Zootaxa 2971: 49–58 (2011)
www.mapress.com/zootaxa/

Article

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

The taxonomic position of the pelagic 'staurozoan' *Tessera gemmaria* as a ceriantharian larva

CAROLINA S. RODRIGUEZ[1,2*], ANTONIO C. MARQUES[3], SÉRGIO N. STAMPAR[3], ANDRÉ C. MORANDINI[3], ERNESTO CHRISTIANSEN[4], GABRIEL N. GENZANO [1, 2] & HERMES W. MIANZAN[2, 4]

[1] *Estación Costera Nágera, FCEyN – UNMdP, Funes 3250, (7600) Mar del Plata, Argentine*
[2] *Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)*
[3] *Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, Rua do Matão, trav. 14, n. 101, São Paulo, SP, 05508 – 090, Brazil.*
[4] *Instituto Nacional de Investigación y Desarrollo Pesquero (INIDEP), PO Box 175, (7600) Mar del Plata, Argentine*
**Corresponding author E-mail: csrodrig@mdp.edu.ar*

Abstract

Based on 16 specimens from the Southwestern Atlantic coast (Argentina and Brazil) we reinterpret the taxonomic position of *Tessera gemmaria* Goy, 1979, a stauromedusa considered as *incertae sedis* for a long time. Using external morphology, histological preparations and molecular data (16S and COI) we conclude that *T. gemmaria* is an early stage of a cerinula, the long-lived planktonic larval stage of the Ceriantharia (Anthozoa).

Keywords: Taxonomy, Cnidaria, Anthozoa, plankton

Introduction

In the marine realm, most invertebrates have indirect development with larvae differing from adults in size, morphology, habitat, feeding habit, or locomotion (Valentine 2004; Young 2006). About 120 types of larvae are described for the marine invertebrates (Young 2006), the majority inhabiting the plankton. In the past, pelagic larvae of many invertebrates were not recognized as such and, as a consequence, they were identified as separate species, causing taxonomic confusion and false conclusions (e.g. Hannerz 1956; Giangrande *et al*. 1994).

Among cnidarians, larval and adult stages of a single species have been described under different genera and species names, or even in different classes (e.g. Miranda *et al.* 2010). Some of these species names have persisted in common usage even after the two forms have been recognized as successive stages in the life cycle of one species (Mills *et al*. 2007).

The species *Tessera gemmaria* Goy, 1979 is one example of taxonomic confusion. The family Tesseridae (subfamily Tesseranthinae) was proposed by Haeckel (1880) to encompass three new genera and four new species of Stauromedusae (*Tessera princeps*, *Tessera typus*, *Tesserantha connectens*, and *Tesseraria scyphomeda*), based on four specimens collected in different surveys; type specimens of these species do not exist in the Phyletisches Museum in Jena (PMJ), the repository of type specimens of most of the species described by Haeckel (Stiasny 1922; Morandini pers. obs.). Mayer (1910: 522) reinterpreted the three genera and four species described by Haeckel as successive ontogenetic stages of one species, but he did not state which species name would be valid. New records for the group appeared a century later, when Goy (1979) assigned two specimens, collected by the Calypso off Santos (Brazil), to the genus *Tessera* based on the number of gastric filaments (4), the number of tentacles (8), and the terminal button of nematocysts in each tentacle. She described these specimens (measuring 1.8 and 2.2 mm in height, 1 mm in diameter) as a new species, *Tessera gemmaria*. Although she did not designate a holotype, both specimens were deposited at the Muséum National d'histoire Naturelle de Paris (MNHN Inv. M. - 1712), and so constitute syntypes of the species (International Commission on Zoological Nomenclature 1999: ICZN Arti-

Accepted by D. Fautin: 17 Jun. 2011; published: 20 Jul. 2011