Zootaxa 1155: 1–23 (2006)
www.mapress.com/zootaxa/

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

1155

New species of Poecilosclerida (Demospongiae, Porifera) from the Aleutian Islands, Alaska, USA

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Abstract

Five new species of poecilosclerid sponges, *Artemisina amlia* **sp. nov.**, *Coelosphaera oglalai* **sp. nov.**, *Melonanchora globogilva* **sp. nov.**, *Tedania kagalaskai* **sp. nov.**, and *Mycale carlilei* **sp. nov**, are described from the Aleutian Islands, Alaska, from depths ranging between 100–190m and are compared with congeners of the North Pacific Ocean.

Keywords: Taxonomy, Porifera, Demospongiae, Poecilosclerida, new species, N-Pacific, Aleutian Islands, Alaska

Introduction

The Aleutian Archipelago spans more than 1900 km and extends from the Alaska Peninsula to the Kamchatka Peninsula in Russia. The archipelago is supported by the Aleutian Ridge that forms the boundary between the deep North Pacific Ocean and the shallower Bering Sea. Strong tidal currents between island passes exchange water and nutrients between the two water bodies (Stabeno *et al.* 2005). The Aleutian Ridge is a volcanic arc that was formed along zones of convergence between the North American Plate and other oceanic plates (Vallier *et al.* 1994), and is the site of more than 20 active volcanoes and frequent earthquake activity. This combination of unique geological and oceanographic features provides three ingredients essential for deep-sea corals and sponges: exposed rock substrate, plankton- and nutrient-rich waters, and strong currents (Stone 2005). Sponges, particularly demosponges, appear to be the most abundant emergent epifauna in the Aleutian Islands (Stone, in press).

Five new species of Poecilosclerida collected during a cruise of the RV *Velero IV*

Accepted by G. Wörheide: 4 Feb. 2006; published: 20 Mar. 2006