



## Redescription of *Iluocoetes* Jenyns, 1842; proposal of a new genus, *Argentinolycus*, for *Iluocoetes elongatus* (Smitt, 1898), and description of *Patagolycus melastomus* gen. et sp. nov. (Teleostei, Zoarcidae)

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### Abstract

The osteological characters of the two nominal species of *Iluocoetes*, *I. fimbriatus* and *I. elongatus* are quite different. The present definition of *Iluocoetes* based on osteological characters is not valid since it was based on characters found in *I. elongatus* but not in *I. fimbriatus*, the type species of the genus. In this paper, *Iluocoetes* is redefined on the basis of osteological characters found in the holotype of *Iluocoetes fimbriatus* and other specimens of the species, and *Iluocoetes elongatus* is placed in another genus: *Argentinolycus* gen. nov. Besides, a new genus and species, *Patagolycus melastomus*, is described on the basis of fourteen specimens, 94–437 mm TL, collected from SW Atlantic Ocean, at depths of 164–489 m. The similarities found between *Patagolycus melastomus* sp. nov. and *Iluocoetes fimbriatus* in body colour as well as in many meristic and morphometric characters, represent a remarkable example of how challenging zoarcid taxonomy can be. The differences between these two species are highlighted. A tree showing interrelationships among the Magellanic endemic lycodine genera is included.

**Key words:** Pisces, Zoarcidae, Taxonomy, *Iluocoetes*, *Argentinolycus*, *Patagolycus*, Magellan Province

### Introduction

The family Zoarcidae is one of the best represented in number of genera and species in the marine fish fauna of the southern tip of South America; these fish can be found from the intertidal zone to deep waters of the continental slope (Gosztonyi, 1977). Gosztonyi's (1977) review of the Zoarcidae of temperate South America (Magellan Province: Briggs, 1974), the first since Norman (1937), added three new genera and species and two new species to this area. Gosztonyi (1981) added a new species and Anderson (1988) added two new genera and one new species to the Magellan Province zoarcid fauna. Twelve genera are endemics of this province of the Southern South America Region (Anderson & Gosztonyi, 1991).

Although there have been numerous systematic works on zoarcids of this area, many earlier genera and species have been inadequately described using characters of questionable value, causing misinterpretations among some workers (Anderson, 1994). The majority of recent systematic problems stem from the use of traditional morphometric characters that Anderson (1988, 1994) found to be sexually dimorphic or allometric in several species of this family. Gosztonyi (1977, 1984) found ontogenic changes and sexual dimorphism in jaw dentition in some South American species.

Anderson (1994) found a consistent set of osteological, internal and external anatomical features in a systematic study of this family, redefining each genus and providing a phylogenetic hypothesis of the relationships of most of the endemic Magellan Province genera. Matallanas (2010) provides cladograms showing the interrelationships amongst the Antarctic and Magellanic lycodine genera, including four new Antarctic genera recently described (Matallanas, 2008, 2009, 2010).

*Iluocoetes* was established by Jenyns (1842) as monotypic for *Iluocoetes fimbriatus*. Smitt (1898) described *Phucocoetes variegatus* with four forms: *elongatus*, *effusus*, *micropus*, and *macropus*. According to Regan (1913)