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# Two new species of *Deinopteroloma* JANSSEN, 1946 from China (Coleoptera: Staphylinidae: Omaliinae)

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## Abstract

Two new species of the genus *Deinopteroloma* JANSSEN, 1946 from China (Fujian) are described and illustrated and a recent key to the species of this genus (SMETANA 1990) is modified to accommodate these new species.

**Key words:** Coleoptera, Staphylinidae, Omaliinae, *Deinopteroloma*, taxonomy, new species, China

## Introduction

Recently, a series of specimens of the genus *Deinopteroloma* JANSSEN, 1946 (Omaliinae), collected 50 years ago in southeastern China (Fujian), were sent to me for study by H. Schilhammer, Naturhistorisches Museum in Wien. Two species were included in this series, both of them new for science.

The purpose of this paper is to describe these two species and to modify the relevant couplets in the recent key to the species of *Deinopteroloma* (SMETANA 1990) to accommodate the new species. The specimens treated in this paper are deposited in the Naturhistorisches Museum, Wien, Austria, and in the Canadian National Collection, Ottawa, Canada. The comments of my colleagues E.C. Becker and D.E. Bright at the Biological Resources Division of the Centre for Land and Biological Resources Research, Ottawa, were greatly appreciated.

## *Deinopteroloma tricuspidatum* sp.n. (Figs. 1 - 3)

**Holotype** ♂: China: "KUATUN, FUKIEN China 21.4.46 (TSCHUNG SEN.)"/"*Deinopteroloma* ? n.sp. (or poss. *semiflava* Jans.) det. M.K. Thayer 1989". **Allotype** ♀: China: "KUATUN, FUKIEN China 21.4.46 (TSCHUNG SEN.)". Both holotype and allotype in the collection of the Naturhistorisches Museum, Wien, Austria. **Paratypes** (5): China: Kuatun, Fukien, 21.4.46 Tschung Sen. One ♂ and one ♀ in the Canadian National Collection, Ottawa, Canada; two ♂♂ and one ♀ in the collection of the Naturhistorisches Museum, Wien.

**DESCRIPTION.** Piceous to piceous-black with lateral portions of pronotum rufo-brunneous, elytra usually becoming variably paler medio-basally around suture, and each elytron with a small, irregular, oblique, pale yellowish vitta at about posterior third; mouthparts rufo-testaceous, last segment of maxillary palpus more or less darkened toward apex; antennae and legs rufo-brunneous, antennae gradually darkened toward apex. Dorsal surface without microsculpture except for rudiments of striate microsculpture on clypeus and on vertex of head. Head transverse (ratio length:width = 0.66); clypeus smooth, with a few scattered punctures basally; vertex irregularly elevated, with smooth middle area bearing a few fine punctures, with V-shaped impression bearing a row of coarse punctures posteriorly, and with two rounded impressions anteriorly; lateral portions of head coarsely and densely punctate; postocular ridge situated away

from posterior margin of eye, distance equal to combined diameters of about three ommatidia of eye. Antenna long, second segment shorter than either first or third segments, less robust than first segment but stouter than third segment, segments 4 and 5 very long, each almost as long as third segment, segment 6 only slightly shorter than segment 5, segments 7 - 9 markedly longer than wide, segment 10 about as long as wide, last segment shorter than preceding two segments combined. Pronotum transverse (ratio length:width = 0.62), considerably wider than head; broadly, subangulately emarginate at apical margin; lateral margins coarsely crenulate, slightly more narrowed posteriad than anteriad; posterior angles marked as minute acute dents; middle portion of disc irregularly elevated, elevation bearing indistinct, longitudinal median groove bordered on each side by indistinct, smooth longitudinal protuberances; two oblong protuberances posteriad of large medial elevation; lateral portions of pronotum broadly explanate and somewhat reflexed, each with deep pit; surface of pronotum with variably spaced, coarse punctation, area in front of each lateral pit smooth, without punctures. Each elytron with sutural stria represented by row of serial punctures along suture and with three to five more or less appreciable, mostly irregular longitudinal rows of coarse punctures, gradually becoming somewhat finer toward elytral apex, and more or less coarser, deeper and not subseriately arranged toward lateral margins; with a short, irregular additional row of punctures between sutural and first stria; with indistinct, longitudinal ridge near base between second and third striae and with several small, inconspicuous protuberances behind it, last of them on about apical third of elytron just behind pale yellowish vitta; with numerous additional protuberances arranged into two irregular longitudinal rows, one at about level of fourth stria and one at about level of humerus.

Male. First four segments of front tarsus not appreciably dilated. Front tibia impressed ventrally in about apical half, appearing dilated around middle in lateral view, bearing modified, bulbous setae ventro-medially, and some denser, longer setae on dilated portion. Aedoeagus (Figs. 1 - 3) rather small, vaguely shorter to as long as hind tibia; median lobe with apex subacute; parameres slightly exceeding apex of median lobe, each with apical portion slightly curved laterad, obliquely truncate apically, apex with acute ventro-lateral tooth; internal sac with three conspicuous cuspidate sclerites.

Female. Front tarsus similar to that of male. Front tibia simple, without modification. Genital segment as in related species, without diagnostic characters.

Length 4.3 - 4.6 mm.

BIONOMICS. Nothing is known about the collection circumstances of the specimens.

GEOGRAPHICAL DISTRIBUTION. *Deinopteroloma tricuspidatum* is known only from the type locality "Kuatun" (Guadun Village, Wuyi Shan, N Fujian) in China.

COMPARISONS AND COMMENTS. *Deinopteroloma tricuspidatum* resembles in general habitus *D. crenatum* SMETANA, 1986 from Nepal, but it may be easily distinguished by the larger and more robust size, by the postocular ridge on the head situated farther from the posterior margin of the eye (the distance is equal to about two ommatidia of the eye in *D. crenatum*), by the different shape of the apex of the median lobe of the aedoeagus (broadly arcuate in *D. crenatum*), by the different shape of the apex of each paramere (without a tooth in *D. crenatum*), and by the presence, in *D. tricuspidatum*, of three conspicuous cuspidate sclerites in the internal sac of the aedoeagus (Fig. 3). Both the holotype and allotype of this species are well preserved specimens. The holotype is missing segments 4 and 5 of the right front tarsus, the allotype is missing segments 2 - 5 of right hind tarsus. Except for one male paratype, the paratypes are in poor shape and are missing many appendages.

ETYMOLOGY. The specific name is a combination of the Latin numeral tres (three) and the Latin noun cuspis, -idis, f. (spike, spine). It refers to the shape of the three sclerites of the internal sac of the aedoeagus, that are diagnostic for the species.

*Deinopteroloma hamatum* sp.n.  
(Figs. 4, 5)

**Holotype** ♂ and **allotype** ♀: China: "KUATUN, FUKIEN China 21.4.46 (TSCHUNG SEN.)". In the collection of Naturhistorisches Museum, Wien, Austria. **Paratypes** (2): same data as holotype. One ♂ in the Canadian National Collection, Ottawa, Canada; one ♀ in the collection of the Naturhistorisches Museum, Wien.

**DESCRIPTION.** Head dark rufo-brunneous to brunneo-piceous; pronotum dark rufo-brunneous to piceo-brunneous with lateral portions rufo-testaceous; elytra testaceous to rufo-testaceous; each elytron with large piceous macula at about apical fourth, macula reaching to about lateral third of width of elytron and from there extended basad; with additional, usually subdivided, longitudinal, not well delimited, piceous macula in front of apical macula, extending from near suture obliquely basad and often connected to basal extension of apical macula; base of elytron sometimes vaguely, indefinitely darkened at about middle; mouthparts rufo-testaceous; antennae and legs rufo-testaceous, antennae gradually darkened toward apex. Dorsal surface without microsculpture, but clypeus with very fine striate microsculpture along lateral margins and on apical portion. Head transverse (ratio length:width = 0.76) ; clypeus smooth, with no more than a few extremely fine punctures; vertex irregularly elevated, with smooth middle area bearing a few very fine punctures, with V-shaped impression posteriorly, bearing a row of coarse punctures, and with two transverse impressions anteriorly; lateral portions of head densely and rather coarsely punctate; postocular ridge situated away from posterior margin of eye, distance equal to combined diameters of about three ommatidia of eye. Antenna long, second segment shorter than either first or third segment, less robust than first segment but stouter than third segment, segments 4 and 5 very long, each only slightly shorter than third segment, segments 6 - 8 longer than wide, gradually becoming shorter, segments 9 and 10 about as long as wide, last segment slightly shorter than two preceding segments combined. Pronotum transverse (ratio length:width = 0.63), considerably wider than head; broadly, angulately emarginate at apical margin; lateral margins coarsely crenulate, about equally narrowed both anteriad and posteriad; posterior angles marked as minute, acute dents; disc of pronotum on about anterior two thirds with irregular medial elevation bearing longitudinal medial groove bordered at each side by narrow, smooth, longitudinal protuberance; two round protuberances posteriad of large medial elevation; lateral portions of pronotum broadly explanate and slightly reflexed, each with deep pit; surface of pronotum with variably spaced, moderately coarse to coarse punctation, area in front of each lateral pit smooth, without punctures. Each elytron with sutural stria in form of row of serial punctures, remaining punctation moderately coarse and dense, tending to be subseriately arranged, particularly on medio-apical portion of elytron; with two, vague, indistinct, short longitudinal elevations at middle portion of base, one more distinct longitudinal ridge below humerus and a series of small, inconspicuous protuberances between it and apex of elytron; a few similar, inconspicuous protuberances mediad of this series on apical half of elytron.

**Male.** First four segments of front tarsus not dilated. Front tibia impressed ventrally in about apical half, appearing slightly angulately dilated around middle in lateral view, bearing two rows of fine bulbous setae and some denser, longer setae on dilated portion ventrally. Aedeagus (Figs. 4, 5) small, slightly shorter than hind tibia; median lobe with apex fairly broadly arcuate; parameres distinctly exceeding apex of median lobe, each with apical portion abruptly curved mediad and with apex hook-like; internal sac with two very long rows of fine, spine-like structures.

**Female.** Front tarsus similar to that of male. Front tibia simple, without modification. Genital segment as in related species, without diagnostic characters.

Length 3.7 - 3.9 mm.

**BIONOMICS.** Nothing is known about the collection circumstances of the specimens.

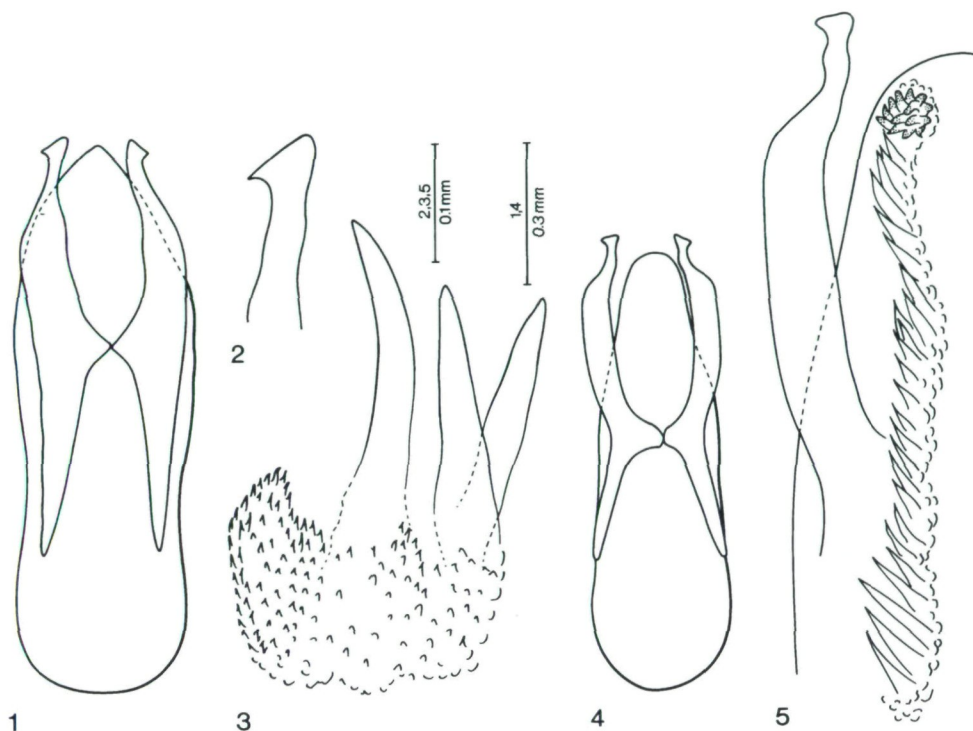
**GEOGRAPHICAL DISTRIBUTION.** *Deinopteroloma hamatum* is known only from the type locality "Kuatun" (Guadun Village, Wuyi Shan, N Fujian) in China.

**COMPARISONS AND COMMENTS.** *Deinopteroloma hamatum* resembles in general appearance *D. notabile* (CAMERON, 1941) from Nepal and northern India, but *D. notabile* differs abundantly, in addition to the male sexual characters, mainly by the presence on each elytron of two distinct longitudinal ridges at the base and two similar ridges on apical third on medial half. *Deinopteroloma hamatum* also to some extent resembles *D. semiflavum* JANSSON, 1946 from northeastern Burma, but *D. semiflavum* may be easily distinguished mainly by the different color pattern on the elytra (see SMETANA 1985: 485), by the elytral punctuation arranged into more distinct, regular longitudinal rows, by the absence of tubercles on elytral intervals, and by the subtruncate elytral apices. The holotype of *D. hamatum* is missing both antennae except for two basal segments. Both paratypes are missing both antennae except for two basal segments; in addition, the female paratype is missing both hind legs, the male paratype the left hind leg and the right hind tarsus except for two basal segments.

**ETYMOLOGY.** The specific name is the Latin adjective hamatus, -a, -um (hooked, bearing hooks). It refers to the shape of the apex of each paramere.

**KEY.** To accommodate the two new species, the following couplets of the key to the species of *Deinopteroloma* (SMETANA 1990) should be modified as follows:

6. Each elytron with at least some, sometimes inconspicuous, variably shaped obtuse or rounded protuberances and longitudinal ridges (Figs. 68, 72 in SMETANA 1985) ..... 7
- Each elytron with numerous, rather acute pyramidal tubercles and with two longitudinal irregular ridges with secondary tubercles near suture, one lower and less conspicuous at base and one higher and very conspicuous at about apical third (Figs. 73, 83 in SMETANA 1985) ..... 9
7. Apex of median lobe of aedoeagus subacute (Fig. 22 in SMETANA 1985 and Fig. 1), or obtusely subacute (Fig. 3 in SMETANA 1986) ..... 8a
- Apex of median lobe of aedoeagus broadly rounded (Fig. 28 in SMETANA 1985 and Fig. 4) ..... 8c
- 8a. Aedoeagus small, about as long as hind tibia; internal sac with one or three strongly sclerotized structures (Fig. 22 in SMETANA 1985 and Figs. 1, 3) ..... 8b
- Aedoeagus large and voluminous, distinctly longer than hind tibia; internal sac without strongly sclerotized structures (Fig. 3 in SMETANA 1986). Length 3.9 mm. Nepal: Phulcoki ..... *D. cristatum* SMETANA, 1986
- 8b. Apex of each paramere of aedoeagus simple, without tooth; internal sac of aedoeagus with single strongly sclerotized structure (Fig. 22 in SMETANA 1985). Each elytron with two conspicuous ridges on apical third of medial half (Fig. 68 in SMETANA 1985). Length 3.3 - 3.7 mm. Nepal; northern India: northern Bengal, Assam ..... *D. notabile* (CAMERON, 1941)
- Apex of each paramere of aedoeagus with acute ventro-lateral tooth; internal sac with three cuspidate sclerites (Figs. 1, 3). Each elytron without two conspicuous ridges on apical third of medial half. Length 4.3 - 4.6 mm. China: Fujian ..... *D. tricuspidatum* sp.n.
- 8c. Parameres of aedoeagus slightly, gradually curved mediad apically, each with apex simple, not hook-like (Fig. 28 in SMETANA 1985). Postocular ridge on head situated close to posterior margin of eye, distance equal to combined diameters of about two ommatidia of eye. Length 3.8 - 4.0 mm. Eastern Nepal ..... *D. crenatum* SMETANA, 1985
- Parameres of aedoeagus abruptly curved mediad apically, each with apex hook-like (Figs. 4, 5). Postocular ridge on head situated farther from posterior margin of eye, distance equal to combined diameters of about three ommatidia of eye. Length 3.7 - 3.9 mm. China: Fujian ..... *D. hamatum* sp.n.



Figs. 1 - 3: *Deinopteroloma tricuspidatum*: 1) aedeagus; 2) apex of left paramere, detail; 3) internal sac, detail.

Figs. 4 - 5: *Deinopteroloma hamatum*: 4) aedeagus; 5) apical portion of left paramere and left portion of internal sac, detail.

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