

Two New Soles of the Genus *Aseraggodes* (Pleuronectiformes: Soleidae) from Taiwan and Japan

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John E. Randall and Hiroshi Senou (2007) Two new soles of the genus *Aseraggodes* (Pleuronectiformes: Soleidae) from Taiwan and Japan. *Zoological Studies* 46(3): 303-310. *Aseraggodes cheni* sp. nov. is described from 1 specimen from southern Taiwan and 4 from the Izu Is., Japan. It has 68-75 dorsal rays, 73-76 lateral-line scales, and 36-38 vertebrae. It is most similar to *A. diringeri* (Quéro) from the western Indian Ocean, which differs in color and in having 75-87 lateral-line scales. *Aseraggodes orientalis* sp. nov. is described from 2 specimens from Kochi Prefecture, Japan and 1 from southern Taiwan. It has 67-72 dorsal rays, 81-86 lateral-line scales, and 35 or 36 vertebrae. Specimens were previously identified as *A. xenicus* (Matsubara and Ochiai), but this species is readily separated by 60-69 dorsal rays, 63-70 lateral-line scales, a modal count of 34 vertebrae, and a ventral preopercular branch of the lateral line on the ocular side of the head.
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Key words: Soleidae, *Aseraggodes*, New species, Taiwan, Japan.

The soleid fish genus *Aseraggodes* was described by Kaup (1858) for the species *A. guttulatus* from the island of Réunion. By 1913, only 7 species were known in the genus. Chabanaud (1930) revised *Aseraggodes*, recognizing 15 species, but 5 of these are now classified into monotypic genera. The first author became interested in the genus with the discovery of a new species at Easter I. (Randall and Meléndez, 1987) and 3 from the Hawaiian Is. (Randall, 1996; 2002). These papers were followed by a review of the species from Micronesia (Randall and Bartsch, 2005), the South Pacific (Randall, 2005), western Indian Ocean (Randall and Gon, 2005), a new species from northern Australia (Randall and Bartsch, in press), and 17 species from the Indo-Malayan region (Randall and Desoutter-Meniger, in press). Forty-six species are now known, all from the Indo-Pacific region (including temperate waters of Australia and Japan), except for 1 eastern Pacific species. The present paper provides

the descriptions of 2 more species of the genus from southern Japan and Taiwan.

MATERIALS AND METHODS

Type specimens of the new species are deposited in the Research Center for Biodiversity (formerly Institute of Zoology), Academia Sinica, Taipei, Taiwan (ASIZP); the Kanagawa Prefectural Museum of Natural History, Odawara, Japan (KPM-NI); South African Institute for Aquatic Biodiversity, Grahamstown, South Africa (SAIAB); and the Department of Zoology, University Museum, University of Tokyo, Japan.

Standard length (SL) was measured horizontally from the front of the upper lip to the base of the caudal fin (end of the hypural plate). Body depth is the maximum distance between the bases of the dorsal and anal fins; body width is the maximum thickness midlaterally between the ocular

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and blind surfaces. Head length was measured from the front of the upper lip to a vertical at the fleshy posterior end of the operculum. Preorbital length is the distance from the front edge of the upper eyeball (dark part of the eye, hereafter termed only as the eye) directly forward to the anterior edge of the dorsal fin (but not to the tips of the cirri). Snout length was taken from the front of the upper lip to the nearest edge of the upper eye. Eye diameter is the greatest diameter of the lower eye (not the fleshy cutaneous part). Interorbital width is the vertical distance between horizontal lines at the ventral edge of the upper eye and the dorsal edge of the lower eye. Upper-jaw length was measured on the blind side from the front of the upper lip to the rear edge of the maxilla (because it is difficult to determine the posterior end of the maxilla on the ocular side). Caudal-peduncle depth is the least depth, and caudal-peduncle length is the horizontal distance between verticals at the rear base of the anal fin and the base of the lowermost caudal ray. Lengths of rays of the median fins were measured from the base of the ray (not where it emerges from a basal scaly sheath) in a straight line to the tip. Pelvic-fin length was taken from the base of the 1st ray to the tip of the longest ray.

Tables 1 and 2 provide the proportional measurements of specimens of the new species as percentages of standard length. Ratio measurements related to SL, body depth, or head length in the text are rounded to the nearest 0.05. Measurements relating to eye diameter are based on the size of the dark part of the lower eye. Measurement data in parentheses in the description refer to paratypes. Measurements were not taken from the 2 small juveniles of the 1st species, but counts were made of their fin rays, scales, and vertebrae.

Lateral-line scales were counted on the ocular side from the base of the caudal fin to the front of the lateral line on the head (therefore including several scales anterior to the upper end of the gill opening). Scale counts above and below the lateral line are the highest obtained on the ocular side in an oblique row between the lateral line and the outer edge of the scaly sheath at the base of the dorsal and anal fins, respectively.

Ochiai (1963) used a count of the anterior dorsal pterygiophores as a taxonomic character in soles (he referred to these as interneural spines). He counted those associated with the 1st 3 vertebrae; however, he overlooked the very small 1st vertebra. We have included this useful count in

our descriptions.

We also follow Ochiai in the terminology of the cephalic lateralis system of the blind side, as diagrammed in his text-figure 1A.

The use of cyanine blue 5R (acid blue 115), as demonstrated by Saruwatari et al. (1997), facilitated the detection of the sensory papillae, fine cirri, and ctenii of the scales.

Aseraggodes cheni sp. nov

(Table 1, Figs. 1-4)

Holotype: ASIZP 66518, 74.5 mm, Taiwan, Seven-star Rock, 21°45.5'N, 120°49.4'E, sand of outer-reef slope, 48 m, rotenone, J. P. Chen, 14 June 2003.

Paratypes: KPM-NI 9576, 43.8 mm, Japan, Izu Is., Hachijo-jima, 33°8'43"N, 139°44'21"E, fine sand bottom in volcanic rocky reef, 14.5 m, H. Senou, hand net, 4 June 2002; KPM-NI 9577-78, 2: 13.7-22.2 mm, same data as for KPM-NI 9576.

Diagnosis: Dorsal rays 68-75; anal rays 46-51, all branched; lateral-line scales 73-76; vertebrae 36-38; dorsal pterygiophores anterior to 4th neural spine 13 or 14 (only 1 with 13); body depth

Table 1. Proportional measurements of the type specimens of *Aseraggodes cheni*, as percentages of the standard length

	Holotype	Paratype
	ASIZP 66518	KPM-NI 9576
Standard length (mm)	74.5	43.8
Body depth	40.6	37.8
Body width	10.2	8.5
Head length	21.6	22.2
Snout length	9.0	8.4
Preorbital length	8.6	9.3
Eye diameter	4.1	4.8
Interorbital width	1.5	2.0
Upper-jaw length	7.3	7.6
Caudal-peduncle depth	12.9	12.4
Caudal-peduncle length	2.8	2.7
Predorsal length	6.6	6.7
Preanal length	26.2	26.0
Prepelvic length	20.1	19.6
First dorsal ray	7.6	8.7
Longest dorsal ray	17.4	15.5
First anal ray	9.6	8.9
Longest anal ray	17.5	15.2
Caudal-fin length	31.6	28.3
Pelvic-fin length	12.9	12.6

2.45-2.65 in SL; head length 4.5-4.65 in SL; caudal-peduncle length 7.7-8.2 in head length; snout length 2.4-2.65 in head length; preorbital length 2.4-2.5 in head length; eye diameter 4.65-5.25 in head length; interorbital space narrow, 11.1-14.4 in head length; tubular anterior nostril reaching edge of eye when depressed posteriorly; longest dorsal ray 1.6-1.9 in head length; caudal fin 3.15-3.55 in SL; pelvic fins reaching or nearly reaching base of 4th anal ray, 1.65-1.75 in head length, scales with 9-16 cteni, not projecting very far beyond scale margins; front edge of snout and ventral edge of head with 2 rows of lappet-like cirri; color when fresh light brown with irregular white and dark brown markings, a few white ones forming broken circles, while dark brown ones may border or partly encircle the white; 2 prominent white bands on snout and 3 extending downward from lower eye; fin rays with small dark brown spots.

Description: Dorsal rays 74 (68-75), branched except 1st 5 rays of holotype and 1st 12 rays of largest paratype; anal rays 50 (46-51), all branched; caudal rays 18; all but uppermost and

lowermost branched, 15 double-branched, and 10 triple-branched in holotype; pelvic rays 5, all branched; no fin rays branched in juveniles except tips of a few middle rays in largest juvenile; lateral-line scales 76 (73-75), including 9 or 10 anterior to a vertical at upper end of gill opening; scales above lateral line about 25; scales below lateral line about 27; vertebrae 37 (36-38); dorsal pterygiophores before 4th neural spine 14 (13 or 14) (3 pterygiophores, including the erisme, before tip of 2nd neural spine; 7 or 8 in space between 2nd and 3rd neural spines; and 3 in space between 3rd and 4th neural spines). Ventroanterior margin of the urohyal forming an angle of about 80°, inner angle rounded.

Body depth 2.45 (2.65) in SL (juveniles more slender); body thin, width (thickness) 4.0 (4.45) in body depth (juveniles much thinner); head length 4.65 (4.5) in SL (juveniles with much larger head); caudal-peduncle depth 1.65 (1.8) in head length; caudal-peduncle length 7.7 (8.2) in head length; snout length 2.4 (2.65) in head length; preorbital length 2.5 (2.4) in head length; eye diameter 5.25



Fig. 1. Holotype of *Aseraggodes cheni* sp. nov., ASIZP 66518, 74.5 mm, southern Taiwan (J.P. Chen).



Fig. 2. Paratype of *Aseraggodes cheni* sp. nov., KPM-NI 9576, 43.8 mm, Hachijo-jima, Izu Is., Japan (H. Senou).



Fig. 3. Blind side of paratype of figure 2 (H. Senou).



Fig. 4. Juvenile paratype of *Aseraggodes cheni* sp. nov., KPM-NI 9577, 22.2 mm, Hachijo-jima, Izu Is., Japan (H. Senou).

(4.65) in head length; eyes separated by a narrow concave space, least vertical interorbital width 14.4 (11.1) in head length; upper eye overlapping 1/2 (1/4) of lower eye; upper end of gill opening at level of a line passing through ventral edge of lower eye.

Mouth inferior, jaws strongly curved; maxilla extending a little posterior to a vertical at center of lower eye, upper-jaw length 2.95 (2.9) in head length; jaws on blind side with a band of villiform teeth in about 8 rows at widest place; tubular anterior nostril slender, in front of upper 1/3 of lower eye, just reaching cutaneous edge of eye when depressed posteriorly (to edge of eye in largest paratype), its length about equal to eye diameter; posterior nostril of ocular side a small aperture below ventral 1/3 of lower eye, covered by skin; anterior nostril of blind side a very slender tubule above upper lip nearly to middle of upper jaw, its length about 2/3 eye diameter; posterior nostril of blind side a short, broad-based, pointed tubule an eye diameter dorsoposterior to anterior nostril.

Scales ctenoid, most on body with 10-15 cteni (9-12 on largest paratype, 4-6 on 22.2 mm paratype); free tips of cteni on scales short; scales on ocular side of snout small but still with cteni, replaced a little before a vertical at front of base of anterior nostril by a zone of slender cirri, mixed anteriorly with low sensory papillae; a small sensory pore with a fleshy rim above front of base of anterior nostril at level of ventral edge of upper eye; front edge of snout and ventral edge of head with a dense band of lappet-like cirri, some bifurcated at tips, the longest 3/4 eye diameter; opercular edge of gill opening on both ocular and blind sides with a row of slender cirri that are longer ventrally; eyes separated by 2 rows of scales, with 3 or 4 rows of small scales extending onto medial and anterior edges; a broad zone of fleshy cirri around mouth on blind side, longer and denser anteriorly (largest paratype with more sensory papillae than cirri around mouth on blind side; lateral line straight on both sides along middle of body, on ocular side in alignment with dorsal 1/3 of upper eye when projected forward; scales of blind side of head with many fine cirri; branches of cephalic lateralis system of blind side more readily seen on largest paratype than holotype due to sensory papillae of holotype being altered to slender tubules, hence difficult to distinguish from the many cirri; mediolateral line on body continuing forward on head along upper edge of operculum and joining lateral edge of broad zone of papillae dorsal to mouth; cephalodorsal branch beginning

as a row of papillae at front edge of snout, with 2 or 3 rows of papillae laterally and many cirri to either side, continuing along base of dorsal fin into body as a dorsolateral line of 2 or 3 lateral rows of papillae, ending nearly halfway to end of dorsal fin, and as a single row to 10th-from-last dorsal ray; no temporal commissures connecting mediolateral and cephalodorsal branches; instead 2 parallel intermediate branches (medial one of 1 row of papillae and lateral one of 2 or 3 rows), both ending posteriorly on head; preopercular branch beginning as several irregular rows of papillae below lower lip, narrowing to a single row as it joins mediolateral branch, with a connecting band or 2 or 3 rows of papillae to corner of mouth; mandibulo-opercular branch extending from front of chin to upper end of gill opening.

Base of dorsal and anal fins covered by 2 or 3 rows of scales; base of caudal fin with 8 rows of progressively smaller scales; lateral-line with 3 pores extending into basal scaled part of caudal fin; a fleshy membranous ridge on dorsal and anal rays of both sides nearly to ray tips anteriorly, progressively shorter posteriorly; fleshy cycloid scales extending out on basal 1/2 of about 1st 24 dorsal rays of holotype (more as fleshy papillae than scales on largest paratype); cirri present along edge of membranous ridge of dorsal and anal rays, reduced in number posteriorly, but at least 1 cirrus on all but posterior 9 dorsal and anal rays of holotype (fewer cirri on largest paratype, and none on juvenile paratypes).

Origin of dorsal fin (base of 1st ray) anterior to upper eye, predorsal length 3.3 in head length; tips of about 1st 6 dorsal rays free as short filaments; 1st dorsal ray 2.85 (3.3) in head length; longest dorsal ray 1.25 (1.45) in head length; origin of anal fin below base of 23rd dorsal ray, preanal length 3.8 (3.85) in SL; anus anterior to 1st anal ray; genital papilla on ocular side at posterior edge of anus; length of 1st anal ray 2.25 (2.5) in head length; longest anal ray 1.25 (1.45) in head length; caudal fin 3.15 (3.55) in SL; pelvic fins close together on ventral edge of body, origin of ocular-side fin slightly anterior; prepelvic length 5.0 (5.1) in SL; pelvic fins reaching or nearly reaching base of 4th anal ray, 3rd ray longest at 1.65 (1.75) in head length.

Color of ocular side of holotype in alcohol pale grayish brown, with many small dark brown blotches and irregular dark brown bands, variously interconnected, some encircling or partially enclosing areas paler than ground color, except for small dark spots within; scale centers of dark brown markings pale; 2 pale bands on snout extending

anteriorly from upper eye, and 3 irregular pale bands radiating ventrally from lower eye; an irregular pale band extending from upper end of gill opening nearly to origin of anal fin; fin rays pale yellowish brown with small dark brown spots, membranes translucent; color of blind side of body pale gray.

Color of holotype when fresh shown in figure 1; color of largest paratype when fresh in figure 2; and its blind side as figure 3. Figure 4 is the fresh coloration of the 22.2 mm juvenile.

Etymology: Named in honor of Dr. Jeng-Ping Chen of the National Museum of Marine Biology and Aquarium in southern Taiwan, who collected and photographed the holotype.

Remarks: The systematic study of the genus *Aseraggodes* has been difficult because of the paucity of specimens and infraspecific variation in meristic data and color pattern. Twenty-one species were described from 1 specimen, and 30 species are still known from 3 or fewer specimens. When an adequate series of specimens is available for a species, the number of dorsal rays can vary by as many as 9, the anal rays by 8, the lateral-line scales by 14, and the vertebrae by 4. Although we have the comparative luxury of 4 specimens on which to base our description of *A. cheni* sp. nov., we regret not having more to fully record its variation.

Aseraggodes cheni appears to be most closely related to *A. diringeri* (Quéro) from the western Indian Ocean, sharing with it the unusual combination of 37 vertebrae and 14 dorsal pterygiophores anterior to the 4th neural spine (these counts modal for *diringeri*), the same number of dorsal and anal rays, and essentially the same proportional measurements. The two chiefly differ in the number of lateral-line scales (75-87, mean 82, for *diringeri*, compared to 73-76 for *cheni*), and they have markedly different color patterns.

***Aseraggodes orientalis* sp. nov**

(Table 2; Fig. 5)

Parachirus xenicus (non Matsubara and Ochiai) Hirata et al. 1996: 165 (Kashiwa-jima, Kochi Prefecture, Japan).

Holotype: ZUMT 59828, male, 41.7 mm, Japan, Kochi Prefecture, Shikoku, between Shirahama and Kinohana (E. of Kashima-jima), sand, 3 m, hand net, A. Iwata, 6 June 1992.

Paratypes: SAIAB 34992, 41.5 mm, Taiwan, Kenting National Park, off Houpihu, 22.1°N, 120.75°E, coral reef and adjacent sand, 10-12 m,

rotenone, P.C. Heemstra, 20 Jan. 1988; ZUMT 59827, 44.3 mm, Japan, Kochi Pref., Kashima-jima, off Aka-tōdai, sand, 2-23 m, A. Iwata, hand net, 13 Aug. 1991.

Diagnosis: Dorsal rays 67-72; anal rays 45-47, all branched; lateral-line scales 81-86; vertebrae 35 or 36; dorsal pterygiophores anterior to 4th neural spine 14; body depth 2.4-2.55 in SL; head length 4.2-4.55 in SL; caudal-peduncle length 7.75-9.9 in head length; snout length 2.65-2.7 in head length; preorbital length 2.5-2.95 in head length; eye diameter 4.7-5.15 in head length; interorbital space 7.6-10.5 in head length; tubular anterior nostril reaching edge of eye when depressed posteriorly; longest dorsal ray 1.55-1.65 in head length; caudal fin 3.55-3.95 in SL; pelvic fins reaching base of 3rd anal ray, 1.85-2.15 in head length, scales with 7-10 cteni, not projecting very far beyond scale margins; front edge of predorsal snout with 2 or 3 rows of slender cirri; ventral edge of head with a row of broad lappet-like cirri and 1 or 2 rows of slender shorter cirri above; color in alcohol pale yellowish with many small irregular dark brown spots, some in a line on lateral line; fin rays whitish with a few small brown spots.

Description: Dorsal rays 67 (69-72), branched except 1st 25 (19-29) rays; anal rays 45 (45-47), all branched except 1st 6 (2-6) rays; caudal rays 18, 14 branched, 5 (13) double-branched; pelvic rays 5, the 2nd and 3rd (1st to 4th) branched; lateral-line scales 81 (83-86), including 10 or 11 anterior to a vertical at upper end of gill opening; scales above lateral line about 26; scales below lateral line about 29; vertebrae 35 (35 or 36); dorsal pterygiophores before 4th neural spine 14 (3 pterygiophores, including the erisme, before tip of 2nd neural spine; 8 in space between 2nd and 3rd neural spines; and 3 in space between 3rd and 4th neural spines). Ventroanterior margin of urohyal forming an angle of about 60° (60°- 80°), inner angle slightly rounded.

Body depth 2.55 (2.4-2.55) in SL; body thin, width (thickness) 4.04 (4.55-5.1) in body depth; head length 4.4 (4.2-4.45) in SL; caudal-peduncle depth 1.55 (1.45-1.7) in head length; caudal-peduncle length 8.4 (7.75-9.9) in head length; snout length 2.7 (2.65-2.7) in head length; preorbital length 2.5 (2.65-2.95) in head length; eye diameter 4.75 (4.7-5.15) in head length; eyes separated by a narrow concave space, least vertical interorbital width 7.6 (10.3-10.5) in head length; upper eye overlapping about 1/2 of lower eye; upper end of gill opening at level of a line passing

through ventral edge of lower eye.

Mouth inferior, jaws strongly curved; maxilla extending a little posterior to a vertical at center of lower eye, upper-jaw length 3.0 (3.35-3.65) in head length; lower jaw on blind side with a band of villiform teeth in 4 rows at widest place; upper jaw on blind side with only a few teeth in 2 or 3 rows posteriorly in jaw; tubular anterior nostril in front of upper 1/3 of lower eye, reaching cutaneous edge of eye when depressed posteriorly, its length about equal to eye diameter; posterior nostril of ocular side a small aperture below ventral 1/2 of lower eye, covered by skin; anterior nostril of blind side a slender tubule above upper lip nearly to middle of upper jaw, its length about 3/4 eye diameter; posterior nostril of blind side a broad-based, pointed tubule about twice as long as adjacent papillae, nearly an eye diameter dorsoposterior to anterior nostril.

Scales ctenoid, most on body with 7-10 cteni; free tips of cteni on scales short; scales on ocular side of snout small, fleshy, the cteni as short papillae; scales replaced before a vertical at base of anterior nostril and a small sensory pore above it by a zone of slender cirri; edge of predorsal snout and ventral edge of head with a row of prominent cirri, those ventrally on head lappet-like and unusually broad except just above gill opening, longest 1/2 eye diameter; 1 or 2 irregular rows of slightly shorter and more slender cirri above main row; opercular edge of gill opening on both ocular and blind sides with a row of slender cirri; eyes separated by 2 rows of scales, with 3 or 4 rows of small scales extending onto medial and anterior edges; a broad zone of low papillae around mouth on blind side except a row of 8 next to front 2/3 of lower lip that are about twice as long; lateral line



Fig. 5. Holotype of *Aseraggodes orientalis* sp. nov., ZUMT 59828, 41.7 mm, Kashiwa-jima, Kochi Prefecture, Japan (L. O'Hara).

straight on both sides along middle of body, on ocular side in alignment with dorsal 1/3 of upper eye when projected forward; scales on blind side of head fleshy, cteni replaced by tiny papillae, losing these anteriorly but many with small cirri at edges; mediolateral line on blind side of head curving ventrally to rim broad zone of papillae dorsal to mouth; cephalodorsal branch beginning as 2 rows of papillae at front edge of snout, separated by a row of scales with cirri and flanked by other scales with cirri, passing along base of dorsal fin, continuing into body as dorsolateral line, restricted to 1 row at base of 31st dorsal ray and ending at base of 53rd ray; no temporal commissures connecting mediolateral and cephalodorsal branches; instead an intermediate double row or sensory papillae associated with scales bearing cirri, narrowing to 1 row posteriorly on head where it joins mediolateral row; anterior 1/2 of preopercular branch as 2 rows of papillae, soon changing to a single row, with a single row of papillae connecting it to corner of mouth; mandibulo-opercular branch extending from front of chin to upper end of gill opening.

Base of dorsal and anal fins covered by 3 rows of scales; base of caudal fin with 7 rows of small scales before being reduced to a row of tiny

Table 2. Proportional measurements of type specimens of *Aseraggodes orientalis*, as percentages of the standard length

	Holotype	Paratypes	
	ZUMT 59828	SAIAB 34992	ZUMT 59827
Standard length (mm)	41.7	41.5	44.3
Body depth	39.0	39.1	41.3
Body width	9.6	7.7	9.1
Head length	22.7	22.4	23.7
Snout length	8.4	8.4	8.8
Preorbital length	9.1	7.6	9.0
Eye diameter	4.8	4.8	4.6
Interorbital width	3.0	2.1	2.3
Upper-jaw length	7.6	7.3	7.1
Caudal-peduncle depth	14.4	15.5	13.8
Caudal-peduncle length	2.7	2.9	2.4
Predorsal length	7.4	7.7	7.9
Preanal length	26.8	26.5	25.1
Prepelvic length	21.6	21.4	21.3
First dorsal ray	7.1	7.6	7.2
Longest dorsal ray	14.4	14.4	14.5
First anal ray	9.6	8.9	9.0
Longest anal ray	14.9	14.4	14.8
Caudal-fin length	28.3	26.4	25.4
Pelvic-fin length	12.2	12.1	11.1

ridge-like scales along each fin ray; lateral-line with 3 pores extending into basal scaled part of caudal fin; a fleshy membranous ridge on dorsal and anal rays of both sides nearly to ray tips anteriorly, progressively shorter posteriorly; prominent cirri present along edge of membranous ridge of dorsal and anal rays, reduced in number posteriorly.

Origin of dorsal fin (base of 1st ray) anterior to upper eye, predorsal length 3.05 (2.9-3.0) in head length; anterior dorsal rays without filamentous tips; 1st dorsal ray 3.2 (2.95-3.3) in head length; longest dorsal ray 1.6 (1.55-1.65) in head length; origin of anal fin below base of 23rd dorsal ray, preanal length 3.75 (3.8-4.0) in SL; anus anterior to 1st anal ray; genital papilla on ocular side at base of anal rays, its length 2/3 eye diameter; length of 1st anal ray 2.35 (2.5-2.65) in head length; longest anal ray 1.55 (1.45-1.6) in head length; caudal fin 3.55 (3.8-3.95) in SL; pelvic fins close together on ventral edge of body, origin of ocular-side fin slightly anterior; prepelvic length 4.6 (4.7) in SL; pelvic fins reaching base of 3rd or 4th anal ray, 3rd pelvic ray longest, 1.85 (1.85-2.15) in head length.

Color of ocular side of holotype in alcohol pale yellowish with numerous small dark brown spots from dark posterior edge of scales, many joined with 1 or more other dark scale edges, some nearly enclosing pale areas which are size of eye or larger; about 18 small dark spots along lateral line, some adjacent; sensory pore above front edge of anterior nostril in a small dark spot; dorsal and anal rays pale yellowish, each with 1-3 well-separated small brown spots, membranes translucent; caudal fin with a transverse row of small brown blotches at end of basal scaled part of fin, remainder of rays with 3 or 4 small brown spots; pelvic fins pale yellowish, 3 rays of ocular-side fin with a single small brown spot; color of blind side uniformly pale.

Etymology: This species is named *orientalis* for its distribution in Japan and Taiwan.

Remarks: Specimens of *A. orientalis* sp. nov. were previously identified as *A. xenicus* (Matsubara and Ochiai), a wide-ranging species readily separated by 60-69 dorsal rays, 63-70 lateral-line scales, 34 vertebrae modally, and a ventral preopercular branch of the lateral line on the ocular side of the head.

Four species of *Aseraggodes* share with *A. orientalis* the count of 35 or 36 vertebrae, 14 dorsal pterygiophores before the 4th neural spine, and a lateral-line scale count exceeding 80: *A. diringeri* (Quéro) from the western Indian Ocean, *A. pelvi-*

cus (Randall) from the southern Great Barrier Reef, *A. ramsaii* (Ogilby) from Lord Howe I. and New Caledonia, and *A. whitakeri* Woods from islands of Micronesia and the South Pacific. *Aseraggodes diringeri* has a strong modal count of 37 vertebrae and the common color pattern of 3 longitudinal rows of moderately large dark brown spots. *Aseraggodes pelvicus* has tubercle-like papillae on the membranous ridges of the dorsal fin on the ocular side, and longer rays of the median fins. *Aseraggodes ramsaii* has small scales extending out nearly to the tips of the anterior dorsal rays on both sides, the scales on the blind side of the head have cteni, and the pelvic fins are much closer to the anal fin. *Aseraggodes whitakeri* has cteni on the scales of the blind side of the head, a different structure of the cephalodorsal branch of the lateralis sensory system, and fine longitudinal fleshy ridges over much of the ocular side of the snout.

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