

***PLANAESCHNA CUCPHUONGENSIS* SPEC. NOV.,
A NEW DRAGONFLY FROM NORTHERN VIETNAM
(ANISOPTERA: AESHNIDAE)**

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The new sp. is described and illustrated from a single ♂ (holotype: Hoa Binh prov., Cuc Phuong National Park, 2-VI-1998; deposited at Kanagawa Prefectural Mus. Nat. Hist., Odawara, Japan). It is similar to *P. chiengmaiensis* Asah., from Thailand, from which it is distinguished by more slender and strongly bent superior appendages and by a different shape of the inferior appendages.

INTRODUCTION

Last year (1998) I obtained a small male *Planaeschna* specimen at Cuc Phuong National Park (which is a lowland rain forest in good condition) in northern Vietnam. At a glance, the specimen looks close to *P. chiengmaiensis* Asahina from northern Thailand. However, it is easily distinguished from the latter by the structure of the caudal appendages, though undoubtedly belongs to the same species-group as the latter. After a careful study, it became clear that the specimen is, indeed, a new species.

***PLANAESCHNA CUCPHUONGENSIS* SP. NOV.**

Figures 1-6

M a t e r i a l. – **Holotype** ♂: VIETNAM, Hoa Binh Prov., Cuc Phuong National Park, 2-VI-1998, H. Karube leg., deposited at Kanagawa Prefectural Mus. Nat. Hist., Odawara, Japan.

A slender and relatively small species; black with greenish yellow markings.

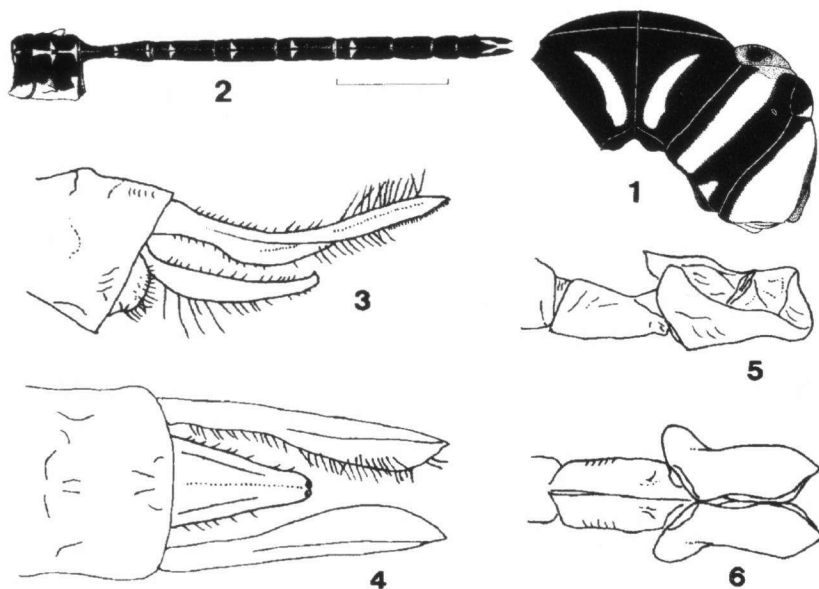
MALE (Holotype). – **H e a d.** – Reddish brown with green and black markings; labium, labrum, anteclypeus, and postclypeus scattered with yellowish brown patches;

antefrons subtriangularly protruded anteriorly, blackish except for about the ventral half, with the vertical surface coarsely wrinkled; eyes meeting over about 1.7 mm; vertex protruded antieriad above median ocellus; occiput brown, wedge-shaped, small, raised towards the apex and provided with long hairs.

T h o r a x. — Prothorax predominantly yellowish, though blackish above. Pterothorax black, with symmetrical green marks as follows: antehumeral stripe cigar-shaped and curving outwards; stripe of mesepimeron broadened, diverging, except for about 1/4 of the anterior and posterior ends; metepisternum with a small mark on the upper border; metepimeron largely green for about the posterior 3/4; mesinfraepisternum, metinfraepisternum and coxae brown. Legs rather short, black.

Wings hyaline, tinted with reddish brown at their bases; triangle 4-5-celled; anal loop 6-celled; nodal index: 16-23:24-16/18-16:17-19; pterostigma brown, 2.3 mm in length in the forewing, and 2.4 mm in length in the hindwing.

A b d o m e n. — Black with green markings, basal 2 segments inflated, gradually attenuated towards 1/2 of segment 3; segment 1 with lateral oblique band over ventral 1/3; narrow longitudinal line running along dorsal carina from anterior border of segment 2 to anterior 1/3 of segment 3, connected with a pair of triangular medio-dorsal spots on part and dorso-posterior border of segment 2, though interrupted at each intersection. Segment 2 with lateral mark on auricle and a band over half the area; segment 3 with two pairs of dorsal spots, a triangular pair cen-



Figs 1-6. *Planaeschna cucphuongsensis* sp. n., ♂: (1) thorax; — (2) abdomen (bar 1 cm); — (3) caudal appendages, lateral view; — (4) the same, dorsal view; — (5) penis, lateral view; — (6) the same, ventral view.

trally and a somewhat oval pair at the posterior border, also with an antero-ventral spot and a small spot on the postero-ventral areas. Segments 4-7 each with a pair of triangular spots in the medio-dorsal area which gradually diminishing posteriad; segments 4-8 each with a pair of rectangular spots at the sternite; segments 9-10 entirely black.

Caudal appendages black. Superior appendages slender, flat, sharply bent upwards at about the apical half, pointed at apex and widened in about the apical 2/3 of the inner edge. Inferior appendages slender, attenuated towards apex, gently bent upwards and with a small apical projection as seen from a lateral view; in dorsal view, slender and triangular with a notched apex.

Genitalia. — Penis light brown; vesicle hemispherically projected ventrad, with a round hollow in the anterior area; 2nd rapidly bent dorsad; 3rd tapered towards apex with a deep suture on the ventral surface; 4th with the ventral part shaped as a pair of "boomerangs" in ventral view, with the dorsal part bill-shaped in lateral view and bilobed at apex.

Measurements (in mm). — Abdomen (incl. app.) 45.6; — hind wing 40.0 in length, with maximum width 11.3.

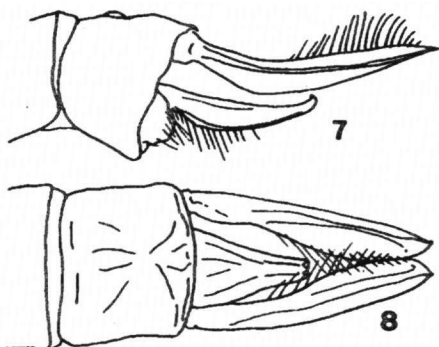
FEMALE unknown.

DISTRIBUTION. — Northern Vietnam.

NOTES. — This new species is closely related to *Planaeschna chiengmaiensis* Asahina from northern Thailand, but is easily distinguished from the latter by its more slender build and more strongly bent superior appendages and by a different shape of the inferior appendages.

Two species of *Planaeschna* have hitherto been recognized from northern Vietnam, *P. tamdaoensis* Asahina (allied to *P. milnei* of Japan) and *P. tomokunii* Asahina (allied to *P. taiwana* of Taiwan), which were both obtained from Mt Tamdao (at about 950 m alt.). The present species is the third *Planaeschna* from northern Vietnam.

It is interesting that it was discovered in Cuc Phuong, a lowland rain forest, since the other Indochinese planaeschnas have been found only in the montane zone (above the elevation of ca 1000 m). Cuc Phuong is located in a limestone zone, with numerous small, relatively cool streams, gushing out from under the limestone cliffs. It is interesting that the new species has survived in such a hot, lowland climate.



Figs 7-8. *Planaeschna chiengmaiensis* Asahina, caudal appendages: (7) lateral view; — (8) dorsal view. — [From ASAHINA, 1985]

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