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A New Creediid Fish *Creedia bilineatus* from the Yaeyama Islands, Japan

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Abstract A new creediid fish, *Creedia bilineatus*, is described on the basis of 3 specimens from the Yaeyama Islands, Okinawa Pref., Japan. This new species is distinguished from all other species of the genus *Creedia* by having fewer anal fin rays (17–18 vs. 24–28).

The genus *Creedia* contains three species: *C. haswelli* (Ramsay, 1881) (syn. *C. clathrisquamis* Ogilby, 1898), *C. alleni* Nelson, 1983 and *C. partimsquamigera* Nelson, 1983. These species are known only from Australia and Tasmania (Ramsay, 1881; Ogilby, 1898; Scott, 1969, 1982; Nelson, 1978, 1983).

An undescribed species which belongs to the genus was collected in 1979 and 1981 at the Yaeyama Islands, southernmost group in the Ryukyu Islands, Japan. This species is described here as a new species, the 4th for the genus and 16th for the family.

Counts and measurements follow Hubbs and Lagler (1947). Vertebrae and epurals are counted from radiographs and a cleared and stained specimen. We cannot determine sex in our specimens.

Genus *Creedia* Ogilby, 1898

(New Japanese name: Sunaginpo-zoku)

Creedia Ogilby, 1898: 299 (type species, *Creedia clathrisquamis* Ogilby, 1898, by monotypy)

Creedia bilineatus sp. nov.

(New Japanese name: Futasuji-sunaginpo)
(Figs. 1–5)

Holotype. URM-P (Department of Marine Sciences, University of the Ryukyus) 6462, 31.3 mm SL, sandy bottom at 3 m depth, Kabira Bay, 24°09′N, 124°27.5′E, Ishigaki Island, Yaeyama Islands, Okinawa Pref., Japan, collected by K. Shimada with handnet, Oct. 15, 1981.

Paratypes. URM-P 6460, 24.5 mm SL, sandy bottom at 5 m depth, Hatoma Island, 24°28′N, 123°49′E, Yaeyama Islands, collected by K. Shimada with handnet, Nov. 9, 1979; URM-P 6463, 32.0 mm SL, collected with holotype, cleared and stained.

Diagnosis. Pelvic fin rays I, 3; dorsal fin rays 15 or 16; anal fin rays 17 or 18; lateral line scales 45; vertebrae 42; epurals 2; body with two yellowish brown stripes in life.

Description. Counts and proportional measurements are shown in Table 1. Body elongate, cylindrical and gradually compressed posteriorly. Snout pointed. Mouth large, slightly oblique; upper jaw extending to or slightly beyond vertical at center of eye, posterior portion weakly forked, ventral lobe most expanded; fleshy upper jaw projecting beyond lower jaw; upper and lower jaws with a single row of canine-like teeth; anterior portion of the premaxillary with a patch of a few teeth; a paired canine-like teeth on vomer; palatines without teeth; lower lip with a single row of small fleshy cirri (ca. 10 on each side). Tongue slender, tip pointed, free from base of mouth. Eye prominent, situated antero-dorsally; a fold of skin covering lower margin of eye. Interorbital narrow, about 1/6 of eye diameter; infraorbitals four (including a very small dermosphenotic), third one without posterior lobe. Nasal and supraethmoid present in each side and two ossicles between maxillary and vomer (Fig. 2). Opercular flap overlapping base of pectoral fin; subopercle heavily indented, interopercle with a few shallow indentations, posterior margin of preopercle with very small ones (Fig. 3); gill membrane free from isthmus; 1st to 5th branchiostegal rays on ceratohyal, 6th and 7th ones on epihyal; glossohyal slender, anterior tip truncated. Gill rakers short, as multispine stubs, none on upper limb of 1st gill arch.

Shape of pelvis like that of other species in the family (see Nelson, 1985: fig. 4) First dorsal pterygiophore inserted between 21st and 22nd neural spines; 1st anal pterygiophore opposite 22nd

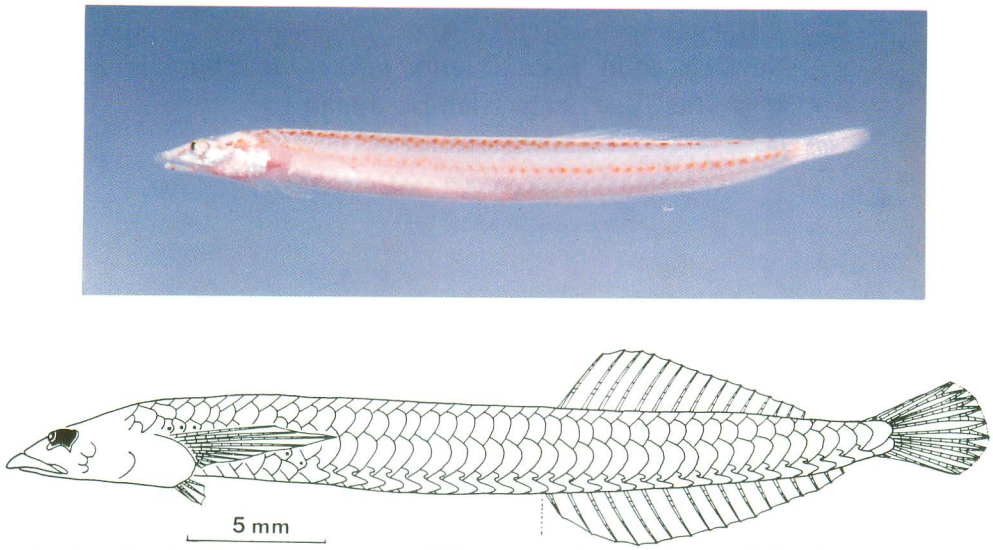

Fig. 1. *Creedia bilineatus* sp. nov., holotype, URM-P 6462, 31.3 mm SL, from Kabira Bay, Ishigaki Island, Okinawa Pref., Japan.

Table 1. Counts and measurements of *Creedia bilineatus* sp. nov.

	Holotype	Paratypes	
	URM-P 6462	URM-P 6463	URM-P 6460
Standard length (mm)	31.3	32.0	24.5
Total length (mm)	35.0	36.2	28.7
Dorsal rays	15	16	16
Anal rays	17	17	18
Pectoral rays	10	11	11
Pelvic rays	I, 3	I, 3	I, 3
Principal caudal rays	11	11	11
Lateral line scales	45	45	45
Transverse scales (above/below)	3/1	3/1	3/1
Predorsal scales	25	23	24
Cheek scales	3	5	3
Branchiostegal rays	5+2	5+2	5+2
Gill rakers (upper+lower)	—	0+7	—
Vertebrae	42	42	42
Epurals	—	2	2
% of standard length			
Depth of body	10.9	11.3	9.3
Length of head	23.0	23.8	24.5
Length of snout	5.4	5.6	5.7
Length of pectoral fin	19.2	20.6	17.6
Length of pelvic fin	5.8	5.9	5.3
Length of dorsal fin base	28.4	30.9	29.8
Length of anal fin base	33.9	35.3	34.7
Least depth of caudal peduncle	4.8	4.7	4.1
Snout to origin of dorsal fin	62.3	61.6	62.4
Snout to origin of anal fin	62.0	61.3	64.5
Snout to origin of pectoral fin	21.7	21.6	22.9
Snout to origin of pelvic fin	20.1	20.3	21.6
% of head length			
Diameter of eye	18.1	17.1	20.0

vertebra. Origin of dorsal fin opposite origin of anal fin; pelvic fin inserted slightly in advance of pectoral; caudal fin rounded or truncated, with nine branched rays; all other fin rays simple. Neural and haemal spines narrow in caudal peduncle region; epurals two (Fig. 4).

Nostrils two; cephalic sensory pore system developed (Fig. 5); lateral line complete, descending abruptly in region of pectoral fin, to abdomen, and running along ventral profile. Body with cycloid scales; 1st to approximately 13th scales in lateral line normally formed, other lateral line scales with dorsal notch and a posterior lobe with a smooth margin; a single row of scales, ar-

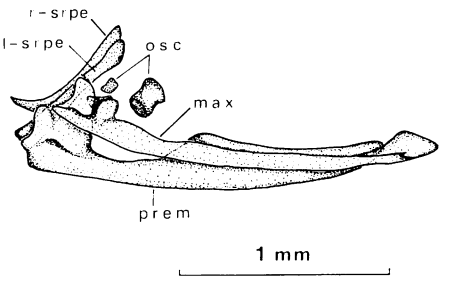

Fig. 2. Dorso-lateral view of left upper jaw region of *C. bilineatus* sp. nov. max, maixllary; osc, ossicles; prem, premaxillary; l-srpe, left supraethmoid; r-srpe, right supraethmoid.

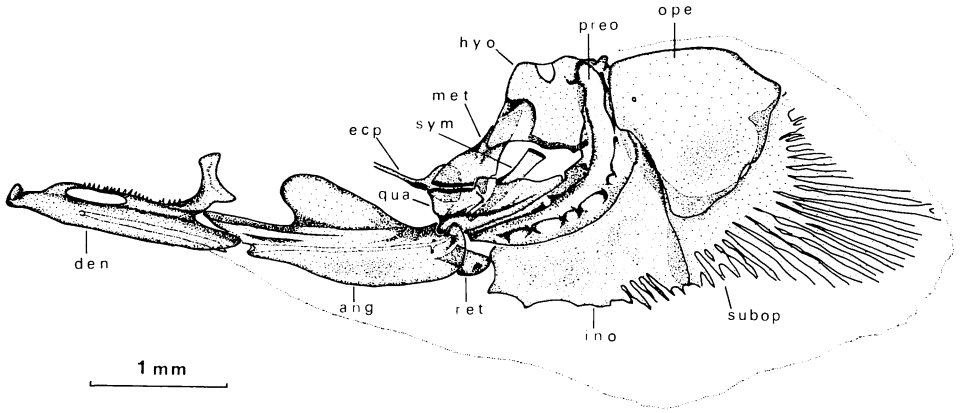

Fig. 3. Lower jaw and suspensorium of *C. bilineatus* sp. nov. ang, angular; den, dentary; ecp, ectopterygoid; hyo, hyomandibular; ino, interopercle; met, metapterygoid; ope, opercle; preo, preopercle; qua, quadrate; ret, retroarticular; subop, subopercle; sym, symplectic. Dot line shows margin of gill cover and lower jaw. Anterior part of ectopterygoid is damaged.

Table 2. Comparison of nominal species of *Creedia*.

	C. bilineatus	*C. haswelli*	*C. alleni*	*C. partimsquamigera*
Source	our specimens	Ramsay (1881) Scott (1982) Nelson (1983)	Nelson (1983)	Nelson (1983)
Dorsal rays	15–16	12–15	12–13	14–16
Anal rays	17–18	27–28	24	25–28
Pectoral rays	10–11	13–15	12	12–13
Pelvic rays	I, 3	I, 4 or 5	I, 3	I, 4
Lateral line scales	45	42–44	ca. 40 and 42	45–47
Vertebrae	42	42–45	41–42	45–47
Predorsal scales	23–25	26–28	—	0
Distribution	Japan	Australia Tasmania	Australia	Australia

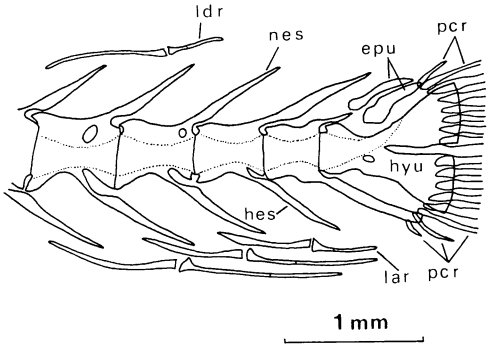

Fig. 4. Lateral view of caudal skeleton of *C. bilineatus* sp. nov. epu, epurals; hes, haemal spine; hyu, hypural; lar, last anal ray; ldr, last dorsal ray; nes, neural spine; pcr, procurrent caudal rays.

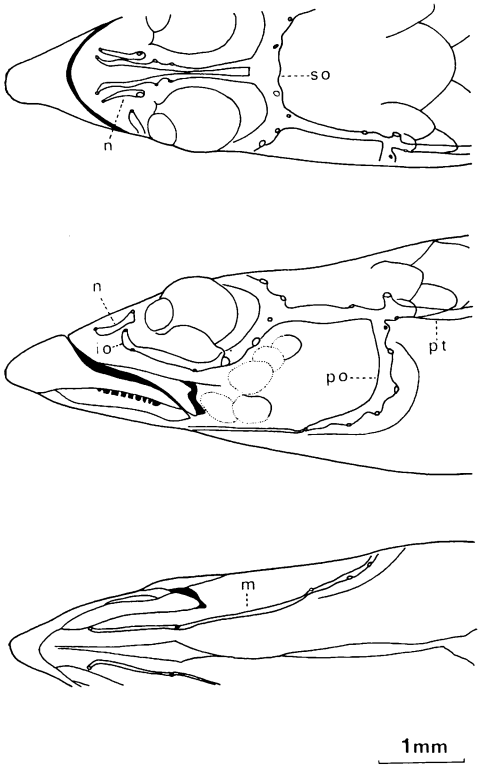

Fig. 5. Cephalic sensory pore system of *C. bilineatus* sp. nov., paratype, URM-P 6463. io, infraorbital canal; m, mandibular canal; n, nasal cavity; po, preopercular canal; pt, posttemporal canal; so, supraorbital canal.

ranged in a shallow groove formed between lateral line scales and anal fin; base of caudal fin covered with two scales; a few entirely or partly embedded scales on cheek region.

Coloration. Fresh specimen (from 35 mm color transparency): body whitish; two yellowish brown stripes on upper half of body, one along dorsal profile from nape to near last dorsal ray, the other on lateral midline from near upper edge of preopercle to caudal fin base; all fins transparent. Preserved specimens: body pale, two stripes on body not apparent.

Ecological notes. *C. bilineatus* is a benthic species found in shallow sandy substrata. It abruptly rushes out of the sand and immediately dives into nearby when disturbed by divers.

Remarks. This new species is closely related to *C. alleni* Nelson from Australia in having three pelvic rays, but differs from the latter in having the following characters: 1) more dorsal ray counts (15 or 16 vs. 12 or 13 in the latter), 2) fewer anal ray counts (17 or 18 vs. 24). It is also easily distinguished from *C. haswelli* (Ramsay) and *C. partimsquamigera* Nelson by the number of pelvic rays and anal rays (see Table 2). *C. bilineatus* is placed in the genus *Creedia* because it agrees with the generic diagnosis given by Nelson (1983) except for the lower number of anal rays.

Etymology. The specific name *bilineatus* refers to the two stripes on the body in life.

Acknowledgments

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八重山諸島から採集されたスナギンポ属（新称）の1新種

島田和彦・吉野哲夫

八重山諸島から採集されたスナギンポ属の新種 *Creedia bilineatus* フタスジスナギンポ（新称）を記載した．本種は1棘3軟条の腹鰭を持つことでオーストラリアから採集された本属の1種 *C. alleni* と似るが，臀鰭条数が少ないことによって，すべての既知種と容易に区別出来る．また本種はスナギンポ属の第4番目の種で，他の3種はオーストラリア近海からのみ知られている．

(903-01 沖縄県西原町　琉球大学理学部海洋学科)