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First Specimen of Rosethorn Rockfish, *Sebastes helvomaculatus* (Ayres 1859), Recorded from Puget Sound, Washington

Abstract

In Puget Sound, Washington, the rockfish family (Scorpaenidae) is one of the largest in terms of speciation. Twenty-one species (DeLacy *et al.*, 1972) have been reported to date. The fish described below adds another to the total.

On September 12, 1975, a specimen identified as a rosethorn rockfish, *Sebastes helvomaculatus*, was collected during a National Marine Fisheries Service survey of recreational fishery resources off Bainbridge Island, Washington. The specimen, a 297 mm long (total length) female, was caught on an artificial blue-rubber worm in 75 m of water in central Puget Sound (Lat 47°42'N, Long 122°30'W).

A number of specimens identified as *S. helvomaculatus* have been reported from the coasts of Oregon, Washington, British Columbia, and Alaska by Heyamoto and Hitz (1962), Alverson *et al.* (1964), and Westrheim (1965), but none have been recorded from Puget Sound (DeLacy *et al.*, 1972).

Le-Chai Chen (1971) and Westrheim (1965) mention the problems involved in identification of this species of rockfish. Both authors note that similarities between *S. helvomaculatus* and *S. rosaceus* have often resulted in misidentification. Westrheim (1965) comments that a specimen of *S. rosaceus* reported by Clemens and Wilbey (1961) has since been found to be *S. helvomaculatus*. Hart (1973) notes that *S. rosaceus* has subsequently been removed from the Canadian checklist. Chen describes the range of the *S. rosaceus* as being from Turtle Bay, Baja, California, northward to at least San Francisco and the range of *S. helvomaculatus* as being from Albatross Bank, Gulf of Alaska, to Coronado Bank off San Diego, California. Chen also comments

TABLE 1. Comparisons of rosethorn rockfish and rosy rockfish.

Feature	Rosethorn, <i>S. helvomaculatus</i>	Rosy, <i>S. rosaceus</i>
Geographic range	Coronado Bank to Albatross Bank	Turtle Bay, Baja, to San Francisco Bay
Body color	Orange yellow with olive-green mottling on back	Orange red, white ventrally; wide purple band across nape
Dorsal rays	XIII, 13 (12-14)	XIII, 13 (11-14)
Anal rays	III, 6 (6-7)	III, 6 (5-7)
Pectoral rays	16 (15-17)	17 (16-18)
Rakers—1st arch	28-33 (8-11 + 20-23)	29-34 (8-11 + 20-24)
Pores—lateral line	35-45	37-46
Cranial ridges and spines	Very high and sharp	Relatively weak
Concavity of inter-orbital space	Strong	Moderate

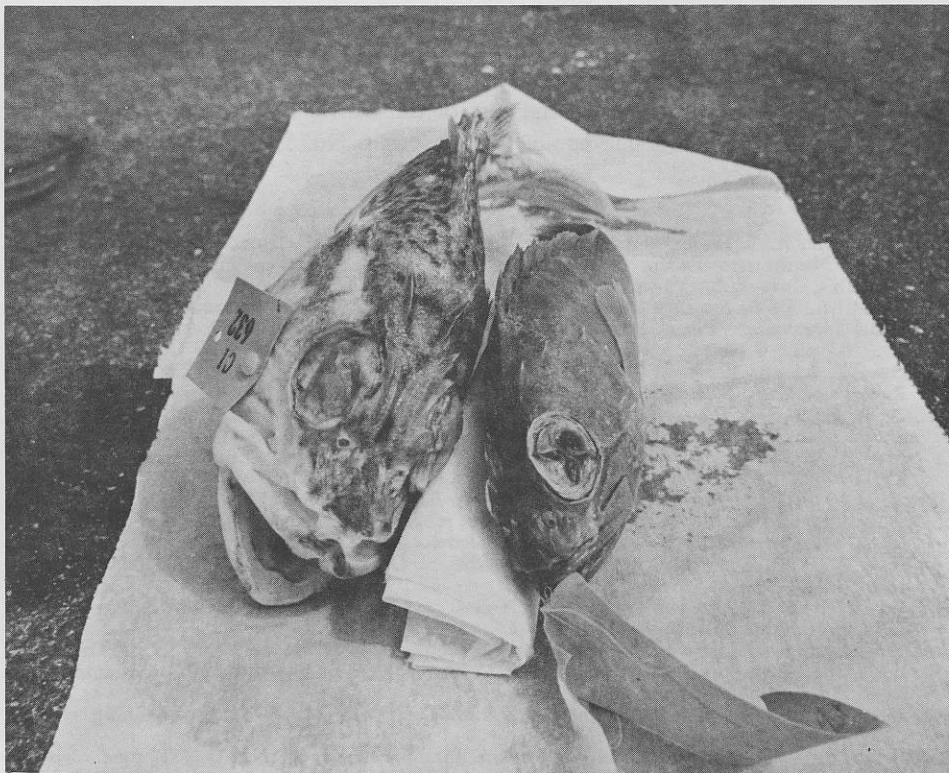


Figure 1. *S. helvomaculatus* (left) and *S. rosaceus* (right). Differences in cranial ridges and spines, and of interorbital concavity are made more apparent with this visual comparison. (Photo by P. Washington.)

that records of *S. rosaceus* from Washington waters (Rathbun, 1894; Evermann and Goldsborough, 1906; Hubbs, 1928; and Schultz, 1936) are questionable in that the specimens were most likely misidentified and probably were *S. helvomaculatus*. Some of the above rockfish were caught in Puget Sound; these were taken by Evermann and Goldsborough (1906) off Morrowstone Point. From their comments in the text, it is apparent that Evermann and Goldsborough questioned the identification of these rockfish to species.

Table 1 lists the features of *S. helvomaculatus* and *S. rosaceus* which were considered during the identification of the specimen taken on September 12, 1975. With the exception of body color of *S. helvomaculatus*, all of the listed information in the table is from Chen (1971); body color of *S. helvomaculatus* follows the description of Phillips (1957).

A description of the specimen taken on September 12, 1975, is as follows: Dorsal XIII, 13; Anal III, 7; Pectoral 16; Rakers on first gill arch 28 (8+20). The interorbital space is strongly concave, and the elevation of the cranial ridges and spines is quite pronounced. Nuchal and coronal spines were absent. The peritoneum is grayish

with fine black dots. The body coloration in life was a bright orange with olive-green spots on the upper body and top of head. Four white to pink spots were present on the upper part of the body and light purple could be seen at the base of the fins. The fish was deposited in Seattle at the museum of the University of Washington College of Fisheries and given catalogue number 20621/group No. 53.

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