Zootaxa 3974 (2): 257–266
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3974.2.9
http://zoobank.org/urn:lsid:zoobank.org:pub:4BE3EA89-1864-43E9-B813-320696C62958

A range extension of a deep-sea barnacle of the genus *Aurivillialepas* (Cirripedia, Scalpellomorpha), a Macaronesian and amphitropical refugial genus having Mesozoic affinities

GIANNA INNOCENTI[1,3], RAFFAELLA DI GERONIMO[1] & WILLIAM A. NEWMAN[2]

[1]*Sezione di Zoologia "La Specola", Museo di Storia Naturale, Università di Firenze, via Romana 17, I-50125 Firenze, Italy. E-mail: gianna.innocenti@unifi.it*
[2]*Scripps Institution of Oceanography, La Jolla CA 92093-0202, USA. E-mail: wnewman@ucsd.edu*
[3]*Corresponding author*

Abstract

The scalpellomorph barnacle, *Aurivillialepas calycula* (Aurivillius, 1898), previously known only from Macaronesia, is reported from Banco de Galicia, off the NW corner of the Iberian Peninsula. One of the two specimens was attached to the scleractinian coral, *Madrepora oculata* Linnaeus, 1758. Since such pedunculate barnacles are little known, the potentially hermaphroditic specimens and its complemental male are illustrated photographically, and a key to the genus *Aurivillialepas* is provided. The genus, together with *Scillaelepas* Seguenza, 1876 and *Gruvelialepas* Newman, 1980, has long been considered to constitute a natural group of scalpellomorphs within the Calanticidae, and therefore the Scillaelepadinae subfam. nov. is proposed to accommodate them. Biogeographical aspects of these deep-sea barnacles support the hypothesis that not only the islands but the banks and guyots of Macaronesia constitute refugia for ancient as well as more recent forms, some of which may stem back to the late Mesozoic.

Key words: *Aurivillialepas*, Scillaelepadinae, Banco de Galicia, Macaronesian and amphitropical relicts

Introduction

Aurivillialepas was introduced by Newman (1980) as one of the three subgenera of *Scillaelepas* Seguenza, 1876 (*Aurivillialepas* and *Gruvelialepas* as well as *Scillaelepas* s.s.) and in 1996 he recognized them as full genera. According to Young (1998, 1999) as well as Newman (1980), while *Scillaelepas* has a rostrum with a median ridge and no subrostrum, the rostra of both *Aurivillialepas* and *Gruvelialepas* are characterized by having one or more grooves to accommodate a subrostrum, of which the former genus has one and the latter has two. *Aurivillialepas* comprises five species: *A. calycula* (Aurivillius, 1898), *A. falcata* (Aurivillius, 1898), *A. bocquetae* (Newman, 1980), *A. arnaudi* (Newman, 1980) and *A. rhabdota* (Young, 1999). The first two species are known exclusively from Macaronesia whereas the third (*A. bocquetae*), originally described from the Bay of Biscay has since turned up there (Young 2001). The remaining two species are known from the southern hemisphere; namely, *A. rhabdota* in waters off Brazil and *A. arnaudi* from a seamount south of Madagascar (cf. Fig. 5).

The initial purpose of this article was to report the occurrence of the previously known Macaronesian species, *A. calycula,* on Banco de Galicia ~200 km off the NW corner of the Iberian Peninsula. Morphological features of the peduncular and capitular plates are described, illustrations of the species are given and an unusual feature of its complemental male is noted. A table with remarks and localities, and a key to the species of *Aurivillialepas* are also given, to help relate it to the developing appreciation of the biogeographical uniqueness of the region as well as of other members of the new subfamily, the Scillaelepadinae, proposed to formally identify the group to which it belongs.

Accepted by D. Jones: 11 May 2015; published: 22 Jun. 2015