

**DRAGONFLY *COELICCIA MINGXIENSIS* Xu, 2006 (ODONATA:
PLATYNEMINIDEA) FROM TAM DAO NATIONAL PARK WITH
ADDITIONAL NOTES ON ITS MORPHOLOGY**

DO MANH CUONG, NGUYEN QUANG THAI
Military Institute of Hygiene and Epidemiology

BUI MINH HONG
Hanoi University of Education

The genus *Coeliccia* is one of the largest genera of the family Platycnemididae, consisting of more than 60 species in Asia. In Vietnam, there were 12 species of this genus found for Vietnam's fauna. Since Asahina's paper published in 1997, there are some additional and modification notes on the genus of Vietnam. One species, *C. tomokunii* Asahina 1997 was synonymized with *C. scutellum*; the other species, *C. yamashakii* recorded by Do and Dang (2007) was misidentified by authors and confirmed as *C. scutellum* and *C. yamashakii* had been discovered in Phu Quoc Island, 2009 (Do, 2011–unpublished).

The genus should be reviewed because the morphological characters of the genus based on wing venation (anal bridge vein) is not valuable. Probably this genus should be split to be several genera or at least two genera if use structure of the penis organ. However, this work may only be completed after all species of the genus treated. Number of the species of the genus recorded and described around South East Asia (as well as Vietnamese fauna) still is increasing every year, this is an evidence that to review this genus is rather complicate.

The species *C. mingxiensis* was first recorded from Tam Dao National Park in 2009 in the forest stream habitat. The materials were examined and compared with the original description and also confirmed by Xu Qi-han, the author of the species. Xu (2006) described the new species *C. mingxiensis* based on a single teneral male specimen that collected from Mingxi, Fujian, China. However, in the description of the male holotype, Xu missed a characters of structure of the superior appendages. Hence in this paper, we provide the detail structure of the superior appendages of the species and also some variations in thorax colour of the mature male. The additional characters of the superior appendages also confirm by Xu on the holotype male and accepted by him.

Additional characteristic of male superior appendages of *Coeliccia mingxiensis* Xu, 2006

Specimens: 10 ♂ Vinh Phuc, Tam Dao National Park, Thac Bac Stream, - 25.IV.2009 alt. 800m a.s.l.

In lateral view, male superior appendage obtuse and somehow shorter than the inferior, that has a downward apex. Inner side of the superior, two third from the base, there is a curve and point spine, that characteristic can be showed in ventral view but in many cases the spine is not viewable in dorsal, oblique or lateral view. This explains why Xu missed the characteristic as he describing the species as a new for science. In Xu's description 2006, the superior is smooth without the spine both in ventral view and dorsal view. However in fact, the holotype of the species, the superior has inner side spine on superior appendage, this matches very well to the specimens that collected from Tam Dao National Park.

As observation by the first author, the teneral male of the species have white and light brown colour marking on the body, due to the time, the colour of the hook shape marking on synthorax gradually changes into bright yellow and the brown marking of the teneral male to be darker and darder. Finally, the full mature form of the species has red violet hook marking on the blue synthorax

and the dark markings absolutely be shining black areas. In the description by Xu, 2006, because of the author based on a single teneral male, the colour of the synthorax is yellowish with black marking.



Figure 1: Anal appendages of *Coelliccia mingxiensis* Xu, 2006
1. Oblique view; 2. Dorsal view; 3. Ventral view; 4. Lateral view

Variation in thorax marking colors of male *Coelliccia mingxiensis* Xu, 2006



Figure 2: *Coelliccia mingxiensis* Xu, 2006;
1. Thorax marking of teneral form; 2. Mature form

REFERENCES

1. Do, M. C. & Dang T. H., 2007: Checklist of dragonfly from Vietnam. Vietnam National University Publisher, Hanoi.
2. Xu, Q., 2006: *Coelliccia mingxiensis* sp. nov. from Fujian, China (Odonata: Platycnemididae): 251-254

Acknowledgements: Our thanks are expressed to the following persons: Dr. Nguyen Vu Thinh, who encourage us writing the paper, Dr. Xu Quihan for sending the photo as well as confirming the structure of holotype. We also thank the anonymous reviewer for revising this report.

BỔ SUNG DẪN LIỆU VỀ CẤU TẠO HÌNH THÁI NGOÀI CỦA LOÀI CHUỒN CHUỒN *COELICCIA MINGXIENSIS* Xu, 2006 Ở VƯỜN QUỐC GIA TAM ĐẢO

ĐỖ MẠNH CƯỜNG, NGUYỄN QUANG THÁI, BÙI MINH HỒNG

TÓM TẮT

Bài đã bổ sung một số đặc điểm cấu tạo hình thái của cặp phần phụ sinh dục trên của con đực loài chuồn chuồn *Coelliccia mingxiensis* nhằm so sánh với mô tả gốc của loài này bởi Xu Quihan, 2006 tại Trung Quốc. Sự đa hình về màu sắc qua các giai đoạn phát triển của con đực mới nở và trưởng thành cũng được ghi nhận ở loài chuồn chuồn kim này.