

APPENDIX

The fishes listed here have been recorded within the coastal area from Maine to Texas. They were not given a full account with an illustration because of their rarity, limited range, or deep-water habitat or due to lack of specimen photographs or video.

Ragged-tooth shark - *Odontaspis ferox* (Risso, 1810)

FEATURES: Similar to Sand tiger. Medium gray to gray brown dorsally, pale below. Sometimes with darker spots on sides. First dorsal fin closer to pectoral-fin base than pelvic-fin base. Second dorsal fin is smaller than first dorsal fin. To 13.5 ft. **ECOLOGY:** Off NC, northern Gulf of Mexico, and Brazil. Possibly circumglobal. Occur in deep water over continental shelves and slopes to about 1,300 ft. Vulnerable.

Gulf smoothhound - *Mustelus sinuomexicanus* Heemstra, 1997

FEATURES: Similar to Smooth dogfish. Gray to gray brown dorsally. Pale below. Moderately sized. Pectoral fins broad, caudal fin deeply notched. Teeth cusped at base. To 4.5 ft. **ECOLOGY:** In Gulf of Mexico off FL, AL, LA, MS, TX, and Mexico. Found offshore over continental shelf and upper slope to about 750 ft. Not found inshore in shallow water. Litters contain up to eight young. A poorly known species.

Night shark - *Carcharhinus signatus* (Poey, 1868)

FEATURES: Grayish blue dorsally with some scattered black spots. Abdomen grayish white. Lining of mouth white. Eyes large and green. Snout long, blunt at tip. First dorsal fin relatively low. Second dorsal fin very low, much smaller than first dorsal fin. **ECOLOGY:** DE to FL, Gulf of Mexico, Antilles to Brazil. Found in deep water; below 900 to 1,200 ft. during the day, rising to about 590 ft. during the night. Range and populations declining. Currently only caught in numbers off Brazil. Vulnerable.

Bluntnose sixgill shark - *Hexanchus griseus* (Bonnaterre, 1788)

FEATURES: Dark gray to brown dorsally, paler below. Head broad and blunt. Mouth long, narrow, and arched. Six long gill slits. To 16 ft. **ECOLOGY:** Worldwide in tropical to temperate seas from surface to about 6,150 ft. NC to FL, northern Gulf of Mexico, and Caribbean Sea. Demersal or pelagic. Feed on invertebrates and fishes.

Shortspine dogfish - *Squalus mitsukurii* Jordan & Snyder, 1903

FEATURES: Gray or gray brown dorsally. Pale gray to white ventrally. Sides unmarked. Margins of dorsal fins dusky. Snout pointed. Body slender. Dorsal fins with round spines. **ECOLOGY:** Occur near bottom over continental slopes from about 1,000 to 1,200 feet in tropical to temperate Atlantic, Indian, and Pacific oceans.

Blurred lantern shark - *Etmopterus bigelowi* Shirai & Tachikawa, 1993

FEATURES: Dark brown to blackish; darker dorsally. Small white patch on top of head. Head broad. Snout long, thick, and flat. Dorsal fins with a stout spine. Second dorsal fin smaller than first dorsal fin. To 26 in. **ECOLOGY:** In Gulf of Mexico off LA. Also Caribbean Sea, off Suriname, Uruguay, and Argentina. Eastern Atlantic and Indo-Pacific oceans. Occur in deep water over continental shelves, slopes, and submarine ridges from about 530 to 3,200 ft. Also near surface in open ocean.

APPENDIX

Lozenge skate - *Dipturus bullisi* (Bigelow & Schroeder, 1962)

FEATURES: Uniformly pale brown dorsally. Dark brown ventrally. Snout pointed, projecting. Body and fins form rhomboid shape. A few spines present around eyes. Tail with single row of 12-15 thorns. To 2.5 ft. **ECOLOGY:** Recorded from Dry Tortugas and off TX. Also Caribbean Sea. In deep water from about 600 to 1,800 ft.

Gulf skate - *Fenestraja sinuomexicanus* (Bigelow & Schroeder, 1950)

FEATURES: Brownish purple dorsally, sometimes with irregular dark blotches or spots. Yellowish white ventrally. Body and fins form heart shape. The tail is long and thorny, with two dorsal fins and a poorly developed caudal fin. Thorns and denticles are present on head and body. To 12 in. **ECOLOGY:** SE FL, Gulf of Mexico, Cuba, Nicaragua, and Venezuela. Demersal over outer continental shelves to about 3,600 ft.

Pygmy moray - *Anarchias similis* (Lea, 1913)

Fangtooth moray - *Enchelycore anatina* (Lowe, 1838)

Lichen moray - *Gymnothorax hubbsi* Böhlke & Böhlke, 1977

Sharktooth moray - *Gymnothorax maderensis* (Johnson, 1862)

Polygon moray - *Gymnothorax polygonius* Poey, 1875

Redface eel - *Monopenchelys acuta* (Parr, 1930)

Stout moray - *Muraena robusta* Osório, 1911

Marbled moray - *Uropterygius macularius* (Lesueur, 1825)

Key worm eel - *Ahlia egmontis* (Jordan, 1884)

Tusky eel - *Aplatophis chauliodus* Böhlke, 1956

Stripe eel - *Aprognathodon platyventris* Böhlke, 1967

Academy eel - *Apterichtus ansp* (Böhlke, 1968)

Finless eel - *Apterichtus kendalli* (Gilbert, 1891)

Sooty eel - *Bascanichthys bascanium* (Jordan, 1884)

Whip eel - *Bascanichthys scuticaris* (Goode & Bean, 1880)

Shorttail snake eel - *Callechelys guineensis* (Osório, 1893)

Blotched snake eel - *Callechelys muraena* Jordan & Evermann, 1887

Ridgefin eel - *Callechelys springeri* (Ginsburg, 1951)

Slantlip eel - *Caralophia loxochila* Böhlke, 1955

Snake eel sp. - *Echiophis mordax* (Poey, 1860)

Stippled spoon-nose eel - *Echiophis punctifer* (Kaup, 1860)

Indifferent eel - *Ethadophis akkistikos* McCosker & Böhlke, 1984

Irksome eel - *Gordiichthys ergodes* McCosker, Böhlke & Böhlke, 1989

Horsehair eel - *Gordiichthys irretitus* Jordan & Davis, 1891

String eel - *Gordiichthys leiby* McCosker & Böhlke, 1984
 Surf eel - *Ichthyapus ophioneus* (Evermann & Marsh, 1900)
 Sailfin eel - *Letharchus velifer* Goode & Bean, 1882
 Forgetful snake eel - *Lethogoleos andersoni* McCosker & Böhlke, 1982
 Sharptail eel - *Myrichthys breviceps* (Richardson, 1848)
 Margined snake eel - *Ophichthus cruentifer* (Goode & Bean, 1896)
 Faint-saddled snake eel - *Ophichthus hyposagmatus* McCosker & Böhlke, 1984
 Blackpored eel - *Ophichthus melanoporus* Kanazawa, 1963
 Blotchside snake eel - *Ophichthus menezesi* McCosker & Böhlke, 1984
 Dotted-line snake eel - *Ophichthus omorgmus* McCosker & Böhlke, 1984
 Spotted snake eel - *Ophichthus ophis* (Linnaeus, 1758)
 King snake eel - *Ophichthus rex* Böhlke & Caruso, 1980

Conger sp. - *Acromycter atlanticus* Smith, 1989
 Conger sp. - *Acromycter perturbator* (Parr, 1932)
 Longtrunk conger - *Ariosoma anale* (Poey, 1860)
 Conger sp. - *Ariosoma selenops* Reid, 1934
 Bullish conger - *Bathycongrus bullisi* (Smith & Kanazawa, 1977)
 Dubious conger - *Bathycongrus dubius* (Breder, 1927)
 Neighbor conger - *Bathycongrus vicinalis* (Garman, 1899)
 Large-toothed conger - *Bathyuroconger vicinus* (Vaillant, 1888)
 Blackgut conger - *Gnathophis bathytopos* Smith & Kanazawa, 1977
 Longeye conger - *Gnathophis bracheatopos* Smith & Kanazawa, 1977
 Yellow garden eel - *Heteroconger luteolus* Smith, 1989
 Purplemouthed conger - *Pseudophichthys splendens* (Lea, 1913)
 Whiptail conger - *Rhynchoconger gracilior* (Ginsburg, 1951)
 Threadtail conger - *Uroconger syringinus* Ginsburg, 1954
 Conger sp. - *Xenomystax bidentatus* (Reid, 1940)
 Bristletooth conger - *Xenomystax congroides* Smith & Kanazawa, 1989

Key anchovy - *Anchoa cayorum* (Fowler, 1906)

FEATURES: Similar to Bigeye anchovy, *Anchoa lamprotaenia*; anal-fin base comparatively longer. Translucent, with silvery stripe on sides. Stripe is slightly narrower than eye diameter. Slender, moderately compressed, with a moderately short, pointed snout. Anal fin is long-based with 26–28 rays. To 3.3 in. **ECOLOGY:** FL Keys, Bahamas, Antilles, to eastern Yucatán, Belize, and possibly Venezuela. Inshore. Schooling. Apparently limited to clear water.

Cuban anchovy - *Anchoa cubana* (Poey, 1868)

FEATURES: Translucent with silvery stripe on sides. Stripe is about as broad as pupil diameter. Very slender and moderately compressed, with a short, moderately pointed snout. Anal fin moderately long-based with 19–24 rays. To 3 in. **ECOLOGY:** NC to S FL, eastern Gulf of Mexico, Antilles, eastern Yucatán to southern Brazil. Schooling, from shore to about 195 ft.

Bigeye anchovy - *Anchoa lamprotaenia* Hildebrand, 1943

FEATURES: Similar to Striped anchovy. Translucent, with silvery stripe on sides. Stripe width is about three-fourths of eye diameter. Slender, moderately compressed with short, pointed snout. Upper jaw extends to rear margin of opercle. Anal fin originates below mid-length of dorsal-fin base. To 3.5 in. **ECOLOGY:** S FL and FL Keys, Bahamas, Antilles to Venezuela. Coastal and schooling.

Flat anchovy - *Anchoviella perfasciata* (Poey, 1860)

FEATURES: Translucent, with silvery stripe on sides. Stripe width is about three-fourths of eye diameter and has a dark upper margin. Slender and strongly compressed, with a pointed, moderately short snout. Anal fin with 13–18 rays. To 4 in. **ECOLOGY:** Beaufort, SC, to S FL. Northern Gulf of Mexico, Antilles, and off Panama. Rare to absent in eastern Gulf of Mexico. In fully saline coastal waters.

Redear sardine - *Harengula humeralis* (Cuvier, 1829)

FEATURES: Similar to False pilchard. Brownish gray dorsally, with silvery highlights. Silvery on sides and below. Upper sides with broken streaks that follow scales. Reddish orange spot posterior to opercle. Tips of anterior dorsal-fin rays dark. To 8 in. **ECOLOGY:** FL, Bahamas, Caribbean, and The Guianas. Also Bermuda. Pelagic in clear coastal water around coral reefs and sandy beaches and over seagrass beds.

Little-eye herring - *Jenkinsia majua* Whitehead, 1963

FEATURES: Greenish dorsally, white ventrally. Distinct silver band on sides. Band narrower than eye diameter. Mouth small. Dorsal-fin margin slightly convex. Abdomen lacks scutes, except W-shaped pelvic scute. To 2.4 in. **ECOLOGY:** Bahamas, Greater Antilles, Bay of Campeche, and western Caribbean Sea. Also reported from FL Keys.

Shortband herring - *Jenkinsia stolifera* (Jordan & Gilbert, 1884)

FEATURES: Greenish dorsally, silvery white below. Silvery stripe on sides about one-half of eye diameter, narrow to absent anteriorly. Dorsal fin originates closer to snout tip than to caudal-fin base and has a slightly convex margin. To 3 in. **ECOLOGY:** FL, FL Keys, Bahamas, and Honduras to Venezuela. Coastal, marine, and inshore.

Striated argentine - *Argentina striata* Goode & Bean, 1896

FEATURES: Translucent to silvery. Lower two-thirds of body pale brown. Brown band often above lateral line. Elongate, with small mouth, moderately short snout, and large eyes. Adipose fin above anal fin. To 8 in. **ECOLOGY:** Nova Scotia to FL, Gulf of Mexico to Venezuela. Over muddy bottoms from about 312 to 1,200 ft.

Pygmy argentine - *Glossanodon pygmaeus* Cohen, 1958

FEATURES: Pale tan, often with a dark stripe on upper and lower posterior body. Stripes may be poorly defined. Upper and lower bands merge at caudal-fin base. Eyes large. Body polygonal in cross-section. To 4.5 in. **ECOLOGY:** SC to S FL, northern Gulf of Mexico, Cuba, and northern South America. From about 600 to 1,200 ft.

Smallscale lizardfish - *Saurida caribbaea* Breder, 1927

FEATURES: Pale brown dorsally, with dark blotches and irregular brown spots above and along lateral line. Yellowish white ventrally. Caudal fin dusky, with dark stripe at margin. Snout is blunt and narrow and about as long as eye diameter. To 5 in. **ECOLOGY:** NE FL, Gulf of Mexico to The Guianas, Bahamas, and Cuba. Demersal over continental shelves and slopes between 13 to 1,500 ft.

Stout beardfish - *Polymixia nobilis* Lowe, 1838

FEATURES: Similar to Beardfish. Shiny brownish gray dorsally and on sides, paler below. Opercle dark. Dorsal, caudal, and anal fins dusky. Tips of anterior dorsal-fin rays and tips of caudal-fin rays dark to blackish. Dorsal fin with 4–5 spines and 34–37 rays. To 19 in. **ECOLOGY:** Occur in the Gulf of Mexico and Caribbean Sea between about 330 to 2,525 ft. Reportedly more common below 1,180 ft. Found over soft bottoms of continental shelves and slopes. Also in the eastern Atlantic.

Saddled grenadier - *Caelorinchus caelorhynchus* (Risso, 1810)**Blackfin grenadier - *Caelorinchus caribbaeus* (Goode & Bean, 1885)****Grenadier sp. - *Hymenocephalus italicus* Giglioli, 1884****Roughhead grenadier - *Macrourus berglax* Lacepède, 1801****Grenadier sp. - *Malacocephalus laevis* (Lowe, 1843)****Western softhead grenadier - *Malacocephalus occidentalis* Goode & Bean, 1885****Common Atlantic grenadier - *Nezumia aequalis* (Günther, 1878)****Tadpole whiptail - *Squalogadus modificatus* Gilbert & Hubbs, 1916****White hake - *Urophycis tenuis* (Mitchill, 1814)**

FEATURES: Similar to Red hake. Varies in color. Usually muddy to purple brown above; sometimes slaty above. Sides bronze to golden. Abdomen dirty or yellowish white with tiny black dots. 119 to 148 lateral-line scales. To 4.4 ft. **ECOLOGY:** Labrador and Grand Banks of Newfoundland to NC. From about 88 to 360 ft. May stray to FL. Demersal. Tend to move inshore in summer, offshore in winter.

Chain pearlfish - *Echiodon dawsoni* Williams & Shipp, 1982

FEATURES: Life color unknown. Elongate and tapering posteriorly. Trunk very short. Pectoral fins well developed. Anal fin originates behind pectoral fin. To 4 in. **ECOLOGY:** From Cape Cod to FL, Gulf of Mexico, and Caribbean Sea to Brazil. Also Bermuda. Occur from about 250 to 570 ft. Believed to be free swimming.

Twospot brotula - *Neobythites gilli* Goode & Bean, 1885

FEATURES: Pale yellow, slightly darker dorsally. A series of dark blotches is present along dorsal profile. The last two blotches extend into the dorsal fin. The mouth is large. A long spine is present on opercle. Body is elongate and compressed and tapers posteriorly. To 6 in. **ECOLOGY:** Cape Hatteras to Brazil. Also Gulf of Mexico. Occur from about 320 to 2,000 ft. A poorly known species.

Mooneye cusk-eel - *Ophidion selenops* Robins & Böhlke, 1959

FEATURES: Body silvery. Prominent forward-projecting spine underneath skin on snout tip. Body elongate. Eyes comparatively large. To 4 in. **ECOLOGY:** SC to FL Keys. Over outer continental shelf from about 60 to 1,050 ft. Rarely encountered.

Dusky cusk-eel - *Parophidion schmidti* (Woods & Kanazawa, 1951)

FEATURES: Usually dusky brown. Large scales cover top of head. Both pelvic-fin rays are equal or nearly equal in length. To 4 in. **ECOLOGY:** FL and Bahamas to northern South America. Also Bermuda. Demersal over shallow coastal waters. Usually found over turtle-grass beds. Uncommon.

Reticulate goosefish - *Lophiodes reticulatus* Caruso & Suttkus, 1979

FEATURES: Pale to dark brown with dark reticulations on head, body, and fins. Sometimes only with faint reticulations on pectoral and caudal fins. First dorsal fin consists of six separate spines; first three tall. To 9.8 in. **ECOLOGY:** S FL, FL Keys, Gulf of Mexico, Caribbean Sea to Suriname. Demersal from about 210 to 1,200 ft.

Blackfin goosefish - *Lophius gastrophysus* Miranda Ribiero, 1915

FEATURES: Uniformly brown to dark gray dorsally, occasionally with fine reticulations. Inner margins on upper surface of pectoral fins black. Undersides of pectoral fins become darker toward margins. First dorsal fin consists of six separate spines; first two tall. To 18 in. **ECOLOGY:** Cape Hatteras to FL, Gulf of Mexico to Argentina. Demersal from about 600 to 2,300 ft.

Palefin batfish - *Ogcocephalus rostellum* Bradbury, 1980

FEATURES: Similar to Polka-dot batfish, but pectoral fins are pale and mostly unmarked. Rostrum very short and blunt. To 7.5 in. **ECOLOGY:** NC to FL Keys. Also Jamaica. Demersal from about 90 to 750 ft. A poorly known species.

Texas silverside - *Menidia clarkhubbsi* Echelle & Mosier, 1982

FEATURES: Similar to Inland silverside. Greenish dorsally, pale ventrally. Prominent silvery stripe on each side. Dusky pigment on back and upper sides reaches to silvery stripe. Anal fin with 16–18 rays. **ECOLOGY:** Occur in ponds near Rockport and Galveston, TX. Possibly also along NW coast of FL. This species is the result of hybridization between Inland silverside, *Menidia beryllina*, and Tidewater silverside, *Menidia peninsulæ*. All members of *Menidia clarkhubbsi* are female. Validity of this species is debatable.

Spotfin flyingfish - *Cheilopogon furcatus* (Mitchill, 1815)

FEATURES: Dark dorsally, silvery below. Pectoral fins blackish with curved, transparent central area that is wider along leading edge of fin. Dorsal fin is transparent. Caudal fin is dark, pelvic fins are dark-edged. Pectoral fins extend beyond mid-length of dorsal-fin base. Dorsal fin is low. Anal fin begins below front half of dorsal fin. To 14 in. **ECOLOGY:** Occur in Gulf Stream waters from MA to FL, Gulf of Mexico, and Caribbean Sea. Common in oceanic waters, do not enter inshore waters. Feed on zooplankton.

Western bluntnose flyingfish - *Prognichthys occidentalis* Parin, 1999

FEATURES: Body dark above, pale below. Dorsal and caudal fins grayish. Anal fin transparent. Pectoral fins brownish, pale at tips and on lowermost portion. Anal fin short-based, originating under fourth or fifth dorsal-fin ray, and with 8–10 rays. To 9 in. **ECOLOGY:** In western Atlantic from MA to FL, Gulf of Mexico, Bahamas, and Caribbean Sea to Brazil. Found over continental shelves; avoid open ocean. Formerly identified as *Prognichthys gibbifrons*.

Marsh killifish - *Fundulus confluentus* Goode & Bean, 1879

FEATURES: Similar to Bayou killifish. Color varies. Females brownish olive dorsally, pale below, with 13 blackish bars on sides; large black ocellus may be present on dorsal fin. Males dusky green dorsally, pale below, with 12 to 20 silvery bars on sides; black ocellus usually present on dorsal fin. To 3 in. **ECOLOGY:** Chesapeake Bay to Corpus Christi, TX. In shallow coastal marshes and grass flats and brackish bays. Also in fresh water. Absent from open beaches.

Western roughy - *Hoplostethus occidentalis* Woods, 1973

FEATURES: Similar in shape to Silver roughy. Silvery pink on head, body, and fins. Snout short. Low ridges and spines on head. Lateral-line scales enlarged. Abdomen with 10–17 scutes. **ECOLOGY:** In western Atlantic from E FL, northern Gulf of Mexico, and Caribbean Sea to The Guianas. Found near bottom over continental slopes from about 400 to 1,800 ft. Feed on small shrimps.

Red bream - *Beryx decadactylus* Cuvier, 1829

FEATURES: Similar to Splendid alfonso. Bright red dorsally and on fins. Silvery pink below. Eyes red. Short spines on snout, above eyes, and near lower preopercular margin. Dorsal-fin base comparatively long. Body comparatively deep. To 15 in. **ECOLOGY:** Occur near bottom in worldwide subtropical to temperate seas between about 500 to 3,300 ft. Rare.

Dwarf pipefish - *Cosmocampus hildebrandi* (Herald, 1965)

FEATURES: Red. Snout moderately short. Low ridge over eyes. Body ridges are prominent. Dorsal fin with 9–22 rays. Trunk with 6–17 rings. Tail with 31–35 rings. Males with brood pouch below twelfth to twentieth tail rings. To 3.4 in. **ECOLOGY:** In the western Atlantic from NC to S FL and the northeastern Gulf of Mexico off Florida. Found in shallow water over coral, rock, and sand from about 13 to 240 ft.

Texas pipefish - *Syngnathus affinis* Günther, 1870

FEATURES: White to dark brown. Body ridges rather low. Snout relatively short and deep. Dorsal fin with 35–41 rays. Trunk with 17–19 rings. Tail with 32–35 rings. To 8.6 in. **ECOLOGY:** In the western Gulf of Mexico from AL, Corpus Christi Bay, and the Laguna de Términos, Campeche.

Bull pipefish - *Syngnathus springeri* Herald, 1942

FEATURES: Pale with broad, dark saddles or bands on trunk and tail. Snout moderately long. Dorsal fin with 32–38 rays. Trunk with 22–24 rings. Tail with 34–37 rings. To 15 in. **ECOLOGY:** From MA to FL Keys, eastern Gulf of Mexico, and Bahamas. Found between 62 and 606 ft. Also found in the water column.

Longfin scorpionfish - *Scorpaena agassizii* Goode & Bean, 1896

FEATURES: Uniformly reddish brown, with poorly defined, darker spots behind head. Snout short, eyes large. Pectoral fins with 18–21 rays—uppermost unbranched, next six to nine branched. To 6 in. **ECOLOGY:** NC to Brazil, northern and southern Gulf of Mexico. Over soft to partially hard bottoms from about 150 to 984 ft.

Smoothhead scorpionfish - *Scorpaena calcarata* Goode & Bean, 1882

FEATURES: Reddish, with a dark spot behind head and three slightly darker patches along dorsal-fin base. Pale ventrally. Head and snout moderately short. Eyes of moderate size. Cirri above eyes are small. Pectoral fins with 19–21 rays—uppermost rays unbranched, next five to seven branched. To 5 in. **ECOLOGY:** NC to Brazil, including the Gulf of Mexico, Greater and Lesser Antilles, between 65 and 196 ft.

Hunchback scorpionfish - *Scorpaena dispar* Longley & Hildebrand, 1940

FEATURES: Bright orange to red. One or two dark spots often present on body behind head. Eyes moderately large, with fleshy tabs. Pectoral fins with 17–19 rays—uppermost rays unbranched, next six to eight branched. To 9 in. **ECOLOGY:** SC, FL, and scattered through the Gulf of Mexico to Brazil from about 121 to 410 ft.

Atlantic thornyhead - *Trachyscorpia cristulata* (Goode & Bean, 1896)

FEATURES: Red. Body darker under third to fourth dorsal-fin spines and below soft portion of dorsal fin. Head is large, snout is short. Eyes are moderately large. Pectoral fins bi-lobed, with 21–24 rays; lower rays unbranched and fleshy in large specimens. To 18 in. **ECOLOGY:** MA to FL in the Gulf of Mexico. Demersal from about 426 to 3,600 ft. Taken infrequently in trawls.

Shortfin searobin - *Bellator brachychir* (Regan, 1914)

FEATURES: Brown on upper half of body, white below. First dorsal fin brown, with a black spot between fourth and fifth spines. Pectoral fins with a black blotch between third and fifth rays. Rostral projections poorly developed. Eyes large. Opercular spine long. Pectoral fins short, with upper ray free and longer than other rays. To 6.3 in. **ECOLOGY:** NC to W FL, southern Gulf of Mexico to Uruguay. Demersal from about 88 to 1,200 ft.

Streamer searobin - *Bellator egretta* (Goode & Bean, 1896)

FEATURES: Reddish or yellowish brown on upper half of body. Sides banded. Pale below. Dorsal fin with black spot or smudge between fourth and fifth spines. Caudal fin with yellowish spots dorsally and a reddish stripe along lower margin. Rostral projections poorly developed to absent. Fleshy tabs over eyes. First dorsal-fin spine with a long, trailing filament in some specimens. To 7 in. **ECOLOGY:** NC to Barbados. Demersal from about 130 to 755 ft.

Bigeye searobin - *Prionotus longispinosus* Teague, 1951

FEATURES: Brownish gray dorsally, fading to white below. Dorsal fins pale gray. Dark, ocellated spot between fourth and sixth dorsal-fin spines. Pectoral fins blackish with white, yellow, or pale blue spots. Eyes large. Pectoral fins rather short. Caudal fin forked. To 17 in. **ECOLOGY:** Northern Gulf of Mexico. Young specimens in bays and estuaries. Adults in deeper waters from about 90 to 300 ft.

Barred searobin - *Prionotus martis* Ginsburg, 1950

FEATURES: Similar to Northern searobin, *Prionotus carolinus*. Mottled brownish gray dorsally and on sides. Pale tan below. Three or four dark bands or saddles on back. First dorsal fin with two spots, one between the first and second spines, a second between the fourth and fifth spines. Lower gill membranes grayish. Pectoral fins moderately short. **ECOLOGY:** In Gulf of Mexico from FL to Mobile Bay. Perhaps also to TX and Campeche. Demersal from about 36 to 150 ft.

Mexican searobin - *Prionotus paralatus* Ginsburg, 1950

FEATURES: Similar to Spiny searobin, *Prionotus alatus*. Pale grayish brown dorsally and on sides. Pale tan to whitish below. Pectoral fins relatively short, angular, and uniformly black, or black with black and white bands on upper portion. First dorsal fin with a dark spot between the fourth and fifth spines. Spines on nostrils absent. To 9 in. **ECOLOGY:** In the Gulf of Mexico from Panama City, FL, to Campeche. Occur from about 30 to 900 ft. Most abundant from about 196 to 393 ft.

Alligator searobin - *Peristedion greyae* Miller, 1967

FEATURES: Pink dorsally, white to pink ventrally. Sides with a broad, bronze band. Dorsal and anal fins with dark red margins. Pectoral fins with four pink to red bands. Rostral projections long, narrow. Chin with clusters of 12–13 short barbels and a pair of long, branched barbels. Body covered in spiny scutes. To 8.5 in. **ECOLOGY:** Georges Bank to FL Keys, Gulf of Mexico, Bahamas to Brazil. Demersal from about 587 to 3,000 ft.

Yellowtail bass - *Bathyanthias cubensis* (Schultz, 1958)

FEATURES: Pale red with yellow spots dorsally. Paler ventrally. A narrow yellow streak runs from tip of snout across cheeks. A second streak extends from eyes to opercular margin. Dorsal and caudal fins yellow. Upper and lower margins of caudal-fin rays tipped in black. Dorsal fin is continuous and unnotched. To 7 in. **ECOLOGY:** E FL, Gulf of Mexico, and Cuba to Venezuela. Occur from about 91 to 1,200 ft.

Saddle bass - *Serranus notospilus* Longley, 1935

FEATURES: Brown to tan dorsally, tan below. Faint dark bands below spiny dorsal fin and soft dorsal fin and on caudal peduncle. Soft portion of dorsal fin with a black blotch at base and above middle band. Head is silvery with a broad, dark brown band from eye to opercular corner. White or silvery bar on abdomen in front of anal fin. Dorsal fin unnotched. To 5 in. **ECOLOGY:** FL Keys, Gulf of Mexico to Suriname. Occur from about 144 to 750 ft.

Dusky basslet - *Lipogramma anabantoides* Böhlke, 1960

FEATURES: Bright rosy red on head, reddish brown on body. Pale lines between dark scale rows. Dorsal fin with three black spots between first three spines; a partially ocellated blotch on posterior section; and a black margin. Snout is short and pointed. Pelvic fins are long and filamentous. Caudal fin is rounded. To 1 in. **ECOLOGY:** S FL, Quintana Roo, Belize, Honduras, and Haiti. From about 33 to 260 ft.

Megamouth jawfish - *Opistognathus melachasme* Smith-Vaniz, 1972

FEATURES: Reddish to purplish with three dark red spots on sides. Dorsal fin with a large, dark spot between the fourth and seventh spines. Mouth is yellow inside, dark at corners. Jaws greatly expanded and triangular posteriorly. **ECOLOGY:** NC to Cuba and Yucatán. In deep water from about 480 to 900 ft. Previously called Yellowmouth jawfish.

Yellowmouth jawfish - *Opistognathus nothus* Smith-Vaniz, 1997

FEATURES: Dark tan, with dark brown spots on head and dorsal fin. Mouth with a dark stripe on inner lining of the jaws. Posterior end of upper jaws rigid, but not expanded; extend about one eye-diameter behind eyes. To about 3 in. **ECOLOGY:** NC to Cuba and northeastern Gulf of Mexico. Occur from about 300 to 330 ft.

Slender suckerfish - *Phtheichthys lineatus* (Menziés, 1791)

FEATURES: Dark brown to blackish dorsally, white ventrally. Large specimens with a faint, dark stripe bordered above and below with narrow white stripes. Margins of dorsal and anal fins dark. Upper and lower margins of caudal fin are pale. Mouth extends about three-fourths of the distance from tip of snout to eyes. Cephalic disc with 9–11 lamellae. Caudal-fin margin rounded. Body very elongate. To 19 in. **ECOLOGY:** Worldwide in tropical to subtropical seas. SC to northern South America. Also northern and southern Gulf of Mexico. Large fishes, especially Great barracuda, serve as hosts. Also found with sea turtles. Occasionally free swimming.

Whale sucker - *Remora australis* (Bennett, 1840)

FEATURES: Dark brown or grayish brown dorsally, slightly darker below. Dorsal and anal fins with a narrow, pale border. Cephalic disc very large and about half as long as the body, with 24–28 lamellae. Caudal fin with a concave margin. Body robust. To 17 in. **ECOLOGY:** Worldwide in tropical to warm temperate seas. Attach only to cetaceans (whales, dolphins, and porpoises).

Caribbean red snapper - *Lutjanus purpureus* (Cuvier, 1828)

FEATURES: Similar to Red snapper, *Lutjanus campechanus*. Head, body, and fins red. Ventral area rosy with a silvery sheen. Irises red. Anal fin usually with eight soft rays. Usually 10–11 scales between lateral-line origin and dorsal fin. To 3.3 ft. **ECOLOGY:** Yucatán to Brazil, also Greater and Lesser Antilles. Also collected from NC, GA, and NE FL. Occur over rocky bottoms from about 98 to 525 ft.

Silver mojarra - *Diapterus rhombeus* (Cuvier, 1829)

FEATURES: Similar in shape and color to Irish pompano, *Diapterus auratus*. Gill rakers number 16–18 (usually 17) instead of 12–15 (usually 12–13). Anal fin with two spines and nine rays, instead of three spines and eight rays. To 3 in. **ECOLOGY:** Southern Gulf of Mexico, coast of Central and South America, Greater Antilles. Also reported from Indian River Lagoon, FL. Occur around mangroves. Enter fresh water.

Burro grunt - *Pomadasys crocro* (Cuvier, 1830)

FEATURES: Olivaceous dorsally, silvery below. Sides with obscure, dark stripes, especially in smaller specimens. Soft dorsal fin with a narrow black margin. Pelvic and anal fins yellowish. Spiny dorsal fin tall, long based. Second anal-fin spine long and well developed. Body oblong in profile. To 13 in. **ECOLOGY:** E FL, northeastern and southern Gulf of Mexico, Caribbean Sea to Brazil. Found over soft and vegetated bottoms in shallow, turbid water. Often enter rivers. Feed on crustaceans and fishes.

Emerald parrotfish - *Nicholsina usta* (Valenciennes, 1840)

FEATURES: Mottled olive dorsally. Scales on sides with reddish margins and bluish white centers. Dorsal and anal fins reddish. Two diagonal, reddish lines on cheeks. Underside of head yellowish. Dorsal fin with a black blotch anteriorly. Snout relatively long and blunt. Teeth fused only at bases, not forming dental plates. To 12 in. **ECOLOGY:** NJ to FL, eastern and southern Gulf of Mexico, Caribbean Sea to Brazil. Occur over seagrass beds, usually in shallow water. Primarily herbivorous.

Arctic shanny - *Stichaeus punctatus* (Fabricius, 1780)

FEATURES: Reddish to reddish brown with pale and dark mottling on body. Lower head with irregular bands. Dorsal fin with a row of large, blackish blotches. Spots have pale spot at rear edge. Caudal and pectoral fins banded. Lower jaw protrudes. Dorsal profile of head nearly straight. Pectoral fins broad, rounded. Body elongate. To 7 in. **ECOLOGY:** Circumpolar in northern Atlantic and Pacific oceans. In Atlantic from Greenland to Massachusetts Bay. Demersal to about 9 to 180 ft.

Northern sand lance - *Ammodytes dubius* Reinhardt, 1837

FEATURES: Similar in shape and color to American sand lance, *Ammodytes americanus*. Dorsal fin usually with 61–62 rays. Anal fin usually with 30–32 rays. Pectoral fin usually with 14 rays. Body comparatively shallow. To 14.6 in. **ECOLOGY:** Greenland to Cape Hatteras. Typically found over soft bottoms in deep, offshore waters to about 120 ft. Also found inshore, especially during spawning.

Reticulate stargazer - *Dactyloscopus foraminosus* Dawson, 1982

FEATURES: Tan to pale, with brown blotches and bars on top of head. Body with about ten irregular brownish bars. Upper half of body flecked with brown. Eyes blackish and on short stalks. Ventral base of caudal fin notched. Dorsal fin with 40–42 rays. To 3 in. **ECOLOGY:** Reported from SE FL. Known from Brazil. Occur from about 36 to 258 ft. Demersal.

Freckled blenny - *Hypsoblennius ionthas* (Jordan & Gilbert, 1882)

FEATURES: Yellowish brown dorsally, whitish below. Two dark bars from eyes to mouth and a black-edged dark bar on cheeks. Dark bands on body. Dorsal fin usually lacks a dark spot; when present, the spot is centered on the third spine. Females with dark freckles on lower portions of head; occasionally, freckles continue onto body. Cirri over eyes unbranched, or with one branch at top and at base. Upper margin of upper lip free. To 4 in. **ECOLOGY:** NC to FL and in Gulf of Mexico to TX. Found in shallow bays and estuaries.

Highfin blenny - *Lupinoblennius nicholsi* (Tavolga, 1954)

FEATURES: Olivaceous to brown with two dark stripes on head: one running from eyes to mouth, a second from eyes to throat. Females with a network of pale lines on body; first four dorsal-fin spines relatively tall. Males with 8–12 oblique, pale lines below dorsal fin; first four dorsal-fin spines very tall. To 2.5 in. **ECOLOGY:** SE FL, southern and southwestern Gulf of Mexico. Found in shallow water.

Mangrove blenny - *Lupinoblennius vinctus* (Poey, 1867)

FEATURES: Tan to brown, with a dusky bar between eyes. Seven or eight dark bars on sides of body, often with pale blotches together forming O- or U-shaped markings. Dark blotch is present between the first and second dorsal-fin spines. Cirrus on eyes is flattened, with several short fringes on upper margin. Cirri taller in males. Anterior dorsal-fin spine about as tall as posterior rays. To 1.5 in. **ECOLOGY:** S FL, S Gulf of Mexico, Jamaica, Antigua, and Trinidad. Associated with low-salinity estuaries.

Horned blenny - *Paraclinus grandicomis* (Rosén, 1911)

FEATURES: Body and fins dark brown and variably mottled. Ocelli absent from dorsal and anal fins. Very tall, broad, fringed cirrus over eyes; cirri reach to or beyond dorsal-fin origin. Dorsal fin with one segmented ray at rear. To 1.5 in. **ECOLOGY:** S FL, Bahamas, Lesser Antilles to Honduras. Found in large, complex sponges and with anemones.

Bald blenny - *Paraclinus infrons* Böhlke, 1960

FEATURES: Tannish with variable dark brown markings. Two small, non-ocellated spots on rear portion of dorsal fin. Snout comparatively long. Nostrils lack cirri. Cirri above eyes short. Cirri absent from nape. Anterior lobe of dorsal fin taller than rest of fin, with first two spines very tall. Pelvic-fin rays very long, extend past anal-fin origin. To 1.2 in. **ECOLOGY:** Bahamas and Belize. Also reported from SE FL. Over reefs from about 40 to 150 ft.

Key blenny - *Starksia starcki* Gilbert, 1971

FEATURES: Tan to orangish, with eight to ten irregular or broken, widely spaced, dark brown bars on body. The first bar circles the nape. Bars more evident in smaller specimens. Some with a stripe extending from third bar to caudal fin. Cirri above eyes unbranched. Abdomen is scaled. Pectoral fins with 13 rays. To 1.5 in. **ECOLOGY:** FL Keys, Belize, and Honduras. Occur in shallow, high-energy surge channels over reefs.

Freckled pikeblenny - *Chaenopsis roseola* Hastings & Shipp, 1981

FEATURES: Straw colored with eight dark blotches on sides. Small pink flecks on sides of head, along back, and along pectoral- and anal-fin bases. Mature males with a concentration of melanophores on membranes between first four dorsal-fin spines. To 2 in. **ECOLOGY:** NC and NE Gulf of Mexico. Found over rubble and shelly bottoms from about 108 to 210 ft.

Ragged goby - *Bollmannia communis* Ginsburg, 1942**Shelf goby - *Bollmannia eigenmanni* (Garman, 1896)****Wasp goby - *Chriolepis vespa* Hastings & Bortone, 1981****Mexican goby - *Ctenogobius claytoni* (Meek, 1902)****Broadstripe goby - *Elacatinus prochilos* (Böhlke & Robins, 1968)****Twoscale goby - *Gobiosoma longipala* Ginsburg, 1933****Mauve goby - *Palatogobius paradoxus* Gilbert, 1979****Orangebelly goby - *Varicus marilynae* Gilmore, 1979****Lancetail wormfish - *Microdesmus lanceolatus* Dawson, 1962**

FEATURES: Pale straw with very small, black spots along base of anal fin. Snout is blunt. Lower jaw strongly rounded, projects slightly beyond upper jaw. Upper jaw extends to about middle of eyes. Body is slender, very elongate. Caudal fin is pointed. To 2 in. **ECOLOGY:** In Gulf of Mexico from LA to TX. May be more widespread.

Cape fathead - *Cubiceps capensis* (Smith, 1845)

FEATURES: Dark brown to deep purple. Head dark bluish. Fins dark. Upper snout scaleless or with a few small scales. Teeth on tongue and on roof of mouth in a single row. Pectoral fins long, wing-like. Second dorsal fin long-based, with one spine and 20–22 rays. To 3.3 ft. **ECOLOGY:** Circumglobal in subtropical to warm temperate seas. In the Atlantic Ocean, occur in the Sargasso Sea from Nova Scotia to Argentina. Also in northern Gulf of Mexico. Found near surface at night. Rarely encountered.

Driftfish - *Cubiceps gracilis* (Lowe, 1843)

FEATURES: Body and fins brown to blackish. Head and tip of snout scaled. Eyes very large. Pectoral fins long, wing-like; base at about a 45° angle. Pelvic-fin origin behind pectoral-fin base. Second dorsal fin with 21–24 rays. To 2.5 ft. **ECOLOGY:** In the eastern North Atlantic, western Mediterranean Sea, and Sargasso Sea. Oceanic. Adults occur singly. Juveniles sometimes in numbers with jellyfishes.

Banded driftfish - *Psenes arafurensis* Günther, 1889

FEATURES: Adults described as blackish. Smaller specimens described as mottled or banded with dark pelvic fins. Dorsal profile of head moderately elevated. Snout is short. Upper jaw extends to middle of eyes. First dorsal fin with 10–11 spines. Second dorsal fin with 1–2 spines and 19–21 rays. Body deep. Caudal peduncle slender. Caudal fin forked. To 9.8 in. **ECOLOGY:** Nova Scotia to northern South America. Also northern Gulf of Mexico. Pelagic, oceanic. Associated with jellyfishes.

Sand whiff - *Citharichthys arenaceus* Evermann & Marsh, 1900

FEATURES: Eyed side brown with numerous small, dark flecks. Dorsal and anal fins spotted or banded. Mouth large, upper jaw extends to about middle of lower eye. Dorsal fin with 75–82 rays. Lateral line slightly arched over pectoral fin. Body deep. Caudal-fin margin rounded. To 8 in. **ECOLOGY:** S FL, Greater Antilles to northern South America. Found around mangroves. A poorly known species.

Shelf flounder - *Etropus cyclosquamus* Leslie & Stewart, 1986

FEATURES: Eyed side is dusky gray to dusky brown, with dark spots and blotches. Some with a row of four to six dark rings on upper and lower body. Mouth small. Eyes close-set and separated by a slightly elevated ridge. Dorsal fin with 70–82 rays. Lateral line almost straight over pectoral fin. Scales with smaller accessory scales. Body deep. To 4.5 in. **ECOLOGY:** NC to FL, and in Gulf of Mexico from Fort Myers, FL, to MS. Rare to absent from S FL. From about 26 to 118 ft. Prefer warm waters.

Angry pelican flounder - *Chascanopsetta danae* Bruun, 1937

FEATURES: No information on life colors. Eyed side probably shades of brown with a dark blotch on lateral line. Similar in shape to Pelican flounder, *Chascanopsetta lugubris*, except jaws extend to or slightly beyond rear margin of lower eye. To 12 in. **ECOLOGY:** NC to FL, from about 525 to 1,500 ft. Possibly also from Antilles and southern Caribbean Sea.

Spotfin sash flounder - *Trichopsetta melasma* Anderson & Gutherz, 1967

FEATURES: Eyed side tan to straw colored. A distinct, dark, round blotch is present on lateral line at the beginning of the straight portion. Males also with a black area on anal fin between the first and seventh rays. Blind side dusky. Upper jaw reaches to first third of lower eye. Head notched above upper eye. Body relatively deep. To 10 in. **ECOLOGY:** S FL, Bahamas, Honduras to Nicaragua. From about 442 to 985 ft.

Sash flounder - *Trichopsetta ventralis* (Goode & Bean, 1885)

FEATURES: Eyed side brown with some darker spots and speckles. A faint, dark blotch is present on lateral line at beginning of straight portion and on caudal peduncle. Most males also with a dark blotch on anal fin between the fourth to eighth or tenth spines. Blind side white. Upper jaw reaches to about middle of lower eye. Head notched above upper eye. Body relatively deep. To 8 in. **ECOLOGY:** Northern to southern Gulf of Mexico. Demersal. From about 98 to 1,300 ft.

APPENDIX

- Chocolatebanded tonguefish - *Symphurus bilykrietei* Munroe, 1998
 Margined tonguefish - *Symphurus marginatus* (Goode & Bean, 1886)
 Largescale tonguefish - *Symphurus minor* Ginsburg, 1951
 Pygmy tonguefish - *Symphurus parvus* Ginsburg, 1951
 Longtail tonguefish - *Symphurus pelicanus* Ginsburg, 1951
 Deepwater tonguefish - *Symphurus piger* (Goode & Bean, 1886)
 Northern tonguefish - *Symphurus pusillus* (Goode & Bean, 1885)
 Blotchfin tonguefish - *Symphurus stigmosus* Munroe, 1998

Spotted spikefish - *Hollardia meadi* Tyler, 1966

FEATURES: Probably pinkish. Sides with scattered, darker spots and dashes. Spots on upper body usually arranged in rows. Mouth small. Eyes large. Spiny dorsal fin originates behind upper margin of gill opening and has six stout spines; the first spine is very tall. Pelvic fins with one long, stout spine and two short rays. Body rhomboid in profile. To 3.5 in. **ECOLOGY:** In eastern Gulf of Mexico, off Cuba, Barbados, and Bahamas. Occur from about 177 to 1,470 ft. Little is known of life habits.

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