

Sebastapistes perplexa, a New Species of Scorpionfish (Teleostei: Scorpaenidae) from Japan

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A new scorpionfish, *Sebastapistes perplexa*, is described on the basis of 43 specimens from the Pacific coast of Japan, where it ranges from the Boso Peninsula to Shikoku, including the Izu Islands, in depths of 2–48 m. The new species is characterized by having 12–15 (mode 14) pectoral-fin rays; 33–42 (37) scale rows in longitudinal series; 4 or 5 (5) scale rows above the lateral line, 9–13 (10) scale rows below the lateral line; 3 or 4 (4) scale rows between the sixth dorsal-fin spine base and the lateral line; 3–5 (4) scale rows between the last dorsal-fin spine base and the lateral line; 2–4 (3) predorsal scale rows; 11–17 (15) gill rakers; palatine teeth present; ctenoid body scales; simple anterior and posterior lacrimal spines; no lateral lacrimal spine or ridge; the first and second suborbital ridges fused to form a single ridge with one suborbital spine at its end; a median ridge on lower opercular spine; the opercular spines not covered by scales; and a dark blotch usually visible on the subopercle and pectoral-fin base (distinct in preserved specimens). *Sebastapistes perplexa* appears to be restricted to temperate waters whereas its congeners are primarily tropical and subtropical species. The new species is compared in detail to two congeneric species that share some diagnostic features with it, and to the sympatric *S. strongia* (Cuvier in Cuvier and Valenciennes, 1829).

Key Words: Actinopterygii, morphology, *Sebastapistes strongia*, *Sebastapistes ballieui*, *Sebastapistes mauritiana*.

Introduction

The Indo-Pacific scorpionfish genus *Sebastapistes* Gill in Streets, 1877 is characterized by having 12 dorsal-fin spines, teeth on the palatines, the posterior lacrimal spine directed posteroventrally, and pored lateral-line scales continuing onto the caudal-fin base, and by the lack of a deep occipital pit (Poss 1999; Motomura 2009). Some species of the deep-water scorpionfish genus *Neomerinthe* Fowler, 1935 share these characters with *Sebastapistes*, but can be distinguished from the latter by the head squamation and spines, some meristics, and habitat depths. The species of *Sebastapistes* are usually distributed in shallow coastal waters of the tropics (Motomura *et al.* 2006b), but one species, *Sebastapistes strongia* (Cuvier in Cuvier and Valenciennes, 1829), extends to inshore waters of temperate regions (Nakabo 2002).

During revisionary studies of the genus *Sebastapistes*, unidentified specimens of this genus from shallow temperate waters off the Pacific coast of Japan were found in fish collections of Japanese museums, and additional specimens were collected from the Boso Peninsula, which forms the eastern edge of Tokyo Bay. These specimens are described herein in detail as a new species endemic to Japanese temperate waters. *Sebastapistes strongia*, a primarily tropical and subtropical species, co-occurs with the new species at similar habitats and depths in temperate Japanese waters, but

S. strongia is clearly distinguished from the new species in several aspects, including coloration, head spine structure, and meristics. In this paper, the new species is compared with the other nominal species of *Sebastapistes*, including *S. strongia*.

Materials and Methods

Measurements generally follow Motomura (2004a, b), except for head width (Motomura *et al.* 2005b, 2006a), maxillary depth (Motomura *et al.* 2006b), and body depth (Motomura *et al.* 2012). Counts follow Motomura *et al.* (2005a–c) and Motomura and Johnson (2006), with predorsal scale row 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. Counts of preopercular spines begin with the uppermost spine. Standard length is expressed as SL. Terminology of head spines follows Randall and Eschmeyer (2002: fig. 1) and Motomura (2004b: fig. 1) with the following additions: the spine at the base of the uppermost preopercular spine is referred to as the supplemental preopercular spine (Eschmeyer 1965); the spine on the lateral surface of the lacrimal bone is referred to as the lateral lacrimal spine (Motomura and Senou 2008: fig. 2; Motomura *et al.* 2011b: fig. 1); and the coronal and pretemporal spines (the latter