



## ***Chimaera notafricana* sp. nov. (Chondrichthyes: Chimaeriformes: Chimaeridae), a new species of chimaera from southern Africa**

JENNY M. KEMPER<sup>1</sup>, DAVID A. EBERT<sup>1,2,3</sup>, LEONARD J.V. COMPAGNO<sup>4</sup> & DOMINIQUE A. DIDIER<sup>5</sup>

<sup>1</sup>Pacific Shark Research Center, Moss Landing Marine Laboratories, 8272 Moss Landing Road, Moss Landing, CA 95039, USA.

E-mail: jkemper@mlml.calstate.edu

<sup>2</sup>Research Associate, South African Institute for Aquatic Biodiversity, Private Bag 1015, Grahamstown, 6140, South Africa

<sup>3</sup>Research Associate, Department of Ichthyology, California Academy of Sciences, 55 Music Concourse Drive, San Francisco, CA. 94118, USA

<sup>4</sup>Shark Research Center, Iziko – South African Museum, Cape Town, South Africa

<sup>5</sup>Department of Biology, Millersville University, P.O. Box 1002, Millersville, PA 17551 USA

### **Abstract**

A new species of chimaera, *Chimaera notafricana* sp. nov., is described from specimens collected off the west and south coasts of southern Africa. The new species is distinguished from its closest congener, the eastern North Atlantic *Chimaera monstrosa*, by a combination of morphometric characters and coloration: pectoral fin when depressed reaches to origin of pelvic fin base; caudal fin ventral margin terminating slightly posterior to caudal fin dorsal margin insertion; distance from anterior base of dorsal-fin spine to center of supratemporal canal short (6.5–14.8% HDL); pelvic claspers externally trifid and short (12.1–12.3% BDL), divided for distal one-third of length, not extending past distal tip of pelvic fins; uniform blackish brown with dark bluish streaking, precaudal tail with longitudinal light and dark stripes. This new species has a restricted distribution from Lüderitz, Namibia to south of Algoa Bay, Eastern Cape Province, South Africa.

**Key words:** Chimaeridae, *Chimaera*, southern Africa, new species, endemic

### **Introduction**

The chimaeras (Chondrichthyes: Chimaeriformes) are a group of deep-sea fishes comprised of three distinct families, Callorhynchidae (plow-nose chimaeras), Rhinochimaeridae (long-nose chimaeras), and Chimaeridae (short-nose chimaeras) (Didier 2004). The most speciose of these are the Chimaeridae which contains two genera comprised of 33 species, *Chimaera* (11 species) and *Hydrolagus* (22 species) (Eschmeyer & Fricke 2010). Morphologically the two genera are difficult to distinguish except *Chimaera* has an anal fin separated from the ventral caudal fin by a notch, and *Hydrolagus* lacks an anal fin. It should be noted that at least one species in the Chimaeridae has shown variability in this character with the presence and absence of the anal fin occurring (Didier *et al.* 2008). A generic revision is necessary in the future to resolve this issue.

In southern Africa, all three families are represented among the seven species that are currently recognized as occurring in this region. Of these seven species, two are members of the family Chimaeridae, *Hydrolagus africanus* (Gilchrist 1922) which ranges from KwaZulu-Natal Province, South Africa to Mozambique and Kenya (Compagno *et al.* 1989), and a species which has been considered to be conspecific with *Chimaera monstrosa* Linnaeus 1758.

Records of a *Chimaera* species occurring in the seas off southern Africa date back to 1865 when it was first identified by Duméril as *Chimaera monstrosa* from the Cape of Good Hope. Subsequent authors, Gilchrist (1902; 1922), Thompson (1914), Barnard (1925; 1947), Fowler (1936; 1941), Smith (1949; 1965), Stehmann and Bürkel (1984), Compagno (1986), and van der Elst and Vermeulen (1986) followed Duméril in acknowledging this species as *C. monstrosa* from the west coast of southern Africa. *Chimaera monstrosa* is only known from throughout the eastern North Atlantic, including the Mediterranean Sea, (Bigelow &