

Notes on three species of gomphid dragonflies from Vietnam (Odonata: Gomphidae)

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Abstract

First records for Vietnam of *Fukienogomphus promineus* Chao, 1954 and *Gomphidia abbotti* Williamson, 1908 are documented with emphasis on morphological details. The previously published record of *Sieboldius gigas* (Martin, 1904) in Do et al. (2011) has to be corrected into *Megalogomphus sommeri* (Selys, 1854).

Introduction

Gomphidae are a diverse Odonata family with 974 species in 92 genera distributed worldwide (Schorr & Paulson 2011). About 40 species are recorded from Vietnam (Do & Dang, 2007; Do & Bui, 2011). Species vary greatly in size with *Davidius* and *Burmagomphus* genera including the smallest species (e.g. *D. truncus*: abdomen length approximately 27 mm (Chao, 1995), while *Megalogomphus*, *Ictinogomphus*, and *Fukienogomphus* (*F. promineus*: approximately 50 mm; this paper) harbouring the largest ones. They inhabit many kinds of biotopes including forest streams in lowland and highland, rivers, opened streams, swamps, ponds or even paddy fields. Gomphidae in Vietnam include both rare and common species, and presently the regional checklist has to be updated every year following increasing efforts to study remote parts of the country. Many members of the family were described or published over 100 year ago in the country but have not been confirmed or rediscovered.

In this brief report, I update information on three Vietnamese gomphids collected during my field trips in 2010. A comparative analysis with conspecific species from China is prepared too.



Fukienogomphus promineus Chao, 1954

Specimens:

♂ Mau Son, Lang Son Province, 20.V. 2010; 21°50'41.8"N 106°55'20.2"E; 895 alt.; leg. Do M.C.

♂ same place, 19.V. 2010; 21°49'48.6"N 106°55'42.4"E; 538 alt.; leg. Do M.C.

The species is reported here for the first time for Vietnam.

Chao (1954) erected the new genus *Fukienogomphus* based on the genotype *Gomphus prometheus* Lieftinck, 1939 (Lieftinck, 1939) and described *Fukienogomphus promineus* sp. nov. Both species were compared in details and an identification key was prepared. Chao (1954) also described *Fukienogomphus margarita* sp. nov. based on a larva; however the taxon was later synonymised with *F. promineus* (Chao, 1990). A recent addition to the genus, *Fukienogomphus choifongae* sp. nov. was described by Wilson & Tam (2006) from Hong Kong.

F. promineus is the largest species in the genus. Measurements of the two Vietnamese specimens yield an abdomen excluding appendages of about 50.5 mm and hind wings of 44.5 mm. There is a little difference between the here reported specimens and their Chinese conspecific. Vietnamese specimens are characterized with reduced lateral thoratic markings along the metepisternum (Fig. 1C). The posterior hamulus corresponds to Chao's (1954) figure in lateral view. To add more morphological information on the species, I here present the hamulus in a front-lateral view (Fig 1M). Other characteristics match with Chao's descriptions.



Fig. 1: *Fukienogomphus promineus* Chao, 1954: A Head; B Synthorax - dorsal view; C Thorax - lateral view; D Body - lateral view, E Abdomen - dorsal view; F Forewing; G Hindwing, H Anal appendages - dorsal view, I same - ventral view; K same - lateral view; L same - oblique view; M hamuli - front lateral view; N posterior hamulus - front view; O penis - lateral view and P distance segment of penis - ventral view.





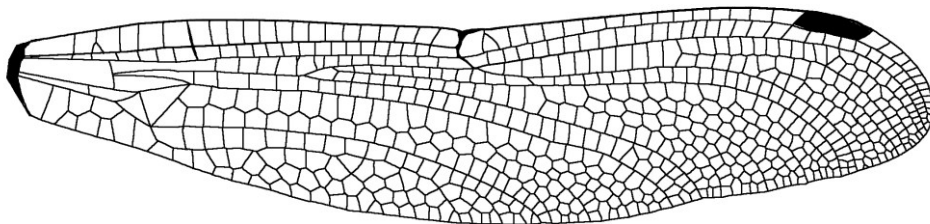
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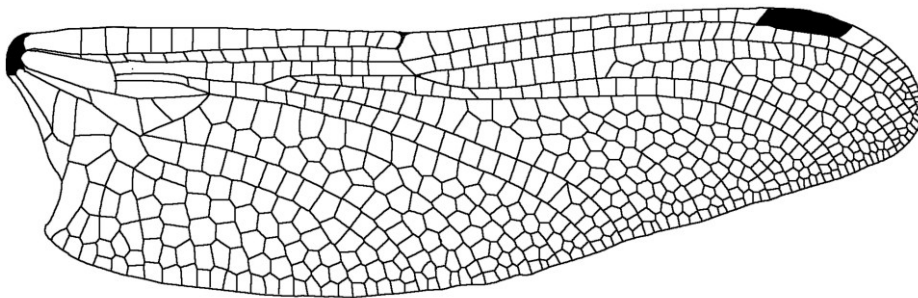
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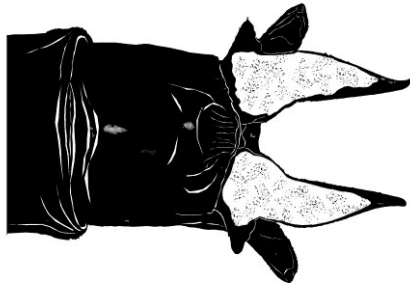


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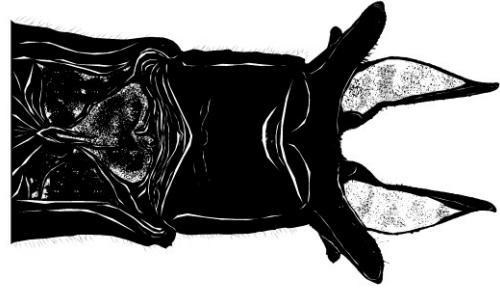


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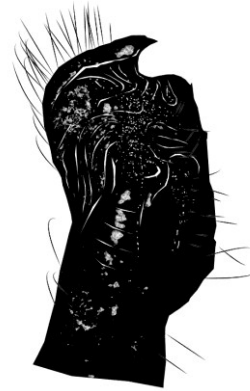
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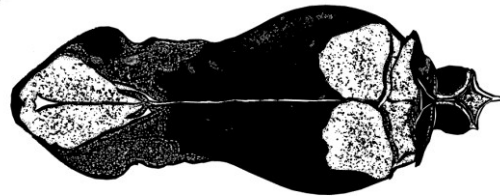
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This species was collected from slightly disturbed forest stream on a high mountain area in Lang Son Province, North Vietnam. In general, the habitat of the species should be forest streams partly covered by wood.

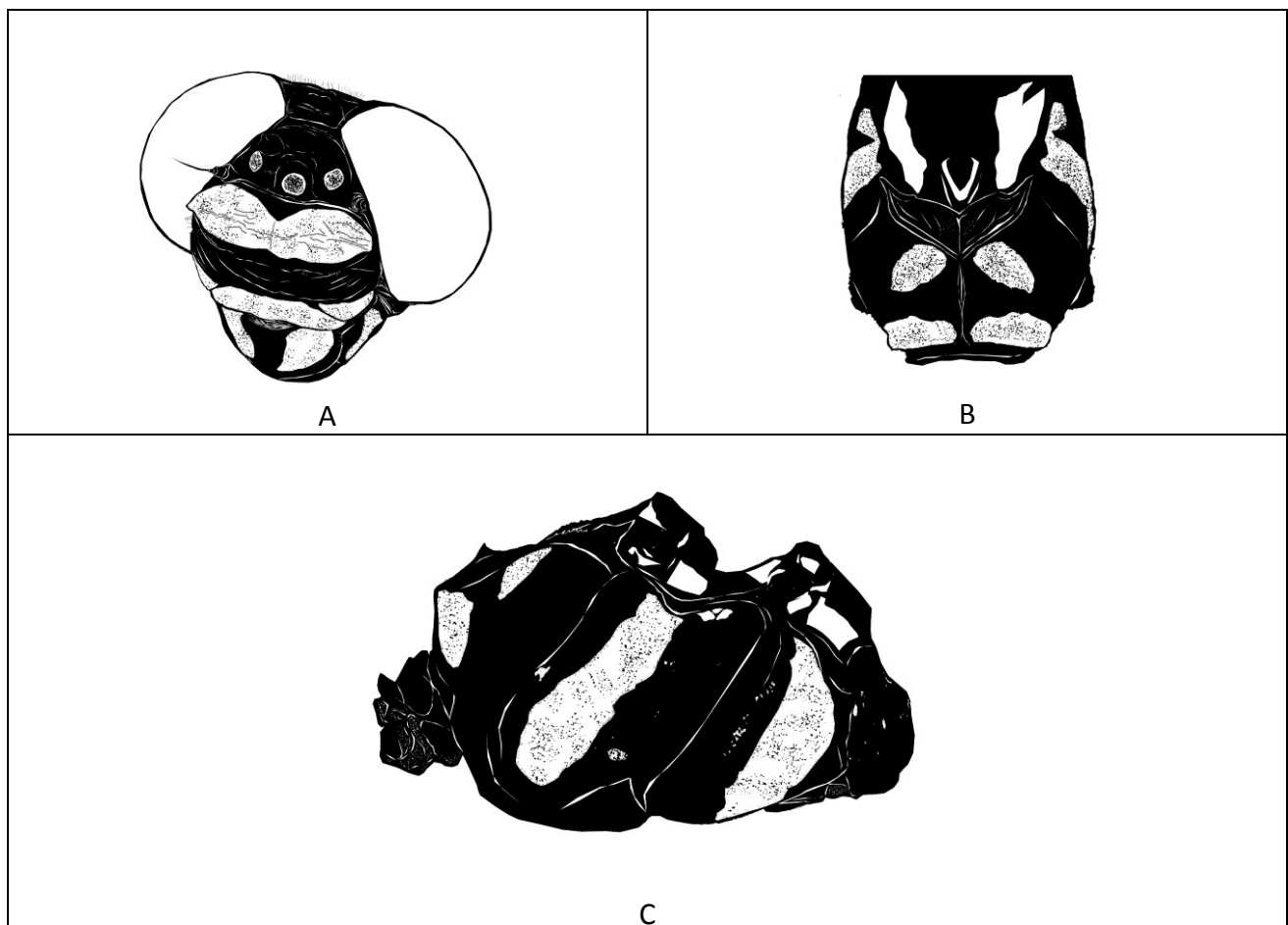
***Gomphidia abbotti* Williamson, 1907**

Specimens:

2 ♂ Ka Nak, K'Bang, Gia Lai Province, 27. IV. 2010; 14° 9'24.83"N 108°37'58.15"E; 644m alt.; leg. Do M.C.

1 ♂ Vinh An, Dong Nai Province, 11. V. 2003; 11°10'52.49"N 106°59'44.52"E; 73m alt.; leg. Do M.C.

Williamson (1907) described *Gomphidia abbotti* sp. nov. from Trong, Lower Siam (Thailand). Although quite common in Thailand (Hämäläinen & Pinratana 1999), *G. abbotti* has never been recorded from Vietnam. It is reported here for the first time. The specimens were found along clear streams in disturbed forests in Gia Lai and Dong Nai Province, Southern Vietnam. Asahina (1986) provides drawings of the morphological structures from Thai specimens. I add figures from Vietnamese material (Fig. 2A-E). The structure of male genitalia is illustrated for the first time.



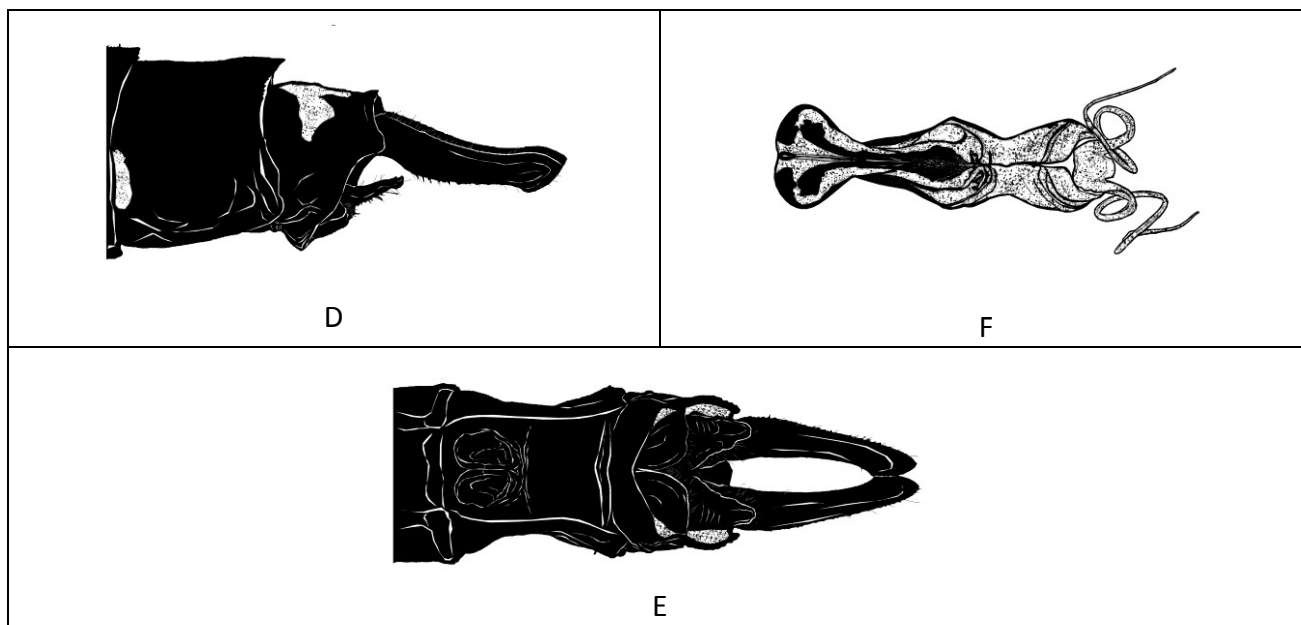


Fig. 2: *Gomphidia abbotti* Williamson, 1908: A Head; B Synthorax - dorsal view; C Thorax - lateral view; D Anal appendages – lateral view, E same – ventral view; F distance segment of penis - ventral view.

***Megalogomphus sommeri*, (Selys, 1854)**

Specimens:

2 ♂ Cuc Phuong, Ninh Bình Province, 7.VII.2010; 20°17'10.9"N, 105°40'20.2"E; 235m a.s.l.; leg. Do M.C.

1 ♂ Hang Chuon, Truong Xuan, Quang Binh Province, 11. V. 2009; 17° 4'9.26"N 106°28'26.36"E; leg. Do M.C.

(Do et al., 2011) misidentified this species and published it as *Sieboldius gigas* (Martin, 1904). Hence the enigmatic species *S. gigas* has not been rediscovered since its original description published in Martin (1904) and remains still a mystery of Vietnamese odonatology. *M. sommeri* is a quite common species in the south of China (Wilson, 1995) and I assume it is also common in forest streams in North and Centre of Vietnam. Intensified research from new or understudied locations will surely bring many more records. Below, I provide photos of the species I took in nature in the framework of a 2009 field trip to Central Vietnam (Fig. 3A-C).





Fig. 3.
Megalogomphus sommeri
in nature,
A – front
view; B –
Lateral
view; C –
Close up
of head
and
thorax



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