Case 2632

_Tachina orbata_ Wiedemann, 1830 (currently *Peribaea orbata*; Insecta, Diptera): proposed confirmation of neotype designation

R. W. Crosskey  
Department of Entomology, British Museum (Natural History), London SW7 5BD, U.K.

H. Shima  
Biological Laboratory, College of General Education, Kyushu University, Ropponmatsu, Fukuoka 810, Japan

Abstract. The purpose of this application is to request validation of an existing neotype designation for _Tachina orbata_ Wiedemann, 1830, and so protect the use of this name in its current sense for a well known species of _Tachinidae_ (Siphonini).

1. Wiedemann (1830, pp. 336–337) described _Tachina orbata_ from ‘Ostindien’, a vague locality recorded for many of his Diptera that either indicates eastern India or the East Indies. He had at least two specimens, because ‘Im Königlichen Museum und in meiner Sammlung’ (both depositories in Copenhagen) appeared in the original description.

2. Zimsen (1954) reported in her list of Wiedemann’s types in Copenhagen that those of _Tachina orbata_ are lost. They have not been discovered since, and it remains impossible to be sure of the identity of this nominal species from original material.

3. Brauer & Bergenstamm (1891, p. 355) studied a specimen in the von Winthem collection (Naturhistorisches Museum, Vienna) which they recorded (p. 435) as the ‘Type’. Although this specimen was almost certainly identified by Wiedemann it is assumed to lack type status (Crosskey, 1966, p. 107 [101]). Wiedemann was usually careful to record specimens of his new species as ‘in v. Winthem’s Sammlung’ whenever this applied, but did not do so for _orbata_ (see 1 above).

4. In 1965 an examination of the von Winthem specimen (by R.W.C.) showed that it belongs to a species of _Tachinidae_, tribe _Siphonini_, that is widespread in the Old World tropical and subtropical areas. At that time several names were known to apply to this species, although the synonymies had not been formally established. In the absence of any syntype it was decided to apply the name _orbata_ to this familiar species because the specimen of _orbata_ in Vienna was probably seen (and perhaps labelled) by Wiedemann and it fitted most of the brief original description. The new combination _Strobliomyia orbata_ (Wiedemann, 1830) was published, and several twentieth century names for the same species listed as new synonyms (Crosskey, 1966, p. 107 [101], 110 [104]). The present combination _Peribaea orbata_ (Wiedemann) was established later (Crosskey, 1973, p. 81, p. 138), after it had been found that Mesnil (1963, p. 803) had been in error to treat _Peribaea_ Robineau-Desvoidy, 1863 as preoccupied — on which mistaken ground he used the junior synonym _Strobliomyia_ Townsend, 1926 as the valid generic name.
5. Following the decision to apply the name to the common siphonine represented by the von Winthem specimen a neotype was designated by one of us (Crosskey, 1967, p. 106) for Tachina orbata Wiedemann, so permitting it to be distinguished from superficially similar congeneric species by objective comparison of types. Because of its imperfect condition and incomplete data the von Winthem specimen was unsuitable for designation, and a recently collected specimen from eastern India was chosen as neotype instead. The specimen bears handwritten labels reading 'Azra Assam Dec 63' and 'Ex caterpillar feeding on Fossia sp.', a collection registration number of the Commonwealth Institute of Entomology reading 'C.I.E. COLL. No. 19661', a circular red-bordered 'NEOTYPE' label, and a designation label reading 'Tachina orbata Wied. NEOTYPE ♀ designated by R. W. Crosskey 1967 (Proc. R. ent. Soc. Lond. (B)36:106)'. It is in the British Museum (Natural History), and is accompanied by its puparium. The designation is valid under the Code and conforms to Article 75; the characters used to differentiate the species had been given previously in the discussion of the von Winthem specimen (Crosskey, 1966) and so were not repeated in the 1967 paper.

6. Since 1967 the name orbata has been applied to the species represented by the neotype. This species has not been redescribed, however, under the name orbata because an excellent description by Mesnil (1963, pp. 804–806) has been available using the name Strobliomyia aegyptia (Villeneuve, 1912); the latter name was synonymised with orbata after a lectotype had been designated for it and compared with the orbata neotype (Crosskey, 1966, pp. 108, 110). For the past twenty years the siphonine species concerned has been universally called orbata. This name has been widely disseminated as the result of routine identification and used as the valid name for the siphonine in published literature, notably in major regional catalogues (Crosskey, 1973, 1977, 1980; Herting, 1984) and other faunal works (e.g. Crosskey, 1976; Dear & Crosskey, 1982; Shima, 1981).

7. In the opinion of the late Dr L. P. Mesnil (unpublished and expressed in correspondence to R.W.C. and H.S.) the neotype designation for orbata was improper because of a discrepancy in the wing venation of the species represented by the neotype and Wiedemann’s description. In orbata as interpreted by the neotype the hind cross-vein is present (figure in Crosskey, 1984) whereas the original description implies that it is absent — “Spitzenquerader einen stumpfen und abgerundeten Winkel bildend, die gewöhnliche Queerader ungewöhnlich hoch liegend, die mittlere [presumably the hind cross-vein] gar nicht vorhanden”. If this is taken as unambiguous evidence that Wiedemann’s orbata lacked the hind cross-vein (a point that by oversight was not noted when the neotype was designated) then it is likely that the species he described belonged to the Neaerini rather than the Siphonini; loss of the hind cross-vein is common in Neaerini but very rare (though known in at least one species) in Siphonini.

8. The discrepancy to which Mesnil called our attention casts doubt on whether Wiedemann’s nominal species was correctly identified. Quite likely it was not. But if the name is rejected from the Siphonini because of the discrepancy it has then to be left in taxonomic limbo, as a nomen dubium in Neaerini. We see no advantage in this, and think it preferable in the interests of stability to keep the name orbata Wiedemann for the common and widespread species of Siphonini to which it has been applied since the neotype was designated.

9. The International Commission on Zoological Nomenclature is accordingly asked:
(1) to rule that the specific name *orbata* Wiedemann, 1830, as published in the binomen *Tachina orbata*, is to be interpreted by reference to the specimen designated as neotype by Crosskey (1967);
(2) to place on the Official List of Specific Names in Zoology the name *orbata* Wiedemann, 1830, as published in the binomen *Tachina orbata*, and as designated by the neotype designated by Crosskey (1967).

References


Mesnil, L. P. 1963. Larvaevorinae (Tachininae) [part]. Die Fliegen der Palaearktischen Region, 64g: 801–848.

