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## CHECK-LIST OF THE FISHES OF FLORIDA.

BY

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### INTRODUCTION.

While studying the large collections of fishes recently made by the United States Fish Commission at Key West, Biscayne Bay, St. Johns River, Tarpon Springs, Tampa, and elsewhere in Florida, the present writers found it necessary to go over all the literature pertaining to the fishes of that State, particularly papers of a faunal character or which bear in any way upon the geographic distribution of Florida fishes.

The examination of this literature, the identification of the different species mentioned by the various writers, the reduction of these species to a common denominator, and the determination of the name which each must bear in the light of present ichthyological knowledge, have constituted a work fraught with many difficulties. In order that the results of so much labor may be preserved and be readily available for use in further studies of the fish fauna of Florida, it has seemed wise to publish this check-list of the fishes of Florida, in which the known geographic distribution in the State of each species is fully indicated.

The list includes all species of fishes known by us to occur in the fresh and brackish waters of Florida, and all salt-water species known from Florida waters within the depth limit of 1,000 fathoms. Under each species are given all the Florida localities from which it has been reported, and in the parenthesis following each locality are the name of the author reporting the species and the year when it was so reported.

In the bibliography which follows will be found the titles of all papers of a faunal nature pertaining to the fishes of Florida which we have been able to find. Some titles may have been overlooked, but it is believed that all the important ones have been included. The titles are arranged in chronological order and any reference in the text of the list can be easily located by means of the bibliography. When two or more papers on Florida fishes were published in the same year by an author the letter *a* is added to the second one cited, *b* to the third, and so on, to agree with the references in the text.

Several investigations bearing upon the geographic distribution of fishes in Floridian waters have been made, the results of which have not been published. The most important of these are the following:

In 1889 the U. S. Fish Commission steamer *Fish Hawk*, while engaged in experimental hatching of mullet and sheepshead at Punta Gorda and Punta Rassa, made a small collection of fishes in Charlotte Harbor. These have been studied by us and are referred to in this paper as having been collected by the *Fish Hawk*, as "*Fish Hawk coll., 1889.*"

In February, 1895, while making certain investigations with reference to the establishment of a marine biological station on the coast of Florida, Dr. H. M. Smith collected a number of fishes at Lake Worth, Biscayne Bay, and elsewhere on the east coast of Florida. These specimens have been studied by us and are cited in this paper under "Smith coll., 1895."

In October and November, 1896, the present writers spent some time at Key West, Biscayne Bay, Tampa, and Tarpon Springs. Large collections of fishes were made which are referred to as "Evermann & Kendall coll., 1896."

During the early part of 1897 Mr. Charles B. Hudson was at Key West engaged in painting for the U. S. Fish Commission the important food-fishes found at that place. The specimens painted, and some others, were preserved and are referred to as "Hudson coll., 1897."

From January 15 to April 15, 1897, Dr. Kendall was on the St. Johns River studying the habits of the shad. Incidentally large collections of fishes were made. These we refer to as "Kendall coll., 1897."

In February, 1898, the *Fish Hawk* spent some days at Port Tampa, and collected a few fishes which are cited as "*Fish Hawk* coll., 1898."

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## THE FISHES OF FLORIDA.

From the list which follows it will be seen that the total number of species of fishes known from Floridian waters is 576, or more than one-sixth of the entire fish fauna of America north of Panama. This number is far larger than can be found in any other section of our country, and is due to the diversity and peculiarities of the climatic conditions prevailing there. The Florida fish fauna may be regarded as made up of at least five more or less distinct faunas: (a) the salt-water fauna of our South Atlantic States, (b) the subtropical fauna of the Florida Keys, (c) the Gulf of Mexico fauna, (d) the fresh-water fauna of the southern portion of the Lower Mississippi Valley, and (e) the fresh-water fauna of the Everglades.

These, of course, overlap more or less, and in a consideration of the entire fish fauna of America these regions would not be regarded as constituting distinct faunal areas; but for our present purpose they may properly be considered as fairly distinct. From Fernandina southward to Biscayne Bay are found most of the species characteristic of the coast south of Cape Hatteras. From Biscayne Bay to Key West and the Tortugas is found a fish fauna marvelous in its multitude of species and in richness of coloration.

Among the fishes of Florida which deserve special mention are the great numbers of groupers, snappers, grunts, and porgies, all important food-fishes; the many labroid species, such as the hog-fish, pudding-wife, and the various parrot-fishes, all remarkable for their brilliant coloration; the many species of pipe-fishes, the tangs, angel-fish, and chætodonts, among them several of the most gorgeous of American fishes.

The fish fauna of the Florida Keys resembles that of Cuba very closely. Many of the food and game fishes at Key West are also found at Havana. The warm waters of the keys serve as a more or less effective barrier to the passage of fishes living in colder water. As a result many species are found on the east coast of Florida which do not occur on the Gulf coast, and vice versa. There are so many species found on the west coast of Florida that are not known from the east side that the two coasts may be regarded as having separate faunas. This west-coast fauna extends from the "bay" to Pensacola and beyond, and is not essentially different from that found elsewhere on the coast of the Gulf of Mexico.

In the fresh waters of the northern part of the State the fishes are essentially the same as occur in the streams and ponds of the other Gulf States, and include several species of minnows, sun-fishes, cat-fishes, suckers, the bowfin or "grindle," and a few darters. From the little that is known about the fresh-water fishes of the extreme southern part of the State, it is believed that the species are to a considerable extent distinct and peculiar to that region. There is great need, however, of further investigation in this region.

Of the 576 species of fishes credited to Florida waters, about 61 are fresh-water species, 20 may be regarded as brackish-water species, and the remaining 495 constitute the salt-water fish fauna of the State.

## FRESH-WATER SPECIES.

The number of fresh-water species known from the State is not large. They belong to the following families:

<i>Petromyzonidae</i> (Lampreys).....	1	<i>Paciliidae</i> (Killi-fishes) .....	13
<i>Lepisosteidae</i> (Gars) .....	3	<i>Aphredoderidae</i> (Pirate Perches) .....	1
<i>Amiidae</i> (Bowfins) .....	1	<i>Atherinidae</i> (Silversides).....	1
<i>Siluridae</i> (Cat-fishes).....	8	<i>Elassomidae</i> (Pigmy Sun-fishes).....	1
<i>Catostomidae</i> (Suckers) .....	2	<i>Centrarchidae</i> (Sun-fishes and Basses) ..	15
<i>Cyprinidae</i> (Minnows) .....	9	<i>Percidae</i> (Darters).....	4
<i>Luciidae</i> (Pikes).....	2		

Of these 61 species the only ones of commercial importance are the cat-fishes, pikes, sun-fishes, and large-mouthed black bass. This list is remarkable in that it contains so few of the *Catostomidae*, *Cyprinidae*, and *Percidae*. Each of these is a very large family, the approximate number of species of each in American waters being as follows: *Catostomidae*, 67; *Cyprinidae*, 227; *Percidae*, 86.

The most southern locality in Florida from which specimens of fresh-water fishes have been obtained is Miami, 8 species having been collected there in the Miami and Little rivers in 1896. Doubtless many additional species will be discovered when the waters of the State are more thoroughly explored. The regions which promise the richest and most important results are the Everglades, the lakes in the interior south of Lake George, and the streams crossing the northern boundary of the State.

## BRACKISH-WATER SPECIES.

In this category may be included all those species which live habitually in brackish water, those more truly salt-water species which are also found more or less commonly in brackish and even fresh water, and also those more truly fresh-water species which are occasionally found in brackish water. In this division will fall, of course, all anadromous and catadromous species, such as the shad and common eel. The family with the greatest number of species in this division is the *Paciliidae*, preeminently the family of brackish-water fishes. Florida contains 21 species of this family, of which at least 8 live habitually in brackish water and each of the other 13 may occasionally occur there. This family is worthy of note as containing the smallest known fish, *Heterandria formosa*, which is less than an inch in length.

Two species of shad are known from Florida. On the east coast the common shad (*Alosa sapidissima*) is a common and valued species. It occurs regularly and in considerable numbers in the St. Johns and St. Marys rivers and rarely in the Indian River. It is not positively known to occur in any other waters of the State.

At Pensacola, and doubtless elsewhere in the west-coast drainage, occurs the Alabama shad (*Alosa alabama*).

Shad have been reported from various west Florida rivers, particularly the Suwanee, Apalachicola, and Escambia rivers. It is not cer-

tainly known what species these may be, but it is more than likely that they are the Alabama shad. An actual examination of specimens from these rivers will be necessary to determine the matter, and the United States Fish Commission would be glad to receive specimens from anyone who has an opportunity to collect them.

#### SALT-WATER SPECIES.

The great majority of Florida fishes are, of course, salt-water species, there being not fewer than 495 species, distributed among many families and genera. On the east coast approximately 175 species are found, among the Florida Keys 290, and on the west coast about 300. Several important species are found throughout these three regions. Key West is the most important and interesting of all Florida localities as regards the number of species, about 250 species being known from there, of which about 100 are food-fishes of greater or less importance.

The richness of Key West in food-fishes will be seen when we recall the total number of food-fishes in each of the other important fishery regions of the United States, as shown in the following list:

South Atlantic States.....	55	Pacific States.....	40
Middle Atlantic States.....	50	Great Lakes.....	16
New England States.....	48	Gulf States (Florida excepted) .....	42

The more important species handled at Key West are the grunts (6 species), the porgies (5 species), the groupers (8 species), the snappers (4 species), the hog-fish, king-fish, Spanish mackerel, the carangoids (8 species), and the mullets (3 species). Besides these there are some 60 or 70 species which for one reason or another are less important but are nevertheless handled to some extent.

The method of handling fish at Key West is unique, and calculated to conserve the fisheries of that region to the fullest extent. Practically all of the fishing is done with hook and line, and every fishing boat has a well into which the fish are placed. All salable fish are brought to market in the wells of the vessels and kept alive until sold. The prospective purchaser visits the fish wharf, selects from some one of the boats the fish he desires, and it is then killed and dressed by the fisherman. This excellent method insures perfectly fresh fish to the purchaser, and few or no fish are lost or wasted.

There is no other place in the United States where one can study live fishes so satisfactorily as at Key West. Fishing boats are lying at the fish wharf at all times and in their wells may be seen specimens of numerous species, many of them of brilliant coloration; and by going out with the fishermen upon the bars and coral reefs one may, by the aid of a water glass, spend many hours observing and studying a multitude of fishes and other interesting forms as they disport themselves in the clear waters beneath the boat.

## FOOD-FISHES OF FLORIDA.

While the waters in the vicinity of Key West are wonderfully rich in species of fishes used as food, the shad does not occur there, nor does the black bass nor any of the fresh-water species; nor do we find there, except possibly as stragglers, the spotted sea trout, the red drum, spot, whiting, pompon, flasher, and perhaps still other species known from Indian River. Additional species are known from Pensacola which do not occur at Key West. The total number of different species of food-fish now known to occur in the waters of Florida is approximately 140, divided among 36 different families, as follows:

<i>Acipenseridae</i> (Sturgeons) .....	1	<i>Centrarrhidae</i> (Sun-fishes and Black Bass) .....	10
<i>Siluridae</i> (Cat-fishes) .....	4	<i>Centropomidae</i> (Robalos) .....	1
<i>Catostomidae</i> (Suckers) .....	2	<i>Serranidae</i> (Sea Bass) .....	10
<i>Cyprinidae</i> (Minnows) .....	1	<i>Lobotidae</i> (Triple-tails) .....	1
<i>Anguillidae</i> (Eels) .....	1	<i>Lutianidae</i> (Snappers) .....	8
<i>Elopidae</i> (Tarpons) .....	2	<i>Hamulidae</i> (Grunts) .....	12
<i>Albulidae</i> (Lady-fishes) .....	1	<i>Sparidae</i> (Porgies) .....	12
<i>Clupeidae</i> (Herrings) .....	8	<i>Gerridae</i> (Mojarras) .....	4
<i>Luciidae</i> (Pikes) .....	2	<i>Kyphosidae</i> (Rudder-fishes) .....	1
<i>Esocidae</i> (Needle-fishes) .....	2	<i>Sciaenidae</i> (Croakers) .....	11
<i>Hemiramphidae</i> (Balaos) .....	4	<i>Labridae</i> (Wrasse-fishes) .....	1
<i>Mugilidae</i> (Mullets) .....	4	<i>Scaridae</i> (Parrot-fishes) .....	2
<i>Sphyraenidae</i> (Barracudas) .....	2	<i>Ephippidae</i> (Angel-fishes) .....	1
<i>Polynemidae</i> (Threadfins) .....	1	<i>Chatodontidae</i> (Butterfly-fishes) .....	3
<i>Holocentridae</i> (Squirrel-fishes) .....	1	<i>Teuthiidae</i> (Tangs) .....	3
<i>Scombridae</i> (Mackerels) .....	4	<i>Scorpaenidae</i> (Rock-fishes) .....	1
<i>Trichiuridae</i> (Cutlass-fishes) .....	1	<i>Pleuronectidae</i> (Flounders) .....	4
<i>Carangidae</i> .....	14		
<i>Pomatomidae</i> (Blue-fish) .....	1		

This large number represents about one-twentieth of the entire fish fauna of America north of the equator.

## THE GAME-FISHES OF FLORIDA.

The same of the game-fishes of the State of Florida extends throughout America, and beyond. Wherever there are anglers and rod and gun clubs, the prowess of the "silver king" is known and talked about. The one great hope of every angler is that he may go to Florida and kill a tarpon before his fishing days are over. But while the tarpon or silver king is the king of the game-fishes of this State, it is by no means the only game-fish. Some of the largest black bass known have been caught in Florida waters. The sunfishes are the largest of their kind. The lady-fish and bone-fish are thought by many to equal their relative, the tarpon, in real game qualities. Trolling for king-fish, jack, crevalle, blue-fish, Spanish mackerel, and spotted sea trout, at Indian River, Lake Worth, Key West, or Biscayne Bay, furnishes sport of the most exciting kind; while still-fishing for sheepshead and mangrove snappers at Indian River Inlet; for chubs, porgies, pork-fish, yellow-tails, snappers, and grunts at Key West; or for red snappers, red groupers, and others of their kin on the Snapper Banks, furnishes sufficient variety to please any angler, in whatever mood he may chance to be.

## LIST OF SPECIES.

## BRANCHIOSTOMATIDÆ. The Lancelets.

- 1. Branchiostoma caribæum** Sundeval. *West Indian Lancelet.*

Snapper Banks, Gulf of Mexico, in 16 to 24 fathoms (*Grampus* coll., Kendall 1889, as *B. lanceolatum*); Tampa Bay (Andrews 1894, and *Fish Hawk* coll., 1898).

## PETROMYZONIDÆ. The Lampreys.

- 2. Petromyzon marinus** Linnæus. *Sea Lamprey.*

Not uncommon in the St. Johns River at Volusia Bar at the head of Lake George (Kendall coll., 1897).

## GINGLYMOSSTOMIDÆ. The Nurse Sharks.

- 3. Gingymostoma cirratum** (Gmelin). *Nurse Shark.*

West Florida (Velie coll., Goode & Bean 1879a); west coast of Florida (Velie coll., Goode & Bean 1879b); and Key West (Jordan 1884a).

## GALEIDÆ. The Requiem Sharks.

- 4. Mustelus canis** (Mitchill). *Dog Shark.*

Reported at Key West (Jordan 1884a) on authority of fishermen.

- 5. Galeocerdo tigrinus** Müller & Henle. *Tiger Shark.*

St. Johns River (Goode 1879a), and Indian Key (Henshall 1889, as *G. maculatus*).

- 6. Carcharhinus milberti** (Müller & Henle).

Indian River (Goode 1879a, as *Eulamia milberti*).

- 7. Carcharhinus lamia** (Rafinesque). *Bay Shark.*

Key West and Florida Keys (Jordan 1884a and 1884d, as *Carcharias lamia*); Key Largo and Tortugas (Henshall 1889); Biscayne Bay (McCormick coll., Smith 1895).

- 8. Carcharhinus platyodon** (Poey).

Florida Keys and west coast (Henshall 1889), and Biscayne Bay (McCormick coll., Smith 1895).

- 9. Carcharhinus limbatus** (Müller & Henle).

San Carlos Pass (Henshall 1889, as *Eulamia limbata*).

- 10. Hypoprion brevirostris** Poey.

West Florida (Goode & Bean 1879a); West coast (Velie coll., Goode & Bean 1879b); Key West (Jordan 1884a, as *Carcharias brevirostris*); Florida Keys (Jordan 1884d, as *C. brevirostris*); and Cape Sable Creek and Marco (Henshall 1889, as *Carcharhinus brevirostris*).

- 11. Scoliodon terræ-novæ** (Richardson). *Sharp-nose Shark.*

Pensacola (Jordan & Gilbert 1882, and Stearns coll., Bean 1883); Key West (Jordan 1884a, as *Carcharias punctatus*); Florida Keys (Jordan 1884d); Snapper Banks (*Grampus* coll., Kendall 1889, as *Carcharinus terra-nova*); Cape Sable, Marco and Gasparillas (Henshall 1889, as *C. terra-nova*); Florida Keys (Lönnberg 1894, as *C. terra-nova*); Biscayne Bay (McCormick coll., Smith 1895, as *C. terra-nova*); and Indian River Inlet (Evermann & Bean 1896).

## SPHYRNIDÆ. The Hammer-head Sharks.

- 12. Sphyrna tiburo** (Linnæus). *Shovel-head Shark.*

West coast of Florida (Velie coll., Goode & Bean 1879b, as *Rhiniceps tiburo*); Pensacola (Jordan & Gilbert 1882, and Stearns coll., Bean 1883, as *R. tiburo*); Key West (Jordan 1884a and 1884d, and Henshall 1889); Charlotte Harbor (*Grampus* coll., Kendall 1889, as *R. tiburo*, and Henshall 1889); Florida (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Indian River at Titusville (Evermann & Bean 1896).

**13. *Sphyraña zygæna* (Linnæus). *Hammer-head Shark.***

Indian River (Goode 1879a); Cards Sound (Henshall 1889); Biscayne Bay (McCormick coll., Smith 1895); and Key West (Evermann & Kendall coll., 1896).

**LAMNIDÆ. The Mackerel Sharks.****14. *Isurus dekayi* (Gill). *Mackerel Shark.***

Santa Rosa Island (Jordan & Gilbert 1882) and Florida (Jordan & Evermann 1896).

**SQUALIDÆ. The Dog Sharks.****15. *Squalus acanthias* Linnæus. *Dog-fish.***

Indian River (Evermann & Bean 1896).

**SQUATINIDÆ. The Angel Sharks.****16. *Squatina squatina* (Linnæus). *Angel Shark.***

Probably Florida (Le Sueur 1818, as *S. dumerili*) and Florida (Jordan & Evermann 1896).

**PRISTIDÆ. The Saw-Fishes.****17. *Pristis pectinatus* Latham. *Saw-fish.***

Cedar Keys (Jordan coll., Jordan & Swain 1884a); Key West (Jordan 1884a); Big Gasparilla, west coast (Henshall 1889); Tampa (Henshall 1894); south Florida, Punta Gorda (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Indian River at Stuart and Eau Gallie (Evermann & Bean 1896).

**RHINOBATIDÆ. The Guitar-Fishes.****18. *Rhinobatos lentiginosus* Garman.**

Coast of Florida (Garman 1880, type); Key West (Jordan 1884a and Lönnberg 1894); Egmont Key (Jordan 1884a); Key West and Tampa (Henshall 1894); and Punta Rassa (J. R. Moore coll., 1899).

**RAJIDÆ. The Skates.****19. *Raja ornata* Garman.**

Alligator Key (Garman 1881, type).

**20. *Raja eglanteria* Bosc. *Briar Skate.***

Florida (Le Sueur 1824, as *Raia desmarestia*, type).

**21. *Raja laevis* Mitchell. *Barndoor Skate.***

Stump Pass (Henshall 1889).

**NARCOBATIDÆ. The Electric Rays.****22. *Narcine brasiliensis* (Ölfers). *Trembler.***

Florida (Garman 1881, as *N. brasiliensis* *corallina*, type); Key West (Jordan 1884a, as *N. corallina* and *N. umbrosa*, type; and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884a); and Key West and Pensacola (Jordan & Evermann 1886).

**DASYATIDÆ. The Sting-Rays.****23. *Urolophus jamaicensis* (Cuvier). *Maid.***

Key West (Lönnberg 1894, as *U. torpedianus*).

**24. *Dasyatis centrura* (Mitchill). *Common Northern Sting-ray.***

Sarasota Bay and Tampa (Henshall 1894).

**25. *Dasyatis hastata* (De Kay). *Sting-ray.***

North to Florida (Jordan & Evermann 1896).

**26. *Dasyatis sabina* (Le Sueur). *Common Southern Sting-ray.***

Florida (Le Sueur 1824, as *Trygon sabina*, type); St. Johns River (Goode 1879a, as *T. sabina*); Pensacola (Goode & Bean 1879a, as *T. sabina*; Stearns coll., Bean 1883); Gulf coast of Florida (Velie coll., Goode & Bean 1879b); Lake Monroe (Bean 1883, as *T. sabina*); Tampa and Sarasota bays (Henshall 1894); St. Johns River and lakes in

connection therewith, also Gulf Coast (Lönnberg 1894, as *T. sabina*); Indian River at Cocoa and Stuart and Indian River Inlet (Evermann & Bean 1896); Cape Florida, Anclote Sponge Kraals, and Tarpon Springs (Evermann & Kendall coll., 1896); St. Johns River at Satsuma, and Volusia Bar, Lake George (Kendall coll., 1897).

**27. *Dasyatis say* (Le Sueur). Southern Sting-ray.**

Key West (Jordan 1884a, as *Trygon sayi*); west coast (Henshall 1889, as *T. sayi*); Mullet Key, near Tampa Bay (Henshall 1894); Gulf Coast (Lönnberg 1894, as *T. sayi*); Biscayne Bay (McCormick coll., Smith 1895, as *T. sayi*); and Indian River at Stuart (Evermann & Bean 1896).

**28. *Pteroplatea macrura* (Le Sueur). Butterfly-ray.**

Indian River (Goode 1879a) and Sarasota Bay (Henshall 1894).

**MYLIOBATIDÆ. The Eagle Rays.**

**29. *Aetobatus narinari* (Euphrasen). Spotted Sting-ray.**

Key West (Bean 1883, as *Stoasodon narinari*); Lemon Bay (Henshall 1889, as *S. narinari*); Sarasota Bay (Henshall 1894, as *S. narinari*); and Biscayne Bay (McCormick coll., Smith 1895, as *S. narinari*).

**30. *Rhinoptera bonasus* (Mitchill). Cow-nose Ray.**

St. Johns River (Goode 1879a, as *R. quadriloba*); Pensacola (Stearns coll., Goode & Bean 1879a, as *R. quadriloba*); and Barnes Sound and Cape Sable (Henshall 1889, as *R. quadriloba*).

**AODONTIDÆ. The Sea Devils.**

**31. *Manta birostris* (Walbaum). Sea Devil; Devil-fish.**

Coasts of Florida (Goode 1879a, as *Ceratoptera birostris*); Pensacola (Stearns coll., Goode & Bean 1879a, as *C. birostris*); Punta Rassa (Jordan 1884a); Bocilla Pass, Punta Rassa, and Tampa Bay (Henshall 1889); and west coast (Lönnberg 1894).

**ACIPENSERIDÆ. The Sturgeons.**

**32. *Acipenser brevirostris* Le Sueur. Short-nose Sturgeon.**

St. Johns River (Goode 1879a, as *Acipenser* sp.); Key West (Jordan 1884a, as *Acipenser* sp.); and Indian River (Evermann & Bean 1896).

**LEPISOSTEIDÆ. The Gar Pikes.**

**33. *Lepisosteus osseus* (Linnaeus). Long-nose Gar.**

St. Johns River (Goode 1879a; Bean 1880; and A. H. Curtis coll., Jordan 1880a); Estero Bay (Henshall 1889); and St. Johns River, Lake Jessup, and Lake Apopka (Lönnberg 1894).

**34. *Lepisosteus platostomus* Rafinesque. Short-nose Gar.**

Florida (De Kay 1842, as *L. platyrhincus*, and Bean 1883); St. Johns River (Goode 1879a); Pensacola (Stearns coll., Goode & Bean 1879a); Mill Creek (Woolman 1890); Little River (Smith coll., 1895); and Lake Butler, Tarpon Springs and Little River at Miami (Evermann & Kendall coll., 1896).

**35. *Lepisosteus tristechus* (Bloch & Schneider). Alligator Gar.**

Lake John near Oakland, Orange County (Lönnberg 1894) and creeks flowing into Indian River and Lake Poinsett (Evermann & Bean 1896).

**AMIIDÆ. The Bowfins.**

**36. *Amia calva* Linnaeus. Bowfin; "Grindle"; Mud-fish.**

Hillborough River near Tampa (Henshall 1889) and St. Johns River and lakes and Lake Apopka (Lönnberg 1894).

**SILURIDÆ. The Cat-Fishes.**

**37. *Felichthys marinus* (Mitchill). Sea Cat-fish; Gaff-top sail.**

St. Johns River (Goode 1879a, as *Aelurichthys marinus*); Key West (Jordan 1884a, as *A. marinus*; Henshall 1894, as *A. marinus*; and Evermann & Kendall coll., 1896); west coast (Henshall 1889, as *Aelurichthys marinus*); both coasts (Lönnberg 1894, as *A. marinus*); Biscayne Bay (McCormick coll., Smith 1895, as *A. marinus*); and Indian River (Evermann & Bean 1896).

**38. *Galeichthys felis* (Linnaeus). *Sea Cat-fish.***

West Florida at Bayport (Cope 1877, as *Arius equestris*); Florida coast (Goode 1879a, as *Ariopsis felis*); Marco Island (Velie coll., Goode & Bean 1879b, as *A. felis*); Florida (J. W. Milner coll., Bean 1883, as *Arius felis*); Key West (Jordan 1884a, and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d, as *A. felis*); west coast (Henshall 1889, as *Tachysurus felis*); Tampa (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895, as *A. felis*); and Indian River at Stuart and elsewhere (Evermann & Bean 1896).

**39. *Ictalurus punctatus* (Rafinesque). *Channel Cat; Spotted Cat.***

St. Johns River (Goode 1879a, as *Ichthialurus punctatus*, and Bean 1880, as *I. punctatus*); Lake Apopka (Lönnberg 1894, as *Ictalurus punctatus*); and St. Johns River near Welaka, Lake Monroe, and Palatka (Kendall coll., 1897).

**40. *Ameiurus catus* (Linnaeus). *Mud Cat.***

St. Johns River (Goode 1879a and Bean 1880, as *A. nigricans*); St. Johns River (Jordan & Meek 1884, as *Ictalurus niveiventris*); Lake Apopka (Lönnberg 1894, as *Ictalurus nigricans*); St. Johns River near Welaka and Palatka, and Lake Monroe (Kendall coll., 1897).

**41. *Ameiurus okeechobeensis* (Heilprin). *Okeechobee Cat-fish.***

Lake Okeechobee (Heilprin 1887, as *Ictalurus okeechobeensis*, type).

**42. *Ameiurus erubennus* Jordan.**

St. Johns River (Jordan 1877, type); St. Johns and Arlington rivers (Goode 1879a); San Sebastian River (Henshall coll., Jordan 1880, and Evermann & Bean 1896); and St. Johns River, Orange County (Lönnberg 1894).

**43. *Ameiurus natalis* (Le Sueur). *Yellow Cat.***

Pemberton and Sampson creeks, and Santa Fe, Withlacoochee, and Little Withlacoochee rivers (Woolman 1890); Fern Creek at Orlando, and ditches and pond around Kissimmee and near Lake Jessup (Lönnberg 1894, as *A. natalis*, var. *cupreus*).

**44. *Ameiurus nebulosus* (Le Sueur). *Common Bullhead.***

Joshua Creek and Alligator Branch (Woolman 1890); Lake Apopka and other lakes (Lönnberg 1894); Little River near Miami and Miami River (Evermann & Kendall coll., 1896); and Lake Monroe, and Volusia Bar, Lake George (Kendall coll., 1897).

**45. *Ameiurus nebulosus marmoratus* (Holbrook). *Marbled Bullhead.***

Florida (Jordan & Evermann 1896).

**46. *Schilbeodes gyrinus* (Mitchill). *Poison Cat-fish.***

Santa Fe River and Sampson Creek (Woolman 1890, as *Noturus gyrinus*); Fern Creek near Orlando, and St. Johns River (Lönnberg 1894, as *N. gyrinus*); and Lake Monroe (Kendall coll., 1897).

**47. *Schilbeodes leptacanthus* (Jordan).**

New River at New River Station (Woolman 1890, as *Noturus leptacanthus*).

**CATOSTOMIDÆ. The Suckers.****48. *Erimyzon suetta* (Lacépède). *Chub Sucker.***

St. Johns River (Jordan 1878, as *E. goodei*, type); San Sebastian River (Henshall coll., Jordan 1880, as *E. goodei*); rivers and lakes of Florida, especially Lake Monroe (R. E. Earll coll., Bean 1883, as *E. goodei*); Escambia River (Bollman 1886); East Florida (Henshall coll., Jordan 1880, as *E. goodei*); Joshua Creek, Peace River at Zolfo Springs, Mill Creek, Little Withlacoochee River, Santa Fe River, Sampson Creek, and New River (Woolman 1890); Lake Apopka, Fern Creek, and small lakes between Apopka and Toronto (Lönnberg 1894); Little Arch Creek (Smith coll., 1895); ponds near Tampa (Evermann & Kendall coll., 1896); and Lake Monroe, ponds near Welaka, and St. Johns River at Welaka (Kendall coll., 1897).

**49. *Minytrema melanops* (Rafinesque). *Spotted Suoker.***

Escambia River (Bollman 1886).

## CYPRINIDÆ. The Minnows.

50. *Opsopœodus osculus* Evermann.

Lake Monroe, St. Johns River at Welaka, and Ocklawaha River (Kendall coll., 1897).

51. *Opsopœodus bollmani* Gilbert.

Alligator, Peace, and Little Withlacoochee rivers, Joshua Creek, and Alligator Branch (Woolman 1890).

52. *Abramis crysoleucus bosci* (Cuvier & Valenciennes). *Roach*.

Volusia (Cope 1877, as *Notemigonus ischanus*); Pensacola (Stearns coll., Goode & Bean 1879a, as *Notemigonus americanus*); St. Johns River (Bean 1880, as *N. americanus*); San Sebastian River (Henshall coll., Bean 1883, as *N. americanus*); Escambia River (Bollman 1886, as *N. crysoleucus bosci*); Myakka and Hillsborough rivers (Henshall 1889, as *N. crysoleucus*); Alligator River, Punta Gorda, Joshua and Charlie Apopka creeks, Alligator Branch, and Peace River at Wauchula and Bartow (Woolman 1890, as *N. crysoleucus bosci*); Lakes Apopka and Jessup (Lönnberg 1894, as *N. crysoleucus bosci*); Little Arch Creek (Smith coll., 1895); Lake Butler near Tarpon Springs and Little River near Miami (Evermann & Kendall coll., 1896); St. Johns River at Welaka and Georgetown, Lake Monroe, and swamp pool at Welaka (Kendall coll., 1897).

53. *Notropis maculatus* (Hay).

Lake Butler (Evermann & Kendall coll., 1896), and St. Johns River at Welaka and Lake Monroe (Kendall coll., 1897).

54. *Notropis welaka* Evermann & Kendall.

St. Johns River at Welaka, and Ocklawaha River (Evermann & Kendall 1897, type).

55. *Notropis stigmaturus* (Jordan).

Escambia River (Bollman 1886, as *N. venustus stigmaturus*).

56. *Notropis roseus* (Jordan).

Punta Gorda, Alligator River, Joshua, Charlie Apopka, and Oak creeks, Peace River at Zolfo Springs, Wauchula, and Bartow; Hillsborough River, Withlacoochee, Santa Fe, and Little Withlacoochee rivers, (Woolman 1890); Okeefenokee Swamp (Jordan & Evermann 1896); Little Arch Creek and Little River (Smith coll., 1895); Miami, Little, and Anclote rivers (Evermann & Kendall coll., 1896); St. Johns River at Welaka, Volusia Bar at head of Lake George, Lake Monroe, Ocklawaha River, and Match Creek, a tributary of the Ocklawaha (Kendall coll., 1897).

57. *Notropis xænocephalus* (Jordan).

Escambia River (Bollman 1886).

58. *Notropis metallicus* Jordan & Meek.

Withlacoochee River (Woolman 1890); Clifton Springs near Lake Jessup (Lönnberg 1894); Suwanee basin to Escambia River (Jordan & Evermann 1896); Ocklawaha River and swamp, and Lake Monroe (Kendall coll., 1897).

59. *Ericymba buccata* Cope.

Escambia River (Bollman 1886).

## ANGUILLIDÆ. The True Eels.

60. *Anguilla chrysypa* Rafinesque. *Common Eel*.

Pensacola (Stearns coll., Goode & Bean 1879a, as *A. vulgaris*); San Sebastian River (Henshall coll., Jordan 1880, as *A. rostrata*); Florida (J. W. Milner coll., Bean 1883, as *A. rostrata*); Key West (Jordan 1884a, as *A. rostrata*); St. Johns River (Lönnberg 1894); Indian River at Cocoa, Eau Gallie, and Titusville (Evermann & Bean 1896); Little River, near Miami (Evermann & Kendall coll., 1896); and Lake Monroe (Kendall coll., 1897).

## SYNAPHOBRANCHIDÆ.

61. *Synaphobranchus pinnatus* (Gronow).

Lat.  $28^{\circ} 36' 15''$  N., long.  $86^{\circ} 50'$  W., southward from Pensacola, in 347 fathoms (Goode & Bean 1896).

## LEPTOCEPHALIDÆ. The Conger Eels.

62. *Leptocephalus caudilimbatus* (Poey).

Pensacola (Goode & Bean 1882, as *Conger caudicula*, type; Jordan & Gilbert 1882, as *C. caudicula*; Jordan & Gilbert 1883, as *L. caudicula*); Snapper Banks (Jordan 1884, as *C. caudicula*); and Snapper Banks off Pensacola (Jordan & Davis 1888).

63. *Conger muræna macrura* (Gilbert).

Pensacola (Jordan & Gilbert 1882, as *Ophichthys macrurus*).

## MURÆNESOCIDÆ.

64. *Hoplunnis diomedeanus* Goode & Bean.

Lat. 28° 36' N., long. 86° 50' W., southward of Pensacola, in 111 fathoms (Goode & Bean 1896).

65. *Neoconger mucronatus* Girard.

Pensacola (Stearns coll., Goode & Bean 1879a) and west Florida (Jordan & Davis 1888).

66. *Gordiichthys irretitus* Jordan & Davis.

Snapper Banks off Pensacola (Jordan & Davis 1888, type).

## MYRIDÆ. The Worm Eels.

67. *Ahlia egmontis* (Jordan).

Egmont Key (Jordan 1884a and 1884e, as type of *Myrophis egmontis*; Jordan & Davis 1888, and Jordan & Evermann 1896).

68. *Myrophis punctatus* Lütken. *Spotted Worm Eel.*

Pensacola Snapper Banks (Stearns coll., Jordan 1884, and Jordan & Davis 1888).

## OPHICHTHYIDÆ. The Snake Eels.

69. *Verma kendalli* (Gilbert). *Worm Eel.*

Snapper Banks off Cape Romano, in 25 fathoms (*Grampus* coll., Gilbert in Kendall 1889, as *Sphagebranchus kendalli*, type; Jordan & Davis 1888, as *S. kendalli*, and Jordan & Evermann 1896 as type of *Verma*, new genus).

70. *Letharchus velifer* Goode & Bean.

West Florida (Goode & Bean 1882, type of genus and species, and Bean 1883); Snapper Banks (Jordan 1884, Kendall 1889, and Jordan & Evermann 1896); and Snapper Banks between Pensacola and Tampa (Jordan & Davis 1888).

71. *Myrichthys acuminatus* (Gronow).

Florida Keys (Jordan & Davis 1888, and Jordan & Evermann 1896).

72. *Callechelys muræna* Jordan & Evermann.

Snapper Banks (Stearns coll., Jordan & Evermann 1886, type; Jordan & Davis 1888, and Jordan & Evermann 1896).

73. *Bascanichthys scuticaris* (Goode & Bean).

Cedar Keys (Velie coll., Goode & Bean 1879b, as *Sphagebranchus scuticaris*, type); west Florida (Kaiser & Martin coll., Goode & Bean 1882, as *S. teres*, type; and Bean 1883, as *S. teres*); Egmont Key (Jordan 1884e, as *Cæcula scuticaris*); Egmont Key, Punta Rassa, and Pensacola (Jordan & Davis 1888); and off Key West, in about 100 fathoms (Garman 1896, as *S. scuticaris*).

74. *Bascanichthys bascanium* (Jordan).

Egmont Key (Jordan 1884a, as *Cæcula bascanium*, and 1884e, as type of *C. bascanium*; Jordan & Davis 1888, and Jordan & Evermann 1896).

75. *Ophichthus retropinnis* (Eigenmann).

Snapper Banks off Pensacola (Stearns coll., Eigenmann 1887, as type of *Ophichthys retropinnis*; Jordan & Davis 1888, and Jordan & Evermann 1896).

76. *Ophichthus guttifer* (Bean & Dresel).

Snapper Banks (Bean & Dresel 1882, as type of *Ophichthys guttifer*; Jordan & Davis 1888, and Jordan & Evermann 1896).

**77. Ophichthus ocellatus** (Le Sueur).

Snapper Banks near Pensacola (Stearns coll., Goode & Bean 1879a, as *Herpetoichthys ocellatus*; Jordan 1884; Jordan & Davis 1888; and Jordan & Evermann 1896).

**78. Ophichthus gomesii** (Castelnau).

Snapper Banks near Pensacola (Stearns coll., Jordan & Gilbert 1882a, as *O. chrysops*; Jordan 1884, as *O. chrysops*); and St. Augustine and Snapper Banks near Pensacola (Jordan & Davis 1888).

**79. Myrophis intertinctus** (Richardson).

Pensacola (Stearns coll., Goode & Bean 1879a, as *Crotalopsis mordax*, and Jordan & Gilbert 1882, as *Ophiochthys mordax*); Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *C. mordax*, and Bean 1883, as *C. mordax*); Egmont Key (Jordan 1884e, as *O. intertinctus*); Snapper Banks (Stearns coll., Jordan 1884, as *O. schneideri*); Lemon Bay, Egmont Key, and Pensacola (Jordan & Davis 1888); Snapper Grounds in 20.5 fathoms (*Grampus* coll., Kendall 1889, as *O. punctifer*); Lemon Bay (Henshall 1889); and Ozona (Lönnberg 1894, as *O. punctifer*).

**MURÆNIDÆ. The Morays.****80. Lycodontis moringa** (Cuvier). *Common Spotted Moray.*

Key West (Jordan 1884a, as *Sidera moringa*; Henshall 1894, as *Gymnothorax moringa*; Lönnberg 1894, as *S. moringa*; and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d, as *S. moringa*); Key West and Pensacola (Jordan & Davis 1888, as *G. moringa*); Key West and Key Largo (Henshall 1889, as *S. moringa*); Biscayne Bay (McCormick coll., Smith 1895, as *G. moringa*); Pensacola (Jordan & Evermann 1896).

**81. Lycodontis funebris** (Ranzani). *Black Moray.*

Key West (Jordan 1884a, as *Sidera funebris*; Jordan & Davis 1888, as *G. funebris*; Henshall 1894); Florida Keys (Jordan 1884d, as *S. funebris*, and Jordan & Evermann 1896); Tortugas, Key West and Marco (Henshall 1889, as *S. funebris*); Biscayne Bay (McCormick coll., Smith 1895).

**82. Lycodontis ocellatus** (Agassiz). *Spotted Moray.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Gymnothorax ocellatus*; Jordan & Gilbert 1882, as *Murana ocellata*; and Jordan & Evermann 1896); Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *G. ocellatus*); west Florida (Kaiser & Martin coll., Bean 1883, as *G. ocellatus*); Egmont Key (Jordan 1884a and 1884e, as *Sidera ocellata*); Santa Rosa Island (Jordan & Evermann 1886, as *S. nigromarginata*); Pensacola Snapper Banks and Cedar Keys (Jordan & Davis 1888, as *G. ocellatus*); and Snapper Banks (Jordan & Evermann 1896, as *L. ocellatus*, *L. ocellatus saxicola*, and *L. ocellatus nigromarginatus*).

**ELOPIDÆ. The Tarpons.****83. Tarpon atlanticus** (Cuvier & Valenciennes). *Tarpon.*

Garden Key (Girard 1859, as *Megalops elongatus*); St. Johns River (Jordan 1880a, as *Megalops thrissooides*); Key West (Jordan 1884a, as *M. atlanticus*); Florida Keys (Jordan 1884d, as *M. atlanticus*); Tampa Bay to Punta Rassa, and Little Sarasota Bay (Wilcox 1886, as *M. thrissooides*); Cards Sound and Punta Rassa (Henshall 1889, as *M. atlanticus*); Sarasota Bay, Charlotte Harbor and Caloosahatchee River (Henshall 1894, as *M. thrissooides*); Clearwater Harbor, Key West, Charlotte Harbor and New Smyrna (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895, as *M. thrissooides*); Indian River, Lake Worth, and Biscayne Bay (Evermann & Bean 1896); and Key West (Evermann & Kendall coll., 1897).

**84. Elops saurus** Linnaeus. *Ten-pounder.*

Cape Cod to Florida (Holbrook 1860); St. Johns River (Bean 1880); Pensacola (Jordan & Gilbert 1882, and Bean 1883); Key West (Jordan 1884a); Florida Keys (Jordan 1884d); Tampa Bay to Punta Rassa, and Little Sarasota Bay (Wilcox 1886); Marco (Henshall 1889); Key West and Tampa (Henshall 1894); and St. Johns River at Welaka (Kendall coll., 1897).

## ALEBULIDÆ. The Lady-Fishes.

**85. *Albula vulpes* (Linnaeus). *Lady-fish; "Bone-fish."***

Pensacola (Stearns coll., Bean 1883); Key West (Jordan 1884a, and Jordan & Evermann 1896); Florida Keys (Jordan 1884d); Garden Key (*Grampus* coll., Kendall 1889); Key West, Pavilion Key, and San Carlos Pass (Henshall 1889); New Smyrna (Lönnberg 1894); Key West and Tampa (Henshall 1894); and Biscayne Bay (McCormick coll., Smith 1895).

## DOROSOMATIDÆ. The Gizzard Shads.

**86. *Dorosoma cepedianum* (Le Sueur). *Hickory Shad; Gizzard Shad; "Stink Shad."***

St. Johns River (Goode 1879a, and Bean 1880); Florida (Bean 1883); Escambia River (Bollman 1886); Lake Apopka, Lake Jessup, St. Johns River, and lakes Ivanhoe, Formosa, Rowena, etc., near Orlando (Lönnberg 1894); St. Johns River at Welaka, and in Lake Monroe (Kendall coll., 1897).

## CLUPEIDÆ. The Herrings.

**87. *Jenkinsia stolifera* (Jordan & Gilbert).**

Key West (Jordan & Gilbert 1884a, *Dussumiera stolifera*, type; Jordan 1884a, as *D. stolifera*, and Jordan & Evermann 1896, as *Jenkinsia stolifera*, new genus); Cards Sound, Barnes Sound, and Florida Bay (Henshall 1889, as *D. stolifera*); Biscayne Bay (Smith coll., 1895); and Key West and Cape Florida (Evermann & Kendall coll., 1896).

**88. *Etrumeus sadina* (Mitchill).**

Pensacola (Jordan & Gilbert 1883, as *E. teres*).

**89. *Clupanodon pseudohispanicus* (Poey). *Sardina de España.***

Pensacola (Jordan & Gilbert 1882, as *Clupea pseudohispanica*); Snapper Banks (Stearns coll., Jordan 1884, as *C. pseudohispanica*).

**90. *Pomolobus chrysachloris* Rafinesque. *Skipjack.***

Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1882, as *Clupea chrysachloris*; and Bean 1883, as *C. chrysachloris*); and Escambia River (Bollman 1886, as *C. chrysachloris*).

**91. *Pomolobus mediocris* (Mitchill). *Hickory Jack.***

St. Johns River (Goode 1879a and Bean 1880); Florida (Bean 1883, as *Clupea mediocris*, and Jordan & Evermann 1896); St. Johns River, Volusia Bar at head of Lake George, and Lake Monroe (Kendall coll., 1897).

**92. *Pomolobus pseudoharengus* (Wilson). *Alewife.***

Florida (Bean 1883, as *Clupea vernalis*), and St. Johns River (Lönnberg 1894, as *Clupea pseudoharengus*).

**93. *Pomolobus aestivalis* (Mitchill). *Glut Herring.***

St. Johns River (Goode 1879a), and St. Johns River, Welaka, Volusia Bar at Lake George, and Lake Monroe (Kendall coll., 1897).

**94. *Alosa alabamae* Jordan & Evermann. *Alabama Shad.***

Pensacola (Jordan & Gilbert 1882, as *Clupea sapidissima*; Evermann 1895, as *Alosa alabamae*, eotypes; and Jordan & Evermann 1898).

**95. *Alosa sapidissima* (Wilson). *Common Shad.***

St. Johns River and east coast (Goode 1879a); St. Johns River (Henshall 1894, and Kendall coll., 1897); Florida (Bean 1883, as *Clupea sapidissima*); St. Marys River (Hamlin 1884); Escambia River (Bollman 1886, as *C. sapidissima*); Indian River at Eden and St. Lucie River (Evermann & Bean 1896).

**96. *Sardinella sardina* (Poey). *Sardina.***

Key West (Jordan 1884a, as *Clupea sardina*; Jordan & Evermann 1896; and Evermann & Kendall coll., 1896).

**97. *Sardinella macrourhalma* (Ranzani).**

Key West and Florida Keys (Henshall 1889, as *Harengula macrourhalma*).

**98. Sardinella humeralis** (Cuvier & Valenciennes). *White-bill.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Harengula pensacola*, type; Stearns coll., Bean 1883, as *H. pensacola*); Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *H. pensacola*); Garden Key (Whitehurst coll., Bean 1883); Key West (Jordan 1884a, as *Clupea pensacola*); Florida Keys (Jordan 1884d, as *C. pensacola*); Florida Keys, west coast, Cape Sable Creek, San Carlos Pass, Marco, Big Gasparilla and Egmont Key (Henshall 1889, as *H. arcuata*); St. Petersburg (Lönnberg 1894, as *H. pensacola*); Cedar Keys and Pensacola (Jordan & Evermann 1896); and Key West and Miami (Evermann & Kendall coll., 1896).

**99. Opisthonema oglinum** (Le Sueur). *Thread Herring.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *O. thrissa*; and Jordan & Gilbert 1882, as *O. thrissa*); Egmont Key (Jordan 1884e); Big Gasparilla, Egmont Key, and west coast (Henshall 1889); Pelican Island, Indian River (Evermann & Bean 1896); and Key West (Evermann & Kendall coll., 1896).

**100. Brevoortia tyrannus** (Latrobe). *Menhaden.*

St. Johns and Indian rivers (Goode 1878; Bean 1880; and A. N. Curtis coll., Jordan 1880a); St. Johns River and coast (Goode 1879a); Florida (Milner coll., Bean 1883); Tampa and St. Johns River (Henshall 1894); New Smyrna (Lönnberg 1894); and Indian River (Evermann & Bean 1896).

**101. Brevoortia tyrannus patronus** Goode. *Gulf Menhaden.*

Pensacola (Stearns 1878, as *B. patronus*; Goode & Bean 1879a, as *B. patronus*; Bean 1880, as *B. patronus*; and Jordan & Gilbert 1882, as *B. patronus*); west Florida (Goode & Bean 1879a, as *B. patronus*).

**ENGRAULIDIDÆ. The Anchovies.****102. Stolephorus miarchus** Jordan & Gilbert. *Anchovy.*

Key West (Jordan 1884a).

**103. Stolephorus perfasciatus** (Poey). *Grubber Broadhead.*

Key West (Jordan 1884a); Marco (Henshall 1889); and Florida Keys (Jordan & Evermann 1896).

**104. Stolephorus perthecatus** Goode & Bean.

Pensacola (Stearns coll., Goode & Bean 1882, type).

**105. Stolephorus brownii** (Gmelin). *Striped Anchovy.*

Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *Engraulis hiulcus*, type, and Swain 1882a); Cedar Keys (Jordan & Swain 1884a); Key West (Jordan 1884a, and Lönnberg 1894); Florida Keys (Jordan 1884d); Cape Sable Creek, Cape Romano, and Big Gasparilla (Henshall 1889); mouth of Little River, and Cape Florida (Smith coll., 1895); and Key West and Cape Florida (Evermann & Kendall coll., 1896).

**106. Stolephorus mitchilli** (Cuvier & Valenciennes).

Pensacola (Jordan & Gilbert 1882, and Swain 1882a); Cards Sound, Barnes Sound, Key West, Marco, Gordon Pass and Big Estero Pass (Henshall 1889); St. Petersburg (Lönnberg 1894); Little River (Smith coll., 1895); and Indian River at Cocoa and St. Lucie River (Evermann & Bean 1896).

**ALEPOCEPHALIDÆ.****107. Talismania antillarum** Goode & Bean.

South of Pensacola, lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 02'$  W., in 420 fathoms (Goode & Bean 1896, as *Bathytraces* (*Talismania*, new genus) *antillarum*, type).

**108. Conocara macdonaldi** Goode & Bean.

West of Tortugas (Goode & Bean 1896, new genus and species).

**SYNODONTIDÆ. The Lizard-Fishes.****109. Trachinocephalus myops** (Forster). *Ground Spearing.*

Florida Keys and Garden Key (Whitehurst coll., Bean 1883).

**110. *Synodus intermedius* (Agassiz).**

Pensacola (Jordan & Gilbert 1882); Key West (Jordan 1884a, as *S. cubanus*; Meek 1884, as *S. analis*; and Evermann & Kendall coll., 1896); Snapper Banks (Jordan 1884, as *S. cubanus*); Florida Keys (Jordan 1884d, as *S. cubanus*); Snapper Banks (Jordan & Gilbert 1883); off Key West in about 60 fathoms (Garman 1896); and Key West (Evermann & Kendall coll., 1896).

**111. *Synodus foetens* (Linnaeus). *Lizard-fish.***

Long Island to Gulf of Mexico (Holbrook 1860, as *Sauria foetens*); Key West (Goode & Bean 1879b; Jordan 1884a, as *S. foetens* and *S. epixianus*; and Lönnberg 1894); Cedar Keys (Jordan & Swain 1884a); Key West and Cedar Keys (Meek 1884, as *S. epixianus*); Snapper Banks in 37 fathoms (*Grampus* coll., Kendall 1889); Key West, Gordon Pass, San Carlos Pass, and Big Gasparilla (Henshall 1889); Key West and Tampa (Henshall 1894); Lake Worth (Smith coll., 1895); and Key West and Anclote Sponge Kraals (Evermann & Kendall coll., 1896).

**BENTHOSAURIDÆ.****112. *Benthosaurus grallator* Goode & Bean.**

West of Tortugas (Goode & Bean 1886, type of genus and species, and 1896).

**BATHYPTEROIDÆ.****113. *Bathypterois longipes* Günther.**

Lat.  $25^{\circ} 83'$  N., long.  $84^{\circ} 35'$  W., in 539 fathoms, northwest of Tortugas (Goode & Bean 1896).

**IPNOPIDÆ.****114. *Ipnops murrayi* Günther.**

Lat.  $24^{\circ} 36'$  N., long.  $84^{\circ} 05'$  W., in 955 fathoms, westward of Tortugas (Goode & Bean 1896.)

**MYCTOPHIDÆ. The Lantern-Fishes.****115. *Lampanyctus lacerta* Goode & Bean.**

South of Cape San Blas, lat.  $28^{\circ} 38' 30''$  N., long.  $85^{\circ} 52' 30''$  W., in 142 fathoms (Goode & Bean 1896, type).

**CHAULIODONTIDÆ. The Viper-Fishes.****116. *Chauliodus sloanei* Bloch & Schneider.**

Lat.  $28^{\circ} 47' 30''$  N., long.  $87^{\circ} 27'$  W., in 724 fathoms, and lat.  $28^{\circ} 43'$  N., long.  $87^{\circ} 14' 30''$  W., in 525 fathoms, southward from Pensacola (Goode & Bean 1896).

**STOMIATIDÆ.****117. *Stomias affinis* Günther.**

Off Sombrero Key (Günther 1887).

**118. *Echiostoma margarita* Goode & Bean.**

Lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 02'$  W., in 420 fathoms, southward of Pensacola (*Albatross* coll., Goode & Bean 1896, type).

**PARALEPIDIDÆ.****119. *Paralepis coregonoides* Risso.**

Lat.  $28^{\circ} 43'$  N., long.  $87^{\circ} 14' 30''$  W., in 523 fathoms, southward of Pensacola (*Albatross* coll., Goode & Bean 1896).

**HALOSAURIDÆ.****120. *Halosauropsis gracilis* (Goode & Bean).**

South of Pensacola (*Albatross* coll., Goode & Bean 1896, type of genus and species).

**121. *Halosauropsis pallidus* (Goode & Bean).**

Lat.  $24^{\circ} 36'$  N., long.  $84^{\circ} 05'$  W., in 955 fathoms, about west from Tortugas (*Albatross* coll., Goode & Bean 1896).

## LUCIIDÆ. The Pikes and Pickerels.

**122. *Lucius americanus* (Gmelin). *Banded Pickerel.***

East Florida (Holbrook 1860, as *Esox ravenelii*, type); Elbow Creek, tributary of Indian River (Bean 1883, as *E. americanus*); Escambia River (Bollman 1886, as *Esox americanus*, in part; and as *Esox reticulatus*, Jordan & Evermann 1896); ponds near Welaka (Kendall coll., 1897).

**123. *Lucius reticulatus* (Le Sueur). *Common Eastern Pickerel; Jack.***

Between Tokoi and St. Augustine (Say, in Le Sueur 1818, type of *Esox phaleratus*; Goode 1879a, as *Esox phaleratus*); Escambia River (Bollman 1886, as *Esox reticulatus*, in part; Crooked Lake near Oakland, Orange County (Lönnberg 1894, as *E. reticulatus*); and Ocklawaha River and Lake Monroe (Kendall coll., 1897).

## POECILIIDÆ. The Killi-Fishes.

**124. *Fundulus similis* (Baird & Girard). *Sao-a-lait.***

Pensacola (Goode & Bean 1879a, as *Hydrargyra similis*; Jordan & Gilbert 1882; and Jordan & Stearns coll., Bean 1883); Cedar Keys (Jordan & Swain 1884a); Key West (Jordan 1884a, and Evermann & Kendall coll., 1896); Barnes Sound, Cape Romano, Marco, Big Gasparilla, Gordon Pass, Myakka River, Stump Pass, Lemon Bay, and Sarasota Bay (Henshall 1889); Key West, Hillsborough County, Clearwater Harbor, and Hog Island (Lönnberg 1894); mouth Little River, and Lake Worth (Smith coll., 1895); Pelican Island, Indian River (Evermann & Bean 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**125. *Fundulus majalis* (Walbaum). *Killi-fish.***

Mouth of St. Johns River (Goode 1879a, as *Hydrargyra majalis*), and Indian River (Würdemann coll., Bean 1883).

**126. *Fundulus grandis* (Baird & Girard). *Common Killi-fish.***

Charlotte Bay (Girard 1859, as *F. floridensis*, type; and Goode 1879a, as *F. floridensis*); Pensacola (Goode & Bean 1879a; Jordan & Gilbert 1882; and Jordan & Stearns coll., Bean 1883); Key West (Jordan & Swain 1884; Jordan 1884a, as *F. heteroclitus*; and Evermann & Kendall coll., 1896); Gordon Pass, Barnes Sound, Myakka River, and Stump Pass (Henshall 1889, as *F. heteroclitus*); New Smyrna, in ditches from Hillsboro River, Key West, and Punta Gorda (Lönnberg 1894, as *F. heteroclitus*); Lake Worth (Smith coll., 1895); Indian River Inlet, Titusville, Cocoa, and Pelican Island (Evermann & Bean 1896); Gulf Coast (Jordan & Evermann 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**127. *Fundulus seminolis* Girard.**

Palatka (Glover coll., Girard 1859, type); Lake Monroe (Goode 1879a; and Baird coll., Bean 1883); Joshua, Oak, and Charlie Apopka creeks, Alligator Branch, and Peace River at Wauchula (Woolman 1890); sulphur springs (Clifton Springs) at Lake Jessup (Lönnberg 1894); St. Johns River at Palatka and Welaka, swamp at Welaka, St. Johns River at Fort Gates and Georgetown, Volusia Bar at head of Lake George, and Lake Monroe (Kendall coll., 1897).

**128. *Fundulus confluentus* Goode & Bean.**

Lake Monroe (Baird coll., Goode & Bean in Goode 1879a, type); Pensacola (Jordan & Gilbert 1882, as *F. ocellaris*, type; Bean 1883, as *F. ocellaris*; and Jordan & Evermann 1896); Cards Sound (Henshall 1889, as *F. ocellaris*); Withlacoochee River (Woolman 1890, as *F. ocellaris*); St. Johns River at Sanford (Lönnberg 1894, as *F. ocellaris*); and Lake Monroe (Jordan & Evermann 1896, as *F. ocellaris*).

**129. *Fundulus goodei* (Jordan).**

Arlington River (Jordan 1879, as *Lucania goodei*, type); streams of east Florida (Goode coll., Bean 1883, as *L. goodei*); Alligator River, Peace River at Wauchula, and Withlacoochee River (Woolman 1890, as *L. goodei*); Fern Creek at Orlando, St. Johns

River and other waters in Orange, Kissimmee and Osceola counties (Lönnberg 1894, as *L. goodei*); Hillsboro and Little rivers (Smith coll., 1895); Little River, Miami River, Lake Butler and Anclote River at Pindar's Landing (Evermann & Kendall coll., 1896); Match Creek, Ocklawaha River, St. Johns River at Palatka, Welaka, swamp at Welaka, sulphur springs at Welaka, and Lake Monroe (Kendall coll., 1897).

**130. *Fundulus chrysotus* Holbrook.**

Arlington River (Goode & Bean in Goode 1879a, as *Gambusia arlingtonia*, type); St. Augustine and Arlington (Goode 1879a, as *Zygonectes chrysotus*); Arlington River (Jordan 1879, as *Z. (Gambusia) arlingtonensis*); San Sebastian River (Henshall coll., Jordan 1879, as *Z. henshalli*, type, and Jordan 1880, as *Z. henshalli*; and Jordan & Evermann 1896); streams of East Florida, San Sebastian River, Elbow Creek (Bean 1883, as *Z. henshalli*); Myakka River and fresh ponds near it, and Gordon Pass (Henshall 1889, as *Z. chrysotus* and *Z. henshalli*); Joshua Creek, Peace River at Zolfo, Wauchula, and Bartow, Alligator Branch, Santa Fe River, Sampson Creek, Withlacoochee and Little Withlacoochee rivers and New River (Woolman 1890, as *Z. chrysotus*); ditches and ponds at Arcadia and at Toronto (Lönnberg 1894, as *Z. chrysotus*); Fern Creek, Ivanhoe and Formosa lakes and other waters in Orange County (Lönnberg 1894, as *Z. henshalli*); Indian River (Evermann & Bean 1896, as *Z. chrysotus* and *Z. henshalli*); ponds near Tampa, Lake Butler and Miami River (Evermann & Kendall coll., 1896), and Ocklawaha River, ponds near Welaka and Lake Monroe (Kendall coll., 1897).

**131. *Fundulus cingulatus* Cuvier & Valenciennes.**

San Sebastian River (Henshall coll., Jordan 1879, as *Zygonectes rubrifrons*, type, and Jordan 1880 as *Z. rubrifrons*, and Evermann & Bean 1896); Westville (Mann & Davison coll., Hay 1885, as *Z. auroguttatus*, type); Escambia River (Bollman 1886); and Lake Monroe and ponds near Welaka (Kendall coll., 1897).

**132. *Fundulus notti* (Agassiz).**

Elbow Creek, a tributary of Indian River, eastern Florida (Henshall coll., Goode & Bean 1882, type of *Zygonectes craticula*); tributaries of Indian River (Bean 1883); Santa Fe River, Sampson Creek and New River (Woolman 1890, as *Z. notti*); creeks between Lake Ivanhoe and Lake Formosa and in the lakes themselves (Lönnberg 1894, as *Z. craticula*); Elbow Creek near Eau Gallie (Evermann & Bean 1896); Elbow Creek, tributary of Indian River (Jordan & Evermann 1896); and ponds near Welaka (Kendall coll., 1897).

**133. *Fundulus guttatus* (Agassiz).**

Escambia River at Flomaton, Ala. (Bollman 1886, type of *Zygonectes esocambicus*).

**134. *Adinia multifasciata* Girard.**

Pensacola (Jordan & Gilbert 1882, type of *Fundulus xenicus*; Bean 1883, as *F. xenicus*, and Jordan & Evermann 1896); Charlotte Harbor (Fish Hawk coll., 1889).

**135. *Lucania ommata* (Jordan).**

Indian River near Titusville (R. E. Earll coll., Jordan 1884c, type of *Heterandria ommata*; Evermann & Bean 1896); Yellow Water River (N. T. Mann coll., Hay 1885, type of *Zygonectes manni*); and Santa Fe River, Sampson Creek and New River (Woolman 1890).

**136. *Lucania venusta* (Girard).**

Pensacola (Jordan & Gilbert 1882, and Stearns coll., Bean 1883); Indian River Inlet, Titusville, Cocoa, Pelican Island and South Lake (Evermann & Bean 1896); and Tarpon Springs (Evermann & Kendall coll., 1896).

**137. *Lucania parva* (Baird & Girard). Rainwater-fish.**

Key West (Jordan 1884a, and Jordan & Evermann 1896); Cards Sound, Gordon Pass, Big Gasparilla, Myakka River and Long Boat Key (Henshall 1889); Lake Worth (Smith coll., 1895); Salt Lake near Lake Butler, Anclote Sponge Kraals and Oyster Creek near Tarpon Springs (Evermann & Kendall coll., 1896); and at Palatka, Satsuma and Welaka in St. Johns River (Kendall coll., 1897).

**138. Cyprinodon variegatus Lacépède. Sheepshead Minnow.**

East Florida (McClure, Ord & Say coll., Le Sueur 1821, type of *Lebias ellipsoidea*); Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1882; and as *C. gibbosus*, Bean 1883); St. Augustine and Lake Monroe (Goode 1879a); Jupiter Inlet (Henshall coll., Bean 1883); Boca Grande (Fish Hawk coll., 1889); Barnes Sound, Big Gasparilla, Myakka River, pond near Stump Pass, and Long Boat Key (Henshall 1889); Key West, Punta Gorda, Hog Island, Ozona and New Smyrna (Lönnberg 1894); Lake Worth (Smith coll., 1895); and Indian River at Titusville, Stuart, Pelican Island, Indian River Inlet, Cocoa and South Lake (Evermann & Bean 1896).

**139. Cyprinodon variegatus riverendi (Pocoy).**

Key West (Jordan 1884a, and Jordan & Evermann 1896), and Tampa Bay (Fish Hawk coll., 1898).

**140. Cyprinodon carpio Günther.**

Pensacola (Stearns coll., Goode & Bean 1882, type of *C. mydrus*; and Bean 1883, as *C. mydrus*); Key West (Jordan 1884a, as *C. mydrus*); Cards Sound, Key West, Lemon Bay, Barnes Sound, Marco, Gordon Pass, San Carlos Pass, Big Gasparilla, Long Boat Key and Sarasota Bay (Henshall 1889); Key West and Punta Gorda (Lönnberg 1894); Little River (Smith coll., 1895); Cape Florida, Key West and Tarpon Springs (Evermann & Kendall coll., 1896); and Tampa Bay (Fish Hawk coll., 1898).

**141. Jordanella floridæ Goode & Bean.**

Lake Monroe (Baird coll., Goode 1879a, type of genus and species); San Sebastian River (Henshall coll., Jordan 1879 and 1880); Jupiter Inlet and Lake Monroe (Bean 1883); Indian River (R. E. Earll coll., Jordan 1884c); fresh pond near Myakka River (Henshall 1889); Alligator River, Punta Gorda, Joshua Creek, Peace River at Zolfo, Alligator Branch, Pemberton Creek, Withlacoochee River, Little Withlacoochee River, and Pond Creek (Woolman 1890); St. Johns River and tributaries, Lake Jessup, Lake Tohopekaliga and other waters (Lönnberg 1894); Hillsboro River (Smith coll., 1895); Sebastian and Indian rivers (Evermann & Bean 1896); Miami and Little rivers (Evermann & Kendall coll., 1896); and swamps near Welaka and Lake Monroe (Kendall coll., 1897).

**142. Gambusia affinis (Baird & Girard). Top Minnow.**

Palatka (T. Glover coll., Girard 1859, type of *G. holbrooki*); Volusia (Cope 1877, as *Haplochilus melanops*); San Sebastian River (Henshall coll., Jordan 1880, as *G. patruelis*); St. Johns River (Jordan & Meek 1884, as *G. patruelis*); Myakka River and pond near it (Henshall 1889); Alligator River, Punta Gorda, Charlie Apopka and Oak creeks, Peace River at Zolfo Springs, Wauchula and Bartow, Alligator Branch, Pemberton Creek, Galliger Drain, Mill Creek, Withlacoochee and Little Withlacoochee rivers, Pond Creek, Santa Fe River, Sampson Creek and New River (Woolman 1890); Orange County, Kissimmee, Arcadia, Lake Jessup and Lake Beauty near Orlando (Lönnberg 1894); Little Arch Creek, Crocodile Hole, Indian Creek and Hillsboro River (Smith coll., 1895); Palm Beach (Evermann & Bean 1896); ponds near Tampa, Miami River and Lake Butler (Evermann & Kendall coll., 1896); Ocklawaha River, Palatka, St. Johns River, ponds and sulphur springs near Welaka, Volusia Bar and Lake Monroe (Kendall coll., 1897).

**143. Heterandria formosa Agassiz. Least-fish.**

Palatka (Girard 1859, and Kendall coll., 1897); Florida (Glover coll., Goode 1879a, as *Girardinus formosus*); Arlington River (Jordan 1879, as *G. formosus*); St. Johns River (Goode coll., Bean 1883, as *G. formosus*); St. Johns River (Jordan & Meek 1884); Myakka River and fresh pond near it (Henshall 1889); Fern Creek, ponds near Orlando, ditches near Oviedo, small lake at McDonald near Zellwood, St. Johns River, Lake Jessup and Lake Kissimmee (Lönnberg 1894, as *G. formosus*); Hillsboro River (Smith coll., 1895); Lake Butler and Little River at Miami (Evermann & Kendall coll., 1896); Match Creek, tributary of Ocklawaha River, St. Johns River at Welaka, Palatka, Volusia Bar at head of Lake George, Lake Monroe and swamp pools and sulphur springs near Welaka (Kendall coll., 1897).

**144. *Mollienisia latipinna* Le Sueur.**

East Florida (McClure, Ord and Say coll., Le Sueur 1821, as *Mollienisia multilineata*, new genus and species); Pensacola (Stearns coll., Goode & Bean 1879a; and Jordan & Gilbert 1882, as *M. latipinna*); St. Augustine (Goode 1879a); Clearwater Harbor (Velie coll., Goode & Bean 1879b); St. Johns River (Curtis coll., Jordan 1880a; Jordan & Meek 1884); Lake Monroe (Baird coll., Bean 1883; and Kendall coll., 1897); Jupiter Inlet (Henshall coll., Bean 1883); Cards Sound, Barnes Sound, Gordon Pass, Stump Pass, Lemon Bay and Big Gasparilla (Henshall 1889); Punta Gorda (*Fish Hawk* coll., 1889); Peace River at Zolfo Springs, Alligator Branch, Charlie Apopka and Oak creeks, Withlacoochee and Little Withlacoochee rivers, and Pond Creek (Woolman 1890); Lake Worth, Little Arch Creek and Hillsboro and Little rivers (Smith coll., 1895); Titusville and Indian River Inlet (Evermann & Bean 1896); Little River near Miami (Evermann & Kendall coll., 1896); Palatka, swamp at Welaka, Ocklawaha River, Volusia Bar at head of Lake George, and Lake Monroe (Kendall coll., 1897); and Tampa Bay (*Fish Hawk* coll., 1898).

**ESOCIDÆ. The Needle-Fishes.****145. *Tylosurus notatus* (Poey). *Needle-fish.***

Pensacola (Kaiser & Martin coll., Goode & Bean 1879a, as *Belone notata*); Charlotte Harbor (Henshall coll., Bean 1883); Key West (Jordan 1884a and 1884d; and Jordan & Evermann 1896); Pensacola and Key West (Jordan & Fordice 1886); Cards Sound, Black Island, west coast, and Charlotte Harbor (Henshall 1889); Key West and Tampa (Henshall 1894); Key West and Punta Gorda (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); Titusville (Evermann & Bean 1896); Key West, Tarpon Springs, Anclote Sponge Kraals, and Miami (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**146. *Tylosurus timucu* (Walbaum).**

Key West (Jordan & Gilbert 1884a, as *T. sagitta*, type; Jordan 1884a, as *T. sagitta*; and Jordan & Fordice 1886, as *T. subtruncatus*).

**147. *Tylosurus marinus* (Walbaum). *Bill-fish; Agujon.***

Pensacola (Stearns coll., Goode & Bean 1879a, as *Belone longirostris*); St. Johns River (Goode 1879a, as *B. longirostris*); Pensacola (Jordan & Gilbert 1882, as *T. longirostris*); Charlotte Harbor (Milner coll., Bean 1883); Cedar Keys (Jordan & Swain 1884a); Gadsden Point and Lacosta Island (*Grampus* coll., Kendall 1889); Cards Sound, Lemon Bay and west coast (Henshall 1889); Key West, Ozona and Lake Jessup (Lönnberg 1894); Indian River Inlet and Pelican Island (Evermann & Bean 1896); Key West, Tarpon Springs and Miami River (Evermann & Kendall coll., 1896); and St. Johns River (Kendall coll., 1897).

**148. *Tylosurus raphidoma* (Ranzani). *Hound-fish.***

Pensacola (Stearns coll., Goode & Bean 1882, as *T. gladius*, type); Florida Keys (Jordan 1884d, as *T. crassus*); Key West (Jordan 1884a, as *T. crassus*; and Henshall 1894); Key West and Pensacola (Jordan & Fordice 1886); Florida Keys (Henshall 1889, as *T. crassus*; and Lönnberg 1894, as *T. crassus*); Biscayne Bay (McCormick coll., Smith 1895); and Florida Keys and Pensacola (Jordan & Evermann 1896).

**149. *Athlennes hians* (Cuvier & Valenciennes).**

East Florida (Goode 1879a, as *Belone hiane*; and Jordan & Fordice 1886, as *Tylosurus* (*Athlennes*, new subgenus) *hians*).

**HEMIRAMPHIDÆ. The Balaos.****150. *Chriodus atherinoides* Goode & Bean. *Hardhead.***

Key West (Stearns coll., Goode & Bean 1882, as *C. atherinoides*, type of genus and species; Jordan 1884a and 1884d; Lönnberg 1894; Jordan & Evermann 1896; and Evermann & Kendall coll., 1896).

**151. Hyporhamphus unifasciatus** (Ranzani). *Halfbeak; Balaō; Needle-fish.*

Cedar Keys (Jordan & Swain 1884a, as *Hemirhamphus unifasciatus*); Indian River (Henshall coll., Jordan 1880, as *H. unifasciatus*); St. Johns River (A. H. Curtis coll., Jordan 1880a, as *H. unifasciatus*); Florida (Stearns coll., Bean 1883, as *H. unifasciatus*); Florida Keys (Jordan 1884d, as *H. unifasciatus*); Gadsden Point (*Grampus* coll., Kendall 1889, as *H. unifasciatus*); Florida Keys and Tortugas (Henshall 1889, as *H. unifasciatus*); Clearwater Harbor and Key West (Lönnberg 1894, as *H. unifasciatus*); Biscayne Bay (McCormick coll., Smith 1895, as *H. unifasciatus*); east Florida (Smith coll., 1895); Key West (Jordan & Evermann 1896); and Anclote Sponge Kraals and Tarpon Springs (Evermann & Kendall coll., 1896).

**152. Hyporhamphus roberti** (Cuvier & Valenciennes). *Common Halfbeak; Balaō.*

Cape Sable and west coast (Henshall 1889, as *Hemirhamphus roberti*); Biscayne Bay (McCormick coll., Smith 1895); Pensacola and Cedar Keys (Jordan & Evermann 1896); Tarpon Springs and Anclote Sponge Kraals (Evermann & Kendall coll., 1896).

**153. Hemirhamphus brasiliensis** (Linnaeus). *Balaō.*

Key West (Jordan 1884a, as *H. balaō*; Jordan 1884f, as *H. pleyei*; Lönnberg 1894; and Jordan & Evermann 1896).

**154. Hemirhamphus balaō** Le Sueur. *Balaō.*

Florida Keys (Jordan 1884d, and Henshall 1889); Key West (Henshall 1894); and Florida Reefs (Garman 1896).

**155. Euleptorhamphus velox** Poey.

New Smyrna (Lönnberg 1894, as *Hemirhamphus longirostris*).

**SCOMBERESOCIDÆ. The Sauries.****156. Scomberesox saurus** (Walbaum). *Needle-fish.*

Biscayne Bay (McCormick coll., Smith 1895).

**EXOCETIDÆ. The Flying-Fishes.****157. Parexocetætes mesogaster** (Bloch). *Flying-fish.*

Pensacola (Stearns coll., Jordan & Gilbert 1882, as *Exocetus hillianus*, and Jordan & Gilbert, 1883, as *Exocetus mesogaster*; Bean 1883, and Jordan 1884); and Snapper Banks (Stearns coll., Jordan 1884).

**158. Exonautes exsiliens** (P. L. S. Müller). *Flying-fish.*

Gulf coast of Florida (*Grampus* coll., Henshall 1889, as *Exocetus exsiliens*).

**159. Exonautes rondeletii** (Cuvier & Valenciennes). *Flying-fish.*

Pensacola (Stearns coll., Jordan 1884, type of *Exocetus volador*), and Snapper Banks (Stearns coll., Jordan 1884).

**160. Cypselurus heterurus** (Rafinesque). *Flying-fish.*

Snapper Banks (Stearns coll., Jordan 1884, as *Exocetus noveboracensis*, and *Grampus* coll., Kendall 1889, as *E. noveboracensis*).

**AULOSTOMIDÆ. The Trumpet-Fishes.****161. Aulostomus maculatus** Valenciennes. *Trompetero.*

Tortugas (Jefferson, Porter & Moore 1878, as *A. coloratum*), and Florida Keys (Jordan 1884a, as *A. maculatum*).

**FISTULARIIDÆ. The Cornet-Fishes.****162. Fistularia tabacaria** Linnaeus. *Trumpet-fish.*

Florida (Jordan & Evermann 1896).

**SYNGNATHIDÆ. The Pipe-Fishes.****163. Siphonostoma mackayi** Swain & Meek. *Pipe-fish.*

Key West (Swain & Meek 1884, type; and Jordan 1884a); Snapper Banks (Jordan & Evermann 1896); and Cape Florida, Key West and Anclote Sponge Kraals (Evermann & Kendall coll., 1896).

**164. *Siphostoma floridæ* Jordan & Gilbert. *Florida Pipe-fish.***

Pensacola (Jordan & Gilbert 1882, type; and Jordan & Evermann 1896); Pensacola Bay (Jordan & Stearns coll., Bean 1883); Key West (Jordan 1884a, and Swain & Meek 1884); Gordon Pass and Big Gasparilla (Henshall 1889); Key West, Anclote Sponge Kraals, and Cape Florida (Evermann & Kendall coll., 1896).

**165. *Siphostoma elucens* (Poey). *Pipe-fish.***

Tortugas (Garman 1896).

**166. *Siphostoma scovelli* Evermann & Kendall. *Pipe-fish.***

St. Johns River (A. H. Curtiss coll., Jordan 1880a, as *Siphonostoma*, sp.); Pensacola (Jordan & Gilbert 1882, as *S. affine*); Key West and east and west coasts (Jordan & Stearns coll., Bean 1883, as *S. affine*); Cedar Keys and Key West (Jordan & Swain 1884a, as *S. affine*); Key West (Jordan 1884a, as *S. affine*, and Swain & Meek 1884, as *S. affine*); Egmont Key (Jordan 1884e, as *S. affine*); Cards Sound, Barnes Sound, Key West, Marco, Big Gasparilla, Lemon Bay, Long Boat Key, and Garden Key (Henshall 1889, as *S. affine*); Lake Worth (Smith coll., 1895); Pelican Island, Titusville, and Cocoa (Evermann & Bean 1896); Cape Florida and Anclote Sponge Kraals (Evermann & Kendall coll., 1896); and St. Johns River to Lake Monroe, Palatka, Welaka, and Lake Monroe (Kendall coll., 1897).

**167. *Siphostoma louisianæ* (Günther). *Louisiana Pipe-fish.***

San Marco Island (Velie coll., Goode & Bean 1879b, as *Syngnathus louisianæ*); Key West (Jordan 1884a, Swain & Meek 1884, and Jordan & Evermann 1896); Egmont Key (Henshall 1889); Cocoa and Titusville (Evermann & Bean 1896); Cape Florida and Anclote Sponge Kraals (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**168. *Siphostoma fuscum* (Storer).**

St. Johns River (Goode 1879a, as *Syngnathus fuscus*).

**169. *Siphostoma crinigerum* Bean & Dresel.**

Pensacola (Bean & Dresel 1882, type); Key West (Jordan 1884a); and Pensacola to Key West (Jordan & Evermann 1896).

**170. *Corythoichthys albirostris* Heckel.**

Pensacola Snapper Banks (Jordan & Gilbert 1882, as *Siphostoma zatropis*, type, and Jordan & Evermann 1896, as *Siphostoma albirostris*); Key West (Jordan 1884a, as *S. zatropis*; Swain & Meek 1884, as *S. zatropis*; and Evermann & Kendall coll., 1896); Snapper Banks (Jordan 1884, as *S. zatropis*); and Tampa Bay (*Fish Hawk* coll., 1898).

**171. *Corythoichthys cayorum* Evermann & Kendall.**

Key West (Evermann & Kendall 1897, type).

**HIPPOCAMPIDÆ. The Sea-Horses.****172. *Hippocampus hudsonius* De Kay. *Sea-horse.***

Pensacola (Stearns coll., Goode & Bean 1879a, as *H. antiquorum*); St. Johns River (Goode 1879a, as *H. antiquorum*); Key West (Jordan 1884a); Gulf shore (Wilcox 1886); Snapper Grounds (*Grampus* coll., Kendall 1889); Egmont Key (Henshall 1889); and Tampa (Henshall 1894).

**173. *Hippocampus punctulatus* Guichenot. *Sea-horse.***

Key West (Jordan 1884a), and Tarpon Springs (Evermann & Kendall coll., 1896).

**174. *Hippocampus stylifer* Jordan & Gilbert. *Sea-horse.***

Snapper Banks off Pensacola (Jordan & Gilbert 1882, type; and Jordan 1884).

**175. *Hippocampus zosterae* Jordan & Gilbert. *Sea-horse.***

Laguna Grande, Pensacola (Jordan & Gilbert 1882, type); west coast and Pensacola (Stearns coll., Bean 1883); west coast (Henshall 1889); Pensacola (Jordan & Evermann 1896); and Cape Florida and Key West (Evermann & Kendall coll., 1896).

**APHREDODERIDÆ. The Pirate Perches.****176. Aphredoderus sayanus** (Gilliams). *Pirate Perch.*

Santa Fe River (Woolman 1890), and Lake Monroe (Kendall coll., 1897).

**ATHERINIDÆ. The Silversides.****177. Atherina stipes** Müller & Troschel.

Florida Keys (Jordan 1884d); Barnes Sound, Florida Bay, and Cards Sound (Henshall 1889); and Tortugas (Garman 1896).

**178. Atherina laticeps** Poey. *Silversides; Hardhead.*Clearwater Harbor (Velie coll., Goode & Bean 1879b, type of *A. veliana*; and Woodbury coll., Bean 1883); Key West (Jordan 1884a, Lönnberg 1894, as *A. veliana*; and Evermann & Kendall coll., 1896); Biscayne Bay (McCormick coll., Smith 1895); and Cape Florida (Smith coll., 1895).**179. Atherina aræa** Jordan & Gilbert.Key West (Jordan & Gilbert 1884a, type; Jordan 1884a; and Evermann & Kendall coll., 1896). This species is probably not distinct from *A. laticeps*, which may not be different from *A. stipes*.**180. Kirtlandia vagrans** (Goode & Bean).Pensacola (Stearns coll., Goode & Bean 1879a, type of *Chirostoma vagrans*); Cedar Keys (Jordan & Swain 1884a, as *Menidia vagrans*); Barnes Sound, Cape Romano, Cape Sable Creek, and Marco (Henshall 1889); Punta Rassa (*Fish Hawk* coll., 1889).**181. Menidia peninsulae** (Goode & Bean). *Silverside.*Pensacola (Stearns coll., Goode & Bean 1879a, type of *Chirostoma peninsulae*; Stearns coll., Bean 1883; Jordan & Gilbert 1882; and Jordan & Evermann 1896); Cedar Keys (Jordan & Swain 1884a); Barnes Sound, Marco, San Carlos Pass, Big Gasparilla, Myakka River, Sarasota Bay, and Long Boat Key (Henshall 1889); Punta Gorda, and Key West (Lönnberg 1894); Crocodile Hole in Indian Creek (Smith coll., 1895); Cocoa, Titusville, Indian River Inlet, and Pelican Island (Evermann & Bean 1896); Anclote Sponge Kraals (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).**182. Menidia** sp. incert..St. Johns River (Cope 1877, as *Chirostoma beryllinum*); Lake Monroe (Baird coll., Goode & Bean 1879a, as *C. peninsulae*; and Jordan & Evermann 1896, as *M. peninsulae*, in part); South Lake at Titusville (Evermann & Bean coll., 1896); "Salt Lake" near Lake Butler (Evermann & Kendall coll., 1896); St. Johns River at Palatka, and Lake Monroe (Kendall coll., 1897).**183. Menidia menidia** (Linnaeus).St. Johns River (Goode & Bean 1882, as type of *M. dentex*; and Baird coll., Bean 1883, as *M. dentex*).**184. Labidesthes sicculus** (Cope). *Skipjack.*

Myakka River (Henshall 1889); Alligator River, Punta Gorda, Joshua, Charlie Apopka, and Oak creeks, Peace River at Zolfo Springs, Wauchula, and Bartow; Alligator Branch, Pemberton Creek, and Galliger Drain (Woolman 1890); Lake Ivanhoe near Orlando, and other lakes of the same system, in creeks connecting them, in single lakes in the pine land east of Orlando, and in other places in McDonald and Orange counties (Lönnberg 1894); Pelican Island (Evermann &amp; Bean 1896); Lake Butler, Little River, and Anclote River at Pindar's Landing (Evermann &amp; Kendall coll., 1896); Ocklawaha River, St. Johns River at Welaka, Satsuma and Lake Monroe (Kendall coll., 1897).

**MUGILIDÆ. The Mullets.****185. Mugil curema** Cuvier & Valenciennes. *White Mullet; Silver Mullet.*Pensacola (Stearns coll., Goode & Bean 1879a, as *M. brasiliensis*); Indian River (Henshall coll., Jordan 1880, as *M. brasiliensis*; and Bean 1883, as *M. brasiliensis*); Florida Keys (Jordan 1884d, as *M. brasiliensis*); Key West (Jordan 1884a); Barnes

Sound, Cape Romano, Marco, Gordon Pass, and Big Estero Pass (Henshall 1889); San Carlos Bay (*Fish Hawk* coll., 1889); Gulf coast and Key West (Lönnberg 1894, as *M. brasiliensis*); Tampa (Henshall 1894); Indian River (Evermann & Bean 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**186. *Mugil cephalus* Linnaeus. Common Mullet.**

St. Johns R.ver and east coast (Goode 1879a, as *M. albula*); Pensacola (Stearns coll., Goode & Bean 1879a, as *M. albula*); St. Johns River (Bean 1883, as *M. albula*; Jordan & Meek 1884, as *M. albula*); Cedar Keys (Jordan & Swain 1884a, as *M. albula*); Key West (Jordan 1884a, as *M. albula*); Florida Keys (Jordan 1884d, as *M. albula*); Punta Gorda (*Fish Hawk* coll., 1889); Cape Sable Creek, west coast, and Garden Key (Henshall 1889); Tampa (Henshall 1894); "extremely abundant along Gulf coast, common on east coast, New Smyrna, St. Johns River and Lake Jessup" (Lönnberg 1894, as *M. albula*); Titusville and Pelican Island (Evermann & Bean 1896); and Tampa market, Tarpon Springs and Biscayne Bay (Evermann & Kendall coll., 1896).

**187. *Mugil gaimardianus* Desmarest.**

Florida Keys (Jordan & Swain 1884b).

**188. *Mugil trichodon* Poey. Fan-tail Mullet.**

Key West (Jordan 1884a); Key West and Florida Keys (Jordan & Swain 1884b, as *M. brasiliensis*; Henshall 1894); Florida Keys (Jordan 1884d, as *M. liza*; Henshall 1889, Jordan & Evermann 1896, and Evermann & Kendall coll., 1896).

**189. *Querimana gyrans* Jordan & Gilbert. Whirligig Mullet.**

Key West (Jordan & Gilbert 1884a, type; Jordan 1884a; and Jordan & Swain, 1884b); Marco, Gordon Pass and Myakka River (Henshall 1889); Lake Worth (Smith coll., 1895); Indian River Inlet, Pelican Island and Stuart (Evermann & Bean coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**SPHYRÆNIDÆ. The Barracudas.**

**190. *Sphyraena barracuda* (Walbaum). Great Barracuda.**

Pensacola (Stearns coll., Goode & Bean 1879a, as *S. picuda*; and Jordan & Evermann 1896, as *S. picuda*); south Florida (Goode 1879a, as *S. piouda*); west Florida (Velie coll., Goode & Bean 1879b, as *S. picuda*); Key West (Jordan 1884a, as *S. picuda*; Lönnberg 1894, as *S. picuda*; and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d, as *S. picuda*); Garden Key (*Grampus* coll., Kendall 1889, as *S. picuda*); Cards Sound, Key West, and west coast of Florida (Henshall 1889, as *S. picuda*); and Biscayne Bay (McCormick coll., Smith 1895, as *S. picuda*).

**191. *Sphyraena guachancho* Cuvier & Valenciennes.**

Pensacola (Stearns coll., Goode & Bean 1879a, as *S. guaguacho*; Stearns coll., Jordan 1884; and Jordan & Evermann 1896, as *S. guachancho*); and Key West (Henshall 1894, as *S. guaguanche*).

**192. *Sphyraena borealis* De Kay. Northern Barracuda.**

Key West (Evermann & Kendall coll., 1896).

**POLYNEMIDÆ. The Threadfins.**

**193. *Polydactylus virginicus* (Linnaeus). Thread-fin; Barbudo.**

Key West (Jordan 1884a, as *Polynemus virginicus*; and Jordan & Evermann 1896).

**194. *Polydactylus octonemus* (Girard).**

Pensacola (Stearns coll., Goode & Bean 1879a, as *Polynemus octonemus*; and Bean 1883, as *P. octonemus*).

**HOLOCENTRIDÆ. The Squirrel-Fishes.**

**195. *Holocentrus ascensionis* (Osbeck). Squirrel-fish.**

Key West (Jordan 1884a, as *Holocentrum ascensione*, Henshall 1894, and Evermann & Kendall coll., 1896).

**196. *Holocentrus ascensionis rufus* (Walbaum).**

Florida Keys (Jordan 1884d, as *Bodianus rufus*).

## MULLIDÆ. The Surmullets.

**197. Mullus auratus** Jordan & Gilbert. *Surmullet.*

Pensacola (Jordan & Gilbert 1882, as *M. barbatus auratus*; and Jordan & Evermann 1896); and Snapper Banks (Stearns coll., Jordan 1884).

**198. Upeneus maculatus** (Bloch). *Red Goat-fish.*

Key West (Jordan 1884a); Florida Keys (Jordan 1884d); Key West and Garden Key (Henshall 1889); and Tortugas (Garman 1896).

**199. Upeneus martinicus** Cuvier & Valenciennes.

Key West (Jordan 1884, as *U. balteatus*; and Jordan & Evermann 1896); and Florida (Jordan 1884d, as *U. balteatus*).

## SCOMBRIDÆ. The Mackerels.

**200. Scomber scombrus** Linnaeus. *Common Mackerel.*

Off coast of Florida 15 to 25 miles southeast of Cape Canaveral (reported by Capt. John Emmons, schooner *Belle of the Bay*, Collins 1887).

**201. Scomber colias** Gmelin. *Chub Mackerel.*

Pensacola (Jordan & Gilbert 1882, as *S. grex*, and 1883), and Snapper Banks (Stearns coll., Jordan 1884).

**202. Auxis thazard** (Lacépède). *Frigate Mackerel.*

Several places on Snapper Banks, caught by trolling (*Grampus* coll., Kendall 1889).

**203. Gymnosarda alleterata** (Rafinesque). *Little Tunny.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Oroynus alliteratus*; Bean 1883, as *O. alliteratus*; and Stearns coll., Jordan 1884, as *Euthynnus alliteratus*); Key West (Jordan 1884a, as *E. alliteratus*, and Henshall 1884, as *E. alliteratus*); and Florida Keys (Jordan 1884d, as *E. alliteratus*).

**204. Sarda sarda** (Bloch). *Bonito.*

Florida Keys and west coast (Henshall 1889); Key West (Henshall 1894); and Biscayne Bay (McCormick coll., Smith 1895).

**205. Scomberomorus maculatus** (Mitchill). *Spanish Mackerel.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Cybium maculatum*; and Jordan & Gilbert 1882); Charlotte Harbor (Henshall coll., Bean 1883); Key West (Jordan 1884a, and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d); Tampa Bay and west coast (Henshall 1889); Key West and Tampa (Henshall 1894); Key West, St. Petersburg, and Clearwater Harbor (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Santa Lucia Inlet (Evermann & Bean 1896).

**206. Scomberomorus regalis** (Bloch). *Sierra.*

Key West (Jordan 1884a, and Lönnberg 1894); Florida Keys (Jordan 1884d); near Egmont Key (*Grampus* coll., Kendall 1889); Key West and Florida Keys (Henshall 1889 and 1894); and Biscayne Bay (McCormick coll., Smith 1895).

**207. Scomberomorus cavalla** (Cuvier). *King-fish; Cero.*

Pensacola (Jordan & Gilbert 1882); Key West (Poey 1882, as *Cybium caballa*; Jordan 1884a and 1884d; and Lönnberg 1894, as *S. caballa*); Key West and Florida Keys (Henshall 1889 and 1894); Biscayne Bay (McCormick coll., Smith 1895); and Florida Keys (Jordan & Evermann 1896).

**208. Acanthocybium solandri** (Cuvier & Valenciennes). *Wahoo.*

Key West (Jordan 1884a); Florida Keys (Jordan 1884d, and Jordan & Evermann 1896).

## TRICHIURIDÆ. The Cutlass-Fishes.

**209. Trichiurus lepturus** Linnaeus. *Cutlass-fish; Machete.*

Pensacola (Stearns coll., Goode & Bean 1879a, and Jordan & Gilbert 1883); Jacksonville and elsewhere (Goode 1879a); Jacksonville (P. McQuaid coll., Bean 1883); Key West (Jordan 1884a and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d); Snapper Banks (Stearns coll., Jordan 1884); Indian River and Titusville (Evermann & Bean coll., 1896); estuaries of St. Johns River (Goode & Bean 1896).

## ISTIOPHORIDÆ. The Sail-Fishes.

**210. Istiophorus nigricans** (Lacépède). *Sail-fish.*

Between Savannah and Indian River (Goode 1879a, as *Histiophorus gladius*); Key West (Jordan coll., 1884a; Henshall 1889, as *I. americanus*; and Jordan & Evermann 1896).

## XIPHIDÆ. The Sword-Fishes.

**211. Xiphias gladius** Linnaeus. *Common Sword-fish.*

Off mouth of St. Johns River (Goode 1879a).

## CARANGIDÆ. The Pompanos.

**212. Oligoplites saurus** (Bloch & Schneider). *Leather-jacket.*

Tortugas (Jefferson, Porter & Moore 1878, as *Canthorhinus occidentalis*); west Florida (Velle coll., Goode & Bean 1879b, as *O. occidentalis*); Indian River (Jordan 1880, as *O. occidentalis*; and Evermann & Bean 1896); Pensacola (Jordan & Gilbert 1882, as *O. occidentalis*); Garden Key (Whitehurst & Baker coll., Bean 1883, as *O. occidentalis*); Key West (Jordan 1884a, and Henshall 1894); Florida Keys (Jordan 1884d); Cedar Keys (Jordan & Swain 1884a); west coast (Henshall 1889); and Biscayne Bay (McCormick coll., Smith 1895).

**213. Seriola zonata** (Mitchill). *Shark Pilot.*

West Florida coast and Snapper Banks (Goode 1881).

**214. Seriola zonata carolinensis** Holbrook.

Pensacola (Stearns coll., Goode & Bean 1879, as *S. stearnsii*, type; Goode 1879a, as *S. zonata*; Goode & Bean 1879a, as *S. stearnsii*; Jordan & Gilbert 1882, as *S. stearnsii*; Stearns coll., Bean 1883, as *S. carolinensis*; and Jordan & Evermann 1896).

**215. Seriola lalandi** Cuvier & Valenciennes. *Amber Jack.*

Pensacola (Jordan & Gilbert 1882); Key West (Jordan 1884a, and Henshall 1894); Florida Keys (Jordan 1884d, and Henshall 1889); and Biscayne Bay (McCormick coll., Smith 1895).

**216. Seriola dumerili** (Risso). *Amber Jack.*

Key West (Jordan 1884a and 1884d, and Henshall 1894), and Pensacola (Stearns coll., Jordan & Swain 1884f).

**217. Seriola fasciata** (Bloch). *Madregal.*

South Florida (Goode 1881, as *Zonichthys fasciatus*).

**218. Seriola rivoliana** Cuvier & Valenciennes.

Pensacola (Goode & Bean 1879, as *S. bonariensis*, and Goode 1881, as *S. bonariensis*).

**219. Seriola falcata** Cuvier & Valenciennes. *Madregal.*

Snapper Banks off Pensacola (Jordan & Gilbert 1882).

**220. Elegatis bipinnulatus** (Quoy & Gaimard). *Runner.*

West Florida (Würdemann coll., Goode & Bean 1879, as *E. pinnulatus*); Key West and Pensacola (Goode 1881, as *E. pinnulatus*); southern Florida (Würdemann coll., Bean 1883, as *E. pinnulatus*); and Key West (Jordan 1884a, as *E. pinnulatus*).

**221. Decapterus punctatus** (Agassiz). *Scad.*

Pensacola (Stearns coll., Goode & Bean 1879a; Goode 1881; Jordan & Gilbert 1882; and Stearns coll., Bean 1883); Pensacola and Snapper Banks (Stearns coll., Jordan 1884); Charlotte Harbor and Dry Tortugas (Henshall 1889); and Biscayne Bay (McCormick coll., Smith 1895).

**222. Decapterus macarellus** (Cuvier & Valenciennes). *Mackerel Scad.*

South Florida and Key West (Goode 1881).

**223. Trachurus trachurus** (Linnaeus). *Saurel.*

Pensacola (Jordan & Gilbert 1882, as *Caranx trachurus*, and Jordan & Gilbert 1883, as *T. saurus*; and Jordan & Evermann 1886 and 1896); Snapper Banks (Stearns coll., Jordan 1884); and Little Sarasota Bay (Henshall coll., 1889), and Gulf of Mexico (Henshall 1889).

**224. Trachurus crumenophthalmus** (Bloch). *Big-eyed Scad.*

Key West (Goode 1881, as *Carangus crumenophthalmus*).

**225. Hemicaranx amblyrhynchus** (Cuvier & Valenciennes).

Pensacola (Stearns coll., Jordan 1884, as *Caranx amblyrhynchus*).

**226. Caranx bartholomaei** Cuvier & Valenciennes. *Yellow Jack.*

Key West (Jordan 1884a, and Evermann & Kendall coll., 1896); and Biscayne Bay (McCormick coll., Smith 1895).

**227. Caranx hippos** (Linnaeus). *Crevalle.*

Massachusetts to Florida (Holbrook 1855a, as *C. defensor*); New York to Florida (Holbrook 1860, as *C. defensor*); Pensacola (Stearns coll., Goode & Bean 1879a, as *Carangus hippos*); mouth of St. Johns River (Goode 1879a, as *Carangus hippos*); Gulf of Mexico, Gulf coast, eastern Florida, Jacksonville, Indian River, Mosquito Inlet, Merritt Island, and Fort Capron (Goode 1881, as *Carangus hippos*); Key West (Jordan 1884a, and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d); Cedar Keys (Jordan & Swain 1884a); west coast (Henshall 1889); Tampa and Key West (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895); and Indian River (Evermann & Bean 1896).

**228. Caranx cryos** (Mitchill). *Runner.*

Florida (Holbrook 1860, as *C. hippos*); Pensacola (Stearns coll., Goode & Bean 1879a, as *Paratractus pisquetus*; and Stearns coll., Bean 1883, as *C. chrysus*); near mouth of St. Johns River (Goode 1879a, as *P. pisquetus*); west Florida (Velie coll., Goode & Bean 1879b, as *C. pisquetus*); Indian River (Jordan 1880, as *Carangus chrysus*); Pensacola and Santa Rosa Sound (Goode 1881, as *Paratractus pisquetus*); Key West (Jordan 1884a, as *Caranx chrysoes*; Henshall 1894; Lönnberg 1894, as *C. pisquetus*; Evermann & Kendall coll., 1896, and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d); west coast of Florida (Henshall 1889); and Biscayne Bay (McCormick coll., Smith 1895).

**229. Caranx caballus** (Günther). *Jurel.*

Key West (Poey 1882, as *Cybum caballa*; and Jordan & Evermann 1896).

**230. Caranx latus** Agassiz. *Horse-eye Jack.*

Key West (Jordan 1884a, and Henshall 1894); Florida Keys (Jordan 1884d); Tortugas (C. C. Nutting coll., Garman 1896, as *C. fallax*).

**231. Alectis ciliaris** (Bloch). *Thread-fish.*

Tortugas (Jefferson, Porter & Moore 1878, as *Blepharichthys crinitus*); Key West (Jordan 1884a, as *Caranx crinitus*; and Henshall 1894, as *C. crinitus*); and Florida Keys (Jordan 1884d, as *C. crinitus*).

**232. Vomer setipinnis** (Mitchill). *Moon-fish.*

Lower St. Johns River (Goode 1881, as *Argyrius setipinnis*), and Pensacola (Stearns coll., Bean 1883; and Jordan 1884, as *Caranx setipinnis*).

**233. Selene vomer** (Linnaeus). *Moon-fish.*

St. Johns River at Jacksonville (Goode 1879a, as *Argyreiosus vomer*); west Florida (Velie coll., Goode & Bean 1879b, as *S. argentea*); Indian River (Jordan 1880, as *S. argentea*); Key West (Jordan 1884a, and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d); west coast (Henshall 1889); Key West and Tampa (Henshall 1894); Clearwater Harbor and Punta Gorda (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Indian River (Evermann & Bean 1896).

**234. Chloroscombrus chrysurus** (Linnaeus). *Bumper; Casabe.*

St. Johns River at Arlington (Goode 1879a); St. Johns and Indian rivers (Curtiss coll., Jordan 1880a); Pensacola (Stearns coll., Bean 1883); Garden Key (Whitethurst coll., Bean 1883); and Pensacola and Snapper Banks (Stearns coll., Jordan 1884).

**235. Trachinotus glaucus** (Bloch). *Palometta.*

Cape Florida to Gulf of Mexico (Holbrook 1860); Florida Keys (Jordan 1884d); and Pensacola (Jordan & Gilbert 1882); and Key West (Henshall 1894).

**236. *Trachinotus rhodopus* Gill. "Permit"; *Pampanito*.**

Key West (Jordan 1884a); Florida Keys (Jordan 1884d, and Lönnberg 1894); Loggerhead Key (Henshall 1889); and Tampa and Key West (Henshall 1894).

**237. *Trachinotus falcatus* (Linnaeus). *Round Pompano*.**

Marquesas Keys (Velie coll., Goode & Bean 1879b, as *T. ovatus*); Pensacola (Goode 1881, as *T. ovatus*); Lake Worth (Henshall coll., Bean 1883, as *T. ovatus*); Key West (Jordan 1884a, as *T. rhomboides*; and Henshall 1889); Florida Keys (Jordan 1884d, as *T. rhomboides*); Clearwater Harbor (Lönnberg 1894, as *T. ovatus*); Biscayne Bay (McCormick coll., Smith 1895); Eau Gallie, Eden, and Stuart (Evermann & Bean 1896); and Tampa (in U. S. Fish Comm. reserve series).

**238. *Trachinotus goodei* Jordan & Evermann. "Permit."**

West Florida (Velie coll., Goode & Bean 1879a, as *T. goreensis*) and Jupiter Inlet (Blackford coll., Goode & Bean 1879a, as *T. goreensis*); west Florida (Velie coll., Goode & Bean 1879b, as *T. goreensis*); Jupiter Inlet, Key West, Sarasota Bay, Charlotte Harbor, and Cedar Keys (Goode 1881, as *T. goreensis*); Key West (Jordan & Evermann 1896, type); Biscayne Bay (McCormick coll., Smith 1895); Indian River (Evermann & Bean 1896).

**239. *Trachinotus carolinus* (Linnaeus). *Common Pompano; Pámpano*.**

Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1882; and Stearns coll., Bean 1883); mouth of St. Johns River (Goode 1879a); Indian River, New Smyrna, Key West, Pensacola, Tampa Bay, and Charlotte Harbor (Goode 1881); Key West (Jordan 1884a); Cedar Keys (Jordan & Swain 1884a); Egmont Key (Jordan 1884e); Egmont Key and Gasparilla (Henshall 1889); Tampa and Key West (Henshall 1894); Punta Gorda, Clearwater Harbor, and Coronado Beach outside New Smyrna (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Indian River (Evermann & Bean 1896).

**POMATOMIDÆ. The Blue-Fishes.****240. *Pomatomus saltatrix* (Linnaeus). "Blue-fish."**

Pensacola (Stearns coll., Goode & Bean 1879a, and Bean 1883); St. Johns River (Bean 1880 and 1883); Pensacola (Jordan & Gilbert 1882); Key West (Jordan 1884a); Florida Keys (Jordan 1884d); Lemon Bay (Henshall 1889); Tampa (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895); Indian River Inlet (Evermann & Bean 1896); and Florida Reefs (Garman 1896).

**RACHYCENTRIDÆ. The Sergeant-Fishes.****241. *Rachycentron canadus* (Linnaeus). *Sergeant-fish*.**

Indian River (Goode 1879a, as *Elegate canadus*); Pensacola (Bean 1883, as *E. canadus*); Key West (Jordan 1884a and Henshall 1894, as *E. canadus*); and Florida Keys (Jordan 1884d, as *E. canadus*).

**NOMEIDÆ.****242. *Nomeus gronovii* (Gmelin). *Portuguese Man-of-war Fish*.**

Snapper Banks off Pensacola (Jordan & Gilbert 1882); Garden Key and Pensacola (Bean 1883); Key West and Florida Keys (Jordan 1884a); Snapper Banks (Stearns coll., Jordan 1884); Snapper Banks (*Grampus* coll., Kendall 1889); Gulf of Mexico (Henshall 1889); Tortugas (Garman 1896); and Key West (C. B. Hudson coll., 1897).

**CORYPHENIDÆ. The Dolphins.****243. *Coryphaena hippurus* Linnaeus. *Common Dolphin*.**

Key West (Jordan 1884a, and Henshall 1894); Florida Keys (Jordan 1884d); and off Key West in 6 fathoms (Garman 1896, as *Coryphana* sp?).

**244. *Coryphaena equisetis* Linnaeus. *Small Dolphin*.**

Pensacola (Stearns coll., Bean 1883, as *C. punctulatus*).

## STEINEGERIDÆ.

245. *Steinegeria rubescens* Jordan & Evermann.

Snapper Banks, from stomach of red grouper (Jordan & Evermann 1886, type), and Snapper Banks (Jordan & Evermann 1896).

## STROMATEIDÆ. The Butter-Fishes.

246. *Rhombus paru* (Linnaeus). *Harvest-fish.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Peprilus alepidotus*); Fernandina (Goode 1879a, as *P. alepidotus*; and L. W. Ledyard coll., Bean 1883, as *Stromateus paru*); Egmont Key (Jordan 1884e, as *S. alepidotus*); and Snapper Banks (*Grampus* coll., Kendall 1889, as *S. paru*).

247. *Rhombus triacanthus* (Peck). *Butter-fish.*

Pensacola Snapper Banks (Stearns coll., Jordan 1884, as *Stromateus triacanthus*), and Lemon Bay and Big Sarasota Bay (Henshall 1889, as *S. triacanthus*).

## ELASSOMATIDÆ. The Pigmy Sun-Fishes.

248. *Elassoma evergladei* Jordan. *Pigmy Sun-fish.*

Indian River and Lake Jessup (R. E. Earll coll., Jordan 1884c, type); Santa Fe River, Sampson Creek, New River, Withlacoochee River, Mill Creek and Pember-ton Creek (Woolman 1890); Fern Creek and small lakes around Orlando, Tohope-kaliga and other waters around Kissimmee, and Arcadia (Lönnberg 1894); Lake Butler (Evermann & Kendall coll., 1896); and Welaka and the Ocklawaha River (Kendall coll., 1897).

## CENTRARCHIDÆ. The Sun-Fishes.

249. *Pomoxis sparoides* (Lacépède). *Calico Bass; "Spotted Perch."*

St. Johns River and tributaries (Goode 1879a, as *P. nigromaculatus*); St. Johns River (Bean 1880, as *P. nigromaculatus*); Escambia River (Bollman 1886); Lake Apopka and several other lakes in Orange County (Lönnberg 1894); and Lake Monroe, and Lake George at Volusia Bar (Kendall coll., 1897).

250. *Centrarchus macropterus* (Lacépède). *Flier.*

Florida (Bollman 1888, and Jordan & Evermann 1896).

251. *Chænobryttus gulosus* (Cuvier & Valenciennes). *Warmouth; "Perch-mouth Bream."*

St. Johns River (Holbrook 1855, type of *Calliurus floridensis*, and Bean 1880); Volusia (Cope 1877); St. Johns River and tributaries (Goode 1879a, as *C. viridis*); San Sebastian River (Henshall coll., Jordan 1880, as *C. viridis*); Escambia River (Bollman 1886); Myakka River and fresh ponds near Myakka River (Henshall 1889); Alligator River, Punta Gorda, Joshua, Charley Apopka and Oak creeks, Alligator Branch, Peace River at Wauchula and Bartow, Pemberton Creek, Galliger Drain, Mill Creek, Withlacoochee and Little Withlacoochee rivers, Pond Creek, Santa Fe River, Sampson Creek and New River (Woolman 1890); Fern Creek near Orlando, small lakes near Zellwood, Apopka Creek at Orlando, Lake Jessup in a small brook from sulphur springs, and ditches and ponds at Arcadia (Lönnberg 1894); Little River and Little Arch Creek (Smith coll., 1895); Tampa and Anclote River (Evermann & Kendall coll., 1896); and Palatka, Welaka, Georgetown and Lake Monroe (Kendall coll., 1897).

252. *Euneacanthus obesus* (Baird).

St. Johns River (Holbrook 1855, type of *Bryttus fasciatus*; and Jordan & Evermann 1896); Florida (Bollman 1888); Volusia (Cope 1877, as *E. fasciatus*); St. Johns River, Volusia and Bayport (Goode 1879a); Sebastian River (Henshall coll., Jordan 1880); and Myakka River (Henshall 1889).

**253. *Enneacanthus gloriosus* (Holbrook).**

Florida (Bollman 1888); small pond near Lake Beauty near Orlando (Lönnberg 1894, as *E. simulans*); Anclote River (Evermann & Kendall coll., 1896); and Palatka, Welaka, Volusia Bar and Lake Monroe (Kendall coll., 1897).

**254. *Apomotis punctatus* (Cuvier & Valenciennes).**

Volusia and east Florida (Cope 1877, as *Lepomis apiatus*); St. Johns River (Jordan 1877, as *Lepiopomus apiatus*; Bean 1880, as *L. punctatus*); Arlington and Jacksonville (Goode 1879a, as *Lepiopomus apiatus*); San Sebastian River (Henshall coll., Jordan 1880, as *L. punctatus*); St. Johns River (Goode coll., Bean 1883, as *Lepomis punctatus*); east Florida (streams flowing into Biscayne Bay) and Myakka River (Henshall 1889, as *L. punctatus*); Alligator River, Punta Gorda, Joshua, Charley Apopka and Oak creeks, Santa Fe River, Sampson Creek, and New River (Woolman 1890); small lake near Zellwood (Lönnberg 1894, as *L. punctatus*); Little Arch Creek, Little River, and Hillsboro River (Smith coll., 1895); Miami River (Evermann & Kendall coll., 1896); and Palatka, Welaka, St. Johns River at Fort Gates, Ocklawaha River, and sulphur springs at Welaka (Kendall coll., 1897).

**255. *Lepomis auritus* (Linnaeus). *Redbreast Bream.***

St. Johns River (Holbrook 1855, type of *Pomotis elongatus*; Bean 1880, as *Lepiopomus auritus*; Bean 1883; and Jordan & Evermann 1896, as *L. auritus solis*); Volusia and east Florida (Cope 1877, as *L. auritus* and as *L. mysticalis*, type); Florida (Jordan 1877, as *Lepiopomus elongatus et mysticalis*); St. Johns River and tributaries (Goode 1879a, as *Lepiopomus auritus*); St. Johns River at Palatka, sulphur springs at Welaka, and St. Johns River at Welaka, Ocklawaha River, Match Creek, Bear Creek, Fort Gates, Volusia Bar at head of Lake George, and Lake Monroe (Kendall coll., 1897)..

**256. *Lepomis miniatus* Jordan.**

Fresh waters connected with Indian River (Jordan & Evermann 1896).

**257. *Lepomis megalotis* (Rafinesque). *Long-eared Sunfish.***

St. Johns River (Holbrook 1855, type of *Pomotis marginatus*; Günther 1859, as *P. marginatus*); Florida (Jordan 1877, as *Xenotis marginatus*); Escambia River (Bollman 1886); New River, Pemberton Creek, Galliger Drain, Mill Creek, Charley Apopka Creek, Peace River at Zolfo Springs, Bartow, and at Wauchula (Woolman 1890).

**258. *Lepomis pallidus* (Mitchill). *Blue-gill; "Blue Bream."***

Pensacola (Stearns coll., Goode & Bean 1879a, as *Lepiopomus incisor*); St. Johns River and all fresh and brackish waters in Florida (Goode 1879a, as *L. incisor*); San Sebastian River (Jordan 1880); St. Johns River (Bean 1880 and 1883; Jordan & Meek 1884); Escambia River (Bollman 1886); west Florida, Point Pinellas (Henshall 1889); Joshua Creek, Peace River at Zolfo Springs, Wauchula and Bartow, Alligator Branch, Pemberton Creek, Galliger Drain, Mill Creek, Withlacoochee River, Sampson Creek, and New River (Woolman 1890); Lake Apopka, Zellwood, Orange, Osceola and De Soto counties (Lönnberg 1894); Arch Creek (Smith coll., 1895); Eau Gallie Creek, South Lake, and fresh-water streams tributary to Indian River (Evermann & Bean 1896); and Palatka, Welaka, Fort Gates, Volusia Bar, and Lake Monroe (Kendall coll., 1897).

**259. *Eupomotis pallidus* (Agassiz).**

Garden Key (?) (Jordan 1877, type of *Xystroplites gilli*); "described from Key West [Garden Key]" (Goode 1879a, as *X. gilli*).

**260. *Eupomotis heros* (Baird & Girard).**

Florida (Jordan & Evermann 1896).

**261. *Eupomotis holbrooki* (Cuvier & Valenciennes). *"Shell Cracker."***

St. Johns River (Holbrook 1855, type of *Pomotis speciosus*; Günther 1859, as *P. microlophus*; Goode 1879a and Bean 1880, as *E. speciosus*, and Bean 1883, as *Lepomis holbrooki*); Jordan & Meek 1884, as *L. holbrooki*); Volusia and Bayport (Cope 1877, as *Xystroplites longimanus*, type of genus and species); Pensacola (Stearns coll., Goode & Bean 1879a, as *E. speciosus*); Escambia River (Bollman 1886, as *Lepomis holbrooki*); Volusia and Bayport (according to Cope, Bollman 1888); Myakka River (Henshall

1889); Joshua, Charley Apopka, and Oak creeks, Peace River at Zolfo, Alligator Branch, Mill Creek, and Pond Creek (Woolman 1890, as *L. holbrookii*); Lake Apopka (Lönnberg 1894, as *Lepomis holbrookii*); Little Arch Creek and Hillsboro River (Smith coll., 1895); South Lake and Titusville (Evermann & Bean 1896); Tampa, Anclote River and Lake Butler (Evermann & Kendall coll., 1896); St. Johns River, Palatka, Welaka, Volusia Bar, and Lake Monroe (Kendall coll., 1897).

**262. Eupomotis gibbosus** (Linnaeus). *Common Sun-fish.*

Maine to Florida (Holbrook 1855, as *Pomotis vulgaris*); Florida (Jordan 1877, as *E. aureus*; Bean 1883; and Jordan & Evermann 1896); and all fresh waters of Florida (Goode 1879a, as *E. aureus*).

**263. Micropterus salmoides** (Lacépède). *Large-mouthed Black Bass; "Trout."*

East Florida (Maclare, Ord, Say & Peale coll., Le Sueur 1822, as type of *Cichla floridana*, and according to Le Sueur, Bollman 1888); Florida (Holbrook 1855a and 1860, as *Grytes salmoides*); Pensacola (Stearns coll., Goode & Bean 1879a, as *Micropterus pallidus*); San Sebastian River (Henshall coll., Jordan 1880, as *M. pallidus*); St. Johns River (Curtis coll., Jordan 1880a, as *M. pallidus*, and Bean 1880, as *M. pallidus*); Wekiwachee River (Henshall coll., Bean 1883); Escambia River (Bollman 1886); Myakka River, Hillsborough River and tributaries (Henshall 1889); Joshua, Charley Apopka and Oak creeks, Peace River at Zolfo, Wauchula and Bartow, Alligator Branch, Pemberton Creek, and Galliger Drain (Woolman 1890); St. Johns River and lakes (Lönnberg 1894); Eau Gallie and South Lake (Evermann & Bean 1896); Palatka, Welaka, Match Creek, tributary to Ocklawaha River, and Lake Monroe (Kendall coll., 1897).

**PERCIDÆ. The Perches.**

**264. Hadropterus nigrofasciatus** Agassiz. *Crawl-a-bottom.*

Escambia River (Bollman 1886, as *Etheostoma nigrofasciatum*).

**265. Ammocrypta beanii** Jordan. *Sand Darter.*

Escambia River (Bollman 1886, as *Etheostoma beanii*).

**266. Copelandellus quiescens** (Jordan).

Alligator River, Joshua Creek, Alligator Branch, Pemberton Creek, Mill Creek, Withlacoochee and Little Withlacoochee rivers, Pond Creek, Santa Fe River, Sampson Creek, New River (Woolman 1890, as *Etheostoma quiescens*); Fern Creek near Orlando, in many localities, small lakes south of Orlando, Lake John near Oakland, and small lakes near McDonald (Lönnberg 1894, as *E. quiescens*); Lake Butler, and pond near Tampa (Evermann & Kendall coll., 1896); and St. Johns River at Welaka, lake near Welaka, and Lake Monroe (Kendall coll., 1897).

**267. Boleichthys fusiformis** (Girard).

Florida (Holbrook 1855, as *Boleosoma barratti*); Titusville (Earll coll., Jordan 1884c, as *Pœgilichthys barratti*, and Evermann & Bean 1896).

**CHEILODIPTERIDÆ. The Kings of the Mullets.**

**268. Apogon imberbis** (Linnaeus). *King of the Mullets; Alfonsino; Fucinita.*

Tortugas (Jefferson, Porter & Moore 1878).

**269. Apogon maculatus** (Poey).

Pensacola Snapper Banks (Jordan & Gilbert 1882; and Stearns coll., Jordan 1884); Snapper Banks and Pensacola (Jordan & Evermann 1896).

**270. Apogonichthys alutus** (Jordan & Gilbert).

Pensacola (Jordan & Gilbert 1882, type of *Apogon alutus*); Snapper Banks (Stearns coll., Jordan 1884, as *Apogon alutus*); and off Tampa (Jordan & Evermann 1896).

**271. Apogonichthys puncticulatus** Poey.

Tortugas (Garman 1896, as *Amia puncticulatus*).

**272. Glossamia pandionis** (Goode & Bean).

Lat.  $28^{\circ} 45'$  N., long.  $86^{\circ} 26'$  W., in 227 fathoms, southward of Pensacola (Goode & Bean 1896).

**273. Hypoclydonia bella** Goode & Bean.

Lat.  $28^{\circ} 42' N.$ , long.  $86^{\circ} 36' W.$ , in 280 fathoms, southward of Pensacola, and lat.  $28^{\circ} 38' 30'' N.$ , long.  $85^{\circ} 52' 30'' W.$ , southward of Cape San Blas (Goode & Bean 1896).

**CENTROPOMILÆ. The Robalos.****274. Centropomus undecimalis** (Bloch). "Snook"; Sergeant-fish; Robalo.

Jupiter Inlet (Goode 1879a); Key West and Florida Keys (Jordan 1884d); west coast (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); west coast and Cards Sound (Henshall 1889); Tampa (Henshall 1894); Indian River (Evermann & Bean 1896); Key West (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**SERRANIDÆ. The Sea Basses.****275. Roccus lineatus** (Bloch). Striped Bass; Rock-fish; Rock.

Pensacola (Stearns coll., Goode & Bean 1879a); St. Johns River (Goode 1879a); Florida (Bean 1883, as *R. saxatilis*); and Escambia River (Bollman 1886).

**276. Petrometopon cruentatus** Lacépède. Coney; Rock Hind; Enjambre.

Southern keys and reefs (Henshall 1894, as *Bodianus cruentatus*); Key West (Evermann & Kendall coll., 1896); and Florida (Jordan & Evermann 1896).

**277. Petrometopon cruentatus coronatus** (Cuvier & Valenciennes).

Key West (Jordan 1884a, as *Epinephelus guttatus*; and Jordan & Evermann 1896); Florida Keys (Jordan & Swain 1884d, as *Epinephelus guttatus coronatus*, and Jordan 1884d, as *Epinephelus guttatus*); and Key West and Tortugas (Henshall 1889, as *Enneacentrus guttatus*).

**278. Bodianus tæniops** (Cuvier & Valenciennes).

Florida (Jordan & Swain 1884d, as *Enneacentrus tæniops*; and Jordan & Evermann 1896).

**279. Bodianus fulvus** (Linnaeus.) "Nigger-fish."

Key West (Henshall 1889, as *Enneacentrus fulvus*, and 1894); Tortugas (Garman 1896, as *Epinephelus guatevere*); and Florida Keys (Jordan & Evermann 1896).

**280. Bodianus fulvus punctatus** (Linnaeus). "Nigger-fish."

Key West (Lönnberg 1894); and Biscayne Bay (McCormick coll., Smith 1895).

**281. Epinephelus adscensionis** (Osbeck). Rock Hind; Cabra Mora.

Key West (Poey 1882, as *E. punctatus*; Jordan 1884a, as *E. adscensionis*; Henshall 1889, as *E. adscensionis*, and Henshall 1894; Evermann & Kendall coll., 1896, and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d, Jordan & Swain 1884d, as *E. adscensionis*, and Jordan & Evermann 1896); and Biscayne Bay (McCormick coll., Smith 1895).

**282. Epinephelus flavolimbatus** Poey. "Yellow-finned Grouper."

Key West (Henshall 1894), and Pensacola (Jordan & Evermann 1896).

**283. Epinephelus niveatus** (Cuvier & Valenciennes).

Pensacola (Jordan & Evermann 1886).

**284. Epinephelus striatus** (Bloch). "Nassau Grouper"; Cherna Criolla.

Key West (Jordan 1884a, Jordan & Swain 1884d, Henshall 1894, Jordan & Evermann 1896, Evermann & Kendall coll., 1896, and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d); and Key West and Florida Keys (Henshall 1889).

**285. Epinephelus maculosus** (Cuvier & Valenciennes). "Red Hind"; Cabrilla.

Key West (Poey 1882, as *E. lunulatus*); Florida Keys and Tortugas (Jordan & Eigenmann 1888, as *E. catus*); Garden Key (Henshall 1889, as *E. apua*); Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Biscayne Bay (McCormick coll., Smith 1895); and Florida Keys (Jordan & Evermann 1896).

**286. Epinephelus drummond-hayi** Goode & Bean. "Speckled Hind"; John Paw.

Pensacola (Goode & Bean 1878a, type, and 1879a; Jordan & Gilbert 1882; and Jordan & Evermann 1896); and Key West (Jordan 1884a).

**287. Epinephelus morio** (Cuvier & Valenciennes). *Red Grouper.*

Key West (Holbrook 1855a and 1860, as *Serranus erythrogaster*; Poey 1882, Bean 1883, Jordan 1884a, Lönnberg 1894, Henshall 1894, Evermann & Kendall coll., 1896, and C. B. Hudson coll., 1897); Pensacola (Stearns coll., Goode & Bean 1879a, and Jordan & Gilbert 1882); St. Johns River, etc., and Indian River (Goode 1879a); Florida Keys (Jordan & Swain 1884d; Jordan 1884d); Key West (Jordan 1884a); Key West and Florida Keys (Henshall 1889); Snapper Grounds, in 15 to 37 fathoms (*Grampus* coll., Kendall 1889); and Biscayne Bay (McCormick coll., Smith 1895).

**288. Garrupa nigrita** (Holbrook). *Black Grouper.*

Pensacola (Goode & Bean 1878c, as *Epinephelus nigritus*, and Stearns coll., Goode & Bean 1879a, as *E. nigritus*); Indian River and west Florida (Goode 1879a, as *E. nigritus*); Snapper Grounds, 19 $\frac{1}{2}$  to 48 fathoms (*Grampus* coll., Kendall 1889, as *E. nigritus*); Marco, Gordon Pass, Jupiter Inlet, Caximbas Pass, Gilbert Inlet, Little Gasparilla Inlet, and Charlotte Harbor (Henshall 1889, as *E. nigritus*; perhaps all of these belong to *Promicrops guttatus*); Key West and Punta Gorda (Lönnberg 1894, as *E. nigritus*); and Pensacola (Jordan & Evermann 1896).

**289. Promicrops guttatus** (Linnaeus). *Guasa; Spotted Jew-fish.*

New Berlin (Goode 1879a, as *P. guasa*); Key West (Poey 1882, as *P. guasa*; Jordan 1884a, as *Epinephelus itaiara*; Henshall 1894, Jordan & Evermann 1896, Evermann & Kendall coll., 1896, and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d, as *E. itaiara*); and Indian River Inlet and Fort Pierce (Evermann & Bean 1896).

**290. Dermatolepis zanclus** Evermann & Kendall.

Key West (Evermann & Kendall 1897, type).

**291. Mycteroperca venenosa** (Linnaeus). "Yellow-sinned Grouper."

Key West (Poey 1882, as *Trisotropis petrosus*; Jordan 1884a, as *Epinephelus venenosus*; Evermann & Kendall coll., 1896, and C. B. Hudson coll., 1897); Florida Keys (Jordan & Swain 1884d; Jordan 1884d, as *Epinephelus venenosus*, and Jordan & Evermann 1896); and Southern Keys (Henshall 1894).

**292. Mycteroperca venenosa apua** (Bloch). *Bonaoi Cardenal; "Red Hind."*

Garden Key (Henshall 1889, as *E. venenosa apua*); Key West (Lönnberg 1894, as *E. guttatus*); and Florida Keys (Jordan 1884a, as *E. apua*; Jordan & Swain 1884d, and Jordan & Evermann 1896).

**293. Mycteroperca bonaci** (Poey). *Marbled Rock-fish.*

Pensacola (Goode & Bean 1879a, as *Trisotropis brunneus*); Key West (Poey 1882, as *Trisotropis brunneus* and *T. aguaji*; Jordan 1884a, as *Epinephelus bonaci*; Jordan & Swain 1884d; Henshall 1894; Jordan & Evermann 1896; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d); and Key West and west coast (Henshall 1889).

**294. Mycteroperca bonaci xanthosticta** Jordan & Swain.

Pensacola (Jordan & Swain 1884d, type), and Snapper Banks (Jordan & Evermann 1896).

**295. Mycteroperca microlepis** (Goode & Bean). "Gag"; *Aguaji.*

Pensacola (Stearns coll., Goode & Bean 1879a, type of *Trisotropis microlepis*; Goode & Bean 1882, as type of *T. stomias*; Jordan & Gilbert 1882, as *T. stomias*; Bean 1883, as *T. stomias*; and Jordan 1884, as *Epinephelus stomias*); Key West and Cedar Keys (Jordan 1884a, as *E. microlepis*; Jordan & Swain 1884d, as *E. microlepis*; Henshall 1889 and 1894; Lönnberg 1894; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d); Cedar Keys (Jordan & Swain 1884a, as *E. stomias*); and Key West and Pensacola (Jordan & Evermann 1896).

**296. Mycteroperca falcata phenax** Jordan & Swain. "Scamp"; *Baoalao.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Trisotropis falcatus*; and Jordan & Gilbert 1882, as *T. falcoatus*); Key West (Poey 1882, as *T. falcatus*; Lönnberg 1894, as *T. falcoata*); Key West and Pensacola (Jordan 1884a, as *Epinephelus falcoatus*; Jordan & Evermann 1896; Evermann & Kendall coll., 1896; and C. B. Hudson coll.,

1897); Florida Keys (Jordan 1884d, as *E. falcoatus*); coast of Florida, Key West, and Pensacola Snapper Banks (Jordan & Swain 1884d, as type of *M. falcata phenax*); Key West, Ironwood Key, and Key Largo (Henshall 1889); Florida Keys, Key West, and Snapper Banks (Henshall 1894, as *M. falcoata*); and Biscayne Bay (McCormick coll., Smith 1895).

**297. Hypoplectrus unicolor** (Walbaum). *Vaca; Petit-nègre.*

Key West (Evermann & Kendall coll., 1896).

**298. Hypoplectrus unicolor nigricans** (Poey).

Florida Keys (Jordan 1884a).

**299. Hypoplectrus gemma** Goode & Bean.

Garden Key (Goode & Bean 1882, type; and Jordan & Evermann 1896); and Florida Keys (Jordan 1884a).

**300. Centropristes striatus** (Linnaeus). *Black Sea Bass; "Tally-wag."*

Cape Florida to Cape Fear River (Holbrook 1855a and 1860, as *C. atrarius*); entire eastern coast (Goode 1879a, as *C. atrarius*); Matanzas River Inlet (Bean 1883, as *Serranus atrarius*); Florida (Bean 1880, as *C. atrarius*).

**301. Centropristes oxyurus** (Jordan & Evermann). *Gulf Sea Bass.*

Pensacola (Goode & Bean 1879a, as *C. atrarius*; Stearns coll., Jordan & Gilbert 1882, as *S. trifurcus*; Jordan & Evermann 1886, type); Pensacola Snapper Banks (Bean 1883, as *Serranus trifurcus*); Cedar Keys (Jordan & Swain 1884a, as *S. atrarius*); Tampa Bay (Henshall 1889, as *S. atrarius*); Tampa (Henshall 1894, as *C. striatus*); and Snapper Banks (Jordan & Evermann 1896).

**302. Centropristes philadelphicus** (Linnaeus).

Pensacola (Jordan & Gilbert 1883, as *Serranus philadelphicus*), and Snapper Banks (Stearns coll., Jordan 1884, as *S. philadelphicus*).

**303. Diplectrum formosum** (Linnaeus). *Squirrel-fish.*

Key West (Jordan 1884a, as *Serranus formosus*; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Pensacola and Snapper Banks (Jordan 1884, as *S. formosus*); Florida Keys (Jordan 1884d, as *S. formosus*); Snapper Grounds, entrance to Charlotte Harbor (*Grampus* coll., Kendall 1889, as *S. formosus*); Key West and Gordon Pass (Henshall 1889, as *S. formosus*); Charlotte Harbor (*Fish Hawk* coll., 1889); Key West (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895; and Jordan & Evermann 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**304. Prionodes phœbe** (Poey). *Phœbe.*

Pensacola and Snapper Banks (Stearns coll., Jordan 1884, as *Serranus phœbe*); and Snapper Banks (*Grampus* coll., Kendall 1889, as *Prionodes* sp. ?).

**305. Dules subligarius** (Cope).

Pensacola (Cope 1870, type of *Centropristes subligarius*; Jordan & Gilbert 1882, as *Serranus subligarius*; and Stearns coll., Goode & Bean 1879a, as *Haliperca subligaria*); Snapper Banks (Stearns coll., Jordan 1884, as *S. subligarius*); and Big Gasparilla and Lemon Bay (Henshall 1889, as *S. subligarius*).

**306. Hemianthias vivanus** (Jordan & Swain).

Pensacola (Stearns coll., Jordan & Swain 1884f, type of *Anthias vivanus*); and from stomach of red hind from Snapper Banks (Jordan & Evermann 1886).

**307. Rypticus saponaceus** (Bloch & Schneider). *Soap-fish.*

Pensacola Snapper Banks (Stearns coll., Jordan 1884).

**308. Rypticus bistrispinus** (Mitchill).

Key West (Velie coll., Goode & Bean 1879b, as *R. pituitosus*; Jordan 1884a, as *R. bistrispinosus*; and Henshall 1894, as *R. bistrispinnis*); Pensacola and Snapper Banks (Stearns coll., Jordan 1884, as *R. maculatus*); and Snapper Banks (*Grampus* coll., Kendall 1889, as *R. pituitosus*).

## LOBOTIDÆ. The Triple-Tails.

**309. Lobotes surinamensis** (Bloch). *Flasher; Triple-tail.*

New York to Florida (Holbrook 1860); St. Johns River at Arlington (Goode 1879a); Pensacola (Stearns coll., Jordan & Swain 1884f); and Tampa (Henshall 1894); Indian River (Evermann & Bean 1896).

## PRIACANTHIDÆ. The Catalufas.

**310. Priacanthus arenatus** Cuvier & Valenciennes. *Catalufa.*

Key West (Henshall 1894, as *P. catalufa*).

**311. Pseudopriacanthus altus** (Gill).

Pensacola (Jordan & Evermann 1896); and lat.  $24^{\circ} 25' N.$ , long.  $81^{\circ} 46' 45'' W.$ , southward of Key West (Goode & Bean 1896).

## LUTIANIDÆ. The Snappers.

**312. Neomænis griseus** (Linnaeus). *Gray Snapper; "Mangrove Snapper"; Caballerote.*

Pensacola (Goode & Bean 1878b, type of *Lutjanus stearnsii*; and 1879a, as *L. stearnsii*; Jordan & Gilbert 1882, as *L. stearnsii*; and Stearns coll., Jordan 1884, as *L. caballerote*); Key West (Poey 1882, as *L. caballerote*; and Jordan 1884d, as *L. stearnsii*; C. B. Hudson coll., 1897; and Jordan & Evermann 1898); Pensacola and Indian River (R. E. Earll coll., Bean 1883, as *L. stearnsii*); Cedar Keys (Jordan & Swain 1884a, as *L. caballerote*); Florida Keys (Jordan 1884d, as *L. caballerote*; and Henshall 1894, as *L. griseus*); Key West and Myakka River (Henshall 1889, as *L. griseus*); Biscayne Bay (McCormick coll., Smith 1895); Lake Worth (Smith coll., 1895); Fort Pierce and southward (Evermann & Bean 1896); Little River, Miami River at Miami, Key West, and Tarpon Springs (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**313. Neomænis jocu** (Bloch & Schneider). *Dog Snapper; Jocú.*

Key West (Jordan 1884a, as *Lutjanus jocú*; Henshall 1894, as *L. jocu*; and C. B. Hudson coll., 1897); Florida Keys (Jordan & Swain 1884e, as *L. jocú*; Jordan 1884d, as *L. jocú*; and Jordan & Evermann 1898).

**314. Neomænis apoda** (Walbaum). *"Schoolmaster"; Caji.*

West Florida (Kaiser & Martin coll., Goode & Bean 1879a, as *Lutjanus caxis*); Pensacola (Jordan & Gilbert 1882, as *L. caxis*; and Stearns coll., Bean 1883, as *L. caxis*); Indian River (Henshall coll., Jordan 1880, as *L. caxis*); Key West (Jordan 1884a, as *L. caxis*; Henshall 1894, as *L. caxis*; Lönnberg 1894, as *L. caxis*; C. B. Hudson coll., 1897; and Jordan & Evermann 1898); Florida Keys (Jordan & Swain 1884e, as *L. caxis*); Cards Sound, Key West, Big Gasparilla, and west coast (Henshall 1889, as *L. caxis*); Captiva Pass (O. P. Hay coll., 1894-95); Biscayne Bay (McCormick coll., Smith 1895); Indian River Inlet (Evermann & Bean 1896); and Key West, Tarpon Springs, Anclote Sponge Kraals, and Miami (Evermann & Kendall coll., 1896).

**315. Neomænis vivanus** (Cuvier & Valenciennes). *Silk Snapper; Pargo de lo Alto.*

Pensacola (Jordan & Swain 1884e, as *Lutjanus vivanus*). This should probably be referred to *N. aya*.

**316. Neomænis aya** (Bloch). *Red Snapper.*

Snapper Banks off Pensacola (Stearns coll., Goode & Bean 1878b, type of *Lutjanus blackfordii*); Pensacola (Goode & Bean 1879a, as *L. blackfordii*; Jordan & Gilbert 1882, as *L. blackfordii*; Stearns coll., Bean 1883, as *L. blackfordii*; and Jordan 1884a, as *L. campeohianus*); St. Johns Bar (Goode 1879a, as *L. blackfordii*); Key West (Poey 1882, as *L. campechianus*; Jordan 1884, as *L. campechianus*; C. B. Hudson coll., 1897; and Evermann coll., 1899); Cedar Keys (Jordan & Swain 1884a, as *L. campechianus*); Florida Keys (Jordan 1884d, as *L. campechianus*); Egmont Key (Jordan 1884e, as *L. campechianus*); between Tampa and Tortugas, in 25 to 27 fathoms (Collins 1886, as

Red Snapper); Snapper Grounds, in 15 to 48 fathoms (*Grampus* coll., Kendall 1889, as *L. blackfordii*); Key West and Snapper Banks (Henshall 1894, as *L. aya*, and Lönnberg 1894, as *L. aya*); Tampa (Henshall 1894, as *L. blackfordii*); and Biscayne Bay (McCormick coll., Smith 1895).

**317. *Neomænis analis* (Cuvier & Valenciennes). *Mutton-fish; Pargo.***

Key West (Jordan 1884a, as *Lutjanus analis*; Henshall 1894, as *L. analis*; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Florida Keys (Jordan & Swain 1884e, as *L. analis*; and Jordan 1884d, as *L. analis*); west coast (Henshall 1894, as *L. analis*; Biscayne Bay (McCormick coll., Smith 1895); and Key West and Pensacola (Jordan & Evermann 1898).

**318. *Neomænis synagris* (Linnaeus). *Lane Snapper.***

Key West (Poey 1882 and Jordan 1884a, as *Lutjanus synagris*; Heushall 1894, as *L. synagris*; Lönnberg 1894, as *L. synagris*; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Pensacola and west coast (Stearns coll., Bean 1883, as *L. synagris*); Pensacola (Jordan & Swain 1884e, as *L. synagris*); Florida Keys (Jordan 1884d, as *L. synagris*); Barnes Sound, Key West, Florida Keys, and Lemon Bay (Henshall 1894, as *L. synagris*); Biscayne Bay (McCormick coll., Smith 1895, as *L. synagris*); Indian River Inlet (Evermann & Bean 1896); and Florida Keys and Tampa (Jordan & Evermann 1898).

**319. *Ocyurus chrysurus* (Bloch). *Yellow-tail; Rabirubia.***

Key West (Poey 1882, Jordan 1884a, Henshall 1894, Lönnberg 1894, Evermann & Kendall coll., 1896, C. B. Hudson coll., 1897, and Jordan & Evermann 1898); Florida Keys (Jordan 1884d); Key West and Florida Keys (Henshall 1894); and Biscayne Bay (McCormick coll., Smith 1895).

**320. *Rhomboplites aurorubens* (Cuvier & Valenciennes). *Cargon de lo Alto.***

Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1883, as *Aprion ariommus*, type; Jordan & Swain 1884e; and Jordan & Evermann 1898); and Pensacola and Snapper Grounds (Stearns coll., Jordan 1884).

**HEMULIDÆ. The Grunts.**

**321. *Hæmulon album* Cuvier & Valenciennes. "Margate-fish."**

Key West (Poey 1882; Jordan 1884a, as *H. gibbosum*, Henshall 1894; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Florida Keys (Jordan & Swain 1884e, as *H. gibbosum*; Jordan 1884d, as *H. gibbosum*; and Jordan & Evermann 1898).

**322. *Hæmulon macrostoma* Günther. *Gray Grunt.***

Clearwater Harbor (Velie coll., Goode & Bean 1879b, type of *H. fremebundum*); Garden Key (Whitehurst coll., Bean 1883, as *Diabasis fremebundus*); southern Florida (Jordan & Swain 1884c, as *H. fremebundum*); Key West (Bean & Dresel 1884, as *H. fremebundum*; Evermann & Kendall coll., 1896; and Jordan & Evermann 1898); and Indian River Inlet (Evermann & Bean 1896).

**323. *Hæmulon parra* (Desmarest). *Sailor's Choice; Ronco Blanco.***

Garden Key and Florida Keys (Whitehurst coll., Bean 1883, as *Diabasis chromis*); Key West (Jordan 1884a; Henshall 1894; Lönnberg 1894; and Evermann & Kendall coll., 1896); southern Florida (Jordan & Swain 1884c, as *H. acutum*); Florida Keys (Jordan 1884d, as *H. parra*); Cards Sound, Key West, Marco, and Lemon Bay (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895); and southern Florida and Key West (Jordan & Evermann 1898).

**324. *Hæmulon sciurus* (Shaw). *Yellow Grunt; Boar Grunt.***

Key West (Henshall coll., Bean 1883, as *Diabasis elegans*; Jordan 1884a; Lönnberg 1894, as *H. elegans*; Henshall 1894; and Evermann & Kendall coll., 1896); Garden Key (*Grampus* coll., Kendall 1889); Garden Key and Key West (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895); Tortugas (Garman 1896); and Florida Keys (Jordan & Swain 1884c, Jordan 1884d, and Jordan & Evermann 1898).

**325. Hæmulon plumieri** (Lacépède). *Common Grunt; Ronco Ronco.*

Florida (Holbrook 1860, as *H. arcuatum*); St. Augustine (Goode 1879a, as *H. arcuatum*); Pensacola (Jordan & Gilbert 1882, as *Diabasis formosus*); Key West (Henshall coll., Bean 1883, as *D. plumieri*; Jordan 1884a; Henshall 1889 and 1894; Lönnberg 1894, as *H. formosus*; and Jordan & Evermann 1898); west Florida (Jordan & Swain 1884c); Florida Keys (Jordan 1884d); Cedar Keys (Jordan & Swain 1884a); Ozona (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); Tortugas (Garman 1896); and Key West, Miami, and Anclote Sponge Kraals (Evermann & Kendall coll., 1896).

**326. Hæmulon flavolineatum** (Desmarest). *French Grunt.*

Key West (Jordan 1884a, Henshall 1894, and Jordan & Evermann 1898); Florida Keys (Jordan & Swain 1884c, and Jordan 1884d); and Tortugas (Garman 1896, as *H. canna*).

**327. Brachygenys chrysargyreus** (Günther).

Key West (Jordan 1884a, as *Hamulon tenuatum*), and Florida Keys (Jordan & Swain 1884c, as *H. tenuatum*).

**328. Bathystoma rimator** (Jordan & Swain). *Tom-tate; Red-mouth Grunt.*

Pensacola (Jordan & Gilbert 1882, as *Diabasis aurolineatus*); Snapper Grounds (*Grampus* coll., Kendall 1889, as *Hamulon rimator*); Key West and Florida Keys (Henshall 1889, as *H. rimator*); Key West (Henshall 1894, as *H. rimator*; Bean 1883, as *D. chrysopterus*); Biscayne Bay (McCormick coll., Smith 1895, as *H. rimator*); and Pensacola and Key West (Jordan & Swain 1884c, as *H. rimator*, and Jordan & Evermann 1898).

**329. Bathystoma aurolineatum** (Cuvier & Valenciennes). *Jeniguano.*

Pensacola (Stearns coll., Bean 1883, as *Diabasis aurolineatus*); Florida Keys and Garden Key (Whitehurst coll., Bean 1883, as *D. jeniguano*); Florida Keys (Jordan & Swain 1884c; and Jordan 1884d, as *Hæmulon aurolineatum*); Key West and Tortugas (Jordan 1884a, as *H. aurolineatum* and *H. jeniguano*); Snapper Banks (Stearns coll., Jordan 1884, as *H. aurolineatum*); and Garden Key and Florida Keys (Jordan & Evermann 1898).

**330. Bathystoma striatum** (Linnaeus). *White Grunt.*

Key West (Lönnberg 1894, as *Hæmulon trivittatum*).

**331. Anisotremus surinamensis** (Bloch). *Pompon.*

Indian River (Evermann & Bean 1896, and Jordan & Evermann 1898), and Tortugas (Garman 1896).

**332. Anisotremus tenuatus** Gill. *Catalina.*

Florida Keys (Jordan 1884d, as *Hæmulon tenuatum*).

**333. Anisotremus virginicus** (Linnaeus). *Pork-fish.*

Key West (Wm. Stimpson coll., Bean 1883; Jordan 1884a, as *Pomadasys virginicus*; Henshall 1889 and 1894; Lönnberg 1894; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d, as *P. virginicus*); and Biscayne Bay (McCormick coll., Smith 1895).

**334. Orthopristes chrysopterus** (Linnaeus). *Pig-fish; "Hogfish."*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Pristipoma fulvomaculatum*; Jordan & Gilbert 1882, as *Pomadasys fulvomaculatus*; St. Johns River (A. H. Curtiss coll., Jordan 1880a, as *Orthopristis fulvomaculatus*; Jordan & Meek 1884, as *P. chrysopterus*); Florida (Bean 1883, as *O. fulvomaculatus*); Key West and Cedar Keys (Jordan 1884a, as *Pomadasys chrysopterus*); Cedar Keys (Jordan & Swain 1884a, as *Pomadasys chrysopterus*); Florida Keys (Jordan 1884d, as *P. chrysopterus*); Lacosta Island and channel at entrance to Charlotte Harbor (*Grampus* coll., Kendall 1889); Key West and west coast (Henshall 1889); Key West (Henshall 1894); Ozona, Clearwater Harbor, and Key West (Lönnberg 1894, as *Pomadasys fulvomaculatus*); Biscayne Bay (McCormick coll., Smith 1895); Indian River at Eden (Evermann & Bean 1896); and Anclote Sponge Kraals, Tampa Market, and Key West (Evermann & Kendall coll., 1896).

## SPARIDÆ. The Porgies.

**335. Otrynter caprinus** (Bean).

Snapper Banks off Pensacola (Stearns coll., Bean, in Goode & Bean 1882, as *Stenotomus caprinus*, type); Pensacola (Jordan & Gilbert 1882, as *S. caprinus*); Snapper Banks (Stearns coll., Jordan 1884, as *S. caprinus*; and Jordan & Evermann 1898).

**336. Stenotomus chrysops** (Linnaeus). *Scup; Porgy.*

South Carolina to Florida (Holbrook 1860, as *Pagrus argyrops*).

**337. Calamus calamus** (Cuvier & Valenciennes). "Saucer-eye Porgy."

Garden Key (Jordan & Gilbert 1883b, as *Calamus macrops*); Key West (Jordan 1884a, Henshall 1894, Lönnberg 1894, and Evermann & Kendall coll., 1896); Key West and Florida Keys (Henshall 1889, and Jordan & Evermann 1898); and Biscayne Bay (McCormick coll., Smith 1895).

**338. Calamus proridens** (Jordan & Gilbert). *Little-head Porgy.*

Key West (Jordan & Gilbert 1884b, type; Jordan 1884a, as *C. pennatula*; Henshall 1894; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); and Key West and Florida Keys (Henshall 1889).

**339. Calamus bajonado** (Bloch & Schneider). *Jolt-head Porgy.*

Key West (Poey 1882; Jordan 1884a; Henshall 1889 and 1894; Lönnberg 1894; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Biscayne Bay (McCormick coll., Smith 1895); and Florida Keys (Jordan & Evermann 1898).

**340. Calamus penna** (Cuvier & Valenciennes). *Little-mouth Porgy; Sheepshead Porgy.*

Pensacola and Charlotte Harbor (C. B. Baker coll., Goode & Bean 1879a, type of *Pagellus milneri*); Pensacola (Stearns coll., Bean 1883, as *P. milneri*); Key West (Jordan 1884a; Henshall 1894; Lönnberg 1894, as *C. milneri*; Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897); Lacosta Island (*Grampus* coll., Kendall 1889, as *P. milneri*); and southern Florida and Charlotte Harbor (Jordan & Evermann 1898).

**341. Calamus arctifrons** Goode & Bean. "Grass Porgy."

Pensacola (Stearns coll., Goode & Bean 1882, type); Key West (Jordan 1884a, and Henshall 1894); Cedar Keys (Jordan & Swain 1884a); Key West and Florida Keys (Henshall 1889); Biscayne Bay (McCormick coll., Smith 1895); Key West and Aucote Sponge Kraals (Evermann & Kendall coll., 1896); and Pensacola and Key West (Jordan & Evermann 1898).

**342. Pagrus pagrus** (Linnaeus). *Red Porgy.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *P. argenteus*; Jordan & Gilbert 1882, as *Sparus pagrus*; Stearns coll., Jordan 1884, as *S. pagrus*; and Jordan & Evermann 1898); and Snapper Grounds (*Grampus* coll., Kendall 1889).

**343. Lagodon rhomboides** (Linnaeus). *Pin-fish; Chopa Spina.*

Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1882; and Jordan & Evermann 1898); Charlotte Harbor (Baker coll., Goode & Bean 1879a); St. Johns River (Bean 1880); Indian River (Henshall coll., Jordan 1880); St. Johns River (Curtiss coll., Jordan 1880a); Key West (Jordan 1884a, as *Diplodus rhomboides*); Cedar Keys (Jordan & Swain 1884a); Florida Keys (Jordan 1884d); Lacosta Island, Gadsden Point, and Snapper Grounds (*Grampus* coll., Kendall 1889); Key West, Marco, Gordon Pass, Big Gasparilla, Myakka River, and San Carlos Pass (Henshall 1889); Tampa and Key West (Henshall 1894); Key West, Ozona, Clearwater Harbor, and other places in Hillsboro County (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); mouth of Little River, and Lake Worth (Smith coll., 1895); Titusville and Indian River Inlet (Evermann & Bean 1896); Little and Miami rivers, Key West, Aucote Sponge Kraals, Tampa market, and Tarpon Springs (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**344. Archosargus unimaculatus (Bloch). *Salema.***

Key West (Poey 1882, as *Sargus caribaeus*; Jordan 1884a, as *Diplodus unimaculatus*; Eigenmann & Hughes 1887; and Jordan & Evermann 1898); and Florida Keys (Jordan 1884d).

**345. Archosargus probatocephalus (Walbaum). *Sheepshead.***

Massachusetts to Cape Florida (Holbrook 1855a and 1860, as *Sargus ovis*); Pensacola (Stearns coll., Goode & Bean 1879a, and Jordan & Gilbert 1882, as *Diplodus probatocephalus*); St. Johns River (Bean 1880; Curtis coll., Jordan 1880a; Jordan & Meek 1884, as *D. probatocephalus*); Matanzas River Inlet (J. C. Willetts coll., Bean 1883, as *D. probatocephalus*); Key West (Jordan 1884a, as *D. probatocephalus*); Cedar Keys (Jordan & Swain 1884a, as *D. probatocephalus*); Key West and Florida Keys (Jordan 1884d, as *D. probatocephalus*); Punta Rassa (Phillips 1884); Florida Keys (Eigenmann & Hughes 1887, and Jordan & Evermann 1898); Key West and west coast (Henshall 1889); Tampa (Henshall 1894); both coasts, St. Petersburg, Punta Gorda, and New Smyrna (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Cocoa, Titusville, and Indian River Inlet (Evermann & Bean 1896).

**346. Diplodus holbrooki (Bean). "Spot."**

Cedar Keys (Jordan & Swain 1884a, and Jordan & Evermann 1898); Pensacola and Cedar Keys (Eigenmann & Hughes 1887); Tampa (Henshall 1894); Indian River (Evermann & Bean 1896); Lake Worth (Evermann & Bean coll., 1896); and Anclote Sponge Kraals (Evermann & Kendall coll., 1896).

**347. Diplodus argenteus (Cuvier & Valenciennes). *Sargo.***

New Smyrna (Eigenmann & Hughes 1887; Wm. P. Shannon coll., Jordan & Evermann 1898); and Hillsboro County (Lönnberg 1894, as *D. caudimacula*).

**GERRIDÆ. The Mojarras.****348. Eucinostomus dowii (Gill).**

Key West, Little River, and Miami River at Miami (Evermann & Kendall coll., 1896).

**349. Eucinostomus harengulus Goode & Bean.**

West Florida (Stearns coll., Goode & Bean 1879a, type); Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *Diapterus harengulus*); Key West (Jordan 1884a, as *Gerres gracilis*); Barnes Sound, Key West, Lemon Bay and Garden Key (Henshall 1889, as *G. harengulus*); Punta Gorda (Lönnberg 1894, as *G. harengulus*); Biscayne Bay (McCormick coll., Smith 1895); and western Florida and Key West (Jordan & Evermann 1898).

**350. Eucinostomus gula (Cuvier & Valenciennes). *Mojarra de Ley.***

Clearwater Harbor (Velie coll., Goode & Bean 1879b, type of *Diapterus homonymus*); Cedar Keys (Stearns coll., Bean 1883, as *Gerres homonymus*; and Jordan & Swain 1884a, as *G. gula*); Key West (Jordan 1884a, and Henshall 1894, as *G. gula*); Florida Keys (Jordan 1884d, as *G. gula*); Florida Keys, Barnes Sound, Garden Key, Cape Sable Creek, Big Gasparilla, Key West, Cards Sound, Cape Romano, Marco, Gordon Pass, San Carlos Pass, Long Boat Key, and Egmont Key (Henshall 1889, as *G. gula*); Alligator River (Woolman 1890, as *G. gula*); Captiva Pass (O. P. Hay coll., 1894-95); Biscayne Bay (McCormick coll., Smith 1895); Pelican Island, Indian River Inlet, and Stuart (Evermann & Bean 1896); Cape Florida, Key West, Anclote Sponge Kraals, and Tarpon Springs (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**351. Ulæma lefroyi (Goode).**

Key West (Jordan 1884a, as *Gerres lefroyi*; and Evermann & Kendall coll., 1896); Cedar Keys (Jordan and Swain 1884a, as *G. lefroyi*); Cedar Keys and Key West (Jordan & Evermann 1898).

**352. *Xystæma cinereum* (Walbaum). "Broad-shad."**

Key West (Jordan 1884a, as *Gerres cinereus*; and Henshall 1894, as *G. cinereus*); Florida Keys (Jordan 1884d, as *G. cinereus*; and Jordan & Evermann 1898); Cards Sound, Cape Romano, Gordon Pass, Myakka River, and Key West (Henshall 1889, as *G. cinereus*); Biscayne Bay (McCormick coll., Smith 1895); and Lake Worth and Little River (Smith coll., 1895).

**353. *Gerres olistostoma* Goode & Bean. *Irish Pompano*; "Mutton-fish."**

Indian River (R. E. Earll coll., Goode & Bean 1882, type; and Bean 1883); Key West (Jordan 1884a); Indian River at Fort Pierce (Evermann & Bean 1896); and southern Florida (Jordan & Evermann 1898).

**354. *Gerres plumieri* Cuvier & Valenciennes. *Majarra*.**

Indian River (Henshall coll., Jordan 1880); southwest coast of Florida and Punta Gorda (Lönnberg 1894).

**KYPHOSIDÆ. The Rudder-Fishes.****355. *Kyphosus sectatrix* (Linnaeus). *Rudder-fish*; "Chub"; *Chopa Blanca*.**

Key West (Jordan 1884a, as *Cyphosus boscii*); Mullet Key (Henshall 1894); and Key West (Evermann & Kendall coll., 1896).

**SCIÆNIDÆ. The Croakers.****356. *Cynoscion nothus* (Holbrook). *Bastard Weak-fish*.**

Pensacola (Stearns coll., Goode & Bean 1879a); mouth of St. Johns River and St. Augustine (Goode 1879a); and Tampa (Henshall 1894).

**357. *Cynoscion nebulosus* (Cuvier & Valenciennes). *Spotted Weak-fish*.**

Pensacola (Goode & Bean 1879a, as *C. carolinensis*; Jordan & Gilbert 1882, as *C. maculatum*; and Jordan & Stearns coll., Bean 1883, as *C. maculatum*); St. Johns River (Bean 1880, as *C. carolinensis*; and Jordan & Meek 1884, as *C. maculatum*); Cedar Keys (Jordan & Swain 1884a, as *C. maculatum*); Homosassa River (Wilcox 1886, as *C. maculatum*); west coast (Henshall 1889, as *C. maculatum*); Tampa (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895, as *C. maculatum*); Titusville, Cocoa, and Indian River Iulet (Evermann & Bean 1896); and Anclote Sponge Kraals (Evermann & Kendall coll., 1896).

**358. *Corvula sialis* Jordan & Eigenmann.**

Key West (Stearns coll., Jordan & Eigenmann 1886a, type), and Florida Keys (Jordan & Eigenmann 1886a).

**359. *Bairdiella chrysura* (Lacépède).**

Pensacola (Stearns coll., Goode & Bean 1879a, as *B. argyroleuca*; and Jordan & Gilbert 1882, as *Sciaena punctata*); St. Johns River (Bean 1880, as *B. argyroleuca*); Cedar Keys (Jordan & Swain 1884a, as *S. chrysura*); Myakka River and Key West (Henshall 1889); west coast and Clearwater Harbor (Lönnberg 1894); and Anclote Sponge Kraals (Evermann & Kendall coll., 1896).

**360. *Stelliferus lanceolatus* (Holbrook).**

Matanzas River Inlet (J. C. Willets coll., Goode 1879a, and Bean 1883).

**361. *Sciænops ocellatus* (Linnaeus). *Red Drum*; *Channel Bass*.**

New York to Cape Florida (Holbrook 1855a and 1860, as *Corvina ocellata*); Pensacola (Stearns coll., Goode & Bean 1879a; and Jordan & Gilbert 1882, as *Sciaena ocellata*); St. Johns River (Bean 1880, as *S. ocellata*; Jordan & Meek 1884, as *S. ocellata*); Key West (Jordan 1884a, as *S. ocellata*); Cedar Keys (Jordan & Swain 1884a, as *S. ocellata*); Lacosta Island (*Grampus* coll., Kendall 1889, as *S. ocellata*); Gordon Pass, Myakka River, and west coast (Henshall 1889, as *S. ocellata*); Tampa (Henshall 1894, as *S. ocellata*); both coasts (Lönnberg 1894, as *S. ocellata*); Biscayne Bay (McCormick coll., Smith 1895); Lake Worth (Smith coll., 1895); Indian River Inlet, Pelican Island and Stuart (Evermann & Bean 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**362. *Leiostomus xanthurus* Lacépède. Spot.**

East Florida (McClure, Ord, Say & Peale coll., Le Sueur 1821, as *Sciæna multifasciata*); Cape Florida to Rhode Island, and Hatteras to Florida (Holbrook 1855a, as *L. obliquus*, and 1860, as *L. obliquus* and *Homopriion xanthurus*); St. Johns River (Bean 1880, as *L. obliquus*; Jordan & Meek 1884); Pensacola (Stearns coll., Goode & Bean 1879a, as *L. philadelphicus*; Jordan & Gilbert 1882; and Bean 1883); Cedar Keys (Jordan & Swain 1884a); Marco, Gordon Pass, Big Gasparilla, Myakka River, San Carlos Pass, Egmont Key, Long Boat Key (Henshall 1889); Tampa (Henshall 1894); New Smyrna and Punta Gorda (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); West Palm Beach, Indian River Inlet, and Titusville (Evermann & Bean 1896); and Tarpon Springs and Tampa market (Evermann & Kendall coll., 1896).

**363. *Micropogon undulatus* (Linnaeus). Croaker.**

Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1882; and Stearns coll., Jordan 1884); St. Johns River (Bean 1880; Jordan & Meek 1884); Arlington (Goode coll., Bean 1883); Marco, Gordon Pass (Henshall 1889); Tampa (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895); Indian River (Evermann & Bean 1896); and Key West (Evermann & Kendall coll., 1896).

**364. *Umbrina broussonetti* Cuvier & Valenciennes.**

Indian River (Henshall coll., Jordan 1880, and Jordan & Eigenmann 1886a).

**365. *Menticirrhus americanus* (Linnaeus). Whiting.**

Cape Fear to Florida (Holbrook 1855a and 1860, as *Umbrina alburnus*); Pensacola (Stearns coll., Goode & Bean 1879a, as *M. alburnus*; and Jordan & Gilbert 1882, as *M. nebulosus*); St. Johns River (Jordan & Meek 1884); Marco, Charlotte Harbor, Garden Key, and Egmont Key (Henshall 1889); Punta Gorda (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Indian River at Cocoa (Evermann & Bean 1896).

**366. *Menticirrhus saxatilis* (Bloch & Schneider). King-fish; Northern Whiting.**

Key West (Jordan 1884a); Key West and Pensacola (Jordan & Eigenmann 1886a); Tampa (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895, as *M. nebulosus*).

**367. *Menticirrhus littoralis* (Holbrook). Silver Whiting.**

Pensacola (Jordan & Gilbert 1882); Florida (Bean 1880); Matanzas River Inlet (J. C. Willets coll., Bean 1883); Egmont Key (Henshall 1889); Coronado Beach (Lönnberg 1894); and Lake Worth (Smith coll., 1895).

**368. *Pogonias cromis* (Linnaeus). Black Drum; Drum.**

Rhode Island and New York to Cape Florida (Holbrook 1855a and 1860, as *P. cromis* and *P. fasciatus*); Pensacola (Stearns coll., Goode & Bean 1879a, and Jordan & Gilbert 1882); St. Johns River (Bean 1880; Jordan & Meek 1884); Matanzas River Inlet (J. C. Willets coll., Bean 1883); Key West (Jordan 1884a); Cedar Keys (Jordan & Swain 1884a); west coast (Henshall 1889); Tampa (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895); and Cocoa, Fort Pierce, and Santa Lucia Inlet (Evermann & Bean 1896).

**369. *Eques acuminatus* (Bloch & Schneider).**

Tortugas (Jefferson, Porter & Moore 1878, as *Pareques acuminatus*), and Key West (Stearns coll., Bean 1883, as *P. acuminatus*).

**370. *Eques acuminatus umbrosus* Jordan & Eigenmann.**

Pensacola (Jordan & Eigenmann 1886a, type).

**371. *Eques lanceolatus* (Linnaeus). Ribbon-fish.**

New Smyrna (Lönnberg 1894, as *Sciæna lanceolata*).

**POMACENTRIDÆ. The Demoiselles.****372. *Chromis insolatus* (Cuvier & Valenciennes).**

Tortugas (Jefferson, Porter & Moore 1878, as *Heliastes insolatus*); Pensacola (Jordan & Gilbert 1882); Snapper Banks (Stearns coll., Jordan 1884; and Jordan & Evermann 1898).

**373. Chromis enchyrsurus** Jordan & Gilbert.

Pensacola (Jordan & Gilbert 1882, type; and Stearns coll., Bean 1883); Pensacola and Snapper Banks (Jordan 1884); and Snapper Banks off Pensacola and Tampa (Jordan & Evermann 1898).

**374. Eupomacentrus fuscus** (Cuvier & Valenciennes). *Maria Molle.*

Key West (Evermann & Kendall coll., 1896, and Jordan & Evermann 1898).

**375. Eupomacentrus analis** (Poey).

Key West (Jordan 1884a, as *Pomacentrus obscuratus*; and Jordan & Evermann 1898).

**376. Eupomacentrus leucostictus** (Müller & Troschel). "Cook-eye Pilot."

Tortugas (Jefferson, Porter & Moore 1878, as *Pomacentrus leucostictus*); Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *P. leucostictus*); west Florida and Fort Jefferson (Stearns coll., Bean 1883, as *P. leucostictus*); Key West (Jordan 1884a, as *P. leucostictus*; and Evermann & Kendall coll., 1896); Pensacola (Stearns coll., Jordan & Swain 1884f, as *P. caudalis*; and Jordan & Evermann 1886, as *P. caudalis*); Garden Key (Henshall 1889, as *P. leucostictus*); Tortugas (Garman 1896, as *P. leucostictus*); and Snapper Banks (Jordan & Evermann 1898).

**377. Abudeodus saxatilis** (Linnaeus). "Cow-pilot."

Key West (Jordan 1884a, as *Glyphidodon saxatilis*); Garden Key (*Grampus* coll., Kendall 1889, as *G. saxatilis*); and Cape Florida and Key West (Evermann & Kendall coll., 1896).

**378. Abudeodus declivifrons** (Gill).

Marquesas Keys (Jordan 1884a, as *Glyphidodon declivifrons*).

**379. Nexilarius concolor** (Gill).

Marquesas Keys (Velie coll., Goode & Bean 1879b, as *Glyphidodon concolor*).

**LABRIDÆ. The Wrasse-Fishes.****380. Lachnolaimus maximus** (Walbaum). *Hog-fish.*

Key West (Poey 1882, as *L. suillus*; Jordan 1884, as *L. suillus*; Jordan 1887b; Henshall 1889 and 1894; Lönnberg 1894, as *L. falcatus*; Evermann & Kendall coll., 1896; C. B. Hudson coll., 1897; and Jordan & Evermann 1898); Florida Keys (Jordan 1884d, as *L. suillus*); and Tortugas (Garman 1896).

**381. Harpe rufa** (Linnaeus). *Lady-fish; Pudiano.*

Key West and Florida Keys (Jordan 1884d, as *Bodianus rufus*); Key West (Jordan 1887b; Lönnberg 1894; C. B. Hudson coll., 1897; and Jordan & Evermann 1898).

**382. Decodon pullaris** (Poey).

Pensacola Snapper Banks (Stearns coll., Jordan 1884; and Jordan & Evermann 1898); and Pensacola (Jordan & Swain 1884f).

**383. Iridio radiatus** (Linnaeus). *Pudding-wife.*

Pensacola (Stearns coll., Bean 1883, as *Platyglossus radiatus*); Fort Jefferson (Whitehurst coll., Bean 1883, as *P. radiatus*); Key West (Jordan 1884a, as *P. radiatus*; Henshall 1889 and 1894, as *Halichoeres radiatus*; and Evermann & Kendall coll., 1896); and Florida Keys (Jordan 1884d, as *P. radiatus*; Jordan & Hughes 1886, as *P. radiatus*; Jordan 1887b, as *H. radiatus*; and Jordan & Evermann 1898).

**384. Iridio maculipinna** (Müller & Troschel).

Key West (Evermann & Kendall coll., 1896).

**385. Iridio caudalis** (Poey).

Pensacola (Jordan & Gilbert 1882 and 1883, as *Platyglossus caudalis*; Stearns coll., Bean 1883, as *P. caudalis*; and Jordan & Hughes 1886); Snapper Banks and Pensacola (Stearns coll., Jordan 1884, as *P. caudalis*); Snapper Banks off Pensacola (Jordan 1887b, as *Halichoeres caudalis*; and Jordan & Evermann 1898).

**386. Iridio bivittatus** (Bloch). *Slippery Dick; Doncella.*

Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *Chærojulis humeralis*); Pensacola (Jordan & Gilbert 1882, as *Platyglossus florealis*, type; Jordan & Gilbert 1883); Key West (Jordan 1884a, as *P. bivittatus*); Snapper Banks (Stearns coll., Jordan 1884,

as *P. bivittatus*); Florida Keys (Jordan 1884d, as *P. bivittatus*); Key West, Big Gasparilla, Lemon Bay, and Garden Key (Henshall 1889, as *Halichoeres bivittatus*); Tortugas (Garman 1896, as *P. bivittatus*); Key West and Cape Florida (Evermann & Kendall coll., 1896); and Pensacola and Key West (Jordan & Evermann 1898).

**387. Doratonotus megalepis** Günther.

Key West (Jordan & Gilbert 1884a, type of *D. thalassinus*; Jordan 1884a, as *D. thalassinus*; and Jordan & Evermann 1898); and Garden Key (Henshall 1889).

**388. Xyrrula jessiae** (Jordan).

Off Tampa Bay (Bollman coll., Jordan 1887a, type of *Xyrrichthys jessiae*; and Jordan 1887b); and Snapper Banks off Tampa Bay (Jordan & Evermann 1898).

**389. Novaculichthys rosipes** (Jordan & Gilbert).

Key West (Jordan & Gilbert 1884a, type of *Xyrrichthys rosipes*; Jordan 1884a and 1887b, as *X. rosipes*; and Jordan & Evermann 1898).

**390. Xyrrichthys psittacus** (Linnaeus). *Razor-fish.*

Pensacola (Jordan & Gilbert 1883, as *X. lineatus*; Jordan 1887b, as *X. novaoula*; and Jordan & Evermann 1898); west Florida and Pensacola (Stearns coll., Bean 1883, as *X. lineatus*); Garden Key and Florida Keys (Whitehurst coll., Bean 1883, as *X. lineatus*); Key West (Jordan 1884a); Snapper Banks (Stearns coll., Jordan 1884, as *X. lineatus*); and off Pensacola (*Fish Hawk* coll., 1895).

**SCARIDÆ. The Parrot-Fishes.**

**391. Cryptotomus retractus** (Poey).

North to Pensacola (Jordan 1887b).

**392. Cryptotomus ustus** (Cuvier & Valenciennes).

North to Pensacola (Jordan 1887b); Indian River Inlet (Evermann & Bean 1896).

**393. Cryptotomus beryllinus** Jordan & Swain.

Key West (Jordan & Swain 1884, type; Jordan 1884a and 1887b; and Jordan & Evermann 1898); and Cape Florida (Evermann & Kendall coll., 1896).

**394. Sparisoma xystrodon** Jordan & Swain.

Key West (Jordan & Swain 1884, type; Jordan 1884a and Jordan & Evermann 1898); Florida Keys (Jordan 1887b); and Cape Florida and Key West (Evermann & Kendall coll., 1896).

**395. Sparisoma hoplomyx** (Cope).

Key West (Jordar & Swain 1884, as *S. cyanolene*, type, and Jordan 1884a; Henshall 1889; and Jordau & Evermann 1898); Florida Keys (Jordan 1887b); and Key West and Cape Florida (Evermann & Kendall coll., 1896).

**396. Sparisoma niphobles** Jordan & Bollman.

Key West and Cape Florida (Evermann & Kendall coll., 1896).

**397. Sparisoma distinctum** (Poey).

Garden Key (Henshall 1889).

**398. Sparisoma flavescens** (Bloch & Schneider). *Viejo Colorado.*

Florida Keys and Garden Key (Bean 1883, as *Scarus squalidus*); Key West (Jordan & Swain 1884; Jordan 1884a and 1887b; and Henshall 1889 and 1894); and Cape Florida and Key West (Evermann & Kendall coll., 1896).

**399. Scarus bollmani** Jordan & Evermann.

Snapper Banks off Tampa Bay (Jordan & Evermann 1886, type), and off Tampa Bay (Jordan 1887b, and Jordan & Evermann 1898).

**400. Scarus croicensis** (Bloch). *Bullon.*

Key West (Jordan & Swain 1884, Jordan 1884a, 1884d, and 1887b; and Evermann & Kendall coll., 1896).

**401. Scarus evermanni** Jordan.

Snapper Banks (Jordan in Jordan & Evermann, 1886, type), and Gulf of Mexico off Tampa Bay (Jordan & Evermann 1898).

**402. Scarus cœruleus** (Bloch). *Blue Parrot-fish.*

Key West (Jordan & Swain 1884, Jordan 1884a, Henshall 1894, and Jordan & Evermann 1898); Florida Keys (Jordan 1884d); north to Key West (Jordan 1887b); and Tortugas (Garman 1896, as *Pseudoscarus cœruleus*).

**403. Pseudocarthus guacamaia** (Cuvier). *Green Parrot-fish.*

Key West (Jordan & Swain 1884, as *Scarus guacamaia*; Jordan 1884a, as *S. guacamaia*; Henshall 1894, as *S. guacamaia*; Evermann & Kendall coll., 1896; and Jordan & Evermann 1898); and Florida Keys (Jordan 1884d, as *S. guacamaia*).

**EPHIPPIDÆ. The Angel-Fishes.****404. Chætodipterus faber** (Broussonet). *Angel-fish; Spade-fish.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Paraphippus faber*; and Bean 1883); Key West (Jordan 1884a, and Evermann & Kendall coll., 1896); Egmont Key (Jordan 1884e); Gadsden Point (*Grampus* coll., Kendall 1889); west coast (Henshall 1889); Tampa (Henshall 1894); Clearwater Harbor (Lönnberg 1894); Biscayne Bay (McCormick coll., Smith 1895); and Fort Pierce and Eden (Evermann & Bean 1896).

**CHÆTODONTIDÆ. The Butterfly-Fishes.****405. Chætodon ocellatus** Bloch. *Parche; Isabelita de lo Alto; Mariposa.*

Key West and Florida Keys (Jordan 1884a); Key West (Evermann & Kendall coll., 1896, and C. B. Hudson coll., 1897).

**406. Chætodon aya** Jordan. *Mariposa.*

Snapper Banks near Pensacola (Jordan 1886, type); Pensacola (Eigenmann & Horning 1897); and Snapper Banks (Jordan & Evermann 1898).

**407. Chætodon capistratus** Linnaeus. *Parche; Mariposa.*

Florida and Fort Jefferson (Bean 1883), and Key West (Jordan 1884a).

**408. Pomacanthus arcuatus** (Linnaeus). "Black Angel."

Garden Key (Whitehurst coll., Bean 1883); Key West (Jordan 1884a, as *P. aureus*; Henshall 1894, as *P. aureus*; and Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d, as *P. aureus*); and Tortugas (Garman 1896).

**409. Pomacanthus paru** (Bloch). *Paru; "French Angel."*

Key West (Evermann & Kendall coll., 1896).

**410. Angelichthys isabelita** Jordan & Rutter. *Angel-fish.*

Key West (Jordan & Rutter, in Jordan & Evermann 1898, type).

**411. Angelichthys ciliaris** (Linnaeus). "Yellow Angel."

Key West (Jordan 1884a, as *Holacanthus ciliaris*; and Eigenmann & Horning 1887, as *Pomacanthus ciliaris*); and Florida Keys (Jordan 1884d, as *H. ciliaris*); Tortugas (Garman 1896, as *Holacanthus ciliaris*).

**TEUTHIIDÆ. The Surgeons.****412. Teuthis cœruleus** (Bloch & Schneider). "Blue Tang"; *Barbero; Medico.*

Tortugas (Jefferson, Porter & Moore 1878, as *Acanthurus nigricans*); Florida Keys (Jordan 1884d, as *A. cœruleus*); Key West (Henshall 1894; Evermann & Kendall coll., 1896; and Jordan & Evermann 1898).

**413. Teuthis hepatus** Linnaeus. "Tang"; *Doctor-fish; Medico; Barbero.*

Garden Key (Bean 1883, as *Acanthurus chirurgus*); Key West (Jordan 1884a, as *A. chirurgus*; Henshall 1894; Evermann & Kendall coll., 1896; and Jordan & Evermann 1898).

**414. Teuthis bahianus** (Castelnau). "Ocean Tang"; *Barbero; Medico.*

Key West (Jordan 1884a, as *Acanthurus tractus*; Evermann & Kendall coll., 1896; and Jordan & Evermann 1898); and Florida Keys (Jordan 1884d, as *A. chirurgus tractus*).

**BALISTIDÆ. The Trigger-Fishes.****415. Balistes carolinensis** Guené. *Leather Jacket; Trigger-fish.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *B. capriscus*; Jordan & Gilbert 1882, as *B. capriscus*; and Stearns coll., Jordan 1884); Charlotte Harbor (Bean 1883, as *B. capriscus*); Key West (Jordan 1884a; Henshall 1894; Lönnberg 1894, as *B. capriscus*); Florida Keys (Jordan 1884d); Egmont Key (Jordan 1884e); and west coast and Key West (Henshall 1889).

**416. Balistes vetula** Linnaeus. *Bessy Cerka.*

Key West (Henshall 1894; Lönnberg 1894; and C. B. Hudson coll., 1897).

**MONACANTHIDÆ. The File-Fishes.****417. Cantherines pullus** (Ranzani). *Lija Colorada.*

Tortugas (Jefferson, Porter & Moore 1878, as *Monacanthus pardalis*); and southern Florida (Jordan & Evermann 1898).

**418. Monacanthus ciliatus** (Mitchill). *Leather-fish.*

Florida Reef (Geo. Davidson coll., Cope 1871); Pensacola, Cedar Key, and Charlotte Harbor (Stearns and Baker coll., Goode & Bean 1879a, as *M. occidentalis*); Key West (Velie coll., Goode & Bean 1879b, as *M. occidentalis*); Florida Keys and Indian Key (Würdemann coll., Bean 1883, as *M. occidentalis*); Key West (Jordan 1884a); Big Gasparilla and Garden Key (Henshall 1889); Key West (Henshall 1894); Key West and Miami (Evermann & Kendall coll., 1896); Florida Keys (Jordan 1884d, and Jordan & Evermann 1898).

**419. Monacanthus hispidus** (Linnaeus). *Fool-fish.*

Key West (Jordan 1884a, and Henshall 1894); Florida Keys (Jordan 1884d, and Jordan & Evermann 1898); Snapper Grounds (*Grampus* coll., Kendall 1889); Big Gasparilla and Key West (Henshall 1889); Key West and Ozona (Lönnberg 1894); Key West, Anclote Sponge Kraals, and Miami (Evermann & Kendall coll., 1896).

**420. Aluterus schœppfi** (Walbaum). *Fool-fish; Lija.*

Tortugas (Jefferson, Porter & Moore 1878, as *Ceratacanthus auranticus*); Pensacola (Stearns coll., Goode & Bean 1879a; and Stearns coll., Jordan 1884); Egmont Key (Jordan 1884e); Key West and Tampa (Henshall 1894); and Key West (Evermann & Kendall coll., 1896; and C. B. Hudson coll., 1897).

**OSTRACIIDÆ. The Trunk-Fishes.****421. Lactophrys triqueter** (Linnaeus). *Trunk-fish; Shell-fish.*

Tortugas (Goode 1879, as *Ostracion triqueter*); Garden Key (Whitelhurst coll., Bean 1883, as *Ostracion triquetrum*); Key West (Jordan 1884a, as *Ostracion triquetrum*); Cape Florida (Evermann & Kendall coll., 1896); and Key West and Pensacola (Jordan & Evermann 1898).

**422. Lactophrys trigonus** (Linnaeus). *Trunk-fish; Shell-fish.*

Tortugas (Goode 1879, as *Ostracion trigonus*; and J. B. Holder coll., Bean 1883, as *Ostracion trigonum*); west coast (Velie coll., Goode & Bean 1879b, as *Ostracion trigonus*; and Henshall 1889); St. Augustine and Matanzas (Goode 1879a, as *O. trigonus*); Florida Keys (Jordan 1884d, as *O. trigonus*); Key West (Jordan 1884a, as *O. trigonus*); Henshall 1894, as *O. trigonus*; Evermann & Kendall coll., 1896; and Jordan & Evermann 1898); Bird Key (*Grampus* coll., Kendall 1889, as *O. trigonus*); Biscayne Bay (McCormick coll., Smith 1895); and Tampa Bay (*Fish Hawk* coll., 1898).

**423. Lactophrys tricornis** (Linnaeus). *Cow-fish.*

Tortugas (Jefferson, Porter & Moore 1878, as *Ostracion quadricorne*); Tortugas, Cape Florida, Charlotte Harbor, and Pensacola (Goode 1879, as *O. quadricornis*); Pensacola (Stearns coll., Goode & Bean 1879a, as *O. quadricornis*); Jordan & Gilbert 1882, as *Ostracion quadricorne*; and Jordan & Evermann 1898); Key West (Jordan 1884a, as *Ostracion tricornis*); Florida Keys (Jordan 1884d, as *Ostracion tricornis*); Gulf shore (Wilcox 1886, as *Ostracion quadricornis*); Snapper Grounds (*Grampus* coll.,

Kendall 1889, as *O. quadricornis*; west coast (Henshall 1889, as *O. tricorne*); Tampa (Henshall 1894, as *O. tricorne*); along west coast, Clearwater Harbor, Key West and New Smyrna (Lönnberg 1894, as *O. quadricorne*); Key West and Tarpon Springs (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

#### TETRAODONTIDÆ. The Puffers.

##### **424. *Lagocephalus lavigatus* (Linnaeus). Rabbit-fish.**

Tortugas (Jefferson, Porter & Moore 1878, as *Tetronodon lavigatus*); mouth of St. Johns River (Goode 1879b); Pensacola (Stearns coll., Goode & Bean 1879a); Florida Keys and west coast (Henshall 1889); Biscayne Bay (McCormick coll., Smith 1895); and Key West (C. B. Hudson coll., 1897).

##### **425. *Sphoeroides spengleri* (Bloch). Southern Puffer.**

Tortugas (Cope 1871, as *Tetronodon spengleri*); Key West (Jordan 1884a, as *T. nephelus*, in part; Jordan coll., U. S. Nat. Mus., No. 35188, as *T. nephelus*, in part; L. A. Beardslee coll., U. S. Nat. Mus. No. 38342, as *T. nephelus*; and Evermann & Kendall coll., 1896); Garden Key (U. S. Nat. Mus., as *T. nephelus*, in part); Biscayne Bay (McCormick coll., Smith 1895); Key West and Big Gasparilla (Henshall 1899); and Tampa (Henshall 1894).

##### **426. *Sphoeroides maculatus* (Bloch & Schneider). Puffer.**

Mouth of St. Johns River (Goode 1879a, as *Cirrisomus turgidus*); Pensacola (Stearns coll., Goode & Bean 1879a, as *C. turgidus*; and Jordan & Gilbert 1882, as *Tetrodon turgidus*); North Florida (Jordan & Edwards 1886); Big Estero Pass (Henshall 1889); Ozona and Clearwater Harbor (Lönnberg 1894, as *T. turgidus*); and Indian River at Cocoa (Evermann & Bean 1896, as *S. testudineus*).

##### **427. *Sphoeroides nephelus* (Goode & Bean). Swell Toad.**

Indian River and Pensacola (Earll & Stearns coll., Goode & Bean 1882, type of *Tetronodon nephelus*); Pensacola (Jordan & Gilbert 1882, as *T. turgidus nephelus*); Key West (Wm. Stimpson coll., Bean 1883, as *T. nephelus*; Jordan 1884a, as *T. nephelus*, in part; and Jordan & Edwards 1886, in part, as *S. spengleri*); Florida Keys (Jordan 1884d, as *T. nephelus*); Charlotte Harbor (*Grampus* coll., Kendall 1889, as *T. testudineus*); mouth of St. Lucie River at Stuart, and Indian River at Cocoa (Evermann & Bean 1896, as *S. spengleri*); Anclote Sponge Kraals (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

##### **428. *Sphoeroides testudineus* (Linnaeus). Tumbor; Blow-fish.**

Tortugas (Jefferson, Porter & Moore 1878, as *Chilichthys testudineus*); Indian River (Würdemann coll., Bean 1883, as *Tetronodon testudineus*); south Florida (Cooper coll., U. S. Nat. Mus. No. 2138, as *T. testudineus*); Key West (Jordan coll., U. S. Nat. Mus. No. 35077, as *T. testudineus*); and Lönnberg 1894, as *T. testudineus*); Lake Worth and Little River (Smith coll., 1895); and St. Lucie River at Stuart (Evermann & Bean 1896).

#### CANTHIGASTERIDÆ. The Sharp-nosed Puffers.

##### **429. *Canthigaster rostratus* (Bloch).**

Pensacola (Jordan & Edwards 1886, and Jordan & Evermann 1898).

##### **430. *Diodon hystrix* Linnaeus. Porcupine-fish.**

Tortugas (Jordan 1884a); Florida Keys, Key West, and Tortugas (Henshall 1889); Key West (Henshall 1894); Biscayne Bay (McCormick coll., Smith 1895); and Indian River at Cocoa (Evermann & Bean 1896).

##### **431. *Diodon holacanthus* Linnaeus.**

Garden Key (Bean 1883, as *D. liturosus*); Egmont Key (Jordan 1884e, as *D. liturosus*); and Florida Keys (Jordan & Evermann 1898).

##### **432. *Chilomycterus schepeli* (Wulbaum). Burr-fish.**

Pensacola (Goode & Bean 1879a, as *C. geometricus*; and Stearns coll., Bean 1883, as *C. geometricus*); mouth of St. Johns River, and Indian River (Goode 1879a, as *C. geometricus*); Key West (Velie coll., Goode & Bean 1879b, as *C. geometricus*; and Jordan 1884a, as *C. geometricus*); Indian River (Henshall coll., Jordan 1880, as *C. geometricus*); Gulf shore (Wilcox 1886, as *Diodon maculato-striatus*); Egmont Key (Henshall 1889);

Tampa (Henshall 1894); Key West, St. Augustine and New Smyrna (Lönnberg 1894, as *C. geometricus*); Biscayne Bay (McCormick coll., Smith 1895); Cocoa (Evermann & Bean 1896); Key West and Anclote Sponge Kraals (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**433. Chilomycterus atinga** (Linnaeus). *Atinga*.

Florida Keys (Jordan 1884a, as *C. reticulatus*; and Jordan & Evermann 1898).

**434. Lyosphæra globosa** Evermann & Kendall.

Biscayne Bay (Evermann & Kendall 1897, type of genus and species).

**MOLIDÆ. The Head-Fishes.**

**435. Mola mola** (Linnaeus). *Sun-fish*.

Mouth of St. Johns River (Goode 1879a, as *M. rotunda*); off St. Augustine, specimen in curio shop at St. Augustine (seen by Evermann & Bean 1896).

**SCORPÆNIDÆ. The Rock-Fishes.**

**436. Helicolenus dactylopterus** (De la Roche). *Cardonniera*.

In 105 fathoms, 6 miles S.  $\frac{1}{2}$  E. off Sand Key light (Garman 1896, as *Scorpana dactyloptera*).

**437. Helicolenus maderensis** Goode & Bean. *Boca Negra*.

Lat.  $28^{\circ} 42'$  N., long.  $86^{\circ} 36'$  W., in 280 fathoms, southward of Pensacola (Goode & Bean 1896).

**438. Scorpæna brasiliensis** Cuvier & Valenciennes.

Pensacola (Goode & Bean 1882, type of *S. stearnsii*; and Jordan & Evermann 1898); Florida Keys (Jordan 1884d, as *S. stearnsii*); Key West (Jordan 1884a, as *S. stearnsii*); Pensacola and Snapper Banks (Stearns coll., Jordan 1884, as *S. stearnsii*); Egmont Key (Jordan 1884e, as *S. stearnsii*); Boca Grande (*Fish Hawk* coll., 1889); Fort Pierce and Indian River Inlet (Evermann & Bean 1896); and Key West and Miami (Evermann & Kendall coll., 1896).

**439. Scorpæna plumieri** Bloch. *Rascacio*.

Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *Scorpæna*, sp.); Fort Jefferson (Bean 1883); Key West (Jordan 1884a; Henshall 1894; and C. B. Hudson coll., 1897); Florida Keys (Jordan 1884d); and off Key West in 60 fathoms (Garman 1896).

**440. Scorpæna grandicornis** Cuvier & Valenciennes. *Lion-fish*.

Key West (Jordan 1884a; Henshall 1889 and 1894); and Florida Keys (Jordan 1884d, and Jordan & Evermann 1898).

**441. Scorpæna inermis** Cuvier & Valenciennes.

Clearwater Harbor (Goode & Bean 1882, type of *S. calcarata*; and Jordan & Evermann 1898); and Pensacola (Jordan & Evermann 1886, as *S. occipitalis*).

**442. Pontinus longispinis** Goode & Bean.

Lat.  $28^{\circ} 36'$  N., long.  $85^{\circ} 33' 30''$  W., in 111 fathoms, southward of Pensacola (Goode & Bean 1896, type).

**443. Setarches parmatus** Goode.

Lat.  $28^{\circ} 42'$  N., long.  $86^{\circ} 36'$  W., in 280 fathoms, off southward between Pensacola and Cape San Blas (Goode & Bean 1896).

**TRIGLIDÆ. The Gurnards.**

**444. Prionotus scitulus** Jordan & Gilbert.

Mouth of St. Johns River or east coast (Goode 1879a, as *P. punctatus*).

**445. Prionotus roseus** Jordan & Evermann.

Clearwater Harbor (Velie coll., Goode & Bean 1879b, as *P. punctatus*); Pensacola (Jordan & Gilbert 1882, as *P. scitulus*); Lacosta Island (*Grampus* coll., Kendall 1889, as *P. scitulus*); Cape Romano and Big Gasparilla (Henshall 1889, as *P. scitulus*); Snapper Banks (Jordan & Evermann 1886, type); Tampa Bay and Pensacola (Jordan & Evermann 1898); and Tampa Bay (*Fish Hawk* coll., 1898).

**446. *Prionotus alatus* Goode & Bean.**

Lat.  $28^{\circ} 42' 30''$  N., long.  $85^{\circ} 29'$  W., in 88 fathoms, southward of Cape St. George, and lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 16'$  W., in 60 fathoms, southward of Cape St. George (Goode & Bean 1896).

**447. *Prionotus ophryas* Jordan & Swain.**

Snapper Banks off Pensacola (Stearns coll., Jordan & Swain 1884f, type); and Snapper Banks (Jordan & Evermann 1898).

**448. *Prionotus stearnsii* Jordan & Swain.**

Snapper Banks off Pensacola (Jordan & Swain 1884f, type); Pensacola, from stomach of red grouper; lat.  $28^{\circ} 45'$  N., long.  $82^{\circ} 2'$  W., in 30 fathoms, southward of Cape St. George; and lat.  $28^{\circ} 41'$  N., long.  $86^{\circ} 7'$  W., in 109 fathoms, southward from between Pensacola and Cape San Blas (Goode & Bean 1896).

**449. *Prionotus evolans* (Linnaeus). *Striped Gurnard.***

Indian River at Cocoa (Evermann & Bean 1896).

**450. *Prionotus tribulus* Cuvier & Valenciennes. *Big-headed Gurnard.***

St. Augustine (Goode 1879a); Pensacola (Stearns coll., Goode & Bean 1879a; and Bean 1883); Cedar Keys (Jordan & Swain 1884a); Cape Romano, Gordon Pass, Big Gasparilla, and San Carlos Pass (Henshall 1889); Tortugas (C. C. Nutting coll., Garman 1896); Indian River Inlet (Evermann & Bean 1896); and Pensacola and Cedar Keys (Jordan & Evermann 1898).

**451. *Bellator militaris* (Goode & Bean).**

Lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 16'$  W., in 60 fathoms, southward of Cape San Blas, (Goode & Bean 1896, type of *Prionotus militaris*); lat.  $28^{\circ} 46'$  N., long.  $84^{\circ} 49'$  W., in 26 fathoms, southward from Cape St. George; and lat.  $28^{\circ} 47' 30''$  N., long.  $84^{\circ} 37'$  W., in 24 fathoms, southward from Cape St. George (*Albatross* coll., Goode & Bean 1896, cotypes).

**PERISTEDIIDÆ. The Deep-water Gurnards.****452. *Peristedion gracile* Goode & Bean.**

Lat.  $28^{\circ} 38' 30''$  N., long.  $85^{\circ} 52' 30''$  W., in 142 fathoms (*Albatross* coll., Goode & Bean 1896, type).

**453. *Vulsiculus imberbis* (Poey).**

Pensacola and Snapper Grounds (Stearns coll., Jordan 1884, as *Peristedium imberbe*); and Snapper Banks (Jordan & Evermann 1898).

**CEPHALACANTHIDÆ. The Flying Robins.****454. *Cephalacanthus volitans* (Linnaeus). *Flying Robin.***

Tortugas (Jefferson, Porter & Moore 1878, as *Dactylopterus volitans*); St. Augustine, mouth of St. Johns River (Goode 1879a, as *D. volitans*); and Pensacola (Stearns coll., Goode & Bean 1879a, as *D. volitans*).

**CALLIONYMIIDÆ. The Dragonets.****455. *Callionymus bairdi* Jordan.**

Snapper Banks (Stearns coll., Jordan 1887, type); and Snapper Banks between Pensacola and Tampa (Jordan & Evermann 1898).

**456. *Callionymus agassizii* Goode & Bean.**

Lat.  $24^{\circ} 17' 30''$  N., long.  $82^{\circ} 9'$  W., in 137 fathoms, southward of Marquesas Keys; lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 16'$  W., in 60 fathoms, southward of Cape San Blas; lat.  $28^{\circ} 36'$  N., long.  $85^{\circ} 33' 30''$  W., in 111 fathoms, southward of Cape St. George (Goode & Bean 1896, as *C. himantophorus*.)

**457. *Callionymus calliurus* Eigenmann & Eigenmann.**

Off South Beach, Key West (Eigenmann & Eigenmann 1888, type), and Cape Florida (Evermann & Kendall coll., 1896).

## GOBIIDÆ. The Gobies.

**458. Ioglossus calliurus** Bean.

Pensacola (Bean, in Jordan & Gilbert 1882, type of genus and species; Goode & Bean 1882; Stearns coll., Bean 1883); Pensacola and Snapper Banks (Stearns coll., Jordan 1884); Snapper Banks off Pensacola (Jordan & Evermann 1898).

**459. Dormitator maculatus** (Bloch). *Guavina; Mapo; Paneca.*

Snapper Grounds, in 37 fathoms (*Grampus* coll., Kendall 1889, as *Dormitor*, sp.); Hillsboro River (Smith coll., 1895); and Indian River Inlet (Evermann & Bean coll., 1896).

**460. Eleotris amblyopsis** (Cope).

Pensacola (Stearns coll., Bean 1883, as *Culius amblyopsis*).

**461. Eleotris pisonis** (Gmelin). *Sleeper.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *E. gyrinus*).

**462. Eretelis smaragdus** (Cuvier & Valenciennes). *Esmeralda Negra.*

Key West (Jordan 1884a, as *Eleotris smaragdus*; Eigenmann & Eigenmann 1888; and Jordan & Evermann 1898).

**463. Lophogobius cyprinoides** (Pallas).

Crocodile Hole and Indian Creek (Smith coll., 1895), and Little River at Miami (Evermann & Kendall 1897).

**464. Gobius soporator** Cuvier & Valenciennes. *Sleeper; Mapo.*

Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1882; and Stearns coll., Bean 1883 and Jordan 1884); Arlington (Goode 1879a, as *G. carolinensis*); Key West (Jordan 1884a, Lönnberg 1894, and Evermann & Kendall coll., 1896); Tortugas and Florida Keys (Eigenmann & Eigenmann 1888); Myakka River, Marco (Henshall 1889); and Indian River Inlet (Evermann & Bean 1896).

**465. Gobius eigenmanni** Garman.

Off Key West in 60 fathoms (Garman 1896).

**466. Gobius glaucofrænum** (Gill).

Tortugas (Eigenmann & Eigenmann 1888), and Florida Keys (Jordan & Evermann 1898).

**467. Gobius stigmaturus** Goode & Bean.

Florida Keys (?) (Goode & Bean 1882, type, and Jordan & Evermann 1898); Key West (Jordan 1884a, and Eigenmann & Eigenmann 1888); Cards Sound (Henshall 1889); and Indian River Inlet (Evermann & Bean coll., 1896).

**468. Gobius boleosoma** Jordan & Gilbert.

Laguna Grande, at Pensacola (Jordan & Gilbert 1882, type); Pensacola (Jordan & Stearns coll., Bean 1883); Indian River Inlet (Evermann & Bean 1896); and Pensacola to Key West (Jordan & Evermann 1898).

**469. Gobius encaëmus** Jordan & Gilbert.

Key West (Jordan 1884a, and Jordan & Evermann 1898).

**470. Gobius stigmaticus** (Poey).

Indian River Inlet (Evermann & Bean 1896), and Florida Keys (Jordan & Evermann 1898).

**471. Gobius lyricus** Girard.

Indian River Inlet (Evermann & Bean 1896).

**472. Gobius smaragdus** Cuvier & Valenciennes. *Esmeralda.*

Gordon Pass, Marco and St. Augustine (Henshall 1889); St. Augustine (Hay coll., Jordan & Evermann 1898).

**473. Gobius hastatus** (Girard). *Emerald-fish; Sharp-tailed Goby.*

Key West (Jordan coll., No. 35158 U. S. Nat. Mus.).

**474. *Microgobius gulosus* (Girard).**

Pensacola (Jordan & Gilbert 1882, as *Lepidogobius gulosus*); Cards Sound, Marco, Gordon Pass, Big Gasparilla, Myakka River, Lemon Bay, Long Boat Key (Henshall 1889); Captiva Pass (O. P. Hay coll., 1894-95); Little River and Lake Worth (Smith coll., 1895); Cocoa, Titusville, Pelican Island, South Lake, and Indian River Inlet (Evermann & Bean 1896); Aucote Sponge Kraals and Lake Butler (Evermann & Kendall coll., 1896); Palatka and Welaka in St. Johns River, and Lake Monroe (Kendall coll., 1897); Indian River and Pensacola (Jordan & Evermann 1898); and Tampa Bay (*Fish Hawk* coll., 1898).

**475. *Microgobius thalassinus* Jordan & Gilbert.**

Marco Inlet (Henshall 1889).

**476. *Gobiosoma molestum* Girard.**

Pensacola (Jordan & Gilbert 1882, as *G. alepidotum*, and Eigenmann & Eigenmann 1888); Cards Sound, Marco, Gordon Pass, Big Gasparilla, Myakka River, and Lemon Bay (Henshall 1889); and Key West (Jordan & Evermann 1898).

**477. *Gobiosoma boscii* (Lacépède).**

St. Johns River (A. H. Curtis coll., Jordan 1880a, as *G. alepidotum*); Pensacola (Stearns coll., Bean 1883, as *G. boscii*); Key West (Jordan 1884a); Amelia Island (Eigenmann & Eigenmann 1888); Captiva Pass (O. P. Hay coll., 1894-95); Lake Worth (Smith coll., 1895); Indian River Inlet, Pelican Island, Titusville, and Cocoa (Evermann & Bean 1896); and St. Johns River at Palatka and Welaka (Kendall coll., 1897).

**478. *Barbulifer ceuthocæsus* (Jordan & Gilbert).**

Key West (Jordan & Gilbert 1884a, type of *Gobiosoma ceuthacum*; Jordan 1884a, as *G. ceuthacum*; and Jordan & Evermann 1898).

**ECHENEIDIDÆ. The Remoras.****479. *Echeneis naucrates* Linnaeus. *Shark-sucker*.**

Massachusetts to Florida (Holbrook 1855a, as *E. albicauda*); Carolina to Florida (Holbrook 1860, as *E. lineata*); mouth of St. Johns River (Goode 1879a); Indian River (Jordan 1880); Pensacola (Jordan & Gilbert 1882, and Stearns coll., Jordan 1884); Big Sarasota Bay (Bean 1883); Key West (Jordan 1884a; Henshall 1894; Lönnberg 1894; Evermann & Kendall coll., 1896; and Jordan & Evermann 1898); Charlotte Harbor (*Fish Hawk* coll., 1889); Lemon Bay, Sarasota Bay and Garden Key (Henshall 1889); and Tortugas (Garman 1896).

**480. *Echeneis naucrateoides* Zuijew. *Shark-sucker*.**

Pensacola (Goode & Bean 1879a), and Key West (Jordan & Evermann 1898).

**481. *Remora remora* (Linnaeus). *Remora*.**

Indian River at Cocoa (Evermann & Bean 1896).

**MALACANTHIDÆ. The Bianquillos.****482. *Caulolatilus microps* Goode & Bean.**

Snapper Banks off Pensacola (Goode & Bean 1878, type, and Jordan & Evermann 1898), and Pensacola (Stearns coll., Goode & Bean 1879a, and Jordan 1884).

**OPISTHOGNATHIDÆ. The Jaw-Fishes.****483. *Opistognathus lonchurum* Jordan & Gilbert.**

Snapper Banks off Pensacola (Jordan & Gilbert 1882, type of *O. lonchurus*; Stearns coll., Jordan 1884, as *O. lonchura*; and Jordan & Evermann 1898).

**484. *Opistognathus macrognathum* Poey.**

Garden Key (Whitehurst coll., Goode & Bean 1882, as *O. scaphiurus*, type); Pensacola (Stearns coll., Bean 1883); Tortugas (Jordan 1884a, as *O. scaphiurus*); and Florida Keys (Jordan & Evermann 1898).

**485. Gnathopops maxillosa** (Poey).

Garden Key (Bean 1883, as *Opistognathus maxillosus*), and Florida (Jordan & Evermann 1898).

**486. Gnathopops mystacina** Jordan.

Pensacola Snapper Banks (Stearns coll., Jordan 1884, type; and Jordan & Evermann 1898).

**CHENICHTHYIDÆ.****487. Hypsicometes gobiooides** Goode.

Lat.  $28^{\circ} 36' N.$ , long.  $85^{\circ} 33' 30'' W.$ , in 111 fathoms, southward of Cape San Blas; lat.  $28^{\circ} 45' N.$ , long.  $86^{\circ} 26' W.$ , in 22 fathoms; lat.  $28^{\circ} 42' 30'' N.$ , long.  $85^{\circ} 29' W.$ , in 88 fathoms, southward of Cape San Blas; and lat.  $28^{\circ} 44' N.$ , long.  $86^{\circ} 18' W.$ , in 196 fathoms, southward between Pensacola and Cape San Blas (*Albatross* coll., Goode & Bean 1896).

**DACTYLOSCOPIDÆ. The Sand Star-Gazers.****488. Gillellus semicinctus** Gilbert.

Snapper Banks, in 31 and  $16\frac{1}{2}$  fathoms (*Grampus* coll., Kendall 1889).

**489. Dactyloscopus tridigitatus** Gill.

Key West (Jordan 1884a, Henshall 1889, and Jordan & Evermann 1898); Pensacola (Jordan & Evermann 1886); and Cape Florida (Evermann & Kendall coll., 1896).

**URANOSCOPIDÆ. The Star-Gazers.****490. Astroscopus y-graecum** (Cuvier & Valenciennes). *Star-gazer.*

New Berlin and St. Augustine (Goode 1879a, as *Uranoscopus y-graecum*); Indian River (Henshall coll., Jordan 1880); Pensacola (Jordan & Gilbert 1882, as *A. anoplus*, and Bean 1883); Key West (Jordan 1884a, as *A. anoplus*); and Matanzas River, St. Johns River, Pensacola and Key West (Jordan & Evermann 1898).

**491. Kathetostoma alboguttatum** Bean.

Off Pensacola (*Albatross* coll., Bean 1892, type); lat.  $28^{\circ} 42' 30'' N.$ , long.  $85^{\circ} 29' W.$ , in 88 fathoms; lat.  $28^{\circ} 44' N.$ , long.  $85^{\circ} 16' W.$ , in 60 fathoms; lat.  $26^{\circ} 4' 30'' N.$ , long.  $83^{\circ} 25' 15'' W.$ , in 28 fathoms; and lat.  $26^{\circ} 33' 30'' N.$ , long.  $83^{\circ} 15' 30'' W.$ , in 27 fathoms, between "The Bay" and Dry Tortugas (*Albatross* coll., Goode and Bean 1896).

**BATRACHOIDIDÆ. The Toad-Fishes.****492. Opsanus tau** (Linnaeus). *Toad-fish.*

Pensacola (Stearns coll., Goode & Bean 1879a, as *Batrachus tau*, and Jordan & Stearns coll., Bean 1883, as *B. tau*); St. Johns River (Goode 1879a, as *B. tau*); Punta Rassa (Velie coll., Goode & Bean 1879b, as *B. tau beta*); Key West (Jordan 1884a, as *B. tau*); Florida Keys (Jordan 1884d, as *B. tau*); Cedar Keys (Jordan & Swain 1884a, as *B. tau*); Big Gasparilla and Lemon Bay (Henshall 1889, as *B. tau*); Tampa (Henshall 1894, as *B. tau*); Clearwater Harbor and other places along coast (Lönnberg 1894, as *B. tau*); Key West and Anclote Sponge Kraals (Evermann & Kendall coll., 1896); and Tampa Bay (*Fish Hawk* coll., 1898).

**493. Opsanus pardus** (Goode & Bean). *Sapo.*

Pensacola Snapper Banks (Stearns coll., Goode & Bean 1879a, as *Batrachus tau*); Pensacola (Velie coll., Goode & Bean 1879b, type of *B. tau pardus*; Jordan & Gilbert 1882, as *B. pardus*; and Jordan & Evermann 1898); Snapper Banks (Stearns coll., Bean 1883, as *B. pardus*, and 1884; Jordan 1884a, as *B. pardus*); Egmont Key (Jordan 1884e, as *B. pardus*); west coast (Henshall 1889, as *B. pardus*); and Key West (Evermann & Kendall coll., 1896).

**494. Porichthys porosissimus** (Cuvier & Valenciennes). *Bagre Sapo.*

Pensacola (Jordan & Gilbert 1882, type of *Porichthys plectrodon*; Bean 1883, as *P. plectrodon*; Jordan 1884d; and Jordan & Swain 1884f); and Gulf of Mexico (Garman 1896, as *P. plectrodon*).

## GOBIESOCIDÆ. The Cling-Fishes.

**495. Gobiesox strumosus Cope.**

Boca Grande Pass (*Fish Hawk* coll., 1889); Titusville (Evermann & Bean 1896); and Indian River (Jordan & Evermann 1898).

**496. Gobiesox virgatus Jordan & Gilbert.**

Pensacola (Jordan & Gilbert 1882, type; and Bean 1883); Egmont Key (Jordan 1884e); Key West (Lönnberg 1894); and Pensacola Bay (Jordan & Evermann 1898).

## BLENNIIDÆ. The Blennies.

**497. Malacoctenus macropus (Poey).**

Tortugas (Garman 1896, as *Myxodes macropus*), and Cape Florida (Evermann & Kendall coll., 1896).

**498. Labrisomus nuchipinnis (Quoy & Gaimard).**

Florida (De Kay 1842, as *Lepisoma cirrhosum*), and Florida Keys (Jordan & Evermann 1898).

**499. Auchenopterus marmoratus (Steindachner).**

Florida Keys (Bean 1883, as *Cremnobates marmoratus*); Key West (Jordan 1884a, as *C. marmoratus*); Cards Sound (Henshall 1889); Key West and Cape Florida (Evermann & Kendall coll., 1896); and Florida Keys and Key West (Jordan & Evermann 1898).

**500. Auchenopterus affinis (Steindachner).**

Key West (Jordan 1884a, as *Cremnobates affinis*, and Jordan & Evermann 1898); and Key West (Evermann & Kendall coll., 1896).

**501. Auchenopterus fasciatus (Steindachner).**

Key West (Jordan 1884a, as *C. fasciatus*); and Cards Sound (Henshall 1889).

**502. Auchenopterus nox (Jordan & Gilbert).**

Key West (Jordan & Gilbert 1884a, type of *Cremnobates nox*; Jordan 1884a, as *C. nox*, and Jordan & Evermann 1898).

**503. Blennius stearnsi Jordan & Gilbert.**

Pensacola Snapper Banks (Jordan & Gilbert 1882, type), and Snapper Banks (Stearns coll., Jordan 1884).

**504. Blennius favosus Goode & Bean.**

Garden Key (Würdemann coll., Goode & Bean 1882, type); Tortugas (Jordan 1884a); and Garden Key (Jordan & Evermann 1898).

**505. Blennius pilicornis Cuvier & Valenciennes.**

Tortugas (C. C. Cutting coll., Garman 1896).

**506. Blennius cristatus Linnaeus.**

Garden Key (Würdemann coll., Goode & Bean 1882, type of *B. asterias*; and Jordan & Evermann 1898); Tortugas (J. B. Holder coll., Bean 1883, as *B. asterias*); and Key West (Lönnberg 1894, as *B. asterias*; and Evermann & Kendall coll., 1896).

**507. Hypsoblennius ionthas (Jordan & Gilbert).**

Pensacola (Jordan & Gilbert 1882, types of *Iseethes ionthas*, and as *I. scorutator*); and Pensacola Bay (Jordan & Stearns coll., Bean 1883, as *I. ionthas*).

**508. Hypsoblennius hentz (Le Sueur).**

Indian River Inlet (Evermann & Bean 1896, as *H. punctatus*), and Indian River (Jordan & Evermann 1898).

**509. Chasmodes saburrae Jordan & Gilbert.**

Pensacola (Jordan & Gilbert 1882, type; and Jordan & Stearns coll., Bean 1883); Anclote Sponge Kraals (Evermann & Kendall coll., 1896); and Pensacola Bay (Jordan & Evermann 1898).

**510. Chasmodes novemlineatus (Wood).**

Titusville (Evermann & Bean 1896, as *C. saburrae*), and Indian River (Jordan & Evermann 1898).

**511. Chasmodes bosquianus (Lacépède).**

Florida (Bean 1883, and Jordan & Evermann 1898).

## CHENOPSIDÆ.

**512. Emblemaria atlantica** Jordan & Evermann.

Snapper Banks off Pensacola (Stearns coll., Jordan &amp; Evermann 1898, type).

**513. Emblemaria nivipes** Jordan & Gilbert.

Pensacola Snapper Banks (Stearns coll., Jordan 1884).

## XIPHIDIIDÆ.

**514. Stathmonotus hemphillii** Bean.

Key West (Bean 1885, type; and Jordan &amp; Evermann 1898).

## OPHIDIIDÆ.

**515. Lepophidium profundorum** Gill.Gulf stream off coast of Florida (Commodore Rodgers coll., Gill 1863a, type of *Lepophidium profundorum*; and Goode 1879a); in 30 fathoms off coast of Florida (Goode & Bean 1896).**516. Lepophidium cervinum** (Goode & Bean).

About 8 miles south of Sand Key Light in 12 fathoms (Garman 1896); Snapper Grounds off Pensacola (Goode &amp; Bean 1896); and off Sand Key Light (Jordan &amp; Evermann 1898).

**517. Ophidion beani** Jordan & Gilbert.Snapper Banks off Pensacola (Jordan & Gilbert 1882, as *Ophidium graëlli*, and 1883, type of *O. beani*); west Florida and Pensacola (Stearns coll., Bean 1883, as *O. beani*); Snapper Banks (Stearns coll., Jordan 1884, as *O. beani*); Pensacola (Jordan & Evermann 1886, as *O. beani*); and Snapper Banks in 21½ fathoms (*Grampus* coll., Kendall 1889, as *Ophidium*, sp.).**518. Ophidion holbrookii** (Putnam).Key West (C. J. Maynard coll., Putnam, 1874, type of *Ophidium holbrookii*; and Jordan & Evermann 1898).**519. Rissola marginata** (De Kay).Pensacola (Jordan & Gilbert 1883, as *Ophidium marginatum*).**520. Otophidium omostigma** (Jordan & Gilbert).Pensacola Snapper Banks (Jordan & Gilbert 1882, type of *Genypterus omostigma*; and Jordan & Evermann 1898); and Snapper Banks (Stearns coll., Jordan 1884).

## FIERASFERIDÆ.

**521. Fierasfer affinis** Günther."Key Bisquan," Cape Florida, Tortugas (Würdemann coll., Putnam 1874); Key West (Jordan 1884a, as *F. dubius*); Tortugas (C. C. Nutting coll., Garman 1896, as *F. dubius*); Tortugas and Cape Florida (Würdemann coll.); and Biscayne Bay (Theodore Lyman coll., Jordan & Evermann 1898).

## BROTULIDÆ.

**522. Ogilbia cayorum** Evermann & Kendall.

Key West (Evermann &amp; Kendall 1897, type of genus and species; and Jordan &amp; Evermann 1898).

**523. Dicromita agassizii** Goode & Bean.

Lat. 29° 11' 30" N., long. 85° 29' W., in 26 fathoms, southward of Cape San Blas (Goode &amp; Bean 1896).

**524. Neobythites gilli** Goode & Bean.Lat. 28° 36' N., long. 85° 33' W., in 111 fathoms, southward of Cape San Blas (*Albatross* coll., Goode & Bean 1885, type, and 1896).**525. Amphytonus mollis** Goode & Bean.Lat. 24° 36' N., long. 84° 5' W., in 955 fathoms, westward of Tortugas (*Blake* coll., Goode & Bean 1886, type, and 1896).

## GADIDÆ. The Cods.

**526. *Physiculus fulvus* Bean.**

Lat.  $24^{\circ} 36'$  N., long.  $84^{\circ} 5'$  W., in 955 fathoms, westward of Tortugas; lat.  $28^{\circ} 36'$  N., long.  $85^{\circ} 33' 36''$  W., in 111 fathoms, southward of Cape San Blas (Goode & Bean, 1896).

**527. *Urophycis regius* (Walbaum). *Spotted Hake.***

About 8 miles south of Sand Key Light, in about 120 fathoms (Garman 1896, as *Phycis regius*).

**528. *Urophycis cirratus* (Goode & Bean).**

Lat.  $29^{\circ} 3' 15''$  N., long.  $88^{\circ} 16'$  W., in 280 fathoms; lat.  $28^{\circ} 42'$  N., long.  $86^{\circ} 36'$  W., in 280 fathoms, southward from between Pensacola and Cape San Blas (Goode & Bean 1896, type of *Phycis cirratus*).

**529. *Urophycis floridana* (Bean & Dresel). *Florida Hake.***

Pensacola (Stearns coll., Bean & Dresel 1882, type of *Phycis floridanus*, and Jordan & Evermann 1898), and Snapper Banks and shores near Pensacola (Jordan & Evermann 1886, as *Phycis floridanus*).

**530. *Laemonema melanurum* Goode & Bean.**

Lat.  $28^{\circ} 34'$  N., long.  $86^{\circ} 48'$  W., in 330 fathoms; lat.  $28^{\circ} 42'$  N., long.  $86^{\circ} 36'$  W., in 280 fathoms, southward from between Pensacola and San Blas (*Albatross* coll., Goode & Bean 1896, type).

## MACRURIDÆ. The Grenadiers.

**531. *Bathygadus arcuatus* Goode & Bean.**

Lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 2'$  W., in 420 fathoms (Goode & Bean 1896).

**532. *Bathygadus favosus* Goode & Bean.**

Lat.  $28^{\circ} 47' 30''$  N., long.  $87^{\circ} 27'$  W., in 724 fathoms; lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 27'$  W., in 724 fathoms; and lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 2'$  W., in 420 fathoms, southward of Pensacola (Goode & Bean 1896).

**533. *Bathygadus macrops* Goode & Bean.**

Lat.  $28^{\circ} 34'$  N., long.  $86^{\circ} 48' 33''$  W., in 335 fathoms, and lat.  $28^{\circ} 36' 15''$  N., long.  $86^{\circ} 50'$  W., in 347 fathoms, southward from between Pensacola and San Blas (Goode & Bean 1896).

**534. *Bathygadus longifilis* Goode & Bean.**

Lat.  $28^{\circ} 47' 30''$  N., long.  $87^{\circ} 27'$  W., in 724 fathoms (*Albatross* coll., Goode & Bean 1885, type); lat.  $28^{\circ} 47' 30''$  N., long.  $87^{\circ} 27'$  W., in 724 fathoms, and lat.  $28^{\circ} 43' 30''$  N., long.  $87^{\circ} 14' 13''$  W., in 525 fathoms, southward of Pensacola (*Albatross* coll., Goode & Bean 1896).

**535. *Hymenocephalus cavernosus* (Goode & Bean).**

Lat.  $28^{\circ} 45'$  N., long.  $86^{\circ} 26'$  W., in 227 fathoms (Goode & Bean 1885, type of *Bathygadus cavernosus*).

**536. *Cælorhynchus occa* (Goode & Bean).**

Lat.  $28^{\circ} 34'$  N., long.  $86^{\circ} 48' 33''$  W., in 335 fathoms (Goode & Bean 1885, type of *Macrurus occa*, and 1896).

**537. *Cælorhynchus carminatus* (Goode).**

Lat.  $28^{\circ} 36'$  N., long.  $83^{\circ} 33' 30''$  W., in 111 fathoms, southward of Cape San Blas; lat.  $28^{\circ} 42'$  N., long.  $86^{\circ} 36'$  W., in 286 fathoms; lat.  $28^{\circ} 34'$  N., long.  $86^{\circ} 48' 33''$  W., in 335 fathoms; lat.  $28^{\circ} 45'$  N., long.  $86^{\circ} 26'$  W., in 227 fathoms; and lat.  $28^{\circ} 36'$  N., long.  $86^{\circ} 50'$  W., in 347 fathoms, between Pensacola and Cape San Blas (Goode & Bean 1896).

**538. *Cælorhynchus caribbaeus* (Goode & Bean).**

Lat.  $29^{\circ} 07' 30''$  N., long.  $88^{\circ} 08'$  W.; lat.  $28^{\circ} 41'$  N., long.  $86^{\circ} 07'$  W.; lat.  $28^{\circ} 38' 30''$  N., long.  $85^{\circ} 52' 30''$  W. (*Albatross* coll., Goode & Bean 1885, type of *Macrurus caribbaeus*); lat.  $28^{\circ} 41'$  N., long.  $86^{\circ} 07'$  W., in 169 fathoms, southward from between Pensacola and Cape San Blas; and lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 02'$  W., in 42 fathoms, southward of Cape San Blas (Goode & Bean 1896).

**539. *Trachonurus sulcatus* (Goode & Bean).**

Lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 2'$  W., in 420 fathoms (Goode & Bean 1885, type of *Coryphaenoides sulcatus*).

**BREGMACEROTIDÆ.****540. *Bregmaceros atlanticus* Goode & Bean.**

Snapper Grounds in 23 and 24 fathoms (*Grampus* coll., Kendall 1889); and lat.  $25^{\circ} 33' N.$ , long.  $84^{\circ} 21' W.$ , northwestward of Tortugas (Goode & Bean 1896).

**PLEURONECTIDÆ. The Flounders.****541. *Paralichthys dentatus* (Linnaeus). *Summer Flounder*.**

Cape Cod to Florida (Jordan & Goss 1886, and Jordan & Evermann 1898).

**542. *Paralichthys lethostigmus* Jordan & Gilbert. *Southern Flounder*.**

St. Johns River and St. Augustine (Goode 1879a, as *Pseudorhombus dentatus*); Pensacola (Stearns coll., Goode & Bean 1879a, as *P. dentatus*); St. Johns River (Bean 1880, and 1883, as *P. dentatus*; Jordan & Gilbert, in Jordan & Meek 1884, type); Tampa (Henshall 1894); Indian River at Stuart (Evermann & Bean 1896, as *P. lethostigma*); Tampa Bay (*Fish Hawk* coll., 1898).

**543. *Paralichthys squamilentus* Jordan & Gilbert.**

Pensacola (Jordan & Gilbert 1882, type; Stearns coll., Bean 1883; Jordan & Goss 1886; and Jordan & Evermann 1898); Egmont Key (Henshall 1889); and Biscayne Bay (McCormick coll., Smith 1895).

**544. *Paralichthys alboguttus* Jordan & Gilbert.**

Pensacola (Jordan & Gilbert 1882, type); Cedar Keys (Jordan & Swain 1884a, and Jordan & Evermann 1898); Gulf coast (Jordan & Goss 1886); Marco, Gordon Pass, Big Gasparilla, and Lemon Bay (Henshall 1889); Clearwater Harbor (Lönnberg 1894); Indian River at Fort Pierce (Evermann & Bean 1896, as *P. lethostigma*); and Key West (C. B. Hudson coll., 1897).

**545. *Limanda beanii* Goode.**

Lat.  $28^{\circ} 45' N.$ , long.  $86^{\circ} 26' W.$ , in 227 fathoms; lat.  $28^{\circ} 44' N.$ , long.  $86^{\circ} 18' W.$ , in 196 fathoms; lat.  $28^{\circ} 41' N.$ , long.  $86^{\circ} 7' W.$ , in 169 fathoms, between Pensacola and Cape San Blas; lat.  $28^{\circ} 38' 30'' N.$ , long.  $85^{\circ} 52' 30'' W.$ , in 142 fathoms; and lat.  $28^{\circ} 36' N.$ , long.  $85^{\circ} 33' 30'' W.$ , in 111 fathoms, southward of Cape San Blas (*Albatross* coll., Goode & Bean 1896).

**546. *Platophrys ocellatus* (Agassiz).**

Key West (Jordan & Gilbert 1884, and Jordan 1884a, as *P. nebularis*; and Jordan & Goss 1886); Key West and Garden Key (Henshall 1889); Biscayne Bay (McCormick coll., Smith 1895); Tortugas (Garman 1896); and Cape Florida (Evermann & Kendall coll., 1896); lat.  $24^{\circ} 43' N.$ , long.  $83^{\circ} 25' W.$ , in 37 fathoms, westward of Dry Tortugas; lat.  $24^{\circ} 25' 45'' N.$ , long.  $81^{\circ} 46' W.$ , in 45 fathoms, off Sand Key; lat.  $28^{\circ} 45' N.$ , long.  $85^{\circ} 2' W.$ , in 30 fathoms, off Cape San Blas; lat.  $28^{\circ} 46' N.$ , long.  $84^{\circ} 49' W.$ , in 26 fathoms, off Cape St. George; lat.  $25^{\circ} 4' 30'' N.$ , long.  $82^{\circ} 59' 15'' W.$ , in 26 fathoms, northward of Tortugas; lat.  $28^{\circ} 47' 30'' N.$ , long.  $84^{\circ} 37' W.$ , in 24 fathoms, southward of Apalachicola (*Albatross* coll., Goode & Bean 1896); and Key West and Tortugas (Jordan & Evermann 1898).

**547. *Platophrys lunatus* (Linnaeus).**

Green Turtle Key (Jordan & Evermann 1898).

**548. *Syacium papillosum* (Linnaeus).**

Pensacola (Bean in Jordan & Gilbert 1882, type of *Hemirhombus pætulus*; Goode & Bean 1882, as *H. pætulus*; Jordan & Gilbert 1883, as *H. pætulus*; Stearns coll., Jordan 1884, as *Citharichthys pætulus*; and Jordan & Goss 1886); Pensacola and Snapper Banks (Stearns coll., Bean 1883, as *H. pætulus*; Pensacola; lat.  $24^{\circ} 43' N.$ , long.  $83^{\circ} 25' W.$ , in 37 fathoms, westward of Tortugas; lat.  $24^{\circ} 46' N.$ , long.  $83^{\circ} 16' W.$ , in 36 fathoms, northwestward of Tortugas; lat.  $28^{\circ} 42' 30'' N.$ , long.  $85^{\circ} 29' W.$ , in 88 fathoms, off Cape San Blas; lat.  $26^{\circ} 33' 30'' N.$ , long.  $88^{\circ} 15' 30'' W.$ , in 27 fathoms,

westward of Charlotte Harbor; lat.  $26^{\circ}$  N., long.  $82^{\circ} 57' 30''$  W., in 27 fathoms, westward of Cape Romano; lat.  $25^{\circ} 4' 30''$  N., long.  $82^{\circ} 59' 15''$  W., in 26 fathoms, northwest of Tortugas; lat.  $28^{\circ} 46'$  N., long.  $84^{\circ} 49'$  W., in 26 fathoms, southward from between Cape St. George and Apalachicola; and lat.  $28^{\circ} 28'$  N., long.  $84^{\circ} 25'$  W., in 21 fathoms, off Apalachicola (*Albatross* coll., Goode & Bean 1896, as *C. patulus*).

**549. Syacium micrurum Ranzani.**

Key West (Jordan 1884a, as *Citharichthys ocellatus*; Jordan & Goss 1886; Henshall 1894; Lönnberg 1894, as *C. ocellatus*; and Jordan & Evermann 1898).

**550. Cyclopsetta fimbriata (Goode & Bean).**

Lat.  $28^{\circ} 42' 30''$  N., long.  $84^{\circ}$  and  $85^{\circ}$  W. (*Albatross* coll., Goode & Bean 1885, type of *Hemirhombus fimbriatus*); lat.  $28^{\circ} 42' 30''$  N., long.  $85^{\circ} 29'$  W., in 88 fathoms, southward of Cape San Blas, and lat.  $28^{\circ} 47' 30''$  N., long.  $84^{\circ} 37'$  W., in 24 fathoms, off Cape St. George (*Albatross* coll., Goode & Bean 1896).

**551. Ancylosetta quadrocellata Gill.**

Pensacola (Goode & Bean 1879a, and Goode 1879a, as *Pseudorhombus quadrocellatus*), and Cedar Keys (Jordan & Swain 1884a, as *Paralichthys ommatus*).

**552. Notosema dilectum (Goode & Bean).**

Lat.  $28^{\circ} 42' 30''$  N., long.  $85^{\circ} 29'$  W., in 88 fathoms, southward of Cape San Blas (Goode & Bean 1896).

**553. Gastropsetta frontalis B. A. Bean.**

Near Key West, lat.  $24^{\circ} 25' 45''$  N., long.  $81^{\circ} 46' 45''$  W., in 45 fathoms (*Albatross* coll., B. A. Bean 1894, type); and Key West (Jordan & Evermann 1898).

**554. Citharichthys unicornis Goode.**

Lat.  $24^{\circ} 25' 45''$  N., long.  $81^{\circ} 46'$  W., in 45 fathoms, off Sand Key; lat.  $28^{\circ} 38' 30''$  N., long.  $85^{\circ} 52' 30''$  W., in 142 fathoms; lat.  $28^{\circ} 36'$  N., long.  $85^{\circ} 33' 30''$  W., in 111 fathoms; and lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 16'$  W., in 60 fathoms, southward of Cape San Blas (Goode & Bean 1896).

**555. Citharichthys macrops Dresel.**

Pensacola (Dresel 1884, type); Lacosta Island (*Grampus* coll., Kendall 1889); and Big Gasparilla and Egmont Key (Henshall 1889).

**556. Citharichthys spilopterus Günther.**

St. Johns River (Goode 1879a); Pensacola (Stearns coll., Goode & Bean 1879a); Stuart (Evermann & Bean 1896).

**557. Etropus microstomus (Gill).**

Pensacola (Jordan & Goss 1886). Doubtful.

**558. Etropus rimosus Goode & Bean.**

Coast of Florida between Pensacola and Cedar Keys, dredged in 21 fathoms (Goode & Bean 1885, type), and lat.  $28^{\circ} 28'$  N., long.  $84^{\circ} 25'$  W., in 21 fathoms, between Cape St. George and Apalachicola (Goode & Bean 1896).

**559. Etropus crossotus Jordan & Gilbert.**

St. Johns River (Baird coll., Bean 1883); Cedar Keys (Jordan & Swain 1884a, and Jordan & Goss 1886); Pensacola (Jordan & Evermann 1886); Gordon Pass and San Carlos Pass (Henshall 1889); and Tampa Bay (*Fish Hawk* coll., 1898).

**560. Monolene sessilicauda Goode.**

Off Key West (Garman 1896); off Alligator Key, in 85 fathoms; lat.  $28^{\circ} 36'$  N., long.  $85^{\circ} 33' 30''$  W., in 111 fathoms, off Cape San Blas (Goode & Bean 1896); and Key West (Jordan & Evermann 1898).

**561. Achirus inscriptus Gosse.**

Key West (Jordan 1884, and Jordan & Goss 1886), and Cape Florida (Smith coll., 1895, and Evermann & Kendall coll., 1896).

**562. Achirus lineatus (Linnaeus).**

St. Johns River (Goode 1879a); Pensacola (Stearns coll., Goode & Bean 1879a; Jordan & Gilbert 1882; and Stearns coll., Bean 1883, as *A. lineatus brownii*); Apa-

lachicola Bay (Goode & Bean 1882, as *Baiostoma brachialis*, genus and species new); Key West (Jordan & Gilbert 1884a, type of *A. comifer*, and Jordan 1884, as *A. comifer*); Egmont Key (Jordan 1884a, and 1884e, as *A. brachialis*, and Jordan & Goss 1886); Barnes Sound, Gordon Pass, and Big Gasparilla (Henshall 1889); Biscayne Bay (McCormick coll., Smith 1895); Lake Worth (Smith coll., 1895); Stuart (Evermann & Bean 1896); Cape Florida, Key West and Tarpon Springs (Evermann & Kendall coll., 1896); Pensacola, Egmont Key and Key West (Jordan & Evermann 1898); Tampa Bay (*Fish Hawk* coll., 1898).

**563. Achirus fasciatus Lacépède.**

Volusia and Bayport (Cope 1877, as *A. mollis*); Pensacola (Jordan & Goss 1886, and Jordan & Evermann 1898); Myakka River (Henshall 1889); Alligator River, Punta Gorda, Joshua, Charlie Apopka, and Oak creeks, Alligator Branch and Peace River at Wauchula (Woolman 1890); Peace River (Lönnberg 1894); Anclote Sponge Kraals, Anclote River at Pindar's Landing (Evermann & Kendall coll., 1896); St. Johns River at Welaka (Kendall coll., 1897); and Tampa Bay (*Fish Hawk* coll., 1898).

**564. Symphurus piger (Goode & Bean).**

Off Key West, and between delta of Mississippi and Cedar Keys; lat.  $24^{\circ} 25' 45''$  N., long.  $81^{\circ} 46' 45''$  W., in 45 fathoms, off Sand Key (*Blake* coll., Goode & Bean 1886, type of *Aphoristia pigra*); lat.  $28^{\circ} 45'$  N., long.  $85^{\circ} 2'$  W., in 30 fathoms, off Cape St. George; and lat.  $29^{\circ} 11' 30''$  N., long.  $85^{\circ} 29'$  W., in 26 fathoms, off Cape San Blas (Goode & Bean 1896).

**565. Symphurus plagusia (Bloch & Schneider). Tongue-fish.**

Off Key West, in about 20 fathoms (Garman 1896).

**566. Symphurus plagiusa (Linnaeus). Tongue-fish.**

St. Johns River (Jordan 1880a, as *Aphoristia plagiusa*); Pensacola (Jordan & Gilbert 1882, as *A. plagiusa*, and Stearns coll., Bean 1883, as *A. plagiusa*); Cedar Keys (Jordan & Swain 1884a, as *A. plagiusa*); Key West (Jordan 1884a, as *A. plagiusa*); Egmont Key (Jordan 1884e, as *A. plagiusa*); Florida Keys and Key West (Jordan & Goss 1886); Snapper Grounds, in 37 fathoms (*Grampus* coll., Kendall 1889, as *A. plagiusa*); Marco, Gordon Pass, Big Gasparilla, Lemon Bay, and Long Boat Key (Henshall 1889); Biscayne Bay (McCormick coll., Smith 1895); Indian River Inlet (Evermann & Bean 1896); Pensacola and Key West (Jordan & Evermann 1898); Tampa Bay (*Fish Hawk* coll., 1898).

**567. Symphurus diomedeeana (Goode & Bean).**

Lat.  $25^{\circ} 4' 30''$  N., long.  $82^{\circ} 59' 15''$  W., north of Tortugas (*Albatross* coll., Goode & Bean 1885, as *Aphoristia diomedeeana*, type).

### ANTENNARIIDÆ.

**568. Pterophryne histrio (Linnaeus).**

St. Augustine and mouth of St. Johns River (Goode 1879a).

**569. Antennarius ocellatus (Bloch & Schneider).**

Key West (Gill 1863, type of *A. pleurophthalmus*, and C. B. Hudson coll., 1897); Egmont Key (Jordan 1884e); Snapper Grounds, in 38 fathoms (*Grampus* coll., Kendall 1889, as *Antennarius* sp. ♀); lat.  $24^{\circ} 34'$  N., long.  $83^{\circ} 16'$  W., in 36 fathoms, westward of Tortugas; lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 16'$  W., in 60 fathoms; lat.  $28^{\circ} 45'$  N., long.  $85^{\circ} 2'$  W., in 30 fathoms, southward of Cape St. George; and lat.  $24^{\circ} 25' 45''$  N., long.  $81^{\circ} 46' 45''$  W., in 45 fathoms, northward of Tortugas (Goode & Bean 1896, as *A. pleurophthalmus*).

**570. Antennarius nuttingii (Garman).**

Nearly 8 miles south of Sand Key Light, in 120 fathoms (Garman 1896, type of *Chaunax nuttingii*).

**571. Antennarius multiocellatus (Cuvier & Valenciennes).**

Garden Key (Lieutenant Wright coll., Gill 1863, type of *A. annulatus*).

**572. Antennarius radiosus Garman.**

Off Key West, in 50 fathoms (Garman 1896, type).

## OGCOCEPHALIDÆ. The Bat-Fishes.

**573. Ogocephalus vespertilio** (Linnaeus). *Bat-fish.*

Pensacola (Bean 1883, as *Malthe vespertilio*); Egmont Key (Jordan 1884e, as *M. vespertilio*); south of Key West in 60 fathoms (Garman 1896, as *Oncocephalus vespertilio*); lat.  $24^{\circ} 46'$  N., long.  $83^{\circ} 16'$  W., in 36 fathoms; lat.  $24^{\circ} 43'$  N., long.  $83^{\circ} 25'$  W., in 37 fathoms, westward of Tortugas; lat.  $28^{\circ} 36'$  N., long.  $85^{\circ} 33' 30''$  W., in 111 fathoms, off Cape San Blas; lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 16'$  W., in 60 fathoms, southward between Pensacola and Cape San Blas; lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 2'$  W., in 30 fathoms; lat.  $28^{\circ} 46'$  N., long.  $84^{\circ} 49'$  W., in 26 fathoms, southward of Cape St. George; and lat.  $24^{\circ} 25'$  N., long.  $45^{\circ} 8' 46''$  W., in 45 fathoms, off Sand Key (Goode & Bean 1896, as *Oncocephalus vespertilio*).

**574. Ogocephalus radiatus** (Mitchill). *Bat-fish.*

St. Augustine (Goode 1879a, as *Malthe cubifrons*; and J. M. Lang coll., Bean 1883, as *M. cubifrons*); Pensacola (Stearns coll., Goode & Bean 1879a, as *M. cubifrons*); Key West (Jordan 1884a, as *M. radiata*; and Evermann & Kendall coll., 1896); Cedar Keys (Jordan & Swain 1884, as *M. vespertilio*); west coast of Florida (Henshall 1889, as *M. radiata*); Tampa (Henshall 1894, as *M. radiata*); and Clearwater Harbor (Lönnberg 1894, as *M. radiata*).

**575. Halieutichthys aculeatus** (Mitchill).

Key West (Velie coll., Goode & Bean 1879b; and Jordan 1884a, as *H. reticulatus*); Pensacola (Jordan & Evermann 1886, as *H. reticulatus*); lat.  $24^{\circ} 25' 45''$  N., long.  $81^{\circ} 46' 45''$  W., in 45 fathoms, off Sand Key; lat.  $28^{\circ} 44'$  N., long.  $85^{\circ} 16'$  W., in 60 fathoms; lat.  $25^{\circ} 45'$  N., long.  $85^{\circ} 2'$  W., in 30 fathoms, off Cape St. George; lat.  $28^{\circ} 47' 30''$  N., long.  $84^{\circ} 37'$  W., in 24 fathoms, off Cape St. George; lat.  $27^{\circ} 4' 1''$  N., long.  $83^{\circ} 21' 15''$  W., in 26 fathoms, westward of Corey Pass; and lat.  $26^{\circ} 32' 30''$  N., long.  $83^{\circ} 15' 30''$  W., in 30 fathoms, southward of Sanibel Island (Goode & Bean, 1896).

**576. Dibranchus atlanticus** (Peters).

Lat.  $28^{\circ} 34'$  N., long.  $86^{\circ} 48' 33''$  W., in 335 fathoms; lat.  $28^{\circ} 36' 15''$  N., long.  $86^{\circ} 50'$  W., in 347 fathoms; lat.  $28^{\circ} 45'$  N., long.  $86^{\circ} 26'$  W., in 227 fathoms; lat.  $28^{\circ} 38' 30''$  N., long.  $87^{\circ} 2'$  W., in 420 fathoms, southward of Pensacola; lat.  $28^{\circ} 42'$  N., long.  $86^{\circ} 36'$  W., in 280 fathoms; and lat.  $28^{\circ} 34'$  N., long.  $86^{\circ} 48' 33''$  W., in 335 fathoms, southward from between Pensacola and Cape San Blas (Albatross coll., Goode & Bean 1896).

## SPECIES DESCRIBED AS NEW FROM FLORIDA LOCALITIES.

In the following list are given (1) a catalogue of the nominal species of fishes which have been described from Florida localities, together with the authority for each; (2) the present identification of each; (3) the type locality, or particular place from which were obtained the specimens upon which the original descriptions of the species were based; (4) the year when each species was described.

In order to show the progress of ichthyological investigations in this State the names have been arranged in chronologic order.

The names in the first column, not now regarded as tenable, are printed in italics.

The dates given in the fourth column are those upon which the species were actually published.

From this list it may be seen that 174 nominal species have been described from Florida localities, and that 120 of these are still regarded as good species.

## List of species described as new from Florida localities.

Nominal species.	Present identification.	Type locality.	Year.
<i>Mollisnia multilineata</i> Le Sueur	<i>Mollisnia latipinna</i>	East Florida	1821
<i>Lebias ellipsoides</i> Le Sueur	<i>Cyprinodon variegatus</i>	do	1821
<i>Cichla floridana</i> Le Sueur	<i>Micropterus salmoides</i>	do	1822
<i>Trygon sabina</i> Le Sueur	<i>Dasyatis sabina</i>	Florida	1824
<i>Raja demareensis</i> Le Sueur	<i>Raja eglanteria</i>	do	1824
<i>Callirurus floridensis</i> Holbrook	<i>Chenobrytus gulosus</i>	St. Johns River	1835
<i>Bryitus fasciatus</i> Holbrook	<i>Enneacanthus obesus</i>	do	1835
<i>Pomotis elongatus</i> Holbrook	<i>Lepomis auritus</i>	do	1835
<i>Pomotis speciosus</i> Holbrook	<i>Eupomotis holbrooki</i>	do	1835
<i>Pomotis marginatus</i> Holbrook	<i>Lepomis megalotis</i>	do	1835
<i>Gambusia holbrooki</i> Girard	<i>Gambusia affinis</i>	do	1835
<i>Fundulus floridanus</i> Girard	<i>Fundulus grandis</i>	Palatka	1839
<i>Fundulus seminolis</i> Girard	<i>Fundulus seminolis</i>	Charlotte Bay	1839
<i>Etheostoma raveneli</i> Holbrook	<i>Lucius americanus</i>	Palatka	1839
<i>Leptophidium profundorum</i> Gill	<i>Leptophidium profundorum</i>	East Florida	1860
<i>Antennarius annulatus</i> Gill	<i>Antennarius multicellatus</i>	Gulf Stream, off Florida coast	1863
<i>Antennarius pleurophthalmus</i> Gill	<i>Antennarius ocellatus</i>	Garden Key	1863
<i>Centropristes subligatus</i> Cope	<i>Dules subligatus</i>	Key West	1863
<i>Ophidion holbrooki</i> Putnam	<i>Ophidion holbrooki</i>	Pensacola	1870
<i>Lepomis mysticetus</i> Cope	<i>Lepomis auritus</i>	Key West	1874
<i>Xystropistes longimanus</i> Cope	<i>Eupomotis holbrooki</i>	Volusia and East Florida	1877
<i>Xystropistes gilli</i> Jordan	<i>Eupomotis pallidus</i>	Volusia and Bayport	1877
<i>Ameiurus eremennus</i> Jordan	<i>Ameiurus eremennus</i>	Garden Key	1877
<i>Lutjanus stearnsii</i> Goode & Bean	<i>Neomænus griseus</i>	St. Johns River	1877
<i>Erinnyes goodei</i> Jordan	<i>Erinnyes suetta</i>	Pensacola	1878
<i>Epinephelus drummond-hayi</i> Goode & Bean	<i>Epinephelus drummond-hayi</i>	Pensacola	1878
<i>Cariolatilus microps</i> Goode & Bean	<i>Cariolatilus microps</i>	Snapper Banks, off Pensacola	1878
<i>Lutjanus blackfordii</i> Goode & Bean	<i>Neomænus aya</i>	do	1878
<i>Chirotoma peninsulae</i> Goode & Bean	<i>Menidia peninsulae</i>	Pensacola	1879
<i>Chirotoma vagrans</i> Goode & Bean	<i>Kirtlandia vagrans</i>	Pensacola	1879
<i>Jordanella florida</i> Goode & Bean	<i>Jordanella florida</i>	do	1879
<i>Fundulus confluentus</i> Goode & Bean	<i>Fundulus confluentus</i>	Lake Monroe	1879
<i>Gambusia arlingtonia</i> Goode & Bean	<i>Fundulus chrysotus</i>	do	1879
<i>Tristopis microlepis</i> Goode & Bean	<i>Mycteroptera microlepis</i>	Arlington River	1879
<i>Hemulon frenatum</i> Goode & Bean	<i>Hæmulon macrostoma</i>	Pensacola	1879
<i>Hærenula pensacolæ</i> Goode & Bean	<i>Sardinella humeralis</i>	Clearwater Harbor	1879
<i>Sphaerobranchus scuticaris</i> Goode & Bean	<i>Bascanichthys scuticaris</i>	Pensacola	1879
<i>Seriola stejnegeri</i> Goode & Bean	<i>Seriola zonata carolinensis</i>	Cedar Keys	1879
<i>Diapterus homonymus</i> Goode & Bean	<i>Eucinostomus gula</i>	Pensacola	1879
<i>Encinostomus harengulus</i> Goode & Bean	<i>Eucinostomus harengulus</i>	Clearwater Harbor	1879
<i>Pagellus mulieri</i> Goode & Bean	<i>Calamus penna</i>	West Florida	1879
<i>Zygoanectes henshalli</i> Jordan	<i>Fundulus chrysotus</i>	Pensacola	1879
<i>Lucania goodei</i> Jordan	<i>Fundulus goodei</i>	San Sebastian River	1880
<i>Rhinobatos lentiginosus</i> Garman	<i>Rhinobatos lentiginosus</i>	Arlington River	1880
<i>Atherina veliana</i> Goode & Bean	<i>Atherina laticeps</i>	Coast of Florida	1880
		Clearwater Harbor	1880

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<i>Batrachus tau pardus</i> Goode & Bean	<i>Opsanus pardus</i>	Pensacola	1889
<i>Engraulis hilicetus</i> Goode & Bean	<i>Stolephorus brownii</i>	Clearwater Harbor	1880
<i>Raja ornata</i> Garman	<i>Raja ornata</i>	Alligator Key	1881
<i>Narcine brasiliensis corallina</i> Garman	<i>Narcine brasiliensis</i>	Florida	1881
<i>Menidia dentex</i> Goode & Bean	<i>Menidia menidia</i>	St. Johns River	1882
<i>Cyprinodon myodus</i> Goode & Bean	<i>Cyprinodon carpio</i>	Pensacola	1882
<i>Tylosurus gladius</i> Goode & Bean	<i>Tylosurus raphidoma</i>	do	1882
<i>Chirodorus atherinoides</i> Goode & Bean	<i>Chirodorus atherinoides</i>	Key West	1882
<i>Triicotropis stomatica</i> Goode & Bean	<i>Mycteroptera microlepis</i>	Pensacola	1882
<i>Hypoplectrus gemma</i> Goode & Bean	<i>Hypoplectrus gemma</i>	Garden Key	1882
<i>Calamus arcuatus</i> Goode & Bean	<i>Calamus arctifrons</i>	Pensacola	1882
<i>Letharchus velifer</i> Goode & Bean	<i>Letharchus velifer</i>	West Florida	1882
<i>Opiatognathus acanthurus</i> Goode & Bean	<i>Opiatognathus macrognathum</i>	Garden Key	1882
<i>Blennius favosus</i> Goode & Bean	<i>Blennius favosus</i>	do	1882
<i>Blennius asterias</i> Goode & Bean	<i>Blennius cristatus</i>	do	1882
<i>Gerres olithoetoma</i> Goode & Bean	<i>Gerres olithoetoma</i>	Indian River	1882
<i>Gobius boleosoma</i> Jordan & Gilbert	<i>Gobius boleosoma</i>	Laguna Grande, at Pensacola	1882
<i>Opiatognathus longchurus</i> Jordan & Gilbert	<i>Opiatognathus longchurus</i>	Snapper Banks, off Pensacola	1882
<i>Porichthys pectorodon</i> Jordan & Gilbert	<i>Porichthys porosissimus</i>	Pensacola	1882
<i>Gobiesox virginalis</i> Jordan & Gilbert	<i>Gobiesox virginalis</i>	do	1882
<i>Blennius stejnigi</i> Jordan & Gilbert	<i>Blennius stejnigi</i>	Snapper Banks, off Pensacola	1882
<i>Opblennius beani</i> Jordan & Gilbert	<i>Opblennius beani</i>	do	1882
<i>Genypterus omostigma</i> Jordan & Gilbert	<i>Ophidion omostigma</i>	do	1882
<i>Fundulus ocellaris</i> Jordan & Gilbert	<i>Fundulus confluentus</i>	Pensacola	1882
<i>Platyglossus foreletta</i> Jordan & Gilbert	<i>Iridio bivittatus</i>	do	1882
<i>Paralichthys squamiventris</i> Jordan & Gilbert	<i>Paralichthys squamiventris</i>	do	1882
<i>Paralichthys alboguttatus</i> Jordan & Gilbert	<i>Paralichthys alboguttatus</i>	do	1882
<i>Chasmodes saburra</i> Jordan & Gilbert	<i>Chasmodes saburra</i>	do	1882
<i>Istheses scrutator</i> Jordan & Gilbert	<i>Hypsoblennius ionthas</i>	do	1882
<i>Tetronotus nephelus</i> Goode & Bean	<i>Sphoeroides nephelus</i>	Indian River	1882
<i>Gobius stigmaturus</i> Goode & Bean	<i>Gobius stigmaturus</i>	Florida Keys?	1882
<i>Scorpaena calcarata</i> Goode & Bean	<i>Scorpaena inermis</i>	Clearwater Harbor	1882
<i>Elaeotoma brachialis</i> Goode & Bean	<i>Achirus lineatus</i>	Apalachicola	1882
<i>Conger caudicula</i> Goode & Bean	<i>Leptocephalus caudilimbatus</i>	Pensacola	1882
<i>Scorpaena tigrina</i> Goode & Bean	<i>Scorpaena brasiliensis</i>	do	1882
<i>Stolephorus perthecatus</i> Goode & Bean	<i>Stolephorus perthecatus</i>	do	1882
<i>Siphonotoma crinigerum</i> Bean & Dresel	<i>Siphonotoma crinigerum</i>	do	1882
<i>Ophichthys guttifer</i> Bean & Dresel	<i>Ophichthys guttifer</i>	Snapper Banks, off Pensacola	1882
<i>Phycis floridanus</i> Bean & Dresel	<i>Trophycis floridanus</i>	Pensacola	1882
<i>Hippocampus stylifer</i> Jordan & Gilbert	<i>Hippocampus stylifer</i>	Snapper Banks, off Pensacola	1882
<i>Synhotoma zatropis</i> Jordan & Gilbert	<i>Corythoichthys albirostris</i>	do	1882
<i>Hippocampus zosterae</i> Jordan & Gilbert	<i>Hippocampus zosterae</i>	Laguna Grande at Pensacola	1882
<i>Fundulus zenicus</i> Jordan & Gilbert	<i>Adinia multifasciata</i>	Pensacola	1882
<i>Apogon alutus</i> Jordan & Gilbert	<i>Apogonichthys alutus</i>	do	1882
<i>Icichthys ionthas</i> Jordan & Gilbert	<i>Hypsoblennius ionthas</i>	do	1882
<i>Chromis euchrysurus</i> Jordan & Gilbert	<i>Chromis euchrysurus</i>	do	1882
<i>Stenotomus caprinus</i> Bean	<i>Otrynter caprinus</i>	Snapper Banks, off Pensacola	1882
<i>Loglossus calliurus</i> Bean	<i>Loglossus calliurus</i>	Pensacola	1882
<i>Apion ariommus</i> Jordan & Gilbert	<i>Rhomboplites aurorubens</i>	do	1883
<i>Sparisoma cyanoleue</i> Jordan & Swain	<i>Sparisoma bomplunatax</i>	Key West	1884
<i>Elassoma evergladei</i> Jordan	<i>Elassoma evergladei</i>	Indian River	1884
<i>Cecula bascanium</i> Jordan	<i>Bescaenichthys bascanium</i>	Egmont Key	1884

## List of species described as new from Florida localities—Continued.

Nominal species.	Present identification.	Type locality.	Year.
<i>Myrophis egmontis</i> Jordan.	<i>Abbia egmontis</i> .	Egmont Key.	1884
<i>Gnathopops mystacinus</i> Jordan.	<i>Gnathopops mystacinus</i> .	Snapper Banks, off Pensacola.	1884
<i>Atherina area</i> Jordan & Gilbert.	<i>Atherina area</i> .	Key West.	1884
<i>Cremnobates nox</i> Jordan & Gilbert.	<i>Anchenopterus nox</i> .	do	1884
<i>Calamus proridens</i> Jordan & Gilbert.	<i>Calamus proridens</i> .	St. Johns River.	1884
<i>Paralichthys lethostigma</i> Jordan & Gilbert.	<i>Paralichthys lethostigma</i> .	Key West.	1884
<i>Dussumiera stolifera</i> Jordan & Gilbert.	<i>Jenkinsia stolifera</i> .	do	1884
<i>Siphonotoma mackayi</i> Swain & Seale.	<i>Siphonotoma mackayi</i> .	do	1884
<i>Querimana gyraea</i> Jordan & Gilbert.	<i>Querimana gyraea</i> .	do	1884
<i>Tylosurus agilis</i> Jordan & Gilbert.	<i>Tylosurus timucu</i> .	do	1884
<i>Xyrichthys rosipes</i> Jordan & Gilbert.	<i>Xyrichthys rosipes</i> .	do	1884
<i>Doratonotus thalassinus</i> Jordan & Gilbert.	<i>Doratonotus megalepis</i> .	do	1884
<i>Achirus comifer</i> Jordan & Gilbert.	<i>Achirus lineatus</i> .	do	1884
<i>Gobiosoma centrum</i> Jordan & Gilbert.	<i>Barbulifer centrum</i> .	do	1884
<i>Narcine umbrosa</i> Jordan.	<i>Narcine brasiliensis</i> .	do	1884
<i>Heterandria ommata</i> Jordan.	<i>Lucania ommata</i> .	Indian River, near Titusville.	1884
<i>Citharichthys macrops</i> Dresel.	<i>Citharichthys macrops</i> .	Pensacola.	1885
<i>Prionotus stearnsi</i> Jordan & Swain.	<i>Prionotus stearnsi</i> .	Snapper Banks, off Pensacola.	1885
<i>Prionotus ophryas</i> Jordan & Swain.	<i>Prionotus ophryas</i> .	do	1885
<i>Cryptotomus beryllinus</i> Jordan & Swain.	<i>Cryptotomus beryllinus</i> .	Key West.	1885
<i>Mycteroperca falcatata phenax</i> Jordan & Swain.	<i>Mycteroperca falcatata phenax</i> .	Pensacola, Snapper Banks.	1885
<i>Mycteroperca xanthosticta</i> Jordan & Swain.	<i>Mycteroperca bonaci xanthosticta</i> .	Pensacola.	1885
<i>Anthus vivanus</i> Jordan & Swain.	<i>Hemianthias vivanus</i> .	do	1885
<i>Sparisoma xystodon</i> Jordan & Swain.	<i>Sparisoma xystodon</i> .	Key West.	1885
<i>Stethmonotus hemphilli</i> Bean.	<i>Stethmonotus hemphilli</i> .	do	1885
<i>Zygonectes europlatoides</i> Hay.	<i>Fundulus cingulatus</i> .	Weeville.	1885
<i>Neobythites gilli</i> Goode & Bean.	<i>Neobythites gilli</i> .	Southward from Cape San Blas.	1885
<i>Etropus rimosus</i> Goode & Bean.	<i>Etropus rimosus</i> .	Between Pensacola and Cedar Keys.	1885
<i>Aphoristia diomedea</i> Goode & Bean.	<i>Sympodus diomedea</i> .	North of Tortugas.	1885
<i>Bathygadus longifilis</i> Goode & Bean.	<i>Bathygadus longifilis</i> .	Off Pensacola.	1885
<i>Macrurus caribensis</i> Goode & Bean.	<i>Colorrynchus caribensis</i> .	do	1885
<i>Hemirhombus fimbriatus</i> Goode & Bean.	<i>Cyclopsetta fimbriata</i> .	do	1885
<i>Macrurus occa</i> Goode & Bean.	<i>Colorrynchus occa</i> .	do	1885
<i>Coryphenoës sulcatus</i> Goode & Bean.	<i>Trachonurus sulcatus</i> .	do	1885
<i>Scarus evermanni</i> Jordan.	<i>Scarus evermanni</i> .	Snapper Banks, off Tampa.	1886
<i>Chetodon aya</i> Jordan.	<i>Chetodon aya</i> .	Snapper Banks, off Pensacola.	1886
<i>Steinigeria rubescens</i> Jordan & Evermann.	<i>Steinigeria rubescens</i> .	Snapper Banks.	1886
<i>Serranus ocyurus</i> Jordan & Evermann.	<i>Centropristes oxyurus</i> .	do	1886
<i>Corvula sialis</i> Jordan & Eigenmann.	<i>Corvula sialis</i> .	Key West.	1886
<i>Eques acuminatus umbrosus</i> Jordan & Eigenmann.	<i>Eques acuminatus umbrosus</i> .	Pensacola.	1886
<i>Scarus bollmani</i> Jordan & Evermann.	<i>Scarus bollmani</i> .	Snapper Banks, off Tampa Bay.	1886
<i>Callechelys muracea</i> Jordan & Evermann.	<i>Callechelys muracea</i> .	Snapper Banks, off Pensacola.	1886
<i>Prionotus roseus</i> Jordan & Evermann.	<i>Prionotus roseus</i> .	do	1886
<i>Aphoristia pigra</i> Goode & Bean.	<i>Sympodus piger</i> .	Off Sand Key.	1886
<i>Amphyonus mollis</i> Goode & Bean.	<i>Amphyonus mollis</i> .	Westward from Tortugas.	1886

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<i>Zygocheles escambiae</i> Bollman.....	<i>Fundulus guttatus</i> .....	Flomaton, Ala.....	1888
<i>Ictalurus okeechobeensis</i> Heilprin.....	<i>Ameiurus okeechobeensis</i> .....	Lake Okeechobee.....	1887
<i>Bathygadus cavernosus</i> Goode & Bean.....	<i>Hymenocephalus cavernosus</i> .....	Off Pensacola.....	1885
<i>Ophichthys retrospinis</i> Eigenmann.....	<i>Ophichthus retrospinis</i> .....	Snapper Banks, of Pensacola.....	1887
<i>Xyrichtys jessiae</i> Jordan.....	<i>Xyrnla jessiae</i> .....	Off Tampa Bay.....	1888
<i>Callionymus bairdi</i> Jordan.....	<i>Callionymus bairdi</i> .....	Snapper Banks, of Pensacola.....	1888
<i>Callionymus calliurus</i> Eigenmann & Eigenmann.....	<i>Callionymus calliurus</i> .....	Off South Beach, Key West.....	1888
<i>Sphagebranchus kendalli</i> Gilbert.....	<i>Verna kendalli</i> .....	Snapper Banks, of Pensacola.....	1890
<i>Gordiichthys irretitus</i> Jordan & Davis.....	<i>Gordiichthys irretitus</i> .....	do.....	1892
<i>Kathetostoma alboguttatum</i> Bean.....	<i>Kathetostoma alboguttatum</i> .....	Off Pensacola.....	1892
<i>Gastropsetta frontalis</i> B. A. Bean.....	<i>Gastropsetta frontalis</i> .....	Near Key West.....	1895
<i>Prionotus militaris</i> Goode & Bean.....	<i>Bellator militaris</i> .....	Southward from Cape San Blas.....	1896
<i>Pontinus longispinis</i> Goode & Bean.....	<i>Pontinus longispinis</i> .....	Southward from Pensacola.....	1896
<i>Trachinotus goodei</i> Jordan & Evermann.....	<i>Trachinotus goodei</i> .....	Key West.....	1896
<i>Peristedion gracile</i> Goode & Bean.....	<i>Peristedion gracile</i> .....	Southward from Cape San Blas.....	1896
<i>Lamponema melanurum</i> Goode & Bean.....	<i>Lamponema melanurum</i> .....	Between Pensacola and Cape San Blas.....	1896
<i>Phycis cirratus</i> Goode & Bean.....	<i>Urophycis cirratus</i> .....	do.....	1896
<i>Aldrovandia gracilis</i> Goode & Bean.....	<i>Aldrovandia gracilis</i> .....	South of Pensacola.....	1896
<i>Echiostoma margarita</i> Goode & Bean.....	<i>Echiostoma margarita</i> .....	Off Pensacola.....	1896
<i>Bathytractes (Talismania) antillarum</i> Goode & Bean.....	<i>Talismania antillarum</i> .....	South of Pensacola.....	1896
<i>Conocara mcdonaldi</i> Goode & Bean.....	<i>Conocara mcdonaldi</i> .....	South of Tortugas.....	1896
<i>Benthosaurus grallator</i> Goode & Bean.....	<i>Benthosaurus grallator</i> .....	do.....	1896
<i>Lampanyctus lacerta</i> Goode & Bean.....	<i>Lampanyctus lacerta</i> .....	South of Cape San Blas.....	1896
<i>Antennarius radiosus</i> Garman.....	<i>Antennarius radiosus</i> .....	Off Key West.....	1896
<i>Chaunax nuttingii</i> Garman.....	<i>Antennarius nuttingii</i> .....	South of Sand Key Light.....	1896
<i>Dermatolepis zanclis</i> Evermann & Kendall.....	<i>Dermatolepis zanclus</i> .....	Key West.....	1898
<i>Lyospherea globosa</i> Evermann & Kendall.....	<i>Lyospherea globosa</i> .....	Biscayne Bay.....	1898
<i>Ogilbia cayorum</i> Evermann & Kendall.....	<i>Ogilbia cayorum</i> .....	Key West.....	1898
<i>Notropis welaka</i> Evermann & Kendall.....	<i>Notropis welaka</i> .....	St. Johns River at Welaka.....	1898
<i>Corythoichthys cayorum</i> Evermann & Kendall.....	<i>Corythoichthys cayorum</i> .....	Key West.....	1898
<i>Angelichthys isabelita</i> Jordan & Rutter.....	<i>Angelichthys isabelita</i> .....	do.....	1898
<i>Emblemaria atlantica</i> Jordan & Evermann.....	<i>Emblemaria atlantica</i> .....	Snapper Banks, of Pensacola.....	1898