

Case 3324

***Tramea* Hagen, 1861 (Insecta, Odonata): proposed conservation**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the generic name *Tramea* Hagen, 1861 for a group of common and widespread dragonflies by suppression of the senior objective synonym *Trapezostigma* Hagen, 1849. In addition, it is proposed that all previous fixations of type species for the nominal genus *Tramea* Hagen, 1861 before that by Kirby (1889) of *Libellula carolina* Linnaeus, 1763 be set aside.

Keywords. Nomenclature; taxonomy; Odonata; LIBELLULIDAE; *Tramea*; *Trapezostigma*; *Tramea carolina*; dragonflies.

1. Hagen (1849, p. 174) proposed the genus *Trapezostigma*, defined by indication as belonging to the first and second groups of the dragonfly (Odonata) genus *Libellula* Linnaeus, 1758 in Rambur (1842, pp. 32–46), and to sections A. I. a. ♂ and ♂ and b. α of *Libellula* Linnaeus, 1758 in Burmeister (1839, pp. 852–853). These groups included *L. carolina* Linnaeus, 1763 (p. 411) and *L. variegata* Linnaeus, 1763. Hagen never used the name *Trapezostigma* again.

2. Twelve years later, Hagen (1861, p. 143) established the generic name *Tramea* for seven nominal species of North American Odonata. Kirby (1889, p. 268) designated *Libellula carolina* Linnaeus as the type species of *Tramea* Hagen. The genus *Tramea* presently includes 32 valid species and subspecies, occurring in all tropical and subtropical regions of the world, including several oceanic islands. Most taxa have been named from the Old World. Their relationships are poorly understood up to now. This complexity is probably the combined effect of strong dispersal power and large but fragmented ranges. The New World species are more distinct; ten species are known from tropical America and the Caribbean. The ranges of four of them extend well into North America.

3. The name *Trapezostigma* Hagen was not used between 1849 and 1913 when Ris (1913, p. 971), in his monograph of the LIBELLULIDAE, mentioned the existence of the

name, but noted that a generic description was lacking and added that resurrection of the name *Trapezostigma* was unnecessary and very undesirable. The status of Ris's work was such that the name *Tramea* became the standard for many authors, including Needham & Heywood (1929), Williamson (1932), Fraser (1936) and Liefstinck (1954).

4. Cowley (1935, p. 283) designated *Libellula carolina* Linnaeus, 1763 as type species of *Trapezostigma*. This was already the type species of *Tramea* Hagen which therefore became a junior objective synonym of *Trapezostigma*. Cowley realised that this would upset the continued use of *Tramea*, mentioned that Ris's principle 'Stabilität vor Priorität' was worthy of every respect, but held the opinion that any resulting instability would only be temporary. Unfortunately, the expected chaos remains today. Indeed, after Cowley's (1935) publication, a minority of authors adopted the generic name *Trapezostigma*, including some influential authors such as Pinhey (1951), working on the fauna of Africa, and Watson (1967), working in Australia. However, an overwhelming majority of Cowley's contemporaries retained the use of *Tramea* instead of *Trapezostigma*, including Fraser (1936), Liefstinck (1954), Longfield (1947) and Schmidt (1951), who all published much-used regional faunal overviews or keys. Generally, the name *Tramea* was used by authors working in the Americas and Asia, whereas *Trapezostigma* was used in Africa and Australia. A list of references is available from the Commission Secretariat.

5. Gloyd (1972) discussed the use of *Tramea* and *Trapezostigma* extensively, concluding that 'we end the duality of names by a unanimous return to the time favored *Tramea*'. Although her appeal was not formalised with an application to the Commission, it was widely accepted. Some authors even altered their usage of the generic name. For instance, Pinhey (e.g. 1974, 1984) published using the name *Tramea* from that time on, explicitly referring to Gloyd (1972). Only in Australia has the name *Trapezostigma* remained in general use (e.g. Watson, Theischinger & Abbey, 1991; Hawking & Theischinger, 1999). The usage for African species is inconsistent, both for a single author over time, as well as for contemporary authors. A count in the Zoological Record on CD (1980–2003) on 30th June 2004 revealed 78 references using *Tramea* and two using *Trapezostigma*. These references (available from the Commission Secretariat) include numerous handbooks and field guides for this group of insects attracting growing interest from amateurs and professionals.

6. A recent revival of the name *Trapezostigma*, most notably by Hedge & Crouch (2000) in a checklist of the Odonata of South Africa, has made it clear that a ruling by the Commission is needed to resolve this nomenclatural problem that has existed for over 150 years. The third and fourth authors of this application have used the name *Trapezostigma* in favour of *Tramea* until now, but stress the necessity for stable nomenclature by suppression of the name *Trapezostigma*.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power:

- (a) to suppress the generic name *Trapezostigma* Hagen, 1849 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (b) to set aside all fixations of type species for the nominal genus *Tramea* Hagen, 1861 before the designation of *Libellula carolina* Linnaeus, 1763 by Kirby (1889);

- (2) to place on the Official List of Generic Names in Zoology the name *Tramea* Hagen, 1861 (gender: feminine), type species by subsequent designation by Kirby (1889) *Libellula carolina* Linnaeus, 1763, as ruled in (1)(b) above;
- (3) to place on the Official List of Specific Names in Zoology the name *carolina* Linnaeus, 1763, as published in the binomen *Libellula carolina* (specific name of the type species of *Tramea* Hagen, 1861);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Trapezostigma* Hagen, 1849, as suppressed in (1)(a) above.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).