



Glyceridae (Annelida: Polychaeta) from Guam, Mariana Islands with description of a new species of *Glycera* Savigny in Lamarck, 1818

WAGNER F. MAGALHÃES^{1,2,4} & ALEXANDRA E. RIZZO³

¹Department of Biology, University of Hawaii at Manoa, 2450 Campus Road, Dean Hall 2, Honolulu, Hawaii 96822, USA

²Water Resources Research Center, University of Hawaii at Manoa, 2540 Dole Street, Honolulu, Hawaii 96822, USA

³Universidade do Estado do Rio de Janeiro (UERJ), IBRAG, Departamento de Zoologia, Rua São Francisco Xavier, 524, Maracanã, 20.550-900, Rio de Janeiro, Brazil

⁴Corresponding author. E-mail: wagnerfm@hawaii.edu

Abstract

Glycera juliae sp. nov., is described from shallow water sediments within Apra Harbor, Guam, Mariana Islands. This species is characterized by the presence of ailerons with rounded triangular base; proboscideal papillae of type 1 mainly digitiform with straight, median, longitudinal ridge and type 2 shorter and broader, oval to globular, without ridges; two slender triangular to digitiform prechaetal lobes, notopodial lobe slightly shorter than neuropodial lobe, two short postchaetal lobes, rounded anteriorly with posterior notopodial lobe becoming sub-triangular and longer than rounded neuropodial lobe; branchiae present, retractile, simple digitiform attached medially on anterior side of parapodia and a dark brown pigmentation forming transverse bands on prostomium and body segments. It is most similar to *Glycera nicobarica* and *G. macintoshi* by the shape of parapodial structures but also shares similarities with *Glycera sphyrabrancha*, *G. branchiopoda*, *G. guatemalensis*, *G. semibranchiopoda* and *G. southeastatlantica* by the shape and types of proboscideal papillae, differing on the shape of the ailerons, parapodial lobes and presence of branchiae. The occurrence of *Glycera tessellata* is confirmed for Guam and specimens are described and illustrated with SEM photographs.

Key words: Glyceridae, new species, shallow waters, harbor habitats, Pacific Ocean

Introduction

Glycerid polychaetes are common inhabitants of soft bottom sediments but usually found in low abundance. The taxonomy of the family Glyceridae has been worked out by Böggemann (2002), who considered 42 species as valid, the majority of them within the genus *Glycera* (36 spp.). After this taxonomic effort, eight more species of *Glycera* were described: *Glycera amadaiba* Imajima, 2003 from Japan, *Glycera boeggemanni* Rizzo, Steiner & Amaral, 2007 from southeastern Brazil, *Glycera diva* Böggemann, 2009 from Angola and Guinea Basins, *Glycera southeastatlantica* Böggemann, 2009 from Angola, Cape and Guinea Basins, *Glycera neurobusta* Imajima, 2009, *Glycera okai* Imajima, 2009 and *Glycera semibranchiopoda* Imajima, 2009 also from Japan and *Glycera noelae* Böggemann, Bienhold & Gaudron, 2011 from the eastern Mediterranean Sea. Species within the genus *Glycera* are distinguished mainly by the type and morphology of the proboscideal papillae, shape of the aileron, number of segmental annuli, shape and number of pre- and postchaetal lobes and presence, shape and position of branchiae on parapodia (Böggemann & Fiege, 2001).

The polychaetes from the Mariana Islands (Guam and Saipan) have been studied by Cloud (1959), Kohn & White (1977) and Bailey-Brock (1999, 2003). *Glycera tessellata* Grube, 1863 is the only glycerid worm previously recorded for the Marianas (Bailey-Brock, 1999, 2003; Böggemann, 2002) and its occurrence for Guam is herein confirmed and a new species of *Glycera* is described from shallow waters within Apra Harbor, Guam.