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**RANGE EXTENSIONS FOR
FOUR SEA BASSES
(PISCES: SERRANIDAE)
FROM THE EASTERN GULF OF
MEXICO WITH A COLOR NOTE
ON *Hemanthias leptus* (Ginsburg)**

Recent investigations (e.g. G.B. Smith *et al.*, 1975; G.B. Smith, 1976; Williams and Shipp, 1980) have increased the number of fish species documented for the eastern and northeastern Gulf of Mexico. This paper presents range extensions for four additional species in the family Serranidae: *Mycteroperca tigris*, *Epinephelus inermis*, *Hemanthias leptus* and *Anthias tenuis*. Following G.B. Smith (1976), the eastern Gulf of Mexico is herein defined as Cape Sable to Cape San Blas, Florida, and the northeastern Gulf as Cape San Blas to the Mississippi Delta.

SPECIES ACCOUNTS

Serranidae

***Mycteroperca tigris* (Valenciennes, 1833), tiger grouper.**

A 611 mm SL tiger grouper (FSBC 11989) was captured commercially via hook-and-line on 25 September 1979 on the Florida Middle Ground at approximately 28° 25'N, 84° 11'W in 37-40 m of water. The grouper weighed 5.4 kg (eviscerated).

Distinctive characters included: a broadly rounded preopercle; unevenly exerted rays of the soft dorsal, anal and caudal fins; enlarged posterior nostril and strong medial canine teeth in both jaws. C.L. Smith (1971) noted the occasional individual which lacked the characteristic oblique lines crossing the upper part of the body; no evidence of this pattern was found on our specimen. Meristic data are listed in Table 1 for this and the species that follow.

This specimen represents the first documented occurrence of *M. tigris* in the

eastern Gulf of Mexico. The presence of this tropical species on the Florida Middle Ground provides further evidence of this community's affinities with Caribbean-West Indian fauna (G.B. Smith and Ogren, 1974; G.B. Smith *et al.*, 1975 and G.B. Smith, 1976). *Mycteroperca tigris* is also known from Bermuda, eastern and southeastern coasts of Florida, Campeche Bank, and from the West Indies to the northern coast of South America (C.L. Smith, 1971; 1978).

***Epinephelus inermis* (Valenciennes, 1833), marbled grouper.**

A 437 mm SL immature female (FSBC 10817) was captured with a hook-and-line in June 1978 southwest of Johns Pass, Pinellas County, Florida in 73 m of water.

G.B. Smith (1976: 56) listed *E. inermis* as an inhabitant of the northeastern Gulf of Mexico but unrecorded for the eastern Gulf. The capture of our specimen southwest of Tampa Bay apparently is the first record of the marbled grouper from the eastern Gulf of Mexico. This species is also known from North Carolina (Huntsman, 1976 [listed as *Dermatolepis inermis*]), the Florida east coast, and throughout the West Indies to the northern coast of South America (C.L. Smith, 1971; 1978). Gulf of Mexico records include the Florida Keys, the northeastern Gulf off Destin, Florida (Caldwell, 1959 [listed as *D. inermis*]) and the Flower Garden Reefs of the northwestern Gulf (Bright and Cashman, 1974).

***Hemanthias leptus* (Ginsburg, 1952), longtail bass.**

Two *Hemanthias leptus* (FSBC 11807-1:387 mm SL and FSBC 11807-2:403 mm SL) were caught via hook-and-line by commercial fishermen on 11 September 1980 at 26° 12'N, 84° 32'W in 155 m of water.

Table 1. Meristic data for specimens examined.

Species	Collection Number	Standard Length (mm)	Dorsal fin-rays	Anal fin-rays	Pectoral fin-rays	Total gill-rakers on first arch	Tubed lateral line scales
<i>Mycteroperca tigris</i>	FSBC 11989	611	XI, 16	III, 11	17/17	2 + 7*	-
<i>Epinephelus inermis</i>	FSBC 10817	437	XI, 19	III, 9	19/18	6 + 14	-
<i>Hemanthias leptus</i>	FSBC 11807-1	387	X, 14	III, 8	18/17	9 + 26	55
	FSBC 11807-2	403	X, 14	III, 8	18/18	11 + 27	61
	FSBC 12052	61	X, 14	III, 8	19/19	11 + 27	59
<i>Anthias tenuis</i>	FSBC 11982	83	X, 15	III, 8	21/21	10 + 25	ca. 53

* Developed gill-rakers only.

In the Gulf of Mexico, *H. leptus* was previously known only from northeastern and northwestern regions (Ginsburg, 1952 [listed as *Anthiasicus leptus*]; Springer and Bullis, 1956 [listed as *A. leptus*]; Briggs *et al.*, 1964). Specimens collected off South Carolina have recently been examined by the senior author at the Grice Marine Biological Laboratory. Elsewhere, *H. leptus* has been reported from Venezuela and Surinam (Cervigon, 1973). One larva (7.0 mm SL) has been reported from approximately 16 nmi north of Key West (Houde *et al.*, 1979). The capture of our specimens of *H. leptus* in deep water west of Naples, Florida is the first record of this species in the eastern Gulf of Mexico.

Additionally, a small, but sexually mature male (FSBC 12052:61 mm SL) was discovered in a limestone fragment inadvertently brought from 176 m depth via commercial hook-and-line on 13 May 1981 at 26° 50'N, 84° 30'W.

Distinctive features of the color pattern of this specimen included a broad burgundy band on the dorsal fin; the caudal lobes were accentuated with burgundy (Figure 1). Hastings (1981) found sexual dimorphism/dichromatism in the protogynous hermaphrodite, *H. vivanus*, a close congener. He noted

elongation of the fourth dorsal spine filament in transformed males and a change in anal fin coloration from mottled blue and olive in females to bright yellow in males. The color pattern displayed by our specimen may be an expression of sexual dichromatism for *H. leptus*.

***Anthias tenuis* Nichols, 1920, threadnose bass.**

An 83 mm SL male specimen (FSBC 11982) of this small anthiine was regurgitated by an *Epinephelus drummondhayi* which was commercially captured by hook-and-line on 6 January 1981 at a depth of 77 m near 27° 10'N, 84° 00'W.

Body depth of the specimen was 29% SL. The posterior border of the anterior nostril contained a slender filament which, according to Anderson and Heemstra (1980), should reach or fall slightly short of the orbit when reflected. In our specimen the filament was stubby, possibly due to the digestive activity of *E. drummondhayi*.

Anderson and Heemstra (1980) recorded the distribution of this species as Bermuda, North Carolina, southeastern Gulf of Mexico (=off Yucatan according to Anderson [pers. comm.]), Puerto Rico, and the southern Caribbean Sea. This is the first record for the eastern Gulf of Mexico.

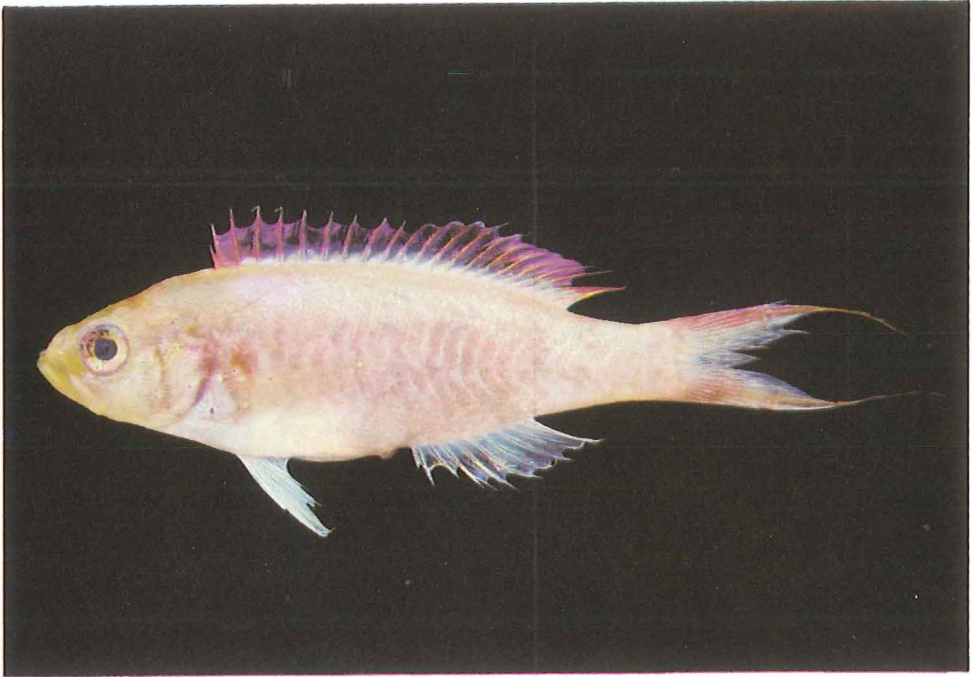


Figure 1. *Hemanthias leptus* (FSBC 12052: 61 mm SL sexually mature male).

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LITERATURE CITED

- Anderson, W.D., Jr. and P.C. Heemstra. 1980. Two new species of western Atlantic *Anthias* (Pisces: Serranidae), redescription of *A. asperilinus* and review of *Holanthias martinicensis*. *Copeia* 1980 (1): 72-87.
- Briggs, J.C., H.D. Hoese, W.F. Hadley, and R.S. Jones. 1964. Twenty-two new marine fish records for the northwestern Gulf of Mexico. *Tex. J. Sci.* 16(1): 113-116.
- Bright, T.J. and C.W. Cashman. 1974. Fishes, pp. 340-409. In: T.J. Bright and L.H. Pequegnat (eds.). *Biota of the West Flower Garden Bank*. Gulf Publishing Co., Houston, Texas.
- Caldwell, D.K. 1959. Observations on tropical marine fishes from the northeastern Gulf of Mexico. *Q.J. Fla. Acad. Sci.* 22(1): 69-74.
- Cervigon, F. 1973. Los peces marinos de Venezuela, Complemento III. *Contr. Cient.*, no. 4. Universidad de Oriente, Caracas, 408 p.
- Ginsburg, I. 1952. Eight new fishes from the Gulf coast of the United States, with two new genera and notes on geographic distribution. *J. Wash. Acad. Sci.* 42(3): 84-101.

- Hastings, P.A. 1981. Gonad morphology and sex succession in the protogynous hermaphrodite *Hemanthias vivanus* (Jordan and Swain). J. Fish Biol. (1981) 18: 443-454.
- Houde, E.D., J.C. Leak, C.E. Dowd, and S.A. Berkeley. 1979. Ichthyoplankton abundance and diversity in the eastern Gulf of Mexico. BLM Contract AA550-CT7-28, xxxii plus 546 p.
- Huntsman, G.R. 1976. Offshore headboat fishing in North Carolina and South Carolina. Mar. Fish. Rev. 38(3): 13-23.
- Nichols, J.T. 1920. A contribution to the ichthyology of Bermuda. Proc. Biol. Soc. Wash. 33: 59-64.
- Smith, C.L. 1971. A revision of the American groupers: *Epinephelus* and allied genera. Bull. Am. Mus. Nat. Hist. 146, Article 2: 67-241.
- _____. 1978. Family: Serranidae. In: W. Fischer (ed.). FAO species identification sheets for fishery purposes, western central Atlantic, Fishing Area 31. Vols. IV, V. Rome. Food and Agricultural Organization of the United Nations.
- Smith, G.B. 1976. Ecology and distribution of eastern Gulf of Mexico reef fishes. Fla. Mar. Res. Publ. No. 19, 78 p.
- _____ and L.H. Ogren, 1974. Comments on the nature of the Florida Middle Ground reef ichthyofauna. pp 229-232. In: R.E. Smith (ed.). Proceedings of marine environmental implications of offshore drilling in the eastern Gulf of Mexico: 1974. State Univ. Syst. Fla. Inst. Oceanogr., St. Petersburg, Florida, 455 p.
- _____, H.M. Austin, S.A. Bortone, R.W. Hastings, and L.H. Ogren. 1975. Fishes of the Florida Middle Ground with comments on ecology and zoogeography. Fla. Mar. Res. Publ. No. 9, 14 p.
- Springer, S. and H.R. Bullis, Jr. 1956. Collections by the *Oregon* in the Gulf of Mexico. Lists of crustaceans, mollusks, and fishes identified from collections made by the exploratory fishing vessel *Oregon* in the Gulf of Mexico and adjacent seas 1950 through 1955. U.S. Fish Wildl. Serv. Spec. Sci. Rep. Fish. No. 196. 134 p.
- Valenciennes, A. 1833. In: Cuvier, G.F. and A. Valenciennes. Histoire naturelle des poissons. Paris. F.G. Levrault, vol. 9, xxix plus 512 p.
- Williams, J.T. and R.L. Shipp. 1980. Observations on fishes previously unrecorded or rarely encountered in the northeastern Gulf of Mexico. Northeast Gulf Sci. 4(1): 17-27.

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