

***Kalocora*, a junior synonym of *Cora* (Odonata: Polythoridae)**

Rosser W. Garrison

Plant Pest Diagnostics, California Department of Food & Agriculture, 3294 Meadowview Road, Sacramento, CA 95832-1448, USA. <rgarrison@cdfa.ca.gov>

Key words: Odonata, dragonfly, taxonomy, *Kalocora*, *Cora aurea*, synonymy, South America.

ABSTRACT

Supplementary specimens of the monotypic genus *Kalocora* show that diagnostic characters employed by Kennedy, based on the original description of *Cora aurea* are too variable, and therefore *Kalocora* is here relegated to synonymy under *Cora*.

RESUMEN

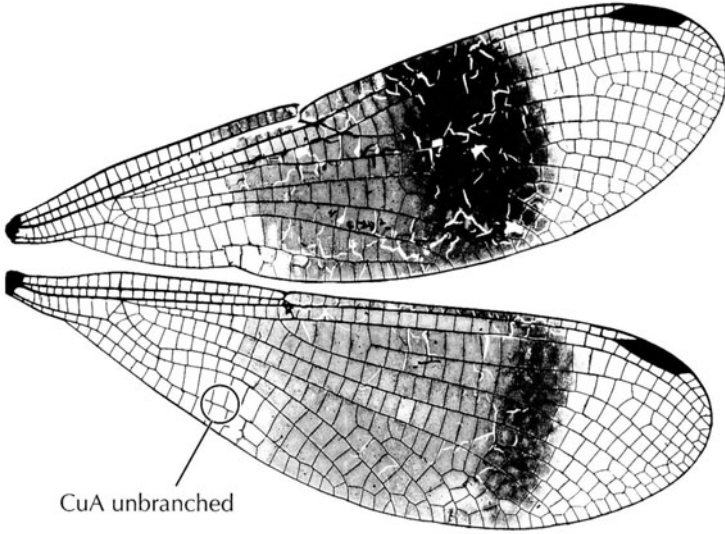
Ejemplares adicionales del género monotípico *Kalocora* muestran que los caracteres diagnósticos empleados por Kennedy, basados en la descripción original de *Cora aurea* son muy variables, y por lo tanto *Kalocora* es considerado aquí un sinónimo de *Cora*.

INTRODUCTION

The exclusively neotropical family Polythoridae comprise small to large, robustly-built zygopterans which often possess varying wing patterns. Because of their often beautiful wing coloration, adults have been the subject of several systematic studies (Selys 1853; Ris 1918; Kennedy 1940; Schmidt 1942; Fraser 1946; Santos & Machado 1960; Montgomery 1967; de Marmels 1982, 1988a, 1988b; Bick & Bick 1985, 1986, 1990a, b, c, 1991, 1992; Zloty & Pritchard 2001; Burmeister & Börzsöny 2003). Bick & Bick (1992) provided a key to all nine genera.

Kalocora was erected by Kennedy (1940) based on the holotype and only known specimen of *Cora aurea* Ris, 1918, which was taken on a rushing mountain brook by A. H. Fassel in the Ximenes region on the upper Río Dagua, Colombia, at 500 m in May 1909. Kennedy (1940) in erecting *Kalocora* did so solely on the original description; he had not examined the holotype. He (Kennedy 1940) did provide an excellent pencilled illustration from Ris (1918) and diagnosed the genus from all other then known genera. *Kalocora* appeared to be most similar to *Cora* Selys, 1853 but differed by the unbranched condition of CuA, the relatively wider wings with a width to length ratio ca 3.35 in *Kalocora* vs 4-5 in *Cora*, and banded metallic wing pattern with the wings hyaline in most species of *Cora*.

a



b

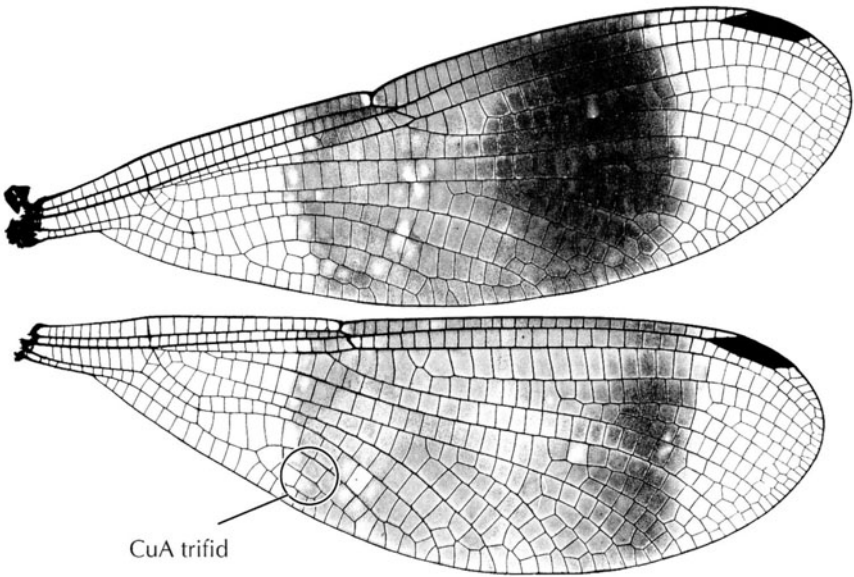


Figure 1: Wings of *Cora aurea* with condition of CuA illustrated — (a) holotype male; (b) male from Colombia [no further data]. Scale line: 10 mm.

MATERIAL AND METHODS

In 1990 I received a consignment of various polythorids from Colombia (Valle del Cauca Dept, Buga, 789 m, 1985, 1 ♂; and July 1990, 1 ♂) and 5 ♂ with no data but which likely hailed from the same area all of which agreed with the descriptions and illustration of *Kalocora aurea* except that CuA was either bifid or trifid, not unbranched as mentioned in the original description. Through the kindness of H. G. Schröder of the Senckenberg Museum, Frankfurt am Main, I was able to borrow the holotype of *Cora aurea*.

RESULTS AND CONCLUSION

Comparison of these specimens showed them to be the same species. Thus, the condition of CuA, which has been used as a generic character in separating *Kalocora* (not branched) from *Cora* (branched) is variable. I believe the wider wings and banded metallic wing pattern are only of specific diagnostic value, and therefore consider *Kalocora* Kennedy, 1940 a junior synonym of *Cora* Selys, 1853.

I provide wing illustrations of the holotype male (Fig. 1a) as well as a male (Fig. 1b) with a trifid condition of CuA. *C. aurea* is apparently a seldom encountered species. My specimens appear to be the only others which have been collected since the holotype. Female and larva are still unknown.

ACKNOWLEDGEMENTS

I thank Heinz Schröder, Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany for the loan of the holotype of *Cora aurea*, and Natalia von Ellenrieder, Museo de Ciencias Naturales de Salta, Argentina, and Andrew Rehn, Sacramento, for critically reviewing the manuscript.

REFERENCES

- Bick, G.H. & J.C. Bick, 1985. A revision of the *picta* group of *Polythore*, with a description of a new species, *P. lamerceda* spec. nov., from Peru (Zygoptera: Polythoridae). *Odonatologica* 14: 1-28.
- Bick, G.H. & J.C. Bick, 1986. The genus *Polythore* exclusive of the *picta* group (Zygoptera: Polythoridae). *Odonatologica* 15: 245-273.
- Bick, G.H. & J.C. Bick, 1990a. *Polythore neopicta* spec. nov. from Peru (Odonata: Polythoridae). *Opuscula Zoologica Fluminensia* 49: 1-7.
- Bick, G.H. & J.C. Bick, 1990b. A revision of the neotropical genus *Cora* Selys, 1853 (Zygoptera: Polythoridae). *Odonatologica* 19: 117-143.
- Bick, G.H. & J.C. Bick, 1990c. *Polythore manua* spec. nov. from southern Peru (Zygoptera: Polythoridae). *Odonatologica* 19: 367-373.
- Bick, G.H. & J.C. Bick, 1991. Two new damselflies: *Cora dorada* spec. nov. from Ecuador and *C. parda* spec. nov. from Peru (Zygoptera: Polythoridae). *Odonatologica* 20: 453-458.

- Bick, G.H. & J.C. Bick, 1992. A study of family Polythoridae, with details on the genus *Euthore* Selys, 1869 (Zygoptera). *Odonatologica* 21: 275-288.
- Burmeister, E.-G. & L. Börzsöny, 2003. *Polythore spaeteri*, spec. nov. from the Peruvian tropical rainforest (Panguana), with remarks on its ecology. *Spixiana* 26: 43-48.
- de Marmels, J., 1982. The genus *Euthore* Selys in Venezuela, with special notes on *Euthore fasciata fasciata* (Hagen, 1853) (Zygoptera: Polythoridae). *Advances in Odonatology* 1: 39-41.
- de Marmels, J., 1988a. Odonata del Estado Tachira. *Revista Científica Unet* 2: 91-111.
- de Marmels, J., 1988b. Generic characters of *Chalcothore* De Marmels, 1985, with notes on the male of *C. montgomeryi* (Racenis, 1968) and a description of the larva (Zygoptera: Polythoridae). *Odonatologica* 17: 379-384.
- Fraser, F.C., 1946. Notes on Amazonian Odonata in the Leeds Museum. *Transactions of the Royal Entomological Society of London* 97: 443-472.
- Kennedy, C.H., 1940. The *Miocora*-like dragonflies from Ecuador with notes on *Cora*, *Miocora*, *Kalocora*, *Josocora* and *Stenocora* (Odonata: Polythorinae). *Annals of the Entomological Society of America* 33: 406-436.
- Montgomery, B.E., 1967. Studies in the Polythoridae. *Acta Biologica Venezuelica* 5: 123-158.
- Ris, F., 1918. Libellen (Odonata) aus der Region der amerikanischen Kordillere von Costarica bis Catamarca. *Archiv für Naturgeschichte (A)* 82 (9): 1-197.
- Santos, N.D. & A.B.M. Machado, 1960. Contribuição ao conhecimento do gênero *Chalcopteryx* Selys, 1853, com a descrição de uma nova especie (Polythoridae: Odonata). *Boletim do Museu Paraense Emilio Goeldi, Nova Série* 24: 1-15.
- Schmidt, E., 1942. Odonata nebst Bemerkungen über die *Anomisma* und *Chalcopteryx* des Amazonas-Gebiets. In: Titschack, E. (ed.) "Beiträge zur Fauna Perus nach der Ausbeute der Hamburger Südperu-Expedition 1936." Band 2. G. Fischer, Jena, pp. 225-276.
- Selys-Longchamps, E. de, 1853. Synopsis des Caloptérygines. *Bulletin de l'Académie Royale de Sciences de Belgique* 20 (Annexe): 1-73.
- Zloty, J. & G. Pritchard, 2001. *Cora chiribiquete* spec. nov., a new damselfly species from Colombia (Zygoptera: Polythoridae). *Odonatologica* 30: 227-232.