



Resolution of some taxonomic and nomenclatural issues in a recent revision of *Ceraeochrysa* (Neuroptera: Chrysopidae)

CATHERINE A. TAUBER¹ & OLIVER S. FLINT, JR.²

¹Department of Entomology, Comstock Hall, Cornell University, Ithaca, NY 14853 and Department of Entomology, University of California, Davis, CA 95616, U.S.A. E-mail: cat6@cornell.edu

²Department of Entomology, Smithsonian Institution, National Museum of Natural History, Washington, DC 20013-7012.
E-mail: flinto@si.edu

Abstract

With the purpose of promoting nomenclatural stability, this paper addresses a number of errors, omissions, and controversial conclusions in a recent revision of the green lacewing genus *Ceraeochrysa* by Freitas *et al.* (2009).

1. *Valid species, new combinations and synonymies*: (a) We identified *Ceraeochrysa chiricahuae* Freitas and Penny (in Freitas *et al.* 2009), *Chrysopa forreri* Navás, and *Chrysopa intacta* Navás as subjective synonyms. Thus, *Ceraeochrysa intacta*, a species that was previously synonymized under *Ceraeochrysa placita* (Banks), becomes the valid name of the species [**New status, new combination**]. *Chrysopa forreri* is now synonymized under *Cer. intacta*, not *Cer. placita* [**New synonymy**]. And, *Cer. chiricahuae* becomes a junior synonym of *Cer. intacta*, not a valid species of *Ceraeochrysa* [**New synonymy**]. (b) We enumerate specific internal and external features of the *Chrysopa cornuta* Navás type that identify it as conspecific with *Ceraeochrysa caligata* (Banks), not *Ceraeochrysa cincta* (Schneider) as proposed by Freitas *et al.* (2009). Thus, *Ceraeochrysa cornuta* (Navás), which has priority, is reinstated as the valid name [**Reinstated status, reinstated combination**], and *Ceraeochrysa caligata* (Banks) is reinstated as a junior subjective synonym of *Cer. cornuta*, not a valid species [**Reinstated synonymy**]. (c) We provide documented evidence for reinstating three synonymies that Freitas *et al.* had reversed [**Reinstated synonymies**]: (i) *Allochrysa parvula* Banks is a junior subjective synonym of *Ceraeochrysa lineaticornis* (Fitch); (ii) *Chrysopa columbiana* Banks is a junior subjective synonym of *Ceraeochrysa lineaticornis* (Fitch); (iii) *Chrysopa rochina* (Navás) is a junior subjective synonym of *Ceraeochrysa cincta* (Schneider).

2. *Generic assignments*: (a) Visual evidence is provided for the placement of *Ceraeochrysa laufferi* (Navás) in *Ungla*. Therefore, *Ungla laufferi* (Navás) is reinstated as the valid name [**Reinstated combination**]. (b) We question Freitas *et al.*'s rationale for including *Cer. placita* (Banks) and *Cer. intacta* (Navás) (as *Cer. chiricahuae* Freitas and Penny) in the genus *Ceraeochrysa*; female and larval features of the two species differ markedly from those used to characterize *Ceraeochrysa* species. As an alternative that recognizes the uncertainty surrounding the generic placement of these species and that avoids additional, unnecessary name changes, we propose including the caveat "genus *incertae sedis*" with the names, as follows: *Ceraeochrysa placita* (Banks), genus *incertae sedis*, and *Ceraeochrysa intacta* (Navás), genus *incertae sedis*.

3. *Type designations*: (a) Errors concerning the *Chrysopa furculata* Navás type in the Muséum national d'Histoire naturelle, Paris (MNHN), are corrected, and doubts raised by Freitas *et al.* (2009) concerning the identification of this specimen as the holotype are removed. (b) The earlier designation of the *Chrysopa rochina* (Navás) type in the MNHN as the lectotype (not holotype) is verified.

Key words: *Ceraeochrysa*, *Chrysopodes*, *Ungla*, synonymy, generic assignment

Introduction

With a few notable, relatively well-studied exceptions, the world's green lacewing taxa require species-level systematic treatment. The requirements include descriptive and alpha-level taxonomic work, as well as revisionary and phylogenetic studies. One effort to help fulfill the needs, a revision of the largely neotropical genus *Ceraeochrysa* (abbreviation: *Cer.*), was published recently (Freitas *et al.* 2009). This study makes a