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THE CHARACTERS AND DISTRIBUTION
OF THE ATLANTIC COAST FISHES
REFERRED TO THE GENUS
HYSOBLENNIUS

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IN ORDER TO provide a more adequate means for the separation of the species of Atlantic North American blennies referred to the genus *Hypsoblennius* and in order to be able to state their ranges more precisely, I have studied the pertinent material in the United States National Museum and the Museum of Zoology of the University of Michigan. So far as is apparent, the generally copied or abstracted account of these species by Jordan and Evermann (1898: 2386-2390) is correct in its synonymy and in some of the characters described, but the features employed in their key are almost useless. Specific differences in the supraorbital cirrus, if such exist, are obscured by sexual dimorphism and individual variation, and the other characters used in the key are not alternative.










The two species of eastern North America now classed in *Hypsoblennius* are very readily distinguishable by several characters (see Table I), most of which have been overlooked.

Some of these distinctions between *H. hentz* and *H. ionthas* are trenchant enough to cast doubt on their generic unity, but a consideration of their generic identification should await a review of the whole group.

The range of *H. hentz* was incompletely indicated by Jordan and Evermann and most subsequent authors as "coasts of North and South Carolina, south to Indian River, Florida." The valid records of *H. hentz* from Cape Charles City, Virginia (Bean, 1891 : 85, as *H. punctatus*), and from Corpus Christi, Texas (Evermann and Kendall, 1894: 119, as *Isesthes hentzi*), were overlooked. The record of this species from the Gulf of Mexico (Goode and Bean, 1882: 236, as *Isesthes punctatus*) could not be confirmed by an examination of the material in the National Museum. Both *H. ionthas* and *H. hentz*

TABLE I

COMPARISON OF THE CHARACTERS OF TWO SPECIES OF HYSOBLIENNIUS

	<i>Hypsoblennius</i> hentz	<i>Hypsoblennius</i> ionthas
Lower lips 	Almost linear; widely separated by a smooth area	Semicircular; separated by a broad shield-shaped lobe
Upper lip 	Thin; in profile extending downward and slightly forward	Thick; in profile extending downward and slightly backward
Gill membrane 	Forming a very slight fold across isthmus when head is not thrown back	Forming no trace of a fold across isthmus
Head 	Longer; length contained less than 3.5 times in standard length	Shorter; length contained more than 3.5 times in standard length
First 2 (swollen) anal spines in breeding males ¹ 	First spine shield-shaped, broader than long, with a transverse fold on each side near base; second spine baglike	Both spines lanceolate
Angled light bar behind and below eye 	Usually indistinct	Usually conspicuous
Dark spots in male 	Conspicuous over head and trunk	Absent or scarcely developed except in sub-orbital region
Dark spots in female ... 	Less distinct than in male, often inconspicuous, but developed over head and trunk	More distinct than in male, and always well developed, but confined to lower part of head
Size 	Larger (largest one examined, 104 mm. in standard length)	Smaller (largest one examined, 66 mm. in standard length)

were recorded from Cameron, Louisiana, by Weymouth (1910: 141), with notes on their sexual dimorphism and synonymy. Recently a specimen of *H. hentz* was recorded (Hubbs, 1936: 283) from the Yucatan Peninsula at Champutón, Campeche, as *Hypsoblennius*, sp.

¹ In *Chasmodes* and *Hyleurochilus*, as contrasted with *Hypsoblennius*, the padlike anal spines bear conspicuous longitudinal striae. This distinction is shown in Hildebrand and Cable's recent figures (1938, figs. 74, 90, and 110). These authors furnish the best available description of *Hypsoblennius hentz*, but do not treat *H. ionthas*.

Therefore the distribution of *H. bentz* is much wider than is generally assumed. It ranges from New Jersey (Fowler, 1920: 166) and Chesapeake Bay (Hildebrand and Schroeder, 1928 : 334) to Yucatan. *H. ionthas*, the other species of eastern North America, is limited, so far as is known, to the coast line from South Carolina to Texas (as stated by Jordan and Evermann).

Since the ranges of *H. bentz* and *H. ionthas* have been poorly understood and since that of *H. bentz* has been unduly abbreviated in the manuals and check lists, there is included in this paper a list of the specimens examined in the National Museum (by courtesy of Dr. Leonard P. Schultz) and in the Museum of Zoology of the University of Michigan. Each entry is headed by the catalog number and, in parenthesis, the number of specimens.

MATERIAL EXAMINED IN MUSEUMS

Hypsoblennius bentz in the United States National Museum

- 43160 (1) and 43215 (5) — Chesapeake Bay, Cape Charles, Va.; W. P. Seal; Sept. 15-30, 1890.
 46313 (1) — Corpus Christi, Texas; B. W. Evermann; Nov. 27-30, 1891.
 51887 (2) — Beaufort, N. C.; B. A. Bean and C. A. McKnew; June 3-20, 1904.
 51932 (1) — Beaufort, N. C.; E. W. Gudger and G. T. Bean; July and Aug., 1904.
 59037 (3) — Off southern end of May River, S. C.; *Fish Hawk* Sta. 1651; 1891.
 59062 (1) — Jericho Creek, S. C.; *Fish Hawk*; Jan. 23, 1891.
 69741 (1) — Mouth of Hampton Creek, Hampton, Va.; M. C. Marsh; Feb. 24, 1898.
 67918 (1) — Old Point Comfort, Va.; L. G. Harron; Sept., 1900.
 67919 (2) — Little Bay, near Ocean View, Va.; L. G. Harron; Sept., 1898.
 73199 (1) — Charleston, S. C.; *Fish Hawk*; date?
 85095 (1) — Ft. Macon Beach, N. C.; W. J. Crozier and S. Hecht; July 3 (?), 1912.
 91155 (1) — Cape Charles, Va.; W. C. Schroeder; Nov. 23, 1921.
 91156 (1) — Ocean View, Va.; W. C. Schroeder; Sept. 26, 1922.
 91157 (2) — James Fishery, Norfolk, Va.; W. C. Schroeder; Aug. 20, 1921.
 91158 (3) — Crisfield, Va.; W. C. Schroeder; Sept. 14-19, 1921.
 91159 (1) — Chesapeake Bay, near Thimble Shoal Light, Va.; *Fish Hawk* Sta. 8403; Jan. 16, 1916.
 91160 (1) — Chesapeake Bay, near Cove Point, Md.; *Fish Hawk* Sta. 8078; March 21, 1914.
 91161 (1) — Chesapeake Bay, near Hoopers Light, Md.; *Fish Hawk* Sta. 8026; Jan. 20, 1914.
 91162 (1) — Chesapeake Bay, near Point No Point Light, Md.; *Fish Hawk* Sta. 8480; March 10, 1916.
 91163 (1) — Chesapeake Bay, near Thimble Shoal Light, Va.; *Fish Hawk* Sta. 8497; April 21, 1916.
 91457 (1) — St. Georges Sound, Fla.; E. Danglede; Jan., 1915.

Hypsoblennius hentz, in the Museum of Zoology,
University of Michigan

- 102175 (1) — Off ~~Champotón~~, Campeche, Mexico; E. P. Creaser and F. Castillo;
July 13, 1932.
108023 (2) — Lemon Bay, Englewood, Fla.; Leonard Giovannoli, March 8, 1935.
110116 (1) — Lemon Bay, Charlotte Co., Fla.; Stewart Springer; Jan. 20, 1936.
111745 (1) — Oyster beds, vicinity of Rockport, Tex.; Albert Collier; Sept.,
1935 -- June, 1936.

Hypsoblennius ionthas, in the United States National Museum

- 26617 (1) — Cedar Keys, Fla.; Silas Stearns; 1880.
30850 (1) — Pensacola, Fla.; Jordan and Stearns (type of *I. scrutator*); date?
30856 (2) — Pensacola, Fla.; Jordan and Stearns (types of *I. ionthas*); date?
69350 (1) — Palacios Reef, Matagorda Bay, Tex.; T. E. B. Pope; Dec. 23, 1904.
69371 (1) — St. Simion Mills, Ga.; Rev. Watson Winn; Sept. 29, 1908.
73546 (1) and 73547 (1) — Mobile Bay, Ala.; W. F. Hill; 1894.
83969 (1) — West Indies; collector?; date? [data hardly to be trusted].
85499 (1) — Savannah, Ga.; collector?; date?
85705 (3) — Sawmill Creek, S. C., near lower mouth of Clambank Creek; Dec. 30,
1890
91454 (3) — Apalachicola, Fla.; E. Danglade; March 15, 1915.
92211 (1) — St. Vincent Sound, Fla.; E. Danglade; April 14, 1915.

Hypsoblennius ionthas, in the Museum of Zoology,
University of Michigan

- 61446 and 61448 (18) — Pensacola, Fla.; Jordan and Evermann; 1886.
111744 (7) — Oyster beds in vicinity of Rockport, Tex.; Albert Collier; Sept.,
1935 — June, 1936.
114469 (13) and 114475 (1) — Sand Point Reef, Lavaca Bay, Calhoun Co.,
Tex.; Gordon Gunter; Dec. 14, 21, 24, 1936.
— (1) — Oyster bed in Matanzas River, about 1.5 miles south of Matanzas
Inlet, Fla.; Carl L. Hubbs and family; Aug. 19, 1936.
— (1) — Off Pass à Lutre, La.; Stewart Springer; Mar., 1931.

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