The Shortbarbel Dragonfish, *Stomias brevibarbatus*, New to the Fish Fauna of the Atlantic Coast of Canada

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A specimen of the Shortbarbel Dragonfish, *Stomias brevibarbatus* (family Stomiidae or scaled dragonfishes [dragons à écailles (m.) en français]), was caught southwest of Sable Island, Nova Scotia (42°08′09″N, 62°59′00″W) on 3 February 1982. This is the first Canadian record of the species and extends the range northwards from Bermuda, the Carolina coast of the U.S.A. and latitude 40°N in the Atlantic Ocean. No significant differences were found between the specimen at hand and literature descriptions.

Key Words: Shortbarbel Dragonfish, *Stomias brevibarbatus*, new record, Nova Scotia.

A specimen of *Stomias brevibarbatus* was caught by the vessel *Lady Hammond* in a midwater trawl fishing down to 500 metres southwest of Sable Island, Nova Scotia (42°08′09″N, 62°59′00″W) on 3 February 1982 at 2200 h. This is the first record of this species from Canada and extends the range northwards from Bermuda, the Carolina coast of the U.S.A. and 40°N in the Atlantic Ocean. This species is a member of the scaled dragonfish family Stomiidae (or Stomiatidae).

This note documents the record and gives a detailed description and illustration of the specimen (Figure 1) in the format of *Fishes of the Atlantic coast of Canada* by Leim and Scott (1966). Additional information was taken from Morrow (1964), Gibbs (1969) and Shcherbachev and Novikova (1976).

Shortbarbel Dragonfish **Dragon Vert**

Stomias brevibarbatus Ege, 1918

DESCRIPTION: Body slender, maximum depth 8.6 times in standard length (SL), compressed, depth greater than width, caudal peduncle short, compressed and deep (depth in length 2.1). Head longer than deep, 9.1 times in SL, snout short and blunt, 5.1 times in head length (HL), orbit moderate, 4.6 times in HL, interorbital space flat, 4.6 times in HL, 1.0 times in orbit diameter. Barbel on chin short, 1.8 times in HL, ending in a rounded bulb with three (fourth possibly lost) filaments, each about same length as the bulb. Mouth gape almost the same length as the head. Premaxilla with one small anterior tooth followed by a large, fang-like tooth and 6-7 smaller ones. Premaxilla length 1.4 times in HL and longest tooth 4.4 times in premaxilla length. Maxilla slightly larger than premaxilla and bearing minute, recurved teeth on its outer, ventral margin. Lower jaw longer than upper jaw and projecting slightly with about 11-13 small teeth. Vomer with one small, backward-pointing tooth on each side. Palatines each with a single large anterior tooth (a double tooth on the left in this specimen) and a smaller posterior tooth. Dorsal and anal fins far posterior on the body near the caudal fin. Anal fin longer with 20 rays (length of base in SL 8.4). Dorsal fin with 17 rays (length of base 10.5 times in SL). Predorsal length 1.2 times in SL and preanal length 1.2 times in SL. Pelvic fins nearer to caudal fin

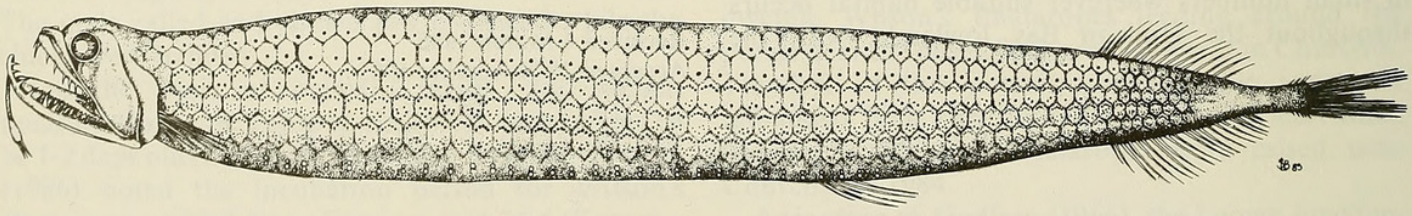

FIGURE 1. *Stomias brevibarbatus*, 184.8 mm SL from southwest of Sable Island, Nova Scotia (NMC84-0279). Drawn from the preserved specimen by S. Laurie-Bourque.

than to head, prepelvic distance 1.7 times in SL. Pelvic fins do not reach to the anal fin. Pelvic rays number five. Caudal fin small and forked. Pectoral fins low on the body with eight rays. Vertebrae number 64. Scales transparent and arranged in five longitudinal rows, each scale outlined with iridescent pigment in the shape of a hexagon. The most dorsal row contains a single (rarely two), ventral photophore and the second row a single (rarely two) photophore slightly below the centre. The third row has an arch of photophores dorsally and a more irregular group ventrally numbering 4-8 in total. The fourth row has a dorsal arch of 3-6 photophores with 5-9 photophores scattered below. The fifth row has 11-20 photophores arranged as in the fourth row. The most posterior scale areas tend to have fewer photophores than the larger, anterior scales. Below the most ventral scale row is a lateral and a ventral row of large photophores. The lateral row has 34 photophores from the head to the origin of the pelvic fin and 14 photophores posterior to this for a total of 48 photophores. The ventral row has 11 photophores on the isthmus to the origin of the pectoral fin, 34 photophores from the origin of the pectoral fin to the origin of the pelvic fin, 13 from the pelvic fin origin to the anal fin origin, and 15 posterior to this for a total of 73. The lateral and ventral rows have a wavy band of minute photophores between them and the "waves" extend between the large photophores of each major row. A double row of minute photophores is found ventral to the ventral row of large photophores and this extends dorsally between each large photophore. There is a photophore behind the eye which is about twice as long as its maximum width and is about three-quarters the size of the eye. The branchiostegal rays number 17 and each membrane between the rays bears a photophore.

COLOUR: In the preserved specimen the head and body are dark brown to black. The postorbital photophore and the photophores of the ventral and lateral rows are cream. Other photophores are darker than the background. Fins are pale. The flanks retain iridescent tinges. The barbel is pale and cream in colour. The oral cavity and the peritoneum are dusky. Live fish are iridescent dark green.

DISTINCTIONS: This species is separated from other *Stomias* in having five rows of pigmented scale areas dorsal to the lateral row of large photophores, a short barbel ending in an almost spherical bulb with 3-4 simple filaments, a large fang-like tooth on each premaxilla, 4-10 photophores in each hexagonal scale of the third row and 11-20 in the fifth row.

SIZE: The specimen described here at 200 mm total length is the largest known specimen.

RANGE: Recorded from a number of collecting stations across the Atlantic Ocean between about 16° N and 42° N from waters off the Iberian Peninsula to waters off Nova Scotia, the Carolina coast of the U.S.A. and Bermuda but not the Caribbean Sea.

Canadian distribution: Known only from a single specimen taken at 2200 h on 3 February 1982 by the vessel *Lady Hammond* southwest of Sable Island, Nova Scotia (National Museum of Natural Sciences catalogue number NMC 84-0279).

BIOLOGY AND ECONOMICS: Almost nothing is known of this species' biology and economics. It is less common than other *Stomias* species although it appears to be most common at depths of about 500-1500 metres in the daytime and 100-200 metres at night.

Acknowledgments

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