



TRIGLOPS OMMATISTIUS. TYPE.

FOR DESCRIPTION SEE PAGE 465.

DESCRIPTIONS OF TWO NEW FISHES OF THE GENUS
TRIGLOPS FROM THE ATLANTIC COAST OF NORTH
AMERICA.

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The cottoid genus *Triglops* has been assumed to be represented in the North Atlantic by a single species, *Triglops pingeli*, supposed to be common to the European and American coasts, if, indeed, not circumpolar in its distribution. This fixed idea has been responsible, doubtless, for the long neglect of American material, although such notes concerning it as have been published have indicated a form with fewer fin rays than any known species and, furthermore, with a distinctive black ocellated spot on the spinous dorsal fin, wholly unknown elsewhere.

Through the kindness of the authorities of the United States National Museum the writer has had the privilege of examining all their American material from the Atlantic coast, and describes therefrom the following new species from the coast of New England and a new subspecies from the region of Newfoundland:

TRIGLOPS OMMATISTIUS, new species.

Plate 64.

Triglops pingeli GOODE and BEAN, Bull. Essex Inst., vol. 11, 1897, p. 13.—
JORDAN and GILBERT, Fish. North Amer., 1882, p. 713.—GOODE and BEAN,
Oceanic Ichth., 1895, p. 267, fig. 256. Not of Reinhardt.

Type.—Cat. No. 73921, U.S.N.M., a male, 105 mm. long to base of caudal, the caudal fin injured, the total length approximately 120 mm; from Gloucester, Massachusetts.

Measurements in hundredths of total length without caudal: Length of head 30; length of snout 9; diameter of orbit 8.2; inter-orbital width 3; length of maxillary 13; greatest depth of body 18; least depth of caudal peduncle 4.2.

Dorsal XI, 21; anal 20; pectoral 17; ventral I, 3. Plates along lateral line 45.

Snout sharp, mouth horizontal, the tip of the maxillary reaching to below the middle of the rather large eye, which almost equals the length of the snout. Interorbital space narrow, gently concave, its width but little more than half the diameter of the pupil. Teeth rather coarse, in broad bands in jaws and on vomer, the palatines toothless. Preopercle with four small spines, the upper directed obliquely upward and backward, the second horizontally backward, the third and fourth forward and downward. Occiput flat, or very gently concave, a pair of low diverging ridges at its posterior margin, and a pair of small tubercles (very short converging ridges) immediately behind orbits. Gill membranes widely joined, free from the isthmus, their posterior margins deeply incurved.

Fins all injured. Last dorsal spine joined by membrane to base of first ray of second dorsal. Both ventrals and pectorals extend beyond origin of anal fin. Vent midway between base of ventrals and front of anal fin. Anal papilla reaching base of first anal ray.

Shagreen very fine, covering entire back and sides of head with exception of the mouth parts. The small spinous scutes of the dorsal series diminish in size posteriorly and disappear at some point under the last half of the dorsal fin.

Lateral line with a strong downward curve near its origin, rising again opposite the vent, parallel thence with the curve of the back. The scutes are very finely and evenly spinous on the free margins, without longer spines at the posterior angle. The lateral folds are very numerous, the primary folds descending from the posterior margins of the plates of the lateral line, a number of secondary folds intercalated between them, usually only one or two of each set of secondary folds extending to the lower margin of the spinous area. These spinous plates cover also the anterior part of the trunk behind the axils, and a few from opposite sides commonly meet on median line in front of origin of anal fin. In the type, 45 folds reach to just above the base of the anal fin. Breast with a number of cross folds, varying in number, but usually 5 or 6. The folds do not approach the median line between the ventrals and the vent.

The back is marked with four dark crossbars which reach the lateral line, one under spinous dorsal, two under soft dorsal, and one on caudal peduncle. Below the lateral line is a series of short blackish quadrate spots or blotches, separated by silvery interspaces (or it may be interpreted as a lengthwise silvery streak interrupted by dark blotches). The breast and belly, the postaxial region, and the area in front of all but upper pectoral rays bright silvery. In males, a roundish black spot on distal half of posterior dorsal spines, broadly margined with silvery white, except at the free edge of the fin. A similar but much smaller spot on anterior dorsal spines. There is no trace of these spots in females, and they are not present in very

young males. Soft dorsal in males with wide oblique or nearly horizontal bars, in females with narrow dotted lines. Other fins unmarked.

In 10 cotypes from the Gulf of Maine (Cat. No. 45547, U.S.N.M.), from Cape Cod (Cat. No. 43067), from George's Bank, and from Gloucester, Massachusetts, the fin rays are as follows:

	Dorsal spines.		Dorsal rays.		Anal rays.		Pectoral rays.	
	X	XI	21	22	20	21	17	18
Number.....	5	5	2	8	2	8	9	1
Specimens.....								

Among the collections of the United States National Museum are numerous specimens taken by the Fisheries steamer *Albatross* off the coast of Newfoundland and Nova Scotia, which agree with typical *ommatistius* from the New England coast in all respects save the armature of the body. In the northern specimens, without exception, the primary folds only are developed, and agree in number, therefore, with the scutes of the lateral line with which they are connected, while in typical *ommatistius* many secondary folds are intercalated. In the northern specimens again the breast is naked, or contains few partial cross folds, the postpectoral area is widely naked in its lower portion, and the lower part of caudal peduncle is also frequently naked or nearly so. The lateral folds do not meet across the median line in front of the anal fin.

In all other respects of shape, fin rays, and color, including the ocellate spots on dorsal in the males, the two forms agree, but they can be distinguished at a glance, and being geographically separate are worthy of recognition. The northern form would seem worthy of specific rank were it not that two specimens of the collection, one from off Chebucto Head, Nova Scotia, and one from Georges Bank, Massachusetts, seem to a certain extent intermediate. Also, among perfectly typical examples of *ommatistius* from Gloucester, is a single young specimen typical of the north. For these reasons, with the probability of further intergradation being found, I propose to recognize the northern form as a subspecies.

TRIGLOPS OMMATISTIUS TERRÆNOVÆ, new subspecies.

Type.—Cat. No. 46063, U.S.N.M., a male specimen 95 mm. long to base of caudal, 110 mm. in total length, from Fisheries steamer *Albatross* Station 2445, off Newfoundland (lat. 45° 09' 30'' N; long. 49° 48' 30'' W.); depth, 39 fathoms.

Dorsal XI, 21; anal 21; pectoral 18; ventrals I, 3. Scutes in lateral line 47, diminishing greatly in size on caudal peduncle, one or two of the posterior ones lacking. No intercalated secondary folds, the number of those terminating immediately above base of anal fin

26 (45 in type of *ommatistius ommatistius*). Breast with short traces only of two cross folds; in many cotypes the breast is wholly naked, in others with three or four folds. Sides of abdomen largely naked. No folds approach median line in front of anal fin.

Fifty-seven cotypes of *T. ommatistius terreenovæ* have been examined from *Albatross* collections off the coasts of Newfoundland (stations 2438, 2441, 2444, 2445, 2446, 2449, 2450, 2451, 2466, 2492, 2493), all holding perfectly the distinctive characters of the subspecies. They vary principally in the plating of the caudal peduncle, the sides of the abdomen, and the breast, some specimens being much more completely naked than others. In 25 specimens the fin rays range as follows:

	Dorsal spines.		Dorsal rays.			Anal rays.			Pectoral rays.		
	X	XI	21	22	23	20	21	22	17	18	19
Number.....	17	8	3	16	6	3	13	9	10	14	1
Specimens.....											

Unfortunately no specimens of *Triglops* are available from the west coast of Greenland. Four individuals taken by the Zoological Polar Expedition of 1900, off the east coast of Greenland (lat. 72° 25' N.), indicate a species totally distinct from the forms here described. Two are males and two females, and all agree in the characteristic lengthwise brown streaks and spots below the lateral line, the blunt snout, and the very large eye, as figured by Collett from Norwegian material.¹ None of them resembles the female he there figures (fig. 10), either in the smaller eye, the sharper snout, the coloration, or in the lesser number of rays in the pectoral fin (18). The fin counts in our four Greenland specimens follow:

	Dorsal fins.	Dorsal rays.		Anal rays.		Pectoral rays.	
	XI	25	26	24	25	21	22
Number.....	4	2	2	2	2	2	2
Specimens.....							

¹ Norw. N. Atl. Exp., pl. 1, fig. 9.