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Bittacus monastyrskiyi Bicha, 2007 (Mecoptera: Bittacidae)
from Há Tay Province, Vietnam

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Abstract. I provide the first record for the recently described hangingfly, *Bittacus monastyrskiyi* Bicha, 2007, from Há Tay Province (Ba Vi National Park), Vietnam, along with new seasonal, altitudinal, and habitat data. This is the only described species of bittacid from Vietnam, and this new record extends its range 100 km north-northwest from its type locality in Cuc Phuong National Park, Thanh Hoa Province.

Introduction and Methods

The Order Mecoptera is a largely understudied, small, ancestral, and probably paraphyletic, taxon of holometabolous insects represented by more than 610 known, extant species arranged in at least 35 genera and 9 families worldwide (Kaltenbach 1978; Willmann 1987; Whiting 2002; Byers 2005; Grimaldi and Engel 2005; Bicha 2006; Beutel and Baum 2008; Dunford and Somma 2008a, b; Hua and Cai 2009; Tan and Hua 2009a). In Vietnam, Mecoptera are represented only by 8 species of panorpids, in the genus *Neopanorpa*, and a single described species of bittacid, Monastyrskii's hangingfly, *Bittacus monastyrskiyi* Bicha, 2007 (Byers 1965; Tjeder 1973; Bicha 2007).

Bittacus monastyrskiyi was first collected in June 2005, from Cuc Phuong National Park, Thanh Hoa Province, Vietnam; the locality for the holotype, allotype, and 10 paratypes (Bicha 2007). The habitat was a mature tropical broadleaf evergreen forest (Bicha 2007). I herein report on additional specimens of *B. monastyrskiyi* collected in 2009 by John B. Heppner with a UV light trap (Cuc Phuong National Park) and a metal halide light on the wall of a cabin (Ba Vi National Park). Both specimens were deposited in the Florida State Collection of Arthropods (FSCA).

Results and Discussion

A male *B. monastyrskiyi* was collected on 4-7 May 2009, at Mac Lake, Cuc Phuong National Park, Thanh Hoa Province, at an elevation of 155 m. A female *B. monastyrskiyi* was collected in Ba Vi National Park, Há Tay Province, at an elevation of 455 m, approximately 48 km west of Hanoi, Vietnam. The second specimen represents the first record of this species from Há Tay Province, extending its range approximately 100 km north-northwest, and an altitude 300 m higher, from the type locality. The somewhat more open habitat differed from that described by Bicha (2007) in that it was primarily a secondary montane forest (Heppner 2009, and pers. comm.).

The recently described *Bittacus hainanicus* Tan and Hua, 2009, collected from Hainan Island, China (Tan and Hua 2009b), might conceivably be a junior synonym of *B. monastyrskiyi* based upon the morphological description and the fact that the describing authors were unaware of the description of any Vietnamese species of bittacids (Tan and Hua 2009b; W. Bicha pers. comm. 2009). If a critical examination of *B. hainanicus* demonstrates this potential synonymy, it would extend the range of *B. monastyrskiyi* 350 km from the holotype site (W. Bicha pers. comm. 2009).

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Literature Cited

- Beutel, R. G., and E. Baum. 2008.** A longstanding entomological problem finally solved? Head morphology of *Nannochorista* (Mecoptera, Insecta) and possible phylogenetic implications. *Journal of Zoological Systematics and Evolutionary Research* 46: 346-367.
- Bicha, W. 2006.** New scorpionflies (Mecoptera: Panorpidae) from Jalisco, Michoacán, and Oaxaca, Mexico. *Proceedings of the Entomological Society of Washington* 108: 24-34.
- Bicha, W. 2007.** The first hangingfly (Mecoptera: Bittacidae) described from Vietnam. *Russian Entomological Journal* 16: 333-335.
- Byers, G. W. 1965.** The Mecoptera of Indo-China. *Pacific Insects* 7: 705-748.
- Byers, G. W. 2005 [2004].** Order Mecoptera. Scorpionflies and hangingflies. p. 662-668. *In*: C. A. Triplehorn and N. F. Johnson (editors). *Borror and DeLong's introduction to the study of insects*. Seventh edition. Thomson Brooks/Cole; Belmont, CA. 864 p.
- Dunford, J. C., and L. A. Somma. 2008a.** Scorpionflies (Mecoptera). p. 3304-3310, pl. 97. *In*: J. L. Capinera (editor). *Encyclopedia of entomology*. Second ed. Vol. 4. S-Z. Springer; [Dordrecht].
- Dunford, J. C., and L. A. Somma. 2008b.** Scorpionflies (Mecoptera). Available on URL: <http://springerlink.com/content/134653515g813298/fulltext.html>. *In*: J. L. Capinera (editor). *Encyclopedia of entomology* (e-book). Springer Science + Business Media B. V.; [Dordrecht]. (Last accessed 27 August 2009.)
- Grimaldi, D. [A.], and M. S. Engel. 2005.** *Evolution of the insects*. Cambridge University Press; Cambridge. 772 p.
- Heppner, J. B. 2009.** Lepidoptera expedition to Vietnam – 2008. *Lepidoptera Novae* 2: 1-18.
- Hua, B.-Z., and L.-J. Cai. 2009.** A new species of the genus *Panorpa* (Mecoptera: Panorpidae) from China with notes on its biology. *Journal of Natural History* 43: 545-552.
- Kaltenbach, A. 1978.** Mecoptera (Schnabelhafte, Schnabelfliegen). *Handbuch der Zoologie* 4(2); (2/28): 1-111.
- Tan, J.-L., and B.-Z. Hua. 2009a.** *Bicaubittacus*, a new genus of Oriental Bittacidae (Mecoptera) with descriptions of two new species. *Zootaxa* 2221: 27-40.
- Tan, J.-L., and B.-Z. Hua. 2009b.** First discovery of Bittacidae (Mecoptera) in Hainan Island, China, with description of a new species. *Entomological News* 2008 119: 497-500.
- Tjeder, B. 1973.** Bittacidae from Burma, collected by R. Malaise (Mecoptera). *Entomologisk Tidskrift* (Uppsala) 94: 188-193.
- Whiting, M. F. 2002.** Mecoptera is paraphyletic: Multiple genes and phylogeny of Mecoptera and Siphonaptera. *Zoologica Scripta* 31: 93-104.
- Willmann, R. 1987.** The phylogenetic system of the Mecoptera. *Systematic Entomology* 12: 519-524.

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