hat Nest Dur

# FIELDIANA Zoology

Published by Field Museum of Natural History

Volume 65, No. 7

October 17, 1975

# An Additional New *Stenus* from Australia (Coleoptera, Staphylinidae)

100th contribution to the knowledge of Steninae<sup>1</sup>

VOLKER PUTHZ2

In my "Revision of the Australian species of the genus *Stenus* Latreille" (1970) I listed one female with doubt under the species *S. maculatus* Macleay. Recently, I found in the Bernhauer collection the corresponding male, thus adding a new species to the *maculatus*-group represented in Australia.

My thanks are due to Mr. H. Dybas, Field Museum of Natural History, for the loan of the material in which the new insect was found.

Stenus (Parastenus) praedictus new species. Figure 1.

Closely related to and resembling S. maculatus Macleay and S. pustulifer Fauvel.

Description.—Black, moderately shiny, elytra brownish, each elytron with a very large orange-yellow spot. Head coarsely and rather densely punctate; pronotum coarsely punctate; the punctures coalescent in places; elytra with tortuous punctation; abdomen finely and sparsely punctate. Antennae reddish. Palpi entirely reddish-yellow. Legs reddish, bases of femora and tarsi slightly paler, knees infuscate or brownish. Clypeus moderately densely pubescent, anterior margin brownish-yellow. Labrum dark brown, anterior margin paler.

Length: 6.5-8.0 mm.

Head distinctly narrower than elytra  $(2000:2421\mu)$ ; measurements given from holotype); from very broad (average distance between eyes: $1082\mu$ ), concavely excavated, with two distinct longitudinal furrows; median portion as broad as each of the side portions, distinctly but shallowly elevated, slightly higher than level of inner

Manuscript submitted for publication in August, 1974.

<sup>2</sup>Limnologische Fluss-Station des Max-Planck-Instituts für Limnologie, Schlitz/Hessen, Germany.

85

US ISSN 0015-0754

Library of Congress Catalog Card Number: 75-18217

Publication 1212

MATURAL MISTORY SURVEY

DFC 22 1975

LIBRARY

eye margins. Punctation coarse and dense; diameter of a puncture about as large as basal cross-section of third antennal segment; antennal tubercles smooth; interstices in narrow median longitudinal area of frons about as wide as diameters of punctures, those alongside middle distinctly smaller than half the diameter of a puncture; a very small smooth area present posteriorly near inner eye margins.

Antennae (paratype) moderately slender, when reflexed extending to about the posterior margin of the pronotum, penultimate segments about twice as long as broad.

Pronotum slightly longer than broad (1635:1588µ), broadest behind middle, sides convex toward anterior margin (see below), distinctly concavely narrowed toward posterior margin. Surface with several deep impressions:one moderately deep, transverse, behind anterior margin; one deep, latero-transverse, somewhat behind middle; one shallow, transverse, near posterior margin; and a deep longitudinal impression medially, which is abbreviated in anterior and posterior fifth. Punctation very coarse, coalescent near posterior third of longitudinal furrow. Diameter of a puncture about as large as largest x-section of 3rd antennal segment, interstices mostly narrower than one-half the diameter of a puncture, those in longitudinal furrow and alongside it sometimes larger, in places fully as large as the punctures.

Elytra distinctly broader than head (2421:2000μ), distinctly broader than long (2421:2064μ), shoulders prominent, sides distinctly divergent posteriorly, restricted in posterior quarter, posterior margin of each elytron separately emarginate in lateral third, inner two-thirds of elytra together deeply emarginate (sutural length:1553μ). Each elytron with a very large yellowish spot (color deepens to orange at outer limits of the spot), rest of elytron dark brown. Spot as shown in Puthz, 1970, fig. 34, or slightly larger, separated from the suture by a distance of about 1½ diameters of a parasutural puncture, laterally extending toward the side margin. Punctation of elytra very coarse, deep, and irregular, more or less distinctly separated near shoulders, at base of elytra, and near suture; rest of elytra with the punctation confluent and on the light-colored portions completely tortuous.

Abdomen broad, moderately narrowed toward apex; paratergites broad with the posterior half depressed, only a few punctures basally; basal furrows of first tergites deep, with a distinct callus beside paratergital suture; 7th tergite with a membranous fringe at posterior margin (the insect is winged). Punctation sparse, about equal from 3rd to 7th tergites, diameter of a puncture nearly as large as one inner eye facet, slightly coarser on last tergites; sides of first tergites with the punctation somewhat denser than in middle, interstices laterally smaller than twice the diameter of punctures, larger medially; 7th and 8th tergites with a denser punctation.

Legs moderately robust, posterior tarsi about three-fifths as long as posterior tibiae, first segment nearly as long as the following four segments together (834-294-200-329-423 $\mu$ ), fourth segment deeply bilobed.

Entire body with a very fine but visible reticulation.

Male: Trochanters without any spine or tooth. Femora enlarged, posterior femora conspicuously enlarged in about middle, curved in posterior third. Posterior margin of mesotibiae tooth-like, produced; metatibiae with a large preapical tooth. Metasternum shallowly impressed, finely and sparsely punctate, interstices very shallowly reticulated, shiny. Except the 9th, all sternites medially with the punctation finer and denser than laterally and with a dense pubescence; in the

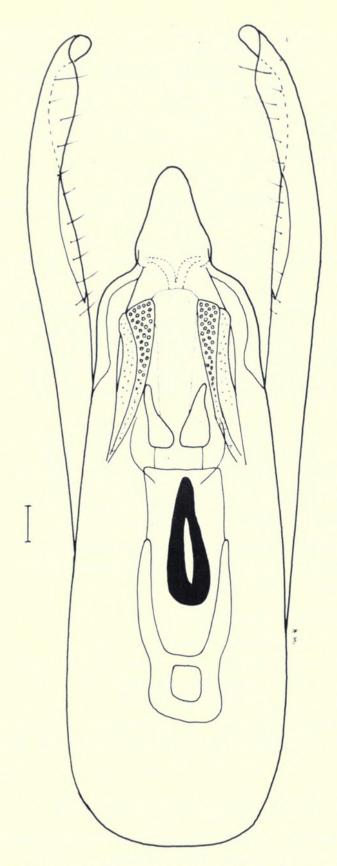


Fig. 1. Stenus (Parastenus) praedictus n. sp. Ventral aspect of aedeagus. Scale = 0.1 mm.

middle of sternites 3 and 4 the pubescence is conspicuously close, short, brush-like. 8th sternite with a nearly parallel-sided notch in about posterior quarter, apex rounded; 9th sternite broadly rounded apicolaterally, shallowly emarginate apicomedially; 10th tergite broadly rounded. Aedeagus (fig. 1): median lobe broad, the apical portion curved, rounded and lancet-like in shape; inside there are longitudinal expulsion bands and three different strongly sclerotized structures (two expulsion mechanisms and the internal sac); parameres much longer than median lobe, with wrinkles and few fine setae.

FEMALE: 8th sternite rounded at posterior margin, slightly produced apicomedially. Valvifers apicolaterally roundly produced. 10th tergite broadly rounded. Spermatheca distinctly sclerotized and spindle-shaped.

Variability: In the female paratype the punctation of the frons is not as close as in the holotype. Also the pronotum has a different side-outline, being more parallel-sided in the middle, and has a small lateral callus behind anterior 6th. Because this callus is more distinct on the right side than on the left, I am sure that these differences from the holotype reflect intra-specific variation in this new species.

Discussion.—Stenus praedictus n.sp. can be distinguished from S. maculatus Macleay and S. pustulifer Fauvel by its narrower pronotum, denser and completely tortuous punctation of the elytral spot, and sexual characters.

Because of genital structures, S. praedictus must be regarded as a sister species (sensu Hennig) of S. maculatus and S. pustulifer. The new species belongs to a monophyletic group which is derived from the Oriental stock. Other species of that group live in New Guinea (gigas-group: see Puthz,1971).

Male holotype: Australia, Queensland, Evelyne, August, Mjöberg leg. (Bernhauer Coll., Field Museum of Natural History, Chicago).

Female paratype: Queensland, Maranda, Hill leg (coll. Puthz).

#### REFERENCES

HENNIG, W.

1965. Phylogenetic systematics. Ann. Rev. Entomol., 10, pp. 97-116.

PUTHZ, V.

1970. Revision of the Australian species of the genus Stenus Latreille (Coleoptera: Staphylinidae). Mem. Natn. Mus. Vic., 31, pp. 55-80.

1971. Revision of the Stenus-Species of New Guinea. Part I. (Coleoptera: Staphylinidae). Pacific Insects., 13, pp. 447-469.



Puthz, Volker. 1975. "An additional new Stenus from Australia (Coleoptera, Staphylinidae). 100th contribution to the knowledge of Steninae." *Fieldiana* 65, 85–88.

View This Item Online: <a href="https://www.biodiversitylibrary.org/item/21074">https://www.biodiversitylibrary.org/item/21074</a>

Permalink: <a href="https://www.biodiversitylibrary.org/partpdf/27507">https://www.biodiversitylibrary.org/partpdf/27507</a>

## **Holding Institution**

University Library, University of Illinois Urbana Champaign

## Sponsored by

University of Illinois Urbana-Champaign

#### **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Field Museum of Natural History

License: http://creativecommons.org/licenses/by-nc-sa/3.0/

Rights: <a href="https://biodiversitylibrary.org/permissions">https://biodiversitylibrary.org/permissions</a>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <a href="https://www.biodiversitylibrary.org">https://www.biodiversitylibrary.org</a>.