

## Case 3424

### PSEUDOCOCCINI Cockerell, 1905 (Insecta, Hemiptera): proposed precedence over SPHAEROCOCCINI Cockerell, 1899

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**Abstract.** The purpose of this application, under Article 23.9.3 of the Code, is to conserve the usage of the family-group name PSEUDOCOCCINI Cockerell, 1905 (type genus *Pseudococcus* Westwood, 1840) for the mealybugs, a speciose group including many pests of agriculture, by giving it precedence over the senior family-group name SPHAEROCOCCINI Cockerell, 1899 (type genus *Sphaerococcus* Maskell, 1892).

**Keywords.** Nomenclature; taxonomy; Hemiptera; COCCOIDEA; PSEUDOCOCCINI; SPHAEROCOCCINI; *Pseudococcus*; *Sphaerococcus*; mealybugs.

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1. Maskell (1892, p. 39) established the generic name *Sphaerococcus*, for the Australian legless mealybug species *S. casuarinae* Maskell, 1892 (p. 39), type species by monotypy.

2. Cockerell (1899, p. 389) placed *Sphaerococcus* and a group of additional legless mealybug genera in a new tribe SPHAEROCOCCINI of the family COCCIDAE Fallén, 1814 (p. 23).

3. Cockerell (1905, p. 193) erected the tribe PSEUDOCOCCINI within the COCCIDAE for *Pseudococcus* Westwood, 1840 (p. 448) and the other mealybug genera known at that time to occur in the Rocky Mountains of North America.

4. Lobdell (1930, p. 209) was the first to use the family name PSEUDOCOCCIDAE for the mealybugs (including SPHAEROCOCCINI) a practice subsequently followed by all entomologists. The name SPHAEROCOCCINI has never been used as a family name and has never been used outside of discussions of mealybug subfamily-level classification.

5. The history of the generic name *Pseudococcus* Westwood (1840, p. 448) is extremely complicated. Miller (1974) (BZN 31: 146–153) submitted a case to the Commission, and in Opinion 1247 (July, 1983, BZN 40: 77–80), the Commission placed *Pseudococcus* Westwood, 1840 (type species *Dactylopius longispinus* Targioni-Tozzetti, 1876) on the Official List of Generic Names in Zoology (Name Number 2188), and PSEUDOCOCCIDAE Cockerell, 1905 (type genus *Pseudococcus* Westwood, 1840) on the Official List of Family-Group Names (Name Number 555).

6. The adoption of SPHAEROCOCCINI in place of its junior synonym PSEUDOCOCCINI would change the name of one of the most commonly encountered pests of agriculture, and leave an enormous body of literature divorced from classification (as of 17 May 2007, 1080 publications in Zoological Record use the name PSEUDOCOCCIDAE). Article 35.5 does not apply in this case, as *P. longispinus* and *S. casuarinae* are in the same subfamily and tribe. We therefore propose that

family-group names based on *Pseudococcus* be given precedence over those based on *Sphaerococcus*. The family-group names based on *Sphaerococcus* would remain available for any coccidologist who may in the future consider the two type genera to belong to different family-group taxa.

7. To illustrate the prevalence of the name PSEUDOCOCCIDAE, the following references are provided: Ben-Dov, 1994; Miller et al., 2002; Bonnett & Hewitt, 2005; Gonzalez-Hernandez et al., 2005; Kondo et al., 2005; Wakgari & Giliomee, 2005; Hogendorp et al., 2006; Kaydan et al., 2006; Martinez-Ferrer et al., 2006; Williams & Moghaddam, 2007. A list of 499 additional references demonstrating the universal usage of the name PSEUDOCOCCIDAE is held by the Commission Secretariat and is available upon request.

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

- (1) to use its plenary power to rule that the family-group name PSEUDOCOCCINI Cockerell, 1905 and other family-group names based on *Pseudococcus* Westwood, 1840 are to be given precedence over SPHAEROCOCCINI Cockerell, 1899 and other family-group names based on *Sphaerococcus* Maskell, 1892 whenever their type genera are placed in the same family-group taxon;
- (2) to place on the Official List of Generic Names in Zoology the name *Sphaerococcus* Maskell, 1892 (gender: masculine), type species by monotypy *S. casuarinae* Maskell, 1892;
- (3) to place on the Official List of Family-Group Names in Zoology the names:
  - (a) PSEUDOCOCCINI Cockerell, 1905 (type genus *Pseudococcus* Westwood, 1840), with the endorsement that it and other family-group names based on *Pseudococcus* are to be given precedence over SPHAEROCOCCINI Cockerell, 1899 and other family-group names based on *Sphaerococcus* Maskell, 1892 whenever their type genera are placed in the same family-group taxon;
  - (b) SPHAEROCOCCINI Cockerell, 1899 (type genus *Sphaerococcus* Maskell, 1892), with the endorsement that it and other family-group names based on *Sphaerococcus* are not to be given priority over PSEUDOCOCCINI Cockerell, 1905 and other family-group names based on *Pseudococcus* Westwood, 1840 whenever their type genera are placed in the same family-group taxon.

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