



New distributional records for Gyrinidae (Insecta: Coleoptera) on New Guinea and nearby islands, with a checklist of the New Guinea species

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Abstract

New distribution records are provided for the following 16 taxa of Gyrinidae on New Guinea, some of which have not been documented since their original type series were collected in the late 1800s or early 1900s: *Porrhynchus* (*Rhomborhynchus*) *depressus depressus* Régimbart; *Porrhynchus* (*Rhomborhynchus*) *depressus misoolensis* Ochs **new combination**; *Dineutus* (*Rhombodineutus*) *pectoralis pectoralis* Régimbart; *Dineutus* (*Rhombodineutus*) *pectoralis biakensis* Brinck; *Dineutus* (*Rhombodineutus*) *pectoralis monticola* Ochs; *Dineutus* (*Rhombodineutus*) *heurni* Zimmerman; *Dineutus* (*Rhombodineutus*) *silenus* Brinck; *Dineutus* (*Rhombodineutus*) *sinuaticollis* Zimmerman; *Dineutus* (*Rhombodineutus*) *virescens* Ochs; *Dineutus* (*Rhombodineutus*) *chalybeus* Zimmerman; *Dineutus* (*Rhombodineutus*) *helleri stueberi* Ochs; *Dineutus* (*Rhombodineutus*) *tetracanthus tetracanthus* Régimbart; *Dineutus* (*Merodineutus*) *archboldianus* Ochs; *Dineutus* (*Merodineutus*) *loriae* Régimbart; *Dineutus* (*Merodineutus*) *macrochirus* Régimbart; and *Dineutus* (*Spinodineutes*) *neohollandicus* Ochs. New distribution records are also provided for *Dineutus* (*Dineutus*) *regimbarti regimbarti* Régimbart from East Timor. The type-locality of *Dineutus* (*Rhombodineutus*) *chalybeus* is constrained to Yule Island, on the Gulf of Papua. Updated distribution maps are provided for all the New Guinea species above, a table is included summarizing currently documented ranges of elevation and water temperature for all species treated, and a checklist of all species of Gyrinidae currently known from New Guinea and nearby islands is provided, with species assigned to putative areas of freshwater endemism within the island.

Key words: Coleoptera, Gyrinidae, New Guinea, distribution, checklist

Introduction

Freshwater biodiversity surveys on New Guinea and nearby islands over the past decade have resulted in numerous collections of Gyrinidae, or whirligig beetles, many of which represent significant range extensions, or in some cases the first re-collections of taxa since the original type series. The results of these surveys have been reported in an array of publications, both peer-reviewed and otherwise, often with only provisional identifications provided for the taxa treated.

The present publication serves to clarify the identities of gyrid taxa listed in previous biodiversity survey reports from throughout New Guinea, and is intended as a supplement to the works of Ochs (1955) and Brinck (1981, 1983, 1984), in which the latter author sequentially monographed the subgenera *Spinodineutes* Hatch 1925, *Rhombodineutus* Ochs 1955, and *Merodineutus* Ochs 1955 for New Guinea. Specifically, this paper includes the results from surveys of several major river basins in Indonesian New Guinea, such as the Ajkwa (Polhemus & Polhemus, 1998), Wapoga (Polhemus, 2000), and Mamberamo (Polhemus, 2002), the Etna Bay area of the “Bird’s Neck” in Indonesian New Guinea (Polhemus, 1998), the Kikori River Basin of south-central Papua New Guinea (Polhemus, 1995), and various surveys in the Milne Bay Province of far eastern Papua New Guinea (Kraus *et al.*, 2006). The results from these surveys were in turn fundamental to a subsequent analysis of areas of freshwater endemism for the New Guinea region (Polhemus & Allen, 2007), and in the species treatments below the taxa are assigned to their appropriate areas of endemism within this scheme. Finally, the present paper provides a detailed table of elevational and water temperature ranges from which the included species have been taken, and clarifies one incorrectly assessed type locality.