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Gyrinidae of the Solomon Islands, and the subgenus Callistodineutus

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A collection of Gyrinidae received for study from the American Museum of Natural History contained, among others, a peculiar new species of *Dineutus* from the Solomon Islands, the description of which is given below. I am much indebted to Dr. Mont A. Cazier, who placed at my disposal this interesting material.

Dineutus dispar, new species.

Medium-sized, oval, rather convex; upper surface dark metallic, under surface reddish brown; elytra singularly rounded posteriorly, exterior margin with a slight sinuation at exterior apical angle.

Male: broadly oval; upper surface shining, olive-colored, with blue to violet reflections. Head tinged with aeneous basally and laterally before the eyes, microsculpture consisting of round meshes, rather evident in middle and diminishing anteriorly and on vertex; moreover, there are dispersed fine punctures and irregular wrinkles, the latter becoming stronger before the eyes; labrum not very prominent, anterior margin convex, haired with yellow, upper surface rather densely and strongly punctured anteriorly, microsculpture consisting of round meshes, diminishing posteriorly in middle; anterior margin of clypeus straight, the latter rather superficially separated from forehead, strongly wrinkled laterally, microsculpture consisting of rather evident round meshes, punctures anteriorly nearly as strong but less dense than on labrum, meshes and punctures diminishing posteriorly; genae green, strongly reticulate, with round meshes, indistinctly punctate and wrinkled anteriorly. Pronotum about half as long as wide, anterior and posterior margins strongly bisinuate, anterior margin with an elevated border, somewhat reduced in middle, side margin rather broad anteriorly, strongly narrowed toward base, upper surface with round meshes, rare and mostly shallow, dispersed punctures and fine, irregular wrinkles. Longitudinal striae on elytra faint, microsculpture consisting of round meshes and dispersed punctures, side margin broadly flattened behind humeri, ending at epipleural angle and bearing a bulbous elevation where anterior legs are inserted to epipleura; epipleural angle evident, truncature convex, sutural angle obtuse, narrowly rounded, suture slightly dehiscent in its apical portion and somewhat

elevated for a short distance before the latter. Profemora robust, upper surface with a row of setigerous punctures, anteriorly with a deep furrow, the accompanying ridges serrulate, the upper one exteriorly with a sharp tooth, apical portion of femora strongly attenuated, anterior surface granulate along under ridge; protibiae with double sinuation, moderately broadened toward apex, outer apical angle obtuse, part of undersurface with cross riffles; anterior tarsi parallel, moderately broadened, brushes at undersurface covering only outer portion of segments. Aedeagus shorter than lateral lobes, gradually and moderately narrowed from base, sides more strongly convergent shortly before apex, the latter forming a sharp point. Length, 13.5-15.5 mm.; width, 8.0-9.0 mm.

Female: Smaller in size and more elongate; upper surface less shining; side margin of elytra narrower and less flattened; profemora without tooth and hardly attenuated apically; protibia shorter, straight; protarsi not broadened. Length, 13.0-13.5 mm.; width, 7.0-7.5 mm.

The holotype, male, was collected by the Whitney South Sea Expedition on Malaita, Solomon Islands, and the allotype, female, is from the same locality. Types and paratypes are in the collection of the American Museum of Natural History, and paratypes are also in Bishop Museum and my collection.

In the male, *D. dispar* resembles somewhat *D. politus* from Java, but it is much smaller, its body is evidently shorter, and the apex of the elytra is more convex and the sutural angles more rounded. The femoral tooth is on the upper frontal ridge instead of on the under one, and the under surface of the anterior tibiae has cross ridges in the middle which are wanting in *D. politus*.

The subgeneric classification of *D. dispar* has been difficult. Before its discovery, there were known from the Solomon Islands a representative of *Spinosodineutes* and *D. bougainvilleanus* and its allies, which I placed formerly in the subgenus *Paracyclous*. *D. dispar* is certainly not a *Spinosodineutes,* and it differs, moreover, from *Paracyclous* in its larger size and the very evident dimorphism of the sexes, of which the male somewhat resembles *Dineutus* s.s., whereas the female equals *Protodineutus* in size and in its elongate form. I therefore contemplated creating a new subgenus for this peculiar species, which seemed not to suit any of the existing subgenera. A thorough examination of *D. dispar,* however, disclosed a character by which it is assigned, not only to *Paracyclous,* but to *Callistodineutus*. In males of all species concerned here, the undersurface of the anterior tarsi is smooth and the brushes are removed to the outer edge. This character does not occur in other Dineutini except in the *macrochirus* group of New Guinea, which I treat as a separate subgenus on the basis of other distinguishing characters.

Callistodineutus is based on *D. fairmairei* Rég. from the Fiji Islands, a rather large and bright-colored species with opaque longitudinal striae on the elytra. These striae were the main criterion when the subgenus was established, but the definition of the subgenus was no longer adequate after the discovery of *D. simmondsi* Ochs, a second Fijian species of smaller size, without elytral stripes, and somewhat similar to *D.* (*Paracyclous*) *bougainvilleanus* Ochs.

The above-mentioned common character permits the association of the species hitherto thought to be *Paracyclous* with *Callistodineutus,* which subgenus, as a well-defined oceanic group, is now comprised of the following species: *D. fairmairei* Rég. (type of the subgenus), Fiji Islands; *D. simmondsi* Ochs, Fiji Islands; *D. dispar* Ochs, Solomon Islands; *D. bougainvilleanus* Ochs, Solomon Islands; and *D. pagdeni* Ochs, Solomon Islands.

D. ritsemai, the type of the former subgenus *Paracyclous* and closely related to *D. bougainvilleanus,* is said to originate from Celebes. However, I doubt that a representative of this oceanic group occurs there.

The whirligig fauna of the Solomon Islands is most peculiar and is chiefly characterized by the lack of *Macrogyrus,* a genus represented by numerous species in the neighboring faunas of New Guinea and Australia. The relationships to the latter are few, and only one species is common to the Solomon Islands and to New Guinea (*Gyrinus sericeolimbatus* Rég.). *Spinosodineutes* is an Indo-Malayan subgenus, representatives of which are also found in New Guinea and Australia. *D.* (*Spinosodineutes*) *heterandrus* Ochs, which occurs in the Solomon Islands, is a highly developed representative of the subgenus.

In addition to *D. dispar,* described above, the following species of Gyrinidae are recorded from the Solomon Islands:

Gyrinus sericeolimbatus Rég., 1883.

Bougainville (Oberthür and Ochs Colls.).

Dineutus (Spinosodineutes) heterandrus Ochs, 1937.

Bougainville, Kieta (Oberthür and Ochs Colls.).

Dineutus (Callistodineutus) pagdeni Ochs, 1937.

Guadalcanar [Guadalcanal], Nggela Island, Mali-Ali River, March 26, 1934 (H. T. Pagden, British Museum and Ochs Colls.).

D. pagdeni was captured also at Choiseul, Nov. 23, 1927, by the Whitney South Sea Expedition (American Museum of Natural

History). These specimens are a little larger in size than the types, but agree with them in all other characters; and in the males, the shape of the aedeagus is the same. They are, on the average, smaller in size than *D. bougainvilleanus,* with which *D. pagdeni* has much affinity. However, besides other minor characters (see Ochs, Decheniana **95B**: 68, 1937) the aedeagus is more slender in *D. pagdeni* and more attenuated apically, from which I derive a specific difference.

Dineutus (Callistodineutus) bougainvilleanus Ochs, 1934.

Bougainville: Buin, 1931 (Hediger, Mus. Basel and Ochs Colls.); Kieta (Oberthür and Ochs Colls.).