



## The genus *Nyctiophylax* Brauer in China (Trichoptera, Polycentropodidae)

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### Abstract

Currently, 8 species of the genus *Nyctiophylax* Brauer are known from China. Examination of material collected from Guangdong, Guangxi, Jiangxi and Sichuan Provinces during 2004–2005 has revealed 4 new species and 2 new records of this genus, bringing the number of Chinese *Nyctiophylax* species to 14. Newly described species include: *Nyctiophylax* (*Paranyctiophylax*) *crinalis* n. sp., *N. (P.) dactylatus* n. sp., *N. (P.) orbicularis* n. sp., and *N. (P.) macrorrhinus* n. sp. *Nyctiophylax* (*Paranyctiophylax*) *sagax* Mey and *N. (N.) amphonion* Malicky & Chantaramongkol are newly recorded for the Chinese fauna, which are re-illustrated and re-described for clear comparisons. The additional collection sites for the previously described species are provided.

**Key words:** new species, new records, *Paranyctiophylax*, Oriental Biogeographic Region, Palearctic Biogeographic Region

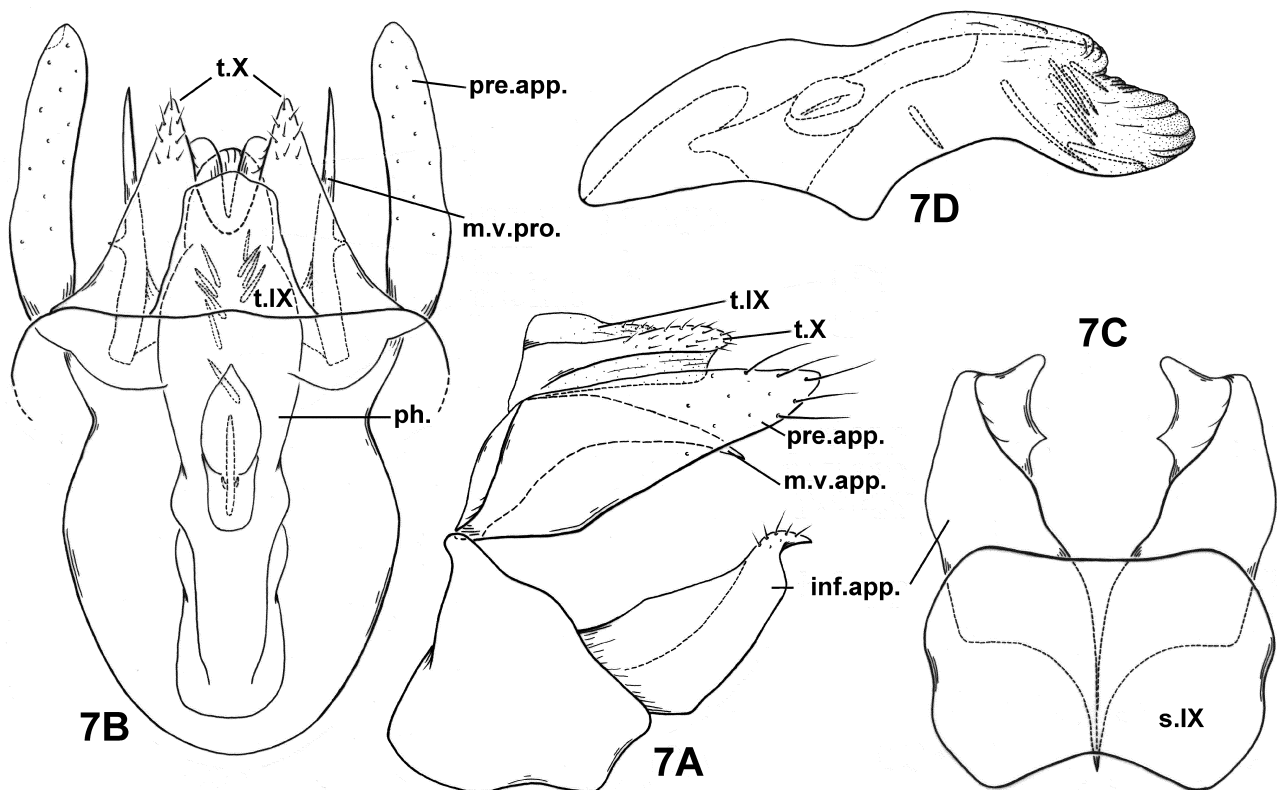
### Introduction

The genus *Nyctiophylax* was established by Brauer (1865) based on the species *Nyctiophylax sinensis* from China (Shang-hai, type species by monotypy). This genus includes 108 extant species and 23 fossil species worldwide, with extant species occurring in the Oriental (59 spp.), Australasian (14 spp.), Afrotropical (12 spp.), Nearctic (10 spp.), East Palearctic (8 spp.), and Neotropical (5 spp.) Biogeographic Regions (Morse 2014). Currently, the Chinese species of the genus *Nyctiophylax* includes only 8 species (Brauer 1865; Hsu & Chen 1996; Yang *et al.* 1997; Morse *et al.* 2012; Malicky 2012). Examination of *Nyctiophylax* specimens from expeditions in Guangdong, Guang-xi, Jiang-xi and Si-chuan during 2004–2005, revealed 4 new species and 2 new records from China, bringing the total to 14 Chinese species of *Nyctiophylax*. Of these, 12 species are endemic to the Oriental Biogeographic Region or the Oriental–Palearctic Boundary Region of China, 2 species are more widely distributed in the Oriental Region of China and outside of China.

### Material and methods

Adults were collected with a 15-watt ultraviolet light unless otherwise indicated, powered by a sealed rechargeable 12-volt battery. Traps were placed near the edges of streams for 2–3 hours beginning at dusk. The caddisfly material so collected was killed in 80% ethyl alcohol. The abdomens of males were cleared with a heated KOH solution to reveal internal and other hidden structures. Each dissected abdomen was preserved in 80% glycerin for preparing illustrations. Pencil templates were drawn on white paper through use of an ocular grid in a Nikon SMZ645 dissecting microscope. These pencil templates were re-drawn on transparent paper in Black Archival Ink with various sizes of pens.

In the descriptions, colors are those observed for the specimens in alcohol. The morphological terms for male genitalia follow Morse *et al.* (2012).



**FIGURE 7.** *Nyctiophylax (Nyctiophylax) amphonion* Malicky & Chantaramongkol 1997, male genitalia. A, left lateral; B, dorsal; C, ventral; D, phallus, left lateral. inf.app. = inferior appendage; m.v.pro. = mesoventral process of a preanal appendage; ph. = phallus; pre.app. = preanal appendage; s.IX = sternum IX; t.IX = tergum IX; t.X = tergum X.

### *Nyctiophylax (Nyctiophylax) sinensis* Brauer 1865

*Nyctiophylax (Nyctiophylax) sinensis* Brauer 1865: 419 (female). Type locality: Shang-hai. Neboiss 1993: 110, figs. 3, 4 (male).

**Specimens examined.** Jiang-su Province: Hong-ze County, N 33.15°, E 118.36°, Su-bei-qu Channel, 24 Sep. 1988, Coll. Sun C-h., 19 males. Jiang-xi Province: Bo-yang County, N 29.0°, E 116.6°, Mo-dao-shi Village, Chang River, alt. 30 m, 6 Jun. 1990, J.C. Morse, Yang L-f. and Sun C-h., 3 males.

**Distribution.** Oriental Biogeographic Region of China: Shang-hai, Jiang-su, Jiang-xi.

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