

THE IDENTITY OF *CIMEX AEQUINOCTIALIS* SCOPOLI  
(HEM., DELPHACIDAE)

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The nominal species *Cimex aequinoctialis* was established by Scopoli (1763: 132). It has remained a species *incertae sedis* ever since. As an indication of size, Scopoli gave a single dimension: 'El. long. lin. 1½', which I take to mean that the length of the elytron (fore wing) is 1½ lines, or about 3 mm. Following the tradition of his day, the author gave both a diagnosis and a description of his new species. The diagnosis was: 'Elytrum villosum, coriaceum totum, albidum, nervosum; nervis fusco-punctatis; femora antica crassiora' (Fore wing hairy, wholly coriaceous, whitish, veined; veins dark-spotted; fore femora rather thick). The description was: 'Antennae articulus secundus longior, extrorsum crassior, apice truncatus, sustinens articulum tertium brevem piliosorem & setula sese longiore terminatum. Rostrum pallidum, biarticulatum. Tibiae posticae tribus denticulis subtus instructae' (Antennae with second segment rather long, rather thick externally, truncate at apex, subtending the third segment [which is] short, rather hairy and terminated by a bristle longer than itself. Rostrum pale, two-segmented. Hind tibiae furnished with three small teeth beneath). The habitat data were: 'Circa aequinoctium vernum in floribus, praesertim *Cynoglossomorphodes*' (Around the spring equinox in flowers, principally of *Cynoglossum omphalodes*). The type locality is that indicated in the title of the book, namely 'Carniola', a territory at the landward end of the Adriatic Sea that has been variously administered by Austria, Italy, Yugoslavia, Croatia and Slovenia. The species is illustrated on Plate 15 by a woodcut so crude as to give no clue to its identity. Scopoli's collection is probably no longer extant, so type material cannot be examined.

The species immediately preceding *C. aequinoctialis* in Scopoli's work is *C. meriopterus*, now *Heterotoma merioptera* (Scopoli), a species of Miridae (Hem., Heteroptera) in which the second antennal segment is elongate, rather broad and compressed and the third and fourth segments are short and threadlike. Scopoli mentions the presence in this species of a 'membrane' in contrast to the wholly coriaceous fore wing of *aequinoctialis*. The two-segmented rostrum of the latter is inconsistent with any species of Heteroptera. This feature, however, combined with the toothed hind tibiae and the uniformly coriaceous fore wings with distinct, punctate venation, is strongly suggestive of many Delphacidae. The antennal structure as described is inconsistent with that of any European Hemiptera. In view of the juxtaposition of *aequinoctialis* and *merioptera* it is virtually certain that Scopoli had seen the antennal modifications of the two species as homologous. If the structure alluded to as the second antennal segment of *aequinoctialis* is really the first, then the description cannot refer to any species other than the delphacid currently known as

*Asiraca clavicornis* (Fabricius, 1794). The broad fore femora (and fore tibiae, not mentioned by Scopoli) are also a striking characteristic of this species. Scopoli's *aequinoctialis* has priority of 31 years over the name founded by Fabricius. Since the species is of no economic importance, and since there are no problems concerning its identity, there seems no advantage in attempting to preserve the junior synonym, particularly since, as shown below, there is another senior synonym that would also have to be suppressed.

Zschach (1788) compiled an auction catalogue of N.G. Leske's insect collection. In it, he applied Linnean names to those species that he could identify and gave diagnoses to those that he could not. Leske's collection was purchased by The Dublin Society and the remnants of it are in the National Museum of Ireland; the Hemiptera are totally destroyed (J.P. O'Connor, pers. comm.). Gmelin (1790) gave binomina to all of Zschach's diagnoses, thereby establishing many new nominal species. One such was *Cicada quadristriata* (p. 2111), based on Zschach's *Cicada* sp. 27 (p. 116). Zschach's diagnosis was: 'Ci. elytris griseis, nervis elevatis, punctis elevatis, rugosis, thorace depresso, striis 4 longitudinalibus, elevatis, antennae latae, pediformes, apice articulo minore, non setoso; pedes antici lati, fusci, tibiae apice griseae' (*Cicada* with grey clytra, [these] with raised veins, with raised spots, wrinkled, thorax depressed, with 4 raised longitudinal striae, antennae broad, leg-like, with segment at apex smaller, without seta; fore legs broad, dark, tibiae grey at apex). The type locality is 'Eur' (Europe) and the species is illustrated on Plate 3 by two woodcuts that, although no less crude than Scopoli's, show the hind legs to be apically forked, indicating the presence of a conspicuous tibial spur, diagnostic of Delphacidae. The antennal arista, presumably, has been broken off but otherwise the antennal structure is that of *Asiraca clavicornis*. This conclusion is supported by the description of the broad fore legs. The four longitudinal keels of the 'thorax' are those of the scutellum. The Gmelin name has four years' priority over the Fabrician one but is junior to Scopoli's *aequinoctialis*.

The synonymy of this species is, therefore, as follows:

*Asiraca aequinoctialis* (Scopoli) **comb. n.**

*Cimex aequinoctialis* Scopoli, 1763: 132

*Cicada quadristriata* Gmelin, 1790: 2111, **syn. n.**

*Cicada clavicornis* Fabricius, 1794: 42, **syn. n.**

REFERENCES

- Gmelin, J.F., 1790, *Caroli a Linne Systema Naturae* ... 13th ed., pp. 1517-2224, Lipsiae [Leipzig]: Beer. Scopoli, J.A., 1763, *Entomologia carniolica* ... pp. xxxvi + 420, 43 pls, Vindobonae [Vienna]: Trattner. Zschach, J.J., 1788, *Museum N.G. Leskeanum, Pars Entomologica ad systema entomologiae Cl. Fabricii ordinata*, pp. (2) + 136, 3 pls, Lipsiae [Leipzig]: Müller.