

**A NEW SPECIES OF *SINOGOMPHUS* FROM CHINA  
(ANISOPTERA: GOMPHIDAE)**

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*S. asahinai* sp. n. (holotype ♂, first ♀: Hong-tan, Long-sheng Xien, Guangxi Province, China, 26-VII-1982; type specimens in Insect Coll., Beijing Agric. Univ.) is described, figured, and compared with the allied *S. telamon* (Lieft.) and *S. suenisoni* (Lieft.).

**INTRODUCTION**

*Sinogomphus* May is a genus of moderate size, consisting of about nine species that occur in China. The new species, described in this paper, is named in honour of Dr S. Asahina, at the occasion of his 70th birthday, in appreciation of his great achievements in odonate taxonomy, especially of his contribution to the knowledge of our Chinese dragonfly fauna.

**DESCRIPTION**

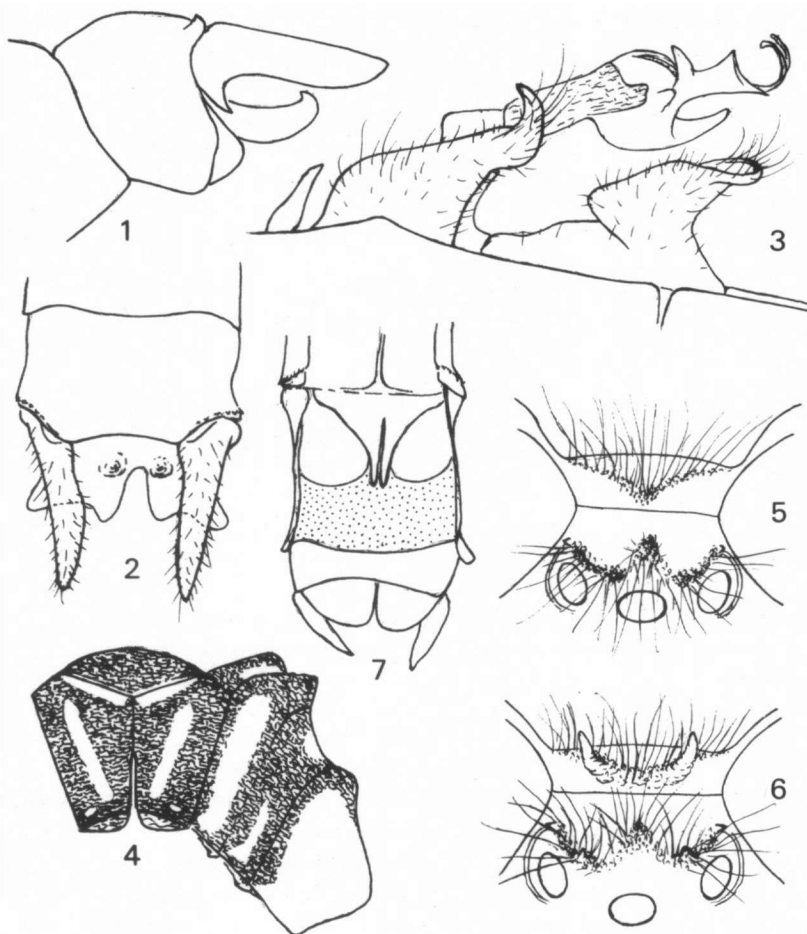
*SINOGOMPHUS ASAHINAI* SP. N.

Figures 1-7

**Material** — ♂ holotype, first ♀: Hong-tan, Long-sheng Xien, Guangxi Province, China; 26-VII-1982 (Li Fa-sheng leg.). The specimens will be deposited in the Insect Collection, Beijing Agricultural College.

**Measurements** — Male: body length 50 mm, abdomen length 37 mm, superior anal appendages 2 mm, hind wing 30 mm. Female: body length 51 mm, hind wing 31 mm.

**Male** — **Coloration**: Black with yellow markings. Mandible externally with a



Figs 1-7. *Sinogomphus asahinai* sp. n.: (1) ♂: anal appendages, lateral view; — (2) the same, dorsal view; — (3) ♂: accessory sexual organs, lateral view; — (4) colour pattern of synthorax; — (5) ♂: head, dorsal view; — (6) ♀: head, dorsal view; — (7) ♀: last few abdominal segments and subgenital plate, ventral view.

large basomarginal triangular yellow spot, the summit of which is narrowly separated from a small round spot above. Transverse frontal stripe covering anterior two-thirds of top of frons. Posterior surface of top of head with a small transverse yellow spot. Middle lobe of prothorax medially with a pair of small round spots separated by a distance subequal to the diameter of the spot, laterally with a large round spot on each side. Color pattern of synthorax as shown in Figure 4. Collar stripe complete but strongly constricted in the middle; dorsal stripes strongly divergent below, not confluent with collar stripe, superior

antehumeral spot very small; 2nd and 3rd lateral stripes very broad, confluent on their lower halves. Legs entirely black. Abdominal segment i dorsally with a broad triangular mark continuous with the narrow middorsal stripe of ii; both i and ii laterally yellow, the latter segment with black invaded from above behind the auricle; iii to vii dorsally with basal lanceolate yellow spot, that on iii almost reaching the subbasal transverse carina, decreasing in length in the following segments, that on vii very small; iii laterally with a large basal spot; viii to x and inferior anal appendages black; superior anal appendages yellow, each ventrally with a short basal streak, and with its basoventral tooth black.

Structure: Occipital margin slightly concave in the middle in anterior view and V-shaped in dorsal view as shown in Figure 5, adorned with scattered long hairs. Vertex with a pair of low tubercles above lateral ocelli, these tubercles being oblique in position, semicircular in shape in dorsal view, with a very short horn on their external end and connected with an inverted V-shaped tubercle above the middle ocellus, both the middle and the lateral tubercles being adorned with scattered long hairs (Fig. 5). Nodal index 11-13: 14-12 in fore wings and 12-9: 9-12 in hind wings. Accessory sexual organs as shown in Figure 3, posterior lobe of middle segment of penis more than half the length of the distal segment. Superior anal appendages parallel to each other, each with a large basoventral tooth. Inferior anal appendage medially broadly and deeply emarginate, dorsally with a pair of low, round, smooth-surfaced tubercles near the base of the cleft (Fig. 2).

Female — It differs from male as follows: posterior surface of occiput with a very broad triangular yellow spot; superior antehumeral yellow spot absent; abdominal segment ii almost entirely yellow, iii with a narrow transverse yellow band at subbasal transverse carina, iii-vii with basolateral yellow spot; cerci ivory yellow. Occiput with a pair of divaricate horns. Vertex with the inner end of the tubercle above the lateral ocellus more prominent than in ♂ and produced into a short horn. Subgenital plate triangular, deeply cleft, about half as long as the sternite of abdominal segment ix, which is mostly membranous, basally with a pair of round sclerites (Fig. 7).

## DISCUSSION

This species is similar to *S. telamon* (Lieftinck) and *S. suenisoni* (Lieftinck) in the shape of the inferior anal appendage and the color pattern of the synthorax with the 2nd and 3rd lateral stripes broad and complete. However, it differs from both of them in that the emargination of the inferior anal appendage is deeper and broader, and that the lateral stripes are not independent but confluent on their lower halves. The female is unique in having a pair of occipital horns which are lacking in other members of the genus. The shape of the tubercles on the vertex and the structures of the accessory sexual organs of the male are also good distinguishing characters for separating the present species from all other

members of the genus.

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