Case 2730

Cheilosia Meigen, 1822 and *Pyrophaena* Schiner, 1860 (Insecta, Diptera): proposed conservation

A.V. Barkalov

Biological Institute, Siberian Branch of the Academy of Sciences of the U.S.S.R., Novosibirsk 630091, U.S.S.R.

I.M. Kerzhner

Zoological Institute, Academy of Sciences of the U.S.S.R., St Petersburg 199034, U.S.S.R.

Abstract. The purpose of this application is to conserve the names of two genera of hover-flies, *Cheilosia* Meigen, 1822 and *Pyrophaena* Schiner, 1860 (family SYRPHIDAE). Both names are threatened by the unused senior name *Cheilosia* Panzer, [1809], as a homonym and as an objective synonym respectively. It is proposed to fix *Syrphus flavipes* Panzer, 1798 as the type species of *Cheilosia* Meigen in accordance with existing usage. *Cheilosia* Meigen includes approximately 350 species in the Palaearctic, Nearctic and Oriental regions. It is the type genus of the tribe CHEILOSIINI Shannon, 1922. Species included in the genus have economic importance as pollinators, pests of weeds, and as causing damage in the timber of some American coniferous trees. *Pyrophaena* Schiner, 1860 includes some 10 species, distributed in the Palaearctic and Nearctic regions.

---

1. Panzer ([1809], p. 14, pl. [14]; see Saunders (1888) and Sherborn (1923) for the date of publication) published the new generic name *Cheilosia* in combination with *Syrphus rosarum* Fabricius, 1787 (p. 341) and illustrated the species. Citation of the specific name makes *Cheilosia* an available name (Article 12b(5) of the Code), though the absence of a generic description was probably the reason why many subsequent authors neglected the name; *rosarum* is fixed as the type species by monotypy. The same species is also the type of *Pyrophaena* Schiner, 1860 (p. 213) by monotypy, and *Pyrophaena* is therefore a junior objective synonym of *Cheilosia* Panzer.

2. Meigen (1822, p. 296) noted that 34 species of *Syrphus* Fabricius, 1775 which he had described on preceding pages formed a distinct group. He described the characters of the group but concluded that they were insufficient to establish a new genus, which he had planned to name *Cheilosia*, and he therefore retained the species within *Syrphus*.

An application (Case 2749) which included proposals for the conservation of *Cheilosia* Meigen, 1822 and *Pyrophaena* Schiner, 1860, as well as *Eristalis* Latreille, 1804, *Helophilus* Fabricius, 1805, *Xylota* Meigen, 1822 and *Eumerus* Meigen, 1822, was received from Dr T. Zatwarnicki (*Academy of Agriculture, Wroclaw, Poland*) shortly after the present one. An application to conserve the last four names is now published (see BZN **48**: 308–311).

The name *Cheilosia*, first published in synonymy with *Syrphus*, is an available name (Article 11e), with authorship ascribed to Meigen (Article 50g). Subsequent authors (Lepeletier & Serville, 1828, p. 512), as well as Meigen himself (1838, pp. 123–129, pl. 68, figs. 1–6), accepted *Cheilosia* as a distinct genus. Meigen (1838) placed 48 species in the genus. The authorship and concept of *Cheilosia*, as used in the first half of the 19th century, was variable (see Goffe, 1944, pp. 238–240), but Walker (1851, pp. 280–284), and later Loew (1857) in his revision of the genus, accepted Meigen's (1822) authorship and concept. They have been followed by nearly all subsequent authors in further revisions (Becker, 1894; Hull & Fluke, 1950), in catalogues (Aldrich, 1905, pp. 351–353; Bezzi & Stein, 1907, pp. 21–41; Knutson, Thompson & Vockeroth, 1975, pp. 329–330), and in many hundreds of taxonomic, faunistic and ecological papers. The replacement name *Chilosia* Agassiz, 1846 (p. 80) (an unjustified emendation of *Cheilosia* Meigen under Article 33b(iii)) was sometimes used in taxonomic literature until 1956 (Violovitsh, 1956, p. 466) but from 1960 all authors have used the name *Cheilosia* Meigen.

3. Westwood ([1840], p. 137) designated *Musca scripta* Linnaeus, 1758 (p. 594) as the type species of *Cheilosia* Meigen but *scripta* was not among the originally included species. Rondani (1856, p. 51) designated *Eristalis scutellatus* Fallén, 1817 (p. 55) (wrongly credited to Fabricius) as the type of *Cheilosia* (wrongly credited to Megerle); *scutellatus* was an originally included species and Rondani's designation is valid. Wirth, Sedman & Weems (1965, p. 583) and Knutson, Thompson & Vockeroth (1975, p. 329) accepted *scutellatus* as the type species. However, Meigen (1822, p. 289) noted, under *Syrphus flavipes* Panzer, 1798 (p. 10, pl. [10]), that he obtained material of this species from Megerle under the name *Cheilosia depila* (a nomen nudum), and this has led some authors (Coquillett, 1910, p. 521 and Goffe, 1944, p. 239) to record that *Cheilosia* Meigen was established as a monotypic genus with *Syrphus flavipes* as the type. Coquillett's (1910) action constitutes a type designation (Article 69a(iv)) but postdates that of Rondani (1856). The species *Syrphus rosarum*, the type of *Cheilosia* Panzer, was included in Meigen's (1822) work but was not among the species included in his concept of *Cheilosia*.

4. *Cheilosia* Panzer, [1809] and *Cheilosia* Meigen, 1822 are placed in different subfamilies of SYRPHIDAE, i.e. SYRPHINAE and MILESIINAE respectively. Goffe (1944, pp. 244–245) noted that *Cheilosia* Panzer was an available name, and used it in place of *Pyrophaena* Schiner, 1860 (a junior objective synonym). He replaced *Cheilosia* Meigen (a junior homonym) by *Cartosyrphus* Bigot, 1883 and *Chilomyia* Shannon, 1922. With few exceptions (e.g. Kloet & Hincks, 1945, p. 381) Goffe's changes in nomenclature have not been accepted and both *Cheilosia* Meigen and *Pyrophaena* Schiner are in current use (see para. 2). Wirth, Sedman & Weems (1965, pp. 578, 583) and Peck (1988, p. 75) have previously commented that for stability of nomenclature the Commission should be asked to suppress *Cheilosia* Panzer.

5. The current usage of subgeneric names within *Cheilosia* was established by authors (see, for example, Hull & Fluke, 1950) who considered *Syrphus flavipes* Panzer to be the type species (see para. 3). The two principal subgenera are *Cheilosia* (with hairy eyes) and *Cartosyrphus* Bigot, 1883 (with naked eyes). Subgeneric names in *Cheilosia* are widely used by American authors, although rarely in Europe and Asia. *Eristalis scutellatus* Fallén, the type species of *Cheilosia* Meigen by Rondani's (1856) designation, is a species with naked eyes, although it was included by Meigen (1838,

p. 123), probably due to an error or the misidentification of some specimens, in his species-group 'A' (with hairy eyes). Recognition of *scutellatus* as the type species would mean that the subgenus *Cartosyrphus* would be renamed *Cheilosia* and the subgenus currently named *Cheilosia* would need another name. Such changes in nomenclature are destabilising and we therefore propose the fixation of *Syrphus flavipes* Panzer, 1798 as the type species.

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

(1) to use its plenary powers:
  (a) to suppress the generic name *Cheilosia* Panzer, [1809], and all uses of the name *Cheilosia* prior to the publication of *Cheilosia* Meigen, 1822, for the purposes of both the Principle of Priority and the Principle of Homonymy;
  (b) to set aside all designations of type species for the nominal genus *Cheilosia* Meigen, 1822 prior to that by Coquillett (1910) of *Syrphus flavipes* Panzer, 1798;

(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Cheilosia* Meigen, 1822 (gender: feminine), type species by subsequent designation by Coquillett (1910), *Syrphus flavipes* Panzer, 1798, as ruled in (1)(b) above;
  (b) *Pyrophaena* Schiner, 1860 (gender: feminine), type species by monotypy *Syrphus rosarum* Fabricius, 1787;

(3) to place on the Official List of Specific Names in Zoology the following names:
  (a) *flavipes* Panzer, 1798, as published in the binomen *Syrphus flavipes* (specific name of the type species of *Cheilosia* Meigen, 1822);
  (b) *rosarum* Fabricius, 1787, as published in the binomen *Syrphus rosarum* (specific name of the type species of *Pyrophaena* Schiner, 1860);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
  (a) *Cheilosia* Panzer, [1809], as suppressed in (1)(a) above;
  (b) *Chilosia* Agassiz, 1846 (an unjustified emendation of *Cheilosia* Meigen, 1822).

References

Agassiz, L. 1846. *Nomenclatoris Zoologici Index Universalis*. viii, 393 pp. Soloduri.

Aldrich, J.M. 1905. A catalogue of North American Diptera. *Smithsonian Miscellaneous Collections*, **46**(1444): 1–680.

Becker, T. 1894. Revision der Gattung *Chilosia* Meigen. *Nova Acta Academiae Caesareae Leopoldino-Carolinae Germanicae Naturae Curiosorum*, **62**(3): 195–521.

Bezzi, M. & Stein, P. 1907. *Katalog der paläarktischen Dipteren*, vol. 3. 828 pp. Budapest.

Coquillett, D.W. 1910. The type-species of the North American genera of Diptera. *Proceedings of the United States National Museum*, **37**: 499–647.

Fabricius, J.C. 1787. *Mantissa insectorum sistens eorum species nuper detectas adiectis characteribus genericis, differentiis specificis, emendationibus, observationibus*, vol. 2. 382 pp. Hafniae.

Fallén, C.F. 1817. *Diptera Sveciae... Dipterorum antennis parum articulatis instructorum sectionem... continens*, vol. 1. Syrphici Sveciae. 62 pp. Lundae.

Goffe, E.R. 1944. The genera *Cheilosia* (*Chilosia*) Panzer, 1809; Meigen, 1822; Hoffmannsegg: *Chilomyia* Shannon: *Cartosyrphus* Bigot (Dipt., Syrphidae). *The Entomologist's Monthly Magazine*, (4)**80**(58, 59): 238–248.

Hull, F.M. & Fluke, C.L. 1950. The genus *Cheilosia* Meigen (Diptera, Syrphidae). The subgenera *Cheilosia* and *Hiatomyia*. *Bulletin of the American Museum of Natural History*, **94**(6): 299–402.

Kloet, G.S. & Hincks, W.D. 1945. *A checklist of British insects*. lix, 477 pp. Published by the authors, Stockport.

Knutson, L.V., Thompson, F.C. & Vockeroth, J.R. 1975. Family Syrphidae. Pp. 307–374 *in* Delfinado, M.D. & Hardy, D.E. (Eds.), *A catalog of the Diptera of the Oriental region*, vol. 2. 459 pp. University Press of Hawaii, Honolulu.

Lepeletier de St Fargeau, A.L.M. & Serville, J.G.A. 1828. Syrphe, *Syrphus*. Pp. 511–526 *in*: *Encyclopédie Méthodique*, vol. 10, part 2. Pp. 345–832. Agasse, Paris.

Linnaeus, C. 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.

Loew, H. 1857. Die europäischen Arten der Gattung *Cheilosia*. *Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien*, **7**: 579–616.

Meigen, J.W. 1822, 1838. *Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten*, vol. 3, x, 416 pp. (1822); vol. 7, xii, 434 pp. (1838). Hamm.

Panzer, G.W.F. 1798, [1809]. *Faunae insectorum germanicae initia oder Deutschlands Insecten*, Heft 54, 24 pp., 24 pls (1798); Heft 108, 24 pp., 24 pls. ([1809]). Nürnberg.

Peck, L.V. 1988. Family Syrphidae. Pp. 11–230 *in* Soós, A. & Papp, L. (Eds.), *Catalogue of Palaearctic Diptera*, vol. 8. 363 pp. Elsevier, Amsterdam.

Rondani, C. 1856. *Dipterologiae Italicae prodromus*, vol. 1 (Genera Italica ordinis Dipterorum...). 265 pp. Parma.

Saunders, E. 1888. *Index to Panzer's 'Fauna Insectorum Germanicae'*. 48 pp. Gurney & Jackson, London.

Schiner, J.R. 1860. Vorläufiger Commentar zum dipterologischen Theile der 'Fauna Austriaca', 2. *Wiener Entomologische Monatschrift*, **4**: 208–216.

Sherborn, C.D. 1923. On the dates of G.W.F. Panzer's 'Fauna Insect. German.', 1792–1844. *Annals and Magazine of Natural History*, (9)**11**(64): 566–567.

Violovitsh, N.A. 1956. Neue Syrphiden (Diptera, Syrphidae) aus Sachalin-Gebiet. *Entomologicheskoe Obozrenie*, **35**(2): 462–472.

Westwood, J.O. [1840]. *Synopsis of the genera of British insects*, pp. 97–154. Published with *An introduction to the modern classification of insects*..., vol. 2, part 16, pp. 401–587. Longman, Orme, Brown, Green & Longmans, London.

Walker, F. 1851. *Insecta Britannica, Diptera*, vol. 1. 313 pp. Reeve & Benham, London.

Wirth, W.W., Sedman, Y.S. & Weems, H.V. 1965. Family Syrphidae. Pp. 557–625 *in* Stone, A., Sabrosky, C.W., Wirth, W.W., Foote, R.H. & Coulson, J.R. (Eds.), *A catalog of the Diptera of America north of Mexico*. Agricultural Handbook No. 276. iv, 1696 pp. United States Department of Agriculture, Washington.

Barkalov, Anatolij Vasilievich and Kerzhner, Izyaslav M. 1991. "Cheilosia Meigen, 1822 and Pyrophaena Schiner, 1860 (Insecta, Diptera): proposed conservation." *The Bulletin of zoological nomenclature* 48, 312–315. https://doi.org/10.5962/bhl.part.762.

View This Item Online: https://www.biodiversitylibrary.org/item/44489
DOI: https://doi.org/10.5962/bhl.part.762
Permalink: https://www.biodiversitylibrary.org/partpdf/762

Holding Institution
Natural History Museum Library, London

Sponsored by
Natural History Museum Library, London

Copyright & Reuse
Copyright Status: In copyright. Digitized with the permission of the rights holder.
Rights Holder: International Commission on Zoological Nomenclature
License: http://creativecommons.org/licenses/by-nc-sa/3.0/
Rights: https://biodiversitylibrary.org/permissions

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.

This file was generated 26 March 2024 at 12:47 UTC