

***Rynkatorpa felderi*, new species, from a bathyal hydrocarbon seep in the northern Gulf of Mexico (Echinodermata: Holothuroidea: Apodida)**

DAVID L. PAWSON & DORIS J. VANCE

National Museum of Natural History, Mail Stop MRC163, Smithsonian Institution, Washington DC 20013-7012. E-mail: pawsond@si.edu

Abstract

Rynkatorpa felderi new species was collected at a cold hydrocarbon seep at bathyal depths in the northern Gulf of Mexico. This is the first record of a synaptid holothurian from a chemosynthetic site, and the first record of the genus *Rynkatorpa* in the Atlantic; all other congeners are known from the Indo-Pacific.

Key words: *Rynkatorpa felderi*, cold seeps, Gulf of Mexico, Holothuroidea, Apodida

Introduction

Echinoderms are not frequently reported from deep-sea chemosynthetic sites. Recent records from hydrothermal vents include a new brittle star genus *Ophioctenella* (Tyler *et al.* 1995), and an apodous sea cucumber, *Chiridota hydrothermica* (Smirnov *et al.* 2000). Recent studies at whale falls (for example Rouse *et al.*, 2004) show that at least one species of elapod holothurian, *Scotoplanes globosa* Théel, tends to aggregate near whale remains (see photograph in Haag, 2005). At cold seeps, sea cucumbers have been occasionally reported. Sibuet & Olu (1998) note that a few detritivorous echinoderms occur at cold seeps as vagrants—they suggest, however, that some holothurians may be Acolonists—such as *Peniagone elongata* (Théel) and *Scotoplanes* sp., off Japan (Juniper & Sibuet, 1987, Sibuet *et al.*, 1998) and *Scotoplanes* sp. in the Peru Trench (Olu *et al.*, 1996). Pawson & Vance (2004) described a new chiridotid sea cucumber, *Chiridota heheva*, a common resident at seep sites in the Gulf of Mexico and off the southeast coast of the USA, and at anthropogenic habitats.