

**THE BLUNTHEAD PUFFER,
SPHOEROIDES PACHYGASTER (MULLER AND
TROSCHEL, 1848) (PISCES: TETRAODONTIDAE)
NEW TO NOVA SCOTIA AND CANADA**

The puffers (Tetraodontidae) are small stout-bodied fishes which, when threatened, inflate a sac-like expansion of the gullet, dramatically expand their size and become spherical in shape. Two species, the oceanic puffer, *Lagocephalus lagocephalus* (Linnaeus, 1758), and the northern puffer, *Sphoeroides maculatus* (Bloch and Schneider, 1801), have been previously reported in Canadian waters. We follow the format of Leim and Scott (1966) in our description of the blunthead puffer, *Sphoeroides pachygaster*, the most recently reported species of puffer for Canadian inshore waters.

Blunthead puffer, *Spherooides pachygaster* (Müller and
Troschel in Schomburgk, 1848)
Sphéroïde trogne (m.)

Description

Body depth, when not inflated, about 3.1 in standard length (SL), rounded, deepest anteriorly, venter tapering from beneath eye to caudal peduncle. Head length about 2.5 in SL; upper profile bluntly rounded, lower profile nearly vertical; bony interorbit wide, 15% of SL; snout length long, 20% of SL; gill slit large, extending from above pectoral base to pectoral insertion, about 1.3 times orbit diameter and running obliquely posteroventrally, nostrils with small pores in either end of transverse tubes. Mouth terminal, small; teeth wanting, but paired premaxillaries and dentaries give appearance of four large incisiform teeth. Eye small, ovoid, horizontal diameter or orbit greatest, 11 in head.

Fins: (We follow Ship and Yerger (1969a) in the counting method for fin rays; counts for our specimen are followed by values in brackets from Martin and Drewry (1978). Dorsal (1) 8 [8-9], base approximately 2 in height and also in orbit, origin in posterior quarter of body; caudal moderately large, rounded; anal (1) 9 [8-9], base 2 in height and also in orbit, origin in posterior quarter of body and beneath dorsal insertion; pectorals moderate, 15:15 [14-18], base 1.3 in length, equal to orbit. No visible lateral line. Scales and prickles wanting. Vertebrae (including urostyle) 19.

Colour

In alcohol, grey above, paler on venter and with venter of caudal peduncle milky white. Dorsal and lateral surfaces with random dark grey spots from caudal peduncle to interorbit. Snout and chin with a few scattered melanophores, a prominent large black spot on either side of dorsal base. Pectorals and anal translucent white and without markings, dorsal light dusky grey, caudal dark dusky grey but with tips of rays and lower margin lighter.

Distinctions

In overall appearance similar to the oceanic puffer, *Lagocephalus lagocephalus*, but with seven fewer dorsal and five fewer anal rays and also lacking the ventral skin spines typical of the oceanic puffer. It is readily distinguished from the northern puffer, *Sphoeroides maculatus*, by the lack of prickles anywhere on the body, by the lack of 6-8 vertically elongate dark bars on the body behind the pectoral fin, and by its steep anterior profile.

Size

Length reported to 14 inches (= 35.5 cm) by Jordan and Evermann (1898), but Martin and Drewry (1978) reported its maximum as 250 mm. Our specimen was 107 mm SL but shrank to 103 mm SL, 118 mm total length, and 48 grams by November 1984.

Range

According to Shipp and Yerger (1969b) *S. pachygaster* is found in most of the warmer western Atlantic, but published records of its occurrence are few. Martin and Drewry (1978) reported its range as New Jersey throughout western Atlantic to Argentine, 37°S and from much of the African Atlantic and Indian Ocean coasts, probably Nigeria to Natal; also known from St. Helena Island in the Atlantic and from the Philippines and Hawaii in the Pacific. To the best of our knowledge the blunthead puffer has not been recorded previously from Canada.

Canadian Distribution

This specimen was captured in a trap net in Eastern Passage, Halifax County, Nova Scotia (44°37'N, 63°30'W) by Jerome Henneberry on 10 October 1974. It is catalogued in the National Museum of Natural Sciences, National Museums of Canada, Ottawa as NMC 75-0021.

Biology and Economics

Most puffers are inshore fishes, but the blunthead puffer is a relatively deepwater species, 30-100 fathoms (Ship and Yerger, 1969b), with adults in 25-480 m, most deeper than 100 m (Martin and Drewry, 1978). We have no information on its habits or food and Martin and Drewry (1978) report that there is no information on spawning, larvae, juveniles, growth or age and size at maturity.

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Fig 1. Blunthead puffer, *Sphoeroides pachygaster*, captured in a trap net in Eastern Passage, Halifax County, Nova Scotia by Jerome Henneberry on 10 October 1974.