

On the identity of *Cheilosia ruralis* (Meigen, 1822) (Diptera, Syrphidae) – with a review of its synonymies

Claus Claußen and Martin C. D. Speight

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The identity and nomenclature of 19 European species-group names assigned to the synonymies of *Cheilosia ruralis* (Meigen, 1822) and *Cheilosia praecox* (Zetterstedt, 1843) are reviewed by examination of the accessible types. Lectotypes are designated where necessary. *Cheilosia ruralis* (Meigen, 1822) is established as a junior synonym of *Cheilosia mutabilis* (Fallén, 1817). *Cheilosia urbana* is reinstated as the valid senior synonym of *Cheilosia praecox* (Zetterstedt, 1843).

Zusammenfassung

Identität und Nomenklatur von 19 nominellen europäischen *Cheilosia*-Arten in der Synonymie von *Cheilosia ruralis* (Meigen, 1822) und *Cheilosia praecox* (Zetterstedt, 1843) werden durch Untersuchung der erreichbaren Typen revidiert. Wo erforderlich, werden Lectotypen festgelegt. *Cheilosia ruralis* (Meigen, 1822) wird als jüngeres Synonym von *Cheilosia mutabilis* (Fallén, 1817) erkannt. *Cheilosia urbana* (Meigen, 1822) wird als gültiger älterer Name von *Cheilosia praecox* (Zetterstedt, 1843) wieder eingesetzt.

Introduction

The current interpretation of the name *Cheilosia ruralis* (Meigen, 1822) and of some *Cheilosia* names assigned to *ruralis* by tentative synonymies has been considerably confused. Many of these current interpretations of *Cheilosia* names, valid or in synonymy, are based on incomplete information, and their status has not been revised since their early interpretation by Becker (1894, 1902).

Since Becker (1902: 354) incorrectly assumed that the "types" of *ruralis* in the Meigen collection in Paris are conspecific with *Cheilosia praecox* (Zetterstedt, 1843), the name *C. ruralis* was widely used as the supposed valid senior synonym of *C. praecox* (e. g. Hellén 1912/1929, Lundbeck 1916, Sack 1928-32, Gil Collado 1930, Séguy 1961, Bańkowska 1963, Stackelberg 1970, Barkalov in Violovitsh 1983). Verrall (1900), however, listed *C. ruralis* in the synonymy of *C. praecox* and continued the usage of the junior synonym (*C. praecox*) for that taxon (Verrall 1901). Coe (1953:65)

implies that *C. ruralis* of Becker is not conspecific with *C. ruralis* of Meigen, but gives no reasons for this suggestion. He used the name *C. praecox* for the species occurring in England. Coe thus stimulated a wide usage of the name *C. praecox* in modern western European literature (e. g. Torp 1973, Torp 1984, van der Goot 1981, Stubbs & Falk 1983, Verlinden 1991), while most of the Russian authors continued until recently (Barkalov 1998) to use the name *ruralis* Meigen for the same taxon. As a consequence of the above mentioned confusion, in the recent Catalogue of Palaearctic Syrphidae (Peck 1988: 114-115) one taxon is treated simultaneously under two names: *C. ruralis*, and *C. praecox*.

To disentangle the confused current interpretations and nomenclature of the species concerned, we have reviewed all species-group names known to us to be assigned to the synonymies of *C. ruralis* and *C. praecox*, by examination of the accessible types. The confirmed identity of each species was then fixed by the designation of lectotypes.

Material from the following museums was studied:

MHNL – Musée d'Histoire Naturelle, Lille

MNHN – Museum National d'Histoire Naturelle, Paris

MZHF – Zoological Museum, University of Helsinki

MZLS – Museo Zoologico de 'La Specola', Università Degli Studi di Firenze

MZLU – Lunds Universitet, Zoologiska Museet

NHMW – Naturhistorisches Museum Wien

NMBA – Naturhistorisches Museum des Benediktinerstiftes Admont

SMNS – Staatliches Museum für Naturkunde Stuttgart

ZMHU – Zoologisches Museum, Museum für Naturkunde der Humboldt-Universität Berlin

Review of the *Cheilosia* names treated

The species epithets are dealt with below in alphabetical order. The following format is used for each species: Author, date: page number of original description (original genus). Type, gender of the type, depository of type(s). Content of original labels. Identity (valid name). Comments. Where data were placed on upper and lower side of a label (e.g. some labels in the Meigen Collection), these data were separated in the text by a slash. Data from different labels on the same pin are separated in the text by commas. Types have been labeled accordingly. The specimens in the Meigen Collection in MNHN were examined by Speight, for the last time in September 1998, Speight also examined the Macquart Collections in MNHN (Paris) and MHNL (Lille). The remaining specimens were studied by Claßen.

fulvipes Wiedemann in Meigen, 1822: 339 (*Syrphus*)

Holotype ♀, "aus der Berliner Gegend" [Germany, environs of Berlin (von Hoffmannsegg)], type missing. [The type could not be traced out neither in the collections of the ZMHU (Dr. Marion Kotrba, pers. com.), nor in the NHMW (Dr. Ruth Contreras-Lichtenberg, pers. com.)]

Identity: When Meigen (1838: 123) reinstalled his genus *Cheilosia*, he listed "*Syrphus*" *fulvipes* under his *Cheilosia* (!) species with hairy eyes. Becker (1894: 245) supposed *Syrphus fulvipes* to be a real *Syrphus* (not a *Cheilosia*). Verrall (1900: 62), following Becker (1894), placed *Syrphus fulvipes* as a questionable synonym under *Epistrophe eligans* (Harris, 1780) (sub nom. *bifasciatus* Fabricius, 1794). This synonymy was accepted by Peck (1988: 20). To judge from the original description and the coloured figure of Meigen in Morge (1976, plate 272, fig. 14), *Syrphus fulvipes* is clearly a small

Cheiliosia, with dark yellow antennae with black tip, and with reddish legs with the base of femora and basitarsi black. The only species, known to us to occur in the vicinity of Berlin, which fits both the description and the figure of Meigen, is the species for which we use the name *Cheiliosia urbana* (Meigen) in this paper. There are many females of *urbana* from northern Germany which have the femora pale in nearly distal 2/3. – From the above informations we consider *Cheiliosia fulvipes* (Wiedemann in Meigen, 1822) as a junior synonym of *Cheiliosia urbana* (Meigen, 1822). **New Synonym.**

funeralis Meigen, 1822: 292 (*Syrphus*)

Holotype ♂, "aus hiesiger Gegend" [Germany: probably Stolberg near Aachen], in MNHN (Meigen Coll.). Labels: "Meigen/2929 40" [round, faded red], "*Cheiliosia funeralis* ♀" [misabeled as female!]. We accept this specimen with the original name label as the holotype. – Identity: A junior synonym of *Cheiliosia mutabilis* (Fallén, 1817).

Syrphus funeralis Meigen was described from a single male. In the Meigen collection there are two males and one female under the name *Cheiliosia funeralis*. The male which is here accepted as the holotype fits the original description and the coloured figures of Meigen in Morge (1976, plates 202: 9 and 290: 7). The two remaining specimens are not recognised as syntypes, they are identified and labeled as follows: 1♂ "Meigen/1427 40" is *C. mutabilis*; 1♀ "Meigen/1427 40" is *C. urbana*.

Becker (1902: 353) could not recover the type of *C. funeralis* in the Meigen Collection in Paris. But from the original description he had expected *C. funeralis* to be *C. mutabilis* (Becker 1894: 241).

glabrata Meigen, 1838: 125 (*Cheiliosia*)

Lectotype ♀, Type locality not given (Europe), here designated (Speight 1993), in MNHN (Meigen Coll.). – Labels: "Meigen/1428 40" [round, red], "*glabrata* ♀". – Identity: A junior synonym of *Cheiliosia vernalis* (Fallén, 1817). **New Synonym.** – The lectotype is a specimen with bright orange antennal segment 3 and the eye hairs long black dorsally. – Paralectotype: 1♀, "Meigen/1437 40" is *Cheiliosia pagana* (Meigen, 1822). [The number on the underside of the label with this specimen ("1437 40") is not the same as that under the label of the *pagana* type in the Meigen collection].

C. glabrata was described from an unspecified number of females. Schiner (1862: 287) listed *glabrata* as a questionable synonym of *praecox*. He was followed by Becker (1894: 245) and Verrall (1900:46). Becker (1902: 355) could recover one female of *glabrata* in the Meigen Collection which he identified as *C. praecox*; this interpretation has been adopted by subsequent catalogues of Palaearctic Syrphidae.

glirina Rondani, 1857: 155 (*Cheiliosia*)

Lectotype ♂, "in ditione Parmensi. - In Etruria ..." [Northern Italy], here designated, in MZLS (Rondani Coll.). – Labels: "258" (small oval with a red number), "det. examined FC Thompson 1978". – Identity: A junior synonym of *Cheiliosia proxima* (Zetterstedt, 1843). **New Synonym.** – Paralectotypes: 1♂ and 1♀ with the same original label ("258") as the lectotype are labeled as paralectotypes. The male is *Cheiliosia proxima* (Zetterstedt, 1843), the female is of the *Cheiliosia vernalis*-aggregate.

C. glirina was formerly regarded as a questionable synonym of *C. mutabilis* (Verrall 1900, Bezzi & Stein 1907, Peck 1988).

globulipes Becker, 1894 (*Chilosia*)

Lectotype ♀, "Schlesien, Böhmen" [Poland, Czech Republic], here designated (Claußen 1995), in ZMHU (Loew & Becker Coll.). – Labels: "Coll. H. Loew", "*Chilosia globulipes* Beck. ♀ det. K. Malski 19", "Typus" [red], "Zool. Mus. Berlin". – Identity: A junior synonym of *Cheiliosia urbana* (Meigen, 1822). **New Synonym.**

C. globulipes Becker was described from an unspecified number of females. In 1990 only 1 female without head could be recovered in the collections of Loew & Becker in Berlin. We regard this specimen as a deformed female of *C. urbana* with strongly swollen fore- and hind metatarsi. Similar monstrous females are known to occur in *Cheiliosia longula* (Zetterstedt, 1838) (vid. Lundbeck 1916: 146, Stubbs & Falk 1983: 170). There are 2 further deformed females of *C. longula* from coastal northern

Sweden: Ångermanland, 28.7.-10.8.1979, K. Müller leg. in Coll. CC). Barkalov (1990: 121) formally (and incorrectly) synonymised *C. globulipes* Becker under *C. ruralis* (Meigen).

linearis von Roser, 1840: 54 (*Syrphus*)

Syntypes ♂ ♀, Germany, Württemberg, formerly in SMNS (von Roser Coll.), types presumably lost (Schmid et al. 1998: 77).

Becker (1894: 251) studied male and female syntype(s) of *linearis* from the v. Roser collection and considered *C. linearis* to be a junior synonym of *C. mutabilis*. This synonymy is here adopted.

mutabilis Fallén, 1817: 54 (*Eristalis*)

Syntypes ♂ ♀, "Habitat cum praecedente, ..." [the locality of the preceding species in Fallén (1817) is "Scaniae, Wermlandiae" (Sweden: Värmland)], types not studied. Informations, whether types of *mutabilis* are still extant in the Fallén Collection at Stockholm could not be received.

From the original description and the description of *mutabilis* by Zetterstedt (1843: 802), there is no doubt that the original concept of *mutabilis* is the same as currently recognised. An excellent description of both sexes is provided by Lundbeck (1916: 186), and the male terminalia and distinguishing characters for separation from some closely similar European *Cheilosia* were recently figured by Claußen & Kassebeer (1993).

nevadensis Strobl, 1909: 199 (*Chilosia*)

Lectotype ♂, "Oberes Genital bis in die Hochregion der Sierra Nevada" [South Spain], here designated (Claußen 1998), in NMBA (Strobl Coll.). – Labels: "Sr. Nevada 1/5 *Chilos. praecox* v. *nevadensis* m. ♂ ♀ Südspanien Prof. G. Strobl". – Identity: A junior synonym of *Cheilosia urbana* (Meigen, 1822). **New Synonym.**

Paralectotype, 1 ♀ studied, labeled "Spanien Genil Czerny" is *C. urbana*.

C. nevadensis was described as a variety of *C. praecox* ("*ruralis* Mg., *praecox* Zett.") from 5 ♂ and 3 ♀. The two syntypes studied have the 3rd antennal segment a little shorter and more blackish and the legs darker than in most populations of *C. urbana* from Central Europe, but are clearly recognisable as conspecific with *C. urbana*.

placida Meigen, 1838: 128 (*Cheilosia*)

Lectotype ♀, "hiesige Gegend" [Germany: probably Stolberg near Aachen], here designated (Speight 1998), in MNHN (Meigen Coll.). – Labels: "Meigen/1447 40" [round, reddish], "*placida* ♀." – Identity: A junior synonym of *C. mutabilis* (Fallén, 1817).

C. placida was described from an unspecified number of females. The one female extant in the Meigen collection in 1998 lacks the abdomen. It fits otherwise well the coloured figure of Meigen in Morge (1976, plate 305: 8) but has the legs darker (hind legs all black, fore legs black except tarsomeres 2-4 and femoral and tibial tips which are yellow) as stated in the description. But as Meigen himself was not consistent on the colour of the legs in his description and his coloured figure, we hence accept the female now in the Meigen collection as a syntype.

Becker (1902: 355) must have had this same female before him, when he studied *Cheilosia* species in the Meigen collection, as he stated that the single female of *placida* lacks the abdomen and has the legs slightly darker as described by Meigen. Synonymy by Becker (1902).

praecox Zetterstedt, 1843: 801 (*Eristalis*)

Lectotype ♂, "Ostrogöthia" [Sweden: Östergötland], here designated (Claußen 1994), in MZLU (Dipt. Scand. Coll.). – Labels: "70", "*E. praecox* ♂ Ostrog." – Identity: A junior synonym of *Cheilosia urbana* (Meigen, 1822). **New Synonym.** – The lectotype is in good condition. The terminalia were dissected, stored in glycerine in a micro-vial and pinned with the specimen.

Paralectotypes in MZLU: 1 ♂ (Dipt. Exot. Coll.) "442", "*E. praecox*. ♂. Glogav." – 1 ♂ (Dipt. Exot. Coll.) "♂ 39", "441", "Zell." [? Zeller] – 1 ♂ (Dipt. Exot. Coll.) "Gg 40" [? Glogau], "437", "Zell." [? Zeller] – 1 ♀ (Dipt. Exot. Coll.) "Wien 41", "244", "*E. praecox* ♀ e Glogav." – 1 ♀ (Dipt. Exot. Coll.) "g 40"

[? Glogau], "446", "Zell." [? Zeller] – 1♀ (Dipt. Exot. Coll.) "21." – 1♂ (Zett. Dipt. Scand. Coll.) "20.", "sub *urbana* M a Staeg. 42. ♂" – 1♀ (Dipt. Scand. Coll.) a small orange-red tag without data. – Identity: all *Cheilosia urbana* (Meigen, 1822).

1♂ (Dipt. Scand. Coll.) a small orange-red tag without data (Genitalia examined) – 1♂ (Dipt. Scand. Coll.) a small yellow tag without data (Genitalia examined) – 1♀ (Dipt. Scand. Coll.) "70", "*E. praecox* ♀ Ostrog.". – Identity: all *Cheilosia psilophthalma* Becker, 1894.

1♀ (Dipt. Scand. Coll.) a small orange-red tag without data. – Identity: *Cheilosia vernalis* (Fallén, 1817).

All paratypes were labeled accordingly.

The type series of *Eristalis praecox* consists of three species: *C. urbana*, *C. psilophthalma* and *C. vernalis*. In the interest of nomenclatural stability we selected the lectotype from among the syntypes which are conspecific with *C. urbana*, given that this is the only concept which was widely used for *C. praecox* in the past.

pratensis Meigen, 1822: 293 (*Syrphus*)

Lectotype ♀, type locality not given (Europe), here designated (Speight 1993), in MNHN (Meigen Coll.). – Labels: "Meigen/1444 40" [round, red], "*pratensis* ♀", "1253" [species no.]. – Identity: A junior synonym of *Cheilosia mutabilis* (Fallén, 1817).

Paralectotypes: 1♀ without abdomen "Meigen/2935 40", "*Cheilosia pratensis* ♀". – Identity: *C. mutabilis*. – 1♀, only thorax with wings and legs left, "Meigen/1444 40". – Identity: From the colour of the legs this specimen probably also refers to *C. mutabilis*.

C. pratensis was described from an unspecified number of females. Becker (1902: 354) could trace only one female of *C. pratensis* in the Meigen collection which he presumed to be a type. He also identified it as *C. mutabilis*.

punctigenis Hellén, 1914: 63 (*Chilosia*)

Lectotype ♂, "H:fors" [Finland: probably Helsingfors], here designated, in MZHF. – Labels: "H:fors", "Wellenius", "Mus. Zool. H:fors Spec. typ. No. 4595 *Chilosia punctigenis* Hellén", "*ruralis* Meig." – Identity: A junior synonym of *Cheilosia urbana* (Meigen, 1822). **New Synonym.**

Paralectotypes: 1♂ "H:fors", "Wellenius", "Mus. Zool. H:fors Spec. typ. No. 4594 *Chilosia punctigenis* Hellén" (terminalia were dissected and stored in glycerine in a micro-vial on the pin of the specimen. – 1♂ "Hirversalmi", "Palmén", "36", "Becker det.", "*praecox* Zett.", "Mus. Zool. H:fors Spec. typ. No. 4596 *Chilosia punctigenis* Hellén", "*ruralis*". Both paratypes are *C. urbana*.

Hellén (1929: 105/106) synonymised his *punctigenis* (incorrectly) under *C. ruralis*. Peck (1988: 114) has listed *C. punctigenis* as a valid species.

pusilla Rondani, 1857: 156 (*Cheilosia*)

Lectotype ♂, "in locis montuosis ditionis Parmensis" [Italy: environs of Parma], here designated (Claußen 1989), in MZLS (Rondani Coll.). – Label: "263" [small oval label with a red number]. – Identity: A junior synonym of *Cheilosia mutabilis* (Fallén, 1817).

Paralectotypes: 2♀ with the same original label ("263") as the lectotype were labeled as paralectotypes; both are *C. mutabilis*.

pygmaea Zetterstedt, 1838: 614 (*Eristalis*)

Syntype(s) ♀, "in alpe Dowre" [Norway: Dovrefjell]. Types not examined.

Cheilosia pygmaea was described from an unspecified number of females. Becker (1894: 248) examined types of *C. pygmaea* in coll. Zetterstedt and considered *pygmaea* conspecific with *C. mutabilis*. From the detailed original description and the later additions to it by Zetterstedt himself (1843: 796, 1859: 6016), there is no doubt as to this proposed synonymy.

rufipes Macquart, 1829: 206 (*Cheilosia*)

Syntype(s) ♀, "Nord de la France" [Northern France]. A junior secondary homonym of *Syrphus*

rufipes Preyssl, 1793. Types could not be recovered in the collections of either the MNHN (Paris) or the MHNH (Lille). – Identity: Since Verrall (1900: 46) *C. rufipes* Macquart has been regarded as a questionable synonym of the species here called *C. urbana* (Meigen).

To judge from the description of *C. rufipes* Macquart in Meigen (1838: 128) and from Meigen's coloured figure in Morge (1976, plate 305: 9), Meigen has interpreted the female of *C. rufipes* Macq. as a specimen with bare eyes, yellow tibiae and tarsi, and a brownish 3rd antennal segment with a black tip. This interpretation of Meigen would much better fit the concept of *Cheilosia scutellata* (Fallén, 1817) than that of *C. urbana*. But as there is no evidence that Meigen's interpretation is correct, we here adopt the current interpretation of *C. rufipes* as a questionable junior synonym of *C. urbana*.

ruralis Meigen, 1822: 293 (*Syrphus*)

Lectotype ♂, type locality not stated: "Beide Geschlechter im Julius" [Germany: probably Stolberg near Aachen], here designated (Speight 1993), in MNHN (Meigen Coll.). – Labels: "Meigen/1432 40" [round, dirty "white"], "*ruralis*". – Identity: A junior synonym of *Cheilosia mutabilis* (Fallén, 1817). **New Synonym.**

Paralectotypes: 1 ♂ "Meigen/1432 40" is *Cheilosia mutabilis*; the remains of a third specimen (thorax with wings and legs) with the same original Meigen label as the preceding specimen has the hind legs almost entirely dark and is probably also *C. mutabilis*.

Syrphus ruralis was described from an unspecified number of males and females collected in July: "Beide Geschlechter im Julius" (Meigen 1822: 293). This late date of capture would fit well the known phenology of *C. mutabilis*, but would contradict the phenology of *C. praecox*, for which latter species the flight period in the Netherlands (van der Goot 1981: 175) and Belgium (Verlinden 1991: 135) is given from mid of april till end of may.

When Becker (1902: 354) examined the *Cheilosia* types in the Meigen collection in Paris, he found 1 ♂ and 1 ♀ of *ruralis* (instead of the 3 specimens there in 1998) which he identified to be *C. praecox*. It is difficult to understand how Becker should have misinterpreted both sexes of *ruralis*, when he had clearly differentiated *praecox* (sub nom. *ruralis*) and *mutabilis* in his monograph (Becker 1894), assuming he had the same specimens before him which are in the present paper regarded as syntypes.

The original description of *ruralis* fits well Meigen's coloured figure of a male in Morge (1976, plate 202: 11), but it partly contradicts the specimens which are here considered as the types of *ruralis*. Especially the hind legs of the types are darker as shown in the figure of Meigen and as given in the original description.

tarsata Macquart, 1834: 557 (*Cheilosia*)

Syntype(s) ♂, "Bordeaux" [South France]. – Types could not be recovered in the collections of the MNHN (Paris) by Speight in 1993. – Identity: Since Verrall (1900: 46) *C. tarsata* is listed as a questionable synonym of *C. praecox*. As no further informations on *tarsata* as given in the original description, are known to us, we adopt for pragmatic reasons, the current interpretation of *C. tarsata* as a questionable junior synonym of the species here called *C. urbana* (Meigen).

urbana Meigen, 1822: 287 (*Syrphus*)

Holotype ♂, "Oesterreich" [Austria], "aus dem Kais. Königl. Museum"; presumably lost.

[For informations on Meigen's collections and collectors we have used the detailed study of Pont (1986)]. *C. urbana* was described from an unique male from the "Kais. Königl. Museum", what is now the Naturhistorisches Museum in Vienna. This material from Vienna was transmitted to Meigen for study in about 1816, and was presumably returned before 1822, as some remarks in other *Cheilosia* descriptions in Meigen (1822) implies [e.g. remark on p. 288: "18. *Syrph. fulvicornis*": "... ich kann aber das Exemplar jetzt nicht mehr vergleichen." (... but now I can no longer compare the specimen)]. Most of the Meigen types of specimens described from material from the "Kais. Königl. Museum" are presumed to be destroyed (Pont 1986, Thompson 1988).

In NHMW, under "*urbana*" there are 2 specimens from the Wiedemann Coll. which are labeled: "*urbana*", and 3 further historical specimens which were studied by Becker: 1) 1 ♀ "Megerle", "Austria", "*praecox* det. Becker"; 2) 1 ♂ "Megerle", "Germ.", "*chalybeata* Alte Sammlung", "*Chil. ruralis* det. Becker"

and 3) 1♀ "*pulchripes* Loew det. Becker". But none of these specimens is labeled by Meigen and we hence do not consider one of them to be the holotype of *urbana*. – Under "*scutellata*", there is 1♂ labeled "*urbanus* Coll. Winthem", "*urbanus*", it is *C. scutellata* (Fallén, 1817). However this specimen does not fit the original description: it has the face dusted, not polished black ("Kopf poliert schwarz"), as stated in the description; the capitulum of the haltere is pale yellow like the stem, not with brown capitulum ("mit braunem Kopf"); the hind tarsi are black dorsally, not only the last tarsomere black ("letztes Fußglied schwarz") and the body length is 8.5 mm, not 6.35 mm ("3 Linien"). From this information we do not consider this male to be the holotype of *urbana*.

In the Meigen Coll. (MNHN) there are 2♂ under "*urbana*" with an original Meigen label: 1♂ "Meigen/1438 40", "*urbana* ♂" and a second ♂ "Meigen/2930 40", "*Cheiliosia urbana* ♂", both are *C. praecox* (Zett.). We regard these specimens as later additions, not as types.

Identity: The interpretation of the name *Cheiliosia urbana* has been confused by the fact, that Meigen (1838: 124), when he reinstalled his genus *Cheiliosia*, has grouped *urbana* under his species with bare eyes, contrary to the specimens in his collection and to his coloured figure of the male in Morge (1975, plate 78:17). As a consequence of this statement Zetterstedt (1843: 801, footnote) rejected the name *urbana* for his *C. praecox*, because he regarded *urbana* as a species with bare eyes. Schiner (1862: 281, footnote) supposed *urbana* to be *Cheiliosia pagana* (Meigen, 1822), an other bare eyed species.

However, as Meigen himself was not consistent on the condition of the eyes in *urbana*, and as he did not state this character in the original description, and as an other species (*scutellata*) was also grouped incorrectly in Meigen (1838: 123), we judge this discrepancy to be of minor importance.

Becker (1902: 352) found 1♂ of *urbana* in the Meigen collection which he identified as *C. praecox*. Subsequent catalogues of Palaearctic Syrphidae (Bezzi & Stein 1907, Peck 1988) have incorrectly placed *urbana* as a junior synonym under *C. ruralis* (Meigen).

As we have been unable to trace the type of *urbana*, we here accept the two specimens now in the Meigen Coll. as to represent the original concept of *Cheiliosia urbana* (Meigen). Both specimens fit fully the original description and the coloured figure of Meigen in Morge (1976, plate 78:17). The specimens are identical with *C. praecox*, as restricted in the present paper and as redefined recently by Claussen & Kassebeer (1993) and Claußen & Doczkal (1998). Hence we accept *Cheiliosia urbana* (Meigen, 1822) as the senior valid synonym of *Cheiliosia praecox* (Zetterstedt, 1843). **New Synonym.** – The name *C. urbana* (Meigen) will have to replace *C. praecox* (Zetterstedt). **Revised Status.**

Synopsis of the names treated in this paper

Cheiliosia mutabilis (Fallén, 1817)

= *funeralis* (Meigen, 1822)

= *pratensis* (Meigen, 1822)

= *ruralis* (Meigen, 1822), **syn. nov.**

= *placida* (Meigen, 1822)

= *pygmaea* (Zetterstedt, 1838)

= *linearis* (von Roser, 1840)

= *pusilla* Rondani, 1857

Cheiliosia proxima (Zetterstedt, 1843)

= *glirina* Rondani, 1857, **syn. nov.**

Cheiliosia urbana (Meigen, 1822), **stat. rev.**

= *fulvipes* (Wiedemann in Meigen 1822), **syn. nov.**

= *ruralis* of authors, not Meigen (in part)

- = *praecox* (Zetterstedt, 1843), **syn. nov.**
- = *globulipes* Becker, 1894, **syn. nov.**
- = *nevadensis* Strobl, 1909 (as var. of *praecox*), **syn. nov.**
- = *punctigenis* Hellén, 1914, **syn. nov.**
- = ? *rufipes* Macquart, 1829
- = ? *tarsata* Macquart, 1834

Cheilosia vernalis (Fallén, 1817)

- = *glabrata* Meigen, 1838, **syn. nov.**

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References

- Bańkowska, R. (1963): Muchówki - Diptera. 34 Syrphidae. – Klucze do Oznaczania Owadów Polski 28, 1-236. Warszawa.
- Barkalov, A.V. in Violovitsh, N. A. (1983): Siberian Syrphidae (Diptera). 242 p. Novosibirsk.
- Barkalov, A.V. (1990): New data on the taxonomy of the hoverflies of Siberia and the Far East (Diptera, Syrphidae). – Novyje i maloizvestnyje vidy fauny Sibiri. Taksonomija nasekomych i gel'mintov, 1990, 120-128. Novosibirsk.
- Barkalov, A.V. (1998): Changes and additions to the Catalogue of Palaearctic Syrphidae. Genus *Cheilosia* Meigen, 1822. – International Journal of Dipterological Research 9 (2), 69-77. Riga.
- Becker, T. (1894): Revision der Gattung *Chilosia* Meigen. – Nova Acta der Kaiserlich Leopoldinisch-Carolinischen Deutschen Akademie der Naturforscher 62 (3): 199-524 + 13 plates. Halle.
- Becker, T. (1902): Die Meigen'schen Typen der Gattung *Chilosia* Meig. in Paris. – Zeitschrift für Systematische Hymenopterologie und Dipterologie 2, 350-355. Leipzig.
- Bezzi, M., Stein, P. (1907): Cyclorapha Aschiza. – In: Becker, T., Bezzi, M., Kertész, K., Stein, P. (eds.): Katalog der paläarktischen Dipteren 3, 1-189. Budapest.
- Claussen, C., Kassebeer, C. F. (1993): Eine neue Art der Gattung *Cheilosia* Meigen 1822 aus den Pyrenäen (Diptera: Syrphidae). – Entomologische Zeitschrift 103 (22), 420-427. Essen.
- Claussen, C., Doczkal, D. (1998): Eine neue Art der Gattung *Cheilosia* Meigen, 1822 (Diptera, Syrphidae) aus den Zentralalpen. – Volucella 3 (1/2), 1-13. Stuttgart.
- Coe, R. L. (1953): Diptera Syrphidae. – Handbooks for the Identification of British Insects 10 (1), 1-98. London.
- Czerny, L., Strobl, P. G. (1909): Spanische Dipteren. III. Beitrag. Verhandlungen der zoologisch-botanischen Gesellschaft in Wien 59, 121-301. Wien.
- Fallén, C. F. (1816-1817): Syrphici Sveciae. 62 pp. [1-22 (1816), 23-62 (1817)]. Lundae [Lund].
- Gil Collado, J. (1930): Monografía de los Sirfidos de España. – Trabajos del Museo Nacional de Ciencias Naturales de Madrid, Serie Zoológica 54, VII + 1-376 pp. Madrid.

- Goot, V. S. van der (1981): De zweefvliegen van Noordwest-Europa en Europees Rusland, in het bijzonder van de Benelux. 275 pp. Amsterdam.
- Hellén, W. (1912): Über die finnischen Arten der Gattung *Chilosia* Meig. – Meddelanden af Societas pro Fauna et Flora Fennica 38, 149-164. Helsingfors.
- Hellén, W. (1914): Beiträge zur Kenntnis der Gattung *Chilosia* Meig. – Meddelanden af Societas pro Fauna et Flora Fennica 40, 56-64. Helsingfors.
- Hellén, W. (1929): Neue Beiträge zur Kenntnis der *Cheilosia*-Arten (Dipt.) Finnlands. – Notulae Entomologicae 9, 100-109. Helsinki.
- Lundbeck, W. (1916): Diptera Danica. Genera and species of flies hitherto found in Denmark. Part 5. Lonchopteridae, Syrphidae. 603 pp. Copenhagen.
- Macquart, J. (1829): Insectes Diptères du nord de la France. Syrphies. – Mémoires de la Société royale des Sciences, de l'Agriculture et des Arts de Lille 1827 (1828), 149-371, 4 pls.; Lille. [Paper not seen].
- Macquart, J. (1834): Histoire naturelle des Insectes. - Diptères, Tome, premier. Paris, 578 pp., 12 pls. – In: Roret, N. E. (ed.): Collection des suites à Buffon. Paris. [Paper not seen].
- Meigen, J. W. (1822): Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. Vol. 1. XXXVI + 333 pp., pls. 22-32. Hamm.
- Meigen, J. W. (1838): Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. Vol. 7. XII + 434 pp., pls. 67-74. Hamm.
- Morge, G. (1975): Dipteren-Farbtafeln nach den bisher nicht veröffentlichten Original-Handzeichnungen Meigen's: "Johann Wilhelm Meigen: Abbildungen der europaeischen zweiflügeligen Insekten, nach der Natur". Pars I. Vorwort des Herausgebers – Faksimiles von Original-Legenden und -Index: "Erklärung der Fig." und "Alphabetisches Verzeichnis der Gattungen und Arten" – Farbtafeln I-LXXX. – Beiträge zur Entomologie 25, 383-500, pls. 1-80. Berlin.
- Morge, G. (1976): Dipteren-Farbtafeln nach den bisher nicht veröffentlichten Original-Handzeichnungen Meigen's: "Johann Wilhelm Meigen: Abbildungen der europaeischen zweiflügeligen Insekten, nach der Natur". Pars III: Farbtafeln CLXI-CCCV. – Beiträge zur Entomologie 26, 543, pls. 161-305. Berlin.
- Peck, L. V. (1988): Family Syrphidae, pp. 11-230. – In: Soós, A., Papp, L. (eds.): Catalogue of Palaearctic Diptera. Vol. 8. 363 pp. Amsterdam.
- Pont, A. C. (1986): A Revision of the Fanniidae and Muscidae described by J.W. Meigen (Insecta: Diptera). – Annalen des Naturhistorischen Museums Wien (B) 87, 197-253, 1 pl. Wien.
- Rondani, C. (1857): Dipterologiae Italicae Prodromus. 2. Species italicae ordinis Dipteriorum in genera characteribus definita, ordinatim collectae, methodo analitica distinctae, et novis vel minus cognitis descriptis. Pars prima, Oestridae: Syrphidae: Conopidae. 264 pp. Parmae [Parma].
- Roser, K. L. F. von (1840): Beiträge zur Vaterlandskunde. Erster Nachtrag zu dem im Jahre 1834 bekannt gemachten Verzeichnisse in Württemberg vorkommender zweiflügeliger Insekten. – Correspondenzblatt des Königlich Württembergischen Landwirtschaftlichen Vereins, Neue Folge 1 (1), 49-64. Stuttgart.
- Sack, P. (1928-32): Syrphidae. – In: Lindner, E. (Hrsg.): Die Fliegen der paläarktischen Region IV (6), III + 451 pp., 18 pls. Stuttgart.
- Schiner, J. R. (1862): Fauna Austriaca. Die Fliegen. I. Theil. LXXX + 674 pp., 2 pls. Wien.
- Schmid, U., Hauser, M., Doczkal, D. (1998): Schwebfliegen-Typen (Diptera, Syrphidae) im Staatlichen Museum für Naturkunde Stuttgart. – Volucella 3 (1/2), 75-84. Stuttgart.
- Séguy, E. (1961): Diptères Syrphides de l'Europe occidentale. – Mémoires du Muséum national d'Histoire naturelle (A) 23, 1-248. Paris.
- Speight, M. C. D., Claussen, C., Hurkmans, W. (1998): Révision des syrphes de la faune de France: III - Liste alphabétique des espèces des genres *Cheilosia*, *Eumerus* et *Merodon* et Supplément (Diptera, Syrphidae). – Bulletin de la Société entomologique de France 103 (5), 403-414. Paris.
- Stackelberg, A.A. (1970): Family Syrphidae, pp. 11-96. – In: Bei-Bienko, G. Ya. (ed.): Keys to the Insects of the European USSR. Vol. 5, 2nd part. Leningrad, 943 pp.
- Stubbs, A.E., Falk, T.R. (1983): British Hoverflies. An illustrated identification guide. 253 pp. London.
- Thompson, F.C. (1988): Syrphidae (Diptera) described from unknown localities. – Journal of the

- New York Entomological Society 96 (2), 200-226. New York.
- Torp Pedersen, E. (1973): Fortegnelse over Danmarks svirrefluer (Diptera, Syrphidae) og deres faunistik. – Entomologiske Meddelelser 41, 21-48. Copenhagen.
- Torp, E. (1984): De danske svirrefluer (Diptera: Syrphidae). Kendetegn, levevis og udbredelse. Danmarks Dyreliv, Vol. 1. 298 pp. Copenhagen.
- Verlinden, L. (1991): Fauna van Belgie, Zweefvliegen (Syrphidae). 198 pp. Brussel.
- Verrall, G.H. (1900): Catalogue of the Syrphidae of the European district with references and synonymy. – In: Verrall, G.H. (1901): British flies 8. Appendix pp. 17-121.
- Verrall, G.H. (1901): British flies, 8. Platypozidae, Pipunculidae, and Syrphidae of Great Britain. 691 pp. London.
- Zetterstedt, J.W. (1838): Dipterologis Scandinaviae. Sect. 3: Diptera, pp. 477-868. – Insecta Lapponica. VI + 1140 pp. Lipsiae [Leipzig].
- Zetterstedt, J. W. (1843): Diptera Scandinaviae. – Disposita et descripta 2, 441-894. Lundae [Lund].
- Zetterstedt, J. W. (1859): Diptera Scandinaviae. – Disposita et descripta 13, Supp. 4, V-XVI + 4943-6190. Lundae [Lund].

Addresses of authors:

Claus Claussen, Twedter Holz 12, D-24944 Flensburg, Germany

Dr Martin C. D. Speight, National Parks and Wildlife, Research Branch, 7 Ely Place, Dublin 2, Ireland

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Autor(en)/Author(s): Claußen Claus, Speight Martin C. D.

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