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A Revision of the Palaearctic Sarcophagidae (Diptera) described by C. Rondani

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With 1 figure

Summary

JAN 1 3 1989

The Diptera collection of Camillo Rondani in Florence is presented, and all Palaearctic species of Sarcophagidae described by Rondani are revised with lectotype designations where necessary. An addendum treats all names within the Sarcophagidae which erroneously have been ascribed to Rondani, or which are attributed by later authors to specimens in Rondani's collection. A synopsis listing all species-group names is provided.

Zusammenfassung

Die Dipteren-Sammlung von Camillo Rondani in Florenz wird revidiert und alle paläarktischen Arten der Sarcophagidae, beschrieben von Rondani, werden mit Lektotyp-Designationen versehen, wo es notwendig ist. Eine Ergänzung behandelt alle Namen von Sarcophagidae, die fehlerhaft Rondani zugeschrieben wurden, oder die spätere Verfasser Individuen in Rondani's Sammlung angeheftet haben. In einer Liste werden alle Artnamen angegeben.

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1. The Diptera collection of C. RONDANI

Camillo Rondani (1808–1879) lived most of his life in his native town, Parma, Italy, only interrupted by a period of study in Paris, France, and repeated stays in Guardasone, Italy, caused by the Italian-Austrian war (Papavero 1973). Although concerned with several aspects of applied and systematic entomology, Rondani's principal research was on the Diptera, where he showed a "rare talent for the discrimination of species" (Meade 1879: 139), and "an excellent eye for affinities" (Osten-Sacken 1904: 145). Rondani did some descriptive work on Diptera material from various museums (Horn & Kahle 1936, Papavero 1973, Conci 1975), but most of his species concepts were based on specimens in his private collection.

After Rondani's death in 1879, his collection was offered for sale (Meade 1879), and on 30 November 1880 it was purchased by the Royal Ministry of Public Instruction in Florence for 4000 Italian lire (plus 219 lire for transport and packing), which was quite a sum at the time. The Rondani collection was deposited in Museo Zoologico "La Specola", where the old ledger in which the purchase was entered still is preserved. This ledger lists, amongst much other insect material from the Rondani collection, 83 drawers of Diptera. This number is higher than the number of drawers which has been possible to locate, even if the seven drawers A–G, which were presented to the museum 16 years before Rondani's death (see below), are included, and some drawers obviously seem to have been lost.

The Rondani collection of Diptera in Museo Zoologico "La Specola" in Florence consists at present of 79 of Rondani's original drawers, which are kept in large metal cabinets. All drawers are labelled "Collezione Rondani", and they fall into two groups. Seven drawers are labelled from A to G, and all but the last four specimens herein are labelled with a rhomboid label with two numbers: The number 393 (on all labels) and a number representing the number of the species; e. g. the first species (and specimen) has the label "393/1" and the two specimens of the 480th species both bear the label "393/480". A total of 480 species are labelled in this way, each species being represented by either one or two specimens, but an additional four specimens, all from North America and labelled by their respective collectors, are later additions. Drawer G contains a list of the 480 species in Rondani's handwriting, signed by Rondani in Parma on 15 October 1863. The seven drawers A–G were mailed from Parma to Florence in three parts during 1863 (19 February, 26 April, 15 October).

The remaining part of RONDANI's collection consists of 72 drawers; these are labelled in succession from 1–66, leaving the last six drawers unnumbered. Each specimen is labelled with an oval tag with a printed number, one number for each species, and only a few specimens have a locality label, a collecting date, or other information. Males and females are kept separately, and the name of each species is given on a handwritten name-label just below the series of specimens.

While the last 72 drawers obviously represent the majority of RONDANI's private Diptera collection, and as such contain the syntypic series on which he based his species concepts, the status of the seven drawers lettered A–G is open to discussion. The arrangement with one or two specimens of each species, and the detailed list of identifications suggest a sort of reference collection with representatives of the most common Italian species. In accordance with this, all 480 species (in RONDANI's sense) seem to be represented in the last 72 drawers as well.

As other taxonomists of the time, RONDANI did not employ a strict type concept, and extractions, additions and rearrangements may have taken place in his original

material. For this reason, it is impossible to tell whether the specimens in the A-G collection were collected for the particular purpose of a reference collection, or just picked from Rondani's original collection. From a taxonomist's point of view, however, this is important, as in the latter case the specimens represent a source of potential lectotypes. For the present revision, I have acted pragmatically, and in all instances where a lectotype agreeing with the current interpretation of the species could be selected from the original collection, I have disregarded the A-G collection. In a single instance, however, no syntypes in the original collection agreed with the present concept, but by choosing a lectotype from the A-G collection, this concept could be fixed (see under Sarcophaga noverca below). Böttcher (1913 a), who studied the Sarcophaga specimens of the RONDANI collection in situ, has not mentioned the A-G collection and he seems to have neglected it altogether. Other revisors, e.g. Hennig (1961), Herting (1969, 1975), Soós (1982, 1983) and NORRBOM & KIM (1986) likewise seem to have concentrated on the last 72 drawers.

2. Introduction to the Catalogue

The Sarcophagidae described by RONDANI have not previously been subject to a comprehensive revision. BÖTTCHER (1913 a) made an attempt to fix the identity for all species of Sarcophaga sensu lato in RONDANI's collection, but he did not strictly follow the rules of priority nor the rules of authorship. Moreover, he did not designate any lectotypes, and when a presumed syntypic series consisted of more than one species, he felt entitled to let the name sink into oblivion: "der Name matertera kann aus der Nomenklatur verschwinden" (p. 178), or "Der Name [S. socrus] kann daher ruhig beseitigt werden" (p. 181). BÖTTCHER stressed the immense importance of checking the aedeagus whenever a certain identification should be made within Sarcophaga sensu lato, but in a few instances he acted contrary to this, either by relying on external characters (e.g. in S. noverca), or for fear of damaging the single specimen (S. minima).

VENTURI (1947, 1957 a, b, 1960) concentrated on the Sarcophagidae exclusive of Sarcophaga and established a few new synonyms, but still with no fixation through lectotype designations. Only recently have the first lectotype designations of Sarcophagidae described by RONDANI been made by PAPE (1985, 1986a).

The large majority of Sarcophagidae described by RONDANI are Palaearctic, but he did describe a few others: Nine Neotropical, two Afrotropical and one Oriental species. The types of these species are not preserved in his original collection (CONCI 1975), and as some are described from the female sex only, I have excluded his "exotic" species from the present revision.

In the present paper all species-group names of Palaearctic Sarcophagidae described by Rondani are revised, and lectotypes are designated when necessary. A few syntypes may have been deposited in various other institutions in Italy (Conci 1975), but I have not attempted to recover these, if any. For completeness, all species-group names attributed to specimens in RONDANI's collection - or erroneously regarded as original, valid names given by RONDANI - have been included in an addendum.

I have labelled all type specimens according to their status as either holo-, lecto- or paralectotype, and every specimen has been given a label stating its current identity. For primary types, all other labels are transcribed in verbatim quotation, without regard to divisons, and separated by semicolons. Secondary types are discussed under the entry "additional material", and I have regarded the whole series of specimens standing at RONDANI's original name labels in his original collection as syntypes if they do not deviate markedly from the original description. In the case of *Sarcophaga* spp., which are easily sexed due to the distinctly protruding male terminalia, females have been included in the syntypic series only when explicitly mentioned in the original description, and they have not been selected as lectotypes as Rondani's species concepts within *Sarcophaga* obviously were based primarily on the male sex. The type-locality is given according to the original description and sometimes supplied with information from Rondani's later papers, e.g. his "Specierum Italicarum" (1868b). The great majority of specimens were caught in the vicinity of Parma, but only when Parma is explicitly mentioned is this given as type-locality. When the type-locality is given as a region or more diffusely as a geographic subdivision, this is given in verbatim quotation from the original description. The collector is assumed to be Rondani if no other indication is made by a label or in the original description.

Species-group names are arranged alphabetically according to specific epithet, with

unavailable names in square brackets.

The generic concepts applied in the present revision are broader than those used by Verves (1986) in the catalogue of Palaearctic Sarcophagidae, especially within the tribe Sarcophagini, where the large number of genus-group names may be awkward to handle by anyone but the specialist. A number of authors have raised objections to the narrow generic concepts, mainly because of the marked external similarity within the tribe and the difficulties of presenting monophyletic genera (Hardy 1956; Brown & Shipp 1978; Sugiyama & Kano 1984; Downes 1955, 1986; Cantrell 1986). I have followed the broad concept of *Sarcophaga* sensu lato, as presented by Séguy (1941), but in order to facilitate comparisons with the Palaearctic catalogue, I have reduced the genera used therein to subgeneric rank, and the names are entered in brackets following the name of the genera.

3. Abbreviations of depositories

The depository of a number of the mentioned specimens, which are not deposited with the RONDANI collection in Florence, have been indicated by the following abbreviations:

HDE: Hope Department of Entomology, Oxford;

NMW: Naturhistorisches Museum, Wien;

BMNH: British Museum (Natural History), London; ZMUC: Zoological Museum, University of Copenhagen.

4. Acknowledgements

I wish to express my most cordial thanks to SARAH MASCHERINI (Florence), for arranging several loans and for hospitality and help in facilitating my access to the RONDANI collection

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5. Catalogue

adolescens Rondani, 1859:204 (Brachicoma). Lectotype ♂, herewith designated, Italy: Parma. The lectotype is in good condition. Labels. 695.

PAPE, RONDANI'S SARCOPHAGIDAE TYPES

Identity. Brachicoma devia (Fallén, 1820), as correctly stated by Stein (1888:215) and later tentatively listed in Bezzi & Stein (1907:502). Rondani (1859) himself was in doubt whether adolescens really was a distinct species, and it was excluded from his "Specierum Italicarum" (1868b), probably by synonymization with B. devia.

Additional material. $1 \ \delta \ 499$, labelled by me as paralectotypes; all = B. devia.

adolescens Rondani, 1860:388 (Sarcophaga). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. 1026. bis; S. rostrata Pandellé, BÖTTCHER.

Identity. A species of Sarcophaga Meigen (Pierretia Robineau-Desvoidy). S. adolescens Rondani, 1860 is a junior synonym of Sarcophaga (Pierretia) socrus Rondani, 1860, nov. syn. BÖTTCHER (1913 a) examined all material of S. adolescens, but without designating any lectotype, and as the syntypic series contained several species, he chose to ignore the name altogether.

agnata Rondani, 1860:385 (Sarcophaga). Lectotype &, herewith designated, Italy: "Etruria", Picchioli leg. The lectotype is in good condition, has been dissected by me and has the terminalia mounted on a piece of cardboard pinned with the specimen.

Labels: 997.

Identity. Sarcophaga (Helicophagella) agnata Rondani, 1860.

Note. The page of the original description is 385, not 383 as given in Verves (1986:137).

Additional material. 2 & &, labelled by me as paralectotypes; both = S. agnata.

albifrons Rondani, 1859:225 (Sphixapata). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels, 721.

Identity. Senotainia albifrons (Rondani, 1859).

Note. The type-location is erroneously given as Vienna by Townsend (1938), probably caused by a confusion with the type-designation of *Sphixapata* Rondani (= *Senotainia* Macquart) by Brauer & Bergenstamm (1889).

Additional material. $4 \ 3 \ 3 \ 2 \ 9 \ 9$, = S. albifrons; $1 \ 3 \ 7$, = Amobia signata (Meigen, 1824); all labelled by me as paralectotypes.

alpestris Rondani, 1865:218 (Macronychia). Holotype ♂, Italy: "In Alpibus Insubriae". The holotype is in good condition.

Labels. 732.

Identity. A species of *Macronychia* Rondani. *M. alpestris* Rondani, 1865, rev. spec., is a valid senior synonym of *Macronychia dumosa* (Pandellé, 1895), **nov. syn.**

Note. *Macronychia alpestris* is listed as a species incerta sedis close to *Brachicoma* Rondani in Verves (1982:248) and as a doubtful species of *Macronychia* in Verves (1986:60).

amita Rondani, 1860:391 (Sarcophaga). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. 1034; = amita Pand. nepos Rond. p. p. det. Böttcher.

Identity. Sarcophaga (Discachaeta) amita Rondani, 1860.

Note. The page of the original description is 391, not 291 as given in Verves (1986:145).

Additional material. 2 $\delta \delta$, labelled by me as paralectotypes; both = S. amita.

ancilla Rondani, 1865:226 (Sarcophaga). Holotype &, Italy: Parma. The holotype is in fair condition, with tarsus of right mid and hind leg, and all of left hind leg missing; terminalia dissected and mounted (? in Canada balsam) by Mihályi (1979a).

Labels. 1029; Lectotype Sarcophaga ancilla Rond; Heteronychia ancilla Rond, det.

F. Mihályi.

Identity. Sarcophaga (Heteronychia) ancilla Rondani, 1865.

Note. The specimen has to be the holotype, not a lectotype as labelled by Mihályi, as Rondani (1865) explicitly mentions a single male.

consanguinea Rondani, 1860:392 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia media et meridionali". The lectotype ist slightly mouldy and with the right fore leg missing; it is otherwise in good condition.

Labels. 1043; S. consanguinea Rond, non = eod nom. Pand. propingua S. schnabli Villen.

Identity. Sarcophaga (Heteronychia) consanguinea Rondani, 1860.

cognata Rondani, 1860:385 (Sarcophaga). Holotype &, Malta, Schembri leg. The holotype is very mouldy and the labellum is damaged.

Labels. 1005; S. carnaria sec. Type Meig. det. Böttcher... [not interpreted].

Identity. A species of *Sarcophaga* Meigen sensu stricto. *S. cognata* Rondani, 1860 is a junior synonym of *Sarcophaga lasiostyla* Macquart, 1843, **nov. syn.**, as used by PAPE (1987).

Additional material. 1 = Sarcophaga (Heteronychia) sp., is standing with the type, but as the original description pertains to the male only, this is not a syntype.

consobrina Rondani, 1860:391 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia boreali", Bellard leg. The lectotype is in good condition, but with the right mid tarsus and right hind tibia + tarsus missing.

Labels. 1035; S. haemorrhoidalis Meig. ♂ sec. Typ. det. Böttcher.

Identity. Sarcophaga (Bercaea) cruentata Meigen, 1826, as correctly listed in Verves (1986:160).

Note. The page of the original description is 391, not 291 as given in Verves (1986:160).

Additional material. 1 &, labelled by me as paralectotype, = Sarcophaga (Discachaeta) arcipes Pandellé, 1896.

contarinii Rondani, 1859:219 (Miltogramma). Holotype $\,^{\circ}$, Italy: "Venetiis", Contarini leg. The holotype lacks the left third antennomere + arista but is otherwise in good condition.

Labels. [Red circular tag]; 715; Miltogramma fasciata Mg.

Identity. Miltogramma contarinii Rondani, 1859.

cyprica Rondani, 1859:221 (Apodacra). Holotype &, Cyprus, Bellardi leg. The holotype lacks tarsomeres 4–5 of the left fore leg but is otherwise in good condition; it was apparently missexed by RONDANI.

Labels. Cipro; 709.

Identity. Â species of *Apodacra* Macquart [placed in the genus *Xerophilomyia* Rohdendorf by Verves (1986)]. *A. cyprica* Rondani, 1859 is a valid senior synonym of *A. bembicisequax* Pandellé, 1895, as stated by Venturi (1957b:157), and probably of *A. plumipes* Villeneuve, 1933 as well. The latter differs from *A. cyprica* only in the colour of the fore tarsi and in the number of flattened bristles on mid tibia as given in Séguy (1941). Both characters seem to be liable to infraspecific variation, and I prefer to treat *A. plumipes* as a synonym of *A. cyprica*. The specialized setosity of the male fore tarsus of *A. cyprica* is illustrated in Fig. 1.

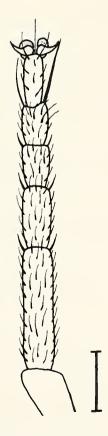


Fig. 1. Apodacra cyprica Rondani. Right fore tarsus of holotype, dorsal view. - Scale: 0,2 mm.

There has been much confusion about the name cyprica Rondani, due to the early misidentification of Pandellé (1895). Venturi (1957b), who examined the original type of A. cyprica, clarified this misidentification and proposed the name A. rondaniella for the species described as A. cyprica by Pandellé. Apodacra rondaniella is, however, a junior synonym of A. dispar Villeneuve, 1916, nov. syn. Zumpt (1961) revised the Afrotropical Miltogrammatinae, but this synonymy escaped his attention as he compared the holotype of A. dispar (the only specimen of Apodacra seen by Zumpt) with the description of A. cyprica auctt. given in Rohdendorf (1939), which erroneously gives the colour of the palpi as black. The genus Apodacra ist badly in need of a thorough revision.

Material of A. dispar examined: Holotype ♀, South Africa: Algoa Bay, 9. II. 1896, BRAUNS leg. (NMW); numerous ♂♂♀♀ from Europe and Afrotropical Region (BMNH, ZMUC).

filia Rondani, 1860:385 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia media et boreali". The lectotype is in good condition, with the terminalia mounted on a cardboard pinned with the specimen.

Labels. 1006; = S. filia sec. Typ Pand. det. Böttcher.

Identity. Sarcophaga (Heteronychia) filia Rondani, 1860.

Note. The page of the original description is 385, not 386 as given in Bezzi & Stein (1907:480) or 366 as given in Verves (1986:154).

Additional material. 1 δ = Sarcophaga (Helicophagella) noverca Rondani, 1860; 1 δ = Sarcophaga (Sarcotachinella) sinuata Meigen, 1826; and 3 \Im = Sarcophaga (Heteronychia) sp. All specimens are labelled by me as paralectotypes.

fuliginaria Rondani, 1862:134 (Megerlea). It aly. No types have been located in the Rondani collection, and the original material may be mixed with Rondani's material of either caminaria Meigen, maura Fabricius or halterata Panzer, which all are conspecific. Rondani (1862) was obviously in doubt whether his use of wing-venation characters really supported specific separations, but when he later (1868 b) listed these three "species" from Italy, but not fuliginaria, he did not mention which name he considered as a senior synonym of the latter.

Identity. Nyctia halterata (Panzer, 1798), as correctly listed in Bezzi & Stein (1907:499), who list fuliginaria as a synonym of Megerlea caminaria (Meigen, 1826) (= N. halterata).

furnaria Rondani, 1862:134 (Megerlea). Lectotype &, herewith designated, Italy. The lectotype is mouldy, but intact and in fair condition.

Labels. 1056.

Identity. Nyctia halterata (Panzer, 1798), as correctly listed by Bezzi & Stein (1907:499).

Additional material. $1 \, \mathcal{P}$, labelled by me as paralectotype, = N. halterata.

impunctata Rondani, 1868 a:49 (Sarcophila). Holotype $\,^{\circ}$, Italy: Parma. The holotype lacks tarsomeres 4–5 of left fore tarsus, has distal half of left wing and right fore and mid leg glued to a cardboard pinned with the specimen. It is otherwise in good condition.

Labels. 1047.

Identity. A species of *Blaesoxipha* Loew. *B. impunctata* (Rondani, 1868), rev. spec., is a junior synonym of *B. pygmaea* (Zetterstedt, 1845), **nov. syn.**

infantula Rondani, 1860:390 (Sarcophaga). Lectotype &, herewith designated, Italy: Parma. The lectotype is in somewhat bad condition, without its head, and with left fore leg and both mid legs missing.

Labels. 1030; = dissimilis Meig. det. BÖTTCHER. Tipo di Parigi.

Identity. Sarcophaga (Heteronychia) dissimilis Meigen, 1826, as correctly stated by Böttcher (1912:346).

Note. The page of the original description is 390, not 388 as given in Bezzi & Stein (1907:484) and Verves (1986:152).

Additional material. $1 \ \delta 3 \ \varsigma \ \varsigma$; the male, identified by BÖTTCHER (1913a) as "höchst wahrscheinlich Pandellé's offuscata (Schiner p. p.)", is labelled by me as paralectotype, = Sarco-phaga dissimilis. The females are not syntypes as the original description was of the male sex only.

italica Rondani, 1859:213 (Hilarella). Lectoty pe &, herewith designated, Italy: Parma. The lectotype lacks both mid legs but is otherwise in good condition.

Labels. 708.

Identity. Hilarella stictica (Meigen, 1830), as correctly listed in Bezzi & Stein (1907:514).

Additional material. 1 &, labelled by me as paralectotype, = H. stictica.

Note. Both types are somewhat intermediate between *H. stictica* and *H. hilarella* (Zetterstedt, 1844) by having paired median abdominal spots as in the former, and three proclinate orbital bristles as in the latter. As the abdominal pattern seems to be constant while the number of proclinate orbitals is open to some variation, I have identified both types as *H. stictica*, following the nomenclature of PAPE (1986b).

iuvenis Rondani, 1860:388 (Sarcophaga). Lectotype &, herewith designated, Italy: Parma. The lectotype is in bad condition; only fragments remain of the head, which is entangled in the right fore leg; the left fore leg is missing, and the abdomen is partly shrivelled.

Labels. 1021; = filia Pand. Rond. p. p.

Identity. Sarcophaga (Heteronychia) filia Rondani, 1860, as correctly listed in Verves (1986:154).

Note. The correct spelling is *iuvenis*, and *juvenis* should be treated as an incorrect subsequent spelling. The page of the original description is 388, not 338 as given in Verves (1986:154).

Additional material. $2 \ \delta \ \delta$, both labelled by me as paralectotypes; one = S. filia, the other, which lacks the abdomen, is left unidentified.

lineolata Rondani, 1859:225 (Sphixapata). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. 728.

Identity. Senotainia tricuspis (Meigen, 1838), as correctly listed in Bezzi & Stein (1907:517). Verves (1986:103), however, lists lineolata as a synonym of Phrosinella nasuta (Meigen, 1824).

Additional material. 3 99, labelled by me as paralectotypes, = S. tricuspis.

loewii Rondani, 1859:206 (Mesomelena). Unnecessary new name for Metopia mesomelaena Loew, 1848, as correctly listed in Verves (1986:95).

RONDANI (1859) obviously wanted to use the specific epithet (mesomelaena) at the generic level, an act which, in his opinion, would necessitate the creation of a new species-group name for the species concerned. However, he spelled the name Mesomelena (p. 206, 239), and his later (1865:216) use of the spelling Mesomelaena [as has been used by all subsequent authors except Townsend (1938)] ist not a justified emendation. Mesomelena is the original (and correct) spelling, and Mesomelaena is an incorrect subsequent spelling (cf. ICZN article 32 b, c).

As loewii is a new name for mesomelaena, the type-specimens of loewii are the specimens of Metopia mesomelaena from Hungary described by Loew (1848), and Town-SEND (1938:121) is in error when he gives the holotype of loewii as "from Italy, in Florence".

Note. The correct spelling is loewii, not loewi as given in Verves (1986:95).

maculosa Rondani, 1859:227 (Sphixapata). Lectotype 3, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. 722.

Identity. Amobia signata (Meigen, 1824), as stated by Venturi (1960:120).

Additional material. 1 \eth 3 \Diamond \Diamond , labelled by me as paralectotypes; all = A. signata.

matertera Rondani, 1860:387 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia media et boreali". The lectotype ist slightly mouldy and with the left mid tarsus and right hind leg missing. I have dissected the terminalia and mounted them on a piece of cardboard pinned with the specimen.

Labels. 1010; = scoparia & Pand. det. BÖTTCHER.

Identity. Sarcophaga (Robineauella) caerulescens Zetterstedt, 1838, as correctly listed in Čepelák & Slamečkova (1986:276), who list S. matertera as a synonym of Robineauella scoparia (Pandellé, 1896), which is identical with S. caerulescens.

Additional material. 2 & &, labelled by me as paralectotypes, = S. caerulescens and S. (Helicophagella) noverca Rondani, 1860, respectively.

metopiella Rondani, 1859:205 (Brachicoma). Holotype \$\partial y\$: Parma, VII. The holotype lacks the left fore leg and right antenna, but is otherwise in good condition. Labels. [Not interpreted]; 696.

Identity. Phrosinella nasuta (Meigen, 1824), as correctly stated by Venturi (1947:126).

Note. Rohdendorf & Verves (1979) and Verves (1982, 1986) treat *metopiella* Rondani as a distinct species of *Brachicoma* Rondani. I have not, however, been able to solve this problem, as a revision of all species of *Brachicoma* from the Holarctic region is beyond the scope of the present paper.

minima Rondani, 1862:113 (Sarcophaga). Holotype ♂, Italy: Parma. The holotype is in fair condition, with left mid and hind leg missing and the abdomen mounted on a

cardboard pinned with the specimen. I have dissected the terminalia, which are stored in glycerine in a microvial pinned with the specimen.

Labels. 1019.

Identity. A species of Sarcophaga Meigen (Heteronychia Brauer & Bergenstamm), as correctly stated by Verves (1986:157). S. minima Rondani, 1862 is a valid name for Sarcophaga (Heteronychia) fertoni sensu Rohdendorf (1937).

Note. No locality is given in the original description, but RONDANI (1868b) gives

Parma as locality for S. minima.

multipunctata Rondani, 1859:211 (Heteropterina). Lectotype ♂, herewith designated, Italy: Parma. The lectotype is in good condition but with labellum and left mid and hind leg missing.

Labels. 707.

Identity. Taxigramma multipunctatum (Rondani, 1859).

Note. T. multipunctatum is a valid senior synonym of T. bisetum (Villeneuve, 1915), nov. syn. When ZUMPT (1961) prepared his revision of Afrotropical Miltogrammatinae, he noted that T. bisetum keyed out to T. multipunctatum in ROHDENDORF's (1935) key to the Palaearctic species, but the only non-Afrotropical specimen of Taxigramma in his possession was a single male of T. heteroneurum (Meigen, 1830), misidentified as T. multipunctatum by Oldenburg (as judged from Zumpt's description of the cerci).

Additional material. $3 \circ \circ$, labelled by me as paralectotypes, = T. multipunctatum. Material examined. Holotype & of T. bisetum, Madagascar: Sikora (no date, no collector), labelled "Heteropterina biseta Dr. VILLENEUVE det. biseta Typ. & Villen." (NMW); paratype \circ , locality and depository as for holotype; numerous $\circ \circ \circ \circ \circ \circ$ from Palaearctic and Afrotropical regions (BMNH, ZMUC).

Verves (1986) includes *multipunctatum* in the genus *Paragusia* Schiner. I prefer, however, to treat the latter as a synonym of *Taxigramma*, corroborated by the apomor-

phic wing venation [see PAPE (1987) for a generic definition].

Some confusion has existed on the gender of *Taxigramma*, and different authors have treated the genus as either feminine (Downes 1965, Dear 1980, Verves 1986) or neuter (Séguy 1941; Venturi 1960; Pape 1986b, 1987). However, the code explicitly mentions that "names ending in *-gramma*... are neuter" (ICZN, 30a), and the speciesgroup names should be treated accordingly.

nepos Rondani, 1860:390 (Sarcophaga). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. 1033; = cruentata Pand. sec. Typ det. Böttcher.

Identity. Sarophaga (Heteronychia) vagans Meigen, 1826, as stated by Pandellé (1896:181), who lists nepos as a synonym of his cruenta[ta] Meigen (= S. vagans).

Note. The page of the original description is 390, not 290 as given in Verves (1986:150).

Additional material. 1 8, labelled by me as paralectotype, = Sarcophaga (Discachaeta) amita Rondani, 1860.

noverca Rondani, 1860:386 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia media et boreali" (in drawer C). The lectotype is in bad condition, with fore right femur and all the left side of thorax eaten by dermestids. The left fore

leg and tarsus of the left mid leg are missing. The terminalia have been dissected by me and mounted on a piece of cardboard pinned with the specimen.

Labels, 393/367.

Identity. Sarcophaga (Helicophagella) noverca Rondani, 1860.

Additional material. 5 \eth \eth in the original collection: 1 \eth = Sarcophaga (Helicophagella) hirticrus Pandellé, 1896, and 4 \eth \eth = S. (H.) cepelaki (Lehrer, 1975), all labelled by me as paralectotypes.

Note. None of the five males standing under *noverca* in Rondani's original collection (species No. 1009) is in agreement with the present concept of this species (Rohdendorf 1937, Mihályi 1979b, Verves 1986, Pape 1987), and to avoid both a change in identity of the well known *noverca* Rondani, and the creation of a new name for what would be *noverca* auctt., I have chosen to select a male from drawer C, standing at the label "*noverca*", as lectotype.

I have followed the concept of Lehrer (1975, 1976) and accept *Sarcophaga* (*Helicophagella*) *cepelaki* as a distinct species, although it has been put into synonymy with *S. novercoides* Böttcher, 1913 by Mihályi (1979 b:119).

nurus Rondani, 1860:392 (Sarcophaga). Lectotype &, herewith designated, Italy: "In tota Italia". The lectotype is in good condition, mounted with a conspecific female.

Labels. 1038; S. haemorrhoidalis & P Meig. det. BÖTTCHER.

Identity. Sarcophaga (Bercaea) cruentata Meigen, 1826. This synonymy was, in fact, already accepted by Rondani (1860), who referred to Meigen's redescription of Musca haemorrhoidalis Fallén, 1817 [= Ravinia pernix (Harris, 1780)], which was based on misidentified specimens of Sarcophaga (Bercaea) cruentata [see Pape (1986b) for a discussion of the identity of haemorrhoidalis Fallén].

Note. The page of the original description is 392, not 329 as given in Verves (1986:160).

BÖTTCHER (1913 a) mentions three pairs of *S. cruentata* pinned in copula, but I have only been able to find two.

Additional material. The following male specimens, all standing under S. nurus, have been labelled by me as paralectotypes: $5 \ \vec{o} \ \vec{o}$, one mounted with a conspecific female, = S. cruentata; $2 \ \vec{o} \ \vec{o} = Sarcophaga$ (Parasarcophaga) argyrostoma (Robineau-Desvoidy, 1830); $1 \ \vec{o} = Sarcophaga$ (Parasarcophaga) tibialis Macquart, 1850.

pelopei Rondani, 1859:228 (Sphixapata). Lectotype ♂, herewith designated, Italy: Parma. The lectotype is in good condition, mounted with a conspecific female. Labels. 719.

Identity. Amobia pelopei (Rondani, 1859).

Additional material. $2 \ 3 \ 9 \ 9$, one of the females pinned with the male lectotype, all labelled by me as paralectotypes, = A. pelopei.

penicillaris Rondani, 1865:216 (Sphixapata). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. 727.

Identity. Pterella penicillaris (Rondani, 1865).

Additional material. 2 $\delta \delta 3 \circ 9$, labelled by me as paralectotypes, = *P. penicillaris*.

picciolii Rondani, 1859:229 (Sphixapata). Holotype ♀, Italy: "Florentia", Picchioli leg. The holotype is in good condition.

Labels. 724.

Identity. Oebalia cylindrica (Fallén, 1810), as correctly listed in Verves (1986:99). Note. The holotype was missexed as a male by Venturi (1960:120).

piligena Rondani, 1865:217 (Sphixapata). Lectotype 3, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. 720.

Identity. A species of *Senotainia Macquart. S. piligena* (Rondani, 1865) is a junior synonym of *S. albifrons* (Rondani, 1859), **nov. syn.**

Additional material., $4 \circlearrowleft \circlearrowleft 3 \circlearrowleft 9$, one pair mounted on the same pin, labelled by me as paralectotypes. All = *S. albifrons*.

pilimana Rondani, 1859:218 (Miltogramma). Lectotype &, herewith designated, Italy: Parma. The lectotype is mouldy but intact.

Labels. 714.

Identity. Miltogramma taeniatum Meigen, 1824, as correctly listed in Bezzi & Stein (1907:507).

Additional material. 2 $\eth \eth 4 \Diamond \varphi$, labelled by me as paralectotypes. All = M. taeniatum.

pilitarsis Rondani, 1859:218 (Miltogramma). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition.

Labels. [Red circular tag]; 713.

Identity. Miltogramma testaceifrons (Roser, 1840), as correctly stated by STEIN (1924:216).

Note. The correct spelling is *pilitarsis*, not *pilitarse* as given in Bezzi & Stein (1907:507) and subsequent authors.

Additional material. $3 \circ \circ = M$. testaceifrons, $1 \circ = M$. taeniatum Meigen, 1824; all labelled by me as paralectotypes.

privigna Rondani, 1860:387 (Sarcophaga). Lectotype &, herewith designated, Italy: "In tota Italia". The lectotype is in good condition.

Labels. 1011; S. albiceps & Meig. det. BÖTTCHER.

Identity. Sarcophaga (Parasarcophaga) albiceps Meigen, 1826, as correctly listed in Verves (1986:170).

Additional material. 2 \eth \eth = *S. albiceps* and 1 \eth = *S. tuberosa* Pandellé, 1896; all labelled by me as paralectotypes.

proxima Rondani, 1860:392 (Sarcophaga). Holotype &, Italy: "In Italia boreali perrara (Mussino)". The holotype is in fair condition but slightly mouldy and with the left mid and hind leg missing.

Labels. 1041; Spec. bona non proxima Pand. BÖTTCHER.

Identity. Sarcophaga (Heteronychia) proxima Rondani, 1860.

puerula Rondani, 1860:389 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia media et boreali". The lectotype lacks the left mid leg but is otherwise in good condition.

Labels. 1028; = setinervis & Rond. det. BÖTTCHER.

Identity. Sarcophaga (Heteronychia) setinervis Rondani, 1860, as correctly listed in Verves (1986:148).

Note. The year of the original description is 1860, not 1862 as given in Bezzi & Stein (1907:489) and Verves (1986:148). Rondani (1860) originally spelled the name as parvula in the description (p. 389), but as puerula in the key (p. 382), both being Latin words for a little child. In subsequent papers (Rondani 1862:119, 1868 b:598) only the latter spelling was used. Bezzi & Stein (1907:489) treat parvula as a senior (preoccupied) synonym of puerula. Böttcher (1913 a:188), as the first reviser, used the spelling puerula, which thereby becomes the correct original spelling, and no problems of homonymy arise from the name Sarcophaga parvula Wiedemann, 1830 [= Tricharaea occidua (Fabricius, 1794].

punctatella Rondani, 1868 a: 40 (Miltogramma). Holotype ♀, Italy: Parma. The holotype is in fair condition, but with mid and hind legs missing and the abdomen glued to a piece of cardboard.

Labels. 718.

Identity. A species of *Senotainia* Macquart. *S. punctatella* (Rondani, 1868), **nov. comb.**, listed as a synonym of *Miltogramma punctatum* Meigen, 1824 in Verves (1986:75), is a junior synonym of *Senotainia albifrons* (Rondani, 1859), **nov. syn.**

pygmea Rondani, 1859:227 (Sphixapata). Holotype 3, Italy: Parma. The holotype lacks the right mid leg, right hind tarsomeres 4–5, and left hind tarsomeres 2–5, but is otherwise in good condition.

Labels. 723.

Identity. A species of Senotainia Macquart. S. pygmea (Rondani, 1859) is a junior synonym of S. albifrons (Rondani, 1859), nov. syn. Bezzi & Stein (1907:516) listed S. pygmea as a junior synonym of S. conica (Fallén, 1810), whereas it was treated as a distinct species by Venturi (1957a, 1960), Charykuliev & Myartseva (1964) and Verves (1986).

Apart from the small body-size, I have not been able to find any difference from *S. albi-frons*, which seems to vary greatly in size, and I do not find this character convincing evidence for maintaining a specific status for *S. pygmea*.

Note. Rondani (1859) gave the spelling *pigmea* in the key (p. 223) and in the original description (p. 227), but *pygmea* in the index (p. 242) and in his "Specierum Italicarum" (1868b:586), while subsequent authors seem to have used the spelling *pygmaea* [Charykuliev & Myartseva (1964) even *pygmae*]. I herewith recommend that the spelling *pygmea* be considered the correct original spelling.

roserii Rondani, 1859:210 (Metopia). Lectotype &, designated by Pape (1986a:3), Germany, Roser leg. The lectotype lacks the right hind leg but is otherwise in good condition.

Labels. 704.

Identity. Metopia roserii Rondani, 1859, as discussed by PAPE (1986a).

Additional material. 1 ♂, labelled by me as paralectotype, = M. roserii.

setinervis Rondani, 1860:390 (Sarcophaga). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition, but slightly mouldy and with the left mid leg missing.

Labels. 1027.

Identity. Sarcophaga (Heteronychia) setinervis Rondani, 1860.

Additional material. 2 $\delta \delta = S$. setinervis, 1 $\mathcal{P} = S$ arcophaga (Heteronychia) sp., all labelled by me as paralectotypes.

setipennis Rondani, 1860:389 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia media et boreali". The lectotype is in fair condition, but both antennae are missing and the terminalia have been dissected and mounted with the abdomen on a piece of cardboard pinned with the specimen.

Labels. 1026.

Identity. Sarcophaga (Krameromyia) anaces Walker, 1849, as stated by LOPES (1976: 639).

Additional material. $3 \ \delta \ \delta \ 4 \$ $\$ $\$, labelled by me as paralectotypes, all = S. anaces.

socrus Rondani, 1860: 387 (Sarcophaga). Lectotype &, herewith designated, Italy: Parma. The lectotype lacks the right hind leg, it has a crack in the left eye, and the abdomen and the terminalia are mounted on a cardboard pinned with the specimen.

Labels. 1014.

Identity. A species of *Sarcophaga* Meigen (*Pierretia* Robineau-Desvoidy). *S. socrus* Rondani, 1860 is a valid senior synonym of *Sarcophaga* (*Pierretia*) rostrata Pandellé, 1896, nov. syn.

Note. BÖTTCHER (1913 a) does not mention any male specimens of Sarcophaga socrus and may have overlooked these in the Rondani collection although he obviously investigated the females. His tentative identification of one of the two females as Sarcophaga nigriventris Meigen, 1826 has been accepted as a synonymization by Verves (1986:143), but as Rondani's original description explicitly mentions the male sex (and not the female), and as the description of the hind tibiae clearly refers to male specimens, the females investigated by BÖTTCHER cannot be syntypes.

Additional material. 2 & &, labelled by me as paralectotypes, = S. socrus.

soror Rondani, 1860:386 (Sarcophaga). Lectotype &, herewith designated, Italy: "In Italia media et boreali". The lectotype is slightly mouldy and lacks the mid left leg. The terminalia have been dissected by me and mounted on a piece of cardboard pinned with the specimen.

Labels. 1007; = soror s. Typ Pand. det. Böttcher.

Identity. Sarcophaga (Pierretia) soror Rondani, 1860.

Additional material. 5 $\eth \eth \eth 1 \, \Im$, the latter pinned with one of the males, have been label-

led by me as paralectotypes; all = S. soror. 2 ? ? = Sarcophaga (Pierretia) sp., likewise labelled as paralectotypes.

staegerii Rondani, 1859:210 (Metopia). Lectotype &, designated by PAPE (1985:214), Denmark, Staeger leg. The lectotype lacks the right fore leg and left mid and hind legs, but is otherwise in good condition.

Labels. 702; 2/6.

Identity. Metopia staegerii Rondani, 1859, as discussed by PAPE (1985).

Note. The correct spelling is staegerii, not staegeri as listed in Verves (1986:97).

[stizivora Rondani, 1859:209 (Metopia). Unavailable name, originally proposed in synonymy with Metopia argentata Macquart, 1850.]

sylvestris Rondani, 1865:218 (Macronychia). Lectotype &, herewith designated, Italy: Parma. The lectotype lacks the right mid leg but is otherwise in good condition. Labels. 731.

Identity. Macronychia polyodon (Meigen, 1824) as correctly listed in Bezzi & Stein (1907:520).

Note. The correct original spelling is *sylvestris*, not *silvestris* as spelled by Stein (1888:217) and subsequent authors.

Additional material. 1 $\delta = M$. polyodon, labelled by me as a paralectotype.

zetterstedtii Rondani, 1856:70 (Hilarella). Unnecessary new name for Miltogramma hilarella Zetterstedt, 1844.

As in the case of *Mesomelena*, RONDANI raised the species epithet to generic rank, which, in his opinion, necessitated the creation of a new name for the species concerned. Therefore, *zetterstedtii* is not published in synonymy with *hilarella*, as listed by DEAR (1980:803); and as the type-material of a new name automatically is the same as the type-specimen(s) of the older taxon, for which the name is given, irrespective of the specimens actually studied at the time by the author of the new name, VERVES (1986:94) is in error when he gives the type-locality as Tyrol (Austria).

Note. The correct spelling is zetterstedtii, not zetterstedti as given in Verves (1986:94).

6. Addendum

A number of species-group names have erroneously been ascribed to RONDANI, and others have been attributed by later authors to specimens in RONDANI's collection. These are discussed below.

[translucida Costa, 1883:78 (Brachicoma). Nomen nudum.] Listed as "Brachycoma translucida Rond." in Venturi (1960:118) and as "Craticulina translucida (Rondani in Costa, 1883)" in Verves 1986:71).

Costa (1883:78) listed the species as "Brachycoma translucida, (Coll. Rond.)" and later (1884:45) as "Brachycoma translucida, A. Costa", but as no description is provided, the name should be treated as a nomen nudum.

Note. The correct page-citation is 78, not 53 as listed in Verves (1986:71).

agrestis: Rondani, 1859:230 (*Macronychia*). Misidentification, not Fallén, 1810. Listed as originally described by Rondani in Verves (1986:59); however, as correctly noted by Bezzi & Stein (1907:521), Villeneuve (1931:69) and Venturi (1960:119), the "species" is a misidentification of specimens of *M. ungulans* (Pandellé, 1895), which is a junior synonym of *M. striginervis* (Zetterstedt, 1838).

arvorum: Rondani, 1860:381 (Sarcophaga) in part. Misidentification, not Meigen, 1826.

Listed as "arvorum Rond. (nec. Meig.)" in Bezzi & Stein (1907:479), but as originally described by Rondani (and junior primary homonym of arvorum (Meigen) in Verves (1986:152). Böttcher recommended that the species misidentified as Sarcophaga arvorum Meigen by Rondani be treated under the name "S. arvorum Rond. Pand." (1913 a:185) or just "arvorum Rond." (1913 a:253). Rohdendorf (1937:361) described Pierretia (Heteronychia) rondaniana as a nomen novum for arvorum Rondani, 1860, non Meigen, 1826. This is actually not a nomen novum, as there is no name to replace, but a species novum. Rohdendorf clearly took his decription and figure from Böttcher (1913 b), who in turn based the description on specimens in his own as well as in Pandellé's and Rondani's collections. I have not made an attemp to recover these specimens, which all would be syntypes, but I have chosen a lectotype from Rondani's material of S. arvorum Meigen, which agrees with Böttcher's (1913 b: fig. 64) drawing of the male terminalia as follows:

rondaniana Rohdendorf, 1937:361 (Pierretia). Lectotype &, herewith designated, Italy: Parma. The lectotype is in good condition, whith the terminalia dissected and mounted on a cardboard pinned with the specimen.

Labels. 1020; S. arvorum Pand. = depressifrons Zett. det. BÖTTCHER. Identity. Sarcophaga (Heteronychia) rondaniana (Rohdendorf, 1937).

Additional material. $2 \ \vec{o} \ \vec{o}$, standing under *S. arvorum* Meigen in Rondani's collection (species No. 1020), have been labelled by me as paralectotypes; one = *Sarcophaga* (*Heteronychia*) depressifrons Zetterstedt, 1845, and the other = *S.* (*H.*) bezziana Böttcher, 1913.

[hirundinis Böttcher, 1913 a:186 (Sarcophaga). Nomen nudum; originally attributed to RONDANI.]

infantilis Böttcher, 1913 a:181 (Sarcophaga). Holotype &, probably Italy. The holotype is in poor condition, it is glued to a piece of cardboard, and the left side of the head and left humeral callus are crushed. I have dissected the terminalia, which are stored in glycerine in a microvial pinned with the specimen.

Labels. 1016.

Identity. A species of *Sarcophaga* Meigen (*Heteronychia* Brauer & Bergenstamm). *S. infantilis* Böttcher, 1913, rev. spec. is a junior synonym of *S. bezziana* Böttcher, 1913, **nov. syn.**

Note. As correctly mentioned by BÖTTCHER (1913a), the name has never been published by RONDANI, and as BÖTTCHER gives a clear (although short) diagnosis, the authorship goes to him.

juvenilis Brauer, 1899:513 (Sarcophaga). Syntypes 2 ♀♀ (HDE), probably Western Europe.

Labels. Type; Brauer Wien. CVII (No. 144); S. juvenilis Ex. Coll. Big.

Identity. Originally ascribed to RONDANI but explicitly given as different from *S. juvenis*, and as a few characters are provided to differentiate the taxa, the name takes date and authorship from BRAUER. Both syntypes are females and as I have been unable to make a certain identification, I have abstained from designating a lectotype.

penultima Böttcher, 1913 a:182 (Sarcophaga), Holotype &, probably Italy. The holotype has lost the left fore and mid leg and the right hind leg. The head has been lost, although it obviously was present when examined by BÖTTCHER. A loose head found in the drawer fits BÖTTCHER's description perfectly and may belong to the present specimen. I have glued it to a piece of cardboard pinned with the specimen. The terminalia are dissected by me and stored in glycerine in a microvial pinned with the specimen.

Labels. 1018; Sarcophaga sp.? der offuscata-Gruppe ♂ det. BÖTTCHER.

I dentity. A species of Sarcophaga Meigen (Heteronychia Brauer & Bergenstamm). S. penultima Böttcher, 1913, rev. spec. is a junior synonym of S. ancilla Rondani, 1865, nov. syn.

Note. Böttcher (1913 a) mentions 1 & 1 \(\text{Standing under Sarcophaga penultima} \) in Rondani's collection. As correctly noted by Böttcher, this name has never been published by Rondani, and, therefore, the authorship goes to Böttcher. I have chosen to consider the male as the holotype (not a lectotype), and it has been labelled accordingly. I do not regard the female as a syntype (which would be a paralectotype), as only the male is described, and Böttcher (p. 182) mentions that this male could represent "eine selbständige Art der . . . offuscata-Gruppe", while the female is referred to a species different from the male, which he tentatively identified as Sarcophaga dissimilis (Meigen, 1826).

[propinqua Böttcher, 1913 a:192 (Sarcophaga). Nomen nudum; originally attributed to RONDANI.]

[semifasciata Brauer, 1899:497 (Miltogramma). Nomen nudum; originally attributed to RONDANI.]

7. Synopsis

Amobia pelopei (Rondani, 1859) (Sphixapata) Amobia signata (Meigen, 1824) (Tachina) maculosa Rondani, 1859 (Sphixapata) Apodacra cyprica Rondani, 1859 bembicisequax Pandellé, 1895 plumipes Villeneuve, 1933 Apodacra dispar Villeneuve, 1916

rondaniella Venturi, 1957; nov. syn.

Brachicoma devia (Fallén, 1820) (Tachina) adolescens Rondani, 1859

Blaesoxipha pygmaea (Zetterstedt, 1845) (Sarcophaga)

impunctata Rondani, 1868 (Sarcophila); rev. spec. & nov. syn.

Hilarella hilarella (Zetterstedt, 1844) (Miltogramma)

zetterstedtii Rondani, 1856; unnecessary new name for hillarella Zetterstedt, 1844
zetterstedti; incorrect subsequent spelling of zetterstedtii Rondani, 1856

Hilarella stictica (Meigen, 1830) (Miltogramma)

italica Rondani, 1859 (Hilarella)

Macronychia alpestris Rondani, 1865; rev. spec.

dumosa Pandellé, 1895 (Miltogramma); nov. syn.

Macronychia polyodon (Meigen, 1824) (Tachina)

sylvestris Rondani, 1865

silvestris; incorrect subsequent spelling of sylvestris Rondani, 1865

Macronychia striginervis (Zetterstedt, 1838) (Xysta)

agrestis: Rondani, 1859 (Macronychia). Misidentification, not Fallén, 1810

Mesomelena mesomelaena (Loew, 1848) (Metopia)

loewii Rondani, 1859 (Mesomelena); unnecessary new name for mesomelaena Loew, 1848

loewi; incorrect subsequent spelling of loewii Rondani, 1859

Metopia roserii Rondani, 1859

Metopia staegerii Rondani, 1859

staegeri; incorrect subsequent spelling of staegerii Rondani, 1859

Miltogramma contarinii Rondani, 1859

Miltogramma taeniatum Meigen, 1824

pilimanum Rondani, 1859

Miltogramma testaceifrons (Roser, 1840) (Xysta)

pilitarsis Rondani, 1859

pilitarse; incorrect subsequent spelling of pilitarsis Rondani, 1859

Nyctia halterata (Panzer, 1798) (Musca)

fuliginaria Rondani, 1862 (Megerlea)

furnaria Rondani, 1862 (Megerlea)

Oebalia cylindrica (Fallén, 1810) (Tachina)

picciolii Rondani, 1859 (Sphixapata)

Phrosinella nasuta (Meigen, 1824) (Tachina)

metopiella (Rondani, 1859 (Brachicoma)

Pterella penicillaris (Rondani, 1865) (Sphixapata)

Sarcophaga (Bercaea) cruentata Meigen, 1826

consobrina Rondani, 1860

nurus Rondani, 1860

Sarcophaga (Discachaeta) amita Rondani, 1860

Sarcophaga (Helicophagella) agnata Rondani, 1860

Sarcophaga (Helicophagella) noverca Rondani, 1860

Sarcophaga (Heteronychia) ancilla Rondani, 1865

penultima Böttcher, 1913; rev. spec. & nov. syn.

Sarcophaga (Heteronychia) bezziana Böttcher, 1913

infantilis Böttcher, 1913; rev. spec. & nov. syn.

Sarcophaga (Heteronychia) consanguinea Rondani, 1860

Sarcophaga (Heteronychia) dissimilis Meigen, 1826

infantula Rondani, 1860

Sarcophaga (Heteronychia) filia Rondani, 1860

iuvenis Rondani, 1860

juvenis; incorrect subsequent spelling of iuvenis Rondani, 1860

Sarcophaga (Heteronychia) minima Rondani, 1862

fertoni sensu Rohdendorf, 1937

Sarcophaga (Heteronychia) proxima Rondani, 1860

Sarcophaga (Heteronychia) rondaniana (Rohdendorf, 1937) (Pierretia)

arvorum: Rondani, 1860 (in part). Misidentification, not Meigen, 1826

Sarcophaga (Heteronychia) setinervis Rondani, 1860

puerula Rondani, 1860

parvula Rondani, nec Wiedemann; incorrect original spelling of puerula Rondani, 1860

Sarcophaga (Heteronychia) vagans Meigen, 1826

nepos Rondani, 1860

Sarcophaga (Krameromyia) anaces Walker, 1849

setipennis Rondani, 1860

Sarcophaga (Parasarcophaga) albiceps Meigen, 1826

privigna Rondani, 1860

Sarcophaga (Pierretia) socrus Rondani, 1860 adolescens Rondani, 1860; nov. syn. rostrata Pandellé, 1896; nov. syn. Sarcophaga (Pierretia) soror Rondani, 1860 Sarcophaga (Robineauella) caerulescens Zetterstedt, 1838 matertera Rondani, 1860 Sarcophaga (s. str.) lasiostyla Macquart, 1843 cognata Rondani, 1860; nov. syn. Sarcophaga juvenilis Brauer, 1899; Nomen dubium. Senotainia albifrons (Rondani, 1859) (Sphixapata)

pygmea Rondani, 1859 (Sphixapata); nov. syn. piligena Rondani, 1865 (Sphixapata); nov. syn.

punctatella Rondani, 1868 (Miltogramma); nov. comb. & nov. syn. pigmea; incorrect original spelling of pygmea Rondani, 1859 pygmae; incorrect subsequent spelling of pygmea Rondani, 1859 pygmaea; incorrect subsequent spelling of pygmea Rondani, 1859

Taxigramma multipunctatum (Rondani, 1859) (Heteropterina) bisetum Villeneuve, 1911 (Heteropterina); nov. syn.

Unavailable names

Brachicoma translucida Costa, 1883. Nomen nudum Metopia stizivora Rondani, 1859; originally proposed in synonymy with Metopia argentata Mac-

Miltogramma semifasciata Brauer, 1899. Nomen nudum. Sarcophaga hirundinis Böttcher, 1913. Nomen nudum. Sarcophaga propinqua Böttcher, 1913. Nomen nudum.

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