

DESCRIPTION OF A NEW GOBY, GARMANNIA SPONGICOLA FROM NORTH CAROLINA.

By LEWIS RADCLIFFE,

Scientific Assistant, United States Bureau of Fisheries.

Along the coast of North Carolina south of Cape Hatteras, there are a number of fishing banks¹ similar in character to those located off Charleston, South Carolina. The largest of these lies about 21 miles south by west $\frac{7}{8}$ west of the bell buoy at the entrance to Beaufort, North Carolina, harbor in $13\frac{1}{2}$ to 15 fathoms of water. The bottom is hard and rocky in places and supports a growth of corals, sponges, and marine plants. The organisms found here are in the main characteristic of warmer, southern waters, the fauna bearing a marked similarity to that of the snapper banks off Pennsacola and Tampa, Florida.

The small species of goby described herein was taken in the course of an investigation of these grounds by the United States Fisheries Steamer *Fish Hawk* in August and September, 1914. It inhabits the cavities of large cuplike sponges.

GARMANNIA SPONGICOLA Radcliffe, new species.

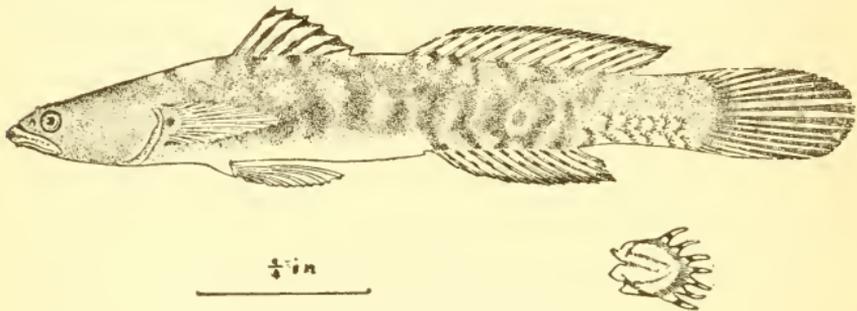
Dorsal VI-13; anal 11; body naked except for a small patch of large, strongly ctenoid scales about 22 in number on lower side and ventral surface of caudal peduncle; body long, slender, compressed posteriorly; depth 6.4 in standard length, 7.7 in total length; head long, slender, pointed 4.5 in standard length, 5.3 in total length; cheeks tumid; eye small, 6.9 in head, subdorsal; interocular space narrow, slightly concave, equal to diameter of eye; snout short, pointed, 4.1 in head; mouth large, slightly oblique, lower jaw included; maxillary long, 2.6 in head, extending beyond vertical from posterior margin of eye; teeth small, villiform; those in front of each jaw in several rows, unequal in size, longer ones recurved, caninelike; teeth on sides of jaws in a single row, gradually decreasing in size toward angles of mouth; several small, recurved caninelike teeth on underside of anterior margin of lower jaw.

¹ The Offshore Fishing Grounds of North Carolina, by Lewis Radcliffe. Economic Circular No. 8 of the Bureau of Fisheries, issued Feb. 25, 1914.

Dorsal fins prominent, without filamentous rays, widely separated, the first of six rather weak, slender spines; second dorsal elongate, free from caudal; caudal fin short, rounded; pectoral fins long, pointed, nearly as long as head; ventrals completely united, not adnate to the belly, equal to pectorals in length; anal similar in form to second dorsal, free from caudal.

Color in alcohol: Body Broccoli brown, with about 14, more or less indistinct vertical, sepia-colored cross bands; belly lighter in color, head darker, drab-colored; vertical fins mottled with darker; dorsals and anal with a darker marginal band; pectorals dusky at base, lighter distally; ventrals translucent.

Type.—Cat. No. 77501, U.S.N.M., a specimen 31 mm. long taken August 11, 1914, in $14\frac{3}{4}$ fathoms with the beam trawl at *Fish Hawk*



GARMANNIA SPONGICOLA RADCLIFFE.

station 8212. This station lies about 1 mile southeast of the fishing buoy, on the largest fishing ground, the position of the buoy being latitude $34^{\circ} 19' N.$; longitude $76^{\circ} 48' W.$ The sponge from which the type and cotypes were taken was 45.7 cms. in diameter at the top and 53.3 cms. high, cup-shaped.

Cotypes.—Fourteen specimens 20 to 28 mm. long. These vary somewhat in coloration from the type, some being much darker colored, others lighter; other than in intensity the color pattern is quite similar. Occasional examples have seven dorsal spines instead of six, and twelve dorsal rays instead of thirteen. The anal normally consists of ten rays.

Paratypes.—Six specimens 24 to 28 mm. long, taken August 1, 1914, at *Fish Hawk* station 8199, about 3 miles west-northwest of fishing buoy in $14\frac{3}{4}$ fathoms.

The sponge from which these specimens were taken was deeply concave on top, cup-shaped, 61 cm. in diameter at top. According to Dr. H. V. Wilson this is presumably an undescribed species of *Spirastrella*.

In the collection of the Bureau of Fisheries are five specimens 17 to 27 mm. long taken by Mr. W. W. Welsh, January 13, 1913, 14 miles W. $\frac{1}{2}$ N. from Anclote Light, Anclote Keys (near Tarpon

Springs) on the west coast of Florida. These specimens were taken from a large sponge similar in form to those from the North Carolina coast. The sponge was dredged by the *Fish Hawk* in 8½ fathoms on rough bottom.

This species is named *spongicola* in allusion to its habit of living in the cavities of sponges.

As the genus *Garmannia* has been characterized by species having the anterior half of the body naked, posterior half covered with moderate or small scales, its characters should be extended to cover the present species, in which the scaling is reduced to a small area on the lower side and ventral surface of the caudal peduncle.