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A Revision of the Fanniidae and Muscidae described by J. W. MEIGEN (Insecta: Diptera)

By ADRIAN C. PONT¹⁾

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Summary

Notes are given on the life and achievements of Johann Wilhelm MEIGEN (1764–1845) and on the various collections that he studied. His species of Fanniidae and Muscidae are revised on the basis of all the extant type-material. 134 species-group names are discussed. 120 are validly described names (including 1 replacement name): for these 50 holotypes, 44 lectotypes and 1 neotype are listed, and types of 24 are considered to be lost. Primary types are in the museums of Paris (68), Vienna (22), Berlin (2), Copenhagen (2) and Gent (1). Also listed are 5 nomina nuda and 9 names proposed in synonymy, attributable to Meigen or to those studying his material. 6 species and 2 nomina nuda are transferred to other families. A summary is given of new nomenclatural results.

Acknowledgements

It is a pleasure to acknowledge the sustained interest and assistance of Loic MATILE and Ruth LICHTENBERG during my visits to the museums of Paris and Vienna, respectively, and in correspondence at all times. Other colleagues have searched for MEIGEN material or have lent me material from their institutes, and I am most grateful for such generous help: Professor P. BERTHET (Louvain), Dr. M. DORN (Halle), Professor E. GERAERT (Gent), Dr. P. GROOTAERT (Brussels), Dr. P. J. VAN HELSDINGEN (Leiden), Mr. K. MAES (Gent), Dr. N. MAGIS (Liège), Dr. V. MICHELSEN (Copenhagen), the late Professor Dr. habil. G. MORGE (Eberswalde), Dr. H. SCHUMANN (Berlin), Dr. W. TOBIAS (Frankfurt a. M.) and Dr. H. ULRICH (Bonn). Dr. N. MAGIS obtained for me a copy of MORREN's (1865) biography of GAEDE. Dr. LICHTENBERG and the late Prof. MORGE read the introductory sections on MEIGEN's material (collectors and collections) and offered useful comments.

Introduction

This is one of a series of papers in which I am attempting to clarify the status and identity of the Fanniidae and Muscidae described by the earliest workers in European Dipterology. The initial impetus for this work has been the preparation of a new Catalogue of Palaearctic Diptera (editor: Dr. A. Soós, Budapest), to which I have contributed the families Muscidae and Fanniidae, but it could hardly have been undertaken without the excellent revision of the Palaearctic species of

¹⁾ Adress of the Author: ADRIAN C. PONT, Department of Entomology, British Museum (Natural History), Cromwell Road, London SW7 5BD, England.

these families by HENNIG (1955–1964). This monograph provides the indispensable taxonomic framework into which the results of these type-studies can be fitted.

Most of the results of this study have already been incorporated into my Catalogue MS. One of the purposes of the present paper is therefore to offer an explanation for some of the changes in nomenclature summarily presented there. Some new results, which are supplementary to my Ms, are also given here, and may be summarised as follows:

FANNIIDAE

- Fannia fuscula* (FALLÉN, 1825)
mutabilis MEIGEN in MORGE, 1975 (*Anthomyia*) [unavailable].
Fannia serena (FALLÉN, 1825)
stygia (MEIGEN, 1826). Syn. nov.

MUSCIDAE

- Thricops diaphanus* (WIEDEMANN, 1817)
flavida MEIGEN in MORGE, 1975 (*Anthomyia*) [unavailable].
Thricops semicinereus (WIEDEMANN, 1817)
terminalis MEIGEN in MORGE, 1975 (*Anthomyia*). Nomen nudum.
Hydrotaea irritans (FALLÉN, 1823)
incompta MEIGEN, 1826 (*Anthomyia*). Syn. nov.
Musca domestica LINNAEUS, 1758
divisa MEIGEN in MORGE, 1975 (*Musca domestica* var.). Nomen nudum.
Phaonia errans (MEIGEN, 1826)
comta MEIGEN, 1826 (*Anthomyia*). Syn. nov.
Phaonia lugubris (MEIGEN, 1826)
morio ZETTERSTEDT, 1845 (*Aricia*). Syn. nov.
Phaonia meigeni sp. nov.
lugubris of authors, not MEIGEN [misidentifications].
Phaonia mystica (MEIGEN, 1826)
honesta MEIGEN, 1826 (*Anthomyia*). Syn. nov.
Phaonia rufifrons (MEIGEN, 1838)
libralis (MEIGEN in MORGE, 1975 (*Dialytia*) [unavailable].
Helina impuncta (FALLÉN, 1825)
separata MEIGEN, 1826 (*Anthomyia*). Syn. nov.
Helina lasiophthalma (MACQUART, 1835)
inconspicua (MEIGEN, 1838). Syn. nov.
Lispe uliginosa FALLÉN, 1825
obscura MEIGEN in MORGE, 1975 (*Lispe*) [unavailable].
Coenosia agromyzina (FALLÉN, 1825)
luctuosa MEIGEN, 1826 (*Anthomyia*). Syn. nov.
Coenosia albicornis MEIGEN, 1826
inconspicua MEIGEN in MORGE, 1975 (*Coenosia*). Nomen nudum.

Inevitably, a certain amount of historical research was necessary in order to clarify some aspects of MEIGEN's activities and relationships with his contemporaries, and the results are given here briefly in the hope that they may be of general interest to other Dipterists and may spare those engaged in similar tasks from having to cover the same ground again.

In the text the following abbreviations are used for Museums and Institutes where material is located (or where material has been sought):



JOHANN WILHELM MEIGEN (1764-1845)

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| BMNH | British Museum (Natural History), London |
| IRSN | Institut Royal des Sciences Naturelles de Belgique, Brussels |
| MAKB | Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn |
| MLUH | Martin-Luther-Universität, Halle |
| MNHNP | Muséum National d'Histoire Naturelle, Paris |
| NMW | Naturhistorisches Museum, Vienna |
| RNH | Rijksmuseum van Natuurlijke Historie, Leiden |
| RUG | Museum voor Dierkunde, Rijksuniversiteit, Gent |
| SMF | Senckenbergisches Museum, Frankfurt am Main |
| UCL | Université Catholique, Louvain |
| UL | Université de Liège, Liège |
| UZMC | Universitetets Zoologiske Museum, Copenhagen |
| ZMHU | Zoologisches Museum der Humboldt-Universität, Berlin |

JOHANN WILHELM MEIGEN (1764–1845)

In an age when entomology was largely a leisure-time activity pursued by wealthy aristocrats, businessmen and academics, MEIGEN was an anomalous figure. He came from a poor family, but by natural talent, dedication, industry and sheer perseverance he was able to produce, among other things, a 7-volume monograph on European Diptera, describing and illustrating 5500 species, which has earned him a universal accolade as the father or founder of European Dipterology.

The following brief sketch is taken from his recently-published autobiography (MEIGEN in MORGE, 1974). This is a remarkable document, not least for the light it sheds on its modest and unassuming author. There is much fascinating material on day-to-day life at the time, the problems of travel and communication, the economic depressions of wartime, difficulties caused by religious dissent and Franco-German discord, etc. Throughout runs the contrast between MEIGEN's scientific predilections and his fanatical devotion to his work, and the exigencies of earning a living in the unsettled Europe of the French Revolution, the Napoleonic Wars, and the post-Napoleonic era.

MEIGEN's paternal grandparents were farmers at Meigen, near Solingen, a small village close to Düsseldorf in West Germany. His maternal grandparents were shopkeepers in Solingen. His father received an education but no training for any trade or profession, and proved quite incapable of supporting his family. He progressively lost the few family assets, and MEIGEN spent much of his life up to the age of 40 supporting his impoverished parents. He was born at Meigen on 3 May 1764, and lived for varying periods at Solingen, Burtscheid and Aachen before settling in 1796 at Stolberg, where he lived for the rest of his life. He married in 1804, and sired numerous children until at least 1824. Apart from visits to family and friends, he only undertook two major journeys: in 1823 he spent 12 weeks on a scientific visit to Hamburg, Kiel, Copenhagen and Lund in company with WIEDEMANN; and in 1825 he was away for 5 weeks when invited to participate in a zoological meeting in Berlin.

The young MEIGEN received a little formal education between the ages of 8 and 10, but was otherwise entirely self-taught. In his teens he taught himself French,

art, calligraphy and geography, and also pursued various interests in natural history, particularly botany and entomology. He specialised in Diptera after 1788, and his gifts for minute observation and draughtsmanship were soon put to good use. At first he supported himself by working as a private tutor to wealthy families and by teaching French. During the Napoleonic Wars, however, there was little demand for a French teacher in Germany, but he was also able to teach art, geography, history, piano and astronomy. He served as a secretary to various committees in Stolberg, which was then the centre of the European brass industry, worked as a church organist, and undertook several commissions as draughtsman to topographical surveys of the Stolberg area. He taught himself Latin and Greek in order to polish his entomological nomenclature. At various times he published a book of chorales, a set of astronomical maps, a German translation of FÉNÉLON's "Télémaque" (which became a standard school text), a handbook on butterflies, an unfinished work on Lepidoptera containing 125 plates, and several botanical books including a 3-volume work on the flora of Germany. His magnum opus was the *Systematische Beschreibung*, for which he prepared the plates and personally engraved those for volumes 6 and 7 in order to reduce publication expenses. He also prepared and engraved the plates for WIEDEMANN's *Außereuropäische zweiflügelige Insekten*; and prepared 305 hand-coloured plates to accompany his own monograph, which have only recently been published (MORGE, 1975, 1976a, b), illustrating all but a handful of species.

These plates are remarkable achievements, and a view of the originals (in the library of the Muséum National d'Histoire Naturelle, Paris) is well worthwhile. MEIGEN wrote that his routine work was done with a x 6 handlens, and detailed drawings with a x 20 microscope. He was a skilled draughtsman and worked rapidly. On his northern journey, for example, he was able to describe and illustrate 400 species. His working day began regularly at 4 a.m., and continued until late at night.

His long life was a continual struggle against poverty, and he writes with some bitterness of the years 1816–1817 which were particularly hard, when he had 7 children, the harvests were poor, and no work was available: this was long before our modern era of welfare states and broiler-house humanity. Publication of the *Systematische Beschreibung* was only possible because his friend WIEDEMANN was able to arrange royal patronage of the work, and an impressive list of subscribers appears in volume 1 (MEIGEN, 1818: iii-iv). WIEDEMANN also paid all his expenses for the long journey to Hamburg, Kiel, Copenhagen and Lund, and his Berlin visit was paid for by the government. When he visited WINTHEM in Hamburg, he arrived without an overcoat and WINTHEM insisted that he take one of his, as all the North German stagecoaches were open and he would have no protection from the inclement weather (he was then nearly 60). Incidentally, the journey from Stolberg to Hamburg, which is now less than a day's drive by car, took MEIGEN 10 days of arduous travel, on foot and by coach. Such was his near-destitution in old age that in 1839 he wrote to the Crown Prince of Prussia to obtain a small pension, and he also sold all his natural history assets – his Diptera and 305 unpublished plates (to

MACQUART and the Paris Museum), his other insects, Hymenoptera, and 2 manuscripts (to Arnold FÖRSTER), his herbarium and his library.

On his 82nd birthday, 3 May 1845 – MEIGEN himself (in MORGE, 1974: 156) describes this as his 82nd birthday, though it is hardly consistent with his date of birth, which he gives (op. cit.: 101) as 3 May 1764 – the whole town of Stolberg celebrated. MEIGEN was feted at a municipal reception, and was presented with an honorary doctorate from Bonn University.

MACQUART (1847a) wrote an account of his visit to MEIGEN's "habitation chétive" (mean house) in 1839, when MEIGEN was very old and near destitution. He found MEIGEN a diminutive but warm-hearted man, full of vivacity, charm and warmth. Throughout his life MEIGEN had attracted close and loyal friends: far from living and working in isolation in Stolberg, he was in correspondence with all the leading entomologists of his day, and was visited in Stolberg by, amongst others, ILLIGER, HOFFMANNSEGG, FABRICIUS, WIEDEMANN, WINTHEM and MACQUART.

MEIGEN's own autobiography has been mentioned above. Arnold FÖRSTER's friendship with MEIGEN began in 1833, and he must have been shown this manuscript because his obituary, which is mostly biographical, was based on it and even quotes some passages verbatim (FÖRSTER, 1846a, b). MACQUART's (1847a) obituary contains an appreciation of MEIGEN's achievement as a Dipterist – the new classification of the Diptera based on wing-venation and other characters, and the description of some 5500 species.

MEIGEN's material: collectors and collections

Johann Wilhelm MEIGEN (1764–1845) ²⁾

MEIGEN was an assiduous collector of Diptera and other insects throughout his long life. His autobiography (MEIGEN in MORGE, 1974) is interlarded with allusions to collecting-trips. Almost 50% of the Muscidae and Fanniidae in Syst. Besch. were based at least in part on material he collected himself.

In 1839 MEIGEN was visited by the French Dipterist Jean MACQUART. As he explains in his autobiography (MEIGEN in MORGE, 1974: 152), the final volume of Syst. Besch. had been published (1838), and, at the age of 75, he was no longer working on entomology. In order to realise some income and to avoid encumbering his children with unwanted (and unappreciated) natural history material he proposed to sell his collection of Diptera to MACQUART for 1200 francs and the 305 unpublished hand-painted plates of Diptera that accompanied Syst. Besch. for 1800 francs. Both items were accepted at these derisory prices by the Paris Museum. FÖRSTER (1846b: 140) voiced his patriotic indignation at this transaction: So kam denn ein Werk, woran deutscher Fleiß 40 Jahre gearbeitet, und welches einzig in der ganzen entomologischen Literatur darsteht, in die Hände der Franzosen, wohl nicht ohne Schuld unseres Vaterlandes, wie mir der Verstorbene oft versicherte.“

The plates fell into oblivion, but were rediscovered by Loïc MATILE in the general library of the Muséum National d'Histoire Naturelle, Paris, in the early 1970's. A selection was published by MORGE (1974) together with MEIGEN's autobiography, and MORGE (1975, 1976 a, b) subsequently published the complete set of 305 colour plates.

MEIGEN's collection is now in the entomological section of the Muséum National d'Histoire Naturelle, Paris. The first general account of it in relatively modern times was given by BECKER (1902). He found that it had suffered greatly over the years: specimens were mounted too low on the pins and

²⁾ After MEIGEN, this list follows in alphabetical order of surnames/institutions.

legs had been knocked off; the drawer lids fitted badly; during the siege of Paris in 1871 the collection had been stored in a damp cellar; and at the time of BECKER's visit the laboratories and studies were in one building whilst MEIGEN's collection was in another, 5 minutes walk away, and the drawers had to be carried for study from one building to the other.

The collection has been kept intact and is now in an excellent curatorial state, although the specimens themselves are frequently in poor condition. It has been arranged and indexed by E. SÉGUY. The specimens are indeed mounted low, on short pins, so that the legs are often defective. Each specimen has a disc, usually white, with "Meigen" written above and a numeral below that refers to the numbered species in the original accessions register; in addition, the first of each sex has MEIGEN's own label giving the name and, usually, the sex.

STEIN (1900) visited Paris in July 1899 and published a report on the MEIGEN Muscidae, Fanniidae and Anthomyiidae. Other types have been examined from time to time by BECKER (1902, 1904), VILLENEUVE (1899, 1910, 1919), AUBERTIN (1932, 1933), and HENNIG (1955–1964).

Mathias BAUMHAUER (?–1818)

The son of a wool merchant and nephew of A. F. PELTZER, young MEIGEN's most beloved patron, BAUMHAUER lived in Aachen and devoted his life to the obsessive pursuit of insects. MEIGEN met him in 1784, when he became private tutor to PELTZER's children, and collected with him around Aachen on several occasions. BAUMHAUER also travelled outside Germany, and collected in France, upper Italy, the Alps, and the Pyrenees. He died in Paris in early 1818.

All his Ms field notes and observations were destroyed, but his widow returned to Aachen and in 1820 entrusted MEIGEN with the classification and sale of his collection. As BAUMHAUER had lived only for collecting and had amassed over 50,000 specimens, this was a monumental and thankless task which occupied him for 1½ years and for which he received a very small honorarium. He advertised the sale of the collection in the first volume of *Syst. Besch.* (MEIGEN, 1818: xx) and subsequently announced (1826: 190) that it had been sold to the University of Lüttich (Liège), except for the Diptera which went to Leiden. The same information is given in his autobiography (in MORGE, 1974: 122, "... kam grösstentheils in das Lütticher Museum"), but curiously HORN & KAHLE (1935: 13) state that the collection could not be found in either Löwen (Louvain, Leuven) or Lüttich (Liège).

At my request, Dr. Peter J. VAN HELSDINGEN of the Rijksmuseum van Natuurlijke Historie, Leiden, looked into this problem. The Museum's archive has a hand-written catalogue of some 20 pages, entitled "Catalog über die Insektensammlung von Mathias Baumhauer in Aachen", in MEIGEN's characteristic hand and signed by him on the final page. The number of Diptera in the collection is given as 7264. Dr. VAN HELSDINGEN searched through the Leiden Diptera collection but was only able to find 219 specimens of 106 species with a BAUMHAUER label (letter of 19.iii.1981), with no Muscidae, Anthomyiidae or other Muscoid families. It seems clear from this that the majority of BAUMHAUER's Diptera did not in fact go to Leiden.

There is no BAUMHAUER material in the collection of the University of Liège, nor is there any other Museum in Liège where insect collections are held (according to Dr. N. MAGIS, in letter of 25.ix.1983 from Dr. P. GROOTAERT). Nor is any BAUMHAUER material present in the University of Louvain (letter of 22.xi.1983 from Prof. P. BERTHET).

As MEIGEN was working on BAUMHAUER's collection prior to its final breakup and disposal, it seems quite probable that he allowed himself to keep duplicates and interesting specimens, as he did with other collections (see MEIGEN in MORGE, 1974: 151–152). I can see no reason for not regarding specimens in his collection in Paris of the species described from BAUMHAUER's collection as being syntypes, if they agree with the original descriptions. HERTING (1972: 1), in his review of MEIGEN's Tachinid types, has also accepted that BAUMHAUER's material is in MEIGEN's collection in Paris.

Johann Christian FABRICIUS (1745–1808)

FABRICIUS and MEIGEN met in 1804, at Aachen and Stolberg. Although their meeting was cordial, they failed to agree on principles of classification and subsequently each criticised the other for his work on Diptera.

On his 1823 journey to the north, MEIGEN studied the collections of the Royal Museum, Copenhagen, and whilst staying in Kiel with WIEDEMANN also studied FABRICIUS' collection. All the FABRICIUS material is now in the Zoologisk Museum, Copenhagen.

Arnold FÖRSTER (1810–1884)

FÖRSTER was a school-teacher who spent his entire life in Aachen. His interest in entomology was fostered by personal contact with MEIGEN and he first collected and studied Diptera before achieving eminence as a Hymenopterist. He purchased MEIGEN's Hymenoptera collection and manuscripts, and subsequently wrote an appreciative and sensitive obituary of his former mentor (FÖRSTER, 1846a, b). It was undoubtedly this close friendship that led to FÖRSTER reading and quoting extensively from MEIGEN's autobiography when he composed his obituary. MEIGEN studied FÖRSTER's material for the supplementary volume 7 of Syst. Besch. (1838), and so some types should be located in FÖRSTER's collection.

After FÖRSTER's death, his Diptera were acquired by V. VON RÖDER (1841–1910) and eventually passed with RÖDER's collection to the University of Halle. RÖDER evidently found material labelled by MEIGEN in FÖRSTER's collection, for he wrote of *Stomoxys melanogaster* "wie ich aus einer Type Meigen's aus der Försterschen Sammlung ersehe . . ." (RÖDER, 1884: 293). According to Dr. M. DORN (letter of 11.i.1984) there are many so-called "MEIGEN types" in RÖDER's collection. The section containing the present families Fanniidae and Muscidae (and Anthomyiidae) is still in need of re-arrangement and revision, but a visual inspection by Dr. DORN did not reveal any specimens with obvious MEIGEN labels.

Heinrich Moritz Joachim GAEDE (1795–1834)

GAEDE was born on 26 March 1795 at Kiel, which at that time was in Denmark. He was a precocious student of zoology and anatomy, and, after studying at the Universities of Kiel (under WIEDEMANN) and Berlin, he was appointed Professor of Natural History at the University of Liège, at the age of only 23. His duties included the teaching of zoology and comparative anatomy, botany and plant physiology, mineralogy and geology. He organised the Botanical Garden at Liège and in 1828 published a descriptive catalogue of the 3851 plant species that it contained. He was a founder-member and, in 1830, President of the Liège Society of Horticulture. The political events of 1830 and professional disappointments initiated a period of intense depression which, combined with his increasing religious mysticism and melancholy, led to his decline and premature death on 2 January 1834. He was also remembered as an unselfish and pious man of great charity. A biography and bibliography were published by MORREN (1865).

MEIGEN met GAEDE in 1821 and received his Diptera for study. He wrote warmly of their friendship, and they visited each other several times. Nothing is known of the fate of GAEDE's insect collection, though, like his collection of minerals, it may have been bequeathed to the University of Liège. There is now no GAEDE material in this collection of the University of Liège, nor is there any other museum in Liège where insect collections are held (according to Dr. N. MAGIS, in letter of 25. ix. 1983 from Dr. P. GROOTAERT). It seems most likely that MEIGEN kept the interesting and new species himself, especially as some specimens in his collection are labelled "Lüttich, G", and I consider the Paris material of species described from GAEDE's collection to be syntypic.

Johann Centurius Graf VON HOFFMANNSEGG (1766–1849)³⁾

Count HOFFMANNSEGG was one of the leading patrons of botany and entomology of his day. Not only did he travel extensively in Europe, especially in the Alps and Portugal, but he employed collectors to send him material from the Portuguese colonies in South America and elsewhere: for example, his servant F. W. SIEBER was sent to collect in Brazil, where he remained for 12 years. He met MEIGEN in 1802, when he and ILLIGER were visiting the mineral baths in Aachen.

³⁾ This is the correct spelling, and not HOFFMANNSEGG as is sometimes given.

WIEDEMANN arranged for material from HOFFMANNSEGG's collection to be sent to MEIGEN for study in 1816. In the 1820's HOFFMANNSEGG gave up entomology altogether and sold his collection to the Berlin Museum. MEIGEN again studied it when he visited Berlin in 1825. It remains in the Zoologisches Museum der Humboldt-Universität, Berlin.

"Aus dem Kaiserl. Königl. Museum"

This is a reference to what is now the Naturhistorisches Museum, Vienna. The earliest zoological collections were kept in a wing of the court library ("Hofbibliothek"). During the civil disturbances of 1848, the city was shelled and a direct hit on this wing of the library caused a fire in which all the zoological collections were destroyed. It was only after this, some time after 1851, that separate buildings were set aside for the natural history collections (letter from Dr. R. CONTRERAS-LICHTENBERG, 2. xii. 1983).

In 1816 WIEDEMANN arranged with Karl MEGERLE VON MÜHLFELD, the custodian of the entomological collections, for MEIGEN to be sent the Museum's Diptera. BRAUER (1880: 105) wrote that these specimens were present in the general Diptera collection, which had been arranged by SCHINER, but that "manche derselben sind durch die Länge der Zeit zu Grunde gegangen". In fact, none of this MEIGEN material now survives and I assume that it was probably destroyed in 1848 or shortly thereafter.

"Im Königl. Kopenhagener Museum"

MEIGEN visited Copenhagen with WIEDEMANN in July 1823, staying for about a week whilst en route for Lund and a week on the return journey. The two entomologists were received and entertained by the Danish businessman and entomologist B. W. WESTERMANN (1781–1868). WIEDEMANN stayed in WESTERMANN's house, whilst MEIGEN was given a comfortable private room in the Phoenix, WESTERMANN's sugar refinery on the Christiansund dockside.

MEIGEN studied WESTERMANN's private collection of exotic insects and the collections of the Royal Museum. Both collections are now part of the Zoologisk Museum, Copenhagen.

Johann Karl MEGERLE VON MÜHLFELD (1765–1840)

The first custodian of the Imperial Court Museum of Natural History in Vienna, MEGERLE sent material from the Museum and his own collection to MEIGEN in about 1816 at the suggestion of WIEDEMANN. His first collection was given to the Museum in 1808, and was probably destroyed with the other Museum holdings in 1848. A second collection was built up after 1808 and was acquired by the Coleopterist Count J. A. FERRARI (1806–1876), from whom it too passed to the Vienna Museum. MEGERLE retired in 1835 and died on 12 September 1840.

I have not traced the specimens described by MEIGEN from MEGERLE's collection, and assume that they were destroyed in 1848. HERTING (1972: 1), in his review of MEIGEN's types of Tachinidae, wrote that MEGERLE's material does not survive.

Johann Friedrich RUTHE (1788–1859)

RUTHE was a Berlin schoolmaster, and had a large collection of insects from the Berlin district. MEIGEN visited him in September 1825, whilst attending a zoological meeting in Berlin, and studied his Diptera collection.

RUTHE's Diptera and some of his Hymenoptera were acquired by the Belgian Hymenopterist J. C. PULS (?–1889) and from him went to the University of Gent. The Puls collection is still kept intact in the Museum voor Dierkunde, Rijksuniversiteit Gent, and includes several drawers of RUTHE's Diptera which I was able to study in March 1984. Its condition is good. Under each species, the first specimen has the species-name and a disc with the locality; often it is the only specimen in the series to have a locality. Most discs have the data "R" (RUTHE) and "Prussia" or "Berol" (Berlin). A few are labelled "Kiel" (presumably from WIEDEMANN) and a few "VDW Holland" (VAN DER WULP).

On a few of the MEIGEN species the discs have the additional information "M. i. litt.", and I interpret this as meaning that the specimen or series was studied by MEIGEN during his visit to RUTHE in

1825 and that the name was given by MEIGEN to RUTHE. Such specimens should be regarded as type-material, and the few Muscidae involved have now been transferred to the Institut Royal des Sciences Naturelles de Belgique, Brussels.

In addition, 734 European Diptera were purchased from RUTHE by the British Museum (register no. 1858.29). This material may have contained specimens studied by MEIGEN, but none of the original labels have been preserved.

Joseph WATTL (?–?1882)

Little is known of WATTL who was a collector and insect dealer, first in Munich (until 1833) and then in Passau, and at some time was also a professor of natural history. His association with MEIGEN began after 1825, and MEIGEN acknowledges material received from him in the supplementary volume 7 of Syst. Besch. (1838).

WATTL's personal beetle collection is in the Vienna Museum, where one of his original cabinets is still preserved intact, but MEIGEN himself wrote (in MORGE, 1974: 151–152) that as his work on WATTL's material was unpaid he kept the most interesting specimens for his own collection.

Hermann Lauritz WENIGER (?–?)

WENIGER, like MEIGEN, was an enthusiastic amateur botanist and entomologist, and also taught languages. The two men met in about 1788. At that time MEIGEN was living in Solingen and WENIGER in Wald, these being adjacent villages just to the east of Düsseldorf. WENIGER later moved to Mühlheim, between Mannheim and Mainz, but the two men remained the best of friends, meeting several times and undertaking collecting-trips and excursions together. They published jointly two works on the flora of the lower Rhine, a list of plants in 1819 and a flora in 1823. I could not ascertain WENIGER's dates, but he was mentioned as still living in 1833 by OLIGSCHLÄGER (1833: 344–345).

If WENIGER kept a private insect collection, then nothing is known of it and it is unlikely to have survived. It seems most likely that he let MEIGEN keep whatever material interested him, and that MEIGEN's Paris collection now includes the types of the species he described from WENIGER's material.

The "Frd" WENIGER of MEIGEN's writings refers to "Freund" (friend) and is not an abbreviated Christian name.

Christian Rudolph Wilhelm WIEDEMANN (1770–1840)

WIEDEMANN was an obstetrician and barrister ("Justizrat"), a university academic who gave MEIGEN unusually altruistic support and thereby enabled him to expand and publish his dipterological work. Not only did he visit MEIGEN several times at Stolberg, but he travelled with him to Copenhagen and Lund (and provided the financial support for him to undertake this lengthy and arduous journey); he urged him to publish his monographs on European Diptera, and arranged for financial patronage to begin the publication; he placed his own collection at MEIGEN's disposal, and also arranged for MEIGEN to be sent material for study from the Vienna and Berlin Museums. His European Diptera collection thus contained a number of MEIGEN types and other identified material.

Upon his death his Diptera collection was acquired by WINTHEM, and in 1852 WINTHEM's entire Diptera collection was purchased by the Naturhistorisches Museum, Vienna. WIEDEMANN's collection was still kept separate as late as 1880 (BRAUER, 1880 : 106), but some time after this was combined with the WINTHEM, EGGER and other collections of the Vienna Museum to form a single Diptera collection. The specimens have a printed label "det. Wiedemann" or "coll. Wiedemann", with the species name usually added; most of the specimens are also labelled by MEIGEN himself.

STEIN studied the entire Vienna Museum collection of Muscidae, Fanniidae and Anthomyiidae in about 1904. He did not publish any account of the old types, but the results of his studies are scattered through his subsequent publications.

Johannes WINNERTZ (1800–1890)

WINNERTZ was a businessman whose entire life was passed in Krefeld. He was a specialist in Nematoceros Diptera. I found no mention of him in MEIGEN's autobiography, yet there is a curious statement in a letter sent by HALIDAY to OSTEN SACKEN dated 9 February 1862 (OSTEN SACKEN, 1903 : 54). HALIDAY commented on MEIGEN's collection in Paris that "the species represented are few beyond all my previous suppositions. It is evident that he derived more from v. Winthem's and Wiedemann's collections than from his own; or that the duplicates of which his heirs disposed to Mr. Winnertz included a material part of the whole." SCHINER (1861 : 253; 1862 : 599) also referred to MEIGEN types that he had seen in WINNERTZ' collection. ZETTERSTEDT (1860 : 6199, 6204, 6277, 6294) mentioned various species he had received from WINNERTZ that had been compared with MEIGEN's types or with MEIGEN specimens, and which were thus regarded as "authentic" determinations.

There is no obituary of WINNERTZ, and so it is impossible to tell how he obtained material from MEIGEN's family, what was its extent or what was its eventual fate.

According to HORN & KAHLE (1937: 305) most of WINNERTZ' collection went in 1881 to the University of Bonn. It was seen there in June 1881 by OSTEN SACKEN (1903 : 44). It was subsequently housed with other collections belonging to the University Zoological Institute in the Poppelsdorf Castle. This was destroyed by bombs during World War II, and it seems most likely that any MEIGEN material in the collection was destroyed at that time (letter from Dr. H. ULRICH, 26. ix. 1983). Some WINNERTZ material went to Vienna, and is now incorporated in the main Diptera collection; other WINNERTZ material went to Frankfurt, but a search through the collection of Muscidae there revealed no MEIGEN labels (letter from Dr. W. TOBIAS, 3. xi. 1983).

Wilhelm VON WINTHEM (1799–1847)

A member of a long-established family of Hamburg merchants and related by his grandmother's second marriage to the great German poet KLOPSTOCK, WINTHEM was brought up to the profession of a businessman and received the limited education appropriate for such a career. All his talents and inclinations were for natural history, however, and he amassed a huge collection of insects, concentrating on Diptera, Hymenoptera and Hemiptera. MEIGEN stayed with him in 1823, and in 1825, when on a business visit to France, Switzerland and Austria, he himself visited MEIGEN at Stolberg. He had correspondence with all the leading entomologists of his day, and in 1843 assisted with the foundation of a Natural History Museum in Hamburg. His final years were clouded by a long and incurable illness.

In addition to possessing the types of the species MEIGEN described from his collection, WINTHEM bought WIEDEMANN's Diptera collection and thus built up the most important Diptera collection of the age. His widow was left in some financial difficulty and so she sold his Diptera collection to the Vienna Museum in 1852 (see under WIEDEMANN): his collection, kept intact until at least 1880, now forms part of the main Diptera collection, and his specimens can be recognised by the printed label "coll. Winthem", usually with the species-name added and with MEIGEN's (or WIEDEMANN's) own labels added.

MEIGEN's localities

MEIGEN seldom gave any precise information about where his material was collected. His own material is hardly ever labelled with a locality, and the same is true of material supplied by his friends and correspondents. In citing type-localities I have adopted the following conventions:

- | | |
|-------------------------------------|--|
| (1) Type-locality given | I have quoted it verbatim, and given it in English or with a modern equivalent in square brackets. e.g. "Baier" [= W. Germany, Bavaria]. |
| (2) Probably collected by MEIGEN | A statement such as "hier", "nur einmal gefangen", etc., a date or a habitat is interpreted as being from MEIGEN's own collecting, and most probably from the Stolberg district. After the citation, I have added this in square brackets. |

- e.g. "hier" or "locality not stated" [W. Germany: probably Stolberg].
 Note that some species were evidently collected not at Stolberg but probably at higher altitude, such as the Eifel Hills south of Aachen.
- (3) From WINTHEM and WIEDEMANN
 If material is stated to be from these two friends, I have interpreted it as being from the vicinity of their home-towns.
 e.g. for WINTHEM [W. Germany: probably Hamburg].
 for WIEDEMANN [W. Germany: probably Kiel].
- (4) From MEGERLE
 As for (3), e.g. [probably Austria: Vienna].
- (5) From BAUMHAUER
 Nothing can be said about localities for the material provided by this wide-ranging collector. Some specimens are obviously from the Alps, others are from S France or Spain. I have simply added "[W. Europe]".
- (6) Nothing at all stated
 A type-locality has been suggested depending on the collection in which the primary type is now located,
 e.g. either (2) or (3) or even (5) above.
- (7) Label data
 Where a type-locality can be supplied from a label on the primary type, I have added it in square brackets.
 e.g. locality not stated [actually W. Germany: Kiel].
- The following list includes MEIGEN's localities alphabetically, in the form in which they appear in Syst. Besch. Their modern equivalents are given, together with any pertinent comment.
- | | |
|---|--|
| Aachen | West Germany, Westfalen: Aachen. |
| Baiern | West Germany, Bavaria. |
| aus der Berliner Gegend | East Germany: Berlin district. |
| auf dem Cenisberge | France, Savoie: Mont Cenis. |
| Fontainebleau | France, Seine-et-Marne: Fontainebleau. |
| Frankreich, südliches Frankreich | France, southern France. |
| Halle | East Germany, Halle: Halle-an-der-Saale. |
| Hamburg | West Germany: Hamburg. |
| hier, hiesige Gegend, aus hiesiger Gegend | West Germany, Westfalen: Stolberg, 50.45 N, 6.15 E, just east of Aachen. Although Stolberg was MEIGEN's home from 1796 until his death, he had previously lived at Solingen, Burtscheid and Aachen, and had also collected in other parts of the same general region with WENIGER and BAUMHAUER. |
| Kiel | West Germany, Schleswig-Holstein: Kiel. |
| Kopenhagen | Denmark, Sjaelland: Copenhagen. |
| aus dem Lüneburgischen | West Germany, Niedersachsen: the area around Lüneburg. |
| Lüttich, aus der Lütticher Gegend | Belgium, Liège: Liège and the Liège district. |
| Österreich | Austria. |
| Portugal | Portugal. |
| Stolberg | See above under "hier". |
| no locality | from MEIGEN: probably Stolberg. from WIEDEMANN: probably Kiel. from WINTHEM: probably Hamburg. |

MEIGEN's Fanniidae and Muscidae

Genus-group names

Coenosia MEIGEN, 1826 : x, 210. Type-species: *Musca tigrina* FABRICIUS, 1775, the second of 28 included species, by designation of WESTWOOD (1840 : 143).

Coenosia tigrina in MEIGEN's collection (MNHNP, box 50, no. 2106) is mixed: 1 ♂ = *Coenosia tigrina* (FABRICIUS), 1 ♀ = *Macrorchis meditata* (FALLÉN, 1825), 1 ♀ = *Helina reversio* (HARRIS, 1780). The holotype of *tigrina* is known to have been destroyed (MICHELSEN, 1979 : 190). Subsequent authors, unnecessarily and/or incorrectly, have cited other species as type-species of this genus. A misspelling *Caenoisa*, dating from MACQUART (1835 : 343) is common. A good genus.

Dialyta MEIGEN, 1826 : x, 208. Type-species: *Musca erinacea* FALLÉN, 1824 [preocc., = *Anthomyza angulicornis* ZETTERSTEDT, 1838], by monotypy.

MEIGEN's material of "*Dialyta erinacea*" is in MNHNP (box 50, no. 2104, 1 ♂ 1 ♀) and in NMV (2 ♀). It is correctly named. The type-series of *erinacea* has been studied by PONT (in press, a). A synonym of *Phaonia* ROBINEAU-DESVOIDY, 1830, but as it is an older name and threatens the well-established name *Phaonia*, application needs to be made to the I.C.Z.N. for the suppression of *Dialyta*.

Drymeia MEIGEN, 1826 : x, 204. Type-species: *Drymeia obscura* MEIGEN, 1826 [= *Musca hamata* FALLÉN, 1823], by monotypy.

See p. 233 for *obscura*. There have been several misspellings of this name, e.g. *Drymeja*, *Drimeja*, and an unjustified emendation to *Drymia* AGASSIZ (1847 : 130). A good genus.

Eriphia MEIGEN, 1826 : x, 206. [Junior homonym of *Eriphia* LATREILLE, 1817.] Type-species: *Eriphia cinerea* MEIGEN, 1826, by monotypy.

See p. 217 for *cinerea*. A replacement name has been published, *Bebryx* GISTL (1848 : ix). A junior synonym of *Drymeia* MEIGEN, 1826.

Lasiops MEIGEN, 1838 : 323. Type-species: *Musca hirticeps* FALLÉN, 1824, the fourth of 5 included species, by designation of COQUILLET (1901 : 138).

MEIGEN did not actually possess specimens of *hirticeps* FALLÉN, though it is quite possible that he saw the species when he visited FALLÉN in 1823. It is most likely, though, that he used FALLÉN's description as a basis for his interpretation of this species and its relatives. The holotype of *hirticeps* has been studied by PONT (in press, a). It was through the transfer of most of the originally-included species to other genera that *Lasiops* came to be restricted to *apicalis* MEIGEN, 1838 (= *semicinereus* WIEDEMANN, 1817) and its relatives, so that KARL (1928 : 32) was able to cite (incorrectly) *semicinereus* WIEDEMANN as type-species. COQUILLET gave the first valid type-species designation for *Lasiops*. A junior subjective synonym of *Hydrotaea* ROBINEAU-DESVOIDY, 1830.

Mesembrina MEIGEN, 1826 : ix, 10. Type-species: *Musca meridiana* LINNAEUS, 1758, the first of 2 included species, by designation of WESTWOOD (1840 : 141).

Mesembrina meridiana in MEIGEN's collection (MNHNP, box 44, no. 1885, 1 ♂ 1 ♀) is correctly named. The holotype of *meridiana* has been studied by PONT (1981: 170). A good genus.

Species-group names

The species are dealt with below in alphabetical order. To avoid repetition, the format for each entry has been standardised and the information presented as

briefly as is consistent with clarity or the taxonomic and nomenclatural problems involved. A reference is given to the original description of each species and also to the MEIGEN colour figures in MORGE (1975, 1976 a, b). Where several syntypic specimens have been found, or the description indicates that more than one specimen was studied, a lectotype has been designated. Where only one typical specimen has been found and there is no indication that there was ever more than one available, I have labelled it as holotype. MEIGEN's series were usually short, often consisting of just a single (holotype) specimen. In addition to the nature of the type-material, notes are given on its location, condition and identity. The "current interpretation" of each species is that to be found in HENNIG (1955–1964) and ASSIS FONSECA (1968).

In this section I have included a small number of nomina nuda that have been published with the plates. It is also evident from the plates that MEIGEN occasionally changed his choice of name. Furthermore, he occasionally decided that his species was already described, and he gave his original name as a synonym in the legends or in the index. I have included all these names, though they are clearly published in synonymy and are nomenclaturally unavailable in the sense of the Code. Finally, a few nomina nuda and unavailable names based on MEIGEN material but attributable to other authors have also been included for the sake of completeness.

MEIGEN sometimes used manuscript names that he found on specimens sent to him for study by his friends, e.g. *Musca caesarion* "HOFFMANNSEGG". It should be noted that these are citations of manuscript names and not of manuscript descriptions, and the author of the names is MEIGEN himself in all these cases.

acuticornis MEIGEN, 1838: 363 (*Sciomyza*). MEIGEN plate 297, fig. 1 [?] (MORGE, 1976 b). Lectotype ♂, "Baiern" [= W. Germany, Bavaria]), by present designation, in MNHN.

Described from "Baiern, zwei Exemplare"; specimens not sexed. Only 1 ♂ syntype found, under no. 2381, box 56, which was seen by BECKER (1902 : 253). Labelled by MEIGEN "*Sciomyza / acuticornis*", and with a disc "2579/40". Gummed to card, but otherwise in excellent condition. I have labelled and designate herewith this ♂ as lectotype. A junior synonym of *Schoenomyza litorella* (FALLÉN, 1823) as currently understood.

aequalis MEIGEN, 1826: 99 (*Anthomyia*). MEIGEN plate 204, fig. 10 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Hamburg], in NMW.

Described from the ♀ sex "von Hrn. v. Winthem". Holotype labelled "agnalis = [sic, lapsus] / ♀ quadrum / Coll. Winthem" and by MEIGEN "*aequalis*". Condition poor: rather mouldy and rubbed; left fore tarsus, left mid leg, left hind tibia and tarsus, right fore tibia and tarsus, and apparently right mid and hind legs missing; also left wing and antennae missing. A junior synonym of *Helina quadrum* (FABRICIUS, 1805) as currently understood.

albiceps MEIGEN, 1830: 20 (*Sciomyza*). Holotype ♀, "Halle" [= E. Germany: Halle-an-der-Saale], in NMW.

Described "von Halle; Hrn. von Winthem". Holotypy ♀ labelled "Halle"; "albiceps / Coll. Winth."; and "albiceps"; the first and last labels in an old hand, but not MEIGEN's. Also seen by BECKER (1902 : 253) who inadvertently listed it as a ♂. Condition good. A junior synonym of *Schoenomyza litorella* (FALLÉN, 1823) as currently understood.

albicornis MEIGEN, 1826: 220 (*Coenosia*). MEIGEN plate 131, fig. 7 [♂ ♀] (MORGE, 1976 a); plate 203, fig. 12 [♂], and plate 235, fig. 14 [♀] (MORGE, 1976 b). Lectotype ♀, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, "im Mai gemein auf Gras". MNHNP: 2 ♂ 1 ♀ syntypes; also seen by STEIN (1900 : 151). Each with a disc "2324/40".

The ♀ labelled by MEIGEN "albi- / cornis". I have labelled it and designate it herewith as lectotype. Immature, but otherwise in good condition. A good species of *Coenosia*, and an older name for *Coenosia lineatipes* (ZETTERSTEDT, 1845).

The ♂ is labelled by MEIGEN "albi- / cornis / ♂". I have labelled it as paralectotype. It is fragmentary, also a *Coenosia*, but quite indeterminable to species.

The second ♂ is labelled by MEIGEN "Coenosia / albicornis / Baiern". It is certainly a later addition and not a syntype. It is probably the ♂ identified by STEIN (l.c.) as *perpusilla*, but it is certainly not this species.

In NMW, under *Coenosia pumila*, are 7 ♂ labelled "albicornis / Coll. Winthem" and 1 ♂ labelled "albicornis / Coll. Wiedem.". However, none is labelled by MEIGEN and I do not consider them to be syntypes. The NMW material was seen by STEIN (1897 : 96) who wrote that MEIGEN's ♂ *albicornis* was *Coenosia pumila* (FALLÉN) and his ♀ *albicornis* was *bilineella* (ZETTERSTEDT).

albipalpis MEIGEN, 1826: 218 (*Coenosia*). MEIGEN plate 246, fig. 7 (MORGE, 1976 b). Holotype ♀, "aus hiesiger Gegend" [W. Germany: probably Stolberg], in MNHNP.

Described from the ♀ sex. Holotype ♀ under no. 2122, box 50. Labelled by MEIGEN "albipal = / pis / ♀", and with a disc "2319/40". The specimen is fragmentary and mouldy, as noted by STEIN (1900 : 151) and HENNIG (1962 : 618). The little that remains after beetle damage (part of the head, 4 legs, wings) is covered with mould. Apparently the anal vein reaches the wing-margin; mid tibia with 1 ad, 2 pd and 1 av setae; hind tibia with 2 ad and 2 pd. It may well be an Anthomyiid, as HENNIG suggested, but the description of "Taster weiss" suggests it is more likely to be a Scathophagid.

albipennis MEIGEN, 1826: 58 (*Musca*). MEIGEN plate 120, fig. 7 [♀] (MORGE, 1976 a). Holotype ♀, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from "nur ein Exemplar". The holotype is under no. 1921, box 45. Labelled by MEIGEN "Lucilia / albipennis / ♀", and with a disc "2114/40". A small black rubbed specimen of *Musca* with right fore leg missing. VILLENEUVE (1910 : 313) assigned this specimen to the genus *Plaxemyia* (i.e. the *Musca vitripennis-osiris* group), but HENNIG (1964: 1025–1026), who also studied the type, considered it to be a defective specimen of *Musca tempestiva* FALLÉN, 1817. I fully agree with HENNIG's verdict. Despite the glassy wings, the dark anterior spiracle and well-developed prst dc setae suggest *tempestiva*.

There is also a ♂ in NMW which is not a syntype, from WIEDEMANN's collection and labelled "albipennis / ♂" by MEIGEN.

allotalla MEIGEN, 1830: 376 (*Anthomyia*). MEIGEN plate 260, fig. 4 [♂] (MORGE, 1976 b). Holotype ♂, "Berliner Gegend" [= E. Germany: Berlin district], not located and presumed destroyed.

Described from "Berliner Gegend; vom Oberlehrer Ruthe unter obigen Namen". No material has been traced in NMW, MNHNP, BMNH or RUG, nor is there any material in ZMHU according to Dr. SCHUMANN (letter of 7 April 1981). A good species of *Helina*, correctly recognised by recent authors according to MEIGEN's description and plate.

There are 2 ♂ in NMW from WINTHEM's collection. They are not syntypes, but were correctly identified by STEIN as *allotalla* Mg.

alma MEIGEN, 1826: 188 (*Anthomyia*). MEIGEN plate 208, fig. 9 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [probably Austria: Vienna], not located and presumed destroyed.

Described from a ♀ "von Hrn. Megerle von Mühlfeld". The holotype is not in NMW, and was presumably destroyed in 1848. It is not in MNHNP, as was remarked by COLLIN (1963: 280). A good species of *Caricea*, and COLLIN (l.c.) argued convincingly for identifying it with the common British species of the *alma*-complex with clouded cross-veins. MEIGEN's plate shows a species that is quite consistent with this interpretation.

amabilis MEIGEN, 1826: 125 (*Anthomyia*). MEIGEN plate 207, fig. 4 [♀] (MORGE, 1976 b). Holotype ♀, "in hiesiger Gegend" [W. Germany: probably Stolberg], in MNHNP.

Described from a ♀, "nur einmal in hiesiger Gegend". The holotype is under no. 2014, box 47, and was also seen by HENNIG (1958: 228; 1963: 846). Labelled by MEIGEN "amabi= / lis / ♀", and with a disc "2207/40". In good condition. A good species of *Phaonia*, and an older name for *Phaonia rufiseta* (ZETTERSTEDT, 1860).

This ♀ has usually been identified as *Phaonia mystica* of authors (now called *villana* ROBINEAU-DESVOIDY, 1830), but it runs straight to *rufiseta* in the keys of HENNIG (1963) and ASSIS FONSECA (1968): I compared it directly with ♀♀ of *rufiseta* and *mystica*, and it clearly belongs to *rufiseta* and not to *mystica*.

ambulans MEIGEN, 1826: 217 (*Coenosia*). MEIGEN plate 246, fig. 5 [♀] (MORGE, 1976 b). Lectotype ♀, locality not stated [W. Germany: probably Hamburg], by present designation, in NMW.

Described from the ♀ sex, "von Hrn. v. Winthem". NMW: 2 ♀ syntypes, also seen by POKORNY (1893 : 538) and STEIN (1908 : 14).

1 ♀ labelled "ambulans / Coll. Winthem". I have labelled it and designate it herewith as lectotype. Condition good, but left mid leg missing. A good species of *Coenosia*, correctly recognised by recent authors.

1 ♀ labelled "ambulans / ♀ / Coll. Winthem" and by MEIGEN "ambulans / ♀". I have labelled it as paralectotype. Also = *Coenosia ambulans*.

ancilla MEIGEN, 1826: 105 (*Anthomyia*). MEIGEN plate 121, fig. 6 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex, with no statement as to provenance. The holotype is under no. 1981, box 47, in MNHNP. Labelled by MEIGEN "ancilla / ♂", and with a disc "2174/40". Condition poor, and obviously the victim of an accident: head and abdomen glued back on; no legs on body but 4 glued to a card – not all of which can be from the type as at least one leg is impossible for this species. A good species of *Mydaea*, correctly recognised by recent authors: metanotum glossy black and hypopleuron bare above hind coxa.

anthrax MEIGEN, 1826: 161 (*Anthomyia*). MEIGEN plate 127, fig. 3 [♂ ♀] (MORGE, 1976 a). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, "viel seltener wie die vorige". The previous species, *leucostoma*, was "im Frühling und Sommer gemein".

MNHNP: 2 ♂ 1 ♀ syntypes, under no. 2045, box 48; seen by HENNIG (1962: 690). 1 ♂ labelled by MEIGEN "anthrax", and with a disc "2240/40". I have labelled it and designate it herewith as lectotype. Condition good. A junior synonym of *Hydrotaea capensis* (WIEDEMANN, 1818), as currently understood.

The second ♂ has a disc "2239/40". I have labelled it as paralectotype. Also = *Hydrotaea capensis*.

The ♀ labelled by MEIGEN "anthrax / ♀", and with a disc "2240/40". I have labelled it as paralectotype. Poor condition, but appears to be *Hydrotaea armipes* (FALLÉN) (syn: *occulta* MEIGEN).

apicalis MEIGEN, 1830: 375 (*Anthomyia*). MEIGEN plate 206, fig. 15 [♂], and plate 260, fig. 6 [♂] (MORGE, 1976 b). Holotype ♂, "Berliner Gegend" [= E. Germany: Berlin district], in IRSN.

Described from the ♂ sex, "aus der Berliner Gegend; vom Oberlehrer Ruthe". The holotype was found in RUTHE's collection in RUG, and has been transferred to IRSN. It stands over the collection label "Las. apicalis Meig" and is labelled by RUTHE "R / Prussia / Berol". Immature and right mid leg missing, otherwise condition good. A junior synonym of *Thricops semicinereus*

(WIEDEMANN, 1817), as currently understood, a synonymy first suggested by KOWARZ (1880: 139).

With the holotype was an unlabelled ♀, not part of the type-series, also = *T. semicinereus*. No other material of *apicalis* has been traced in NMW, MNHNP, BMNH or ZMHU (letter from Dr. SCHUMANN, 7 April 1981).

The figure on plate 206 is not a good likeness of this species, and differs in several respects from the description, such as the striped thorax and pale legs (though the holotype is immature and has almost yellow tibiae). In fact, this figure is given as *apicalis* in the legends on p. 437 but as *terminalis* on p. 465 (MEIGEN in MORGE, 1975). Possibly MEIGEN changed his mind about the name *terminalis* whilst compiling his plates, and altered the name and description to *apicalis*; or possibly the figure referred to another species altogether which he proposed calling *terminalis*, but which he never actually described, perhaps due to some confusion in his notes between *apicalis* and *terminalis*. At all events, *terminalis* is a nomen nudum, being published after 1930 and without any validating statements (Code, para. 13 a).

armata MEIGEN, 1826: 139 (*Anthomyia*). MEIGEN plate 269, fig. 7 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Kiel], by present designation, in NMW.

Described from the ♂ “von Hrn. Wiedemann und Hrn. von Winthem”. NMW: 5 ♂ syntypes. The first is from WIEDEMANN's collection, labelled “armata / coll. Wiedem.”, and, probably by WIEDEMANN, “armata”. I have labelled it and designate it herewith as lectotype. Condition excellent. A good species of *Fannia*, correctly recognised by recent authors.

The other 4 ♂ are from WINTHEM's collection, and I have labelled them as paralectotypes. The first labelled “armata” by MEIGEN. All = *Fannia armata*.

aterrima MEIGEN, 1826: 157 (*Anthomyia*). MEIGEN plate 127, fig. 1 [♂] (MORGE, 1976 a); and plate 207, fig. 10 [♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Hamburg], by present designation, in NMW.

Described from several ♂♂: “hier sehr selten; auch von Hrn. Wiedemann und von Winthem mitgetheilt”. NMW: 7 ♂, which I consider to be syntypes. One of these labelled “aterrima / Coll. Winthem”; and by MEIGEN “aterrima”. I have labelled it and designate it herewith as lectotype. Condition excellent. A good species of *Azelia*, correctly recognised by recent authors.

The other 6 ♂ have been labelled as paralectotypes. 3 ♂ labelled “aterrima / Coll. Winthem”. 3 ♂ labelled “Kiel” and “aterrima / Coll. Wiedem.”. All = *Azelia aterrima*.

MNHNP: 1 ♂ under no 2043, box 48; seen by STEIN (1900: 151) and also discussed by HENNIG (1956: 107). Labelled by MEIGEN “aterrima / ♂”, and with a disc “2238/40”. I have labelled it as paralectotype. = *Fannia rondanii* (STROBL, 1893).

Also in MNHNP is 1 ♀, which cannot be a syntype. Labelled “aterrima / ♀” by MEIGEN, and with a disc “2238/40”. It was seen by STEIN (l.c.) and is probably the specimen illustrated by MEIGEN on plate 207. = *Coenosia agromyzina* (FALLÉN, 1825). This figure was originally labelled as “glabricula Abänderung”, replaced by *aterrima* (MORGE, 1975: 437).

atra MEIGEN, 1830: 377 (*Coenosia*). MEIGEN plate 260, fig. 13 [♀] (MORGE, 1976 b). Holotype ♀, “Berliner Gegend” [=E. Germany: Berlin district], in MNHNP.

Described from a ♀ from “Berliner Gegend; vom Oberlehrer Ruthe”. Holotype under no. 2120, box 50; also seen by STEIN (1900: 151). Labelled by MEIGEN “*Coenosia / atra / Ruthe / Berlin*”, and with a disc “2317/40”. Condition good. A good species of *Coenosia*, correctly recognised by recent authors.

There is a ♂ in ZMHU, with an old label “C. atra / Berol. M.” and also labelled “Berlin / Ruthe S.”. This cannot be a type as the species was described from the ♀ sex. There is also a specimen of *atra* in BMNH from RUTHE’s collection, of indeterminate sex, with abdomen and all right legs missing. This is unlikely to be a type.

RUTHE’s collection in RUG contains 8 specimens under *Coenosia atra*, the first with a disc “R / Berol.”. There is no evidence that MEIGEN saw any of these specimens, and I do not consider any of them to be syntypes. 1 ♂ 3 ♀ 1 fragment = *Coenosia atra*, and 3 ♀ = *Hydrotæa glabricula* (FALLÉN, 1825).

atrimana MEIGEN, 1826: 118 (*Anthomyia*). Unavailable; proposed in synonymy with *Musca angelicae* SCOPOLI, 1763.

This name was a manuscript name mentioned by MEIGEN. He found it on labels of specimens of *angelicae* with fore femur and sometimes base of mid femur dark: “diese Abart erhielt ich unter dem Namen *atrimana*”. There is no indication of any author or locality, and I found no material labelled as *atrimana* in MNHNP or NMW. The name is still included in the synonymy of *Phaonia angelicae* (SCOPOLI, 1763).

bidens MEIGEN, 1826: 135 (*Anthomyia*). MEIGEN plate 124, fig. 12 [♂] (MORGE, 1976 a). Holotype ♂, “hier” [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ only, as “hier sehr selten”. MEIGEN used a WIEDEMANN MS name for this species. Holotype under no. 2022, box 48; also seen by VILLENEUVE (1899: 86), STEIN (1900: 151) and HENNIG (1962: 725). Labelled by MEIGEN “*bidens / Wd.*”, and with a disc “2217/40”. Both hind legs missing, otherwise condition good. A junior synonym of *Hydrotæa irritans* (FALLÉN, 1823) as currently understood.

In NMW are several specimens in the series of *irritans* from the WINTHEM and WIEDEMANN collections, and some of the WIEDEMANN specimens could have been seen by MEIGEN. 1 ♂ labelled by WIEDEMANN “A irritans M. / Kiel” and on the

reverse "A. bidens mihi / ♂ Kiel", but there is no MEIGEN label and MEIGEN himself only mentioned Stolberg as a locality.

bimaculata MEIGEN, 1826: 160 (*Anthomyia*). MEIGEN plate 127, fig. 5 [♀] (MORGE, 1976 a). Lectotype ♀, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from ♀ ♀ "mehrmalen im Sommer auf Blumen und in Hekken, auch von Hrn. v. Winthem erhalten". MNHNP: 2 ♀ syntypes, under no. 2029, box 48; one seen by VILLENEUVE (1899: 85) and STEIN (1900: 151), and both by HENNIG (1962: 713).

1 ♀ labelled by MEIGEN "bimacu- / lata", and with a disc "2224/40". I have labelled it and designate it herewith as lectotype. Condition good. A junior synonym of *Hydrotaea diabolus* (HARRIS, 1780) as currently understood.

The second ♀ with a disc "2224/40". I have labelled it as paralectotype. = *Hydrotaea diabolus*.

NMW: 1 ♀, labelled "bimaculata / Coll. Wiedem.", and by WIEDEMANN "A. bimaculata M. / Stolberg / ciliatae ♀ m.". This must be a syntype given by MEIGEN to WIEDEMANN, and I have labelled it as paralectotype. Also = *Hydrotaea diabolus*.

1 ♀ in NMW from WINTHEM's collection, labelled "bimaculata = / cilata ♀". There is no MEIGEN label, and I doubt if it is a syntype. Also = *Hydrotaea diabolus*.

blanda MEIGEN, 1826: 142 (*Anthomyia*). MEIGEN plate 251, fig. 5 [♂] (MORGE, 1876 b). Holotype ♂, locality not stated [actually Denmark, Zealand], in UZMC.

Described from the ♂, with the comment "im Königl. Kopenhagener Museum als Musca dentipes Fabr. stekkend". The holotype is in the FABRICIUS collection and is labelled "M: dentipes / e Siellandia". It is not labelled by MEIGEN, but his description and comments on the location clearly apply to this specimen. Left mid leg, left hind leg, right mid tarsal segments 2–5, and right hind tarsi missing; otherwise condition good. A junior synonym of *Hydrotaea palaestrica* (MEIGEN, 1826) as currently understood.

This ♂ was incorrectly listed as the holotype of *Musca* (now *Hydrotaea*) *dentipes* FABRICIUS, 1805, by ZIMSEN (1964: 490), but MICHELSEN (1979: 185) showed that it could not be a Fabrician type and identified it as *Hydrotaea palaestrica*.

caesarion MEIGEN, 1826: 57 (*Musca*). MEIGEN plate 267, fig. 9 [♀] (MORGE, 1976 b). [Junior primary homonym of *Musca caesarion* BECHSTEIN and SCHARFENBERG, 1805.] Holotype ♀, "Portugal" [= Portugal], in NMW.

Described from a ♀, for which MEIGEN used HOFFMANNSEGG's manuscript name. There is no reason to believe that MEIGEN studied more than one specimen: "Herr Graf von Hoffmannsegg entdeckte diese Art in Portugal. Ich erhielt sie aus dem Wiedemannischen Museum".

There is no material in ZMHU, according to Dr. SCHUMANN (letter of 7 April 1981). Holotype in NMW, where it was also studied by STEIN (1913: 583; 1916: 18).

It is labelled "Lusitania"; "caesarion Hffmg / nr: 10 / Coll. Winthem"; and, possibly by WINTHEM, "caesarion /Hffg / Lusitania". Also labelled by STEIN as *fennica*. Condition fair, dusty, both mid legs missing. A junior synonym of *Neomyia cornicina* (FABRICIUS, 1781) as currently understood (i.e. with prst acr setae and 3 post dc setae).

caesia MEIGEN, 1826: 228 (*Lispe*). MEIGEN plate 122, fig. 14 [♂ ♀] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Europe], not located and presumed destroyed.

Described from the ♂ sex only, "aus dem Baumhauerischen Museum". BECKER (1904: 52) wrote that he had seen MEIGEN's type in Paris, and this specimen was also studied by STEIN (1900: 152). MNHNP: 1♀, under no. 2135, box 50. Labelled by MEIGEN "Lispe / caesia", and with a disc "2333/40". It might be thought that MEIGEN had mis-sexed his material and that his specimen is the holotype. However, his illustration on plate 122 shows a whole insect labelled as ♂ and a head labelled as ♀. It is thus clear that he obtained further material after he had described the ♂, and that the MNHNP ♀ is a later specimen. The holotype has not been located and is presumed destroyed. The name is conventionally treated as a good species of *Lispe*, and there is nothing in the original description to contradict the interpretation of recent authors.

caesia MEIGEN, 1826: 76 (*Musca*). MEIGEN plate 242, fig. 7 [♀] (MORGE, 1976 b). Holotype ♀, "aus Oesterreich" [= Austria], in NMW.

Described from the ♀ „aus Oesterreich"; im Wiedemannischen Museum". The holotype labelled with a small pink tag; "Austria"; "caesia Mg / Coll. Wiedem."; "caesia Meig / Austria" [possibly WIEDEMANN's hand]. Right hind leg missing, otherwise condition good. A junior synonym of *Muscina prolapsa* (HARRIS, 1780) (syn.: *pabulorum* FALLÉN) as currently understood. Although usually placed as a synonym of *Muscina levida* (HARRIS, 1780) (syn: *assimilis* FALLÉN), the holotype is actually correctly labelled as *pabulorum* by STEIN.

carbonaria MEIGEN, 1826 : 154 (*Anthomyia*). MEIGEN plate 127, figs. 6, 8, 9 [♂ ♀] (MORGE, 1976 a); plate 269, fig. 14 [♀], and plate 277, fig. 7 [♀] (MORGE, 1976 b). Lectotype ♀, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from the ♀ with the sole comment "zwei Exemplare", yet a glance at the plates shows that MEIGEN felt some confusion over this species. Plate 127 fig. 6 shows a ♂ and a ♀ of *carbonaria*, and the frontal view of the ♀ head is particularly useful. Figs. 8 and 9 on the same plate are labelled *glabricula* ♀ with "glabricula" deleted and "carbonaria" written above (MORGE, 1975: 420); elsewhere (MORGE, 1975: 464) these figure numbers are deleted under *glabricula*, but are not added to *carbonaria*. Plate 269 fig. 14 is labelled *carbonaria* on page 464

(MORGE, 1975) but *nigrita* on page 452: the appellation *carbonaria* must be a lapsus, since the figure does actually show the species MEIGEN considered to be FALLÉN's *nigrita*. Plate 277 fig. 7 is labelled *nigella* ♀, corrected to *carbonaria* (MORGE, 1975: 453, 465), but by a lapsus the reference on page 464 is to plate 277 fig. 6.

MNHNP: 1 ♀ syntype under no. 2042, box 48; also seen by VILLENEUVE (1899: 86) and STEIN (1900: 152). Labelled by MEIGEN "carbo- / naria / ♀", and with a disc "2237/40". Dusty, but otherwise in good condition. A good species of *Fannia*, but its precise identity is not absolutely clear at present. Females of the *carbonaria*-subgroup are difficult to separate, and the characters recently given by ASSIS FONSECA in his pioneering key to *Fannia* ♀ ♀ (1968: 94–95) apply to the majority of specimens I have seen but not all. Pending further investigation of the taxonomy of this group, the conventional interpretation of *carbonaria*, given by ASSIS FONSECA, is retained.

NMW: 1 ♀ syntype, labelled "carbonaria / Coll. Winthem", and by MEIGEN "carbo- / naria"; also labelled as *carbonaria* by STEIN. I have labelled it as paralectotype. Right wing partly missing, but otherwise condition good. A species of *Fannia*, and evidently conspecific with the lectotype.

cinerea MEIGEN, 1826: 206, plate 44, figs. 16–19 (*Eriphia*). MEIGEN plate 131, fig. 5 [♂] (MORGE, 1976 a); plate 283, fig. 2 [♀] (MORGE, 1976 b). Holotype ♂, "auf dem Cenisberge" [= France: Mont Cenis], in MNHNP.

Described from a ♂: "Herr Baumhauer fing diese Art nur einmal gegen Ende Julius auf dem Cenisberge". MEIGEN also mentioned a ♀ received from WIEDEMANN, with no locality, that might belong to this species. The ♂ is shown on plate 131 and the doubtful ♀ on plate 283.

Holotype under no. 2103, box 50. Labelled by MEIGEN "*Eriphia / cinerea / ♂ / Cenisberg*", but no disc. Rather damaged: anteannae, both mid legs, left hind leg, right fore leg, right hind tarsal segments 3–5, and abdomen after segment 1+2 missing. Nevertheless, it can easily be identified as a good species of *Drymeia*, correctly recognised by recent authors.

There is no material in NMW, and the doubtfully-associated ♀ from WIEDEMANN's collection must be presumed lost.

clara MEIGEN, 1826: 121 (*Anthomyia*). MEIGEN plate 258, fig. 1 [♂] (MORGE, 1976 b). Holotype ♂, "Portugall" (= Portugal], in NMW.

Described, using a HOFFMANNSEGG MS name, from a ♂ "aus dem Wiedemannischen Museum; Herr Graf v. Hoffmannsegg entdeckte diese Art in Portugall". Holotype with a small pink tag; "clara / det. Wiedem"; "Lusitan. / Coll. Winthem"; "clara / Lusitan" [probably WIEDEMANN's hand]. Condition poor, and covered with some debris: left fore tarsus, left mid leg, left hind leg, right fore tarsal segments 2–5, and right mid leg missing; right hind leg held by debris against left side of abdomen. A good species of *Helina*, correctly recognised by recent authors.

comta MEIGEN, 1826: 125 (*Anthomyia*). MEIGEN plate 204, fig. 2 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Hamburg], not located and presumed destroyed.

Described from a ♂ "von Hrn. v. Winthem". Neither HENNIG (1963: 897) nor I have been able to find the holotype, either in NMW or MNHNP. The plate, for which the species is listed as *compta* (MORGE, 1975: 436, 464), shows a well-marked male of *Phaonia*. However, the species has not been recognised, and it seems likely that the specimen was damaged or abnormal in some way: MEIGEN describes and illustrates (fig. 2 c) an arista with plumes dorsally but bare ventrally, and basal two antennal segments pale ("weiss"). His illustration is strongly reminiscent of *Phaonia errans* and the description also fits this species, except that *comta* is placed in the section with bare eyes. Eye-hairs are often difficult to see, especially in worn specimens, and as the type cannot be located I propose formally to treat *comta* as a junior synonym of *Phaonia errans* (MEIGEN, 1826), syn. nov., as currently understood.

confinis MEIGEN, 1826: 122 (*Anthomyia*). MEIGEN plate 258, fig. 11 [♀] (MORGE, 1976 b). [Junior secondary homonym of *Helina confinis* (FALLÉN, 1825).] Holotype ♀, locality not stated [actually W. Germany: Kiel], in NMW.

Described from a ♀ from "Wiedemannisches Museum". Holotype labelled "confinis / Coll. Wiedem." and by WIEDEMANN "A. confinis m. / Musca conf. Fall. / Kiel". Not unnaturally, MEIGEN took this to be another WIEDEMANN MS name, and he described this ♀ as a new species and used the name on the label. However, WIEDEMANN was undoubtedly citing a name proposed by FALLÉN (1825: 80) for a variety of *Musca subpuncta*, and MEIGEN's name is a junior homonym and a junior synonym of FALLÉN's name. Holotype with left fore leg and left hind leg missing, otherwise condition good. A junior synonym of *Helina confinis* (FALLÉN, 1825) (syn: *anceps* ZETTERSTEDT, 1838) as currently understood.

costata MEIGEN, 1826: 266 (*Sapromyza*). MEIGEN plate 137, fig. 7 [♀] (MORGE, 1976 a). Holotype ♀, locality not stated [W. Europe], in MNHNP.

Described from an unsexed specimen "aus dem Baumhauerischen Museum"; the plate shows a ♀. Holotype ♀ under no. 2201, box 52; also seen by BECKER (1902: 222). Labelled by MEIGEN "costata", and with a disc "2397/40". Immature, but otherwise condition good. A good species of *Orchisia*, correctly recognised by recent authors.

cunctans MEIGEN, 1826: 133 (*Anthomyia*). MEIGEN plate 127, fig. 7 [♂] (MORGE, 1976 a); plate 286, fig. 12 [♀] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex, with no indication of locality or location. Holotype under no. 1979, box 47. Labelled by MEIGEN „cunctans”, and with a disc "2172/40". Very damaged; left antenna and abdomen missing, and also all legs except the two

mid legs. A species of *Thricops*, and an older name for *Thricops hirsutulus* (ZETTERSTEDT, 1838).

SCHINER (1862: 618) wrote that he had seen "das Winnertz'sche Original-Exemplar der *L. cunctans* aus den Händen Meigen's" and that it was a Lonchaeid, and this information was repeated by KOWARZ (1880: 140). It seems unlikely that this WINNERTZ specimen was a type, and in any case it no longer exists.

cyanella MEIGEN, 1826: 77 (*Musca*). MEIGEN plate 118, fig. 3 [♂ ♀] (MORGE, 1976 a). Lectotype ♂, "selten" (W. Germany: probably Stolberg), by present designation, in MNHNP.

Described "mehrmalen nach beiden Geschlechtern gefangen doch ist sie selten". The plate illustrates both sexes. MNHNP: 1 ♂ 1 ♀, under no. 1934, box 45; both seen by VILLENEUVE (1910: 313) and HENNIG (1963: 950) who state that an almost illegible locality on the ♀ in fact reads "Spanien".

♂ labelled by MEIGEN "Cyrtan. / cyanella / ♂", and with a disc "2127/40". Mostly eaten away: consisting only of fragmentary thorax, with both wings, most of mid legs, and left hind leg; head missing; abdomen except for a small section gummed to a card. Despite its atrocious condition it can be recognised specifically, and I have accordingly labelled it and designate it herewith as lectotype. A good species of *Eudasyphora*, correctly recognised by recent authors.

♀ labelled by MEIGEN "cyanella / ♀ / Spanien", and with a disc "2127/40". I regard this as a later addition to the series and not as a syntype. If it had been before him when he described the species, MEIGEN would surely have mentioned the locality Spain. Also = *Eudasyphora cyanella*.

decipiens MEIGEN, 1826: 218 (*Coenosia*). MEIGEN plate 131, fig. 10 [♂ ♀] (MORGE, 1976 a); plate 235, fig. 9 [♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described, using a WIEDEMANN MS name, from both sexes as "gemein im Sommer auf Waldgras". MNHNP: 2 ♂ 2 ♀ syntypes; also seen by STEIN (1900: 152). Each with a disc "2320/40".

1 ♂, with MEIGEN's label "decipiens / ♂". I have labelled it and designate it herewith as lectotype. Left fore leg missing, but otherwise in good condition. A junior synonym of *Coenosia pedella* (FALLÉN, 1825) as currently understood.

Second ♂ labelled by me as paralectotype. = *Coenosia femoralis* (ROBINEAU-DESVOIDY, 1830). The 2 ♀ also labelled as paralectotypes; both labelled by MEIGEN "decipiens / ♀". Both = *Coenosia pedella*.

In NMW are 11 specimens of *decipiens* from WINTHEM's collection, but none has a MEIGEN label. I do not consider any of them to be syntypes.

defecta MEIGEN, 1830: 19 (*Sciomyza*). MEIGEN plate 246, fig. 4 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Hamburg], in NMW.

Described without locality, "von Hrn. von Winthem". Holotype ♀ labelled

"defecta / Coll. Winth.", and with an old label "defecta", not in MEIGEN's hand. Much damaged, though not so when MEIGEN described it: left fore tarsus, some of left mid tarsus, right mid leg, both hind legs and abdomen missing. Studied by HENDEL (1901: 199) and BECKER (1902: 253). A junior synonym of *Schoenomyza litorella* (FALLÉN, 1823) as currently understood, a synonymy pointed out by HENDEL (l. c.) and BECKER (l. c.).

denigrata MEIGEN, 1826: 110 (*Anthomyia*). MEIGEN plate 204, fig. 9 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Hamburg], in NMW.

Described from a ♀ "von Hrn. v. Winthem". The holotype is labelled "nigrinervis = / denigrata ♀ / Coll. Winthem", and MEIGEN's "denigrata / ♀". Also labelled by STEIN as "nigrinervis Zett.". Some evidence of beetle damage to legs (left fore tarsus, left mid tarsus, left hind leg, right mid leg and most of right hind tibia+tarsus missing), otherwise condition good. A good species of *Spilogona*, correctly recognised by recent authors.

dentimana MEIGEN, 1826: 109 (*Anthomyia*). MEIGEN plate 208, fig. 3 [♂] (MORGE, 1976 b). Holotype ♂, "Oesterreich" [= Austria], not located and presumed destroyed.

Described from a ♂ "aus Oesterreich, von Hrn. Megerle v. Mühlfeld", for which MEIGEN used MEGERLE's manuscript name. The holotype should be in NMW, but I found nothing and assume that it was destroyed in 1848. There is no material in MNHNP. A junior synonym of *Hydrotaea irritans* (FALLÉN, 1823) as currently understood, an identification that is undoubtedly correct according to MEIGEN's description and plate.

didyma MEIGEN, 1838: 317 (*Hylemyia*). MEIGEN plate 204, fig. 12 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [actually W. Germany, Bavaria], in MNHNP.

Described from the ♂ sex, with no statement of locality or location. The holotype is unnumbered, between nos. 2101 and 2102 in box 50. Labelled by MEIGEN "didyma / ♂ / Baiern", and with a disc "2297 / 40". Condition good, except that scutellum and almost all mesonotum after suture destroyed. Redescribed by STEIN (1900: 152), who did not recognise its identity, and also studied by HENNIG (1958: 216). A junior synonym of *Helina quadrum* (FABRICIUS, 1805) as currently understood.

In the legends to the plates (MORGE, 1975), plate 204 fig. 12 is listed on p. 436 as *duplicata*, corrected to *didyma*; and on p. 464 as *duplicata*, uncorrected.

divisa MEIGEN in MORGE, 1975: 419, 480; 1976 a : plate 119, fig. 11 [♂] (*Musca domestica* var.). Nomen nudum.

A manuscript name of MEIGEN's that appeared with the recently-published plates and which is therefore a nomen nudum. It was listed as "divisa ♂. (var.

domestica ♂)". The plate shows a ♂ of *Musca domestica* LINNAEUS, 1758, with rather an extensively buff-coloured abdomen (syn. nov.).

duplicata MEIGEN, 1826: 92 (*Anthomyia*). MEIGEN plate 123, fig. 6 [♂ ♀] (MORGE, 1976 a); plate 206, fig. 4 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes with the only comment "allenthalben gemein" and a note on the variation.

MNHNP: 3 ♂ 1 ♀ syntypes, unnumbered between nos. 1978 and 1979, box 47, and also 3 ♂ syntypes under no. 1986, also box 47.

A ♂ in the first series labelled by MEIGEN "dupli- / cata / ♂", and with a disc "2171/40". I have labelled it and designate it herewith as lectotype. Condition good, except right mid leg missing. A junior synonym of *Helina reversio* (HARRIS, 1780) as currently understood.

The other 2 ♂ 1 ♀ in this series have been labelled as paralectotypes. Each with a disc "2171 / 40", and the ♀ labelled by MEIGEN "duplicata / ♀". 1 ♂ = *Helina setiventris* RINGDAHL, 1924; 1 ♂ = *Helina confinis* (FALLÉN, 1825); 1 ♀ = *Helina reversio*.

The 3 ♂ under no. 1986 have also been labelled as paralectotypes. Each with a disc „2179/40", and one labelled by MEIGEN "duplica / ta / ♂". All 3 = *Helina reversio*.

In NMW are 1 ♂ 1 ♀ from WINTHEM's collection labelled by MEIGEN "Anth. / duplicata / ♂" and "Anth. / duplicata / ♀". I consider these to be specimens subsequently studied by MEIGEN and not part of the syntypic series. They belong to *Spilogona*, and were re-identified by STEIN as *surda* (ZETTERSTEDT).

In the legends to the plates (MORGE, 1975), plate 204 fig. 12 is listed on p. 436 as *duplicata*, corrected to *didyma*: and on p. 464 as *duplicata*, uncorrected. See under *didyma*.

errans MEIGEN, 1826: 112 (*Anthomyia*). MEIGEN plate 121, fig. 13 [♀] (MORGE, 1976 a). Holotype ♀, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♀, without any statement as to provenance. Holotype under no. 1972 in box 46. It is labelled by MEIGEN "errans / ♀", and with a disc "2163/40". It was studied by HENNIG (1963: 820). Left fore leg and several tarsal segments missing, condition otherwise good. A good species of *Phaonia*, correctly recognised by recent authors.

There is some confusion in the labelling of the plates for this species. The indexes (MEIGEN in MORGE, 1975) state that plate 121 fig. 2 is of *erratica* and fig. 13 of *errans* (p. 419) and also that fig. 2 is of *errans* and fig. 13 of *erratica* (p. 464). In fact, fig. 13, which shows a ♀, must be of *errans* as fig. 2 shows a ♂ and *errans* was described only from the ♀.

exoleta MEIGEN, 1826: 86 (*Anthomyia*). MEIGEN plate 122, fig. 13 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Europe], in MNHNP.

Described from a ♂ "aus der Baumhauerischen Sammlung", without locality. Holotype in MNHNP under no. 1966, box 46; also seen by HENNIG (1963: 823). Labelled by MEIGEN "exsoleta / ♂", and with a disc "2157/40". Right mid leg and some tarsal segments on other legs missing, otherwise in good condition. A good species of *Phaonia*, correctly recognised by recent authors.

The spelling *exoleta* is the published spelling, and also appears in the index to the plates (MEIGEN in MORGE, 1975: 464). The incorrect spelling *exsoleta* of the label also appears in the list of plates (MEIGEN in MORGE, 1975: 419).

fasciata MEIGEN, 1830: 19 (*Sciomyza*). MEIGEN plate 246, fig. 3 [♀] (MORGE, 1976 b). Lectotype ♀, locality not stated [W. Germany: probably Hamburg], by present designation, in NMW.

Described from a series of ♀♀ "aus der Baumhauerischen Sammlung; auch mehrere weibliche Exemplare von Herrn von Winthem". 4 ♀ syntypes in NMW, all labelled "fasciata / Coll. Winth.". These were seen by HENDEL (1901: 199) and BECKER (1902: 253). BECKER noted there were 5 ♀, and also that there were no specimens in MNHNP.

The first ♀ labelled "fasciata" in an old hand, probably WINTHEM's. I have labelled it and designate it herewith as lectotype. Condition excellent. A junior synonym of *Schoenomyza litorella* (FALLÉN, 1823) as currently understood, a synonymy pointed out by HENDEL (l. c.) and BECKER (l. c.).

I have labelled the other 3 syntypes as paralectotypes. All also = *Schoenomyza litorella*.

favillacea MEIGEN, 1826: 123 (*Anthomyia*). MEIGEN plate 208, fig. 2 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Kiel], in NMW.

Described from a ♀ "von Herrn Wiedemann". Holotype labelled with a small pink tag; "favillacea / det. Wiedem."; "Coll. Winthem"; and WIEDEMANN's label "favillacea". Identified by STEIN as "Spilog. modesta Mg ♀". Rather immature, with right antenna missing. A junior synonym of *Helina depuncta* (FALLÉN, 1825) as currently understood.

flavida MEIGEN in MORGE, 1975: 456 (*Anthomyia*). Unavailable; published in synonymy with *Anthomyia diaphana* WIEDEMANN, 1817.

This name appears in the legend to plate 290, fig. 12. The figure is labelled *flavida*, placed in parentheses and corrected to *diaphana*. The name must be placed in synonymy with *Thricops diaphanus* (WIEDEMANN, 1817).

floricola MEIGEN, 1826: 145 (*Anthomyia*). MEIGEN plate 124, fig. 11 [♂] (MORGE, 1976 a). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from males collected "mehrmalen im Mai auf Viehweiden im Grase". MNHNP: 1 ♂ under no. 2036, box 48; also seen by STEIN (1900: 153). Labelled by MEIGEN "floricola / ♂", and with a disc "2231/40". I have labelled it and designate it herewith as lectotype. Condition good. A junior synonym of *Fannia fuscula* (FALLÉN, 1825) as currently understood.

fumosa MEIGEN, 1826: 109 (*Anthomyia*). MEIGEN plate 206, fig. 1 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Hamburg], by present designation, in NMW.

Described from the ♂ sex "von Hrn. v. Winthem". STEIN (in BECKER, 1908: 95) wrote that he had seen 3 ♂ 1 ♀ types in WINTHEM's collection in NMW, but in fact only 2 ♂ are syntypes.

1 ♂ labelled "fumosa / Coll. Winthem", and labelled by MEIGEN "fumosa". I have labelled it and designate it herewith as lectotype. The tibia and tarsi missing on both hind legs, but condition otherwise good. A good species of *Hebecnema*, correctly recognised by recent authors.

The second ♂ labelled "fumosa / Coll. Winthem", and labelled by me as paralectotype. Also = *Hebecnema fumosa*.

The third ♂ seen by STEIN is labelled "fumosa / Coll. Wiedem.", and "fumosa M." by WIEDEMANN; it also has STEIN's determination label. It is not a syntype because the species was described only from WINTHEM's collection. The ♀ seen by STEIN is not a syntype, as only the ♂ sex was described. Both specimens = *Hebecnema fumosa*.

germana MEIGEN, 1826: 185 (*Anthomyia*). MEIGEN plate 206, fig. 9 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Stolberg], in MNHNP.-

Described from a ♀ collected at "Ende Augusts auf Schirmblumen nur einmal gefangen". Holotype under no. 2097, box 49; also seen by STEIN (1900: 153). Labelled by MEIGEN "germana / ♀", and with a disc "2292/40". Left mid leg, right hind leg, some tarsal segments, and antennae missing. A junior synonym of *Fannia ornata* (MEIGEN, 1826) as currently understood.

gibbera MEIGEN, 1826: 152 (*Anthomyia*). MEIGEN plate 258, fig. 14 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Kiel], in NMW.

Described from the ♂ sex "im Wiedemannischen Museum". Holotype labelled with a small pink tag; "gibbosa [sic, lapsus] / det. Wiedem."; "Coll. Winthem"; "gibbera" in WIEDEMANN's hand. Rather mouldy, especially over the abdomen and legs, and left mid leg missing. A good species of *Azelia*, correctly recognised by recent authors.

A ♂ in RUG is labelled by RUTHE "R / Berol / M. i. litt" but cannot be a type as the species was described from WIEDEMANN's collection. = *Fannia rondanii* (STROBL, 1893).

honesta MEIGEN, 1826: 123 (*Anthomyia*). MEIGEN plate 269, fig. 13 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Kiel], not located and presumed destroyed.

Described from a ♀ from "Wiedemannisches Museum". The holotype has not been found, either in NMW or MNHNP, and is presumed destroyed. The species has usually been treated as an unrecognised *Helina*, but the description mentions no fixed spots on the abdomen, which is said to be "schwärzlich-schillernd". The plate suggests a *Phaonia*, and in fact the plate and the description fit very well the species MEIGEN described on p. 126 from the ♂ sex as *mystica* and which is an older name for the species usually known as *vittifera* (ZETTERSTEDT, 1845). I formally propose treating *honesta* MEIGEN a junior synonym of *Phaonia mystica* (MEIGEN, 1826), syn. nov.

humilis MEIGEN, 1826: 220 (*Coenosia*). MEIGEN plate 241, fig. 7 [?♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂, without any statement as to provenance. Holotype ♂ under no. 2111, box 50; also seen by STEIN (1900: 153). Labelled by MEIGEN "humilis / ♂", and with a disc "2308/40". Condition good. A good species of *Coenosia*, correctly recognised by recent authors.

No type-material in NMW. There are 1 ♂ 7 ♀ from WINTHEM's collection, but none is labelled by MEIGEN.

incompta MEIGEN, 1826: 138 (*Anthomyia*). MEIGEN plate 208, fig. 8 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [probably Austria], not located and presumed destroyed.

Described from a ♂ "aus dem Kaiserl. Königl. Museum". Holotype not found in NMW (or in MNHNP), and presumed destroyed in 1848. Usually treated as an unrecognised *Hydrotaea*. The plate shows a species very similar to the south European *penicillata* (RONDANI, 1866), but that species has densely haired eyes and MEIGEN includes his *incompta* in the section with bare eyes. I can only conclude that MEIGEN had a single, rather immature, ♂ of *irritans* (which he also redescribed as *bidens*), and I formally synonymise *incompta* with *Hydrotaea irritans* (FALLÉN, 1823), syn. nov.

incompta MEIGEN, 1838: 335 (*Coenosia*). MEIGEN plate 283, fig. 11 [♂♀] (MORGE, 1976 b). Lectotype ♂, "Lüttich" [= Belgium, Liège], by present designation, in MNHNP.

Described from both sexes, from Lüttich. MNHNP: 1 ♂ syntype under no. 2112, box 50; also seen by STEIN (1900: 153). Labelled by MEIGEN "incompta / . . ." [illegible, but contains a word (seemingly not Lüttich) and G (= Gaede)], and with a disc "2309/40". Condition good, but immature and left mid leg missing. A junior synonym of *Coenosia pedella* (FALLÉN, 1825) as currently understood.

inconspicua MEIGEN in MORGE, 1975: 461, 496; 1976 b: plate 305, fig. 19 [?♀] (*Coenosia*). Nomen nudum.

This is not the same as *Hylemyia inconspicua* MEIGEN, 1838 (see the next species), and is in fact a manuscript name of MEIGEN's. MEIGEN prepared illustrations, but never published a description. With the recent publication of the MEIGEN plates, this name has now appeared in print and is a nomen nudum.

It can be synonymised with *Coenosia albicornis* MEIGEN, 1826: see discussion under the next species.

inconspicua MEIGEN, 1838: 322 (*Hylemyia*). MEIGEN plate 288, fig. 14 [♀] (MORGE, 1976 b). Holotype ♀, "Baiern" [= W. Germany, Bavaria], not located and presumed destroyed.

There has been some confusion over MEIGEN's material of *inconspicua*. In MNHNP under no. 2131, box 50, there is 1 ♀ labelled by MEIGEN "Coenosia / inconspi = / cua / ♀" and with a disc "2328/40". It is in poor condition: right mid leg missing, and very largely covered in mould, through which it is possible to search for and see certain characters.

STEIN (1900: 154) could offer nothing as to the identity of this specimen ("ganz mit Spinnengewebe überzogen"). HENNIG (1958: 229; and 1961: 569) saw this specimen and identified it as *Coenosia lineatipes* (ZETTERSTEDT, 1845). In my view this identification is correct: the specimen is a large *Coenosia* with well-developed lower squama, 2 propleural setae, fore femur dark, mid and hind femora yellow, hind femur with at least 1 posteroventral seta in apical half, hind tibia with the dorsal preapical seta well above the anterodorsal one, acrostichal setulae biserial, scutellum entirely haired, hind tibia thicker than mid tibia.

HENNIG (1961: 569) doubted whether this specimen could be the type of *inconspicua*: MEIGEN's description of "Rückenschild mit vier dunklen Striemen; Hinterleib mit schwarzer Rückenlinie" does not fit MEIGEN's specimen nor other specimens of *C. lineatipes*. The MEIGEN plate 288, fig. 14 (MORGE, 1976 b) also backs up the description. Moreover, the plate shows entirely yellow femora, whereas the fore femur is dark in *lineatipes* and in this specimen.

Publication of MEIGEN's plates has enabled me to resolve these discrepancies. The MNHNP ♀ is in fact *Coenosia inconspicua* MEIGEN MS, plate 305, fig. 19: the illustration shows a *Coenosia* with a dark fore femur and unstriped mesonotum and abdomen. The holotype of *Hylemyia inconspicua*, like most of the holotypes from WALTl's material, no longer exists.

Coenosia inconspicua MEIGEN in MORGE, 1975, nomen nudum, is a junior synonym of *Coenosia albicornis* MEIGEN, 1826 (syn: *lineatipes* ZETTERSTEDT, 1845), syn. nov. *Hylemyia inconspicua* MEIGEN, 1838, is difficult to interpret. MEIGEN's illustration strongly suggests a Coenosiine, but I know no Coenosiine with entirely yellow legs including fore femur and plumose arista. The species must be a *Helina*, probably immature (as shown by the bi-coloured interfrontalia) and rather compressed. I herewith synonymise *inconspicua* with *Helina lasiophthalma* (MACQUART, 1835), syn. nov.

innoxia MEIGEN, 1838: 322 (*Hylemyia*). MEIGEN plate 121, fig. 10 [♂] (MORGE, 1976 a). Holotype ♂, "hiesige Gegend" [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex, from "hiesige Gegend". Holotype under no. 1982 in box 47. Labelled by MEIGEN "innoxia", and with a disc "2175/40". Condition very poor: head missing; legs missing except left mid leg and right fore leg; anterior part of thorax eaten, and much beetle debris on body; dusting rubbed. HENNIG (1958: 229; 1963: 804) suggested that *innoxia* was a synonym of *Phaonia basalis* (ZETTERSTEDT, 1838), and this seems correct. The following characters can be seen to support this: 4 postsutural dorsocentrals, no presutural acrostichals, mid tibia with posterior and posteroventral setae but without anterodorsal, fore tibia with posterior seta and erect ventral hairs, vein r4+5 bare, prealar strong, beret of hypopleuron setulose. A junior synonym of *Phaonia angelicae* (SCOPOLI, 1763) (syn: *basalis* ZETTERSTEDT), as currently understood.

[ionia] MEIGEN in MORGE, 1975: 435, 480; 1976 b: plate 199, fig. 9 (*Musca*). Nomen nudum.

A manuscript name of MEIGEN's that appeared with the recently-published plates and which is therefore a nomen nudum. The plate shows both sexes of a greenbottle of the genus *Lucilia* (Calliphoridae).

leucosticta MEIGEN, 1838: 328 (*Anthomyia*). MEIGEN plate 283, fig. 8 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described without locality but as occurring "anfangs September". Holotype under no. 2052 in box 48. Labelled by MEIGEN „leucosticta / ♂" and two lines that probably read "Anthomyia / 7. Band"; also with a disc "2247/40". Condition excellent. Seen by STEIN (1900: 154), and more recently by myself (PONT, 1977: 50). A good species of *Fannia*, correctly recognised by recent authors.

libatrix HENNIG, 1963: 883 (*Phaonia*). Unavailable; published in synonymy with *Anthomyia trigonalis* MEIGEN, 1826.

This manuscript name of MEIGEN's, appearing on the neotype of *trigonalis* MEIGEN, was quoted by HENNIG (l. c.). It must therefore be attributed to HENNIG but it remains unavailable because first published in synonymy.

libralis MEIGEN in MORGE, 1975: 454 (*Dialyta*). Unavailable; published in synonymy with *Dialyta rufifrons* MEIGEN, 1838.

This name appears in the legend to plate 282, fig. 16. The figure is labelled *libralis*, placed in parentheses and corrected to *rufifrons*. The name must be placed in synonymy with *rufifrons*, itself an unrecognised species.

[*lingens* MEIGEN in MORGE, 1975: 452; 1976 b : plate 270, fig. 5 (*Musca*).
Nomen nudum.

A manuscript name of MEIGEN's that appeared with the recently-published plates and which is therefore a nomen nudum. The plate shows a small dark non-Muscid species with the forward bend of m1+2 rounded rather than sharply angular. It can be identified as a ♂ of the Tachinid *Strongygaster globula* MEIGEN, 1824.]

lithantrax MEIGEN, 1826: 107 (*Anthomyia*). Unavailable; proposed in synonymy with *Musca vespertina* FALLÉN, 1823.

This is mentioned in the discussion of *vespertina*: „Sie ist *Anth. lithantrax* in manchen Sammlungen". The name is now included in the synonymy of *Hebecnema nigra* (ROBINEAU-DESVOIDY, 1830) (syn: *vespertina* of authors).

The name *lithantrax* is actually an MS name of WIEDEMANN's that MEIGEN must have seen on labelled material. The name also appeared as a nomen nudum in a letter from WIEDEMANN to GISTL (in GISTL, 1857: 73). WIEDEMANN's material of *lithantrax* belongs partly to *H. nigra* and partly to *H. umbratica* (MEIGEN, 1826).

longicollis MEIGEN, 1826: 225 (*Lispe*). MEIGEN plate 259, fig. 12 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [probably S. E. Europe], by present designation, in UZMC.

Described from unsexed specimens "in der Sammlung des Professors Fabricius in Kiel; auch in dem Baumhauerischen Museum, aus hiesiger Gegend". BECKER (1904: 18) reported that the FABRICIUS specimen had been destroyed and that no specimen of *longicollis* was present in BAUMHAUER's collection in Leiden.

However, there is a fragmentary syntype in UZMC, from FABRICIUS' collection, located by Dr. V. MICHELSEN. All that survives are the wings, scutellum and part of the left pleura, all gummed to a card. Labelled by MEIGEN "Lispe / longicollis / Meig.". I have labelled it and designate it herewith as lectotype. The fragment appears to be ♂, and is a *Lispe* with forwardly-curved vein m1+2, as shown in MEIGEN's plate. A good species of *Lispe*, correctly recognised by recent authors.

The type-locality cannot be determined. *L. longicollis* is not now found in N. W. Europe, either in Germany or Denmark (HENNIG, 1960: 444). The northern and western boundaries of its distribution are Spain, Yugoslavia and Hungary.

luctuosa MEIGEN, 1826: 156 (*Anthomyia*). MEIGEN plate 277, fig. 6 [♀] (MORGE, 1976 b). Syntypes ♀♀, locality not stated [W. Germany: probably Stolberg], not located and presumed destroyed.

Described from several ♀♀ with the sole comment "im Mai und wieder im August und September". No syntypes have been located in MNHNP or NMW. The name is usually synonymised with *Fannia serena* (FALLÉN, 1825), but MEIGEN himself (in MORGE, 1975 : 453, 464) relabelled his illustration as *Coenosia nigra* (now = *Coenosia agromyzina* (FALLÉN, 1825)). This synonymy seems far more

probable to me, and is suggested by MEIGEN's description of the longer antennae and by the colour of the head. *A. luctuosa* is here formally synonymised with *Coenosia agromyzina* (FALLÉN, 1825), syn. nov.

It is likely that the source of the synonymy with *serena* is with some NMW specimens: 1 ♀ from WIEDEMANN's collection, labelled by him as "A. luctuosa / Kiel ♀ M."; 2 ♀ from WINTHEM's collection, each labelled "luctuosa / ♀" by MEIGEN and named as "serena ♀ / luctuosa ♀" on the WINTHEM label. However, MEIGEN did not give these collections as the source of his material, and so I do not consider them to be syntypes. All three = *Fannia serena*.

lugubris MEIGEN, 1826: 87 (*Anthomyia*). MEIGEN plate 122, fig. 8 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Europe], in MNHNP.

Described from the ♂ sex, "Baumhauers Sammlung". Holotype under no. 1967, box 46. Labelled by MEIGEN "lugubris / ♂", and with a disc "2158/40". Right fore leg, right mid leg, several other tarsal segments, left antenna and most of right arista missing.

HENNIG (1963: 840, 845) pointed out that this specimen does not belong to *Phaonia lugubris* as currently understood but is actually a ♂ of *Phaonia morio* (ZETTERSTEDT, 1845). In order to avoid the nomenclatural repercussions of this, HENNIG suggested that the MNHNP ♂ was not the type but a later addition; he even asserted that most of the types from BAUMHAUER's material are not actually in MEIGEN's collection.

I agree with HENNIG that the MNHNP ♂ is *Phaonia morio*, but I cannot accept his other conclusions. In the first place, it is now known that BAUMHAUER's collection was studied by MEIGEN in 1820–1821, after BAUMHAUER's death, and it is highly probable that he kept the new species for his own collection. Secondly, it is in fact the case that most types from BAUMHAUER's collection can be unambiguously recognised as being in MEIGEN's collection, and it is quite arbitrary to dismiss this particular one because it is nomenclaturally inconvenient. Thirdly, MEIGEN's description actually fits *morio* better than *lugubris* auctt. In particular, he mentions "die weissen Schüppchen" (white squamae) and abdomen "mit graulichem Schiller" (with a grey sheen), and the description of the thoracic colour and pattern suggest *morio*.

My conclusion is that the MNHNP ♂ is the holotype of *lugubris* and that *lugubris* MEIGEN, 1826, must be used as an older name for *Phaonia morio* ZETTERSTEDT, 1845), syn. nov.

This leaves *Phaonia lugubris* of authors without a name, and as there are no synonyms available I propose the name:

Phaonia meigeni sp. nov.

The species is adequately described, as *lugubris* MEIGEN [misidentification], by HENNIG (1963: 840).

Holotype ♂, W. Germany: Bleidenstadt, 12. v. 1966 (E. A. FONESCA), in BMNH.

maculosa MEIGEN, 1826: 91 (*Anthomyia*). MEIGEN plate 204, fig. 7 [♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from "mehrere Exemplare beiderlei Geschlechtes; auch von Hrn. v. Winthem wurde sie geschickt". MNHNP: 1 ♂ 1 ♀ syntypes under no. 1984, box 47. NMW: 1 ♂ 2 ♀ syntypes.

MNHNP ♂ labelled by MEIGEN "maculosa / ♂", and with a disc "2177/40". I have labelled it and designate it herewith as lectotype. Condition good, except for some missing tarsal segments. A good species of *Limnophora*, correctly recognised by recent authors.

MNHNP ♀ labelled by MEIGEN "maculosa / ♀", and with a disc "2177/40". I have labelled it as paralectotype. Also = *Limnophora maculosa*.

NMW 1 ♂ and 1 ♀ labelled "Coll. Winthem", the ♀ also labelled by STEIN as *maculosa*; and 1 ♀ labelled "maculosa / ♀ / Coll. Winthem" and by MEIGEN "macu- / losa / ♀". I have labelled all three as paralectotypes, and all = *Limnophora maculosa*.

manicata MEIGEN, 1826: 140 (*Anthomyia*). MEIGEN plate 128, fig. 4 [♂] (MORGE, 1976 a); plate 204, fig. 8 [♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes as "ziemlich selten, auch in Paarung gefunden". MNHNP: 2 ♂ syntypes under no. 2084, box 49, also seen by STEIN (1900: 154). Each with a disc "2279/40".

One ♂ labelled by MEIGEN "manicata / ♂". I have labelled it and designate it herewith as lectotype. Condition good. A good species of *Fannia*, correctly recognised by recent authors.

I have labelled the second ♂ as paralectotype. Also = *Fannia manicata*.

means MEIGEN, 1826: 216 (*Coenosia*). MEIGEN plate 133, fig. 11 [♀] (MORGE, 1976 a); plate 241, fig. 8 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, "selten im Grase". MNHNP: 1 ♂ 1 ♀ syntypes under no. 2110, box 50.

♂ labelled by MEIGEN "Coenosia / means / ♂", and with a disc "2307/40". I have labelled it and designate it herewith as lectotype. Right mid leg loose and caught on the other legs, otherwise condition good. A good species of *Coenosia*, correctly recognised by recent authors.

♀ labelled by MEIGEN "Coenosia / means / ♀", and with a disc "2307/40". I have labelled it as paralectotype. Also = *Coenosia means*.

A letter from Dr. J. R. VOCKEROTH (4 September 1979) suggests that *Coenosia means* may consist of a complex of species. When this is investigated further, it will be necessary to study the lectotype again.

melanogaster WIEDEMANN in MEIGEN, 1824: 163 (*Stomoxys*). Holotype ♀, "Oesterreich" [= Austria], not in NMW and presumed destroyed.

MEIGEN was sent the description of this species by WIEDEMANN, which he cites verbatim in quotation marks; he never saw the species, and it is not illustrated in the MEIGEN plates. It was described from "Oesterreich; ein Weibchen aus dem Kais. Königl. Museum". This material was destroyed, as was noted above.

There is 1 ♀ in NMW labelled "*melanogaster* / Coll. Winthem", but there is no evidence that this was ever seen by WIEDEMANN. ROEDER (1884: 293) noted that there was a MEIGEN "type" in FÖRSTER's collection.

LOEW (1870: 16) thought that *melanogaster* was only a rubbed specimen of *stimulans*, and ROEDER (l. c.) also synonymised the FÖRSTER specimen with *ferox* DESVOIDY (now = *stimulans*). A junior synonym of *Haematobosca stimulans* (MEIGEN, 1824) as currently recognised.

militaris MEIGEN, 1826: 136 (*Anthomyia*). MEIGEN plate 128, fig. 9 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex collected "im September auf den Blüten des Bärenklauens". Holotype under no. 2023, box 48; seen by STEIN (1900: 154) and HENNIG (1962: 731). Labelled by MEIGEN "*militaris* / ♂", and with a disc "2218/40". Condition good. A good species of *Hydrotaea*, correctly recognised by recent authors.

minima MEIGEN, 1826: 217 (*Coenosia*). MEIGEN plate 131, fig. 11 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Germany: Stolberg], in MNHNP.

Described from a ♂, "nur einmal gefangen". The holotype is under no. 2121, box 50; also seen by STEIN (1900: 154) who referred it to the Acalyptrates.

modesta MEIGEN, 1826: 119 (*Anthomyia*). MEIGEN plate 208, fig. 11 [♂], plate 246, fig. 11 [♂ ♀], and plate 267, fig. 14 [♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes as "selten"; MEIGEN used a WIEDEMANN MS name. MNHNP: 1 ♂ 2 ♀ syntypes, under no. 2015, box 47, each with a disc "2208/40", but 1 ♀ completely fragmentary.

♂ labelled by MEIGEN "*modesta* / ♂". I have labelled it and designate it herewith as lectotype. Right mid leg and right hind leg missing. A junior synonym of *Helina impuncta* (FALLÉN, 1825) as currently understood. Although the pre-sutural acrostichal setae are absent, other characters point to this identification rather than to *depuncta* (FALLÉN, 1825), particularly the shorter-plumose arista and 4 postsutural dorsocentral setae.

I have labelled the 2 ♀ as paralectotypes. One labelled by MEIGEN "*modesta* / ♀", = *Helina confinis* (FALLÉN, 1825). One consisting only of a few legs and the right wing, also with r4+5 setulose at base ventrally, = *Helina* sp. indet.

There are 1 ♂ 2 ♀ in NMW, from WINTHEM's collection, labelled as *modesta*. I do not regard these as syntypes as MEIGEN's description suggests his own and WIEDEMANN's material, but not WINTHEM's. ♂ labelled "modesta / ♂" by MEIGEN and 1 ♀ both = *Helina depuncta*, the ♂ labelled as such by STEIN; 1 ♀, labelled "mode- / sta / ♀" by MEIGEN, named as *anceps* by STEIN, = *Helina confinis*.

multipunctata STEIN, 1900: 154 (no genus). Nomen nudum.

STEIN mentioned this as a MEIGEN MS name, with the comment "ganz zerfressen". MEIGEN illustrated this species (in MORGE, 1976 b: plate 305, fig. 18 [♂]) and listed it (in MORGE, 1975: 461, 496) as *Coenosia multipunctata* ♂. The specimen is under no. 2132, box 50. Labelled by MEIGEN "multipun- / ctata / ♂ Ruthe". Consists only of a tiny fragment of thorax, right fore leg, and right wing. Appears to be a large but unidentifiable species of *Coenosia*, with well-developed lower squama, 2 propleurals, scutellum wholly haired, fore femur dark, fore tibia yellow and with a very long posterior seta that is half tibial length.

murina MEIGEN, 1826: 215 (*Coenosia*). MEIGEN plate 282, fig. 3 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from a ♀ ("nur ein Exemplar") without locality. Holotype under no. 2117, box 50; also seen by STEIN (1900: 154) and discussed by HENNIG (1962: 599). Labelled by MEIGEN "murina / ♀", and with a disc "3330/40". Both mid and hind legs missing. A junior synonym of *Coenosia rufipalpis* MEIGEN, 1826, as currently understood.

mutabilis MEIGEN in MORGE, 1975: 451 (*Anthomyia*). Unavailable; published in synonymy with *Anthomyia fuscula* FALLÉN, 1825.

This name appears in the legend to plate 267, fig. 11. The figure is labelled *mutabilis*, placed in parentheses and corrected to *fuscula*. The name must be placed in synonymy with *Fannia fuscula* (FALLÉN, 1825).

mystica MEIGEN, 1826: 126 (*Anthomyia*). MEIGEN plate 122, fig. 6 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Europe], in MNHNP.

Described from a ♂ from the "Baumhauerisches Museum", for which MEIGEN used a HOFFMANNSEGG MS name. The holotype is under no. 2008, box 47, and is labelled by MEIGEN "mystica / Hgg / ♂" and with a disc "2201/40". It was also seen by HENNIG (1963: 846). Right fore leg missing, otherwise condition good. A good species of *Phaonia*, but not the species usually called *mystica* (RINGDAHL, 1954; HENNIG, 1963; ASSIS FONESCA, 1968). The holotype actually belongs to the species previously known as *Phaonia vittifera* (ZETTERSTEDT, 1845), and the name *mystica* must replace *vittifera*. For the species usually called *mystica* by authors, the name *villana* is the oldest available synonym and the species should be called *Phaonia villana* ROBINEAU-DESVOIDY, 1830.

nana MEIGEN, 1830: 375 (*Musca*). MEIGEN plate 260, fig. 2 [♀] (MORGE, 1976 b). Holotype ♀, "Berliner Gegend" [= E. Germany: Berlin district], not located and presumed destroyed.

Described "aus der Berliner Gegend; vom Oberlehrer Ruthe". No material has been traced in NMW, MNHNP, BMNH or RUG, nor is there any material in ZMHU according to Dr. H. SCHUMANN (letter of 7 April 1981). The name is conventionally placed as a junior synonym of *Musca tempestiva* FALLÉN, 1817, and this appears, to be correct according to MEIGEN's description and plate.

nemoralis MEIGEN, 1826: 212, plate 45 fig. 9 (*Coenosia*). MEIGEN plate 241, fig. 4 [♂ ♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, "im Sommer auf feuchten schattigen Waldstellen sehr gemein". MNHNP: 1 ♂ 3 ♀ syntypes under no. 2113, box 50. Each one with a disc "2310/40".

♂ labelled by MEIGEN "nemora- / lis / ♂". I have labelled it and designate it herewith as lectotype. Right wing, both mid legs, right hind leg, left hind tarsal segments 2-5 missing. A junior synonym of *Coenosia mollicula* (FALLÉN, 1825) as currently understood.

1 ♀ labelled by MEIGEN "nemoralis / ♀", and the other 2 without labels; I have labelled them as paralectotypes. All = *Coenosia mollicula*.

NMW: 1 ♂ 1 ♀ labelled "nemoralis / Coll. Wiedem." and 3 ♂ 3 ♀ labelled "nemoralis / Coll. Winthem" are not considered to be syntypes as the species was not described from these collections.

nigella MEIGEN, 1826: 156 (*Anthomyia*). MEIGEN plate 277, fig. 7 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Stolberg], not located and presumed destroyed.

Described as a species "von der ich nur einmal das Weibchen gefangen habe". The holotype has not been found in MNHNP or NMW. The name has usually been synonymised with *Fannia carbonaria* (MEIGEN, 1826), and this seems quite correct. The description and the plate both specify shining black parafrontalia, a feature that characterises *carbonaria* and its immediate relatives. MEIGEN himself (in MORGE, 1975: 453, 465) synonymised *nigella* with *carbonaria* in the list of plates.

nigra MEIGEN, 1826: 216 (*Coenosia*). MEIGEN plate 263, fig. 11 [?], and plate 277, fig. 6 [♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes and "nur zwei Exemplare". MNHNP: 1 ♂ 1 ♀ syntypes, together with 3 other non-syntypes; also seen by STEIN (1900: 154).

1 ♂ labelled by MEIGEN "nigra / ♂", and with a disc "2316/40". I have labelled it and designate it herewith as lectotype. Right mid leg and both hind legs missing, and abdomen glued back on. A junior synonym of *Coenosia agromyzina* (FALLÉN, 1825) as currently understood.

1 ♀ labelled by MEIGEN “nigra / ♀”, and with a disc “2316/40”. I have labelled it as paralectotype. Also = *Coenosia agromyzina*.

2 ♂ and 1 ♀, not syntypes, each labelled just with a disc, “2316/40”. 1 ♂ = *Paregle audacula* (HARRIS) (Anthomyiidae); 1 ♂ = *Nupedia infirma* (MEIGEN) (Anthomyiidae); 1 ♀ = *Fannia armata* (MEIGEN).

nigrimana MEIGEN, 1826: 215 (*Coenosia*). MEIGEN plate 131, fig. 9 [♀] (MORGE, 1976 a). Holotype ♀, locality not stated [W. Germany: probably Hamburg], in NMW.

Described from the ♀, “von Hrn. v. Winthem”. Holotype ♀ in NMW; also seen by POKORNY (1893: 538) and STEIN (1908: 14). Labelled “♀ / nigrima = / na / Coll. Winthem”, and by MEIGEN “nigri- / mana / ♀”. Left fore leg and right mid leg missing; head glude back on; otherwise condition good. A junior synonym of *Coenosia ambulans* MEIGEN, 1826, as currently understood.

nitida MEIGEN, 1838: 298 (*Pyrellia*). MEIGEN plate 299, fig. 17 [♀] (MORGE, 1976 b). Lectotype ♂, “hiesige Gegend” [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes. MNHNP: 1 ♂ 1 ♀ under no 1927, box 45.

♂ labelled by MEIGEN “nitida / ♂”, and with a disc “2120/40”. Condition not good: left hind leg, several tarsal segments, and most of abdomen missing. I have labelled and designate herewith this ♂ as lectotype. A species of *Pyrellia* with dark prothoracic spiracle and undusted mesonotum, and a junior synonym of *Pyrellia vivida* ROBINEAU-DESVOIDY, 1830 (syn: *cadaverina* of authors).

I have labelled the ♀ as paralectotype. With MEIGEN's label „nitida / ♀” and disc “2120/40”. Very damaged. Also = *Pyrellia vivida*.

These specimens were studied by VILLENEUVE (1910: 313), who established the synonymy with *cadaverina*.

obscura MEIGEN, 1826: 204, plate 44 figs. 10–15 (*Drymeia*). MEIGEN plate 135, fig. 12 [♂ ♀] (MORGE, 1976 a). Unjustified replacement name for *Musca hamata* FALLÉN, 1823.

This is conventionally treated as a replacement name (e. g. HENNIG, 1962: 672), and I think that this action is correct. A junior synonym of *Drymeia hamata* (FALLÉN, 1823) as currently understood.

MNHNP: 1 ♂ 1 ♀ under no. 2102, box 50; labelled by MEIGEN “*Drymeia* / *obscura* / ♂” and „*Drymeia* / *obscura* / ♀”. NMW: 1 ♂ 1 ♀ labelled “Stolberg” and “*obscura* / coll. Wiedem.”; 1 ♂ labelled “*obscura* / coll. Wiedem.” and, by WIEDEMANN, “*obscura* M. / Stolberg”. All these specimens = *Drymeia hamata*.

obscura MEIGEN in MORGE, 1975: 423 (*Lispe*). Unavailable; published in synonymy with *Lispa uliginosa* FALLÉN, 1825.

This name appears in the legend to plate 139, fig. 7. The figure is labelled

obscura, placed in parentheses and corrected to *uliginosa*. The name must be placed in synonymy with *Lispe uliginosa* FALLÉN, 1825.

obscura MEIGEN, 1826: 32 (*Sarcophaga*). MEIGEN plate 248, fig. 2 [♀] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Hamburg], not located and presumed destroyed.

Described from a ♂ "von Hrn. v. Winthem". MEIGEN (1838: 276) transferred the species to the genus *Morinia*. Holotype not found in NMW (letter from Dr. CONTRERAS-LICHTENBERG, 2 December 1983) and presumed destroyed.

The species is only mentioned here because of a curious statement by BRAUER & BERGENSTAMM (1891: 435) giving the identity of what may ostensibly have been the holotype: "obscura Mg. C. Wth. (*Sarcophaga*.) *Cyrtonaura curvipes* Mcq.", i. e. the species now known as *Morellia aenescens* ROBINEAU-DESVOIDY, 1830. This statement was noted in the Palaearctic Catalogue by BEZZI (in BEZZI & STEIN, 1907: 454) but the name was not listed by STEIN in the Muscidae in the same work.

The plate shows a *Sarcophaga* ♀, not a ♂ as described by MEIGEN. In the legend to the plates (MEIGEN in MORGE, 1975) this illustration is listed on p. 486 as "obscura" but on p. 447 as "obscurata ♂". There must therefore be some doubt whether the illustration is of the original specimen (holotype) or of a later one.

obscurata MEIGEN, 1826: 89 (*Anthomyia*). MEIGEN plate 123, fig. 8 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex, without any statement as to provenance. Holotype under no. 1970, box 46. Labelled by MEIGEN "obscura= / ta", and with a disc "2161/40". Both fore legs, right hind leg, some of left hind tarsus, and right antenna missing. A good species of *Helina*, correctly recognised by recent authors.

There is 1 ♂ in NMW from WINTHEM's collection, which I do not consider to be one of the type-series. Also = *Helina obscurata*.

occulta MEIGEN, 1826: 133 (*Anthomyia*). MEIGEN plate 205, fig. 4 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

MEIGEN used a WIEDEMANN MS name for this species, which he described from the ♂ sex only "im Mai in Hekken; auch von den Hrn. Wiedemann und v. Winthem erhalten".

MNHNP; 2 ♂ syntypes under no. 1980, box 47; also seen by HENNIG (1962: 733). 1 ♂ labelled by MEIGEN "occulta" and with a disc "2173/40". I have labelled it and designate it herewith as lectotype. Condition good. A species of *Hydrotaea*, correctly recognised by recent authors; unfortunately, however, *H. armipes* (FALLÉN, 1825) proves to have been misidentified and *armipes* is actually an older name for *occulta*.

The second MNHNP ♂ with a disc "2173/40". I have labelled it as paralectotype. = *Hydrotaea floccosa* MACQUART (syn: *armipes* of authors).

In NMW there is 1 ♂ labelled "occulta / Coll. Winthem", and with MEIGEN's label „occulta / Wd.". I have labelled it as paralectotype. = *Hydrotaea armipes* FALLÉN (syn: *occulta* MEIGEN).

Also in NMW are 3 ♂ and 1 ♂ 1 ♀ on one pin labelled simply "Coll. Winthem". There are also 1 ♂ and 1 ♂ 1 ♀ on one pin labelled "occulta / Coll. Winthem". I do not regard any of these as syntypes. No syntypes from WIEDEMANN'S collection were found.

ocypterata MEIGEN, 1826: 131 (*Anthomyia*). MEIGEN plate 124, fig. 9 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂, with no indication of locality or location. Holotype under no. 2108, box 50. Labelled by MEIGEN "ocypte= / rata / ♂", and with a disc "2305/40". Condition damp; antennae, left mid leg, left hind tarsus, right fore tarsus, and right hind tarsal segments 2–5 missing. A good species of *Eginia*, correctly recognised ever since it was first described, but not included in the family Muscidae by HENNIG (1955–1964).

omissa MEIGEN, 1826: 149 (*Anthomyia*). MEIGEN plate 206, fig. 8 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Germany: probably Hamburg], not located and presumed destroyed.

Described from the ♀ sex "von Hrn. v. Winthem". The holotype has not been located amongst the WINTHEM material in NMW, and is presumed destroyed. Usually treated as a junior synonym of *Limnophora triangula* (FALLÉN, 1825) as currently understood.

In MNHNP is 1 ♀ under no. 1996, box 47, which HENNIG (1960: 398) considered to be the holotype. It is labelled by MEIGEN "omissa / ♀" and with a disc "2178/40", and is in good condition. = *Limnophora triangula*. I do not consider this specimen to have any type status, as the species was originally described from WINTHEM'S collection.

ornata MEIGEN, 1826: 191 (*Anthomyia*). MEIGEN plate 127, fig. 11 [♂] (MORGE, 1976 a). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex with the comment "Ich fing diese Fliege, die mit Anth. canicularis verwandt ist, nur einmal im August". Holotype under no. 2082, box 49. Labelled by MEIGEN "ornata / ♂", and with a disc "2277/40". Left hind leg missing, otherwise condition good. A good species of *Fannia*, correctly recognised by previous authors.

pacifica MEIGEN, 1826: 49 (*Anthomyia*). MEIGEN plate 123, fig. 7 [♀] (MORGE, 1976 a). Holotype ♀, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from 1 ♀, "nur einmal gefangen". Holotype under no. 2035, box 48. Labelled by MEIGEN "pacifica / ♀", and with a disc "2230/40". Right fore leg and right mid leg missing, otherwise in good condition. A good species of *Spilogona*, and an older name for *S. vana* (ZETTERSTEDT, 1845) of recent authors.

STEIN (1908: 12; 1916: 107) wrote that the type was not in Paris, but he cannot have seen this ♀ which is quite clearly the holotype.

1 ♀ *pacifica* in NMW from WIEDEMANN's collection and from Kiel is *Hydrotaea albipuncta* (ZETTERSTEDT, 1845). 2 ♂, also from Kiel and from WIEDEMANN's collection, must also be material studied later by MEIGEN as one is labelled by MEIGEN "pacifica / ♂": one = *Hydrotaea floccosa* MACQUART (syn: *armipes* of authors) and one = *H. armipes* (FALLÉN) (syn: *occulta* (MEIGEN)).

A short series of *pacifica* in RUTHE's collection in RUG does not include any syntypes, although the first specimen is labelled "R / Prussia / M. i. litt". 1 ♀ = *Limnophora triangula* (FALLÉN, 1825), 1 ♀ = *L. tigrina* (AM STEIN, 1860), 1 ♂ = *L. riparia* (FALLÉN, 1824), 1 ♂ = *Spilogona surda* (ZETTERSTEDT, 1845).

palaestrica MEIGEN, 1826: 135 (*Anthomyia*). MEIGEN plate 206, fig. 3 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Hamburg], in NMW.

Described from the ♂ sex only, "von Hrn. von Winthem". Holotype labelled "palaestri = / ca / Coll. / Winthem", and by MEIGEN "palaes / trica". Condition excellent. A good species of *Hydrotaea*, correctly recognised by recent authors.

pascuorum MEIGEN, 1826: 74 (*Musca*). MEIGEN plate 119, fig. 1 [♂♀] (MORGE, 1976 a). Lectotype ♀, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, "sehr selten". MNHNP: 1 ♂ 1 ♀ syntypes under no. 1932, box 45; seen by VILLENEUVE (1910: 313) and HENNIG (1962: 764).

♀ labelled by MEIGEN "pascuo- / rum / ♀", and with a disc "2125/40". Almost all the legs missing (apparently eaten) except left fore femur, and most of left wing missing. I have labelled it and designate it herewith as lectotype. A good species of *Muscina*, characterised by the enlarged *Musca*-type lower squama, and correctly recognised by recent authors.

♂ labelled by MEIGEN "Cyrton. / pascuorum / ♂", and with disc "2125/40". I have labelled it as paralectotype. = *Dasyphora pratorum* (MEIGEN).

pectinata STEIN, 1900: 155 (*Coenosia*). Unavailable; published in synonymy with *Anthomyza ciliatocosta* ZETTERSTEDT, 1845.

STEIN mentioned this as a MEIGEN MS name and identified the specimens in MNHNP as *ciliatocosta* ZETTERSTEDT. MEIGEN illustrated both sexes of this species

(in MORGE, 1976 b: plate 305, fig. 17 [♂ ♀]) and listed it (in MORGE, 1975: 461, 496) as *Coenosia pectinta* ♂ ♀. Both specimens are under no. 2118, box 50.

♂ labelled by MEIGEN "Coenosia / pectinata / ♂", and with a disc "2315/40". Left fore leg, both mid legs, and right hind leg missing., = *Helina ciliatocosta* (ZETERSTEDT, 1845).

♀ labelled MEIGEN "Coenosia / pectinata / ♀", and with a disc "2315/40". Both fore legs, right mid leg, antennae and abdomen missing. = *Helina reversio* (HARRIS, 1780) (syn: *duplicata* MEIGEN, 1826). (This synonymy needs to be added to *reversio* in my Palaearctic Catalogue contribution)!

pellucens MEIGEN in GISTL, 1835: 71 (*Musca*) (also MEIGEN, 1838: 303). MEIGEN plate 286, fig. 13 [♀] (MORGE, 1976 b). [Junior primary homonym of *Musca pellucens* LINNAEUS, 1758.] Holotype ♀, "Umgegend von München" [= W. Germany, Bavaria: Munich district], not located and presumed destroyed.

Described "aus der Umgegend von München", and collected by WALTL. The holotype has not been found MNHNP or NMW.

MEIGEN (1838) remarked that the specimen described was "vielleicht noch nicht ganz entwickelt und gefärbt". This is certainly the case according to the description and plate. The name is conventionally placed as a junior synonym of *Musca domestica* LINNAEUS, 1758, and this seems to be correct.

perdita MEIGEN, 1830: 376 (*Anthomyia*). MEIGEN plate 260, fig. 3 [♂] (MORGE, 1976 b). Lectotype ♂, "Berliner Gegend" [= E. Germany: Berlin district], by present designation, in ZMHU.

Described from "Berliner Gegend; vom Oberlehrer Ruthe". 1 ♂ syntype is in ZMHU. It has two old hand-written labels: "Berol. Ruthe". and "perdita / Meig."; and a small printed tag "2808". I have labelled it and designate it herewith as lectotype. Left antenna and right mid tarsus missing, otherwise condition excellent. A good species of *Phaonia*, correctly recognised by recent authors.

A second ♂ syntype was in RUG, now transferred to IRSN. Labelled by RUTHE "R / Prussia / Berol". Right antenna, right fore leg and left mid leg missing. I have labelled it as paralectotype. Also = *Phaonia perdita*.

peregrina MEIGEN, 1826 : 187 (*Anthomyia*). MEIGEN plate 243, fig. 9 [♀] (MORGE, 1976 b). Holotype ♀, "zu Hamburg in der Kajüte eines amerikanischen Schiffes" [= W. Germany: Hamburg, in the cabin of an American ship], in NMW.

Described from a ♀: "Herr von Winthem fand diese Fliege zu Hamburg in der Kajüte eines amerikanischen Schiffes". MEIGEN was uncertain whether it was a local species or an immigrant from America. The holotype in NMW was seen by POKORNY (1893: 543) and by STEIN (1908: 13; in BECKER, 1908: 99). It is in good condition. Labelled "peregrina / na / ♀" by MEIGEN, and "peregrina / ♀ / Coll. Winthem"; also labelled by STEIN as *Euryomma hispaniense* ♀ STEIN. A good species of *Euryomma*, correctly recognised by recent authors and myself (PONT, 1977 : 12).

perpusilla MEIGEN, 1826: 218 (*Coenosia*). MEIGEN plate 241, figs. 2–3 [♂ ♀], and plate 283, fig. 12 [♀] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, “gemein auf Gras”. MNHNP: 1 ♂ 2 ♀ syntypes under no. 2124, box 50; also seen by STEIN (1900: 155) though he subsequently referred to the types being in WINTHEM’s collection (STEIN, 1908: 14), and by HENNIG (1962: 590–591).

1 ♂ 1 ♀ are on one pin. Labelled by MEIGEN “perpu- / silla / ♂ ♀”. and with a disc “2321/40”. I have labelled and designate herewith the ♂ as lectotype and the ♀ as paralectotype. The ♂ lacks right antenna, left fore, leg, right mid leg and left hind leg. A good species of *Coenosia*, correctly recognised by recent authors. The ♀ paralectotype is a different species, as suspected by STEIN: = *Coenosia femoralis* (ROBINEAU-DESVOIDY, 1830).

The second ♀ has a disc “231/40”. I have labelled it as paralectotype, Also = *Coenosia femoralis*.

In NMW are 5 specimens labelled “perpusilla / Coll. Winthem” and another 5 labelled simply “Coll. Winthem”. None has a MEIGEN label, and I do not consider any of them to be syntypes.

pertusa MEIGEN, 1826 : 119 (*Anthomyia*). MEIGEN plate 208, fig. 10 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Europe], not located and presumed destroyed.

Described from a ♂ “aus dem Baumhauerischen Museum”. Holotype not in MNHNP. 1 ♂ in NMW cannot be the type as it is from WINTHEM’s collection; it is named as *pertusa* by STEIN. A good species of *Helina*, correctly recognised by recent authors and easily recognised from the description.

phasiaeformis MEIGEN, 1826: 72 (*Musca*). MEIGEN plate 118, fig. 10 [♂ ♀] (MORGE, 1976 a); plate 298, fig. 9 [♂] (MORGE, 1976 b). Lectotype ♂, locality not known [either Austria or S. France] by present designation, in MNHNP.

Described from both sexes, “Oesterreich und südliches Frankreich”, probably collected by BAUMHAUER. Plate 118 gives excellent whole-insect figures of each sex. Plate 298 seems to show another species, with yellow palpi.

1 ♂ 1 ♀ syntypes in MNHNP under no. 1952, box 46; also seen by VILLENEUVE (1910: 313) and HENNIG (1964: 1025) who synonymised *phasiaeformis* with *Musca tempestiva* FALLÉN, 1817.

♂ labelled by MEIGEN “Musca / phasiaeformis = / mis / ♂”, and with a disc “2145/40”. No indication of any locality. I have labelled it and designate it herewith as lectotype. Rather dusty, but otherwise condition excellent. A junior synonym of *Musca tempestiva* FALLÉN, 1817, as currently understood.

♀ labelled by MEIGEN “phasiae- / formis / ♀”, and with disc “2145/40”. I have labelled it as paralectotype. = *Musca osiris* WIEDEMANN, 1830 (see below under *vitripennis* MEIGEN).

In NMW is 1 ♂ labelled “*phasiaeformis* / Coll. Winthem”, which = *Musca tempestiva*. However, there is no evidence that this specimen was ever seen by MEIGEN.

picipes MEIGEN, 1826 : 178 (*Anthomyia*). MEIGEN plate 206, fig. 5 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from 1 ♂ without locality, „nur einmal das Männchen gefangen”. MNHNP: holotype under no. 2075, box 49; also seen by STEIN (1900: 155). Labelled by MEIGEN “*picipes*”, and with a disc “2270/40”. STEIN thought that this was probably an *Azelia*, but he must have been misled by its poor condition. It is an Anthomyiid without hind legs, and probably a species of *Nupedia*. A ♀ with it is also an Anthomyiid.

plumbea MEIGEN, 1826 : 85 (*Anthomyia*). MEIGEN plate 122 [♂] (MORGE, 1976 a). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from “nur das Männchen ein Paarmal gefangen”. MNHNP : 1 ♂ syntype under no. 1964, box 46; also seen by HENNIG (1963: 835). Labelled by MEIGEN „*plumbea* / ♂”, and with a disc “2155/40”. I have labelled it and designate it herewith as lectotype. Right mid leg, right hind leg, and several tarsal segments on other legs missing; wings rather tattered. A junior synonym of *Phanonia incana* (WIEDEMANN, 1817) as currently understood.

polita MEIGEN, 1838: 298 (*Pyrellia*). MEIGEN plate 299, fig. 15 [♂] (MORGE, 1976 b). Holotype ♂, “hiesige Gegend” [W. Germany: probably Stolberg], in MNHNP.

Described from, the ♂ sex, from “hiesige Gegend”. Holotype under no. 1928 in box 45. Labelled by MEIGEN “*Lucilia* / *polita* / ♂”, and with a disc “2121/40”. Left hind leg, right fore leg, and right mid leg missing; head glued back on. A species of *Pyrellia* with dark prothoracic spiracle and undusted mesonotum, and a junior synonym of *Pyrellia vivida* ROBINEAU-DESVOIDY, 1830 (syn: *cadaverina* of authors).

VILLENEUVE (1910: 313) studied this specimen and established the synonymy with *cadaverina*.

polystigma MEIGEN, 1826: 150 (*Anthomyia*). MEIGEN plate 207, fig. 14 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Euope], not located and presumed destroyed.

Described from a ♀ “aus dem Baumhauerischen Museum”. The holotype has not been found in MNHNP or NMW. However, MEIGEN's description and plate are quite sufficient for recognising this very characteristic species. A good species of *Brontaea*, correctly recognised by recent authors.

populi MEIGEN, 1826: 115 (*Anthomyia*). MEIGEN plate 269, fig. 6 [♂] (MORGE, 1976 b). Lectotype ♂, "hier" [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described as "hier selten", without statement as to sex. MNHNP: 1 ♂ 1 ♀ syntypes under no. 1975, box 46; also seen by HENNIG (1963: 856).

♂ labelled by MEIGEN "populi / ♂", and with a disc "2166/40". I have labelled it and designate it herewith as lectotype. Condition good. A junior synonym of *Phaonia rufiventris* (SCOPOLI, 1763) as currently understood.

♀ labelled "populi / ♀" by MEIGEN, and with a disc "2166/40". I have labelled it as paralectotype. Also = *Phaonia rufiventris*.

posticata MEIGEN, 1826: 190 (*Anthomyia*). MEIGEN plate 206, fig. 14 [♂], and plate 293, fig. 7 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Europe], by present designation, in MNHNP.

Described from the ♂ sex, "aus der Baumhauerischen Sammlung", with another slightly different male which "wurde mir von Freund Weniger mitgetheilt". MNHNP: 2 ♂ syntypes under no. 2020, box 48; both very damaged; also seen by HENNIG (1962: 661).

1 ♂ without a MEIGEN label, with a disc "2213/40". I have labelled it and designate it herewith as lectotype. All that remains on the pin are thorax and abdomen (both rubbed), right mid leg, and right fore leg except tarsal segments 2-5. The hypopygium is visible, and *posticata* can be recognised as an older name for *Fannia pretiosa* (SCHINER, 1862).

The second ♂ labelled by MEIGEN "*Anthomyia* / *posticata*", and with a disc "2213/40". I have labelled it as paralectotype. It consists of thorax, left wing, right fore leg, and right mid leg. Also = *Fannia posticata*.

pratorum MEIGEN, 1826: 78 (*Musca*). MEIGEN plate 119, fig. 5 [♀] (MORGE, 1976 a). Lectotype ♂, "hier" [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, "hier ist diese Art selten", but only the ♀ illustrated. MNHNP: 2 ♂ 3 ♀ under no 1936, box 45, of which I consider 1 ♂ 2 ♀ to be syntypes. These specimens were also seen by VILLENEUVE (1910: 313) and HENNIG (1963: 958).

1 ♂ labelled by MEIGEN "Cyrton. / *pratorum* / ♂", and a disc "2129/40". Condition excellent. I have labelled it and designate it herewith as lectotype. A good species of *Dasyphora*, correctly recognised by recent authors.

2 ♀ also belong to this series, each with a disc "2129/40", and one labelled by MEIGEN "*pratorum* / ♀". I have labelled them as paralectotypes. Both = *Dasyphora pratorum*.

1 ♂ 1 ♀ are labelled by MEIGEN "Cyrtoneura / *pratorum* / ♂ [or ♀]" and with a disc "2958/40". It is therefore unlikely that they were part of MEIGEN's original series, and I consider them to be later additions. I have labelled them as

non-syntypes. ♂ = *Dasyphora albofasciata* (MACQUART), as pointed out by VILLENEUVE (1910: 313, as *saltuum*), ♀ = *Dasyphora pratorum*.

HENNIG (1963: 958) also reported that he had seen a specimen from Stolberg in ZMHU, labelled as type. This is a ♂ in good condition, with two old labels "Stolberg. Meig." and "pratorum / Meig.". I have labelled it as paralectotype. Also = *Dasyphora pratorum*.

pruinosa MEIGEN, 1826: 191 (*Anthomyia*). MEIGEN plate 130, fig. 10 [♀] (MORGE, 1976 a); plate 241, fig. 12 [♀] (MORGE, 1976 b). Holotype ♀, "aus hiesiger Gegend" [W. Germany: probably Stolberg], in MNHNP.

Described from 1 ♀, "nur ein Stück aus hiesiger Gegend". Holotype under no. 2081, box 49; also seen by STEIN (1900: 155). Labelled by MEIGEN "pruinosa / ♀", and with a disc "2276/40". Right mid leg missing, otherwise condition good. A species of *Fannia*: as recognised by recent authors, *pruinosa* is a good species close to *pallitibia* (RONDANI), but the ♀♀ of these two species cannot yet be separated. The identity of this holotype is therefore not absolutely certain at present.

puella MEIGEN, 1826: 57 (*Musca*). MEIGEN plate 272, fig. 11 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Kiel], in NMW.

The holotype is labelled "puella / Coll. Wiedem.", and also has MEIGEN's label "puella"; seen by STEIN, who labelled it as "fennica". Condition good, with right fore leg and right antenna missing. A junior synonym of *Noemyia cornicina* (FABRICIUS, 1781) as currently understood (i. e. the species with presutural acrostichal and 3 postsutural dorsocentral setae).

MNHNP: 1 ♂ 1 ♀ under no. 1922, box 45; also examined by VILLENEUVE (1910: 313). Both labelled as *Lucilia puella* by MEIGEN, but neither is a syntype as the species was described from WIEDEMANN's collection. Both = *Neomyia cornicina*.

AUBERTIN (1932: 140) saw the "type", but it is not clear whether she meant the NMW or MNHNP material, or both.

punctipes MEIGEN, 1826: 220 (*Coenosia*). MEIGEN plate 131, fig. 8 [♂] (MORGE, 1976 a). Holotype ♀, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♀, "nur das Weibchen", although a ♂ is illustrated on plate 131. Holotype under no. 2128 in box 50; also seen by STEIN (1900: 155).

It belongs to the Scathophagidae, as was also noted by STEIN (l. c.).

punctum MEIGEN, 1826: 217 (*Coenosia*). MEIGEN plate 241, fig. 11 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Hamburg], not located and presumed destroyed.

Described from the ♂ sex, "von Hrn. v. Winthem". The holotype has not been located in NMW or MNHNP. In the legend to the plates (MORGE, 1975: 445,

471–472) *punctum* is erroneously re-assigned to *Cordylura*, whereas it is the species *punctipes* that is intended (see preceding species). MEIGEN evidently confused himself by renumbering figs. 11–13. A junior synonym of *Schoenomyza litorella* (FALLÉN, 1823) as currently understood.

quadrinotata MEIGEN, 1826: 113 (*Anthomyia*). MEIGEN plate 122, fig. 1 [♂] (MORGE, 1976 a). Holotype ♂, “aus hiesiger Gegend” [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex, “aus hiesiger Gegend”. Holotype under no. 1974, box 46; seen by HENNIG (1958: 214). Labelled by MEIGEN “4notata / ♂”, and with a disc “2165/40”. Both mid legs, right hind leg, left hind tarsus, and right fore tarsal segments 2–5 missing. A good species of *Helina*, correctly recognised by recent authors.

rufifrons MEIGEN, 1838: 337 (*Dialyta*). MEIGEN plate 282, fig. 16 [♀] (MORGE, 1976 b). Holotype ♀, locality not stated [W. Europe], not located and presumed destroyed.

Described from the ♀ sex, with no statement as to locality or location. Holotype not located in MNHNP or NMW, and not found by HENNIG (1963: 899). The species has never been recognised, and is still listed as an unrecognised species of *Phaonia*. This assignment seems questionable: MEIGEN’s illustration shows a fly with an apparently damp abdomen but which is otherwise a typically nondescript Muscid and is most likely to belong to the Scathophagidae.

rufipalpis MEIGEN, 1826: 222 (*Coenosia*). MEIGEN plate 203, fig. 11 [♂ ♀] (MORGE, 1976 b). Lectotype ♀, locality not stated [W. Germany: probably Hamburg], by present designation, in NMW.

Described from both sexes “von Hrn. von Winthem”. NMW: 2 ♂ 10 ♀ from WINTHEM’s collection. None labelled by MEIGEN, but several are clearly syntypes. POKORNY (1893: 538) stated that he saw the type in NMW and that it was a ♀ of *Coenosia tricolor* (ZETTERSTEDT). STEIN (1908: 14; 1916: 215) also studied the WINTHEM material. He noted that most of it, including the ♂♂, was the species he had previously called *elegantula* RONDANI but that 1 ♀, which actually fitted MEIGEN’s description much better, was *bilineella* (ZETTERSTEDT).

1 ♀ labelled “rufipalpis / ♀ / Coll. Winthem” and by WINTHEM “rufipalpis ♀ / Meig. Original. / [MS name]”. The MS name is an unpublished name of HOFFMANNSEGG’s, and appears on several of the NMW specimens. I have labelled this ♀ and designate it herewith as lectotype. Both mid legs missing, but otherwise in good condition. A good species of *Coenosia*, correctly recognised by recent authors and corresponding to *rufipalpis* in the restricted sense of ASSIS FONESCA (1968: 73).

A second ♀ labelled “rufipalpis / ♀ / Coll. Winthem” is labelled by WINTHEM “rufipalpis ♀ / (palp. nigris)”. This is not a syntype: it has dark palpi, whereas the description mentions “Taster rothgelb”. It is *Coenosia bilineella* (ZETTERSTEDT).

1 ♂ 3 ♀ are labelled "rufipalpis = / elegantula / Coll. Winthem", the ♂ also having an old hand-written label "rufipalpis". This label contains information that cannot have been on the specimens when they were in WINTHEM's possession, since *elegantula* was described by RONDANI in 1866 and WINTHEM died in 1848. These 4 specimens are also not syntypes as they have dark palpi. Also = *Coenosia bilineella*.

Finally, 1 ♂ 5 ♀ labelled "[MS name] = / rufipalpis / Coll. Winthem", and the ♂ also labelled "[MS name] Hgg. / in lit.". The ♂ is too damaged to check against MEIGEN's description or to identify and I have not regarded it as a syntype. The 5 ♀ agree perfectly with MEIGEN's description, and I regard them as syntypes. I have labelled them as paralectotypes. All = *Coenosia rufipalpis*.

separata MEIGEN, 1826: 119 (*Anthomyia*). MEIGEN plate 204, fig. 3 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Hamburg], not located and presumed destroyed.

Described from the ♂ sex, "von Hrn. v. Winthem". Holotype not in MNHNP or NMW, and presumed destroyed. STEIN (1916: 67) reported on a ♂ that he thought was the type in NMW, and it seems very likely that it was MEIGEN's holotype as it was from WINTHEM's collection and agreed with the original description. However, this ♂ can no longer be traced (see also HENNIG, 1958: 230).

STEIN noted the extraordinary similarity between the NMW ♂ and *impuncta*, and this is evident too from the description. It seems to me most likely that MEIGEN had one of the greyer darker forms of *impuncta* before him, and so I formally propose treating *separata* as a junior synonym of *Helina impuncta* (FALLÉN, 1825), syn. nov., as currently understood.

serena MEIGEN, 1826: 59 (*Musca*). MEIGEN plate 277, fig. 17 [♀] (MORGE, 1976 b). [Junior primary homonym of *Musca serena* FALLÉN, 1825.] Lectotype ♀, "hier" [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from the ♀ only, "das Weibchen hier selten, bei Kopenhagen gemeiner, auch in einer stahlblauen Abänderung aus dem Wiedemannischen Museum".

MNHNP: 1 ♂ 1 ♀ under no 1926, box 45, studied by VILLENEUVE (1910: 311; 1919: 259) and discussed by HENNIG (1963: 942). ♀ labelled by MEIGEN "serena / ♀", and with a disc "2119/40". I have labelled it and designate it herewith as lectotype. Abdomen, left mid leg and right hind leg missing. A junior synonym of *Pyrellia rapax* (HARRIS, 1780) as currently understood, i. e. with anterior spiracle white and anterior part of mesonotum dusted.

The ♂, as pointed out by VILLENEUVE, must be a later addition as MEIGEN only described the ♀ sex. Labelled by MEIGEN "Lucilia / serena / ♂ / Lüttich". = *Eudasyphora cyanella* (MEIGEN).

No syntypes were found in NMW. There are several specimens of *serena* from WINTHEM's collection, but none has a MEIGEN or WIEDEMANN label and there is no evidence that any of them was studied by MEIGEN.

sericata MEIGEN, 1826: 124 (*Anthomyia*). MEIGEN plate 124, fig. 4 [♂] (MORGE, 1976 a); plate 227, fig. 1 [♀] (MORGE, 1976 b). Holotype ♀, "in hiesiger Gegend" [W. Germany: probably Stolberg], formerly in MNHNP but now destroyed.

Described from a ♀, "nur einmal in hiesiger Gegend". The holotype is known to be destroyed, as was noted by HENNIG (1963: 827). Under no. 2013, box 47, is a pin but without any specimen. On the pin are MEIGEN's label "*sericata* / ♀" and a disc "2206/40". The description and plate 227 support the conventional synonymy of *sericata* with *Phaonia fuscata* (FALLÉN, 1825) as currently understood.

The ♂ on plate 124, which must have been a later capture, also appears to be *P. fuscata*.

serva MEIGEN, 1826: 86 (*Anthomyia*). MEIGEN plate 121, fig. 5 [♂ ♀] (MORGE, 1976 a). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, "nicht selten im Sommer". MNHNP: 2 ♂ 2 ♀ syntypes, under no. 1965, box 46; also seen by HENNIG (1963: 867).

1 ♂ labelled by MEIGEN "*serva* / ♂", and with a disc "2156/40". Condition good. I have labelled it and designate it herewith as lectotype. A good species of *Phaonia*, correctly recognised by recent authors.

1 ♂ and 2 ♀ each with a disc "2156/40" and labelled by me as paralectotypes. 1 ♀, labelled by MEIGEN "*serva* / ♀", = *Mydaea ancilla* (MEIGEN). 1 ♂ 1 ♀ = *Phaonia serva*.

1 ♀ in NMW from WINTHEM's collection, labelled "*serva* / ♀" by MEIGEN, = *Phaonia gobertii* (MIK).

sexmaculata MEIGEN, 1838: 335 (*Coenosia*). MEIGEN plate 283, fig. 10 [♂] (MORGE, 1976 b). Holotype ♂, "Lüttich" [= Belgium: Liège], not located and presumed destroyed.

The holotype has not been found in MNHNP or NMW. To judge by the locality, it must have been collected by MEIGEN's friend GAEDE. The species is conventionally treated as a good species of *Coenosia*. There is some doubt as to whether this is actually correct (HENNIG, 1962: 601), but as the holotype is lost there is nothing to be gained by changing the interpretation of this name.

sexnotata MEIGEN, 1826: 213 (*Coenosia*). MEIGEN plate 203, fig. 10 [♂ ♀], and plate 241, fig. 5 [♂] (MORGE, 1976 b). Lectotype ♀, locality not stated [W. Germany: probably Hamburg], by present designation, in MNHNP.

Described from both sexes: "nur das Männchen einigemale hier gefangen; beide Geschlechter auch von Hrn. v. Winthem". MNHNP: 2 ♂ 2 ♀ syntypes under no. 2115, box 50; also seen by STEIN (1900: 156) and discussed by HENNIG (1962: 602). There are several specimens of *sexnotata* from WINTHEM's collection in NMW, but none has a MEIGEN label and there is no evidence that MEIGEN saw any

of them. Consequently, I regard the MNHNP ♀ as a syntype, a WINTHEM ♀ retained to MEIGEN.

As pointed out by STEIN (l. c.), the ♂ and ♀ belong to different species. I propose designating the ♀ as lectotype, bearing in mind the identity of these specimens and of MEIGEN's other *Coenosia* species, as this will ultimately result in least confusion.

MNHNP ♀ labelled by MEIGEN "6notata / ♀", and with a disc "2312/40". I have labelled it and designate it herewith as lectotype. Condition good. Identical with *Coenosia lineatipes* (ZETTERSTEDT, 1845) as currently understood, for which the correct name is now *Coenosia albicornis* MEIGEN, 1826 (see p. 210).

MNHNP ♂♂ have been labelled as paralectotypes. Each with a disc "2312/40", and one with MEIGEN's label "sexno- / tata / ♂". Both = *Coenosia trilineella* (ZETTERSTEDT, 1838), as pointed out by STEIN (l. c.).

NMW: 2 ♂, 3 ♀, and 1 ♂ 1 ♀ on a single pin, all labelled "6notata / Coll. Winthem". The ♂♀ on one pin are also labelled "6notata" in an old hand that may be WINTHEM's. Although these are the specimens on which the modern interpretation of *sexnotata* has been based (STEIN, 1916; HENNIG, 1962), there is no evidence that MEIGEN saw any of them and I do not consider them to be syntypes. They all = *Coenosia campestris* (ROBINEAU-DESVOIDY, 1830) (syn: *sexnotata* of authors). Additionally in NMW are 2 ♂ 1 ♀ from WIEDEMANN's collection, which cannot be syntypes.

signata MEIGEN, 1826: 113 (*Anthomyia*). MEIGEN plate 122, fig. 2 [♂♀] (MORGE, 1976 a). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, with the comment "nicht selten". MNHNP: 2 ♂ 2 ♀ syntypes under no. 1973, box 46; also seen by HENNIG (1963: 871).

1 ♂ labelled by MEIGEN "signata / ♂", and with a disc "2164/40". I have labelled it and designate it herewith as lectotype. Condition good. A junior synonym of *Phaonia tuguriorum* (SCOPOLI, 1763) as currently understood.

1 ♂ and 2 ♀ each with a disc "2164/40", 1 ♀ with MEIGEN's label "signata / ♀". I have labelled them as paralectotypes. All three = *Phaonia tuguriorum*.

simplex MEIGEN, 1826: 221 (*Coenosia*). MEIGEN plate 246, fig. 6 [♂] (MORGE, 1976 b). Holotype ♂, locality not stated [W. Germany: probably Stolberg], in MNHNP.

Described from the ♂ sex "im Mai". Holotype under no. 2129, box 50; also seen by STEIN (1900: 156). Labelled by MEIGEN "simplex", and with a disc "2326/40". Left mid leg missing, otherwise in good condition. A junior synonym of *Coenosia agromyzina* (FALLÉN, 1825) as currently understood.

stimulans MEIGEN, 1824: 161, plate 38, figs. 8–10 (*Stomoxys*). MEIGEN plate 111, fig. 4 [♂♀] (MORGE, 1976 a). Lectotype ♂, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, with the comment "ich habe diese Fliege nur auf Blüten gefangen; sie soll aber das Vieh eben so arg stechen wie das vorige [*calcitrans*]".

MNHNP: 1 ♂ 4 ♀ syntypes under no. 1508, box 36. ♂ labelled by MEIGEN "Stomoxys / stimulans / ♂", and with a disc "1701/40". I have labelled it and designate it herewith as lectotype. Much of the mesonotum eaten away and right hind tarsal segments 2–5 missing; otherwise condition good. A good species of *Haematobosca*, correctly recognised by recent authors.

I have labelled the 4 ♀ as paralectotypes. All four with the disc „1701/40" and one labelled by MEIGEN "stimulans / ♀". All = *Haematobosca stimulans*.

strenua MEIGEN, 1826: 120 (*Anthomyia*). MEIGEN plate 122, fig. 5 [♀] (MORGE, 1976 a). Lectotype ♀, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from 2 ♀, without note as to locality or collector. MNHNP: 1 ♀ syntype under no. 2006, box 47; also seen by HENNIG (1958: 214). NMW: 1 ♀ syntype.

MNHNP ♀ labelled by MEIGEN "strenua / ♀", and with a disc "2199/40". I have labelled it and designate it herewith as lectotype. Condition good. A junior synonym of *Helina quadrinotata* (MEIGEN, 1826) as currently understood.

NMW ♀ labelled "quadrinotata / strenua ♀ / Coll. Winthem", and by MEIGEN "stre = / nua / ♀"; also labelled as *quadrinotata* by STEIN. I have labelled it as paralectotype. Also = *Helina quadrinotata*.

stygia MEIGEN, 1826: 155 (*Anthomyia*). MEIGEN plate 207, fig. 11 [♀] (MORGE, 1976 b). Lectotype ♀, locality not stated [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from "mehrere Exemplare; im August auf Schirmblumen". In the list of figures on p. 465 (but not on p. 437), MEIGEN (in MORGE, 1975) corrected *stygia* to *atramentaria* (Now *Acyglossa atramentaria* MEIGEN: Anthomyiidae). Dr. V. MICHELSEN (letter of 15. iii. 1985) recently located 2 ♀ syntypes of *stygia* under the name *atramentaria* in MNHNP, no. 2041 in box 48, and kindly sent me the notes given below. Also seen by VILLENEUVE (1899: 85) and STEIN (1900: 151) both of whom noted that the ♀ did not belong with the ♂ of *atramentaria*.

These females agree with the rather generalised description, and there is no reason to doubt that they are the syntypes of *stygia* that MEIGEN re-located in his collection once he believed them to be the female of his *atramentaria*. The description mentions the shining frons which is, at least on the upper part, a characteristic feature of *Fannia serena*.

1 ♀ without MEIGEN label, but with a disc "2236/40". Rather dirty and right fore leg missing; otherwise condition good. I have labelled it and designate it herewith as lectotype. A junior synonym of *Fannia serena* (FALLÉN, 1825), as currently understood, syn. nov.

1 ♀, labelled by MEIGEN "atra = / mentaria / ♀" and with a disc "2236/40". Condition good but head and right mid leg gummed to thorax. Also labelled as *Homalomyia carbonaria* MEIGEN by STEIN, with some additional illegible notes. I have labelled it as paralectotype. = *Fannia polychaeta* (STEIN, 1895). STEIN (l. c.) published his identification as *Homalomyia corvina* VERRALL, and noted (incorrectly) that the head of another species had been glued to the body.

terimanlis MEIGEN in MORGE, 1975: 465 (*Anthomyia*). Nomen nudum. See under *apicalis* MEIGEN.

tetra MEIGEN, 1826: 158 (*Anthomyia*). MEIGEN plate 267, fig. 12 [♂] (MORGE, 1976 b). Lectotype ♂, "aus dem Lüneburgischen" [= W. Germany: Lüneburg district], by present designation, in NMW.

Described from several ♂♂ "aus dem Lüneburgischen; von Hrn. Wiedemann und v. Winthem mitgetheilt", for which MEIGEN used a WIEDEMANN MS name. NMW: only 1 ♂ syntype found. Labelled "tetra / Coll. Winthem", and "tetra / Wied" by MEIGEN. I have labelled it and designate it herewith as lectotype. Right mid tibia+tarsus and some tarsal segments on most other legs missing, otherwise condition good. A good species of *Drymeia*, correctly recognised by recent authors.

1 ♀ in NMW from WINTHEM's collection, labelled as *tetra*, is not a syntype as only the ♂ sex was described.

tetrastigma MEIGEN, 1826: 120 (*Anthomyia*). MEIGEN plate 121, fig. 8 [♂] (MORGE, 1976 a). Holotype ♂, "aus hiesiger Gegend" [W. Germany: probably Stolberg], in MNHNP.

Described from a single ♂ holotype, now under no. 2016, box 47. Labelled by MEIGEN "tetrastigma / ♂", and with a disc "2209/40". Almost totally destroyed by beetle attack: consisting only of one hind leg, one mid leg, and one hind tibia attached by beetle debris to the pin. I have placed these fragments in a gelatine vial.

It is one of the *Helina* species with yellow femora and extremely long anterodorsal setae on hind tibia. Only *flagripes* (RONDANI, 1866) and *crinita* COLLIN, 1953, have these characters, and comparison with both species showed that *tetrastigma* is identical with *flagripes*, as it has mid and hind femora clear yellow, mid femur with fewer (4–5) posteroventral setae, hind femur with some stronger and more setose posteroventral setulae, hind metatarsus with long fine anterodorsal and posterodorsal setulae. As an older name, *tetrastigma* must replace *flagripes*.

Specimens of *tetrastigma* in NMW are not types as MEIGEN described this species form a single ♂. 1 ♂ from WIEDEMANN's collection and labelled "tetrastigma M / = cornuta F. absque / cornu accidentali / Kiel" = *Helina reversio* (HARRIS).

SCHINER (1862: 610) mentioned that he had compared his material with MEIGEN's "Original-Exemplar" in WINNERTZ's collection, but this specimen too

cannot have been a type. It is not now in NMW, nor is it likely to have survived elsewhere in WINNERTZ's collections.

trigonalis MEIGEN, 1826: 127 (*Anthomyia*). MEIGEN plate 122, fig. 10 [♂] (MORGE, 1976 a). Neotype ♂, W. Germany: Stolberg, by designation of HENNIG (1963: 883) in ZMHU.

Described from the ♂ sex "aus der Baumhauerischen Sammlung". In MNHNP under no. 2100, box 50, is a ♂ labelled probably by MEIGEN "trigonalis / ♂" and with a disc "2295/40". As has been pointed out by STEIN (1900: 156) and HENNIG (1963: 840, 883), this cannot be the holotype: it is a ♂ of *Fannia hamata* (MACQUART) (now = *Fannia lustrator* (HARRIS)), which has mid and hind femora yellow whereas MEIGEN describes all femora as blackish-brown. This ♂ must be a later addition to MEIGEN's collection, but, curiously, it is the ♂ illustrated on plate 122.

HENNIG (1963: 883) found 2 ♂ in ZMHU, presumably from HOFFMANNSEGG's collection, which were labelled as types. One had 2 labels, in GERSTAECKER's hand, "trigonalis Meig. libatrix Mg. mscpt." and "Stolberg Meigen". The other had one label with "Deutschland [printed] Stolberg Meigen, S. [ENDERLEIN's hand]". HENNIG noted that they agreed perfectly with MEIGEN's description and he could see nothing against designating the GERSTAECKER ♂ as "Neo- bzw. Lektotypus von *trigonalis*". I myself can see no reason for regarding these specimens as syntypes: whatever their provenance may actually be, and it seems most likely from the labels that they were collected by MEIGEN himself around Stolberg, they cannot be from BAUMHAUER's collection. However, as the type from BAUMHAUER's collection does appear to be lost, I regard the ♂ in ZMHU labelled by GERSTAECKER as the neotype, as designated by HENNIG. *A. trigonalis* is a junior synonym of *Phaonia laeta* (FALLÉN, 1823), as currently understood.

In NMW there are 1 ♂ labelled "Kiel" and "trigonalis / Coll. Wiedem."; and 1 ♀ with WIEDEMANN's label "A. trigonalis / M. / Kiel". Neither is a syntype, but both = *Phaonia fuscata* (FALLÉN).

triplasia MEIGEN, 1838: 331 (*Anthomyia*). MEIGEN plate 285, fig. 3 [♂] (MORGE, 1976 b). Holotype ♂, "Lüttich" [= Belgium: Liège, not located and presumed destroyed.

The holotype has not been found in MNHNP or NMW. To judge by the locality, it must have been collected by MEIGEN's friend GAEDE. The name is conventionally placed as a junior synonym of *Fannia lustrator* (HARRIS, 1780) (syn: *hamata* (MACQUART, 1835)), and this appears to be correct according to MEIGEN's description and plate.

umbratica MEIGEN, 1826: 88 (*Anthomyia*). MEIGEN plate 206, fig. 2 [♂] (MORGE, 1976 b). Lectotype ♂, locality not stated [W. Germany: probably Hamburg], by present designation, in NMW.

Described from the ♂ sex “von Hrn. von Winthem”. NMW: 4 ♂ syntypes. First ♂ labelled “umbratica / Coll. Winthem”, and labelled by MEIGEN “umbratica”. I have labelled it and designate it herewith as lectotype. Condition excellent. A good species of *Hebecnema*, correctly recognised by recent authors.

I have labelled the other 3 ♂ as paralectotypes. Each labelled “Coll. Winthem”; one also labelled by STEIN as *Hebecnema umbratica*. All = *Hebecnema umbratica*.

Several ♀ ♀ in NMW from WIEDEMANN's and WINTHEM's collections cannot be syntypes, as the species was described only from the ♂ sex.

urbana MEIGEN, 1826: 118 (*Anthomyia*). MEIGEN plate 121, fig. 9 [♂] (MORGE, 1976 a). Lectotype ♂, “hier” [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, “hier sehr gemein”. MNHNP: 1 ♂ 2 ♀ syntypes, all defective, each with a disc “2197/40”.

♂ with MEIGEN's label “urbana / ♂”. I have labelled it and designate it herewith as lectotype. Head and left hind leg missing. A good species of *Mydaea*, correctly recognised by recent authors.

I have labelled the 2 ♀ as paralectotypes. One has MEIGEN's label “urbana / ♀”, = *Mydaea* sp. indet. The second one = *Mydaea urbana*.

There are several specimens of *urbana* in NMW from the WINTHEM and WIEDEMANN collections, and even 1 ♂ 1 ♀ on a single pin from WINTHEM's collection labelled by MEIGEN “urbana”. I do not consider these to be syntypes as the species was described from the Stolberg district and thus from MEIGEN's own material.

varia MEIGEN, 1826: 187 (*Anthomyia*). MEIGEN plate 131, fig. 3 [♀] (MORGE, 1976 a). Holotype ♀, locality not stated [W. Europe], in MNHNP.

Described from the ♀ sex “aus der Baumhauerischen Sammlung”. Holotype under no. 2083, box 49; also seen by STEIN (1900: 156). Labelled by MEIGEN “varia / ♀”, and with a disc “2278/40”. Condition poor: abdomen, left mid leg, and tarsal segments 2–5 on each hind leg missing. A good species of *Atherigona*, correctly recognised by recent authors.

In NMW is 1 ♀, labelled “varia ♀ / Coll. Winthem” and by MEIGEN “varia / ♀”. This cannot be a syntype, as the species was not described from WINTHEM's collection. Also = *Atherigona varia*.

variegata MEIGEN, 1826: 114 (*Anthomyia*). MEIGEN plate 258, fig. 6 [♂] (MORGE, 1976 b). Lectotype ♀, “hier” [W. Germany: probably Stolberg], by present designation, in MNHNP.

Described from both sexes, the ♂ “von Hrn. v. Winthem” and the ♀ “hier im Junius gefangen”.

MNHNP: 1 ♀ syntype under no. 2007, box 47; also seen by HENNIG (1963: 888). NMW: no syntypes found, so the ♂ from WINTHEM is presumed lost.

The MNHNP ♀ is labelled by MEIGEN “varie- / gata / ♀”, and with a disc “2200/40”. Left mid leg missing, otherwise condition good. A junior synonym, of *Phaonia subventa* (HARRIS, 1780) as currently understood.

In the old material in NMW (under *populi* and *variegata*) I found 1 ♂ 1 ♀ labelled simply “Coll. Winthem”; and 1 ♂ labelled “variegata / Coll. Wiedem.” and by WIEDEMANN “A. variegata M. / Kiel”. There is no evidence tha MEIGEN saw any of these specimens, and I do not regard them as syntypes.

versicolor MEIGEN, 1826: 77 (*Musca*). MEIGEN plate 248, fig. 13 [♂] (MORGE, 1976 b). [Junior primary homonym of *Musca versicolor* GMELIN, 1790.] Syntypes ♂ ♀, “Oesterreich” [= Austria], not located and presumed destroyed.

Described from both sexes “aus Oesterreich, von Hrn. Megerle v. Mühlfeld”. The syntypes should have been in NMW, but I found nothing and assume that they were destroyed in 1848. A junior synonym of *Dasyphora penicillata* (EGGER, 1865) as currently understood.

In MNHNP are 2 ♂ under no. 1935, box 45. One labelled by MEIGEN “Cyrtón. / versicolor / ♂”, and each with a disc “2128/40”. These were considered to be syntypes by VILLENEUVE (1910: 313) and HENNIG (1963: 956), but I can find no evidence that they came from MEGERLE and consider them to be specimens identified by MEIGEN after 1826. The very late illustration (plate 248) also suggests that MEIGEN saw additional specimens, and perhaps it is one of the MNHNP ♂ ♂ that is illustrated here. Both = *Dasyphora penicillata*.

vitripennis MEIGEN, 1826: 73, plate 43 fig. 34 (*Musca*). MEIGEN plate 119, fig. 6 [♂] (MORGE, 1976 a). Holotype ♂, “Fontainebleau” [= France, Seine-et-Marne: Fontainebleau], in MNHNP.

Described from the ♂ sex from “Frankreich. – Herr Baumhauer fing sie bei Fontainebleau”. Holotype under no 1937, box 46. Labelled “*Musca* / vitripen = / nis / ♂” by MEIGEN, and with a disc “2130/40”. Some tarsal segments missing and head glued on, otherwise condition good. Briefly reported on by VILLENEUVE (1910: 313) and HENNIG (1964: 1029).

ZIMIN (1951) and HENNIG (1964) recognised two Palaearctic species of hairy-eyed *Musca*: *osiris* WIEDEMANN, 1830, with ♂ eyes almost touching and lower orbital setulae in a single row on each side (see HENNIG, 1964: fig. 402 on p. 1018); and *vitripennis* MEIGEN, with ♂ eyes more widely separated and lower orbital setulae in several rows (HENNIG, op. cit. fig. 403). The holotype of *vitripennis* has the eyes very close together, at narrowest point separated by a distance no greater than 1.5 times diameter of anterior ocellus, and the orbital setulae are in one row. In fact, this very narrow frons can be seen in MEIGEN’s illustrations, particularly in the plate 43 accompanying the description. The *vitripennis* holotype matches HENNIG’s fig. 402 exactly and has to be identified as *osiris*: the name *vitripennis* must be used for the species *orsiris* of authors. To add to the confusion, the

holotype ♂ of *osiris*, which I found in NMV, has a rather broader frons and orbital setulae in several rows, and is identical with *vitripennis* of authors. The application of these names therefore has to be reversed.

References

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