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Myersina adonis, a New Species of Shrimp-associated Goby (Pisces, Perciformes, Gobiidae) from the Andaman Sea

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Abstract A new shrimp-associated goby, *Myersina adonis*, is described based on seven specimens (21.7–31.3 mm in standard length) collected from shallow seagrass beds on the Andaman coast of Thailand. *Myersina adonis* is distinguished from the congeners in having: VI-I, 10 dorsal-fin rays; I, 9 anal-fin rays; 53–61 longitudinal scales; 4–5+14–17=18–21 gill rakers; united gill membranes with a distinct free rear margin across the isthmus at least in males (but not pronounced in most females); five transverse rows of sensory papillae on cheek; dorsal half of the body mottled with charcoal gray, without distinct longitudinal stripes; three faint, dusky vertical bars on side of belly; and a wedge-shaped black spot on pectoral-fin base. When alive or fresh, there are minute bright blue spots scattered on the head and body; minute reddish spots on the jaws; three or four irregular rows of red spots on the second dorsal fin; and a series of alternating red and yellow spots on membrane between first and second spines of the first dorsal fin in males.
Key words : *Myersina adonis*, new species, Gobiidae, shrimp-associated goby, Andaman Sea.

Myersina Herre, 1934, is an Indo-Pacific fish genus of the gobiid subfamily Gobiinae (*sensu* Pezold, 1993), and comprises small to moderate-sized (up to ca. 100 mm SL) marine or brackish-water gobies, symbiotically associated with alpheid shrimps (snapping shrimps or pistol shrimps). The genus was recently redefined by Winterbottom (2002), who provisionally recognized following seven species within it: *M. filifer* (Valenciennes *in* Cuvier & Valenciennes, 1837); *M. macrostoma* Herre, 1934; *M. pretoriusi* (Smith, 1958); *M. yangii* (Chen, 1960); *M. crocata* (Wongratana, 1975) [Note.–most previous authors use the specific name *M. crocatus*, but it should be spelled as *crocata* (as done by Senou & Nin, 2003) because the gender of *Myersina* is feminine (Eschmeyer, 1998)]; *M. lachneri* Hoese & Lubbock, 1982; *M. nigrivirgata* Akihito & Meguro, 1983. In addition, Winterbottom (2002) suggested that *Cryptocentrus shigensis* Kuroda, 1956, was possibly assigned to *Myersina*, and *Myersina larsonae* Allen, 1999, should be placed in the other shrimp-goby genus *Stonogobiops* (citing personal communications from both G.R. Allen and D.F. Hoese to R. Winterbottom). According to Winterbottom (2002), the genus is characterized by having the following combination of features: cycloid scales only but no scales along midline of nape, or on head or pectoral-fin base; scales increasing in size from anterior to posterior on body; elongate first dorsal fin at least in males; two preopercular sensory canal pores; sensory papillae on cheek in a well-developed transverse pattern; gill membranes fusing in ventral midline and attaching to isthmus at the point, or forming a free fold across it and attaching to isthmus medially anterior to the point of fusion; no teeth on vomer. Characters unique to *Myersina* amongst the gobiines have never been proposed, and the monophyly of the genus has therefore not been determined.

During our research on fish fauna of seagrass

bed and mangrove areas at the Libong Island, Trang Province of Thailand, in 2003, the senior author collected six specimens of an undescribed species of shrimp-associated goby. Subsequently, three additional specimens of this species were collected from the other parts of the Andaman coast of Thailand (Phrathong and Phuket Islands) by the junior author. The species, herein described as new, agrees entirely with the definition of *Myersina* proposed by Winterbottom (2002), but readily distinguished from its congeners in coloration and several other details.

Materials and Methods

Institutional abbreviations for materials examined follow Leviton *et al.* (1985), with an additional code, PMBC, for Reference Collection of Phuket Marine Biological Center.

Measurements were made point-to-point with calipers under a dissecting microscope to the nearest 0.01 mm. The methods for measurements follow those of Hubbs & Lagler (1958), with exceptions given below ("snout tip" refers to the mid-anteriormost point of the upper lip): head length—tip of snout to posterior end of head including gill membrane; interorbital width—least width between innermost rims of right and left eyeballs; jaw length—snout tip to the posteriormost point of lips; head width and depth were measured at posterior vertical margin of preopercule; body depth was measured at the anal-fin origin; nape width—distance between dorsalmost ends of gill openings; preanal and prepelvic lengths—snout tip to the origin of each fin; pectoral-fin length—the base to tip of the longest ray; pelvic-fin length—distance between the anterior margin of the base of pelvic-fin spine and the distal tip of the longest segmented ray; heights of pelvic-fin frenum and interradial membrane—least heights; lengths of fin spines and rays—between the anterior margin of the base to distal tip of each ray. The methods for counts follow Akihito *et al.* (1984), except for the following: longitudinal scale count—number of oblique (anterodorsal to posteroventral) scale rows from just dorsoposterior to upper attachment of opercular membrane (i.e., anteriormost scale or scale row) backward to mid-base of caudal fin; three methods of transverse scale count given in the descriptive accounts; circumpeduncular scale count—number of scales along a zigzag vertical line through narrowest point of caudal peduncle; gill rakers counted on outer side of first arch, including all rudiments; count of pseudobranchial filaments includes all rudiments. Pectoral fin rays counted and numbered from dorsal to ventral. Scales (except for circumpecuncular) and paired-fin rays counted bilaterally. Osteological features were taken from radiographs. The methods of Akihito *et al.* (1984) are used in describing the pattern of the interdigitation of the dorsal-fin pterygiophores between the neural spines ("P–V"). Cephalic sensory canals and papillae were examined on specimens stained with Cyanine Blue, and notations on them follow Akihito *et al.* (1984) and Miller (1986), respectively. All fish lengths given are standard lengths (SL).

Myersina adonis sp. nov.

(Figs. 1–3, Table 1)

Myersina species. Shibukawa, 2005: 62 [Libong Island; color photograph of male (NSMT-P 65985, now re-registered as PMBC 21030＝holotype), and brief description].

Holotype. PMBC 21030, male, 30.5 mm SL, eastern coast of Libong Island, Trang Province, Andaman Sea, Thailand, 1 m depth, 10 Mar. 2003 (collected by K. Shibukawa).

Paratypes. AMS I.43770-001, 1 specimen (female), 28.5 mm SL, collected with holotype; NSMT-P 65987, 1 specimen (male), 30.6 mm SL, collected with holotype; NSMT-P 65979, 1 specimen (female, cleared and stained), 27.7 mm SL, collected with holotype; NSMT-P 65980, 1 specimen (male), 21.7 mm SL, collected with holotype; PMBC 20177, 1 specimen (female), 25.8 mm SL, east coast of Phrathong Island, Phangnga Province, Andaman Sea, Thailand (9°04.95′N, 98°20.25′E), 0 m depth, 2 July 2003

(collected by U. Satapoomin); ROM 79683, 1 specimen (female), 31.3 mm SL, collected with holotype.

Non-type material. PMBC 21030, 2 specimen (female, 30.0 mm SL; male, 29.2 mm SL), east coast of Phuket Island, Andaman Sea, Thailand, tidepools in intertidal seagrass bed, 0 m depth, quinardine, 15 Nov. 2005 (collected by U. Satapoomin).

Diagnosis. *Myersina adonis* is distinguished from its other congeners in having the following combination of characters: VI-I, 10 dorsal-fin rays; I, 9 anal-fin rays; 53–61 longitudinal scales; 4–5+14–17=18–21 gill rakers; united gill membranes with a distinct free rear margin across isthmus at least in male (but not pronounced in most females); five transverse rows of sensory papillae on cheek, including two rows in front of longitudinal row *b*; dorsal half of body mottled with charcoal gray, without distinct longitudinal stripes; three faint, dusky vertical bars on side of belly; a wedge-shaped black spot on pectoral-fin base; and, when alive or fresh, minute bright blue spots scattered on head and body; minute reddish spots on jaws; three or four irregular rows of red spots on second dorsal fin; a series of alternating red and yellow spots on membrane between first and second spines of first dorsal fin in male.

Description. The following description is based on the type specimens; the frequency of each count is in parentheses, and counts for the holotype are asterisked.

Dorsal-fin rays VI-I, 10* (7); anal-fin rays I, 9* (7); pectoral-fin rays 15 (3), 16* (6) or 17 (5); pelvic-fin rays I, 5* (14); segmented caudal-fin rays 9+8* (7), including 7+6* (6) or 7+7 (1) branched rays; dorsal unsegmented caudal-fin rays 4 (1), 5* (5) or 6 (1); ventral unsegmented caudal-fin rays 4* (5), 5 (1) or 7 (1); longitudinal scales 53 (3), 54 (3), 55 (1), 56* (2), 57* (1), 59 (1), 60 (2) or 61 (1); transverse scales from anal-fin origin upward and forward to first dorsal-fin base 22 (1), 23* (5), 24* (3), 25 (2), 28 (2) or 31 (1); transverse scales from anal-fin origin upward and backward to second dorsal-fin base 18 (1), 20 (6), 21* (4), 22* (2) or 23 (1); transverse scales from second dorsal-fin origin downward and backward to anal-fin base 20 (2), 21 (5), 23* (3), 24* (1) or 25 (1); predorsal scales 0* (7); circumpeduncular scales 24 (1), 26 (1) or 28* (5); gill rakers 4+14 (1), 4+15* (4), 4+17 (1) or 5+15 (1); pseudobranchial filaments 9 (1), 10* (2), 11 (4); vertebrae 10+16=26* (7); P-V 3/II II I I 0/9* (7); epural 1* (7); anal-fin pterygiophores anterior to first haemal spine 2* (7); pleural ribs on third to tenth precaudal vertebrae* (7).

Proportional measurements are given in Table 1. Body moderately elongate and compressed. Head slightly compressed, its width 84.6–93.8% of depth. Snout short, its length shorter than eye diameter; snout not protruding beyond upper lip. Eye dorsolateral, large, its diameter 26.0–28.8% of head length; interorbital space narrow, its width narrower than pupil diameter and 4.6–6.1% of head length. Shallow transverse trough just behind eye. No cutaneous ridge along dorsal midline of nape. Gape oblique, forming an angle of about 30 degrees with body axis. Lower jaw projecting anteriorly beyond upper jaw; posterior end of jaws to about a vertical line through posterior end of eye; jaw length 47.9–52.5% of head length. Anterior nasal opening a short tube; no fleshy flap at tip of anterior naris; posterior nasal opening a pore, located at approximately midpoint between anterior nasal opening and anterior margin of eye. Tip of tongue blunt, without a distinct notch at anterior margin, free from floor of mouth. Posteroventral margin of lower lip interrupted at symphysis. No mental frenum. Gill opening wide, extending anteriorly beyond a vertical line through preopercular margin; united gill membranes with or without distinct free rear margin across isthmus, i.e., all males and one female found to have a distinct free rear fold, whereas very indistinct in other females. No fleshy projections on lateral wing of shoulder girdle. No bony projections along posterior margin of preopercle. Gill rakers on outer surface of ventral arm of first arch well developed, long and thin, finger-like; rakers on outer surface of dorsal arm of first arch rudimentary; first gill slit mostly

Table. 1. Proportional measurements of type specimens of *Myersina adonis* sp. nov.

	Holotype PMBC 21030	Males*1) 3 speciemens	Females 4 specimens
SL (mm)	30.5	21.7–30.6	25.8–31.3
Measurements in % of SL			
Head length	32.6	32.6–33.3	30.8–31.8
Head width	17.6	16.5–17.6	15.4–18.2
Head depth	19.5	19.2–19.5	17.8–1.9
Snout length	7.3	6.8–7.5	6.6–7.4
Eye diameter	8.5	8.5–9.5	8.3–9.1
Interorbital width	2.0	1.6–2.0	1.4–1.9
Nape width	12.9	12.1–12.9	12.0–13.3
Jaw length	17.0	16.0–17.3	15.0–16.6
Body depth	16.9	15.1–16.9	17.6–18.0
Body width	12.6	12.6–12.8	11.9–16.5
Predorsal length	38.3	38.3–39.3	36.8–38.7
Prepelvic length	35.2	34.0–35.2	32.6–34.1
Preanal length	60.0	60.0–62.5	60.7–63.2
Caudal–peduncle length	19.0	17.9–19.8	19.9–20.5
Caudal–peduncle depth	10.5	10.5–10.7	10.5–11.2
Length of D1 base	19.4	19.4–20.3	19.8–21.3
Length of D2 base	29.2	27.4–29.2	26.7–29.5
Length of A base	23.3	21.2–23.3	20.0–22.3
P1 length	25.2	24.9–26.8	24.6–26.0
P2 length	26.5	26.0–28.6	24.8–26.4
C length	34.2	34.2–36.2	29.8–36.0
Length of 1st spine of D1	45.3	20.8–51.2	22.5–27.4
Length of 2nd spine of D1	42.6	20.1–49.7	22.0–25.2
Length of 3rd spine of D1	39.1	17.8–45.7	20.0–23.7
Length of 4th spine of D1	32.2	15.7–32.2	16.3–21.7
Length of spine of D2	11.7	11.4–12.1	10.6–12.1
Length of 1st ray of D2	15.1	14.9–15.7	14.4–15.9
Length of longest ray of D2	19.6	18.6–20.7	17.9–20.4
Length of spine of A	7.5	7.5–8.5	6.9–8.4
Length of 1st ray of A	10.9	10.9–12.3	10.1–11.8
Length of longest ray of A	20.9	20.6–22.5	18.8–22.2
Length of spine of P2	8.7	8.3–9.0	7.8–8.7
Length of 1st ray of P2	11.8	10.7–12.5	11.0–11.5
Length of 4th ray of P2	22.0	22.0–23.4	20.8–22.9
Length of 5th ray of P2	23.6	23.6–24.8	21.9–24.6
Height of P2 frenum	7.3	6.6–7.3	6.0–6.6
Height of connecting membrane*2) of P2	22.1	22.1–24.1	20.2–24.0

*1) Including holotype; *2) membrane between innermost (=5th) rays of pelvic fins. Abbreviations: A, anal fin; C, caudal fin; D1, first dorsal fin; D2, second dorsal fin; P1, pectoral fin; P2, pelvic fin.

open. Caudal peduncle moderately slender, its depth 51.4–59.9% of caudal-peduncle length. First dorsal fin higher than second dorsal fin and close to, but not connected to, second dorsal fin by membrane; first spine of first dorsal fin usually longest (99.4–111.4% of preceding spine in length); when adpressed, distal tip of first dorsal fin reaching posteriorly to base of first or second segmented ray of second dorsal fin in females, to base of eighth segmented ray of second dorsal fin or beyond in males (except for young male, NSMT-P 65980); all dorsal-fin spines slender and flexible; all segmented rays of second dorsal fin branched; usually eighth (ninth in one example) segmented ray of second dorsal fin longest, extending to or slightly before caudal fin when adpressed. Origin of anal fin on a vertical through base of second segmented ray of second dorsal

fin; height of anal fin slightly lower than second dorsal fin; anal-fin spine slender and flexible; all segmented anal-fin rays branched; usually seventh (eighth in one example) segmented ray of anal fin longest, extending to caudal fin when adpressed. Caudal fin rounded, almost symmetrical dorsoventrally. Pectoral fin rounded, reaching posteriorly to a vertical line through base of first or second segmented ray of second dorsal fin (or just before or behind base of anal-fin spine); all pectoral-fin rays branched, excluding uppermost and lowermost 2 and 1–2 unbranched rays, respectively. Origin of pelvic fin slightly anterior to a vertical line through origin of first dorsal fin; pelvic fins fused medially by well developed frenum (between spines) and median interradial membrane (between innermost segmented rays); pelvic frenum moderately thin, with smooth posterior margin; all segmented pelvic-fin rays branched; fifth segmented ray longest, usually extending posteriorly to or slightly beyond anus (but not reaching to origin of anal fin) when adpressed.

All scales on body cycloid; scales increasing in size from anterior to posterior on body; no scales on head, nape, pectoral-fin base, breast, most of belly near ventral midline, and fins (exclusive of small area on basal part of caudal fin).

Teeth on both jaws unicuspid; upper jaw with four rows of teeth anteriorly, narrowing to single row posteriorly; teeth on middle row of upper jaw smaller than teeth in other rows; 3–5 strongly incurved, enlarged slender teeth at anterior part of innermost row of each side of upper jaw; lower jaw with four rows of teeth anteriorly, narrowing to single row posteriorly; teeth increasing in size from anterior to posterior on outermost and innermost rows; no teeth on vomer or palatine. Anterior tip of vomer enlarged in a blunt V- or U-shaped process, projecting downward behind symphysis of upper jaw.

Cephalic sensory systems are illustrated in Fig. 1. Anterior oculoscapular canal with pores B′, C (single), D (single), E, F, G and H′; posterior oculoscapular canal with pores K′ and L′; preopercular canal with pores M′ and O′; right and

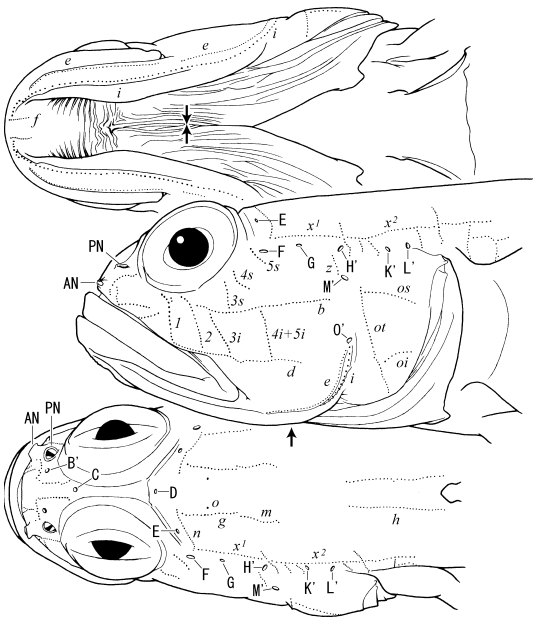

Fig. 1. Ventral (top), lateral (middle), and dorsal (bottom) views of the heads of *Myersina adonis* sp. nov. (PMBC 21030, holotype, male, 30.5 mm SL), showing cephalic sensory canal pores (open circles with Roman uppercase letters, except for AN and PN) and papillae (dots with Roman lowercase letters). AN and PN, anterior and posterior nares, respectively. Arrows show position where gill membrane is attached to isthmus. Drawn by K. Shibukawa.

left sides of anterior oculoscapular canals fused medially in interorbital space. All cephalic sensory-papillae rows either uniserial or comprising a single papilla, not forming multiple lines or aggregations; distinct transverse pattern of sensory papillae rows on cheek, i.e., essentially five transverse rows on cheek (=rows *1–5*), including two rows (rows *1* and *2*) in front of longitudinal row b; posterior three transverse rows (rows *3–5*) divided by row *b*, ventral parts of rows *4* and *5* (=rows *4i* and *5i*) continuous one another, apparently forming a single row; longitudinal row *b* very long, extending anteriorly to a vertical line through middle of pupil; row *b* not interrupted at midway; row *d* long, extending posteriorly well beyond transverse row *4i+5i*; row *e* interrupted at its midpoint beneath articulation of lower jaw, its posterior end extending dorsally to well above

a longitudinal line through end of row *d*; row *i* continuous from sensory-canal pore O′ to side of row *f*.

Color when fresh. Male (*Figs. 2A & B*): ground color of head and body grayish olive or olive green dorsally, dull greenish yellow or olive yellow ventrally; iris dull yellow, tinged with orange, or dark grayish brown; dorsal half of body mottled with charcoal gray; belly with three indistinct dark-gray bars; many minute bright sky-blue spots (smaller than quarter of pupil), encircled by vague orange (except for those on posterior part of body), scattered on cheek, operculum, pectoral-fin base and body; small red spots (smaller than half of pupil) on upper and lower jaws and interopercle just behind posteroventral corner of cheek; a wedge-shaped black spot on upper part of pectoral-fin base; ground color of dorsal fins transparent, tinged with gray basally; a series of alternating vague red and bright yellow spots on membrane between first and second spines of first dorsal fin; 2–3 minute dark-red spots on basal part of first spine of first dorsal fin; two dark-blue ovoid spots tinged with bright sky blue on basal part (but slightly above fin base) of membrane between second and fourth spines of first dorsal fin; four alternating vague red and yellow lines (becoming narrow distally) on membrane between third and fifth spines of first dorsal fin; 3–4 small red spots on membrane behind fifth spine of first dorsal fin; about four irregular horizontal rows of vivid red spots on second dorsal fin; distal margin of second dorsal fin vague red, edged ventrally by pale and yellow lines; anal fin grayish, tinge with red or yellow at middle; caudal fin with many narrow red and yellow lines along rays; these red lines on ventral part of caudal fin tinged with black distally; pectoral fin translucent; pelvic fins grayish, with alternating red and yellow vertical bars between right and left sides of third rays. *Typical (dark-colored) female* (*Figs. 2C & D*): similar to male coloration, except as follows: ground color of head and body somewhat lighter, and dusky markings on body more vivid; minute bluish spots on head and body paler, apparently not found on caudal part of body; a series of 3–4 dark red or black spots on first spine of first dorsal fin; dorsal margin of first dorsal fin narrowly tinged with dark gray; small pale sky-blue spot between second and third spines of first dorsal fin (instead of a pair of dark blue spots between second and fourth spines); reddish spots on second dorsal fin more dusky; pelvic fin paler. *Yellow-morph female* (*Fig. 2E*): ground color of head and body dull greenish yellow; alternating grayish brown (tinged with red ventrally) and yellow barred pattern on trunk; other dusky and reddish patterns on head, body and fins paler and less distinct than typical (dark-colored) female specimen. *Young male* (*Fig. 3*): similar to coloration in female, except for lacking grayish margin of first dorsal fin.

Color in alcohol. Similar to freshly-collected coloration, except as follows: coloration tinged with red, orange and yellow on head, body and fins faded; bright blue spots turn to dusky.

Sexual dimorphism. Several morphological and coloration differences between the sexes are apparent. Urogenital papilla narrow and pointed in males (vs. bulbous and rounded in females); first dorsal fin greatly elongate in adult males (Figs. 2A & B) [vs. not so in females (Figs. 2C–E) and young (Fig. 3)]; dorsal margin of first dorsal fin transparent in males (vs. narrowly tinged with gray); and a series of alternating red and yellow spots on membrane between first and second spines of first dorsal fin in males (vs. no such pattern in female and the young male).

Distribution, habitat and ecological notes. The new species, *Myersina adonis*, is known from Phrathong Island (Phangnga Province) to Libong Island (Trang Province) on the Andaman coast of Thailand. The type specimens were found at the depths of 0–1 m (at low-tide hour) on flat sandy-mud bottom with seagrass beds, together with some other species of shrimp-associated gobies, such as *Cryptocentrus leptocephalus* Bleeker, 1876, *C. caeruleomaculatus* (Herre, 1933) and *Mahidolia mystacina* (Valenciennes in Cuvier & Valenciennes, 1837). The senior author (KS) observed the specimens of *M. adonis* at, or

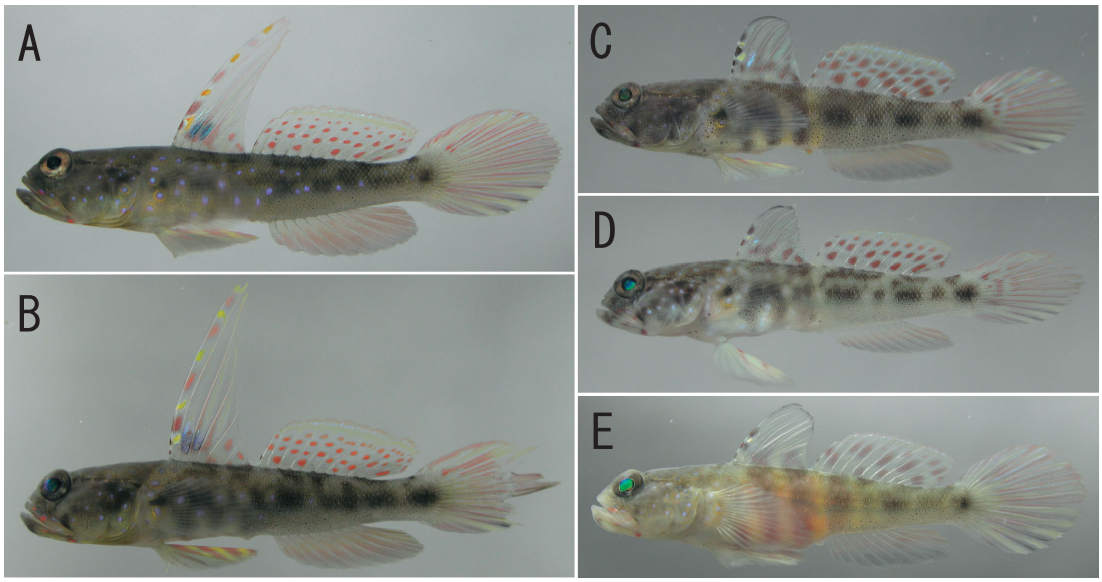

Fig. 2. Freshly collected specimens of *Myersina adonis* sp. nov. A) PMBC 21030, holotype, male, 30.5 mm SL; B) NSMT-P 65987, paratype, male, 30.6 mm SL; C) AMS I. 43770-001, paratype, female, 28.5 mm SL; D) NSMT-P 65979, paratype, female, 27.7 mm SL; E) ROM 79683, paratype, female, 31.3 mm SL. Photographed by K. Shibukawa.

Fig. 3. Freshly collected specimen of *Myersina adonis* sp. nov. (NSMT-P 65980, young male, 21.7 mm SL). Photographed by K. Shibukawa.

around, the entrance of a small burrow that was constructed by a dull-colored alpheid shrimp (species not determined). The burrows were on a simple sandy-mud bottom, and appeared to be not protected by dead-coral rubbles or roots of seagrasses. Unlike some congeners (e.g., *M. macrostoma*, *M. lachneri* and *M nigrivirgata*), *M. adonis* did not exihibit the hovering behaviour above the burrow reported for those species during the time that KS observed them.

Comparison. The new species, *Myersina adonis*, clearly belongs to *Myersina* (*sensu* Winterbottom, 2002), and possess all of the diagnostic features of the genus listed above, as well as the symbiotic association with alpheid shrimp.

Within the genus, *Myersina adonis* is similar to *M. crocata*, *M. filifer*, *M. macrostoma* and *M. nigrivirgata* in having I, 9 anal-fin rays (vs. I, 10–11 in *M. lachneri*, *M. pretoriusi* and *M. yangii*). It is, however, readily distinguished from these four congeners in having the following features (Akihito & Meguro, 1978, 1983; Akihito *et al.*, 1984; Akihito *et al.*, 2002; Winterbottom, 2002): a series of alternating red and yellow spots on membrane between first and second spines of first dorsal fin in male (vs. no such pattern in other four); alternating red and yellow barred pattern on pelvic fin (vs. no such pattern); three faint, dusky vertical bars on side of belly (vs. no such dusky bars); 15–17 gill rakers on outer surface of lower limb of first arch (vs. 12–15, 11–12, 24–25 and 17 in *M. crocata*, *M. filifer*, *M. macrostoma* and *M. nigrivirgata*, respectively); a wedge-shaped dusky spot on upper part of pectoral-fin base (vs. absent, although young specimens of *M. filifer* may have a similar spot); and five transverse rows (rows *1–5*) below eye (vs. 6–7 rows in the other four species). Furthermore,

M. crocata has minute orange spots on the head and pectoral-fin base (vs. absent in *M. adonis*), no sky blue spots on head and body (vs. present), and third and fourth spines being longest in first dorsal fin (vs. first spine longest); *M. macrostoma* has truncate caudal fin in adult male (vs. rounded in both sexes), arc-shaped bright pale-blue line below eye (vs. absent), no sky-blue spots on head and body (vs. present) and dorsal half of body dark grayish brown with a pale-brown stripe from eye to caudal-fin base (vs. body mottled, without any distinct stripes), and lacks posterior oculoscapular canal and associated pores K′ and L′ (vs. present); *M. nigrivirgata* has a more or less distinct dark grayish brown stripe from eye to caudal-fin base (except for yellow morph) (vs. always absent), no red spots on jaws (vs. present), and 106–120 longitudinal scales (vs. 53–61).

Etymology. The new species is named *adonis*, after the beautiful youth Adonis, beloved by Aphrodite (=Venus), in reference to the brilliant coloration of the male.

Remarks. As in some shrimp-goby species of the genera *Cryptocentrus* [*C. cinctus*, *C. fasciatus*, *C. pavoninoides* and *C.* sp. 1 *sensu* Satapoomin & Winterbottom, 2002 (=*C.* sp. B *sensu* Senou *et al.*, 2004)] and *Myersina* (*M. nigrivirgata*), both dark (normal) and yellow morphs are found in *Myersina adonis*. The only yellow-morph specimen (ROM 79683) we examined is illustrated in Fig. 2E; it was fixed and photographed at night (several hours after collection), and, unfortunately, its coloration has already slightly darkened at then. Satapoomin & Winterbottom (2002) suggested that, in *C.* sp. 1 and *C. pavoninoides*, the yellow morph was predominantly or only found in females. The yellow-morph specimen of *M. adonis* herein examined is also female. Nevertheless, this is based only on a single example, and further observation is clearly needed in order to ascertain whether these color morphs are linked to gender or to some other factors. In the other shrimp-goby species, the yellow morph does not appear to be restricted to females; for example, type specimens of *Cryptocentrus flavus* (described based on yellow morph of *C. cinctus*) consist of both males and females (Yanagisawa, 1978), the yellow-morph specimen of *Cryptocentrus fasciatus* reported from the Japanese waters by Shibukawa *et al.* (2005) was male, and two yellow-morph specimens of *Myersina nigrivirgata* (identified as "*Myersina* sp.") reported by Akihito *et al.* (1984: pl. 244, figs. D & E) were labeled as male and female respectively.

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