Case 2695

Fonscolombia Lichtenstein, 1877 (Insecta, Homoptera): proposed designation of Fonscolombia graminis Lichtenstein, 1877 as the type species

Yair Ben-Dov

Department of Entomology, Agricultural Research Organization, Bet Dagan 50–250, Israel

Danièle Matile-Ferrero

Entomologie, Muséum National d'Histoire Naturelle, 75005 Paris, France

Abstract. This application is submitted in order to designate *Fonscolombia graminis* Lichtenstein, 1877 as the type species of *Fonscolombia* Lichtenstein, 1877, in accordance with the type material, as a genus in the mealybug family PSEUDOCOCCIDAE. The original designation of *Coccus radicumgraminis* Fonscolombe, 1834 was based on a misidentification by Lichtenstein of *C. radicumgraminis*, which is a species in the soft scale family COCCIDAE.

- 1. Fonscolombe (1834, p. 212) described the scale insect *Coccus radicumgraminis* (originally spelled *radicum-graminis* but emended under Article 31d of the Code) from roots of the grass *Festuca caespitosa* in southern France. It was assigned to the 'Gallinsecte' of that period, which corresponds to the superfamily COCCOIDEA of current usage. No type-material of Fonscolombe's species is available in the Muséum National d'Histoire Naturelle, Paris, and to the best of our knowledge it is lost. However, part of the original description of the adult female of this species 'rebordé de tous les côtés' [indicating a well defined margin], and 'le postérieur est surmonté d'une pointe conique charnue brunâtre' [probably referring to the anal plates] strongly suggests that it is a soft scale species, probably of the genus *Lecanopsis* Targioni Tozzetti, 1868 (family COCCIDAE), as suggested by earlier authors (Signoret, 1874; Cockerell, 1899; Borchsenius, 1957). The specific name *radicumgraminis* has not been used for any recognized species.
- 2. Lichtenstein (1877a; 1877b) erected the genus Fonscolombia. It is explicit in both papers that when Lichtenstein established the genus he believed that he was dealing with the nominal species Coccus radicumgraminis Fonscolombe, 1834, which is therefore under Article 70a of the Code the type species. However, Lichtenstein shortened the 'rather long' specific name to graminis, and deliberately applied the binomen Fonscolombia graminis to the species which he was actually studying. Lichtenstein did not indicate the suprageneric or family placement of his genus.
- 3. Cockerell (1899, p. 264) treated *Fonscolombia* as a senior synonym of *Pseudochermes* Nitsche, 1895, thus indicating his interpretation that the genus belonged to the family ERIOCOCCIDAE. This placement was followed in the Fernald Catalogue (1903, p. 114) and by Green (1922, p. 345).

- 4. Lindinger (1908, p. 94), introduced *Fonscolombea*, an unjustified emendation, to replace *Fonscolombia*.
- 5. Lindinger (1935, p. 135) accepted *C. radicumgraminis* Fonscolombe as a species in *Lecanopsis*, thus indicating his interpretation that Fonscolombe's species was a soft scale insect (COCCIDAE); on p. 145 he suggested that *F. graminis* Lichtenstein was a mealybug (PSEUDOCOCCIDAE), which he considered to be a junior synonym of *Ripersia corynephori* Signoret, 1875. Lindinger repeated this interpretation in 1937 (p. 185). However, Lindinger's interpretation was not based on a study of specimens, but rather on a comparison between extremely poor descriptions of both species; the taxonomic characters of *R. corynephori* are still obscure.
- 6. Lindinger (1943, p. 250–251) synonymized *Ripersia* Signoret, 1874 and *Fonscolombia* Lichtenstein with *Tychea* Koch, 1857, in accordance with his interpretation of *Fonscolombia* as a mealybug genus (PSEUDOCOCCIDAE). However, *Tychea* is a homopteran genus of unsettled identity which is not in use in the COCCOIDEA (Morrison & Morrison, 1966) nor in the APHIDOIDEA (Eastop & Hille Ris Lambers, 1976).
- 7. Apart from F. graminis four species have been placed in Fonscolombia. However, all of them are now placed in genera of the family ERIOCOCCIDAE, as listed below with their present generic placement in parentheses: F. braggi Cockerell & Robinson, 1915 (Ovaticoccus); F. fraxini Kaltenbach, 1860 (Pseudochermes); F. peninsularis Ferris, 1921 (Ovaticoccus); F. yuccae Ferris, 1919 (Ovaticoccus) (see Hoy, 1963). Since 1921 the name has not been used in the COCCOIDEA.
- 8. The contradictory concepts of *Fonscolombia*, as discussed in paras. 3–7 above, represent subjective interpretations of Lichtenstein's (1877a) description. No original material of the species studied by Lichtenstein was available to any of these workers.
- 9. Ferris (1957, p. 86) and Morrison & Morrison (1966, p. 80) considered the nomenclatural status of *Fonscolombia*, and concluded that this generic name is available when it can be clearly associated with some coccoid taxon.
- 10. We (Ben-Dov & Matile-Ferrero, 1989) have examined the original material of the species studied by Lichtenstein (1877a); we showed that *Fonscolombia graminis* Lichtenstein is the valid name for this species, designated a lectotype (deposited in the Muséum National d'Histoire Naturelle, Paris), redescribed the species, redefined *Fonscolombia* and showed that it belongs to the family PSEUDOCOCCIDAE.
- 11. As discussed above, the correct family placement of the genus *Fonscolombia* was disputed among students of scale insects, because the original material of the species for which the genus was erected by Lichtenstein (1877a) was not available. We (1989) have shown also that the nominal type species of *Fonscolombia* (*C. radicumgraminis* Fonscolombe, which was evidently a soft scale insect, COCCIDAE) was a misidentification of a mealybug by Lichtenstein (1877a). We consider that stability would be best served by designating *Fonscolombia graminis* Lichtenstein, 1877 (as redescribed by Ben-Dov & Matile-Ferrero, 1989) as the type-species of *Fonscolombia*, in accordance with Lichtenstein's original work.
- 12. The International Commission on Zoological Nomenclature is accordingly asked:
 - (1) to use its plenary powers to set aside all previous designations of type species for the nominal genus *Fonscolombia* Lichtenstein, 1877, and to designate *Fonscolombia graminis* Lichtenstein, 1877 as the type species;

- (2) to place on the Official List of Generic Names in Zoology the name Fonscolombia Lichtenstein, 1877 (gender: feminine), type species by designation in (1) above Fonscolombia graminis Lichtenstein, 1877;
- (3) to place on the Official List of Specific Names in Zoology the name graminis Lichtenstein, 1877, as published in the binomen Fonscolombia graminis and as defined by the lectotype designated by Ben-Dov & Matile-Ferrero (1989) (specific name of the type species of Fonscolombia Lichtenstein, 1877).

Acknowledgement

We are grateful to Dr P. K. Tubbs for discussions on the nomenclatural issues.

References

Ben-Dov, Y. & Matile-Ferrero, D. 1989. Taxonomy and nomenclature of five hitherto inadequately-known genera of mealybugs (Homoptera: Coccoidea: Pseudococcidae). Systematic Entomology, 14(2): 165–178.

Borchsenius, N. S. 1957. Fauna of SSSR, scale insects, family Coccidae. Fauna SSSR. Zoologicheskii Institut Akademii Nauk SSSR, Moskva & Leningrad. Novaya Seriya, 66: 1–453. [In Russian].

Cockerell, T. D. A. 1899. Some notes on Coccidae. Proceedings of the Academy of Natural Sciences of Philadelphia, 1899: 253–275.

Cockerell, T. D. A. & Robinson, E. 1915. Descriptions and records of Coccidae. Bulletin of the American Museum of Natural History, 34: 105–113.

Eastop, V. F. & Hille Ris Lambers, D. 1976. Survey of the World's Aphids. 573 pp. W. Junk, The Hague.

Fernald, M. E. 1903. A catalogue of the Coccidae of the world. Bulletin of the Massachusetts Agricultural Experiment Station, 88: 1–360.

Ferris, G. F. 1919. A contribution to the knowledge of the Coccidae of South-western United States. Stanford University Publications Series, 68 pp.

Ferris, G. F. 1921. Report upon a collection of Coccidae from Lower California. Stanford University Publications. Biological Sciences, 1: 61-132.

Ferris, G. F. 1957. A review of the family Eriococcidae (Insecta: Coccoidea). *Microentomology*, 22: 81–89.

Fonscolombe, L. J. H. Boyer de, 1834. Description des Kermes qu'on trouve aux environs d'Aix. Annales de la Société Entomologique de France, 3: 201–218.

Green, E. E. 1922. The Coccidae of Ceylon. Part 5 (pp. 345-472). Dulau & Co., London.

Hoy, J. M. 1963. A catalogue of the Eriococcidae (Homoptera: Coccoidea) of the world. New Zealand Department of Scientific and Industrial Research Bulletin, 150: 1–260.

Kaltenbach, J. H. 1860. Die Deutschen Phytophagen aus der Klasse der Insekten. Verhandlungen des Naturhistorischen Vereins der Preussichen Rheinlande und Westfalens, 17: 203–260.

Koch, C. L. 1857. Die Pflanzenlause Aphiden. 336 pp. J. L. Lotzbeck, Nurnberg.

Lichtenstein, J. 1877a. [Note]. Annales de la Société Entomologique de France, (ser. 5), 7: cviii-cix. Lichtenstein, J. 1877b. Apterous males in the Coccidae. Entomologist's Monthly Magazine, 14: 34-35.

Lindinger, L. 1908. Nomenklaturbetrachtungen. Berliner Entomologische Zeitschrift, 52: 83-95.

Lindinger, L. 1935. Die Nunmehr giltigen Namen der Arten in meinem 'Schildlaus-Buch' und in den 'Schildlausen der Mitteleuropaïschen Gewachshauser'. *Entomologisches Jahrbuch*, 44: 127–149.

Lindinger, L. 1937. Verzeichnis der Schildlaus-Gattungen. (Homoptera — Coccoidea Handlirsch, 1903). Entomologisches Jahrbuch, 46: 178–198.

Lindinger, L. 1943. Bemerkungen zur Schildlaus-Nomenklatur. Arbeiten über Morphologische und Taxonomische Entomologie, 10: 248–252.

- Morrison, H. & Morrison, E. R. 1966. An annotated list of generic names of scale insects (Homoptera: Coccoidea). United States Department of Agriculture Miscellaneous Publications, 1015: 1-206.
- Nitsche, H. 1895. Page 1249 in Judiech, J. F. & Nitsche, H. (Eds.), Lehrbuch der Mitteleuropaïschen Forstinsektenkunde, Vol. 4 (pp. 937-1421). Holzel, Wien.
- Signoret, V. 1874. Essai sur les cochenilles (Homoptères Coccides), 12e partie. Annales de la Société Entomologique de France, (ser. 5), 4: 87-106.
- Signoret, V. 1875. Essai sur les cochenilles ou gallinsectes (Homoptères Coccides), 15e, 16e et 17e partie. Annales de la Société Entomologique de France, (ser. 5), 5: 305–394.
- Targioni Tozzetti, A. 1868. Introduzione alla seconda Memoria per gli studi sulle cocciniglie, dei generi e delle specie della famiglia dei Coccidi. *Atti della Società Italiana di Scienze Naturali*, 9: 694–738.



1989. "Fonscolombia Lichtenstein 1877 Insecta Homoptera Proposed Designation Of Fonscolombia graminis Lichtenstein 1877 As The Type Species." *The Bulletin of zoological nomenclature* 46, 119–122. https://doi.org/10.5962/bhl.part.507.

View This Item Online: https://www.biodiversitylibrary.org/item/44487

DOI: <u>https://doi.org/10.5962/bhl.part.507</u>

Permalink: https://www.biodiversitylibrary.org/partpdf/507

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.