

Sebastapistes taeniophrys (Fowler 1943): a valid scorpionfish (Scorpaenidae) from the Philippines

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Abstract The poorly known scorpionfish, *Scorpaena taeniophrys*, originally described from two specimens from the Philippines, is redescribed as a valid species of *Sebastapistes*. *Sebastapistes taeniophrys* differs from all other congeners in having a combination of 15 pectoral-fin rays, 31–33 scale rows in longitudinal series, 11–14 pored lateral-line scales, 3 predorsal scale rows, 12 gill rakers, 3 suborbital spines, absence of coronal spines, lower opercular spine with a median ridge and not covered with scales, ctenoid body scales, several dark transverse bands on ventral surface of mandible, a distinct elongate black blotch distally between the second or third and seventh dorsal-fin spines, and no black blotch on the nape.

Keywords Scorpaenidae · Scorpionfish · *Sebastapistes taeniophrys* · Philippines · Redescription

Introduction

The scorpionfish, *Scorpaena taeniophrys*, was described by Fowler (1943) on the basis of two small specimens (18.3–19.3 mm standard length) from the Philippines. The only subsequent reference to that nominal species documented by Eschmeyer (1998) was that of Herre (1951), who regarded it as a valid species of *Scorpaena* [based only on the description and figure given by (Fowler 1943: 66–68, fig. 12)], but stated “These juvenile specimens may be only a stage of some other species. Their position must be uncertain until adult specimens are secured.”

Examination of the holotype and paratype of *Scorpaena taeniophrys* revealed that they belong to the Indo–Pacific scorpionfish genus *Sebastapistes*, characterized by having 12 dorsal-fin spines, teeth on the palatines, the posterior lacrimal spine directed posteroventrally, pored lateral-line scales continuing on to the caudal-fin base, and lacking an occipital pit and lateral lacrimal spine (Poss 1999; Motomura, unpublished data).

The genus *Sebastapistes* was briefly reviewed by Randall and Poss (2002), who recognized seven nominal species as valid, plus four undescribed species. In addition, ongoing taxonomic studies of *Sebastapistes* by the author and colleague also indicated that *Scorpaena taeniophrys* is a valid species of *Sebastapistes*. The species is redescribed here in detail and compared with a related species, *Sebastapistes strongia* (Cuvier in Cuvier and Valenciennes 1829).

Materials and methods

Measurements follow Motomura (2004a, b), with head width following Motomura et al. (2005b, 2006a) and maxillary depth following Motomura et al. (2006b). Counts follow Motomura et al. (2005a, b, c) and Motomura and Johnson (2006), with predorsal scale counts following Motomura et al. (2006b). The last two soft rays of the dorsal and anal fins are counted as single rays, each pair being associated with a single pterygiophore. Standard length is expressed as SL. Terminology of head spines follow (Randall and Eschmeyer 2002: fig. 1) and (Motomura et al. 2004b: fig. 1) with the following additions: the spine occurring at the base of the uppermost preopercular spine is referred to as the supplemental preopercular spine (Eschmeyer 1965); the spine occurring at the lateral surface of the lacrimal bone is referred to as the

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Fig. 1 *Sebastapistes taeniophrys*. **a** Holotype of *Scorpaena taeniophrys*, USNM 99522, 19.3 mm standard length; **b** paratype of *Scorpaena taeniophrys*, USNM 99523, 18.3 mm SL

lateral lacrimal spine; the coronal and pretympanic (as an extra spine) spines are figured in Chen (1981: fig. 1) and Motomura et al. (2004: fig. 14b) respectively. Institutional codes follow Leviton et al. (1985), with additional institutional abbreviations as follows: the Kagoshima University Museum, Kagoshima (KAUM); the Museum of New Zealand Te Papa Tongarewa, Wellington (NMNZ); the National Museum of Nature and Science, Tokyo (NSMT).

The type specimens of *Scorpaena taeniophrys* are listed under the account of the species. Comparative data mentioned in this paper where no references are cited are based on the following specimens. *Sebastapistes strongia* (48 specimens, 16.3–51.8 mm SL)—Seychelles: KAUM–I. 8064, 49.0 mm SL, Picard Islands, Aldabra Islands, B. Kensley et al., 31 March 1987; KAUM–I. 8065, 47.3 mm SL, same data as KAUM–I. 8064; KAUM–I. 8066, 42.5 mm SL, same data as KAUM–I. 8064; USNM 289907, 12 of 32 specimens, 34.9–50.2 mm SL, same data as KAUM–I. 8064; USNM 360749, 31.1 mm SL, West Island, Aldabra Atoll, 09°22.48'S, 46°14.24'E, 0.8 m, H. Fehlmann, 17 August 1967. Tanzania: USNM 357236, 4, 42.6–51.3 mm SL, Zanzibar, 0.3–1.4 m, G. Losse, 17 June 1965. Red Sea: USNM 147575, 40.3 mm SL, Sharmah, Saudi Arabia, O. Erdman, 2 July 1948; USNM 147577, 41.4 mm SL, Jeddah, Saudi Arabia, O. Erdman, 16 July 1948. Mariana Islands: KAUM–I. 8062, 38.4 mm SL, tide pool in Asan Bay, Guam, K. Kuriwa, 22 July 2002; KAUM–I. 8063, 47.8 mm SL, same data as KAUM–I. 8062; USNM 124229, 30.5 mm SL, Tumon Bay, Guam, J. Gressitt, 27 May 1945; USNM 139895, 38.6 mm SL, Guam, K. Frank and J. Craighead, November 1945.

Philippines: USNM 99015, 2, 41.7–43.3 mm SL, Gubat Bay, Luzon, R/V *Albatross*, 23 June 1909; USNM 99797, 34.6 mm SL, market in Cebu, R/V *Albatross*, 20 March 1909; USNM 99798, 32.2 mm SL, Davao, Mindanao, R/V *Albatross*, 16 May 1908; USNM 168227, 45.8 mm SL, Pagapas Bay, Luzon, R/V *Albatross*, 20 February 1904; USNM 372643, 35.7 mm SL, Anilao, Batangas, 13°45'N, 120°55'E, 3 m, C. Ferraris, 25 April 1980; USNM 372674, 39.2 mm SL, Paliton, Siquijor Island, 09°10.30'N, 123°27.48'E, 1.5 m, V. Springer et al., 9 May 1978. Caroline Islands: USNM 224485, 25.5 mm SL, Manmatol, Ponape, 05°51'N, 158°20'E, 1.8 m, V. Springer et al., 3 September 1980. Indonesia: USNM 266120, 51.8 mm SL, Poka, Ambon Bay, Moluccas, 03°39.00'S, 128°11.30'E, 1.8 m, V. Springer and M. Gomon, 17 March 1974; USNM 266122, 21.7 mm SL, Papremkama Point, Buton Bay, Buton Island, 05°24.30'S, 122°37.28'E, 1–8 m, V. Springer et al., 25 March 1974. Solomon Islands: USNM 122987, 24.9 mm SL, near Torokina, Puruata Island, August 1944; USNM 266448, 31.1 mm SL, Munda Pier, New Georgia, W. Chapman, 5 June 1944. New Caledonia: NMNZ P. 29623, 30.3 mm SL, Goelands Cay, off Noumea, 22°23.00'S, 166°23.00'E, 1–2 m, C. Roberts and C. Paulin, 27 October 1992; USNM 324448, 33.9 mm SL, Isle Nou, Noumea, 22°15.24'S, 166°22.54'E, 2 m, J. Williams and G. Mou Tham, 8 November 1991. Fiji: NMNZ P. 20564, 3, 16.3–25.7 mm SL; USNM 259404, 36.2 mm SL, Viwa Island, 17°11'S, 176°54'E, V. Springer et al., 27 May 1982. Wallis Islands: USNM 371447, 2, 32.7–45.5 mm SL, southwest of Nukuaeta Islet, Ile Uvea, 13°22.40'S, 176°13.10'W, 1 m, J. Williams et al., 8 November 2000; USNM 371449, 45.2 mm SL, same data as USNM 371447; USNM 374710, 2, 39.7–40.7 mm SL, off northwest end of Ile Uvea, 13°13.05'S, 176°13.10'W, 1 m, J. Williams et al., 29 October 2003. American Samoa: USNM 361006, 34.4 mm SL, Pago Pago, Tutuila, F. Sibley, 4 July 1964. French Polynesia: USNM 66028, 46.7 mm SL, Bora Bora, Clipperton Island, Society Islands, R/V *Albatross*, 1899–1900.

***Sebastapistes taeniophrys* (Fowler 1943)** (New English name: Tentacle Scorpionfish) (Fig. 1)

Scorpaena taeniophrys Fowler 1943: 66, fig. 12 (type locality: Cammahala Bay, Luzon Island, Philippines); Herre 1951: 401 (description after Fowler; specimens not examined).

Holotype. USNM 99522, 19.3 mm SL, Cammahala Bay, Luzon Island, Philippines, beach seine, 11 March 1909, *Albatross* Philippine Expedition 1907–1910.

Paratype. USNM 99523, 18.3 mm SL, collected with the holotype.

Diagnosis. A species of *Sebastapistes* with the following combination of characters: 15 pectoral-fin rays; 31–33 scale rows in longitudinal series; 11–14 pored lateral-line scales; 3 predorsal scale rows; 4 or 5 scales above lateral line, 10 or 11 below; 4 or 5 scale rows between sixth dorsal-fin spine base and lateral line, 4 scale rows between last dorsal-fin spine base and lateral line; 3 gill rakers on upper limb, 9 on lower limb, 12 in total; teeth on palatines; anterior and posterior lacrimal spines simple; 3 suborbital spines; coronal spines absent; posterior end of tympanic spine base located level with posterior to origin of parietal spine base in dorsal view; lower opercular spine with a median ridge and not covered with scales; ctenoid body scales; several dark transverse bands on ventral surface of mandible; a distinct elongate black blotch distally between second or third and seventh dorsal-fin spines; no black blotch on nape.

Description. Proportional measurements are given as percentages of SL in Table 1. Data for the holotype are presented first, followed by paratype data (if different) in parentheses.

Dorsal fin with 12 spines and 9 soft rays; (all soft rays branched); length of 12th spine 1.3 (1.4) in last spine; (membrane of spinous portion of dorsal fin moderately notched); (second soft ray longest, its length longer than that of longest dorsal-fin spine); (posterior branch of last soft ray joined by membrane to caudal peduncle for half of its length). Anal fin with three spines and five soft rays; first spine 2.1 (1.7) in second spine, 1.8 (1.7) in third spine; all soft rays branched; first soft ray longest; posterior branch of last soft ray not joined by membrane to caudal peduncle. Pectoral fins with 15 rays on each side of body, all rays unbranched; eighth ray longest, its length less than head length; all rays not thickened; posterior margin of fin rounded. Pelvic fins with one spine and five soft rays, first three soft rays branched, remaining rays unbranched; second soft ray longest, its length slightly longer than upper-jaw length; last soft ray joined by membrane to abdomen for four-fifths of its length. Caudal-peduncle depth 1.7 in caudal-peduncle length.

Thirty three (31) scale rows in longitudinal series. Fourteen (12) pored lateral-line scales; lateral line complete, extending onto base of caudal fin. Five (four) scales above lateral line, 10 (11) below. Four (five) scale rows between base of sixth dorsal-fin spine and lateral line. Four scale rows between base of last dorsal-fin spine and lateral line. Three predorsal scale rows. Three gill rakers on upper limb, nine on lower limb, including two (one) rakers on hypobranchial; total gill rakers 12. Gill rakers relatively long with spinous tips, length of longest raker on first gill arch longer than that of gill filaments around angle of gill arch; fourth gill slit not closed by membrane.

Body moderately compressed anteriorly, progressively more compressed posteriorly. Nape and anterior body moderately arched. Body depth relatively high, but less than head length. Supraocular tentacle long, its length subequal to orbit diameter; tentacle extending beyond tip of parietal spine when laid back. Posterior lacrimal spine associated with a short, fleshy tentacle, length of latter less than that of supraocular tentacle; posterior lacrimal spine tentacle linked posteriorly to head by skin. A short tentacle on posterior edge of low membranous tube associated with anterior nostril; the tentacle extending beyond posterior margin of posterior nostril when laid back. Pectoral-fin axil without skin flaps.

Well-exposed ctenoid scales covering surface of body, including base of pectoral fin and ventral surface of body. Body scales not extending onto rays or membranes of fins, except base of caudal fin. Embedded cycloid scales on cheek. Exposed cycloid scales scattered on opercle. Lateral line sloping slightly downward above posterior tip of opercle. Underside of dentary with three well-developed sensory pores on each side, first pore below anterior margin of orbit, second pore below posterior lacrimal spine, and third pore located on posterior margin of dentary. A pair of small pores behind symphyseal knob of lower jaw in ventral view.

Mouth large, oblique, forming an angle of about 20° to horizontal axis of head and body. Posterior margin of maxilla just reaching a vertical through posterior margin of orbit. No distinct longitudinal ridge on lateral surface of maxilla. Lower jaw with a symphyseal knob. Width of symphyseal gap separating premaxillary teeth bands slightly greater than width of each band. Villiform teeth (with an inner row of canine teeth) on upper and lower jaw; tooth band narrowing posteriorly. Tooth band of upper jaw slightly wider than that of lower jaw. About three rows of small teeth at front of vomer, becoming about four rows posteriorly, forming a V-shaped patch on vomer. No palatine teeth. Underside of lower jaw without ridges.

Dorsal profile of snout steep, forming an angle of about 55° to horizontal axis of head and body. Nasal spine simple, directed dorsally, its tip not reaching top of ascending process of premaxilla in lateral view. Ascending process of premaxilla slightly intruding into interorbital space, its posterior margin extending well beyond a vertical from posterior margin of posterior nostril in dorsal view when mouth completely closed. Median interorbital ridge absent. Interorbital ridges weakly developed anteriorly and posteriorly, well developed medially, separated by a relatively shallow channel, beginning posterior to nasal spines and then conjoined level with, and between origins of, tympanic spines, forming an indistinct low ridge at front of occiput; diverging anteriorly and posteriorly in dorsal view, distance between ridges narrowest at a vertical through

Table 1 Morphometrics as percentages of standard length for the holotype and paratype of *Sebastapistes taeniophrys*

	Holotype USNM 99522	Paratype USNM 99523		Holotype USNM 99522	Paratype USNM 99523
Standard length (mm)	19.3	18.3	5th dorsal-fin spine length	–	–
Body depth	40.4	41.5	6th dorsal-fin spine length	–	–
Body width	17.6	18.0	7th dorsal-fin spine length	15.5	–
Head length	44.6	44.3	8th dorsal-fin spine length	14.5	–
Head width	15.5	14.2	9th dorsal-fin spine length	11.9	11.5
Snout length	10.9	10.9	10th dorsal-fin spine length	–	8.7
Orbit diameter	15.0	15.8	11th dorsal-fin spine length	9.3	8.2
Interorbital width ^a	7.3	8.2	12th dorsal-fin spine length	12.4	12.0
Interorbital width ^b	7.3	7.7	Dorsal-fin soft ray length ^c	–	23.0
Upper-jaw length	24.4	24.0	1st anal-fin spine length	7.8	8.2
Maxillary depth	7.3	7.1	2nd anal-fin spine length	16.1	14.2
Postorbital length	19.7	19.1	3rd anal-fin spine length	14.0	13.7
Predorsal-fin length	39.9	38.8	Anal-fin soft ray length ^c	21.2	–
Preanal-fin length	64.8	66.7	Pectoral-fin length	35.2	–
Prepelvic-fin length	37.3	38.3	Pelvic-fin spine length	17.1	17.5
1st dorsal-fin spine length	–	7.7	Pelvic-fin soft ray length	28.0	25.7
2nd dorsal-fin spine length	–	–	Caudal-fin length	–	32.8
3rd dorsal-fin spine length	–	–	Caudal-peduncle length	18.1	18.0
4th dorsal-fin spine length	–	16.9	Caudal-peduncle depth	10.9	10.9

^a Between the posterior ends of the preocular spine bases

^b Between the vertical midline of the eyes

^c Length of longest ray

–Broken

anterior margin of pupil. Interorbital space relatively shallow, about one-fifth of orbit extending above dorsal profile of head. Preocular spine simple, directed dorsally; tip of spine extending slightly above level of upper margin of pupil in lateral view; flattened anteriorly and posteriorly; anterior surface of spine with a distinct ridge along inner edge of the spine. Supraocular spine simple, not canted laterally; its length subequal to that of postocular spines. Postocular spine simple, canted laterally; its base width subequal to width of tympanic spine base. Tympanic spine simple, canted laterally; located below and posterior to postocular spine; posterior end of tympanic spine base extending beyond level with origin of parietal spine base in dorsal view. Interorbital, coronal, and pretympanic spines absent. Occipital pit absent, occipital region nearly flat, without distinct transverse ridges in rear of occiput. Occiput surrounded laterally only by bases of parietal spines. Parietal spine simple. Nuchal spine simple; nuchal and parietal spines joined at base. Sphenotic and postorbital without spines. Pterotic spine simple; length of spine base less than that of parietal spine base. An indistinct ridge in area surrounded by parietal, pterotic, and posttemporal

spines. Upper posttemporal spine simple. Lower posttemporal spine simple, its base length about half of that of pterotic spine. Supracleithral spine simple. Cleithral spine flattened, pointed, with an indistinct low median ridge.

Lateral lacrimal spine absent. Anterior tip of anteriorly directed lacrimal ridge exposed, forming a blunt spine. Anterior lacrimal spine simple, directed ventroanteriorly, its tip reaching dorsal margin of upper lip. Posterior lacrimal spine simple, directed ventroposteriorly; posterior lacrimal spines greater than anterior lacrimal spine. Suborbital ridge with three spines; first spine below posterior margin of pupil at end of a ridge below main suborbital ridge; second spine behind orbit on main suborbital ridge; third spine located at end of main suborbital ridge. Space between ventral margin of eye and suborbital ridge remarkably narrow. Suborbital pit present. Preopercle with five spines; uppermost spine largest, with a supplemental preopercular spine on its base. Preopercle, between uppermost preopercular spine and upper end of preopercle, without serrae or spines. Upper opercular spine simple with an indistinct low median ridge. Lower opercular spine simple with a distinct median ridge. Space between upper

and lower opercular spines without ridges. Posterior tips of upper and lower opercular spines not reaching opercular margin.

Origin of first dorsal-fin spine above supracleithral spine. Posterior tip of pectoral fin extending beyond a vertical through base of third anal-fin spine. Origin of pelvic-fin spine just below origin of first pectoral-fin ray. Posterior tip of depressed pelvic fin just reaching anus. Origin of first anal-fin spine just below last dorsal-fin spine.

Color of preserved specimens. Head and trunk brownish-yellow, mottled with poorly defined brownish blotches. Pale brown spots or blotches scattered on all fins, except for caudal fin. A distinct, elongate blackish blotch on spinous portion of dorsal fin distally between third (second) and seventh spines. Inside mouth uniformly brownish.

Discussion

Fowler's (1943: 66–68) description of *Scorpaena taeniophrys* included numerous errors, including counts of the dorsal-fin soft rays (11) and gill rakers (5 + 10) (the types actually have 9 and 3 + 9, respectively). Accordingly, the types have been redescribed (see also Tables 1, 2).

Although Herre (1951) believed that the types of *Scorpaena taeniophrys* may have been juveniles of a different species (being only 18.3 and 19.3 mm SL), their head spines were relatively well developed, suggesting that the specimens did not represent a “large” species. However, all of the pectoral-fin rays of the specimens were unbranched. Because juveniles of a number of scorpaenid species do not possess branched pectoral-fin rays, the number of such rays increasing with (subadult/adult) growth (Motomura et al. 2005b), it is most likely that Fowler's specimens represent juvenile or young stages of a relatively small species.

Fowler (1943: 68) described and figured the coloration of the preserved specimens of *Scorpaena taeniophrys* in detail, but since their collection in 1909, the specimens have slowly faded. Distinct coloration observed by Fowler (1943), but no longer apparent, includes: five dark transverse bands on the ventral surface of the mandible and two broad dark oblique bands on the anal fin. Such coloration may be one of features of the species.

Sebastapistes taeniophrys can be easily distinguished from *Sebastapistes ballieui* (Sauvage 1875) (Hawaiian endemic species) and *Sebastapistes mauritiana* (Cuvier in Cuvier and Valenciennes 1829) (Indo–Pacific species) by the lack of coronal spines (vs. present in the latter two species), from *Sebastapistes fowleri* (Pietschmann 1934) (Indo–Pacific species) by the presence of palatine teeth (vs. teeth absent), from *Sebastapistes coniorata* Jenkins 1903 (possibly Hawaiian endemic species) and *Sebastapistes*

tinkhami (Fowler 1946) (Indo–Pacific species) by the lower opercular spine having a median ridge and not covered with scales (vs. lacking a median ridge and covered with scales) and the presence of two spines on the ventral surface of the lacrimal (vs. three to five spines), and from *Sebastapistes galactacma* Jenkins 1903 (possibly Pacific species) by having 15 pectoral-fin rays (vs. 16) and ctenoid body scales (vs. cycloid) [above data from Randall and Poss (2002) and Motomura (unpublished data)]. The validity of the current generic allocation of some species, especially *S. ballieui* and *S. mauritiana*, needs to be re-assessed.

Sebastapistes taeniophrys is most similar to *S. strongia* (Indo–Pacific species) in overall appearance, the two species sharing most head spine features, including two spines at the lower margin of the lacrimal, the lower opercular spine with a median ridge, the posterior end of the tympanic spine base located level with the posterior to the origin of the parietal spine base in dorsal view, usually 15 pectoral-fin rays (frequency shown in Table 2), ctenoid body scales, the opercular spines not covered by scales, and several dark transverse bands on the ventral surface of the mandible. Notwithstanding, *S. taeniophrys* differs from *S. strongia* in several meristics and coloration.

Sebastapistes taeniophrys has three suborbital spines, the first located below the posterior margin of the pupil at the end of a ridge below the main suborbital ridge, the second behind the orbit on the main suborbital ridge, and the third at the end of the main suborbital ridge, whereas *S. strongia* usually has two suborbital spines, lacking the second (in *S. taeniophrys*) in most specimens. Scale numbers on various parts of the body and the gill rakers in *S. taeniophrys* tend to be lower than those in *S. strongia* (Table 2). The pored lateral-line scale count of *S. taeniophrys* is extremely low (11–14), most species of *Sebastapistes* usually having more than 20, although the lateral line continues to the caudal-fin base. The gap between the pored scales on the lateral line of *S. taeniophrys* tends to be wider posteriorly.

Some features of the coloration [from Fowler (1943) and still apparent on the preserved specimens] of *S. taeniophrys* also differ from that of *S. strongia*, although several dark transverse bands on the ventral surface of the mandible are shared with the latter alone among species of *Sebastapistes*. The spinous portion of the dorsal fin in *S. taeniophrys* has a distinct elongate black (brownish in long-term preserved specimens) blotch distally between the second or third and seventh spines, whereas that in *S. strongia* lacks such a blotch. Furthermore, the nape (between the anterior four dorsal-fin spine bases and upper opercular margin) of *S. strongia* usually has a poorly defined, blackish blotch, lacking entirely in *S. taeniophrys*.

Table 2 Frequency distribution of selected meristics of *Sebastapistes taeniophrys* and *S. strongia*

	Pectoral-fin rays (one side/other side)				Scale rows in longitudinal series										
	14/14	15/15	15/16	16/16	31	33	–	40	41	42	43	44			
<i>S. taeniophrys</i>		2 ^H				1	1 ^H								
<i>S. strongia</i>	1	39	4	1				4	5	12	14	8			
	Pored lateral-line scales				Predorsal scale rows										
	11	14	–	20	21	22	23	3	4	5	6				
<i>S. taeniophrys</i>	1	1 ^H						2 ^H							
<i>S. strongia</i>			4	15	20	2		7	25	13					
	Scales above/below lateral line														
	4	5	6	/	10	11	12	13	4	5	6	7	4	5	6
<i>S. taeniophrys</i>	1	1 ^H			1 ^H	1			1 ^H	1			2 ^H		
<i>S. strongia</i>	6	34			6	27	11		11	33	1		26	19	
	Gill rakers on upper limb				Gill rakers on lower limb				Total gill rakers						
	3	4	5	6	8	9	10	11	12	13	14	15	16		
<i>S. taeniophrys</i>						2 ^H									
<i>S. strongia</i>	13	27	5		6	20	15	4			14	13	12	6	

^H Includes holotype

Sebastapistes taeniophrys is currently known only from the two type specimens (both examined in this study). Fowler (1943) stated that the specimens were collected by a beach seine, indicating that the species inhabits shallow sandy bottoms, although all other species of *Sebastapistes* are known to live in rocky or coral reefs.

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References

- Chen L-C (1981) Scorpaenid fishes of Taiwan. Q J Taiwan Mus 34:1–60
- Cuvier G, Valenciennes A (1829) Histoire naturelle des poissons, vol 4. FG Levrault, Paris
- Eschmeyer WN (1965) Western Atlantic scorpionfishes of the genus *Scorpaena*, including four new species. Bull Mar Sci 15:84–164
- Eschmeyer WN (1998) Catalog of fishes. Vol. 2. Species of fishes (M–Z). California Academy of Sciences, San Francisco
- Fowler HW (1943) Contributions to the biology of the Philippine Archipelago and adjacent regions. Descriptions and figures of new fishes obtained in Philippine seas and adjacent waters by the United States Bureau of Fisheries steamer “Albatross”. Bull US Natl Mus 100(14):i–iii + 53–91
- Herre AW (1951) A review of the scorpaenoid fishes of the Philippines and adjacent seas. Philipp J Sci 80:381–482
- Leviton AE, Gibbs RH Jr, Heal E, Dawson CE (1985) Standards in herpetology and ichthyology Part I. Standard symbolic codes for institutional resource collections in herpetology and ichthyology. Copeia 1985:802–832
- Motomura H (2004a) New species of scorpionfish, *Scorpaena cocosensis* (Scorpaeniformes: Scorpaenidae) from the Cocos Islands, Costa Rica, eastern Pacific Ocean. Copeia 2004:818–824
- Motomura H (2004b) Revision of the scorpionfish genus *Neosebastes* (Scorpaeniformes: Neosebastidae) with descriptions of five new species. Indo-Pac Fish 37:1–75
- Motomura H, Fricke R, Eschmeyer WN (2005a) Redescription of a poorly known scorpionfish, *Scorpaena canariensis* (Sauvage), and a first record of *Pontinus leda* Eschmeyer from the Northern Hemisphere (Scorpaeniformes: Scorpaenidae). Stuttg Beitr Naturk Ser A (Biol) 674:1–15
- Motomura H, Johnson JW (2006) Validity of the poorly known scorpionfish, *Rhinopias eschmeyeri*, with redescrptions of *R. frondosa* and *R. aphanes* (Scorpaeniformes: Scorpaenidae). Copeia 2006:500–515
- Motomura H, Last PR, Gomon MF (2006a) A new species of the scorpionfish genus *Maxillicosta* from the southeast coast of Australia, with a redescription of *M. whitleyi* (Scorpaeniformes: Neosebastidae). Copeia 2006:445–459
- Motomura H, Last PR, Yearsley GK (2005b) *Scorpaena bulacephala*, a new species of scorpionfish (Scorpaeniformes: Scorpaenidae) from the northern Tasman Sea. Zootaxa 1043:17–32
- Motomura H, Last PR, Yearsley GK (2006b) New species of shallow water scorpionfish (Scorpaenidae: *Scorpaena*) from the central coast of Western Australia. Copeia 2006:360–369
- Motomura H, Paulin CD, Stewart AL (2005c) First records of *Scorpaena onaria* (Scorpaeniformes: Scorpaenidae) from the southwestern Pacific Ocean, and comparisons with the Northern Hemisphere population. N Z J Mar Freshwater Res 39:865–880
- Motomura H, Yoshino T, Takamura N (2004) Review of the scorpionfish genus *Scorpaenopsis* (Scorpaeniformes: Scorpaenidae) in Japanese waters with three new records and an assessment of standard Japanese names. Jpn J Ichthyol 51:89–115
- Poss SG (1999) Scorpaenidae. In: Carpenter KE, Niem VH (eds) FAO species identification guide for fishery purposes. The living marine resources of the western central Pacific. Vol. 4. Bony fishes part 2 (Mugilidae to Carangidae). FAO, Rome, pp 2291–2352
- Randall JE, Eschmeyer WN (2002:dated 2001) Revision of the Indo-Pacific scorpionfish genus *Scorpaenopsis*, with descriptions of eight new species. Indo-Pac Fish (34):1–79
- Randall JE, Poss SG (2002) Redescription of the Indo-Pacific scorpionfish *Scorpaenopsis fowleri* and reallocation to the genus *Sebastapistes*. Pac Sci 56:57–64