

NEW ATLANTIC COAST RANGES FOR FISHES

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SPECIMENS of *Corniger spinosus*, *Holocentrus ascensionis*, *Myripristis jacobus*, and *Ostichthys trachypomus* (Holocentridae); *Anisotremus virginicus* (Pomadasyidae); *Chaetodon sedentarius* and *Holacanthus tricolor* (Chaetodontidae); and *Bodianus pulchellus* and *Clepticus parrai* (Labridae) have been collected by the U. S. Bureau of Commercial Fisheries exploratory fishing vessels *Combat*, *Silver Bay*, and *Delaware* at localities along the Atlantic coast of the United States north of their previously reported ranges. These specimens are in the collections of the U. S. Bureau of Commercial Fisheries Biological Laboratory, Brunswick, Georgia, unless otherwise indicated. We are grateful to Loren P. Woods of the Chicago Natural History Museum and Bruce B. Collette of the Bureau of Commercial Fisheries Ichthyological Laboratory, for their comments on the manuscript, and to Robert H. Gibbs, Jr., Division of Fishes, U. S. National Museum, for the loan of specimens.

1. *Corniger spinosus* Agassiz

Four specimens (103-122 mm S.L.) from *Silver Bay* stations 1393, 2989, 5507, and 5579. Range previously reported as "costas del Brasil" and Cuba north of Havana by Howell Rivero (1941, pp. 3-7). The collection of the specimen off Cape Romain, S. C. (*Silver Bay* station 1393), represents a range extension of about 650 nautical miles northward from Cuba, along the Atlantic coast of the United States.

2. *Holocentrus ascensionis* (Osbeck). Squirrelfish

Twelve specimens (180-276 mm S.L.) from *Silver Bay* stations 1534, 2999, 3000, 3330, 3649, 4672, 5417, 5418, 5419, and 5420; and four specimens (22-40 mm S.L., deposited in the U. S. National Museum) collected by Robert H. Gibbs, Jr. with dip net and night light, while aboard the *Delaware* 38°56'N. Lat., 66°27'W. Long. (USNM 194241), 39°07'N. Lat., 65°58'W. Long. (USNM 194239), 37°02'N. Lat., 71°20'W. Long. (USNM 194240), and 39°44.5'N. Lat., 70°56'W. Long. (USNM 194244). Range previously reported as "Both side of the Atlantic; in the western Atlantic from Ber-

TABLE 1

Data for *Combat*, *Silver Bay*, and *Delaware* collections listed in text

Station		Position		Distance and Direction from Nearest Landfall (Approximate Nautical Miles)	Depth (Fathoms)	Date
		N. Lat.	W. Long.			
<i>Combat</i>	353	30°24'	80°20'	54 E Jacksonville Beach, Fla.	24	3 June 1957
<i>Silver Bay</i>	1207	33°24'	77°09'	49 ESE Cape Fear, N. C.	25	2 Sept. 1959
do	1233	34°00'	76°21'	37 S Cape Lookout, N. C.	30/33	5 Sept. 1959
do	1268	34°32'	75°53'	35 E. Cape Lookout, N. C.	31/30	11 Sept. 1959
do	1297	34°09'	76°35'	26 S Cape Lookout, N. C.	20	23 Sept. 1959
do	1393	32°32'	78°40'	45 SE Cape Romain, S. C.	40/50	26 Oct. 1959
do	1506	33°40.5'	76°59.5'	50 E Cape Fear, N. C.	21/22	9 Dec. 1959
do	1534	30°39'	80°17'	60 E. Amelia Is., Fla.	22/23	15 Jan. 1960
do	1734	32°51'	78°39'	35 SE South Is., S. C.	17	7 March 1960
do	1738	33°04'	77°59'	47 S Cape Fear, N. C.	20/21	7 March 1960
do	2543	33°26'	77°13'	45 ESE Cape Fear, N. C.	22	6 Dec. 1960
do	2989	30°43'	80°07'	69 E Amelia Is., Fla.	26/28	18 April 1961
do	2999	30°25'	80°25'	51 E Talbot Is., Fla.	19	20 April 1961
do	3000	30°29'	80°27'	49 E Talbot Is., Fla.	21	20 April 1961
do	3009	29°45'	80°28'	40 E Anastasia Is., Fla.	18	21 April 1961
do	3010	29°45'	80°28'	40 E Anastasia Is., Fla.	18	21 April 1961
do	3330	33°15.5'	77°15.5'	34 S Cape Fear, N. C.	17	13 Aug. 1961
do	3649	33°17'	77°46'	34 S Cape Fear, N. C.	18	11 Dec. 1961
do	4117	34°34'	76°13'	16 E Cape Lookout, N. C.	Surface	2 June 1962
do	4183	33°21'	77°39'	34 SE Cape Fear, N. C.	14/16	28 July 1962
do	4652	33°15.5'	77°51.5'	35 S Cape Fear, N. C.	17	25 Jan. 1963

TABLE 1 (cont.)
Data for *Combat*, *Silver Bay*, and *Delaware* collections listed in text

Station	Position		Distance and Direction from Nearest Landfall		Depth (Fathoms)	Date
	N. Lat.	W. Long.	(Approximate Nautical Miles)			
do	4665	32°45'	78°33.5'	43 ESE Cape Romain, S. C.	23/20	27 Jan. 1963
do	4672	32°45'	78°33.5'	43 ESE Cape Romain, S. C.	20/24	29 Jan. 1963
do	4673	32°45'	78°33.5'	43 ESE Cape Romain, S. C.	20/24	29 Jan. 1963
do	4921	30°21.5'	80°50.5'	29 E Jacksonville Beach, Fla.	17/18	8 May 1963
do	4938	30°45'	80°15'	62 E Cumberland Is., Ga.	21.5	14 May 1963
do	5390	31°50'	79°32.5'	53 SE Kiawah Is., S. C.	35	6 Dec. 1963
do	5391	31°49.5'	79°34.5'	52 SE Kiawah Is., S. C.	35	6 Dec. 1963
do	5393	31°56.5'	79°23.5'	51 SE Kiawah Is., S. C.	40/44	6 Dec. 1963
do	5417	30°46'	80°16'	62 E. Cumberland Is., Ga.	22	15 Dec. 1963
do	5418	30°53'	80°07'	67 E Cumberland Is., Ga.	21/22	16 Dec. 1963
do	5419	30°50'	80°10'	66 E Cumberland Is., Ga.	22	16 Dec. 1963
do	5420	30°44'	80°15'	62 E Cumberland Is., Ga.	21	16 Dec. 1963
do	5437	32°58'	78°36'	33 SE North Island, S. C.	16	16 Jan. 1964
do	5507	29°18.5'	80°13'	43 E Ormond Beach, Fla.	40	28 Feb. 1964
do	5516	27°58.5'	80°15'	13 NE Sebastian Inlet, Fla.	14	29 Feb. 1964
do	5579	29°02'	80°07.5'	40 E New Smyrna Beach, Fla.	44/50	11 March 1964
do	5682	30°03'	80°33'	39 ENE Anastasia Is., Fla.	22	30 April 1964
<i>Delaware</i>		38°56'	66°27'	225 SE Nantucket Is., Mass.	Surface	8 June 1957
do		39°07'	65°58'	240 SE Nantucket Is., Mass.	Surface	21 Sept. 1957
do		38°05'	65°58'	270 SE Nantucket Is., Mass.	Surface	22 Sept. 1957
do		37°02'	71°20'	200 SE Assateague Is., Va.	Surface	18 July 1958
do		39°44.5'	70°56'	100 SE Montauk Pt., N. Y.	Surface	27 Aug. 1959

muda and Florida to Rio de Janeiro and the northern and western Gulf of Mexico" by Briggs (1958, p. 271). McKenney (1959, p. 208) cited several obscure references in which *Holocentrus* had been reported from as far north as Newport, Rhode Island, and Woods Hole, Massachusetts; these records might have been of pelagic juveniles and might refer to *H. ascensionis*. Gibbs and Collette (1959, pp. 145-146) found four specimens of *H. ascensionis* in the stomach contents of a *Coryphaena hippurus* "from the Gulf Stream." The stomach contents mentioned by Gibbs and Collette were collected from the *Delaware* at 38°58'N. Lat., 66°26'W. Long. on 9 June 1957 (Bruce B. Collette, *in litt.*, 19 August 1964). The collection of the specimen (USNM 194244) from SE of Montauk Pt., Long Island, N. Y., represents a range extension of about 800 nautical miles northward from Florida along the Atlantic coast of the United States.

3. *Myripristis jacobus* Cuvier. Blackbar soldierfish

Three specimens (101-142 mm S.L.) from *Combat* station 353 and *Silver Bay* station 3009. Range previously reported as "Both sides of the Atlantic; in the western Atlantic from the northeastern Gulf of Mexico to Tortugas, Florida, and south to Rio de Janeiro" by Briggs (1958, p. 270). The collection of the specimen off Jacksonville Beach, Fla. (*Combat* station 353), represents a range extension of about 500 miles by sea from Tortugas.

4. *Ostichthys trachypomus* (Günther). Bigeye soldierfish

One specimen (29 mm S.L.) from *Silver Bay* station 4117 and three specimens (22-25 mm S.L., deposited in the U. S. National Museum) collected by Robert H. Gibbs, Jr. with dipnet and night light, while aboard the *Delaware* 38°05'N. Lat., 65°58'W. Long. (USNM 194245) and 39°44.5'N. Lat., 70°56'W. Long. (USNM 194246). Range previously reported as West Indies and Cuba by Jordan, Evermann, and Clark (1930, p. 234). Bailey et al. (1960, p. 24) first listed this species as occurring in waters of the United States presumably based upon a previously unpublished record off North Carolina furnished by Loren P. Woods. The collection of the specimens (USNM 194246) from SE of Montauk Pt., Long Island, N. Y., represents a range extension of about 900 nautical miles northward from the northernmost part of the West Indies (Bahamas), along the Atlantic coast of the United States.

5. *Anisotremus virginicus* (Linnaeus). Porkfish

Three specimens (82-260 mm S.L.) from *Silver Bay* stations 5516 and 5682. Range previously reported as "Bermuda and southern Florida to Santa Catarina, Brazil, and the eastern and southern Gulf of Mexico" by Briggs (1958, p. 279). The collection of the specimens off Anastasia Is., Fla. (*Silver Bay* station 5682), represents a range extension of about 200 nautical miles northward from southern Florida along the Atlantic coast of the United States.

6. *Chaetodon sedentarius* Poey. Reef butterflyfish

Thirty-seven specimens (73-120 mm S.L.) from *Silver Bay* stations 1207, 1233, 1268, 1297, 1506, 1534, 1734, 1738, 2543, 3010, 4652, 4665, 4673, 4921, 4938, 5390, 5391, 5393, 5417, 5420, and 5437. Range previously reported as Bermuda and West Indies by Beebe and Tee-Van (1933, p. 176); as "Eastern and southwestern Gulf of Mexico to Hispaniola" by Briggs (1958, p. 282); from the northern Gulf of Mexico by Collins and Smith (1959, p. 252); and from off the south Atlantic coast of the United States, but with no specific locality given, by Hubbs (1963, p. 140). The collection of the specimen off Cape Lookout, N. C. (*Silver Bay* station 1268), represents the northernmost known occurrence of this species along the Atlantic coast of the United States.

7. *Holacanthus tricolor* (Bloch). Rock beauty

Four specimens (115-173 mm S.L.) from *Silver Bay* stations 5418, 5419, and 5420. Range previously reported as "Bermuda and the Florida Keys to Rio de Janeiro" by Briggs (1958, p. 283). The collections of these specimens off Cumberland Is., Ga., represent a range extension of about 300 nautical miles northward along the Atlantic coast of the United States.

8. *Bodianus pulchellus* (Poey). Spotfin hogfish

Five specimens (176-231 mm S.L.) from *Silver Bay* stations 4665, 4673, 5417, and 5418. The specimen from *Silver Bay* 4665 is deposited in the Chicago Natural History Museum (CNHM 66683). Range previously reported as "southeastern Florida and the Bahamas to northern South America" by Feddern (1963, p.

227). The collections of the specimens off Cape Romain, S. C. (*Silver Bay* stations 4665 and 4673), represent a range extension of about 450 nautical miles northward of that given by Feddern. The largest specimen examined by Feddern was "156.2" mm (UMML 9508). All specimens collected by the *Silver Bay* were larger but show the total gillraker count given by Feddern to distinguish *Bodianus pulchellus* (15 to 16) from the closely related *Bodianus rufus* (17 to 19). The preserved specimens show distinctive markings similar to those described by Feddern for *B. pulchellus* (a striking black area on the dorsal part of the pectoral distally and a black spot at the bases of the first two to four dorsal spines).

9. *Clepticus parrai* (Bloch and Schneider). Creole wrasse

One specimen (37 mm S.L.) from *Silver Bay* station 4183. Range previously reported as Bermuda and the West Indies by Beebe and Tee-Van (1933, p. 194). Henry A. Feddern (*in litt.*, 16 March 1964) stated that there are "quite a few specimens of *Clepticus parrai*" in the collections of the University of Miami Marine Laboratory; all from the Florida Keys except one found dead on the beach at Miami Beach, Dade County, Florida, on 10 September 1960 (UMML 7140). The collection of this specimen off Cape Fear, N. C., represents a range extension of about 550 nautical miles northward along the Atlantic coast of the United States.

DISCUSSION

Captures of large *Holocentrus ascensionis* and *Chaetodon sedentarius* from many localities off the south Atlantic coast of the United States in all seasons show they are resident species as far north as northern South Carolina (*H. ascensionis*) and central North Carolina (*C. sedentarius*), whereas the small specimens of *H. ascensionis* dipnetted farther north probably drifted into their areas of capture.

Collections of *Bodianus pulchellus* in January and December 1963 (nearly a year apart) and of *Holacanthus tricolor* in December 1963 during a time of the year when we would not expect warmer water strays, and each at more than one locality, indicate that these species normally range this far north.

Ostichthys trachypomus and *Clepticus parrai* may not normally occur as far north as these records suggest. The specimens of each

of these species could have developed from pelagic larval forms which drifted into their areas of capture. Their small size and capture in the warmer months (*O. trachypomus* in June, August, and September and *C. parrai* in July) lend credence to this hypothesis.

Increased collecting in progress off the Atlantic coast of the United States will likely reveal that many species now considered sub-tropical or tropical have far more extensive northerly ranges—as strays or random wanderers, as migrants, and as indigenous members of the fauna.

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