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Two New Species of *Silhouettea* (Gobiidae) From Northern Australia

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Abstract Two new species of the tropical Indo-Pacific gobiid genus *Silhouettea*, *S. evanida* and *S. hoesei*, are described from Darwin and Queensland, and the Cobourg Peninsula, N.T., respectively. *S. evanida* occurs in pools on intertidal sand flats along beaches and sandy creek mouths, and *S. hoesei* more sublittorally at 5–6 m on silty sand. A key to western Pacific and Australian species is included.

The teleost genus *Silhouettea* Smith, 1959 (type-species: *S. insinuans* Smith, 1959) comprises several small tropical Indo-Pacific gobiid species usually found on sandy ground in shallow inshore and estuarine waters. In the course of a revision of this genus by one of us (Miller, in prep.), the present two forms, collected by Larson, were found to represent new species, which are described below.

Collections. BMNH: British Museum (Natural History); NTM: Northern Territory Museum of Arts and Sciences, Darwin.

Meristics and morphometrics. SL, standard length; TL, total length; LL, scales in lateral series; TR, scales in transverse series (Table 1). Morphometrics described in Table 1 except for head width, which is taken at the opercles, at upper attachment of opercular membrane; and cheek width, which is the vertical from lower edge of eye to angle of jaws. Sensory canals and papillae terminology used is that of Sanzo (1911) and Miller (1972).

Silhouettea Smith, 1959

Silhouettea Smith, 1959: 213 (type species *Silhouettea insinuans* Smith, 1959, by original designation).

Generic diagnosis. The new species share the following characters, found in other members of the genus (Miller, in prep.) (Fig. 1). Body elongate, compressed; head about one quarter of SL, postorbital profile subhorizontal; snout about equal to or slightly shorter than eye; eyes large, dorsolateral, with very narrow interorbit; cranial roof covered by dorsal axial musculature up to opposite preopercle; caudal rounded, about equal to head length; scales (original and replacement) ctenoid on body, LL 23–26, with large paired scales above and below lateral midline over base of caudal; large cycloid scales on breast (absent in three species), none on head or predorsal area; anterior nostril short, erect, tubular, lacking process on rim; posterior nostril a lateral, pore-like opening near orbit; pectoral girdle edge smooth; uppermost pectoral rays not free from

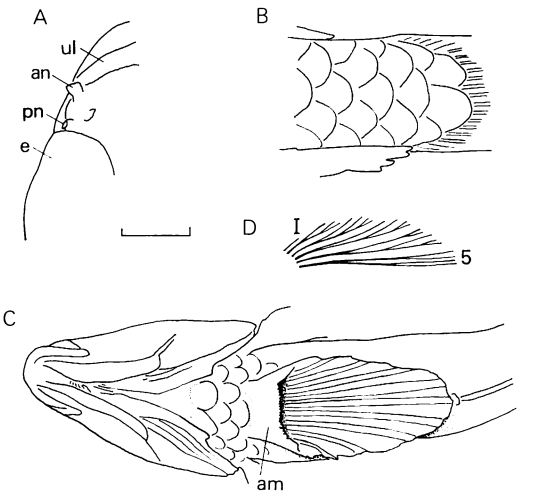

Fig. 1. Characters of *Silhouettea* (*Silhouettea evanida*). (A) Dorsal view of snout, female paratype, 17.0 mm SL (BMNH 1985. 4. 17.1–10); (B) scales of caudal peduncle and caudal fin base, female, 16.5 mm SL (same data); (C) pelvic disc and breast squamation, as (B); (D) pelvic fin ray branching pattern, male, 17.0 mm SL (NTM S. 10001-001). am, anterior pelvic membrane; an, pn, anterior and posterior nostrils; e, eye; ul, upper lip; I, spinous ray; 5, fifth articulated ray. Scale 0.5 mm (A), 1.0 mm (B), 1.3 mm (C, D).

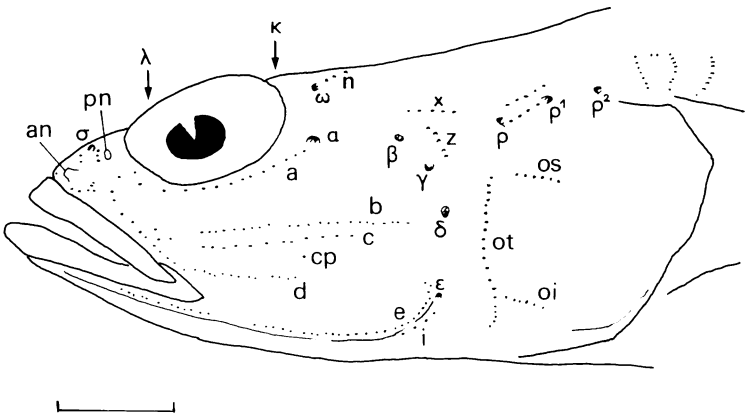

Fig. 2. Head lateral-line sensory papillae and canal-pores (with Greek letters), in *Silhouettea evanida* female, 16.5 mm SL (BMNH 1985.4 17.1–10). Abbreviations as Fig. 1 and text. Scale 1 mm.

fin membrane, first ray unbranched; pelvic disc complete, long, rounded posteriorly, and reaching to below anal origin; pelvic frenum with deeply crenulate free edge; anal with usually one more articulated ray and longer base than second dorsal; mouth oblique, jaws subequal, with angle below anterior half of orbit to below mid-eye; upper lip narrow, not more than half lateral preorbital area; chin lacking folds or barbels; membranous edge of opercle elongate, covering all or most of pectoral base, with lower edge variably crenulate or scalloped; teeth in jaws erect, caniniform, in two to three rows medially, those of outer row enlarged, especially laterally in lower jaw; pharyngeal teeth caniniform; tongue truncate to concave, occasionally almost bilobed; branchiostegal membrane attached along at least half lateral margin of isthmus; gillrakers reduced in size, simple.

Head lateral-line canals comprise anterior and posterior oculoscapular and preopercular canals (Fig. 2), carrying pores σ, λ, κ, ω, α, β, ρ, ρ^1, ρ^2, and γ, δ, ϵ respectively; anterior oculoscapular canal extending onto snout, interorbit with single canal (λ and κ unpaired). Suborbital sensory papillae with longitudinal row a around lower edge of orbit; rows a and c long, ending anteriorly below border of eye; cp represented by a single papilla; row d continuous; anterior dorsal papillae with row x divided; rows q and y longitudinal; row n extending rearward from pore ω; row g a transverse cluster of papillae continuous with fellow in dorsal midline; preorbital papillae with short lateral longitudinal row and three transverse median series; preoperculomandibular papillae with mental row f single, continuous, and transverse; body papillae with single median trunk series.

Silhouettea evanida sp. nov.

(Figs. 4, 5)

Holotype. NTM S. 10001-002, male, 18.0 mm SL, Mindil Beach, Darwin, N.T. (12°27′S, 130°49.5′E), coll. H. and J. Larson, 15 Nov. 1981.

Paratypes. NTM S. 10001-001, 4 males, 14.5–15.0 mm SL, 2 females, both 17.0 mm SL, and 14, sex undetermined, 10.2–15.3 mm SL, same data as holotype; NTM S. 11559-001, 3 males, 16.5–21.0 mm SL, 6 females, 17.0–19.0 mm SL, 3 juveniles, 13–15 mm SL, Vestey's Beach, Darwin, N.T., coll. H. Larson, R. Williams, 5 Nov. 1982; BMNH 1985. 4. 17.1–10, 3 males, 17.0–18.2 mm SL, and 4 females, 15.5–18.0 mm SL, same data as preceding; AMS IA. 6640, male, 22.0 mm SL, Bowen, Queensland, coll. G.P. Whitley, 16 Aug. 1935; AMS I. 17141-005, female, 22.0 mm SL, Woody Island, Hervey Bay, Queensland, coll. J. Davie, 30–31 July 1972.

General description. As in generic diagnosis above; body proportions in Table 1. First dorsal VI (in 22); second dorsal I, 9–11 (9 in 1, 10 in 22, 11 in 3); anal I, 11–13 (11 in 1, 12 in 23, 13 in 3); caudal segmented rays 17, branched rays 13; pectoral 14–16 (14 in 1, 15 in 28, 16 in 24); pelvic rays I, 5. Fin bases and lengths as percentage of SL in Table 1; some values for fin-ray lengths in dorsal and anal are as follows: two males (SL 17.0 and 17.2 mm), first spine of first dorsal 13.0, second spine of first dorsal 11.8, sixth spine of first dorsal 9.2–15.0, second dorsal spine 7.3–7.9, first

Table 1. Body proportions of *Silhouettea evanida* and *S. hoesei* expressed as percentages of measurements indicated. Values given are range, and, in parentheses, mean±standard deviation, unless specified for individuals.

Species	*evanida*			*hoesei*		
Sex		♂	♀		♂	♀
SL (mm)	Holotype	15.5–18.2	15.5–18.0	Holotype	15.0	15.0
Number of specimens		5	6		2	1
As % of SL,						
Head length	26.5	25.0– 29.8 (26.9± 1.58)	23.4– 30.0 (26.7± 2.30)	25.4	25.0	24.6
Head width	13.6	12.2– 13.6 (12.8± 0.50)	12.3– 13.8 (13.1± 0.56)	12.3	12.8	12.0
Snout to first dorsal fin origin	37.3	34.4– 40.2 (36.8± 1.92)	34.4– 37.0 (36.1± 0.89)	34.5	33.1	35.8
Snout to second dorsal fin origin	52.9	45.7– 53.2 (50.6± 2.91)	45.8– 54.6 (51.7± 2.94)	50.7	47.9	49.5
Snout to anus	46.8	43.9– 49.4 (46.8± 1.95)	46.1– 51.2 (48.2± 1.76)	45.8	43.8	46.0
Snout to anal fin origin	50.5	47.8– 53.8 (51.1± 1.96)	50.9– 54.6 (52.1± 1.40)	48.3	46.4	48.9
Snout to pelvic fin origin	29.0	26.7– 31.0 (28.4± 1.52)	26.1– 29.6 (28.1± 1.15)	27.6	26.3	27.8
Caudal peduncle length	10.9	9.8– 14.6 (11.6± 1.63)	9.9– 11.5 (10.9± 0.62)	10.8	9.9	8.0
First dorsal fin base	10.0	7.7– 11.7 (9.7 ± 1.38)	10.0– 12.4 (11.3± 0.88)	11.8	9.9	8.0
Second dorsal fin base	29.9	28.3– 30.6 (29.6± 0.77)	27.8– 34.9 (30.1± 2.48)	37.0	31.5	31.6
Anal fin base length	39.4	34.7– 39.4 (37.2± 1.81)	35.3– 37.9 (36.5± 1.12)	39.4	39.6	41.2
Caudal fin length	28.1	23.7– 28.1 (25.5± 1.35)	22.4– 26.9 (24.7± 1.61)	27.1	27.1	24.1
Pectoral fin length	—	21.4– 23.8 (22.5± 0.98)	21.1– 24.8 (23.0± 1.34)	24.6	23.4	20.1
Pelvic fin length	—	23.3– 27.7 (25.2± 1.64)	24.2– 27.0 (26.2± 0.95)	28.1	27.1	26.7
Body depth at pelvic fin origin	14.5	12.8– 15.8 (14.4± 1.00)	15.4– 16.7 (15.9± 0.42)	16.8	15.6	13.4
Body depth at anal fin origin	11.8	11.6– 13.7 (12.5± 0.83)	12.7– 14.2 (13.6± 0.56)	13.3	13.3	13.4
Body width at anal fin origin	8.4	8.4– 11.7 (9.9± 1.20)	8.3– 10.9 (9.9± 0.80)	9.9	9.4	9.4
Caudal peduncle depth	7.9	7.9– 8.7 (8.7± 0.27)	7.8– 8.3 (8.2± 0.21)	9.1	8.6	8.6
Pelvic fin origin to anus	22.2	1.96– 22.2 (21.3± 0.99)	18.0– 23.8 (20.6± 1.95)	20.7	19.3	22.5
As % of caudal peduncle length,						
Caudal peduncle depth	72.9	55.6– 88.2 (73.4±11.62)	68.6– 84.4 (74.6± 5.27)	84.1	86.8	10.6
As % of head,						
Snout length	15.4	13.2– 17.0 (14.6± 1.44)	12.6– 19.3 (16.2± 2.05)	11.7	10.4	15.2
Eye diameter	29.1	23.3– 29.1 (26.4± 1.87)	25.0– 30.8 (27.8± 2.01)	30.1	27.1	30.4
Postorbital length	54.7	51.1– 56.0 (53.7± 1.67)	48.4– 55.9 (53.4± 2.56)	57.3	58.3	54.4
Cheek depth	18.0	16.0– 18.7 (17.7± 0.90)	12.6– 24.7 (18.4± 3.94)	21.4	17.7	15.2
Head width	51.3	45.0– 51.3 (49.0± 2.55)	43.2– 58.9 (49.6± 5.37)	48.5	51.0	48.9
As % of eye,						
Interorbital width	—	11.1– 14.3 (12.3± 1.40)	7.7– 18.8 (12.3± 3.88)	9.7	15.4	14.3
As % of caudal length to anus,						
Pelvic fin length	—	107.7–140.9 (120.4±14.65)	113.0–148.7 (128.8±12.98)	135.7	140.5	119.1

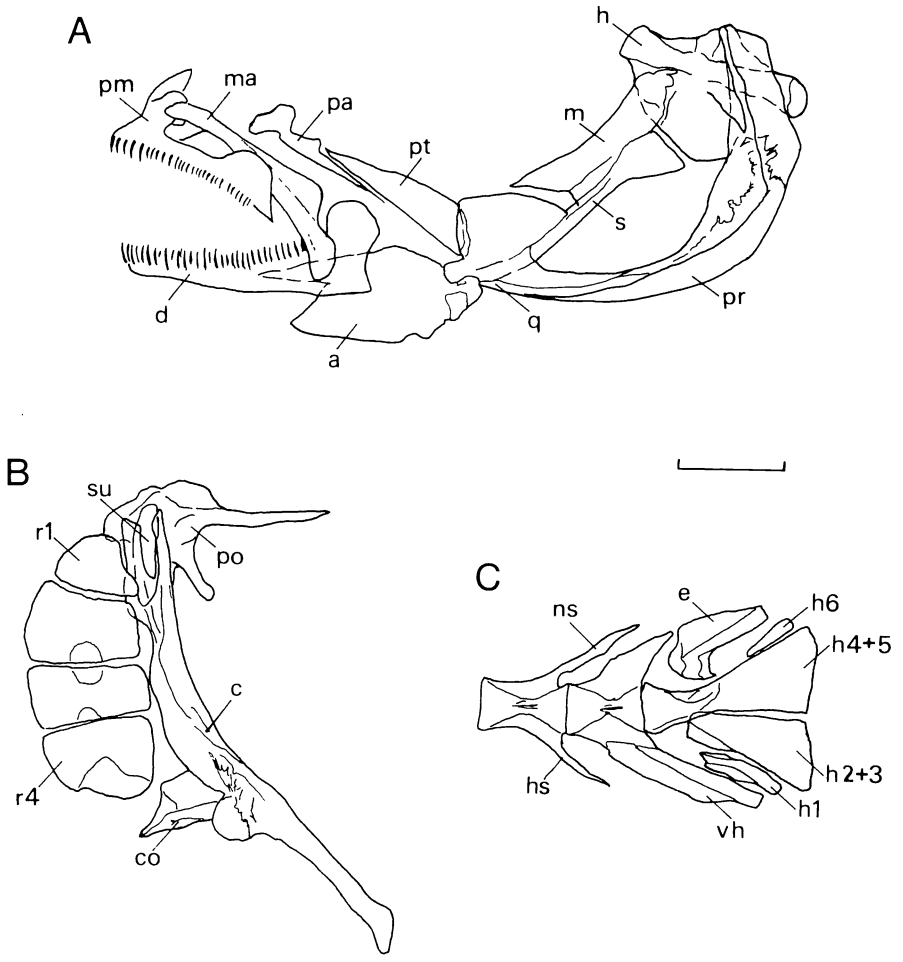

Fig. 3. Osteology of *Silhouettea evanida*, male, 15.0 mm SL (BMNH 1985.4.17.1–10). (A) Suspensorium, lateral view, inter-, sub-, and operculum removed; (B) pectoral girdle, medial view; (C) caudal skeleton, lateral view. a, articular; c, cleithrum; co, coracoid; d, dentary; e, epural; h, hyomandibular; hs, haemal spine; hl, parhypural; h2+3, lower fan hypural; h4+5, upper fan hypural; h6, hypural 6; m, metapterygoid; ma, maxilla; ns, neural spine; pa, palatine; pm, premaxilla; po, posttemporal; pr, preoperculum; pt, pterygoid (ectopterygoid); q, quadrate; r1,4, radials 1,4; s, symplectic; su, supracleithrum; vh, haemal spine of last vertebra. Scale 0.5 mm.

ray 9.9–11.5, middle ray of second dorsal 11.2–12.2, penultimate ray of second dorsal 9.3, last ray of second dorsal 6.7, anal fin spine 5.8–8.3, first anal ray 8.3–10.7, middle anal ray 10.2–11.2, penultimate anal ray 10.2, last anal ray 8.6–10.2.

First dorsal fin origin opposite anterior part of pectoral, last spine well before vertical of pectoral fin tip. First dorsal spines extending over origin of second dorsal, with third to fifth dorsal spines extending to first two second dorsal fin elements. Interodorsal space (origin of sixth first dorsal spine to second dorsal spine origin) 2.6–5.4% of SL in males, 2.6–5.3% of SL in females, at least half membranous. Second dorsal fin origin slightly behind anal origin, last ray above rear part of anal base. All dorsal rays branched (occasionally first ray unbranched). Posterior tip of second dorsal may reach just over upper origin of caudal. Anal fin origin in advance of second dorsal origin, with last ray well to rear of second dorsal base; posterior tip may extend rearwards to opposite caudal base. All anal rays branched. Pectoral fin tip reaches to below

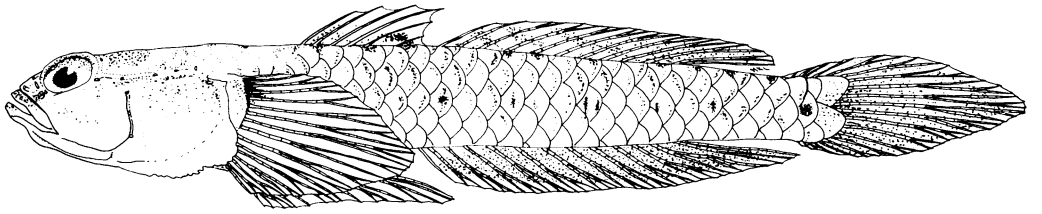

Fig. 4. *Silhouettea evanida* sp. nov. holotype (NTM S.10001-002), 18 mm SL male, Mindil Beach, Darwin.

second dorsal origin. Pelvic disc long, beyond anal origin; frenum well-developed, with finely fimbriate edge. Gillopening may just reach to below preopercular edge, usually not quite reaching, and rarely may extend a little past it. Gillrakers low rounded stubs, only first arch with rudimentary rakers (second arch with one or two). Rakers 1+1+8 (in 2), 2+1+7 (4), 2+1+8 (2), 2+1+9 (1).

Scales in LL 24–26 (24 in 5, 25 in 8, 26 in 4), 7 in TR. Breast with large cycloid scales, 3 in ventral midline. Vertebrae 26 (in 3), including urostyle. Lateral line system of head (Fig. 2) as in generic diagnosis. Skeleton (from alizarin preparation of a male 15.0 mm SL, Fig. 3) with postorbital neurocranium broad, longer than orbital and preorbital regions combined; interorbital septum uniformly compressed; basioccipital in contact with prootic; intercalar small, overlying rear of large opisthotic foramen; supraoccipital with crest and distant from sphenotic and pterotic; epiotics meeting behind anterior expansion of supraoccipital; mesethmoid anterior edge concave, lacking projections towards vomer; vertical mesethmoid ossification in anterior third of orbit; prefrontal and nasal present; hyomandibular with two articular struts to sphenotic and pterotic; metapterygoid extending from hyomandibular to near quadrate, and extended anteriorly above upper edge of quadrate but without bridge to latter; preoperculum lacking spine and without anterior extension towards rear corner of symplectic; endopterygoid absent; single pterygoid broad, relating to at least half of palatine shaft; maxilla without dorsal strut to fellow of opposite side, its distal end blunt; premaxilla with crest, pedicel short of interorbit; glossohyal fan-shaped, anterior edge convex; urohyal emarginate posteriorly; basibranchials ossified, lower pharyngeal plates separate in ventral midline; five branchiostegal rays; pectoral girdle with hypercoracoid (scapula) absent; hypocoracoid (coracoid) opposite lowest of four radials; vertebrae 26 (including urostyle); dorsal pterygiophore formula (3) 22110; second dorsal and anal fin pterygiophores not doubled between neural and haemal spines; caudal skeleton with one epural.

Colour in alcohol. Head and body pale grey or fawn to whitish (Figs. 4, 5). On upper half of body, scale margins narrowly outlined to varying degrees, with several large melanophores on outer half of each scale arranged in spot or line following scale margin curve. Five variably defined small lateral midline blotches, the first four of which may be paired: first below first dorsal origin, second below first two second dorsal elements, third below middle of second dorsal, fourth below rear of second dorsal, and fifth on caudal fin base. Caudal base spot intense in colour and usually triangular. Narrow pale middorsal blotches (more obvious in fresh material) present at origin of first dorsal, interdorsal space (or origin of second dorsal), middle of second dorsal and on caudal peduncle.

Head finely speckled, narrow band (occasionally indistinct) of large melanophores cross nape from above opercles. Predorsal area with scattered large melanophores. Intense black spot on nape midline (at point above pectoral base). Lower half of preopercle and opercle paler, without large melanophores or speckling in females, and with fine speckling only in males. Lips light dusky, upper lip darkest. On snout, small dark spot on either side of premaxillary ascending process. Distinct short dark stripe from front of eye to upper lip. Tip of chin with dark spot, occasionally intense.

Pectoral base variable, with scattered melanophores on upper half, unpigmented on lower half. Distinct dark vertical line across base of uppermost four to six pectoral rays, bar occasionally faint in lightly-pigmented females but always present.

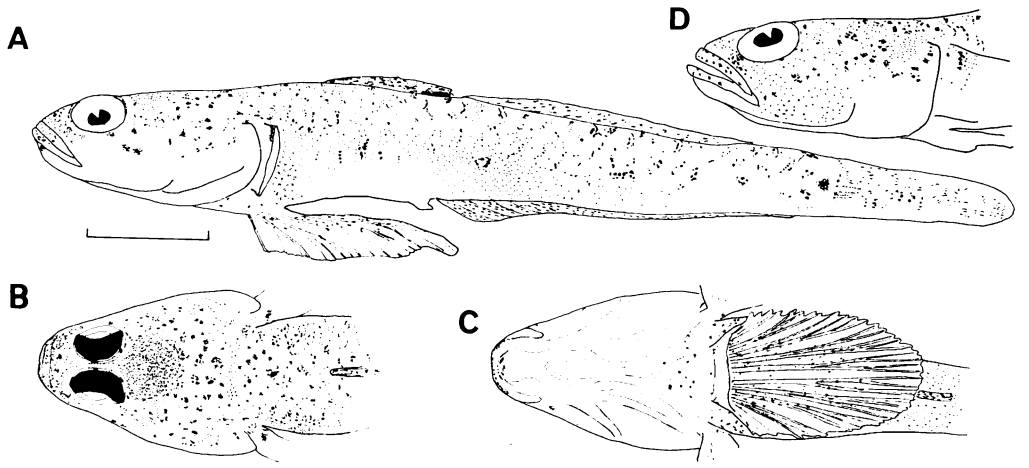

Fig. 5. *Silhouettea evanida* sp. nov. A–C, female, 17.0 mm SL (NTM S.10001-001), Mindil Beach, Darwin; D, head of male, 18.2 mm SL (BMNH 1985.4.17.10), Vestey's Beach, Darwin. Scale 2.5 mm.

Pectoral fins clear or lightly speckled. Pelvic disc variable, with scattered melanophores anteriorly and in centre, or with pelvic fin membranes dusky with frenum and disc edges unpigmented (usually darkest in males). First dorsal fin with scattered melanophores which may be few or absent on distal margin, and blackish elongate spot midway on membrane between fifth and sixth spines, a smaller blackish spot usually present on proximal part of membrane behind sixth spine. Second dorsal fin with scattered melanophores on small specimens, plain dusky in larger fish (especially males). Anal fin similar, but always with clear or white margin (fin often almost black in larger males). Caudal fin with three to four ill-defined vertical dusky bars in females and small males. In large or intensely-marked males, vertical bars indistinct as entire fin dusky, with narrow white margin posteriorly.

Distribution. Known from Darwin, Northern Territory, facing the Timor Sea; and Bowen and Hervey Bay on the Queensland coast.

Ecology. The Mindil Beach material was collected by Larson from isolated puddles on sand flats at low tide, while that from Vestey's Beach was taken on sand, with a little superficial mud, in shallows of 25 cm depth. The Queensland specimens were both taken from "mangroves". In Darwin this species is also taken from mangrove creeks where sandymud flats are present. When alarmed, *S. evanida* rapidly conceals itself in the deposit surface. The largest example is a 21.0 mm SL male (26.9 mm TL); other aspects of life-history are unknown.

Etymology. From the Latin *evanidus*: disappearing or vanishing, referring to the species' ability for rapid concealment.

Silhouettea hoesei sp. nov.

(Fig. 6)

Holotype. NTM S. 10016-045, male, 15.0 mm SL, Coral Bay, Cobourg Peninsula, N.T. (11°12.5′S, 132°3′E) coll. H. Larson, 18 Oct. 1981.

Paratypes. NTM S. 10016-044, 2 males, 12.0–15.0 mm SL, 1 female, 15.0 mm SL, and 1 sex undetermined, 11.0 mm SL, same data as holotype.

General description. As generic features above; body proportions in Table 1. First dorsal VI (5); second dorsal I, 10 (5); anal I, 11–12 (11 in 1, 12 in 4); caudal segmented rays 17, caudal branched rays 12–13; pectoral rays 13–15 (13 in 1, 14 in 4, 15 in 4); pelvic rays I, 5. Fin bases and lengths as percentage of SL in Table 1; values for fin ray lengths in dorsals and anal are as follows for male (15.0 mm SL): first spine of first dorsal 10.2, second spine 10.2, third spine 11.5, fourth spine 11.5, fifth spine 10.9, sixth spine 7.8; second dorsal spine 11.2, first ray 11.2, middle ray 12.8, penultimate ray 17.2, last ray 13.5; anal spine

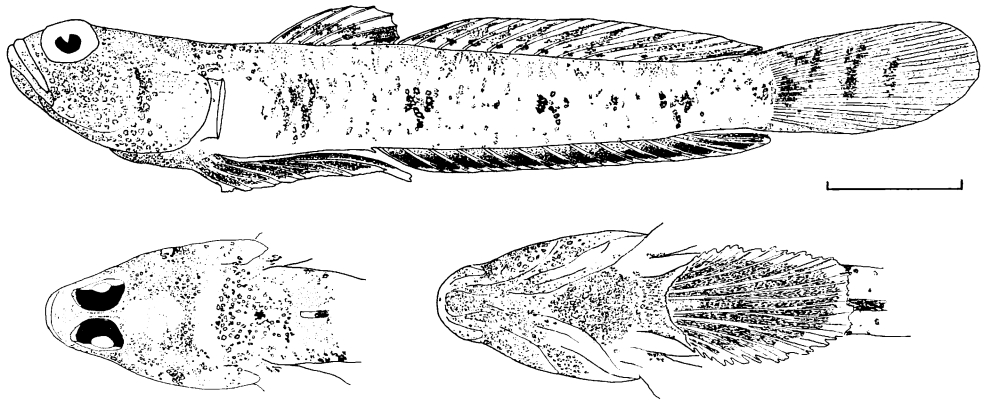

Fig. 6. *Silhouettea hoesei* sp. nov., holotype (NTM S.10016-045), 15.0 mm SL male, Cobourg Peninsula. Scale 2.5 mm.

9.9, first ray 11.5, middle ray 13.5, penultimate ray 11.7, last ray 8.9.

First dorsal arises opposite anterior part of pectoral, last spine well before vertical of pectoral fin tip. First dorsal spines extend over origin of second dorsal, at most fifth dorsal spine reaching to first ray of second dorsal. Interdorsal space (origin of sixth dorsal spine to origin of spine of second dorsal) 3.5–5.5% SL, at least half membranous. Second dorsal origin slightly behind anal origin, last ray above rear part of anal base. All dorsal rays branched in larger specimens except for first ray. Posterior tip of second dorsal reaches to above caudal base in males, two-thirds towards upper origin of caudal in female. Anal fin origin in advance of second dorsal, with last ray behind second dorsal base; posterior tip reaches to slightly beyond caudal base in males, somewhat short of caudal base in female. Anal rays branched in larger specimens (in smallest, only last four rays branched). Pectoral fin extends to below second dorsal origin. Pelvic disc long, reaches beyond anal origin; edge of frenum finely fimbriate. Gillopening reaches to just past lower pectoral base, does not reach to below preopercular edge. Rakers very low rudiments, 2+1+6 (in 1), 2+1+7 (1). Scales in LL 23–25 (23 in 1, 24 in 2, 25 in 2), 7 in TR; breast with large cycloid scales, 3 in ventral midline. Vertebrae 26 (in 2), including urostyle. Lateral-line system of head as in generic diagnosis above, as in *S. evanida* (Fig. 2).

Colour in alcohol. Head and body yellowish-white with all markings more intense in males than females (Fig. 6). Five distinct irregular W-shaped brown blotches along midside of body: first below first dorsal origin, second below second dorsal origin, third below middle of second dorsal, fourth below end of second dorsal and fifth at very end of caudal peduncle and extending onto caudal rays. Upper half of body with scales indistinctly outlined and lightly speckled, may be faint in females. Pale blotches on dorsal midline above each dark midside blotch (almost invisible in females).

Head densely speckled, with transverse pale band (wider than pupil) of fine melanophores crossing nape from above opercles and dense band of larger melanophores posteriorly. Distinct small brown spot in centre of latter dense band present in all specimens. In holotype and larger male paratype: entire cheek, lower third of opercle, underside of head, branchiostegal membranes and breast densely pigmented. Melanophores on opercle form vertical bar next to preopercular edge. Uppermost quarter of opercle dusted with fine melanophores. Remaining three specimens with few fine melanophores scattered only across top of opercle, over cheek and chin, with indistinct vertical opercular mark in female. Upper edge of pectoral base with small dark brown spot extending onto bases of uppermost three to five pectoral rays.

First dorsal fin with irregular dark band across mid-fin (enlarged posteriorly in holotype) and small brown blotches occasionally at spine bases. Second dorsal fin with similar broken brown band and a row of small spots on each spine below

band (markings on both dorsals indistinct to absent in female and two smaller specimens). Anal fin clear in female and smallest specimen, plain dusky with white margin in other specimens. Pectoral fin clear but for mark on upper base and some associated fine speckling in larger males. Pelvic fin disc dark brown with clear edges and frenum in two largest males, fin all clear in remaining specimens. Caudal fin clear with midpeduncle blotch extending onto rays, and three indistinct irregular slightly oblique brown bars, innermost darkest. Lower half of caudal faintly dusky in two largest males.

Distribution. Known from Coral Bay, on the Cobourg Peninsula, Northern Territory, bordering the Arafura Sea.

Ecology. The specimens were obtained by Larson at 5–6 m on a flat silty sand bottom, with isolated dead coral rocks, and a few gorgonians and sponges. The largest of the present specimens is a 15.0 mm SL male (19.4 mm TL).

Etymology. Named for Dr. D. F. Hoese, Australian Museum, Sydney, in recognition of his work on the systematics of Indo-Pacific gobies.

Discussion

These two new species most resemble the Indian Ocean *S. insinuans* Smith 1959, the South African freshwater *S. sibayi* Farquharson 1970, *S. nuchipunctatus* (Herre, 1934) from the Philippines, and the Japanese *S. dotui* (Takagi, 1957). They differ from *S. insinuans* and *S. nuchipunctatus* in having an anal fin formula of I, 12, not I, 13; and from *S. sibayi* in having the breast scaled, not naked. Although *S. dotui* has the same dorsal and anal fin counts as the two new species, its body pigmentation is more intense and even, there is little development of distinct well-separated lateral blotches, and it grows to twice the size of *evanida* and *hoesei*. Both species also differ from *S. nuchipunctatus* in not having elongate first dorsal spines, and in lacking a distinct white central nape spot. The Red Sea species, *S. aegyptia* (Chabanaud, 1933) has identical fin ray counts, but no breast scales and differs in pigmentation (Miller, in prep.). The Indian species, *S. indica* Rao 1971, not examined by us, apparently has higher fins and a naked breast. While similar in size and morphology, the present Australian material has been divided into two species based on differences in coloration and pectoral ray counts. There is also an apparent separation in habitat. *Silhouettea hoesei* does not seem to be common, as rotenone collections in areas of similar habitat to that of the type locality have so far produced no additional specimens. A key to all the species currently placed in *Silhouettea* is given by Miller (in prep.); those from the western Pacific and Australia may be identified using the key below.

1A. Second dorsal rays I, 11 (11–12); anal I, 13 2

1B. Second dorsal I, 10 (rarely 9, occasionally 11); anal I, 11–12 (rarely 11, occasionally 13).....3

2A. First dorsal spine elongate in males, reaching to middle of second dorsal base; pectoral rays usually 16; first dorsal with black blotch over last two spines; Philippines, New Guinea.....*S. nuchipunctatus* Herre

2B. First dorsal spine not reaching second dorsal origin; pectoral rays usually 14–15 (rarely 16); first dorsal with black blotch on middle of first two spines; Red Sea, western Indian Ocean, NW Australia..... .....*S. insinuans* Smith

3A. Body densely pigmented with scale margins outlined; lateral midline markings small, numerous (up to ten spots), not very evident; body long, head length averages 25% of SL, adults up to 40 mm SL; Japan .....*S. dotui* Takagi

3B. Body lateral midline with five blotches and scale margins not always outlined; body shorter, head length averages 29% of SL; adults up to 21 mm SL; northern Australia 4

4A. Lateral blotches small; nape with transverse band of fine melanophores, narrower than pupil; branchiostegal membrane pale in both sexes; pectoral rays usually 15–16 (14–16); Northern Territory, Queensland .....***S. evanida*** sp. nov.

4B. Lateral blotches large, reticulated (W-shaped); nape with transverse band of fine melanophores wider than pupil; branchiostegal membrane densely pigmented in males; pectoral rays usually 14–15 (13–15); Northern Territory.....***S. hoesei*** sp. nov.

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オーストラリアの Northern Territory で採集されたハゼ科魚類シラヌイハゼ属 の 2 新種

Helen K. Larson • Peter J. Miller

熱帯インド・太平洋に産するハゼ科のシラヌイハゼ属 *Silhouettea* の 2 新種 *S. evanida* と *S. hoesei* が Darwin, Queensland ならびに Northern Territory の Cobourg 半島でそれぞれ採集されたので記載した．*S. evanida* は海岸の潮間帯の砂地の干潟の潮溜りと砂地の小河川河口に見られ，*S. hoesei* はそれより沖合の水深 5–6 m の砂泥底に見られる．西太平洋とオーストラリア産の種の検索表も載せた．