

the inner rays shortest; air bladder with 2 lateral parts, each with a large muscle; pyloric caeca numerous; vertebrae 9 + 13 = 22. Warm seas; the adult able to move in the air like the true flying-fish, but for shorter distances. One genera and 2 to 4 species.

798. CEPHALACANTHUS, Lacépède.

(FLYING GURNARD.)

*Cephalacanthus*, LACÉPÈDE, Hist. Nat. Poiss., III, 323, 1802 (*spinarella*); young examples of the East Indian species.

*Dactylopterus*, LACÉPÈDE, Hist. Nat. Poiss., III, 325, 1802 (*ptirapeda* = *volitans*); adults of the American species.

*Gonocephalus*, GRONOW, Cat. Fish., Ed. Gray, 106, 1854 (*macrocephalus* = *volitans*).

Character of the genus included above. Two species known, the following and the East Indian, *Cephalacanthus spinarella*. (κεφαλή, head; ἄκανθα, spine.)

2510. CEPHALACANTHUS VOLITANS (Linnaeus).

(FLYING ROBIN; BAT-FISH; VOLADOR; MURCIÉLAGO.)

Head 4½; depth 5½. D. II-IV, 8; A. 6; P. 28 + 6. First 2 dorsal spines free, slightly connected by membrane at base; preopercular spine reaching beyond base of pectorals, not to end of occipital spine; pectorals reaching nearly to base of caudal in adult, very much shorter in young; in the young the spines of the head are much longer. Greenish olive and brown above, of varying shades; below pale, marked irregularly with dusky and bright brick red, varying to salmon yellow; pectoral fins mottled with bright-blue streaks near the base and blue spots and bars toward the tip; their under sides glaucous blue, edged with darker; caudal fin with about 3 brownish-red bars; coloration extremely variable. Length 12 inches. Atlantic Ocean, on both coasts; very abundant on South Atlantic and Gulf coasts; a handsome and singular fish. (Eu.) (*volitans*, flying.)

*Pirabébé*, MARCGRAVE, Hist. Brasil., IV, 162, 1648, Brazil.

*Milvus cirratus*, SLOANE, Hist. Jamaica, II, 288, Jamaica.

*Trigla digitis vicenis palmatis*, ARTEDI, Genera, 44, 1738, Mediterranean, etc.

*Hirundo*, CATESBY, Nat. Hist. Carolina, II, tab. 8, Bahamas.

*Trigla volitans*, LINNÆUS, Syst. Nat., Ed. x, I, 302, 1758; after ARTEDI; "Mari Mediterraneo Oceanio, Pelago inter tropicos, in Asia ad Cap. b. Spei. Sæpe agitata evolans ex aqua."

*Dactylopterus volitans*, CUVIER & VALENCIENNES, Hist. Nat. Poiss., IV, 117, 1829; GÜNTHER, Cat. Fishes, II, 221, 1860; LÜTKEN, Spolia Atlantica, 417, 1890.

*Trigla tentabunda*, WALBAUM, Artedi, Piscium, III, 362, 1792; after *Cataphractus*, KLEIN, Missus, which is after CATESBY, Fishes of Carolina, IV, 44, taf. 14, f. 1.

*Trigla fasciata*, BLOCH & SOINEIDER, Syst. Ichth., 16, tab. 3, f. 1, 1801; after *Corystion*, KLEIN, Missus, IV, 45, taf. 14, f. 2, locality not stated.

*Dactylopterus ptirapeda*, LACÉPÈDE, Hist. Nat. Poiss., III, 326, 1802, Mediterranean and almost all warm seas.

*Polynemus ezradiatus*, MITCHELL, Trans. Lit. and Phil. Soc., I, 1815, pl. 4, f. 10, New York.

*Callionymus pelagicus*, RAFINESQUE, Amer. Monthly Mag., Jan., 1818, 205, Atlantic Ocean.

*Dactylopterus communis*, OWEN, Osteol. Cat., I, 56, 1851.

*Gonocephalus macrocephalus*, GRONOW, Cat. Fish., Ed. Gray, 106, 1854, pelagic.

\* The osteological characters of this family are given (after Gill) on page 2147.