

SHORT COMMUNICATIONS

**DAVIDIUS MONASTYRSKII SPEC. NOV.,
A NEW DRAGONFLY FROM NORTHERN VIETNAM
(ANISOPTERA: GOMPHIDAE)**

D.M. CUONG

Hom thu so 16, Buu Dien 10210, 35 Thai Thinh, Hanoi, Vietnam
e-mail: cuongdm@hotmail.com

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The ♂ of the new sp. is described, illustrated and compared with the closely related *D. fruhstorferi* Martin. Holotype ♂: Vietnam, Bac Can prov., Ba Be, IV-1997; deposited in Zoology Collection, Vietnam National University, Hanoi

INTRODUCTION

Davidius is an Asian dragonfly genus with some 20 recognized species, distributed from the montane areas in north India and Nepal eastwards to northern Thailand, Indochina and to north-eastern China, Korea and Japan. The Chinese taxa have recently been treated and revised by CHAO (1990, 1995) and CHAO & YANG (1995) and the Indian and Nepalese taxa by ASAHINA (1994).

In the literature two *Davidius* species have been recorded from Vietnam:

– *D. fruhstorferi* Martin, 1904, originally described from specimens from Tonkin (MARTIN, 1904), with further specimens from Lao Cai and Vinh Phu provinces (ASAHINA, 1996);

– another species from Lao Cai province, identified by ASAHINA (1996) as “? *D. trox* Needham, 1931 “ on the basis of descriptions and figures by ZHOU (1986) and CHAO (1990). Subsequently, CHAO (1995) discussed the confusion in the taxonomy of *D. trox* (known only from Sichuan), described the first male of that species, and described a related species *D. zhoui* based on ZHOU's (1986) misidentified material from Yunnan. According to M. Hämäläinen (pers. com.), the anal appendages of the Lao Chai specimen figured by ASAHINA (1996) do not match exactly the available illustrations of *trox*, or *zhoui*. Thus the identity

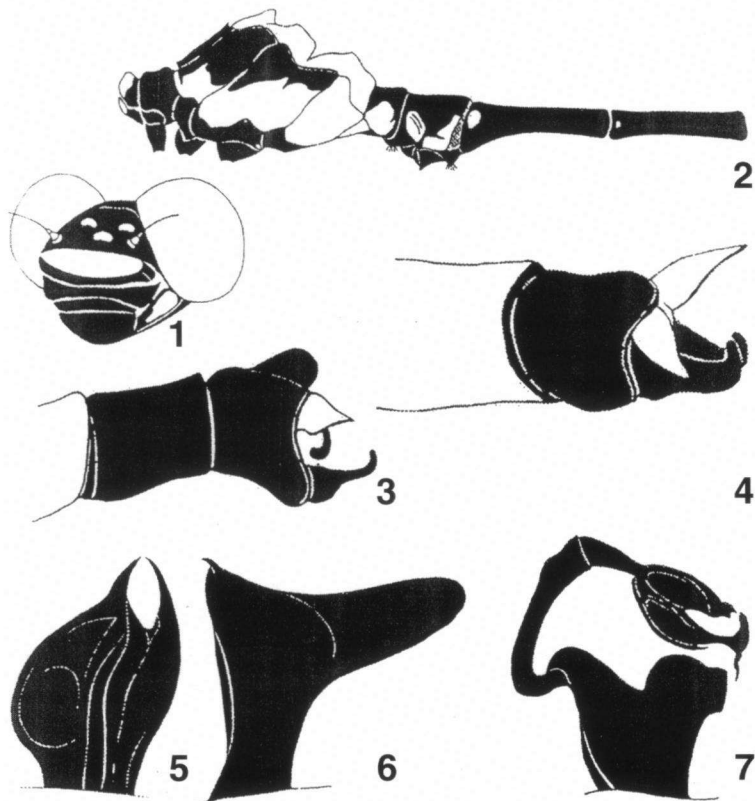
of the Vietnamese taxon, as well as the material of “*trox*” from northern Thailand (cf. HÄMÄLÄINEN, 1998) remains to be studied.

Recently, I received for study a male *Davidius* specimen, collected in Ba Be national park by Dr. Alexander Monastyrskii, who has been working in the Vietnam-Russia Tropical Centre in Hanoi. Another male was collected by me in the same locality. Study of these specimens showed that they do not represent any known species. Therefore a new species is described here.

DAVIDIUS MONASTYRSKII SP. NOV.

Figures 1-7

Material. — **Holotype** ♂: Vietnam, Bac Can prov., Ba Be, IV-1997, Alexander Monastyrskii leg. Deposited in Zoology Collection., Vietnam National University, Hanoi; — **Paratype** 1 ♂: same locality as holotype, 4-VI-2004, Do Manh Cuong leg. Deposited in D.M. Cuong Collection.



Figs 1-7. *Davidius monastyrskii* sp. n. holotype ♂: (1) head, laterofrontal view; — (2) thorax and abdominal segments 1-4, lateral view; — (3) anal appendages, lateral view; — (4) anal appendages, dorsolateral view; — (5) anterior hamule; — (6) posterior hamule; — (7) penis.

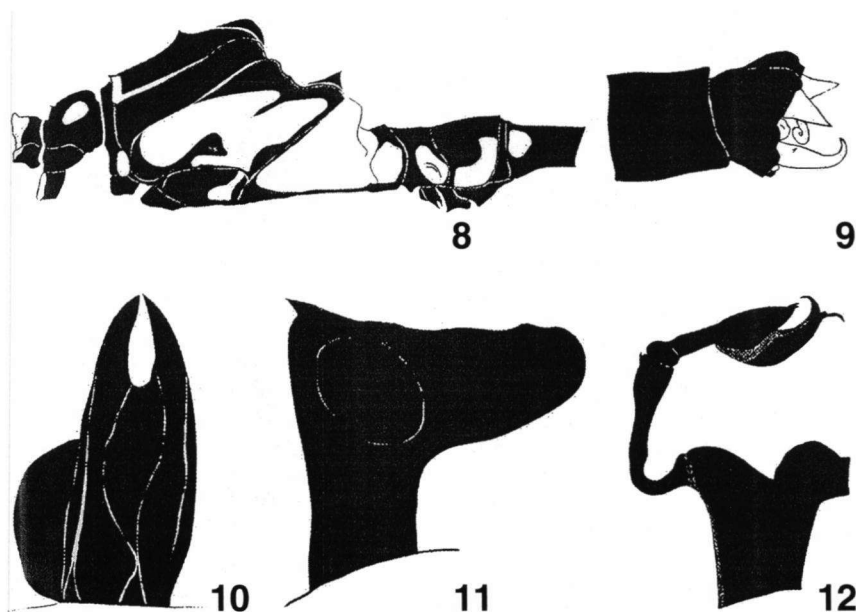
E t y m o l o g y. — The species is named after Dr Alexander L. M o n a s t y r s k i i, a lepidopterologist who first collected this species.

MALE. — **H e a d.** — Black with yellow markings (Fig.1). Labium black, labrum deep black, mandibles yellow at base. Anterior of frons with a large yellow marking.

T h o r a x. — Prothorax nearly entirely black with a yellow marking on the anterior lobe; synthorax black with extensive greenish-yellow marking extending from mesepisternum to metepimeron (Fig.2). Legs entirely black. Wings hyaline with light yellowish-olive tint at base; forewings with 13 antenodals and 11 postnodals; hindwings with 9 antenodals, and 10 postnodals; pterostigma brown, slightly expanded at the centre and covering about 3.5-4 underlying cells.

A b d o m e n. — Mostly black with yellow markings as follows: segment 1 with a large lateral spot; segment 2 with auricles yellow and a large marking posteriorly; segment 3 with a small lateral spot at base; segment 4 with a tiny lateral spot at base (Fig.2); the other segments wholly black. — Anal appendages (Figs 3-4) with superiors dark straw-yellow, stout, conical and divergent, carrying a curled process on the ventral surface; inferiors deep black with a tiny lateral spine at stout base, apical part curved upward.

Genitalia. — Glans of penis with two parts, the inner part more developed than



Figs 8-12. *Davidius fruhstorferi* Martin ♂ [Thailand, Chiang Mai, Doi Inthanon, 22-V-1996, Coll. Pinratana]: (8) thorax and abdominal segments 1-3, lateral view; — (9) anal appendages; — (10) anterior hamule; — (11) posterior hamule; — (12) penis.

the outer (Fig.7); anterior hamule of spatular shape, deeply bifid and forming two curled hooks (Fig. 5); posterior hamule bearing a small pointed recurved spine at apex, anterior edge thicker than posterior, upper posterior lobe rounded and leaf-like (Fig.6).

Measurements (in mm). — Hindwing 21; abdomen 28.

FEMALE unknown.

HABITAT. — Tropical forest on limestone at low and middle range elevations (200-700 m a.s.l.).

DISCUSSION

D. monastyrskii sp. n. differs remarkably from its two known Vietnamese congeners, as well as from the other known *Davidius* species, by the pale colour pattern of the synthorax. In *D. monastyrskii* the broad lateral marking extends from the lower third of the mesepisternum to the metepimeron, whereas both *D. fruhstorferi* and *Davidius* sp. (cf. *trox* and *zhoui*) have a distinct '7'-shaped marking on the mesepisternum, clearly separated from the yellow patches on the sides.

In other respects, i.e. in the structure of the anal appendages, hamuli and penis *D. monastyrskii* seems to be close to *D. fruhstorferi*, but there are several clear differences between them:

- Anterior hamule with stouter curled hooks in *D. fruhstorferi*, but the leaf-like section broader in *D. monastyrskii*.
- Posterior lobe of the posterior hamule broader in *D. fruhstorferi*.
- Front coxa with its anterior edge yellow in *D. fruhstorferi*, but entire black in *D. monastyrskii*.
- Anal appendages pale-yellow in *D. fruhstorferi*, whereas in *D. monastyrskii* the inferior appendages are largely deep black.

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