



Leptychaster kerguelenensis (Echinodermata: Asteroidea) from Southwest Atlantic: Redescription and geographic distribution

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Abstract

The only two specimens of *Leptychaster* spp. reported from Southwest Atlantic, were determined as *L. kerguelenensis mendosus* by Fisher (1940). Twelve specimens of *Leptychaster kerguelenensis* from Argentine continental shelf collected by the R/V *Shinkai Maru*, and two specimens from Kerguelen Islands collected by B.A.N.Z.A.R.E., were used to redescribe the species. All the material is deposited at the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia". All Atlantic specimens agree with the description of *Leptychaster kerguelenensis* and no morphological differences were found with specimens from Kerguelen Islands. From the present study, no subspecies are recognized within *L. kerguelenensis* and *L. mendosus* is a junior synonym of the former.

Key words: Astropectinidae, Subantarctic, Patagonian shelf, Kerguelen Islands, *Leptychaster mendosus*

Introduction

The genus *Leptychaster* (Astropectinidae) was proposed by Smith (1876) to include his new species *L. kerguelenensis* from the Kerguelen Islands (49° 15' S, 69° 10' E). This genus differs from the others of the family Astropectinidae by inferomarginal plates making a broad border to the body, each plate raised abruptly to form wide, sharply defined intermarginal fascioles lined with fine spinules, and the raised areas armed with short spines (Clark & Downey 1992).

Smith (1879) proposed the name *Leptoptychaster* to correct, *Leptychaster* however, Fisher (1911) made clear that this change was not justified and retained the original spelling.

Koehler (1923) described a specimen of *Leptoptychaster mendosus* from near Isla de los Estados Island, reporting the different body form and shorter arms, to distinguish it from *L. kerguelenensis*.

Fisher (1940), studied a second specimen of *L. mendosus* collected south of the Malvinas (Falkland) Islands and noted the similarity with *L. kerguelenensis*. He agreed that *L. mendosus* had arms with a slightly different shape, (they were broader and sharper) with a less arched interradius, than *L. kerguelenensis*. Fisher (1940) found few differences between the abactinal and marginal plates and proposed that *L. mendosus* was actually a subspecies of *L. kerguelenensis*: *Leptychaster kerguelenensis mendosus*.

Clark & Downey (1992) questioned the presence of true *Leptychaster* as part of their review of the Atlantic Asteroidea. The two known specimens of *L. kerguelenensis mendosus* were poorly preserved and there were no other reports of this subspecies from the Argentine coast. Bastida *et al.* (1992) listed *Leptychaster kerguelensis* (sic) as a member of the benthic community of the Argentine continental shelf.

The objectives of the present study were to redescribe *Leptychaster kerguelenensis* from the Argentine coast, providing a complete description of the external morphology, and to undertake a comparative study of specimens from off South American waters and those from Kerguelen and Marion islands.