



Amphipoda (Crustacea; Peracarida) from the Hydrothermal vent system of the Juan De Fuca Ridge, Escabana trough and Gorda ridge, Northeast Pacific. Part I. Lysianassidae and Sebiidae

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Abstract

The amphipod fauna from hydrothermal vent habitats on the Juan de Fuca Ridge and from experimental wood deployments are examined. The material revealed, among others, a number of lysianassid species belonging to the genera, *Paronesimoides* Pirlot, 1933 and *Schisturella* Norman, 1900, and a species of the family Sebiidae, belonging to the genus *Seba* Bate, 1862. The new species: *Paronesimoides voightae*, *Schisturella hansgeorgi*, and *Seba bathybia* are described. A key to *Paronesimoides* and *Schisturella* are given.

Key words: Amphipoda, Lysianassidea, Sebiidae, *Paronesimoides*, *Schisturella*, *Seba*, hydrothermal vents, wood deployments, Juan de Fuca Ridge, Northeast Pacific

Introduction

This paper is the third in a series of taxonomic papers on Peracarids from chemically reduced habitats (hydrothermal vents, cold seeps, mud volcanoes). The first paper dealt with the Tanaidacea from the Juan de Fuca Ridge and surroundings, NE. Pacific (Larsen 2006), the second treated of the same taxon from the Lucky Strike Field, Midatlantic Ridge (Larsen *et al.* 2006). In this particular study, the amphipod fauna of the hydrothermal vents system in the Juan de Fuca Ridge is examined and the most predominant new taxa — *Paronesimoides voightae*, *Schisturella hansgeorgi*, and *Seba bathybia* — are described herein. All samples, except the Gorda Ridge sample, were taken at least 50 meters from the vents themselves.

The geological properties of the Juan de Fuca Ridge are described by Cox *et al.* (1964), and the overall biology is reviewed by Tunnicliffe *et al.* (1985), Van Dover *et al.* (1990), and Grassle & Petrecca (1994). A number of crustacean groups from this locality, have been treated, especially the Copepoda (Humes 1990; Heptner & Ivanenko 2002). Some amphipod taxa have also been described from the area (Shaw 1989; Martin *et al.* 1993) and the new material, from recovered wood samples supplement these studies.

Materials and methods

The material for this study was collected by the submersible *Alvin*, deployed from the RV *Atlantis* under the grant # DEB-0103690 to Dr. J. Voight. The material was supplied by the Field Museum of Natural History (FMNH) in Chicago, Illinois, US, which also host the types and most other material. Additional paratypes are deposited in Kitakyushu Museum of Natural and Human History.