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Ribbonfishes

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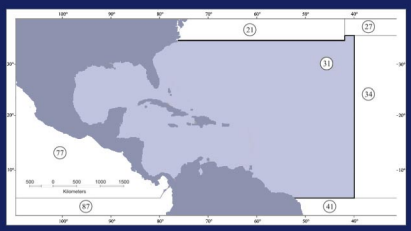

THE LIVING MARINE RESOURCES OF THE

WESTERN CENTRAL ATLANTIC

Volume 2 Bony fishes part 1 (Acipenseridae to Grammatidae)

AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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THE LIVING MARINE RESOURCES OF THE WESTERN CENTRAL ATLANTIC

VOLUME 2
Bony fishes part 1 (Acipenseridae to Grammatidae)

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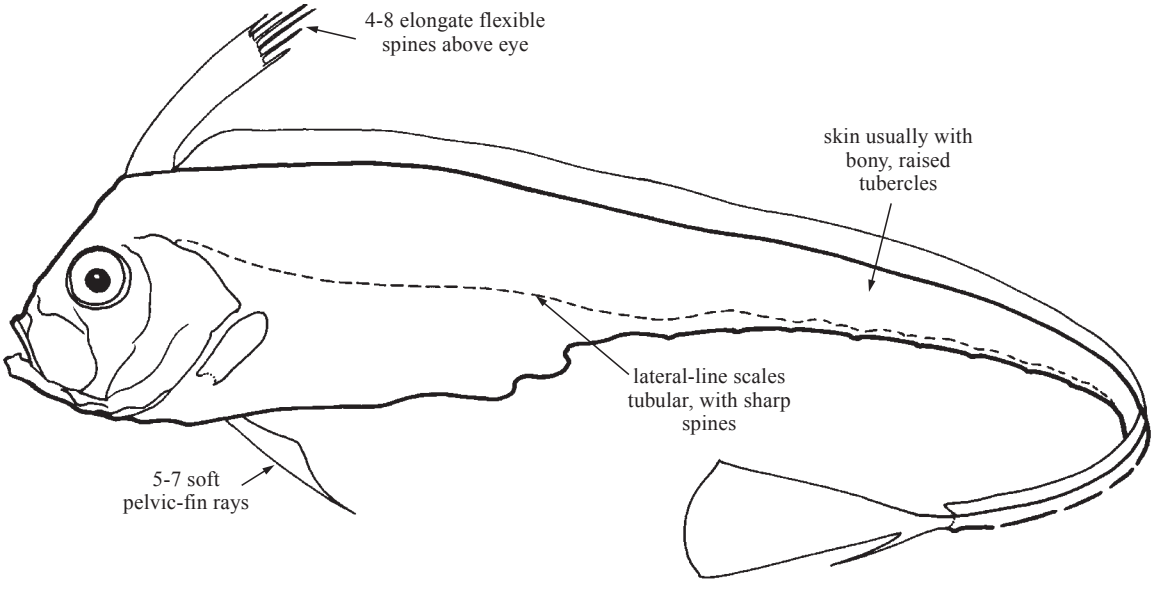
TRACHIPTERIDAE

Ribbonfishes (dealfishes)

by J.E. Olney, Virginia Institute of Marine Science, USA

Diagnostic characters: Large-sized lampridiform fishes (to 2 m); body elongate, ribbon-like, compressed. In most species, body depth gradually decreasing from head to caudal peduncle. Upper jaw highly protrusible, maxilla broad; usually recurved, pointed teeth on jaws, vomer, and palatines; bones of head and jaws thin and fragile. Dorsal fin very long, extending along entire body length to tail; **anterior dorsal-fin elements consisting of 4 to 8 elongate, flexible spines that insert above eye**; total dorsal-fin elements 120 to 197; dorsal-fin rays bear strong lateral spinules that tend to interlock with adjacent soft rays and strengthen the fin. Anal fin absent. Caudal fin with 2 lobes; upper lobe sometimes upturned, conspicuous, and fan-like; total caudal-fin soft rays usually 13 to 18; usually 5 to 9 soft rays in lower fin lobe, some of which are elongate; usually 5 to 7 soft rays in the upper fin lobe, all of which are elongate in *Zu*. **Pelvic fins with 5 to 7 soft rays; often elongate in juveniles; sometimes lost at metamorphosis. Skin usually covered with bony, raised, bump-like tubercles. Scales absent, except for lateral-line scales that are tubular and bear sharp spines**. (Scalloped ribbonfish, *Zu cristatus*, with distinctive scalloped or wavy ventral margin, and possessing small deciduous scales). Total vertebrae, 62 to 102; thoracic vertebrae, 18 to 40. In trachipterids (and all lampridiforms), the anterior palatomaxillary ligament and palatine prong are absent; as a result, the maxilla is free to extend, along with premaxilla, well away from the ethmo-vomerine region during jaw protrusion. Other anatomical features of the trachipterids (and all lampridiforms): first dorsal-fin pterygiophore inserts anterior to first neural spine; elongate ascending processes of premaxilla and a large rostral cartilage insert into a front vault or cradle; mesethmoid posterior to lateral ethmoids. In trachipterids (and regalecids), the dorsal-, caudal-, and pelvic-fin rays bear spinules that project laterally; in trachipterids, the parapophyses of each thoracic vertebra are well developed, but ribs are lacking. **Colour:** head and body usually silver with oblique dusky bars or with dark spots; fins deep crimson-red.



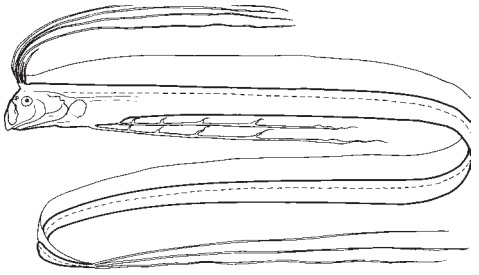
Habitat, biology, and fisheries: Trachipterids are rare mesopelagic fishes that occur in all oceans. They consume pelagic crustaceans, small fishes, and squids. Eggs free-floating, large, and red. Very little is known of their habits and reproductive ecology. There is no fishery for the group.

Remarks: Trachipterids are distributed worldwide in tropical and temperate waters. There are approximately ten species in 3 genera (*Trachipterus, Zu*, and *Desmodema*), at least 3 of which are known from the area. There are a number of other nominal species whose validity is not widely recognized by all authors. In addition, there may be undescribed species in the area. The family is in need of revision.

Similar families occurring in the area

Regalecidae: also lacking anal fin, but with more dorsal-fin soft rays (260 to 412 versus 120 to 200), and attaining a far larger size.

All other lampridiform families possess an anal fin.



Regalecidae

Key to the species of Trachipteridae occurring in the area

1a. Caudal fin without 2 lobes and not sharply upturned; no long spines or bony tubercles along ventral edge of tail; dorsal fin with 120 to 124 elements . . . . . ***Desmodema polystictum***

1b. Caudal fin with 2 lobes, the upper lobe sharply upturned; ventral edge of tail bears long spiny plates or bony tubercles; dorsal fin usually with more than 124 elements . . . . . → ***2***

2a. Posterior portion of lateral line runs along ventral edge of tail as a series of sharp spines that point in alternating directions; wavy or scalloped ventral body margin; dorsal fin with less than 150 elements . . . . . ***Zu cristatus***

2b. Posterior portion of lateral line runs well above the ventral edge of tail; lateral line spines project laterally, and do not point in alternating directions; wavy or scalloped ventral body margin; dorsal fin with more than 150 elements. . . . . ***Trachipterus arcticus***

List of species occurring in the area

Desmodema polystictum (Ogilby, 1898). To about 100 cm. Mesopleagic in all oceans.

Trachipterus arcticus (Brünnich, 1788). To about 250 cm. Mesopelagic in all oceans.

Zu cristatus (Bonelli, 1819). To about 120 cm. Mesopelagic in all oceans.

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