

Two new species of *Phymorhynchus* (Gastropoda, Conoidea, Conidae) from the hydrothermal vents

A.V. SYSOEV¹, Yu.I. KANTOR²

¹Zoological Museum of Moscow State University, Herzen str. 6, Moscow 103009, RUSSIA; ²A.N. Severtzov Institute of Problems of Evolution of Russian Academy of Sciences, Leninskij prosp. 33, Moscow 117071 RUSSIA

Two new species of *Phymorhynchus* from the hydrothermal vents fields of the Mid-Atlantic Ridge and Western Pacific, *Ph. wareni* sp. nov. and *Ph. moskalevi* sp. nov. are described. The species are the first representative of the genus, as well as the first Conoidea from the hydrothermal vents studied anatomically. Anatomy of the digestive system falls within the variability range of subfamily Daphnellinae. No specific anatomical characters, which may be due to the living on hydrothermal vents were found.

Два новых вида *Phymorhynchus* (Gastropoda, Conoidea, Conidae) с гидротермальных излияний

А.В. СЫСОЕВ¹, Ю.И. КАНТОР²

¹Зоологический музей МГУ, ул. Герцена 6, Москва 103009; ²Институт проблем экологии и эволюции им. А.Н.Северцова РАН, Ленинский проспект 33, Москва 117071

Описаны два новых вида рода *Phymorhynchus* с гидротермальных источников Срединно-Атлантического хребта и западной Пацифики: *Ph. wareni* sp. nov. и *Ph. moskalevi* sp. nov. Это первые виды рода, равно как и первые Conoidea с гидротермальных источников, исследованные анатомически. Анатомия пищеварительной системы в целом характерна для подсемейства Daphnellinae. Каких-либо специфических анатомических признаков, связанных с обитанием в районе гидротермальных источников, не было выявлено.

INTRODUCTION

The discovery of chemosynthesis-based benthic communities became one of the most important events in recent marine biology. The fauna of hydrothermal vents is intensively studied, and more than 100 species of gastropods were recorded from these environments [Warén, Bouchet, 1993]. The most part of such environments was found at bathyal and abyssal depths where conoidean gastropods comprise a substantial share of molluscan species. However, conoideans were practically not recorded in the hydrothermal fauna. The only exception is the genus *Phymorhynchus* whose

unidentified representatives were repeatedly found in various localities [the review see in Warén, Bouchet, 1993]. Material on two previously undescribed species of the genus allowed us to study their morphology and to describe them as new.

MATERIAL AND METHODS

The material for the study was collected by the German R/V Sonne, TV-guided dredge and Russian submersible "Mir-2" on the hydrothermal vents. Morphology of the soft body was studied with the dissecting stereomicroscope. Anatomy of the anterior digestive system