



Description of larvae of the Feather Blenny, *Hypsoblennius hentz* (Pisces: Blenniidae), from New York Waters

ROBERT E. SCHMIDT¹ & PAUL A. MOCCIO²

¹*Bard College at Simon's Rock, Great Barrington, MA 01230. E-mail: schmidt@simons-rock.edu*

²*HDR Inc., Nanuet, NY 10954. E-mail: Paul.Moccio@hdrinc.com*

Abstract

Hypsoblennius hentz (Lesueur) larvae are described from specimens recently collected in the vicinity of New York Harbor and Raritan Bay. Previous descriptions (Hildebrand and Cable 1938) were erroneous and additionally we provide the first yolk-sac larval descriptions for Western Atlantic *Hypsoblennius*. *H. hentz* larvae are distinguished from the other Atlantic species by the size and distribution of preopercular spines.

Key words: *Hypsoblennius ionthus*, *Hypsoblennius invemar*, *Hypsoblennius exstochilus*

Introduction

There are six families within the suborder Blennioidei (Springer 1993). Larvae of blennioids have several characteristics in common (Cavalluzzi 1997, Ditty *et al.* 2005, Watson 2009): an elongate body (body depth commonly $\leq 20\%$ standard length, SL) with a relatively short coiled gut (35–50% SL), a long continuous dorsal fin, dense pigment over the visceral mass, small concentrations of melanophores on the ventral surface between the pterygiophores, six branchiostegals, pigment along the ventral margin of the tail, and a melanophore at the tip of the cleithral symphysis. Most larvae of the family Blenniidae are distinguishable from other blennioids by having pigmented pectoral fins and black pigment on the roof of the mouth (Cavalluzzi 1997, Ditty *et al.* 2005).

Larval *Hypsoblennius* are distinguished from other Atlantic blennioid genera by the presence of melanophores on the roof of the mouth and by the presence of 1–3 large preopercular spines (Ditty *et al.* 2005). Spines are difficult to see unless the larvae are stained. Here we describe blennioid larvae collected in New York waters that are referable to *Hypsoblennius hentz* (Lesueur), the feather blenny.

Distribution of Feather Blenny and identification of larvae. The feather blenny is a small, continental shallow water blennioid distributed from Campeche, Mexico (Smith-Vaniz 1980) to Nova Scotia (Scott and Scott 1988). Other than the two specimens from Nova Scotia, there are no other records of the species north of Long Island, New York. The feather blenny is known to spawn in the Great Bay and Little Egg Harbor, New Jersey (Able and Fahay 1998). Adults were collected in 2000 in the East River, New York (seven specimens, New York State Museum—NYSM 51411, 51417, 52154, 52158, and 52159) and near Shoreham, Long Island in 1985 (American Museum of Natural History—AMNH 221647). An adult feather blenny was caught in a seine in Jamaica Bay, Long Island on September 2, 2009 (C. Bowser, Hudson River National Estuarine Research Reserve, *pers. comm.*).

Three other blennioids have been recorded from New York waters; two records of striped blenny (*Chasmodes bosquianus*) most recently from 1842, two records of seaweed blenny (*Parablennius marmoreus*) most recently from Long Island in 1971 (Briggs and Waldman 2002), and a single freckled blenny (*Hypsoblennius ionthas*) from the Indian Point Power Plant in the Hudson River in 1985 (Geoghegan *et al.* 1992), thought to be a ballast introduction. Feather blenny is the only blennioid regularly seen from the Raritan Bay and New York Harbor area.

Larval stages of feather blenny were first described by Hildebrand and Cable (1938) and their descriptions and illustrations were faithfully copied in more recent publications (Fritzsche 1978, Lippson and Moran 1974, Wang and Kernehan 1979). Ditty *et al.* (2006) recognized that many of the feather blenny larval illustrations in