

Notes on *Rhamphomyia* Meigen (Diptera: Empididae)

I. The De Meijere collection

PAUL L. TH. BEUK

BEUK, P. L. TH., 1995. NOTES ON *RHAMPHOMYIA* MEIGEN (DIPTERA: EMPIDIDAE) I. THE DE MEIJERE COLLECTION. – *ENT. BER., AMST.* 55 (7): 105-113.

Abstract: The *Rhamphomyia* species in the collection of De Meijere now at the Zoological Museum at Amsterdam are listed and discussed. *Rhamphomyia crassicauda* and *R. niveipennis* are deleted from the Dutch list and *R. caliginosa*, *R. maculipennis*, *R. physoprocta*, *R. trigemina*, *R. tibiella* and *R. umbripennis* are added. Some species on the list by De Meijere have been synonymised and correct names of those species are given. Lectotypes of *R. propinqua* De Meijere and *R. serotina* De Meijere are designated.

Department of Entomology, Institute for Systematics and Population Biology (Zoological Museum), Plantage Middenlaan 64, 1018 DH Amsterdam, The Netherlands.

Introduction

Pioneering work on Dutch Diptera was done by F. M. van der Wulp in the last century and resulted in the "Nieuwe naamlijst van Nederlandsche Diptera" [New checklist of Dutch Diptera] by Van der Wulp & De Meijere (1898). J. C. H. de Meijere continued working on the Dutch Diptera and compiled the most recent checklist (De Meijere, 1939). In the course of years De Meijere built up what is probably the most important collection of Dutch Diptera. This collection is now part of the collections of the Zoological Museum of the University of Amsterdam (ZMA).

Since 1939 only parts of De Meijere's checklist have been updated. One of the families badly in need of an update is the Empididae sensu Chvála (1983). The Dutch species of the genus *Empis* Linnaeus were reviewed by Van der Goot (1989). A review of the next large genus, *Rhamphomyia* Meigen, is undertaken by the author.

The genus *Rhamphomyia* is a genus with about 550 described species worldwide. It is mainly distributed in the Holarctic region (Barták, 1982). The size of the flies varies from about 2 mm to almost 10 mm. The males of most species show a predatory behaviour as part of their mating behaviour and the females of a number of species are predacious but

otherwise the flies appear to be nectar feeders (Chvála, 1990). Little is known about the early stages.

So far 26 species of *Rhamphomyia* were recorded from The Netherlands, 22 of which were already mentioned by De Meijere (1939). One species not recorded by De Meijere (*R. longipes*) was found in his collection, but was already recorded from The Netherlands by Meuffels (1970). Beuk (1992) added *R. obscuripennis* Meigen, *R. pilifer* Meigen and *R. argentata* von Röder.

All material from De Meijere's collection was now examined. In all 25 species were present in De Meijere's collection. In the species account below the species are treated in alphabetical order. All names mentioned by De Meijere (1939) are given in the account and are marked with an asterisk (*). The sub-generic division and nomenclature follow the catalogue by Chvála & Wagner (1989). Unless stated otherwise all material was collected by De Meijere himself.

Not necessarily all specimens under a wrong name in the collection of the Zoological Museum at Amsterdam were a result of a misidentification by De Meijere. His collection was transferred from its original drawers and incorporated in the Museum collection. It is very likely that some specimens were misplaced while this was done. In the collection

of unidentified Empididae at the Zoological Museum at Amsterdam are still *Rhamphomyia* specimens collected by De Meijere. These specimens used to be in the so-called "students collection" and were not taken into account for this publication.

Species account

Rhamphomyia (Aclonempis) longipes (Meigen)

* *Rhamphomyia aethiops* non Zetterstedt: misidentification

* *Empis pulicaria* Loew: synonym

Material examined: Nederland (1 ♀: no date; 1 ♀: 1904); Limburg: Bunde (7 ♂, 2 ♀: 16.vi.1919), Epen (1 ♂: vi.1911), Houthem (2 ♂: 8.vi.1903; 6 ♂, 15 ♀: ca 20.vi.1904; 2 ♂, 1 ♀: 16.vi.1909, Valkenburg 1 ♂, 2 ♀: 14.vi.1919), Vlodrop (1 ♂: 9.vi.1903), Zuid-Limburg (5 ♂, 3 ♀: no date); Overijssel: Ommen (1 ♂: 25.vi.1916).

All specimens preserved under *Rhamphomyia aethiops* in De Meijere's collection belong to *R. longipes*, a species recorded from The Netherlands by Meuffels (1970). De Meijere clearly had problems to identify this species and asked two other specialists for their opinion. G. Strobl examined a male and a female from Houthem (Limburg) collected on 8 June 1903 and returned the specimens with the labels: "*Rh. aethiops* Ztt ♂ ♀" and "Strobl / det. 03". Apparently the female was lost afterwards. Th. Becker also examined a male and a female from Houthem but those specimens were collected round 20 June 1904. He returned the specimens with the labels "*Rhamp.* / sp. aff. *aethiops*" and "*Rh.* n.sp. / det. Becker". De Meijere still was not convinced that this species indeed was *R. aethiops* since he labelled the specimen identified by Strobl: "*Rh.* sp. niet [not] / *aethiops*" and "Frey / Mitt. Finl. / 1909". The latter label refers to the publication by Frey (1909) on Finnish Diptera, in which a short description of *R. aethiops* is given that apparently did not fit De Meijere's specimens.

De Meijere (1907) already mentioned these specimens of *R. aethiops* but he did not put the species on the Dutch list because of uncertain

identification. Yet, in the second supplement (De Meijere, 1916) he recorded it from three localities: Vlodrop, Ommen and Houthem. The specimen from Ommen was later [by mistake?] placed in the collection under *R. gibba* (Fallén).

Empis pulicaria was recorded by De Meijere (1907) but this is a junior synonym of *R. longipes*. It was described as a species of *Empis* on the basis of aberrant specimens lacking the fork in vein R_{4+5} . De Meijere also had problems identifying his specimen from Houthem (Limburg) as the identification label shows: "*E. pulicarius* / Loew?" M. Chvála re-identified the specimen as *R. longipes* (see Van der Goot, 1989). See also below under *R. aethiops*.

Rhamphomyia (Amydroneura) erythrophthalma Meigen

* *Rhamphomyia crassicauda* non Strobl: misidentification

* *Rhamphomyia erythrophthalma* Meigen

* *Rhamphomyia serotina* Oldenberg: synonym

* *Rhamphomyia serotina* De Meijere: synonym

Material examined: Noord-Holland: Diemen (1 ♂, 1 ♀: 6.x.1919; 1 ♂: 9.x.1919), Hilversum (12 ♂, 1 ♀: 9.x.1904; 2 ♀: 2.x.1910; 3 ♂, 2 ♀: 16.x.1910; 12: 13.x.1912; 1 ♂: 17.x.1916); Utrecht: Baarn (1 ♂: 29.ix.1906)

The only Dutch record of *Rhamphomyia crassicauda* is that in the 1939 list of De Meijere. This Central European species could not be found among the Dutch material in De Meijere's collection. Neither was it mentioned in one of the supplements to the Dutch checklist of Van der Wulp & De Meijere (1898). As shown below, there is cause for its erroneous inclusion on the Dutch list.

De Meijere first did not recognise *Rhamphomyia erythrophthalma* and sent specimens to Th. Becker for identification. Becker identified two males as *R. crassicauda* and his identification labels are still attached to the specimens. De Meijere must not have been satisfied with the identification since he described the species involved as *R. serotina* (De Meijere, 1918). One year later he already noticed that

R. serotina De Meijere is a junior synonym of *R. serotina* Oldenberg (De Meijere, 1919). The synonymy of *R. serotina* with *R. erythrophthalma* was established by Collin (1926) and this was followed by De Meijere (1939).

Rhamphomyia serotina was described by De Meijere on the basis of specimens collected at Hilversum (Noord-Holland), where he collected it on several occasions. The genitalia of one male from this locality were dissected and figured in the description of *R. serotina*. This specimen was mounted with four other males on one pin but these have now been remounted on separate pins. The specimens represent part of the type-series of *R. serotina* but a holotype was not designated. I hereby designate the male with the dissected genitalia bearing the label "Hilversum / 9.X.04 / de Meijere" as the lectotype and have labelled it: "*Rhamphomyia* (Am.) / *erythrophthalma* ♂ / Meigen, 1830 / Det P L Th Beuk, 1992" and "LECTOTYPE / *Rhamphomyia serotina* / de Meijere, 1918 / des. P. L. Th. Beuk, 1995". The other four males are labelled as paralectotypes.

Even though the misidentification as *R. crassicauda* was recognised, it was erroneously added to the Dutch list, from which it is now removed.

Rhamphomyia (*Amydroneura*) *gibba* (Fallén)

* *Rhamphomyia gibba* (Fallén)

Material examined: Limburg: Valkenburg (2 ♀: vi.1911); Noord-Holland: Hilversum (1 ♂: no date; 1 ♂: 7.vi.1904); Utrecht: Baarn (1 ♀: 28.vii.1910), de Grebbe (1 ♀: 30.vii.1892, leg. Jaspers).

One specimen under this name belonged to *Rhamphomyia longipes*. A female(?) collected by De Meijere at Baarn on 25.vii.1908 probably also belongs to this species. The specimen from De Grebbe was found under *Microphor holosericeus* (Meigen) (family Microphoridae).

Rhamphomyia (*Holoclera*) *caliginosa* Collin

* *Rhamphomyia nigripennis* (non Fabricius): partly, misidentification

Material examined: Zuid-Holland: Leimuiden (2 ♀: ± 29.viii.1918; 1 ♂, 1 ♀: 16.vii.1920).

Rhamphomyia caliginosa closely resembles *R. nigripennis*. It can be distinguished from all other species of the *R. nigripennis* group by its yellow instead of black palps. De Meijere recognised the specimens collected in 1918 as belonging to another species than *R. nigripennis*, but could not identify them. The male and the female collected in 1920 were placed under *R. nigripennis*. *Rhamphomyia caliginosa* is here recorded for the first time from The Netherlands.

Rhamphomyia (*Holoclera*) *flava* (Fallén)

* *Rhamphomyia flava* (Fallén)

Material examined: Limburg: Bunde (2 ♀: 27.vii.1907); Gronsveld (1 ♀: 29.vii.1907), Houthem (1 ♂, 1 ♀: 16.vi.1907), Valkenburg (1 ♂: vi.1911; 2 ♀: 13.vi.1919; 1 ♀: 14.vi.1919; 1 ♀: 15.vi.1919), Zuid-Limburg (1 ♀: no date).

All specimens under this name in the collection were identified correctly. Although De Meijere (1916) recorded this species from both Bunde and Epen in Limburg, the specimens from Epen are missing from the collection. The only two *Rhamphomyia* specimens from Epen found in the collection are males of *R. longipes* and *R. nigripennis*. It is highly unlikely that De Meijere should have confused either species with *R. flava*, but he may have mixed up some of the locality names.

Rhamphomyia (*Holoclera*) *nigripennis* (Fabricius)

* *Rhamphomyia nigripennis* (Fabricius): partly

Material examined: Nederland (2 ♂, 1 ♀: no date); Gelderland: Leuvenum (1 ♂: 8.vi.1913); Limburg: Bunde (1 ♂, 1 ♀: 16.vi.1919), Epen (1 ♂: vi.1911), Houthem (1 ♂: vi.1895, leg. Versluys; 2 ♂, 1 ♀: 8.vi.1903; 1 ♀: ca 20.vi.1904), Valkenburg (1 ♂: 15.vi.1919); Noord-Holland: Haarlem (1 ♂, 1 ♀: 20.v.1920; 1 ♂: 14.viii.1920), Velsen (1 ♀: 10.vi.1916); Overijssel: Denekamp (1 ♂: 18.v.1918); Utrecht: Linschoten (9 ♂, 5 ♀: 3.vi.1920; 2 ♀: 21.v.1919); Zeeland: Walcheren (1 ♂: 18.vi, leg. Van der Wulp); Zuid-Holland: Den Haag (> 20 ♂, > 5 ♀: vi.1902)

Only part of the material under *Rhamphomyia*

nigripennis did in fact belong to this species. Other species represented under this name were *R. caliginosa*, *R. trigemina* Oldenberg and *R. umbripennis* Meigen.

Rhamphomyia (Holoclera) trigemina
Oldenberg

* *Rhamphomyia nigripennis* (non Fabricius): partly, misidentification

Material examined: Gelderland: Oosterbeek (1 ♀: vi.1900)

Rhamphomyia trigemina is again a typical representative of the *R. nigripennis* group. The males can easily be identified using the genitalia, but the females are difficult to identify. The latter closely resemble those of *R. umbripennis* and the main differences are found in the shape of the frons: parallel-sided in *R. umbripennis* and somewhat divergent dorsally in *R. trigemina*. The only specimen of *R. trigemina* in De Meijere's collection was found under *R. nigripennis*. It was identified by G. Strobl in 1901 as *R. umbripennis* "defect ♀". *Rhamphomyia trigemina* is here recorded for the first time from the Netherlands.

Rhamphomyia (Holoclera) umbripennis
Meigen

* *Rhamphomyia nigripennis* (non Fabricius): partly, misidentification

Material examined: Limburg: Bunde (1 ♀: vi.1902 [another female with the same label probably belongs to this species as well]), Valkenburg (1 ♀: 13.vi.1919; 2 ♀: 15.vi.1919).

Rhamphomyia umbripennis also closely resembles *R. nigripennis* but the male genitalia are very distinct. The female can easily be distinguished from the female of *R. nigripennis* because it has a glossy black frons instead of a matt one. *Rhamphomyia umbripennis* is here recorded for the first time from The Netherlands.

Rhamphomyia (Holoclera) variabilis (Fallén)

* *Rhamphomyia variabilis* (Fallén)

Material examined: Nederland (4 ♀: no date); Gelder-

land: Arnhem (1 ♂: 1905, leg. Bierman); Noord-Holland: Hilversum (6 ♂, 2 ♀: no date; 4 ♂, 1 ♀: 28.viii.1904; 8 ♂, 1 ♀: 1.ix.1904; 1 ♂, 2 ♀: 11.ix.1904; 1 ♀: 23.ix.1904; 2 ♀: 30.viii.1907; 3 ♀: 9.ix.1907; 1 ♀: 19.ix.1907; 1 ♀: 26.ix.1907; 1 ♂: 17.viii.1908; 1 ♀: 28.viii.1909; 3 ♂, 1 ♀: 31.viii.[1909?]; 2 ♂, 1 ♀: 5.ix.1909; 2 ♀: 22.ix.1912); Utrecht: Baarn (2 ♀: 27.ix.1908); Zuid-Holland: Den Haag (1 ♀: ix, leg. Van der Wulp).

Rhamphomyia variabilis is represented in De Meijere's collection by 52 specimens and no misidentifications were found.

Rhamphomyia (Megacyttarus) crassirostris
(Fallén)

* *Rhamphomyia nigripes* (auct., non Fabricius): misinterpretation

Material examined: Nederland (1 ♂, 1 ♀: no date); Noord-Holland: Amsterdam (1 ♀: 11.v.1904; 1 ♂: 21.v.1916; 1 ♀: 29.v.1920), Bussum (3 ♂, 1 ♀: 1.v.1894), Haarlem (1 ♂, 1 ♀: 20.v.1920), Hilversum (1 ♂: 12.v.1904); Overijssel: Denekamp (1 ♂, 6 ♀: 17.v.1918); Utrecht: Baarn (1 ♂: v.1891); Zuid-Holland: Den Haag (1 ♂: v, no leg.; 2 ♂, 2 ♀: v.1902; 1 ♂: v.1903; 2 ♂: v.1911, no leg.), Leiden (1 ♀: no further information)

In De Meijere's days the species described as *Empis nigripes* Fabricius and *Empis crassirostris* Fallén were thought to apply to the same species of *Rhamphomyia*, but Collin (1961) pointed out that could not be the case. He concluded that *E. nigripes* was in fact a senior synonym of *E. vernalis* Meigen, and that the correct name for the *Rhamphomyia* species involved should be *R. crassirostris*. Indeed, all specimens under the name *R. nigripes* in De Meijere's collection belong to *R. crassirostris*.

Rhamphomyia (Megacyttarus) maculipennis
Zetterstedt

Rhamphomyia nodipes (non Fallén): misidentification

Material examined: Noord-Holland: Amsterdam [Amsterdamse Weg] (1 ♀: 22.iv.1920).

The single specimen under the name *Rhamphomyia nodipes* in De Meijere's collection does in fact belong to *R. maculipennis*. This species is here recorded for the first time from The Netherlands.

Rhamphomyia (Pararhamphomyia) aethiops
Zetterstedt

Material examined: Gelderland: Doorwerth (1 ♀; coll. Beuk), 't Harde (4 ♂, 17 ♀; coll. van Aartsen, Beuk and ZMA), Tongeren (3 ♂, 6 ♀; coll. van Aartsen), Wolfheze (1 ♂; coll. van Steenis); Limburg: Colmont (1 ♀; coll. van Aartsen).

Although this species was listed by De Meijere (see under *R. longipes*), it was not represented in De Meijere's collection. It is nevertheless maintained on the list because it was collected since 1939 (see above). All specimens were collected in May.

Rhamphomyia (Pararhamphomyia) atra
(Meigen)

* *Rhamphomyia atra* (Meigen)

Material examined: Limburg: Houthem (1 ♀; no date; 1 ♂: 8.vi.1903); Noord-Holland: Amsterdam (1 ♂: 3.vi.1945), Haarlem (1 ♂: 20.v.1920), Velsen (1 ♂: 30.v.1918).

Under the name *Rhamphomyia atra* seven specimens were present in De Meijere's collection. One of these belongs to *R. tarsata* and another specimen, a male bearing the same label as the male from Houthem, is too heavily damaged to allow certain identification.

Rhamphomyia (Pararhamphomyia) barbata
(Macquart)

* *Rhamphomyia barbata* (Macquart)

* *Rhamphomyia pennata* Macquart: synonym

Material examined: Nederland (1 ♀; no date); Gelderland: Oosterbeek (1 ♂, 1 ♀: i.1900); Noord-Holland: Amsterdam (1 ♀: 26.v.1866, leg. Kinker); Haarlem (1 ♀: 9.vi, coll. Van der Wulp; 1 ♀: 20.v.1920); Utrecht: Utrecht (1 ♀: no date, leg. Six); Zuid-Holland: Den Haag (1 ♀: no date, leg. Van der Wulp; 2 ♂: v.1902).

The ten specimens under this name were all correctly identified.

Rhamphomyia (Pararhamphomyia) caesia
Meigen

* *Rhamphomyia filata* Zetterstedt: synonym

Material examined: Overijssel: Denekamp (1 ♂, 1 ♀: 17.v.1916)

Barták (1982) compared the holotype (a female) of *Rhamphomyia caesia* with the re-description by Collin (1961) of *R. filata*. He concluded that both species are identical and that *R. filata* is a junior synonym of *R. caesia*.

Rhamphomyia (Pararhamphomyia) geniculata
Meigen

* *Rhamphomyia geniculata* Meigen

* *Rhamphomyia plumipes* (auctt., non Meigen): misinterpretation by Fallén and Lundbeck

* *Rhamphomyia simplex* non Zetterstedt: partly, misidentification

Material examined: Nederland (1 ♂: no date); Noord-Holland: Hilversum (1 ♂: v.1901); Zuid-Holland: Den Haag (2 ♂: v.1902; 1 ♀: no date, leg. Van der Wulp).

In De Meijere's collection four correctly identified specimens of *Rhamphomyia geniculata* were found. A fifth specimen (the male from Hilversum) was misidentified and listed as *R. simplex* (De Meijere, 1916).

Rhamphomyia (Pararhamphomyia) marginata
(Fabricius)

* *Rhamphomyia platyptera* (Panzer): synonym

Material examined: Gelderland: Nijmegen (1 ♀: 23.v.1909, leg. Schuyt); Limburg: Valkenburg (2 ♀: 1.v.1913, leg. Klene); Noord-Holland: Hilversum (1 ♀: 26.v.1894, no leg.).

Rhamphomyia platyptera is a junior synonym of *R. marginata* but both names were used by different authors. This is probably due to different dating of the name *R. marginata*: both Panzer and Fabricius published descriptions of this species in 1794 but an earlier description of *R. marginata* was published in 1787 by Fabricius. *Rhamphomyia marginata* is thus a senior synonym of *R. platyptera* (see Melander, 1928).

Rhamphomyia (Pararhamphomyia) physoprocta
Frey

* *Rhamphomyia niveipennis* non Zetterstedt: misidentification

Material examined: Overijssel: Ommen (2 ♀: 25.vi.1916; 1 ♀: 26.vi.1918, all. leg. De Meijere).

De Meijere (1916) recorded *Rhamphomyia niveipennis* from Ommen and it was never recorded afterwards. However, the specimens in De Meijere's collection do not belong to *R. niveipennis* but to *R. physoprocta*. The species are quite similar, both having milky white wings and a light grey body with white hairs. However, in *R. physoprocta* the proboscis is shorter than the head is high, whereas in *R. niveipennis* the proboscis is longer than the head is high.

Since the record of *R. niveipennis* was based on a misidentification, *R. niveipennis* is herewith deleted from the Dutch list. *Rhamphomyia physoprocta* is here recorded for the first time from The Netherlands.

Rhamphomyia (Pararhamphomyia) simplex
Zetterstedt

* *Rhamphomyia simplex* Zetterstedt: partly

Material examined: Noord-Holland: Amsterdam (1 ♀: vi.1898; 2 ♂: 11.v.1919; 1 ♂, 1 ♀: 15.v.1919; 1 ♂, 7 ♀: 18.v.1919; 1 ♂: 22.iv.1920), Diemen (1 ♀: v.1892; 3 ♂, 4 ♀: 11.v.1916), Hilversum (1 ♀: 25.v.1905).

Under this name 24 specimens were included of which only one was misidentified (a male of *R. geniculata* from Hilversum).

Rhamphomyia (Pararhamphomyia) tarsata
Meigen

* *Rhamphomyia tarsata* Meigen

Material examined: Gelderland: Laag Soeren (1 ♂: 8.vi.1917); Noord-Holland: Amsterdam (1 ♂: v.1907), Bloemendaal (1 ♂: 20.v.1920), Hilversum (6 ♂, 2 ♀: 22.v.1910; 1 ♂: 12.v.1912); Overijssel: Denekamp (6 ♂: 17.v.1918; 2 ♂: 19.v.1918); Zuid-Holland: Den Haag (1 ♂: 20.v. no leg.; 1 ♂: 22.v. coll. Van der Wulp; 1 ♂: 25.v. no leg.; 1 ♂: 26.v. no leg.; vi, no leg.; 1 ♂: 24.v.1904).

The 25 specimens placed under this name were all identified correctly. A male from Den Haag was found under *R. atra*.

Rhamphomyia (Pararhamphomyia) tibiella
(Zetterstedt)

Material examined: Overijssel: Denekamp (1 ♂: 18.v.1909).

De Meijere collected one male of this species at Denekamp but could not identify it and labelled it "sp. n." without ever describing it. *Rhamphomyia tibiella* is here reported for the first time from The Netherlands.

Rhamphomyia (Rhamphomyia) cinerascens
(Meigen)

* *Rhamphomyia cinerascens* Meigen

Material examined: Nederland (1 ♀: no date, leg. Kinker; 1 ♂, 1 cf ♂, no date); Gelderland: Wamel (3 ♂, 3 ♀: no date, leg. Schuyt); Limburg: Venlo (1 ♂, 2 ♀: no further information [probably leg. Van den Brandt]; 2 ♀: no date, leg. Van den Brandt); Noord-Holland: no further locality label (4 ♂, 2 ♀, 4 puparia: e.p. 1915), Amsterdam (1 ♀: iv; 1 ♀: v.1916; 1 ♀: 16.v.1917; 1 ♂: 3.v.1919; 1 ♀: 10.v.1919; 4 ♂, 1 ♀: 11.v.1919; 1 ♀: 13.iv.1920, 4 ♂, 3 ♀: 22.iv.1920; 2 ♀: 29.iv.1920, all leg. De Meijere; 1 ♂: 26.iv.1914, leg. Mac Gillavry), Ankeveen (3 ♂, 13 ♀: 11.v.1905); Bussum (1 cf ♂: 30.iv.1908), Diemen (1 ♀: v.1916; 2 ♀: 11.v.1916), Diemerbrug (1 ♂, 2 ♀: v.1917; 9 ♂, 1 ♀: 10.v.1917), Hilversum (1 ♀: v.1900; 1 ♀: 6.v.1906); Koenenkade [Amsterdam] (1 ♂: 15.v.1908, no leg. but labels in De Meijere's handwriting), Sloterdijk (1 ♀: 9.v.1908, leg. Koomneef), Zeeburg (1 ♀: 10.v.1914, leg. Mac Gillavry); Zuid-Holland: Bodegraven (2 ♂, 1 ♀: 7.iv.1893), Leiden (1 ♀: no date, leg. De Graaf), Zwammerdam (1 ♂, 2 ♀: v.1900).

Two specimens of *Rhamphomyia cinerascens* were found under *R. sulcata* but those two specimens, although collected by De Meijere, at one time were deposited in the Zoological Museum of the University of Utrecht. After that Museum closed the specimens were returned to the Zoological Museum at Amsterdam, but were erroneously placed under *R. sulcata*. Furthermore, a female of *R. cinerascens* was found under *R. spinipes*.

Rhamphomyia (Rhamphomyia) laevipes
(Fallén)

Material examined: Gelderland: Leuvenum (2 ♂: coll. van Aartsen), Wissel (1 ♀: coll. van Aartsen); Noord-Brabant: Udenhout (88 ♂, 18 ♀: several collections).

Although listed (see under *Rhamphomyia stig-*

mosa) this species is not represented in De Meijere's collection. It is nevertheless maintained on the list because it was collected since 1939. The collecting dates range from half April to late May.

Rhamphomyia spinipes (Fallén)

* *Rhamphomyia spinipes* Fallén

Material examined: Gelderland: Putten (1 ♂: 25.ix.1916, leg. Oudemans).

The specimen from Putten recorded by De Meijere (1919) is still present in the collection. A female of *Rhamphomyia cinerascens* from Zwammerdam was (probably by mistake) also placed under this name but not recorded from this locality.

Rhamphomyia (Rhamphomyia) stigmosa
Meigen

* *Rhamphomyia stigmosa* Macquart

* *Rhamphomyia laevipes* (non Fallén): misidentification

* *Rhamphomyia conformis* Kowarz: synonym of *R. laevipes*

Material examined: Friesland: Beetsterzwaag (1 ♂: 8-11.vi.1922); Limburg: Venlo (1 ♀: v. leg. Van den Brandt), Vloderp (3 ♀: 7.vi.1903).

Only the male from Beetsterzwaag was present under the name *Rhamphomyia stigmosa* in De Meijere's collection, but there were also four females included under the name *R. laevipes*. These females were first recorded as *R. stigmosa* Meigen by De Meijere (1907), but later they were re-identified by L. Oldenberg as *R. laevipes*. This was reported by De Meijere (1928) and the specimens were put in the collection under this name.

It is likely this misidentification was caused by a misinterpretation of *R. conformis* in literature: *Rhamphomyia stigmosa* was included in Lundbeck's treatment of the Danish Empididae (1910) under the name *R. conformis*. *Rhamphomyia conformis* is in fact a junior synonym of *R. laevipes* (see Collin, 1926) and not the same species as *R. stigmosa*. Oldenberg may well have used Lundbeck's key and identified the specimens as *R. conformis*,

since there is an identification label with this name on one of the pins. De Meijere may have applied Collin's synonymisation of *R. conformis* with *R. laevipes*.

Rhamphomyia (Rhamphomyia) sulcata
(Meigen)

* *Rhamphomyia sulcata* Meigen sensu Collin

* *Rhamphomyia propinqua* De Meijere: synonym

Material examined: Nederland (1 ♂, 1 ♀: no date); Noord-Holland: Bussum (1 ♂: iv.1894), Koenenkade [Amsterdam] (1 ♂: 17.v.1908, no leg. but labels in De Meijere's handwriting); Overijssel: Denekamp (2 ♂, 2 ♀: 17.v.1918; 1 ? ♀: 19.v.1918); Zuid-Holland: Zwammerdam (1 ♂, 1 ♀: v.1900).

Rhamphomyia propinqua was described by De Meijere (1918) to separate two closely related species of the *R. sulcata* group. De Meijere did not see the type of *R. sulcata* and does not make clear why he chose to describe this species as *R. propinqua* and to use the name *R. sulcata* for the species now known as *R. sulcatella* Collin.

Collin (1926) did study the specimens under the name *Rhamphomyia sulcata* in Meigen's collection. He found a series of three specimens: a male of *R. cinerascens* and two females belonging to other species. One female was from Paris and "almost certainly received by Meigen from Macquart long after he described his *sulcata*, this is my *sulcatella* (*sulcata* Meij.)". This made him "decide" on the other female "as the 'type' of *R. sulcata* but he did not designate it as a lectotype. Collin (1926) states that the specimen he decided on as the type of *R. sulcata* is conspecific with De Meijere's *R. propinqua* and that *R. sulcata* is thus a senior synonym of *R. propinqua*.

Barták (1989) re-examined the series in Meigen's collection and found only two specimens: the male of *R. cinerascens* and the female of *Rhamphomyia sulcata* sensu Collin. He did not designate the female as lectotype because he could not be certain that the female does indeed belong to *R. sulcata* sensu Meigen, and not to *R. sulcatina* Collin, another closely related species. For nomenclato-

ry stability he also decided against designating the male of *R. cinerascens* as lectotype.

Rhamphomyia propinqua was described by De Meijere (1918) on the basis of specimens from Bussum (Noord-Holland), Zwammerdam and Bodegraven (Zuid-Holland). In De Meijere's collection are at present a male and a female labelled "Zwammerdam V.1900 / de M." and one male labelled "Bussum / IV 94 / de M.". These specimens belong to the type series of *R. propinqua* but De Meijere did not designate a holotype. The genitalia of both males were dissected by De Meijere and mounted in Canada Balsam. Figures of the genitalia were included in the original description of *R. propinqua*. I hereby designate the specimen from Bussum as lectotype and have labelled it: '*Rhamphomyia* (*R.*) / *sulcata* ♂ / (Meigen, 1804) / Det P L Th Beuk, 1991" and "LECTOTYPE / *Rhamphomyia propinqua* / de Meijere, 1918 / des. P. L. Th. Beuk, 1995".

Rhamphomyia (*Rhamphomyia*) *sulcatella* Collin

* *Rhamphomyia sulcatella* Collin

* *Rhamphomyia sulcata* Meigen sensu De Meijere

Material examined: Nederland (2 ♂, 1 ♀: no further information); Limburg: Venlo (1 ♀: no leg. [probably leg. Van den Brandt]); Noord-Holland: no further locality label (1 ♂, 2 ♀, 1 puparium: e.p. 1915), Ankeveen (1 ♀: v.1901); Overijssel: Denekamp (1 ♂, 2 ♀: 17.v.1918).

Collin (1926) synonymised *Rhamphomyia sulcata* Meigen sensu De Meijere with *R. sulcatella* (see quote under *R. sulcata* above). All specimens under *R. sulcatella* were identified correctly.

Final remarks

De Meijere listed twenty-two species of *Rhamphomyia*, eighteen of which could be confirmed on the basis of material from his collection. Two species De Meijere included in his list are deleted (*R. crassicauda* and *R. niveipennis*). Another two species were not found in his collection either but remained on the Dutch list because recent material was available (*R. aethiops* and *R. laevipes*). Six

species (*R. caliginosa*, *R. maculipennis*, *R. physoprocta*, *R. tibiella*, *R. trigemina* and *R. umbripennis*) are added to the Dutch list. So at present 30 species of *Rhamphomyia* are known from The Netherlands.

Acknowledgements

Mr Ben Brugge and Mr Wim Hogenes are thanked for enabling me to study De Meijere's collection at the Zoological Museum at Amsterdam. Mr Volkert van der Goot is thanked for his encouragement to keep on working on the genus *Rhamphomyia*. The following persons made material available for examination: Mr Bob van Aartsen ('t Harde), Mr Wouter van Steenis (Wageningen) and Mr Jan Willem van Zuijlen (Waalwijk). Dr Peter van Helsdingen (National Museum of Natural History, Leiden) and Mr Jan Willem van Zuijlen are thanked for their comments on the manuscript.

References

- BARTÁK, M., 1982. The Czechoslovak species of *Rhamphomyia* (Diptera, Empididae, with description of a new species from Central Europe). – *Acta Univ. Carol., Biol.* 1980: 381-461.
- BARTÁK, M., 1989. Revision of the Meigen's types of *Rhamphomyia* (Diptera, Empididae) in the Paris Museum. – *Věst. čs. Společ. zool.* 53: 1-6.
- BEUK, P. L. TH., 1992. A remarkable aggregation of flies above a road surface, including ten species new to the Dutch fauna (Diptera). – *Ent. Ber., Amst.* 52: 105-110.
- CHVÁLA, M., 1983. The Empidoidea (Diptera) of Fennoscandia and Denmark II. General part. The families Hybotidae, Atelestidae and Microphoridae. – *Fauna ent. scand.* 12: 1-279.
- CHVÁLA, M., 1990. Mating swarms of Diptera, effective ethological isolating mechanisms. – *Acta Univ. Carol., Biol.* 33: 449-454.
- CHVÁLA, M. & R. WAGNER, R., 1989. Family Empididae. In: *Catalogue of Palaearctic Diptera. 6. Therevidae - Empididae* (Á. Soós & L. Papp, eds): 228-336. Elsevier, Amsterdam.
- COLLIN, J. E., 1926. Notes on the Empididae (Diptera) with additions and corrections to the British list [partim]. – *Entomologist's mon. Mag.* 62: 213-219, 231-237.
- COLLIN, J. E., 1961. Empididae. – *Br. Flies* 6: i-viii, 1-782.
- FREY, R., 1909. Mitteilungen über Finnländische Dipteren. – *Acta Soc. Fauna Flora fenn.* 31: 1-23.
- GOOT, V. S. VAN DER, 1989. De dansvliegen van het geslacht Empis in Nederland (Diptera: Empididae). – *Ent. Ber., Amst.* 49: 173-184.
- LUNDBECK, W., 1910. Empididae. – *Dipt. danica* 3: 1-329.
- MELANDER, A. L., 1928. Diptera. Fam. Empididae. – *Genera insectorum* 185: 1-434.

- MEUFFELS, H. J. G., 1970. Aantekeningen over Nederlandse Diptera. – *Ent. Ber., Amst.* 30: 122-125.
- MEIJERE, J. C. H. DE, 1907. Eerste supplement op de nieuwe naamlijst van Nederlandsche Diptera. – *Tijdschr. Ent.* 50: 151-195.
- MEIJERE, J. C. H. DE, 1916. Tweede supplement op de nieuwe naamlijst van Nederlandsche Diptera. – *Tijdschr. Ent.* 59: 293-320.
- MEIJERE, J. C. H. DE, 1918. Neue holländische Dipteren. – *Tijdschr. Ent.* 61: 128-141.
- MEIJERE, J. C. H. DE, 1919. Derde supplement op de nieuwe naamlijst van Nederlandsche Diptera. – *Tijdschr. Ent.* 62: 161-195.
- MEIJERE, J. C. H. DE, 1928. Vierde supplement op de nieuwe naamlijst van Nederlandsche Diptera. – *Tijdschr. Ent.* 71: 11-83.
- MEIJERE, J. C. H. DE, 1939. Naamlijst van Nederlandsche Diptera, afgesloten 1 april 1939. – *Tijdschr. Ent.* 82: 137-174.
- WULP, F. M. VAN DER & J. C. H. DE MEIJERE, 1898. Nieuwe naamlijst van Nederlandsche Diptera. – *Tijdschr. Ent.* 41 (suppl.): 5 + 1-149.

Accepted 12.i.1995.