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A checklist of the moray eels of the world (Teleostei: Anguilliformes: Muraenidae)

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Abstract

A checklist of the currently recognized species of moray eels (Muraenidae) is presented. One hundred ninety seven species are considered to be valid, in 15 genera, and two subfamilies. The account for each valid species contains bibliographic information for that species and all synonyms, including primary type specimens and type locality. Also given for each species is the number of vertebrae, the mean vertebral formula (MVF), the general geographic distribution, and any explanatory remarks that may be needed. A list of nominal genera and species is given, with the current status of each. Separate lists are provided for names that cannot be assigned to known species (*incertae sedis*) and those that are unavailable.

Introduction

The family Muraenidae, whose members are commonly known as moray eels, is one of the most abundant and diverse of the true eels, order Anguilliformes. Only the Ophichthidae may exceed it in number of species. Morays occur worldwide in tropical and subtropical seas. They range from the shoreline to the edge of the continental shelf. They form a large and ecologically important component of the coral-reef habitat, where they inhabit holes and crevices, coming out to feed on a wide variety of fishes and invertebrates. They exhibit a bewildering variety of color patterns, from uniform brown or green to complex patterns of spots, bars, reticulations, and rosettes, in colors ranging from red to yellow to green to brown to white.

Morays are specialized in many ways and are highly consistent in these specializations. All morays lack pectoral fins after metamorphosis; even in the larvae, the pectoral fins are greatly reduced. The gill opening is reduced to a small pore on the side of the head. The lateral line lacks pores on the body except for a few at the anteriormost end. Cephalic pores are reduced to a stereotyped pattern. In all except one genus, the supraorbital canal has only three pores, two at the anterior end of the snout and one on top of the snout near the anterior nostril. The genus *Anarchias* is exceptional in having a fourth pore adjacent to the posterior nostril. The infraorbital canal contains three or four pores (usually four) along the upper jaw. The preoperculo-mandibular canal usually has six pores along the lower jaw. There are no pores behind the eye or in the supratemporal commissure. Morays have well developed pharyngeal jaws, which play an important role in their feeding behavior. Like all true eels, morays