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Biodiversity Quadrupled—Revision of Easter Island and Salas y Gómez Bivalves

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Abstract

Seventy-one bivalve species, including fifteen new species living in the waters of Easter and Salas y Gómez Islands are herein described: *Nuculana* (s.l.) *anakena* sp. nov., *Lasaea eastera* sp. nov., *Borniola pasca* sp. nov., *Hyalokellia tahaia* sp. nov., *Tellimya pauciradiata* sp. nov., *Tellimya tahaia* sp. nov., *Thecodonta rainesi* sp. nov., *Acrosterigma triangulare* sp. nov., *Herouvalia rapanui* sp. nov., *Moerella laperousea* sp. nov., *Abranda lamprelli* sp. nov., *Timoclea keegani* sp. nov., *Hyphantosoma crassum* sp. nov., *Hyphantosoma tenue* sp. nov. and *Austroneaera eastera* sp. nov. Illustrated for the first time is the type material of *Tindaria salaria* Dall, 1908. Results of this study also revise previously accepted levels of endemism as well as species affiliation with other biogeographical areas.

Key words: Indo-Pacific, Rapanuian, Mollusca, Bivalvia, New species, Downwind

Introduction

Easter Island and its companion islet, Salas y Gómez, are located approximately 3,300 km from the coast of Chile. They are the only land masses within the unique and remote biogeographical area of the eastern Indo-Pacific known as the Rapanuian subprovince (Schilder 1965). Contributing to the isolation are circular ocean currents, especially the pronounced upwelling between the South Pacific and Mentor currents. In terms of marine ecosystems, this insularity has produced a high degree of radiation in many groups. The marine benthic fauna can essentially be described as typical Pacific fauna with a relatively high number of endemic species. The depauperate benthic community employs a variety of adaptive strategies for survival in an environment stressed by scouring waves, multiple currents, and the absence of mineral nutrients. Most of the corals and other bottom invertebrates are typical of Indo-Pacific reefs, but a robust reef system has not formed.