Zootaxa 1526: 37–49 (2007)
www.mapress.com/zootaxa/
Copyright © 2007 · Magnolia Press

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

Two new species of *Adontorhina* Berry, 1947 (Bivalvia: Thyasiridae) from the Porcupine Bank, off the west coast of Ireland

PETER J. BARRY[1, 3] & GRACE P. MCCORMACK[2]

[1]*Zoobenthos Laboratory, Zoology Department, Martin Ryan Institute, National University of Ireland Galway, Galway, Ireland. E-mail: peter.barry@nuigalway.ie*
[2]*Molecular Evolution and Systematics Laboratory, Zoology Department, Martin Ryan Institute, National University of Ireland Galway, Galway, Ireland. E-mail: grace.mccormack@nuigalway.ie*
[3]*Corresponding author.*

Abstract

A minute bivalve, *Adontorhina keegani*, new species (Thyasiridae) is described from the Porcupine Bank, west of Ireland. The new species occurs between 300 and 789 m on the continental slope. The shell is elongate and compressed, with a flattened posterior and complete lack of radial sulcus. The shell has a hinge margin bearing irregular granules and noticeably low umbones, located in the posterior. Hydroids were found growing on the margins of the shell, indicating a shallow burrowing habit. *Adontorhina similis*, new species, was previously recognized as a European variety of *Mendicula pygmaea* Verrill & Bush, 1898, but is here shown to be a distinct species. The hinge bears irregular granules, which precludes classification as a *Mendicula* species. The shell is elongate, moderately inflated with prominent umbones and a pointed posterior margin. The posterior flank of the shell is flattened and does not bear hydroids. In comparison with previously described species of *Adontorhina*, the new species are more elongate and less inflated.

Key words: Bivalvia, Thyasiridae, *Adontorhina*, irregular hinge granules, hydroids, Porcupine Bank

Introduction

The family Thyasiridae comprises a group of mostly small to minute bivalves, including ten genera from around the world. Members of this family are predominantly found in cool water, living infaunally, from the sublittoral zone to hadal depths. An adaptation shared by some Thyasiridae and Lucinidae is the burrowing foot which creates a mucus-lined inhalant tube enabling the animals to live below the redox potential discontinuity layer in the sediment. Thyasirids are often found in nutrient poor or 'stressed' areas which causes an exclusion of most other bivalve species (Kauffman, 1967) as well as being a frequent component of deep-sea benthic faunas (Payne & Allen, 1991).

The genus *Adontorhina* Berry, 1947, is composed of a group of three small species, so far recognised only from the west coast of North America and the north-western Pacific Ocean. The genus is distinguished from other thyasirid genera by unusual granules on the hinge plate. The type species, *Adontorhina cyclia* Berry, 1947, was described from the southern California Pleistocene, but living populations were subsequently found off California (Jones, 1965; Jones & Thompson, 1986) and as far north as Alaska (Scott, 1986; Coan *et al.* 2000). The range of the species was later extended to the north-western Pacific (Kamenev, 1996). Scott (1986) and Coan *et al.* (2000) described two additional species in the genus but, as yet, no species of *Adontorhina* have been recorded from outside the North Pacific Ocean.

The taxonomic placement of this genus by some authors has been met with controversy. Categorized by some as belonging to the subfamily Axinopsidinae Bernard, 1983, some authors (Berry, 1947; Hertlein &

Accepted by P. Valentich-Scott: 31 May 2007; published: 12 Jul. 2007