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Larval development of *Symphurus atramentatus* (Cynoglossidae: Pleuronectiformes) from the Gulf of California

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Abstract

Symphurus atramentatus is described from larval to juvenile stages based on 30 specimens from the Gulf of California. Eleven larvae (preflexion, flexion, and postflexion) and three juveniles were cleared and stained to obtain the number of proximal dorsal-fin pterygiophores in each of the anterior first five interneural spaces and the number of hypural elements. Meristic features were nine precaudal vertebrae, 49–51 total vertebrae, 91–97 dorsal rays, 75–79 anal rays, 12 caudal rays, and four hypural elements. All specimens had a 1-3-3-2-2 ID pattern. The combination of these characterstics confirm that the specimens belong to *Symphurus atramentatus*. Pigmentation pattern of *S. atramentatus* from preflexion to postflexion stage consists of one dashed line of pigments on the base of the anal fin pterigiophores. In posflexion larvae, a dashed line of pigments appears on the base of the anal rays, on the dorsal margin of the body, on the lateral midline of the body, in the base of the first 15 dorsal rays, and on the base of the last 25 dorsal rays. In preflexion larvae, the ventral margin of the intestine had three or four blotches, which coalesce to form a continuous dotted line in postflexion larvae. Five elongated dorsal fin rays are present from preflexion to postflexion stages, which in the juvenile stage had a similar size with the rest of the adjacent rays.

Key words: Fish larvae, *Symphurus atramentatus*, Gulf of California, larval morphology, tonguefish

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