhilabrus earlei*, male, approximately 100 mm SL (140 mm TL), collected from Pohnpei, Micronesia. Photo by B.D. Greene & R. Whitton.

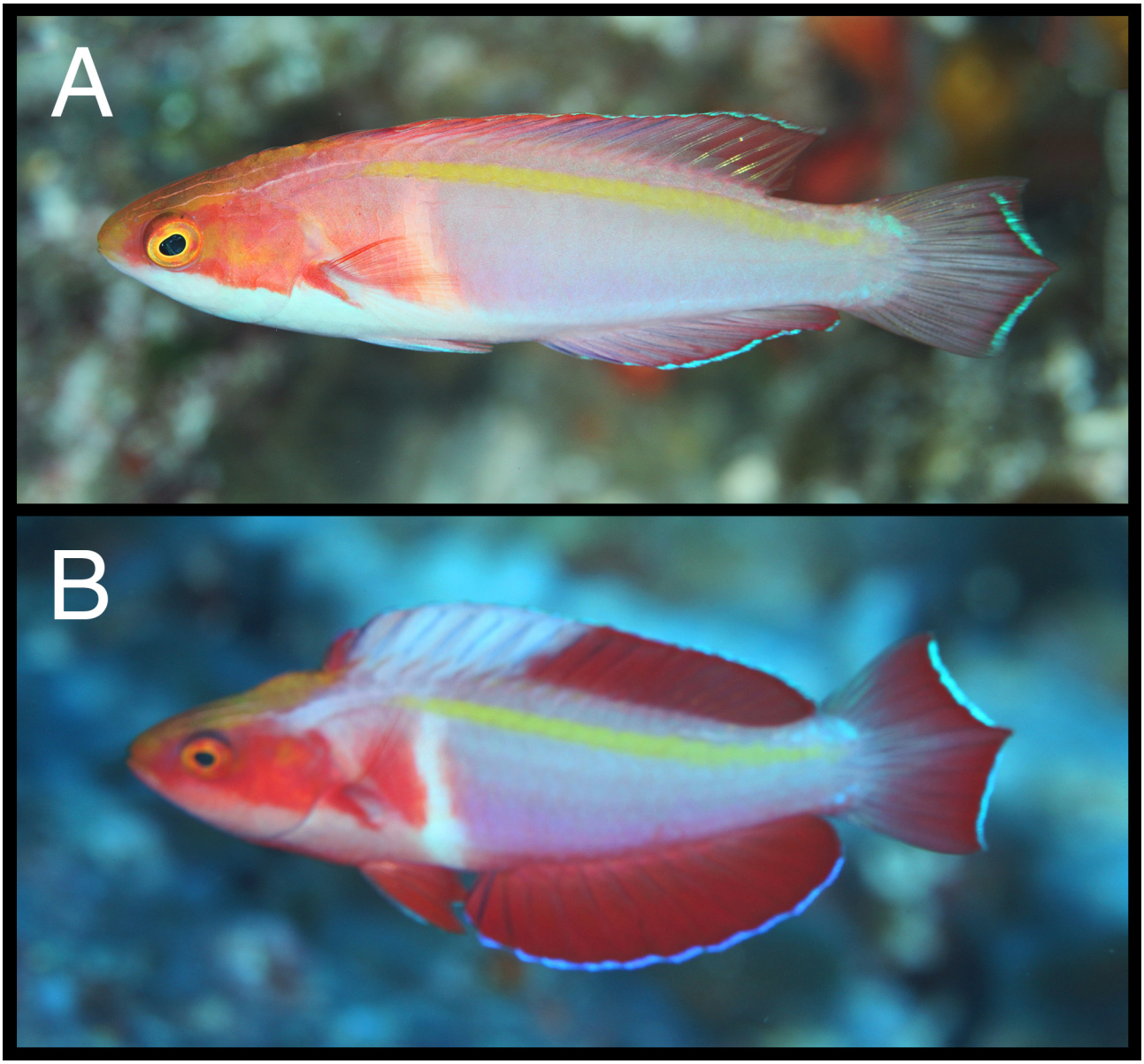

FIGURE 10. Unknown *Cirrhilabrus*, male, approximately 70 mm TL, A) not displaying, B) in nuptial display, photographed in the Ogasawara Islands. Photo by S. Kobayashi.

In addition, we are aware of a *Cirrhilabrus* with a similar combination of colouration and fin-shape characters, photographed in the Ogasawara Islands (Figure 10). Its live colouration details and differences from the other nine species are summarized in Table 2. Its nuptial colouration is very similar to that of *C. shutmani* (cf. Figures 8A and 10). Specimens are needed to evaluate the identity of this species.

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TABLE 2. Comparison of details in live coloration of selected male *Cirrhilabrus* species based on live specimens and colour photographs of specimens in aquaria and in the field.

	C. shutmani	*C. earlei*	*C. jordani*	*C. roseafascia*	*C. lanceolatus*	*C. blatteus*	*C. sanguineus*	*C. rubrisquamis*	*C. claire*	*C. sp.*
Dorsal fin	Bright red with dusky red-grey shading	Pink to orange-pink, basal scales purple	Bright red	Pale to bright yellow, large pinkish hyaline wedge posteriorly	Blue-green	Purple to purple-red	Pale pink to orange-pink	Orange-red to magenta	Orange to orange-green, sometimes with poorly defined dusky margin	Pink to pinkish-red
Anal fin	Bright red with dusky red-grey shading	Purple to purple-orange with orange outer margin	Bright yellow	Pale to bright yellow	Pale yellow, sometimes with greenish tinge	Pale pink	Pale pink to orange pink	Orange-red to magenta	Pale yellow to bright yellow	Pink to pinkish-red
Pelvic fin	Bright red with anterior margin bright purple-blue	Pale pink to yellow-orange	Bright yellow	Pale yellow with dark blue, wedge-shaped spot; spot not reaching blue anterior edge of fin	Pale yellow-green with dark blue spot; spot suffused and reaching blue anterior edge of fin	Pale pink	Pale pink	Pale pink to purple	Pale yellow to orange, sometimes dusky	Pink to pinkish-red
Caudal fin	Bright yellow with red distal half	Pink to purple, dorsally and ventrally with broad, oblique blue margins	Bright red, sometimes with yellow streaks	Pale yellowish hyaline, central rays with bright blue lines converging to tip of caudal fin	Pale yellow-green, dorsally and ventrally with broad, oblique greenish blue margins	Bright yellow basally, yellow grey distally, with a pair of bright blue chevrons converging to tip of caudal fin	Pale pink with a pair of bright blue chevrons converging to tip of caudal fin	Pink to magenta, with bright blue submarginal band	Yellow to orange-pink with dusky green to black margin, edged on the inside with blue	Pink to pinkish-red, dorsally and ventrally with greenish blue margins converging to tip of caudal fin
Facial markings	Lilac to magenta stripes above and below eye weakly present	Purple to purple-red stripe above eye strongly present; stripe below eye weakly present	Bright red stripes above and below eye strongly present	Pink to reddish-pink stripes strongly present; lower stripe extending to pectoral fin base	Orange-red to purple stripes strongly present; lower stripe extending to pectoral fin base	Large red spot on operculum behind eye; facial stripes present only during nuptial display	Lilac to lavender stripes above and below eye weakly present	Lilac to lavender stripes above and below eye present only during nuptial display	Purple stripes above and below eye strongly present	Pinkish-red stripes strongly present; lower stripe extending to pectoral fin base
Stripe on upper body	Absent; present only during nuptial display and connected to upper eye stripe	Present and connected to upper eye stripe	Present and connected to upper eye stripe	Present and connected to upper eye stripe	Present and connected to upper eye stripe	Present, ending at dorsal-fin origin	Absent	Absent; present only during nuptial display and connected to upper eye stripe	Present and connected to lower eye stripe	Present, ending at dorsal-fin origin; connected to upper eye stripe only in nuptial display
Stripes on lower body	Absent	5-6 dark purple stripes	Absent; present only during nuptial display as a lilac stripe above anal fin	Sometimes with faint orange-pink stripe above anal fin	Absent; present only during nuptial display as a faint lilac stripe above anal fin	Purple stripe present midlaterally	Absent, but with broad oblique reddish-brown band mid-dorsally	Absent	Absent	Pale bluish-grey stripe weakly present, with narrow oblique pale yellowish band behind pectoral fin

References

Allen, G.R., Erdmann, M.V. & Dailami, M. (2015) *Cirrhilabrus marinda*, a new species of wrasse (Pisces: Labridae) from eastern Indonesia, Papua New Guinea, and Vanuatu. *Journal of the Ocean Science Foundation*, 15, 1–13.

Allen, G.R. & Hammer, M.P. (2016) *Cirrhilabrus hygroxerus*, a new species of fairy wrasse (Pisces: Labridae) from the Timor Sea, northern Australia. *Journal of the Ocean Science Foundation*, 22, 42–52.

Cornic, A. (1987) *Poissons de l'Ile Maurice.* Editions de l'Océan Indien, Stanley, Rose-Hill, Ile Maurice, xi + 335 pp.

Kuiter, R.H. (2010) *Labidae Fishes: Wrasses*. Aquatic Photographics, Seaford, 390 pp.

Randall, J.E. & Emery, A.R. (1983) A new labrid fish of the genus *Cirrhilabrus* from the Chagos Archipelago, Indian Ocean. *Journal of Aquariculture & Aquatic Sciences*, 3 (2), 21–24.

Randall, J.E. & Lubbock, R. (1982) Three new labrid fishes of the new genus *Cirrhilabrus* from the southwestern Pacific. *Occasional Papers of Bernice Pauahi Bishop Museum*, 25, 1–12.

Randall, J.E. & Masuda, H. (1991) Two new labrid fishes of the genus *Cirrhilabrus* from Japan. *Revue française d'Aquariologie Herpétologie*, 18, 53–60.

Randall, J.E. & Pyle, R.L. (2001) Three new species of labrid fishes of the genus *Cirrhilabrus* from islands of the tropical Pacific. *aqua, Journal of Ichthyology and Aquatic Biology*, 4, 89–98.

Snyder, J.O. (1904) A catalogue of the shore fishes collected by the steamer "Albatross" about the Hawaiian Islands in 1902. *Bulletin of the U. S. Fish Commission*, 22, 513–538, pls. 1–13.

Springer, V.G. & Randall, J.E. (1974) Two new species of the labrid fish genus *Cirrhilabrus* from the Red Sea. *Israel Journal of Zoology*, 23, 45–54.

Tea, Y.K., Senou, H. & Greene, B.D. (2016) *Cirrhilabrus isosceles*, a new species of wrasse (Teleostei: Labridae) from the Ryukyu Archipelago and the Philippines, with notes on the *C. lunatus* complex. *Journal of the Ocean Science Foundation*, 21, 18–37.

Temminck, C.J. & Schlegel, H. (1845) Pisces. *In*: *Seibold, P.F. de. Fauna Japonica. Parts 7–9*. A. Arnz & Co., Leiden, pp. 113–172, pls. 1–143 + A.

Victor, B.C. (2016) Two new species in the spike-fin fairy-wrasse complex (Teleostei: Labridae: Cirrhilabrus) from the Indian Ocean. *Journal of the Ocean Science Foundation*, 23, 21–50.

Walsh, F., Tea, Y.K. & Tanaka, H. (2017) *Cirrhilabrus efatensis*, a new species of wrasse (Teleostei: Labridae) from Vanuatu, South Pacific Ocean. *Journal of the Ocean Science Foundation*, 26, 68–79.