

A New *Diplothorax* (Coleoptera, Cerambycidae) from Yunnan, Southwest China

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Abstract A new species of the cerambycine genus *Diplothorax* is described and illustrated from northwestern Yunnan, Southwest China, under the name of *D. ishihamai* sp. nov. It is very peculiar in facies and easily distinguished from the known congeners of the genus. The taxonomical importance of this new species is discussed.

Diplothorax GRESSITT et RONDON of the cerambycine tribe Cleomenini is a poorly known genus, and has hitherto been known from only four species, viz., *D. fasciata* HOLZHCHUH (1981, pp. 74–75, fig. 10) and *D. sangayi* HOLZHCHUH (1985, pp. 394–396, fig. 3) from the Himalayas, *D. paradoxus* GRESSITT et RONDON (1970, pp. 312–313, figs. 47 d, 48 g) from Laos, and *D. lucens* HOLZHCHUH (1995, pp. 28–29, fig. 35) from Sichuan. Most of these species have almost complete elytra, but the type species, *D. paradoxus*, has strongly reduced elytra like a species of the tribe Molorchini. A careful study of comparative morphology has revealed that this genus has a closer relationship to *Procleomenes* GRESSITT et RONDON whose members are widespread in Southeast Asia.

An additional member of *Diplothorax* found in the Nu Jiang Valley of northwestern Yunnan of Southwest China was recently brought to me through the courtesy of Mr. Norio ISHIHAMA of Hokkaido University. At first sight, it was found to belong to a new species because of such peculiarities as the large broad body form, with unusually expanded pronotum, and unique elytral maculation. Besides, the elytra of this new species are intermediate in length between those of *D. paradoxus* and three other known species, that is, they are nearly half the length of the hind body. The elytra of *D. paradoxus* which is the most specialized form are nearly two-fifths the length of hind body, while those of rather an archaic species almost completely cover the abdominal segments. It is of special interest that the reduction of the elytra exhibits a morphocline in the members of *Diplothorax*. As is well known, the difference in the elytral length is regarded as one of the most important characters to separate the members of the tribe Molorchini from those of the Cleomenini in the subfamily Cerambycinae. The morphological gradient of the elytra in such a monophyletic group seems to support my hypothesis that *Diplothorax* and its relatives can be regarded as a rather archaic group of the tribe Molorchini.

In the following lines, I am going to describe the Yunnanese species under the name of *D. ishihamai* sp. nov., and to briefly discuss on its phylogenetic importance.

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The abbreviations used in the description are as follows: BL – length of body from the apical margin of clypeus to the posterior margin of anal tergite of abdomen, HW – maximum width of head across eyes, AL – length of antenna, FL – length of frons, FB – basal width of frons, FA – apical width of frons, CL – length of clypeus, CB – basal width of clypeus, PL – length of pronotum, PA – apical width of pronotum, PB – basal width of pronotum, PW – maximum width of pronotum, across lateral tubercles, EL – length of elytra, EW – width of elytra across humeri.

Diplothorax ishihamai sp. nov.

(Fig. 1)

A large species, with remarkably expanded pronotum, reduced elytra which are nearly a half of hind body. Colour black and dark reddish brown, partly reddish and pale yellow, shiny; head black, with dark reddish brown mouth parts except for black mandibular tips and yellowish brown palpi; antennae blackish brown, gradually becoming brownish towards apical segment; pronotum black, with bright reddish brown maculation in the centre of basal 5/7 and just before base, the basal collar dark reddish brown; scutellum black; elytra pale yellow, each provided with dark brown maculations whose margins are mal-defined, 1) a humeral spot extending to both basal and external margins, 2) an oblique short band slanting from basal 2/7 of external margin to basal 4/7 of disc, and widely separated from sutural margin, 3) a transverse band on apical third, 4) apical band on apical 3/14, with anterior margin arcuately emarginate; hind wings translucent blackish brown; prosternum black in apical 3/5, bright reddish brown in basal 2/5 though infuscate near coxal cavities and in the central line including prosternal process; mesosternum bright reddish brown, infuscate near centre and mesosternal process; mesepimeron almost black; metasternum largely black with reddish brown sides; metepisternum bright reddish brown; legs black to blackish brown, mid and hind femora in the peduncles pale reddish brown, and the same part of fore femur slightly brownish; abdomen largely blackish brown.

Head rather voluminous, short, moderately convex, HW/PA 0.94, HW/PW 0.79, provided with coarse and rather large punctures, and with erect pale yellow hairs; frons trapezoidal, gently raised, without a median groove, nearly transverse in apical margin and weakly arcuate at sides, FL/FB 0.75, FA/FB 0.8; vertex strongly concave, provided with deep longitudinal furrows, strongly raised towards antennal cavities; occiput narrow; eyes small, hardly prominent, upper lobes widely separated from lower lobes; genae rather deep, 3/4 the depth of lower eye lobes, bluntly angulate ventrad; clypeus

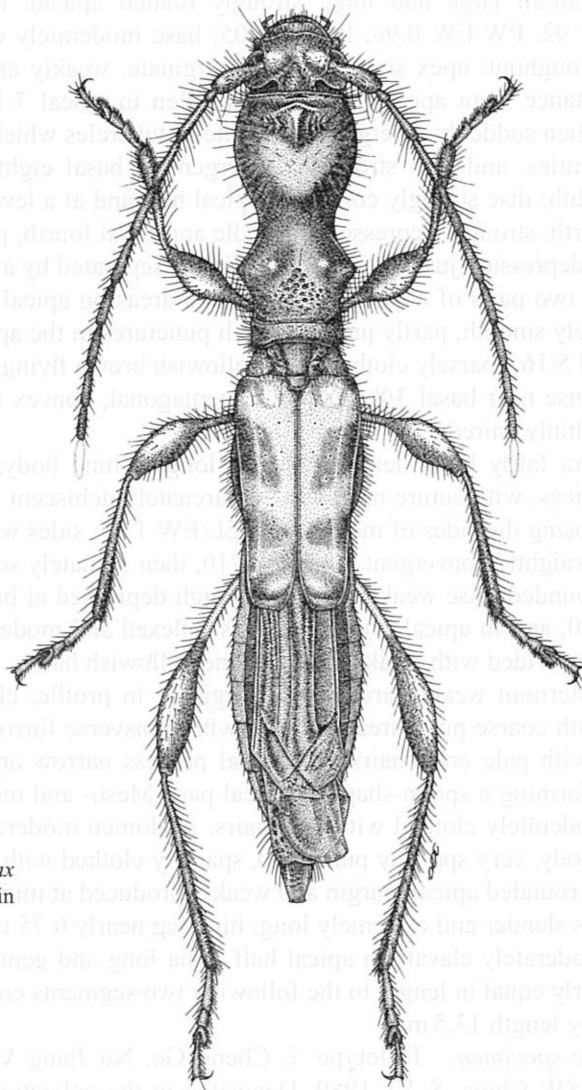


Fig. 1. Habitus of *Diplothorax ishihamai* sp. nov. from Yunnan in Southwest China.

slightly transverse, with arcuately emarginate sides and apical margin, CL/CB 0.2; mandibles short and broad, with obtuse extremities. Antennae thin and rather short, nearly reaching hind coxal cavities, AL/BL 0.55, provided with coarse punctures on basal four segments, clothed with brownish flying hairs, and with recumbent minute pubescence on apical 6 segments; scape weakly clavate, a little shorter than segment 3 and nearly equal in length to segment 4; segments 3–5 thickened at each apex; segment 5 as long as segment 3 and slightly longer than segment 6; segments 6–10 moderately compressed, and slightly decreasing in length towards apex.

Pronotum large and long, strongly dilated apicad, PL/PA 2.27, PB/PA 0.89, PL/PW 1.92, PW/EW 0.96, PL/EL 1.05; base moderately emarginate, distinctly bordered throughout; apex simple and immarginate, weakly arcuate; sides parallel for a short distance from apex, remarkably swollen in apical 7/16, strongly constricted at middle, then suddenly divergent to the lateral tubercles which are strong though obtuse at extremities, and also strongly convergent to basal eighth, and weakly arcuate in basal eighth; disc strongly convex in apical half and at a level between the middle and basal fourth, strongly depressed at middle and basal fourth, provided with a deep obtriangular depression just behind apex which is separated by a central longitudinal ridge, and with two pairs of oblong oblique raised areas on apical fourth and basal 3/8; surface largely smooth, partly provided with punctures in the apical triangular depression, and basal 5/16, sparsely clothed with yellowish brown flying hairs, though the hairs are rather dense near basal 3/8. Scutellum pentagonal, convex though strongly depressed at apex, thinly haired.

Elytra fairly long, nearly a half as long as hind body, moderately narrowed towards apices, with suture narrowly and arcuately dehiscent in apical fourth, considerably exposing the sides of metathorax, EL/EW 1.75; sides weakly expanded at humeri, almost straightly convergent to apical 3/10, then arcuately so to apices which are completely rounded; disc weakly convex, though depressed at base, near suture except for basal 3/10, and in apical fourth which is reflexed and moderately raised; surface very sparsely provided with weak punctures and yellowish hairs.

Prosternum weakly arcuately emarginate in profile, closely wrinkled and intermixed with coarse punctures, and also with transverse furrows in apical half, sparsely clothed with pale erect hairs; prosternal process narrow and strongly compressed at middle, forming a spoon-shape in apical part. Meso- and metathoraces sparsely punctured, moderately clothed with pale hairs. Abdomen moderately elongate, nearly 7/10 of hind body, very sparsely punctured, sparsely clothed with pale erect hairs; anal sternite with rounded apical margin and weakly produced at middle.

Legs slender and extremely long; hind leg nearly 0.75 times as long as body, with femur moderately clavate in apical half, tibia long and gently sinuate, first tarsal segment nearly equal in length to the following two segments combined.

Body length 13.5 mm.

Type specimen. Holotype ♀, Cheng Ge, Nu Jiang Valley, Lu Shui Xian, NW Yunnan, SW China, 8-VI-1989. Deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Notes. *Diplothorax ishihamai* sp. nov. is a remarkable new species isolated within the genus and rather highly modified like *D. paradoxus* (type species!) from Laos. The two species share some peculiar characters such as the reduced elytra and expanded pronotal apical part, which are regarded as derived features within the genus. The elytra of the three other known species are not so much reduced as in *D. ishihamai* and *D. paradoxus*. In the most archaic species, *D. lucens* from Sichuan, the elytra are almost complete, only exposing the anal tergite. The dilatation of pronotum in the

three other species are slightly weaker than in *D. ishihamai* and *D. paradoxus*. The extension of abdominal segments is also peculiar and is considered derivative in the genus. The abdomen of *D. ishihamai* is elongate and nearly equal in length to that of *D. paradoxus*. It is evident that this new species is clearly discriminated from the other congeners by the peculiarities mentioned above, and also by its large broad body and unique elytral maculation.

The original habitat of this new species is unknown. The single female specimen was fortuitously collected inside a running car near the village Cheng Ge along the Nu Jiang Valley in northwestern Yunnan.

要 約

新里達也：中国云南省から発見された *Diplothorax* 属の1新種。—— *Diplothorax* 属のカミキリムシは、ヒマラヤから2種、インドシナから1種および中国四川省から1種の合計4種がこれまでに知られていたが、今回、中国云南省西北部怒江流域で採集された標本に基づき、本属5番目の種 *D. ishihamai* sp. nov. を命名記載した。

本属の基準種である *D. paradoxus* は鞘翅がいちじるしく短縮するコバネ型のカミキリムシであるが、その後に発見された3種は、短鞘翅の傾向は認められるものの基準種ほどではなく、腹部の大部分を覆うほぼ完全な鞘翅をもつものや短鞘翅との中間状態を示すものなど、鞘翅の短縮に段階的な変異が認められる。今回発見された種では、その鞘翅が既知3種と基準種のさらに中間的な長さを持ち、この変異はほぼ連続することが明らかになった。カミキリムシの鞘翅短縮は、族以上の高次分類に用いられることもあり、一部のグループでは重要な形質とされてきたが、*Diplothorax* 属にみられるように、単系統群のなかでも段階的に生じる変異として観察される。その構成種の大部分が、鞘翅が長いという理由により、ホタルカミキリ族 *Cleomenini* に置かれてきた本属や近縁の *Procleomenes* 属などが、コバネ型のカミキリムシのみによって構成されているヒゲナガコバネカミキリ族 *Molorchini* にむしろ類縁が近く、その祖先的形質を残す諸群ではないかという仮説を、この新種の発見は支持している。

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