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OBSERVATIONS ON FISHES PREVIOUSLY UNRECORDED OR RARELY ENCOUNTERED IN THE NORTHEASTERN GULF OF MEXICO

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ABSTRACT: Twenty-one species of marine fishes previously unrecorded or rarely encountered in the northeastern Gulf of Mexico were taken by trawl, dredge, spear or hand capture or observed by SCUBA or research submersible. Biological data are added to the knowledge of all these forms, and several species are shown to have permanent populations in the region.

Research on fishes of the northern Gulf of Mexico has increased considerably during the last quarter century. During the early fifties, Ginsburg's many contributions to systematics of various groups (e.g. Ginsburg 1951) as well as species reports (e.g. Ginsburg 1952) are especially noteworthy. Publications by other authors (e.g. Joseph and Yerger, 1956; Caldwell and Briggs, 1957; Caldwell, 1959; and Collins and Smith, 1959) contributed numerous range extensions and some life history information on species previously poorly known in this region of the Gulf.

The increased use of skin diving and SCUBA by scientists resulted in numerous sightings and capture of shallow shelf forms previously unknown from the northern Gulf. Some of these have been reported in more comprehensive works: Bright and Cashman (1974) on the West Flower Garden Bank off Texas; Smith *et al.* (1975) on the Florida Middle Ground; Hastings *et al.* (1975) on offshore northeast Gulf platforms, and Hastings (1979) on the Florida panhandle region.

Recent ichthyofauna trawling and dredging surveys in the northeastern Gulf by our group, supplemented by submersible observations and SCUBA collections, are reported herein.

MATERIALS AND METHODS

Specimens were collected by trawling and dredging activities supporting several investigations. From 1974 through 1977, twelve trawling cruises were made along the shallow (15-80m) northern Gulf of Mexico shelf between 85° and 89° W latitude. These cruises, part of a Sea Grant supported artificial reef study, averaged about twelve trawling stations evenly spaced over the area per cruise. Subsequently, six similar cruises were made in the same area as part of a Sea Grant supported *Scyllarides* lobster fishery investigation. In addition, between 1975 and 1978, the Bureau of Land Management supported ten irregularly spaced dredge/trawl cruises along the northeast Gulf shelf from the region off Mobile Bay to Ft. Myers, Fla., as a component of the MAFLA (Mississippi, Alabama, Florida) lease area environmental study. Samples were taken at approximately 40, 92 and 183 m depths along numerous transects within this area.

Trawls used for sampling were 8.2 m semi-balloon trawls, with a fine mesh (ca. 1.2 cm) cod end to help retain smaller specimens. Many burrowing and small, cryptic specimens were collected with a Capetown dredge with a liner basket constructed of a 1.2 cm (diagonal) mesh screen.

SCUBA collections were made during

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an artificial reef study off the Alabama coast and from a study of the Florida Middle Ground region. Specimens were collected with small hand nets and by spear fishing in depths ranging from 20-27 m.

Underwater observations were made from the submersible *Diaphus*. These observations were concentrated on the northern rim of the DeSoto Canyon which consists of a hard, limestone substrate jutting above the surrounding sand bottom at a depth of 52 to 54 m. Fourteen submersible dives, representing thirty-nine observation hours were made on the Canyon rim. Observations were recorded on black/white video tape, audio cassette tape and still color photographs. Many of the data from these dives have been reported recently by Shipp and Hopkins (1978), and fish observations discussed therein are excluded from this report.

Nomenclature used in the species accounts follows Bailey *et al.* (1970) except in cases where nomenclatural changes have since been clearly elucidated.

Collection dates, number of individuals collected with Standard Length in mm in parentheses, locality, and depth are provided with species accounts. Specimens on loan do not include standard length data if these were not taken previous to shipment.

SPECIES ACCOUNTS

The following accounts are given for species for which little or no information is available from the northeastern Gulf of Mexico. Specimens of all species were collected and most are archived in the ichthyological collection of the University of South Alabama (USAIC). Exceptions, including material donated or on loan to various workers, are noted.

MURAENIDAE

Anarchias yoshiae Kanazawa, Pygmy moray:

6 Feb. 1978; 1 (148); 28° 29' N, 84° 21' W; 36 m.

The pygmy moray is a diminutive, cryptic moray best known from the Bahamas and Bermuda (Böhlke & Chaplin, 1968). Previously, only the leptocephali and one adult have been recorded from the Gulf of Mexico (Eldred, 1968). Our specimen represents the first northeastern Gulf of Mexico record of an adult pygmy moray. The identification was confirmed by J. E. Böhlke.

Muraena retifera Goode and Bean, reticulate moray:

8 Oct. 1978, 2 (554, 800), 30° 05' N, 86° 05' W; 53 m.

Briggs (1958) reported the reticulate moray from the northern Gulf of Mexico but did not mention specific localities on which he based his report. More recently, Smith *et al.* (1975) observed the reticulate moray on the Florida Middle Ground (FMG) and reported on the capture of a specimen 40 km south of the Florida Middle Ground.

Several reticulate morays were observed among the rocky crevices of the northern rim of the DeSoto Canyon during dives in the *Diaphus* (Shipp and Hopkins, 1978). Because these morays remain among the rocks they are difficult to collect with trawl or dredge. However, we were able to collect our specimens and thus confirm their identity using lobster/fish traps placed in the vicinity of the observed specimens.

CONGRIDAE

Nystactichthys sp., garden eel:

30 August 1977, 1 (damaged); 28° 42' N, 84° 20' W; 33 m.

The genus *Nystactichthys* has not been recorded from the Gulf of Mexico. A single specimen of the genus was captured by a box corer off St. Petersburg. Unfortunately, this device, used for sampling sediment, severed the specimen some 130 mm from the snout, and the posterior portion was lost.

Although *Nystactichthys halis*, common throughout the Caribbean, is the only described western Atlantic member of the genus, specific identification of our specimen was uncertain due to the absent caudal portion. However, our specimen was photographed soon after capture. The color notes, which follow, appear at variance with coloration as reported by Böhlke and Chaplin (1968) for *N. halis*, and J.E. Böhlke (pers. comm.) is of the opinion that the specimen represents an undescribed form.

The specimen was bright yellow dorsally, with numerous fine scattered melanophores. Yellow extended laterally to just beneath the eye and to the upper level of the gill opening. Lower flanks and belly were white. Lips were heavily pigmented distally. Distinct spots or other markings were absent on anterior portions of the body.

OPHICHTHIDAE

Apterichtus kendalli (Gilbert), finless eel:
1 Feb. 1978; 1 adult; 26° 25' N, 82° 58' W;
36 m.

8 Feb. 1978; 1 adult (damaged); 29° 58' N, 86° 06' 30" W; 40 m.

Apterichtus (= *Verma*) *kendalli*, (McCosker 1977) is known from waters around the Florida Keys (Böhlke, 1968). The holotype, collected at 25° 35' N, 82° 50' W, represented the northernmost record for this species in the Gulf of Mexico. Our specimens extend the known range of this species some 500 km into the northern Gulf of Mexico.

SERRANIDAE

Anthias nicholsi Firth, yellow fin bass:

3 Feb. 1978; 15; 26° 25' N, 84° 15' W; 162 m.

28 June 1978; Numerous observations, 30° 05' N, 86° 56' W; 54 m.

Anthias nicholsi is commonly encountered off the eastern coast of the United States (Firth, 1933; Burgess, *et al.*, 1980) but has not been previously recorded in the Gulf of Mexico. Our specimens represent the first record of this species in the Gulf of Mexico, and may be an example of a species with disjunct distributions around the Florida peninsula.

Along the rim of the DeSoto Canyon, *A. nicholsi* was frequently observed in and around large schools of *Hemanthias* sp. (Shipp and Hopkins, 1978). These congregations were never observed more than 2 m above the limestone boulders and usually were in, or just above, large crevices between the boulders. This behavior might be attributed to the presence of large predators such as snappers, groupers and amberjacks on the canyon rim.

Identification of captured specimens was confirmed by W. D. Anderson, Jr.

GRAMMISTIDAE

Rypticus bistrispinus (Mitchill), freckled soapfish:

8 March 1974; 2 (76-81); 30° 05' N, 85° 59' W; 27 m.

25 Oct. 1974; 1 (87); 30° 12' N, 86° 12' W; 27 m.

9 March 1975; 1 (61); 30° 05' N, 86° 31' W; 43 m.

25 July 1975; 1 (91); 29° 04' N, 85° 14' W; 36 m.

29 July 1975; 3 (80-96); 30° 09' N, 86° 41' W; 34 m.

12 Sept. 1975; 3 (59-89); 29° 57' N, 87° 09' W; 54 m.

20 Oct. 1975; 3 (73-83); 28° 26' N, 84° 56'

W; 90 m.

8 Feb. 1975; 1 (78); 29°50' N, 86°05' W;
40.5 m.

20 Feb. 1976; 1 (46); 28°32' N, 84°19' W.

26 Feb. 1976; 1 (81); 29°04' N, 85°14' W;
36 m.

27 Aug. 1977; 1 (78); 28°26' N, 84°55' W;
90 m.

29 Oct. 1977; 1 (81); 28°26' N, 84°55' W;
90 m.

31 Oct. 1977; 1 (79); 29°58' N, 86°06' W;
39.5 m.

22 Jan. 1978; 1 (75); 26°49.5' N, 83°38'
W; 63 m.

1 Feb. 1978; 1 (76); 26°25' N, 82°58' W;
36 m.

Three occurrence records exist for the freckled soapfish in the northeastern Gulf of Mexico (Jordan and Evermann, 1896; Springer and Bullis, 1956, and Courtenay, 1967). Although Courtenay (1967) did not include the Gulf of Mexico in his distribution of the species, he examined a specimen from off St. George's Island, 28°47'30" N, 84°37' W. Our data provide evidence that this species is an integral component of the northeastern Gulf of Mexico ichthyofauna, and is the most commonly collected soapfish in many areas. It appears to prefer open areas with lesser relief unlike its sympatric congener *R. maculatus* which prefers areas of greater relief (Shipp and Hopkins, 1978).

APOGONIDAE

Apogon affinis (Poey), longtooth cardinal fish:

18 Nov. 1975; 1 (25); 29°35' N; 86°57' W;
100 m.

25 Feb. 1976; 5 (64-81); 28°29' N, 84°21'
W; 40 m.

15 March 1978; 14 (41-82); 29°31' N,
87°37' W; 62 m.

The longtooth cardinalfish was known in the Gulf of Mexico only from off north-east Yucatan in 50 to 60 m (Springer and

Bullis, 1956; and Bullis and Thompson, 1966) and 26°24'N, 80°43'W (Powell *et al.*, 1972). Our collections, including the large series from March of 1978, strongly suggest permanent populations in the northern Gulf, approximately 450 km north of its previous Gulf record.

Several adults possessed the heavily pigmented fleshy protuberance at the tip of the lower jaw as reported by Smith *et al.* (1971). They suggested that the protuberance might play a role in mouth-brooding since most of the protuberance possessing specimens they examined retained eggs in their oral cavities. Although no eggs were found in the oral cavities of our specimens, it is likely that they were expectorated (if present) since the specimens may have been severely stressed during capture. The presence of protuberances on our specimens suggests that there may be breeding populations in the northern Gulf of Mexico.

Apogon aurolineatus (Mowbray), bridle cardinalfish:

8 March 1974; 3 (36-38); 30°12' N,
86°12' W; 36 m.

19 July 1976; 6 (17-37); 27°50' N, 84°20'
W; 36 m.

31 Oct. 1977; 2 (29, 30); 29°55' N, 86°06'
W; 36 m.

The bridle cardinalfish is usually found in depths from 13 - 48.5 m. (Böhlke and Chaplin 1968). This species has previously been reported from off Tampa Bay (Springer and Woodburn, 1960) and from 27°11' N, 82°50' W (Smith, 1976); but our specimens represent the first record of this species from the northeastern Gulf of Mexico, an extension of about 200 km to the northwest.

Apogon maculatus (Poey), flamefish:

13 July 1977; 1 (21); 30°07' N, 87°32' W;
22 m.

This specimen was collected by D. Clarke while SCUBA diving on an artificial reef.

The flamefish has been recorded from the eastern (Briggs, 1958; Hastings, 1979; and Smith *et al.*, 1975) and western Gulf of Mexico (Briggs *et al.*, 1964; Bright and Cashman, 1974; and Sonnier *et al.*, 1976). Previously, this species had not been taken from the north central Gulf of Mexico, possibly because of the absence of suitable hard substrates. Construction or emplacement of artificial reefs in the 1970's has provided suitable habitat for many species which presumably could not previously survive in this region.

Apogon quadrisquamatus Longley, sawcheek cardinalfish:

28 July 1975; 1 (39); 26° 25' N, 82° 58' W; 40 m.

The sawcheek cardinalfish is commonly encountered in the shallow waters of the tropical western Atlantic (Bohlke and Chaplin, 1968). Starck (1968) listed this species as frequently observed on Alligator Reef. Although this species is known from Tortugas, Florida (Longley and Hildebrand, 1941), only two additional references (Bullis and Thompson, 1965; Powell *et al.*, 1972) have recorded the sawcheek cardinalfish from the Gulf of Mexico. Our specimen represents the first record of this species in the eastern Gulf of Mexico since the 1957 specimen reported by Bullis and Thommson (1965). The scarcity of the sawcheek cardinalfish in the Gulf of Mexico suggests that this species is not a permanent resident in this region, but may be wafted into the eastern Gulf of Mexico from the southern populations.

POMACANTHIDAE

Holocanthus tricolor (Bloch), Rock beauty:

4 November 1976; 1 (25); 30° 07' N, 87° 32' W; 22 m.

The rock beauty, *Holocanthus tricolor*, has been recorded from Tortugas, Florida (Feddern, 1972) and the western Gulf of Mexico (Bright and Cashman, 1974; Sonnier *et al.*, 1976) but our specimen constitutes the first record of the rock beauty in the northeastern Gulf of Mexico. The absence of the adults in prior collections from the central and northeastern Gulf of Mexico suggests that this species is rare in the area and possibly a straggler from the lower latitudes.

CHAETODONTIDAE

Chaetodon ocellatus Bloch, Spotfin butterflyfish:

Presence of the spotfin butterflyfish in the northern Gulf of Mexico has been well documented (Caldwell, 1959; Haburay *et al.*, 1969; Hastings, 1979; Williams and Clarke, 1978; and others), but the reason for and seasonal extent of its presence has been subject to debate. Caldwell (1959) suggested passive transport of larvae and juveniles into the northern Gulf of Mexico from southern latitudes by means of summer surface currents. An alternative view suggesting permanent breeding populations in deeper waters of the northern Gulf of Mexico has been supported by Hastings (1979).

Observations of spotfin butterflyfish, reef butterflyfish, *Chaetodon sedentarius* and blue angelfish, *Holocanthus bermudensis*, on the northern rim of the DeSoto Canyon (Shipp and Hopkins, 1978) lends support to the latter hypothesis. Adults of these species were observed as a major component of the DeSoto Canyon rim ichthyofauna. Spotfin and reef butterflyfishes were usually in conspecific pairs, while blue angelfish were either solitary or paired. These observations coupled with numerous collections of adults over all seasons indicate that there are probably permanent offshore populations in the northeastern Gulf of Mexico.

POMACENTRIDAE

Abudefduf saxatilis (Linnaeus), sergeant major:

25 July 1977; 8 (19-39); Alabama Point, Alabama, under intracoastal waterway bridge.

29 July 1977; 3 (21-25); Dauphin Island, Alabama, South side of island on the west end.

9 August 1977; 1 (33); Rock jetties at Billy Goat Hole, Mobile Bay, Dauphin Island, Alabama.

The presence of the sergeant major in the northern Gulf of Mexico, has been documented by many authors including Briggs (1958), Dawson (1962), Hastings (1979), and Smith (1976). Hastings (1979) commented on the scarcity and transient nature of the sergeant major in the northern Gulf of Mexico and suggested (as had Caldwell, 1959) that recruitment occurs as pelagic larvae carried northward from the lower latitudes, perhaps in association with floating *Sargassum*. Most studies of the *Sargassum* fish community (see Bortone *et al.*, 1977) have failed to show any connection between the sergeant major and *Sargassum* rafts, although the observations of Dawson (1962) suggested such a relationship. However, the collection of the above specimens (plus numerous observations of schools consisting of 30 to 50 sergeant majors) coincided with an inshore movement of large masses of pelagic *Sargassum* during the summer of 1977. Since permanent breeding populations of sergeant majors have not been recorded in the northern Gulf of Mexico, it is possible that the observed and collected sergeant majors migrated to the northern Gulf of Mexico in association with pelagic *Sargassum*.

Eupomacentrus planifrons (Cuvier), threespot damselfish:

29 Sept. 1975; 1 (48); 28° 32' N, 84° 19' W; 36 m.

The threespot damselfish previously was recorded from the Florida Keys (Emery, 1973; Rivas, 1960), Tortugas, Florida (Rivas, 1960) and the West Flower Garden Bank (Bright and Cashman, 1974). Our specimen represents the first record of the threespot damselfish from the northeastern Gulf of Mexico. The fact that extensive sampling in the eastern and northeastern Gulf of Mexico (Springer and Woodburn, 1960; Smith *et al.*, 1975; and Smith, 1976) have not uncovered additional specimens of the threespot damselfish leads us to believe that this specimen is an expatriate in the northeastern Gulf of Mexico.

SCARIDAE

Sparisoma atomarium (Poey), greenblotch parrotfish:

27 June 1975; 1; 28° 33' N, 84° 16' W; 29.5 m.

Randall (1965) recorded the greenblotch parrotfish from the Florida Keys. A second report by Starck (1968) listed the greenblotch parrotfish as common at Alligator Reef, Florida. Our specimen is apparently the first record of the greenblotch parrotfish from the Gulf of Mexico, and extends the known range some 588 km northward.

CHAENOPSIDAE

Emblemaria piratula Ginsburg and Reid, pirate blenny:

3 Aug. 1974; 1 (17); Gulf of Mexico, 25 km SE Pensacola, FL from the stomach of *Gymnothorax nigromarginatus*; 28 m.

5 Aug. 1974; 2 (18, 19); 25 km SE of Pensacola, FL; 28 m.

20 April 1975; 2 (20, 22), 30° 08' N, 87° 07' W; 27 m.

21 April 1975; 2 (12, 22); 30° 08' N, 87° 07' W; 27 m.

21 April 1975; 1 (18); 30° 09' N, 86° 46' W; 35 m.

19 June 1975; 1 (19); 30° 00' N, 86° 35' W; 62 m.

20 July 1975; 8 (15-17); 29° 50' N, 86° 06' W; 41 m.

25 July 1975; 2 (12-22); 28° 29' N, 84° 21' W; 43 m.

25 July 1975; 37 (14-22); 29° 04' N, 85° 14' W; 52 m.

29 July 1975; 8 (16-19); 30° 08' N, 86° 45' W; 52 m.

26 Feb. 1976; 1 (15); 29° 04' N, 85° 14' W; 35 m.

29 Feb. 1976; 2 (15,20); 26° 25' N, 82° 58' W; 36 m.

22 May 1976; 3 (15-23); 30° 11' N, 86° 50' W; 34 m.

22 May 1976; 1 (22); 30° 10' N, 86° 50' W; 38 m.

28 June 1976; 2 (18,19); 29° 55' N, 86° 06' W; 39 m.

30 Aug. 1976; 18(14-20); 30° 09' N, 86° 50' W; 40 m.

19 March 1977; 15(12-21); 30° 07' N, 86° 45' W; 52 m.

22 Aug. 1977; 1 (15); 26° 25' N, 26° 57' W; 36 m.

23 Aug. 1977; 12(12-18); 27° 37' N, 83° 53' W; 52 m.

30 Aug. 1977; 1 (19); 28° 32' N, 84° 23' W; 42 m.

6 Sept. 1977; 1 (15); 29° 56' N, 86° 06' W; 32 m.

31 Oct. 1977; 4 (15-18); 29° 56' N, 86° 06' W; 32 m.

No specimens of this species have been reported since the original description in Ginsburg (1942). Stephens (1963, 1970) in generic revisions referred to only two specimens of the twelve which comprise the type series. These specimens were from R/V *Pelican* and R/V *Albatross* collections. Stephens (1963) incorrectly placed the holotype location as "from St. Andrew Bay, Florida." Actually, the holotype was taken "off St. Andrews Bay, Florida," at 29° 56' N, 86° 7.5' W; in 35 m, a location 40 km SW of St. Andrew Bay.

Johnson and Greenfield (1976) referred to our material in their description of

Emblemaria hyltoni.

E. piratula appears as one of the most abundant species inhabiting vast areas of sand-rubble-coarse shell hash bottom of the northeastern Gulf of Mexico. This area has been observed and described by one of us (RLS) during research submersible operations (Hastings and Shipp, in press). Dredging and trawling in this habitat also has produced specimens of an undescribed *Gillellus* sp. (C. E. Dawson, pers. comm.) and an undescribed *Chaenopsis* sp. (Hastings and Shipp, in press). The 124 specimens listed above are only a small fraction of the total collected in numerous related dredge/trawl operations in which we have participated in the last several years.

A redescription of this species, including live color notes and description of females, is in preparation.

GOBIIDAE

Bollmannia eigenmanni (Garman):

28 Aug. 1976; 1 (22); 29° 54' N, 87° 07' W; 108 m.

28 Aug. 1976; 1 (32); 29° 52' N, 87° 06' 30" W; 180 m.

29 Aug. 1976; 1 (20); 29° 48' N, 86° 42' W; 144 m.

29 Aug. 1976; 1 (32); 29° 56' N, 86° 37' W; 90 m.

9 March 1977; 1 (20); 29° 50' N, 87° 04' W; 162 m.

3 Feb. 1978; 1 (26); 29° 50' N, 86° 42' W; 135 m.

10 Nov. 1978; 1 (37); 29° 39' N, 86° 35' W; 162 m.

Bollmannia eigenmanni is a small, cryptic goby previously known only from the holotype taken off Key West in 118 m (Garman, 1896). Our specimens indicate that this species is probably common on the outer continental shelf. The minute size of these fishes, combined with their deepwater, soft bottom habitat have resulted in their absence from the few col-

lections made in these offshore areas of the Gulf of Mexico.

Our specimens extend the known range of this species some 530 km into the northeastern Gulf of Mexico.

Gobiosoma xanthiprora Böhlke and Robins, yellowprow goby:

28 July 1975; 1 (18); 26° 25' N, 82° 58' W; 36 m.

The yellowprow goby was reported by Bohlke and Robins (1968) from the Florida Keys. Since their description of this species, Ross and Fast (1977) have reported the yellowprow goby from Onslow Bay, North Carolina. Our specimen represents the first record of this species in the Gulf of Mexico.

The identification was made by C. E. Dawson.

Lythrypnus elasson Böhlke and Robins, dwarf goby:

25 Oct. 1974; 1; 30° 05' N, 85° 59' W; 27 m.

25 July 1975; 1; 28° 29' N, 84° 21' W; 36 m.

29 Oct. 1977; 1 (9); 28° 29' N, 84° 21' W; 36 m.

Previously, the dwarf goby was known only from the Bahamas in depths of 10.5–25.5 m. (Böhlke and Robins, 1960). Our specimens extend the known range of this species to the northeastern Gulf of Mexico and increase the depth at which the dwarf goby has been collected to 36 m.

Lythrypnus nesiotus Böhlke and Robins, island goby:

25 Oct. 1974; 1 (14); 30° 05' N, 85° 59' W; 8 m.

28 Feb. 1975; 4 (11-15); 30° 11' N, 85° 58' W; 20 m.

28 July 1975; 1 (14); 26° 25' N, 82° 58' W; 26 m.

18 June 1976; 1 (14); 28° 34' N, 84° 20' W; 36 m.

23 Aug. 1977; 2 (8, 8); 27° 40' N, 83° 53' W; 50.5 m.

30 Aug. 1977; 1 (13); 28° 34' N, 84° 20' W; 26 m.

29 Oct. 1977; 1 (13); 28° 29' N, 84° 21' W; 36 m.

The island goby has been previously recorded from the West Flower Garden Bank in the northwestern Gulf of Mexico (Bright and Cashman, 1974) and from Onslow Bay, North Carolina (Ross and Fast, 1977) on the eastern coast of the United States. Böhlke and Robins (1960) found the island goby in depths of 9 m. or less. In neither of the first two studies, nor that of Starck (1968), was the depth elucidated for collections of the island goby. Our specimens extend the known depths inhabited by the goby to 50.5 m. and document its presence in the northeastern Gulf of Mexico.

Risor ruber (Rosen), tusked goby:

9 March 1974; 1 (17); 30° 05' N, 86° 31' W; 43 m.

28 Feb. 1975; 1 (13); 30° 06' N, 86° 45' W; 54 m.

20 July 1975; 1 (16); 29° 50' N, 85° 06' W; 39.6 m.

29 Feb. 1976; 1 (12); 26° 25' N, 82° 58' W; 36 m.

30 Aug. 1976; 1 (13); 30° 11' N, 86° 53' W; 27 m.

30 Aug. 1976; 1 (9); 30° 09' N, 86° 50' W; 27 m.

23 Aug. 1977; 1 (12); 27° 40' N, 83° 53' W; 53 m.

26 Oct. 1977; 1 (10); 27° 40' N, 83° 53' W; 53 m.

25 Jan. 1978; 1 (19); 26° 23' N, 83° 28' W; 57.5 m.

Böhlke and Robins (1968) reported the tusked goby from 27° 36' N, 83° 40' W and since that report, Bright and Cashman (1974) have recorded it from the West Flower Garden Bank. Our specimens represent an extension of some 255 km into the northeastern Gulf of Mexico and

indicate that permanent populations of the tusked goby are established in this area.

LITERATURE CITED

- Bailey, R. M., J. E. Fitch, E. S. Herald, E. A. Lachner, C. C. Lindsey, C. R. Robins, and W. B. Scott. 1970. A list of common and scientific names of fishes from the United States and Canada (Third Edition). Amer. Fish. Soc. Spec. Publ. No. 6. 150 p.
- Böhlke, J. E. 1968. A new species of the ophichthid eel genus *Verma* from the West Atlantic, with comments on related species. Not. Nat. 415: 1-12.
- _____, and C. G. Chaplin. 1968. Fishes of the Bahamas and adjacent tropical waters. Livingston Publishing Comp., Wynnewood, Pa. XXXI + 771 p.
- _____, and C. R. Robins. 1960. Western Atlantic gobioid fishes of the genus *Lythrypnus*, with notes on *Quisquilius hipoliti* and *Garmannia pallens*. Proc. Acad. Nat. Sci. Philadelphia 112(4): 73-101.
- _____. 1968. Western Atlantic seven-spined gobies, with descriptions of ten new species and a new genus, and comments on Pacific relatives. Proc. Acad. Nat. Sci. Philadelphia 120(3): 45-174.
- Bortone, S. A., P. A. Hastings, and S. B. Collard. 1977. The pelagic-*Sargassum* ichthyofauna of the eastern Gulf of Mexico. Northeast Gulf Sci. 1(2): 60-67.
- Briggs, J. C. 1958. A list of Florida fishes and their distribution. Bull. Fla. State Mus. 2(8): 223-318.
- _____, 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. H., and C. W. Cashman. 1974. Fishes, pages 341-409. In: T. J. Bright and L. H. Pequegnat, eds. Biota of the West Flower Garden Bank. Gulf Publishing Comp., Houston, Texas.
- Bullis, H. R., Jr., and J. R. Thompson. 1965. Collections made by the exploratory fishing vessels *Oregon*, *Silver Bay*, *Combat* and *Pelican* made during 1956-1960 in the southwestern Atlantic. U. S. Fish Wildl. Serv. Spec. Sci. Rep. Fish. No. 510. 310 p.
- Burgess, G. H., G. W. Link, and S. W. Ross. 1979. Additional marine fishes new or rare to Carolina waters. Northeast Gulf Sci. 3(2): 74-86.
- Caldwell, D. K. 1959. Observations on tropical marine fishes from the northeastern Gulf of Mexico. Quart. Journ. Fla. Acad. Sci. 22(1): 69-74.
- _____, and J. C. Briggs. 1957. Range extensions of western North Atlantic fishes with notes on some soles of the genus *Gymnachirus*. Bull. Fla. State Mus., Biol. Sci. 2(1): 1-11.
- Collins, R. A., and R. E. Smith. 1959. Occurrence of butterflyfish in Mississippi Sound. Copeia 1959 (3): 252.
- Courtenay, W. R., Jr. 1967. Atlantic fishes of the genus *Rypticus* (Grammistidae). Acad. Nat. Sci. Philadelphia 119(6): 241-293.
- Dawson, C. E. 1962. New records and notes on fishes from the North Central Gulf of Mexico. Copeia 1962(2): 442-444.
- Eldred, B. 1968. The larval development and taxonomy of the pygmy moray eel, *Anarchias yoshiae* Kanazawa 1952. Fla. Bd. Conserv., Mar. Res. Lab., Leaflet Ser., Vol. 4, Pt. 1, No. 10. 8 p.
- Emery, A. R. 1973. Comparative ecology and functional osteology of fourteen species of damselfish (Pisces: Pomacentridae) at Alligator Reef, Florida Keys. Bull. Mar. Sci. 23(3): 649-770.
- Feddern, H. A. 1972. Field guide to the angelfishes (Pomacanthidae) in the western Atlantic. NOAA Tech Rep.

- NMFS CIRC-369. 10 p.
- Firth, F. E. 1933. *Anthias nicholsi*, a new fish taken off Virginia in the deep-water trawl fishery. *Copeia* 1933(4): 158-160.
- Garman, S. 1896. Report on the fishes collected by the Bahama expedition of the State University of Iowa, under Professor C. C. Nutting in 1893. *Bulletin of the Laboratory of Natural Science, State University of Iowa* 4(1): 76-93, 4 pls.
- Ginsburg, I. 1942. Seven new American Fishes. *J. Wash. Acad. Sci.* 32(12): 364-370.
- Ginsburg, I. 1951. The eels of the northern Gulf coast of the United States and some related species. *Texas J. Sci.* 3(3): 431-485.
- _____. 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.
- Haburay, K., C. F. Croke, and R. W. Hastings. 1969. Tropical marine fishes from Pensacola, Florida. *Quart. Jour. Fla. Acad. Sci.* 31(3): 213-219.
- Hastings, R. W. 1979. The origin and seasonality of the fish fauna on a new jetty in the northeastern Gulf of Mexico. *Bull. Florida State Mus., Biol. Sci.* 24(1): 1-117.
- _____, L. H. Ogren, and M. T. Mabry. 1976. Observations on the fish fauna associated with offshore platforms in the northeastern Gulf of Mexico. *Fish. Bull.* 74(2): 387-402.
- Johnson, R. K., and D. W. Greenfield. 1976. A new chaenopsid fish, *Emblemaria hyltoni*, from Isla Roatan, Honduras. *Fieldiana (Zoology)*. 70(2): 13-28.
- Jordan, D. S., and B. W. Evermann. 1896. The fishes of North and Middle America: A descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, north of the Isthmus of Panama. *Bull. U. S. Nat. Mus.* No. 47. 4 Vols. 3313 p.
- Joseph, E. B., and R. W. Yerger. 1956. The fishes of Alligator Harbor, Florida, with notes on their natural history. *Fla. State Univ. Stud.* 22: 111-156.
- Longley, W. H. and S. F. Hildebrand. 1941. Systematic catalogue of the fishes of Tortugas, Florida. *Pap. Tortugas Laboratory* 34: 1-331.
- McCosker, J. E. 1977. The osteology, classification and relationships of the eel family Ophichthidae. *Proc. Calif. Acad. Sci. Series 4*, 41(1): 123 p.
- Moe, M. A., Jr., P. C. Heemstra, J. E. Tyler, and H. Wahlquist. 1966. An annotated listing of the fish reference collection at the Florida Board of Conservation Marine Laboratory. *Fla. Bd. Conserv., Mar. Lab., Contrib. No. 99.* 121 p.
- Powell, D., L. M. Dwinell, and S. E. Dwinell. 1972. An annotated listing of the fish reference collection of the Florida Department of Natural Resources. *Fla. Dept. Nat. Res., Mar. Res. Lab., Spec. Sci. Rep.* 36:1-179 p.
- Randall, J. E. 1965. A redescription of *Sparisoma atomarium* (Poey), a valid West Indian parrotfish. *Not. Nat.* (378): 1-9.
- Rivas, L. R. 1960. The fishes of the genus *Pomacentrus* in Florida and the western Bahamas. *Quart. J. Fla. Acad. Sci.* 23(2): 130-162.
- Ross, S. W., and D. E. Fast. 1977. New records of tropical fishes collected on reefs in Onslow Bay, North Carolina. *ASB Bull.* 24(2): 82.
- Shipp, R. L., and T. S. Hopkins. 1978. Physical and biological observations of the northern rim of the DeSoto Canyon made from a research submersible. *Northeast Gulf Sci.* 2(2): 113-121.
- Smith, C. E., E. H. Atz, and J. C. Tyler. 1971. Aspects of oral brooding in the cardinalfish *Cheilodipterus affinis* Poey (Apogonidae). *Amer. Mus. Novit.* 2456: 1-11.
- Smith, G. B. 1976. Ecology and distribution of eastern Gulf of Mexico fishes.

- Fla. Dept. Natur. Res., Mar. Res. Publ. 19. 78 p.
- _____, H. M. Austin, S. A. Bortone, R. W. Hastings, and L. A. Ogren. 1975. Fishes of the Florida Middle Ground with comments on ecology and zoogeography. Fla. Dept. Nat. Res., Mar. Res. Publ. 9. 14 p.
- Sonnier, F., J. Teerling and H. D. Hoese. 1976. Observations on the offshore reef and platform fish fauna of Louisiana. *Copeia* 1976(1): 105-111.
- Springer, S. and H. S. Bullis, Jr. 1956. Collections made 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.
- Springer, V. G., and K. D. Woodburn. 1960. An ecological study of the fishes of the Tampa Bay area. Fla. State Bd. Conserv. Mar. Lab., Prof. Pap. Ser. No. 1. 104 p.
- Starck, W. A., II. 1968. A list of fishes of Alligator Reef, Florida with comments on the nature of the Florida Reef fish fauna. *Undersea Biology* 1(1): 5-40.
- _____, and W. R. Courtenay, Jr. 1962. *Chorististium eukrines*, a new serranid fish from Florida, with notes on related species. *Proc. Biol. Soc. Washington* 75: 159-168.
- Stephens, J. S., Jr. 1963. A revised classification of the blennioid fishes of the American family Chaenopsidae. *Univ. Calif. Publ. Zool.* 68: 197-224.
- _____. 1970. Seven new chaenopsid blennies from the western Atlantic. *Copeia* 1970(2): 280-309.
- Williams, J. T. and D. Clarke. 1978. Notes on tropical marine fishes in Alabama waters with new records for the region. *ASB Bull.* 25(2): 58.