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Abstract. One specimen of the lophiid white anglerfish, *Lophiodes beroe* was collected for the second time in Brazilian waters, which far extends the limit distribution of the species to southeastern region (25°00’08”S).

Key Words: New record, ichthyofauna, trawl fishery, upper slope, Southwestern Atlantic

Lophiiformes are known as anglerfishes due to the *illicium* and the *esca*, a pendulous fleshy structure modified from the first spine of the dorsal fin that are used as false bait for capture of preys. With the exception of the Neoceratiidae, all families of this order show this structure, varying widely in shape, size, and presence of the *esca*, among other characters (Nelson 2006). The Lophiidae is represented by four genera and twenty five species (Caruso 1983), where *Lophius* is the most important genus due to its commercial value.

In Brazilian waters the main species of the family, the monkfish, *Lophius gastrophysus* Miranda Ribeiro, 1915, recently became a target species of deep waters fishing fleet in the southern and southeastern regions (Perez *et al.* 2002a,b; Perez *et al.* 2003a,b; Perez & Wharlich 2005, Valentim *et al.* 2007, 2008). *Lophius gastrophysus* occurs from North Carolina (USA) to Argentina in waters usually between 40 and 180 m, but also occur up to 660 m deep (Figueiredo *et al.* 2002), and is captured by deepwater gillnet fishery and as bycatch of shrimp fishery (Wharlich *et al.* 2004, Valentim *et al.* 2007). Another genus, *Lophiodes* contains 13 species (Caruso 1985, Froese & Pauly 2009). Costa *et al.* (2007) reported about the occurrence of *Lophiodes beroe* in Brazilian waters, during a deep exploratory-fishing cruise performed by the R/V Thalassa, between 11°S and 22°S in 2000, but the authors just cite its presence without any further explanation. The main diagnostic characteristics that differs *Lophiodes beroe* from the similar *L. gastrophysus* are the body slightly narrow than *L. gastrophysus*, and the gill openings of *Lophiodes* that are very large and extends not only behind the pectoral fin, but in front of it as well (Caruso 1985) (Fig. 1). In *Lophius* gill opening is more restricted, being located below and behind the pectoral fin. Also, the pectoral fin shape in *Lophiodes* is narrow and paddle-like, with a relatively low number of rays (14-21), whilst in *Lophius* the pectoral fin is broad and fan-like, with a relatively high number of rays (22-28). In the present report, one specimen was also captured by the R/V Soloncy Moura (CEPSUL-IBAMA) in the position 25°00’08”S;45°27’38”W straight ahead Ilha Comprida, São Paulo state, southeastern-Brazil, 99.5 m deep along the upper slope coast (Fig. 2). Our specimen measured
157 mm total length, with 18 pectoral fin rays. In the description of the species, Caruso (1981) observes that *L. beroe* inhabits the Western North Atlantic, with northern distribution at 24°24’N. According to Caruso et al. (2007), *L. beroe* attains a maximum size of 300 mm, commonly observed with 150 mm, restricted in region between Southeastern USA and northern coast of South America. The present sample extends the South American limit of the species to more than 3500 km in straight line to 25°S, in southeastern Brazil.

Although *L. beroe* attains smaller lengths than *L. gastrophysus*, both are similar in shape, which may cause confusion during identification onboard by the fishermen, and so, individuals of *L. beroe* may be normally included as part of the commercial catches of *L. gastrophysus*. In this way, it is probable that the species range can be even extended for southernmost waters.

The specimen is stored in the Zoological collection of Santa Cecília University (UNISANTA) - AZUSC 2632.

**Figure 1.** Dorsal view and main differences between one monkfish (A), *Lophius gastrophysus* (400 mm total length) and the white anglerfish (B), *Lophiodes beroe* (AZUSC 2632, 157 mm total length). Arrows indicate the gill openings that are very large and extends in front of the pectoral fin in *L. beroe*. The paddle-like shape of the pectoral fin is also evident in *L. beroe*. 
Figure 2. Distribution of *Lophiodes beroe* in the Atlantic coast (dashed area). Limit of the northern distribution (24°24’N); record of the R/V Thalassa (2000) (●); present study (x).

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References


Occurrence of the white anglerfish *Lophiodes beroe* in Brazilian waters

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