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The Apoidea described by JOHANNES NEPOMUK FRANZ XAVER GISTEL

(Insecta: Hymenoptera)

With 4 figures

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Summary

A case is put forward for the suppression by the International Commission on Zoological Nomenclature of names for sixteen species-group taxa in the Apoidea (Insecta, Hymenoptera) published by J.N.F.X. GISTEL in 1848/1850 and 1857. It is expected that this may establish a precedent for similar treatment of the much more numerous species-group and genus-group names in other orders, especially the Coleoptera, published by GISTEL and subsequently generally ignored.

Zusammenfassung

Es wird ein Antrag an die Internationale Kommission für Zoologische Nomenklatur gestellt, Namen für 16 Taxa der Artgruppe von Apoidea (Insecta, Hymenoptera) zu unterdrücken, die J. N. F. X. GISTEL in den Jahren 1848/1850 und 1857 publiziert hat. Es ist zu erwarten, daß dies einen Präzedenzfall darstellt für eine ähnliche Behandlung der sehr viel zahlreicheren Art- und Gattungsgruppen-Namen in anderen Ordnungen, insbesondere der Coleoptera, die von GISTEL publiziert und nachfolgend allgemein ignoriert wurden.

Keywords

Insecta - Coleoptera - suppression of species-group and genus-group names - Vacuna - ICZN

Introduction

GISTEL included descriptions of 24 supposedly new species of bees in his *Achthundert und zwanzig neue oder unbeschriebene wirbellose Thiere*, published in Straubing in 1857. GISTEL's descriptions were short, and in most instances inadequate for certain recognition of the species described. Although the names were validly published, they were not included in Volume X of DALLA TORRE's *Catalogus Hymenopterorum* (1896), still the only comprehensive published catalogue of World Apoidea, and only one name, *Colletes nigricans* GISTEL, 1857, was subsequently taken into general use. More recently, the names of four species described by GISTEL under the generic names *Anthophora* or *Megilla* were resurrected by BROOKS (1988), who, however, without formally labelling them as nomina dubia, treated them as unrecognized

species of uncertain familial or generic assignment; while the names of four other species, described by GISTEL under the generic names *Sphecodes*, *Stelis*, *Coelioxys* or *Megachile*, were treated by WARNCKE (1992a, 1992b, 1992c, 1992d, respectively) as synonyms of previously described species. It may consequently be anticipated that essays will be made to identify further of GISTEL's species, with the possible revelation, given the dates of GISTEL's publications, of senior synonyms for names currently in use. It is contended that such action would serve no useful purpose and would not be welcome to a majority of entomologists concerned with the Apoidea. Those of GISTEL's species that have not hitherto been recognized, are not represented by type material, and cannot now be recognized with any certainty on careful consideration of GISTEL's descriptions, are here formally listed as nomina dubia. Since nomina dubia represent a potential threat to nomenclatural stability, this action is intended as a preliminary to inviting the International Commission on Zoological Nomenclature to exercise its plenary powers to suppress the names in question.

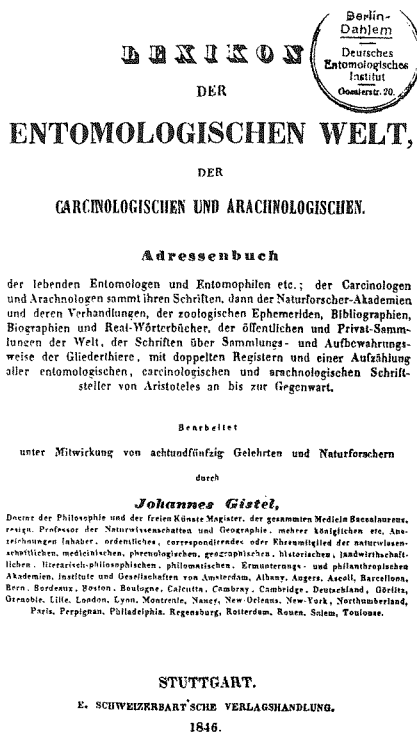


Fig. 1. JOHANNES NEPOMUK FRANZ XAVER GISTEL, from a lithograph by B. SCHÜRCH, 1834. (Reproduced by courtesy of the Deutsches Entomologisches Institut, Eberswalde.). - Fig. 2. Title page to Gistel's *Lexikon der entomologischen Welt, der carcinologischen und arachnologischen*. Stuttgart, 1846.

JOHANNES NEPOMUK FRANZ XAVER GISTEL (1811 [? 1803] - ca. 1873)

On JOHANNES NEPOMUK FRANZ XAVER GISTEL himself (Figure 1), a man who combined fatal deficiencies of knowledge and intellect with a consuming passion for publishing not only the discoveries made in the course of his wide-ranging collecting activities but also his ideas concerning the natural world at large, it is not proposed to dwell. Ignored or ridiculed by his contemporaries, he invites comparison with that other tragicomical figure, CONSTANTINE SAMUEL RAFINESQUE SCHMALTZ; but, unlike RAFINESQUE¹, he has found none to attempt to rescue him from oblivion, and the *Neue deutsche Biographie* (1971) has no knowledge of him. Only WALTHER HORN (1937) wrote briefly but not unkindly of GISTEL's entomology, noting particularly that useful by-product of his correspondence that serves as a memorial to his labours, the *Lexikon der entomologischen Welt* (1846). The list of qualifications following the author's name on the title-page of that work (Figure 2) is itself at once an indication of the breadth of the man's interests and an epitome of his pretensions.

GISTEL's Apoidea

GISTEL's *Achthundert und zwanzig neue oder unbeschriebene wirbellose Thiere* was published in 1857 as Kapitel XI (pp. 513-607) of Band 2 of his *Vacuna oder die Geheimnisse aus der organischen und leblosen Welt*, and also in the same year as a separately paged pamphlet (94 pp.). GISTEL's text, otherwise consecutive, is broken on pp. 566 and 569 by two passages, the first (pp. 566-569) a subheading, 'Neue Genera und Species von Insekten, beschrieben von J. GISTEL in dessen und Bromme's Naturgeschichte. Stuttg. 1848 und 1850. 8.' introducing a list of the taxa described in this earlier work (the list includes two bees, *Bombus sericeus* and *Antophora* [sic] *subterranea*), the second (p. 569) a note that 'Neue Insekten aller Ordnungen sind ferner beschrieben in dem Abschnitte "Reliquiae exoticae" in den *Mysterien der europäischen Insektenwelt* von J. GISTEL, S. 426-453 u.s.f.' (the 'Mysterien' includes no new bees).

New genera and species of various orders were described in no particular sequence, systematic, geographic or alphabetic, necessitating a search throughout the entire work for taxa belonging to any particular group. GISTEL's descriptions generally amounted to no more than short diagnoses, but were no shorter than many others published in the same period or subsequently, and, so far as they went, not inaccurate (see, however, HORN, 1937). GISTEL's Coleoptera, however, comprising by far the greater number of the taxa described by him, were deliberately ignored by GEMMINGER & HAROLD (1868-1876), owing to an alleged general consensus of opinion among entomologists that his work should not be recognized ('mit einer sonst seltenen Einstimmigkeit das gesammte wissenschaftliche Publikum sein Verdikt [on GISTEL] ausgesprochen hat'); possibly it was following their example that DALLA TORRE ignored Gistel's Hymenoptera in his *Catalogus Hymenopterorum* (1892-1902): cf. reference to GEMMINGER & HAROLD's catalogue in DALLA TORRE's introduction to his Vol. 10 (p. [I]). GEMMINGER & HAROLD, and DALLA TORRE, might well have shared General von HAMMERSTEIN-EQUORD's views on what should be done with the stupid and industrious!².

STRAND (1917), with the intention of facilitating use of GISTEL's work, published a systematic list, by orders, of his genera and species. He did not attempt to identify GISTEL's taxa, but did publish replacement names where homonymy was recognized by him.

As to GISTEL's Apoidea, but one name has been taken into general use (*Colletes nigricans* GISTEL, 1857); other names have recently been resurrected by BROOKS (1988) and by WARNCKE (1992a, b, c, d), although the latter did not include GISTEL's names in *Andrena* in a purportedly comprehensive catalogue of that genus (1967).

XI.

Acht Hundert und zwanzig

Acht Hundert und zwanzig

neue oder unbeschriebene

neue oder unbeschriebene

wirbellose Thiere.

wirbellose Thiere.

Charakterist von

Charakterist von

Doctor Johannes Gistel.

Doctor Johannes Gistel.



Opf., Vienna, II. 22.

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Straubing, 1857.

Verlag der Schönerer'schen Buchhandlung.

Druck von J. A. Hirsch in Landshut.

Fig. 3. Title page to *Vacuna*, Chapter XI, *Acht Hundert und zwanzig neue oder unbeschriebene wirbellose Thiere*. Straubing, 1857. - Fig. 4. Title page to the separate publication of GISTEL's *Acht Hundert und zwanzig neue oder unbeschriebene wirbellose Thiere*, reset from Figure 3. Straubing, 1857.

Apoidea in GISTEL's collection

Apart from the specimens of *Colletes nigricans* and *Sphecodes nodicornis*, the small number of Apoidea labelled 'GISTEL' in the collection of the Zoologische Staatssammlung München are not labelled with the names of any of GISTEL's species (Dr. JOHANNES SCHUBERTH, in litt., 12 February 1996). There can be no certainty, therefore, that any included specimens that may answer to any of GISTEL's descriptions are in fact syntypes of his species. Dr. SCHUBERTH suggested (l.c.) that, since WARNCKE had dealt with several GISTEL taxa in papers published in the year preceding his death in January 1993, there was a possibility that some GISTEL specimens might have been on loan to him and might be found in his collection.

Apart from his material of cleptoparasitic bee genera sold to a private collector, WARNCKE's collection is now in the Biologie-Zentrum des Oberösterreichischen Landesmuseums in Linz. A survey of WARNCKE's material in Linz did not disclose any GISTEL specimens (Mag. FRITZ GUSENLEITNER, in litt., 8. March 1996). It is unlikely that any GISTEL material survives other than that in München.

GISTEL's Apoidea and their present status

The species are listed in alphabetical order under genera. The first page reference given in each instance is to Vacuna 2, the second, in brackets, to the separately published *Achthundert und zwanzig neue ... Thiere*.

Andrena occipitalis, 1857: 540 (28), Bavaria. Type material presumed lost. Identity not established. Senior homonym of *Andrena occipitalis* PÉREZ, 1895. **Nomen dubium**.

N.B. According to WARNCKE (1967: 294), *Andrena occipitalis* PÉREZ is a synonym of 'A. morio ssp. *lugubris* LEP.' [i.e., *morio* BRULLÉ, 1832, subsp. *lugubris* LEPELETIER, 1841], although on p. 285 of the same work he treated *lugubris* LEP. as a synonym of A. 'albopunctata ssp. *funebis* PZ.' WARNCKE appears to have confused A. *lugubris* LEPELETIER, 1841 (March), with the subsequently published A. *lugubris* ERICHSON, 1841 (for the date see BAKER, 1995: 537).

Andrena phaeoptera, 1857: 549 (37), Italia. Type material presumed lost. Identity not established, but possibly a synonym of *Andrena morio* BRULLÉ, 1832. **Nomen dubium** in *Andrena*.

Anthophora ornata, 1857: 543 (31), no locality indicated. Type material presumed lost. Identity not established (name recorded by BROOKS, 1988: 450, as that of an unplaced anthophorine), but probably a species of *Amegilla*. **Nomen dubium**.

Anthophora subterraneus [sic] 1848/1850: 626; 1857: 539 (27) [*subterranea*]; 1857: 554 (42) [*subterranea*], Dalmatia. [The two descriptions of the 1857 publication are substantially the same and almost certainly refer to the same insect.] Type material presumed lost. Identity uncertain (name recorded by BROOKS, 1988: 450, as that of an *Anthophora* incert. sed.), but possibly a junior synonym of *Anthophora canescens* BRULLÉ, 1832. Junior primary homonym of *Anthophora subterranea* GERMAR, 1826. = *Anthophora dalmatiensis* STRAND, 1917, replacement name. **Nomen dubium**.

Anthophora tunicata, 1857: 543 (31), Italia. Type material presumed lost. Identity uncertain (name recorded by BROOKS, 1988: 450, as that of an unplaced anthophorine), but possibly a junior synonym of *Habropoda tarsata* (SPINOLA, 1839). **Nomen dubium**.

Bombus lucullus, 1857: 597 (85), Germanica. Type material presumed lost. Identity not established. **Nomen dubium** in *Bombus*.

Bombus sericeus, 1848/1850: 625, 1857: 552 (40), Hungaria. Type material presumed lost. Junior subjective synonym of *Apis fragrans* PALLAS, 1771 [*Bombus fragrans* (PALLAS, 1771)]. **Syn. nov.**

Bombus thoracicus, 1857: 554 (42), Brasilia. Type material presumed lost. Identity not established. Junior primary homonym of *Bombus thoracicus* SPINOLA, 1806. **Nomen dubium** in *Bombus*.

N.B. (1) *Bombus thoracicus* SICHEL, 1862, = *B. muscorum* var. *corsicus* DALLA TORRE, 1882, treated by FRANKLIN (1913: 102) under the name *emiliae* DALLA TORRE, 1890 (Franklin makes no reference to GISTEL's taxon); (2) *B. corsicus* SCHULTHESS, 1886, = *B. corsicola* STRAND, 1917.]

- Coelioxys italica*, 1857: 543 (31), Italia. Type material presumed lost. According to WARNCKE (1992c: 55) a (junior) synonym of *Anthophora acanthura* ILLIGER, 1806 [*Coelioxys acanthura* (ILLIGER, 1806)].
- Coelioxys minuta*, 1857: 548 (36), Italia. Type material presumed lost. According to WARNCKE (1992c: 48) a [junior] synonym of *Coelioxys emarginata* FÖRSTER, 1853. Senior homonym of *Coelioxys minuta* SMITH, 1879, for which STRAND (1917: 98) proposed the replacement name *minutissima*.
- Colletes nigricans*, 1857: 551 (39), Bavaria. Syntypes ♀♂ Zoologische Staatssammlung München (NOSKIEWICZ, 1936: 106; locality of type material questioned). Valid name in current use.
- Dasygaster heliocharis*, 1857: 565 (53), Algarbia. Type material presumed lost. Identity not established. **Nomen dubium** in *Dasygaster*.
- Dasygaster rudis*, 1857: 560 (48), ♂♀, Algarbia. Type material presumed lost. Identity not established. **Nomen dubium** in *Dasygaster*.
- Eucera bicolor*, 1857: 559 (47), [♂], Italia. Type material presumed lost. Identity not established. Junior primary homonym of *Eucera bicolor* LEPELETIER, 1841. = *E. bichroma* STRAND, 1917: 98, replacement name. **Nomen dubium** in *Eucera*.
- Eucera cincta*, 1857: 538 (26), [♀: 'Antennae breves nigrae'], Italia. Type material presumed lost. Identity not established. Senior homonym of *Eucera longicornis* var. *cincta* FRIESE, 1895, for which the name *nigrescens* PÉREZ, 1879, is available [= *Eucera tuberculata* auctt. nec F.]. **Nomen dubium** in *Eucera*.
- Eucera scapularis*, 1857: 541 (29), Italia. Type material presumed lost. Identity not established. **Nomen dubium** in ?*Eucera* [if *Eucera*, the 'Antennae breves' would indicate a ♀; alternatively, the name *scapularis* might suggest that GISTEL's insect was a nomiine, such as *Nomiapis bispinosa* (BRULLÉ, 1832)].
- Megachile laeta*, 1857: 564 (52), [♀], Algarbia. Type material presumed lost. According to WARNCKE (1992: 916), a [junior] synonym of *Osmia (Pyrosmia) versicolor corrusca* ERICHSON, 1835. Junior primary homonym of *Megachile laeta* SMITH, 1853. = *M. algarbiensis* STRAND, 1917: 98, replacement name.
- Megachile quinqueannulata*, 1857: 544 (32), Italia. Type material presumed lost. Identity not established. **Nomen dubium**.
- Megilla excelsa*, 1857: 539 (27), ♂♀, Algarbia. Type material presumed lost. Identity uncertain (name recorded by BROOKS, 1988: 450, as that of an unplaced anthophorine), but possibly a junior synonym of *Anthophora fulvitaris* BRULLÉ, 1832. **Nomen dubium**.
[N.B.: *Anthophora excelsa* FEDTSCHENKO, 1875, was renamed *excelsior* by STRAND (1917: 98) on the assumption that GISTEL's species was an *Anthophora*.]
- Melitturga* [sic] *vernalis* 1857: 547 (35), Algarbia. Type material presumed lost. Identity uncertain, but description possibly based on a faded ♂ of *Melitturga caudata* PÉREZ, 1879. **Nomen dubium**.

Osmia fusca, 1857: (537) 25, Monachii. Type material presumed lost. Identity not established. Junior secondary homonym of *Apis fusca* CHRIST, 1791, a subjective synonym of *Apis bicolor* SCHRANK, 1781 [*Osmia (Neosmia) bicolor* (SCHRANK, 1781)]. = *Osmia monachiensis* STRAND, 1917: 98, replacement name. **Nomen dubium**.

Sphecodes nodicornis, 1857: 554 (42), Bavaria. Lectotype ♀ Zoologische Staatssammlung München, designated by WARNCKE (1992a: 30). According to WARNCKE a synonym of *Nomada albilabris* F., 1793 [*Sphecodes albilabris* (F., 1793)].

Stelis nemorosa, 1857: 560 (48), Algarbia. Type material presumed lost. According to WARNCKE (1992b: 362), a synonym of *Anthidium infuscatum* ERICHSON, 1835 [i.e., *Rhodanthidium infuscatum* (ER., 1835)].

Xylocopa virescens, 1857: 541 (29), Italia. Type material presumed lost. A junior subjective synonym ['minutissima generis specierum'] of *Xylocopa cyanescens* BRULLÉ, 1832, syn. nov. Junior primary homonym of *Xylocopa virescens* LEPELETIER, 1841. = *X. virescentis* STRAND, 1917: 98, replacement name].

Recommendation

Of the 24 species of Apoidea described by GISTEL:

- (1) Two are represented by primary types (*Colletes nigricans*, name in current use; *Sphecodes nodicornis*, name placed in synonymy).
- (2) Six have been placed as junior synonyms on the basis of their descriptions (*Bombus sericeus*, *Coelioxys italica*, *Coelioxys minuta*, *Megachile laeta*, *Stelis nemorosa*, *Xylocopa virescens*).
- (3) Sixteen remain unrecognized and are regarded as nomina dubia (**Andrena occipitalis*, *Andrena phaeoptera*, *Anthophora ornata*, **Anthophora subterranea*, *Anthophora tunicata*, *Bombus lucullus*, *Bombus thoracicus*, *Dasypoda heliocharis*, *Dasypoda rudis*, **Eucera bicolor*, **Eucera cincta*, *Eucera scapularis*, *Megachile quinqueannulata*, *Megilla excelsa*, *Meliturga vernalis*, **Osmia fusca*).

The International Commission on Zoological Nomenclature will be invited to use its plenary powers to suppress all GISTEL's specific names in Apoidea listed above as nomina dubia. Such action will involve no nomenclatural changes except in the instances marked with an asterisk above and as noted below, and will preclude the possibility of future resurrection of dormant GISTEL names.

- (1) *Andrena occipitalis* PÉREZ, 1895, a junior homonym of *Andrena occipitalis* GISTEL, 1857, is revalidated.
- (2) *Anthophora dalmatiensis* STRAND, 1917, proposed as a replacement name for *Anthophora subterranea* GISTEL, 1848/1850, a junior primary homonym of *Anthophora subterranea* GERMAR, 1826, and an unrecognized species, is invalidated.
- (3) *Eucera bichroma* STRAND, 1917, proposed as a replacement name for *Eucera bicolor* GISTEL, 1857, a junior primary homonym of *Eucera bicolor* LEPELETIER, 1841, and an unrecognized species, is invalidated.
- (4) *Eucera* [longicornis var.] *cincta* FRIESE, 1895, a junior homonym of *Eucera cincta* GISTEL, 1857, is revalidated. However, *E. cincta* FRIESE is a junior subjective synonym of *E. nigrescens* PÉREZ, 1879, and no change in current usage is involved.
- (5) *Anthophora excelsior* STRAND, 1917, proposed as a replacement name for *Anthophora excelsa* FEDTSCHENKO, 1875, on the assumption that *Megilla excelsa* GISTEL, 1857, was a species of *Anthophora*, is invalidated.

- (6) *Osmia monachiensis* STRAND, 1917, proposed as a replacement name for *Osmia fusca* GISTEL, 1857, a junior secondary homonym of *Apis fusca* CHRIST, 1791, and an unrecognized species, is invalidated.

The three STRAND names, *Anthophora dalmatiensis*, *Eucera bichroma* and *Osmia monachiensis*, referring as they do to unknown quantities, have of course never been taken into general use.

GISTEL names in orders other than Hymenoptera

This paper was written in the context of the validity of GISTEL's species-group names in the Hymenoptera (Apoidea). These names were few, but GISTEL described, especially in the *Vacuna* in 1857, a very much greater number of new species-group taxa, and some genus-group taxa, in other families and orders, particularly in the Coleoptera. As indicated in the foregoing text, GISTEL's names in the Coleoptera were ignored by GEMMINGER & HAROLD (1868- 1876) but were validly proposed and represent a potential minefield for future taxonomic studies. It is suggested that suppression of GISTEL's names in the Apoidea may establish a precedent for either selective or total suppression by the International Commission on Zoological Nomenclature of the new species-group and genus-group taxa described in the *Achthundert und zwanzig neue oder unbeschriebene wirbellose Thiere* (*Vacuna* 2: 513-607, 1857) and so preclude time-wasting and probably mostly nugatory discussion of identities. The motive is not disparagement of GISTEL's taxonomic work but recognition that it is now too late to repair the denial of that work by GISTEL's contemporaries.

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Notes

¹ On Rafinesque see: JORDAN, D.S., 1886, Rafinesque. - *Popular Science Monthly* 29: 212-221. // CALL, R.E., 1895, The life and writings of Rafinesque. - Louisville, Kentucky; The Filson Club. // FITZPATRICK, T.J., 1911, Rafinesque. A sketch of his life with bibliography. Pp. [1]-241, 32 pll. - Des Moines; Historical Department of Iowa. // PENNELL, F.W., 1942, The life and work of Rafinesque. - *Transylvania College Bulletin* 15(7): 10-70, 1 pl. // MERRILL, E.D., 1948, C.S. Rafinesque, with notes on his publications in the Harvard Libraries. - *Harvard Library Bulletin* 2(1): 5-21.

² If indeed it was he. The dictum quoted below is well known in military circles and there attributed to KURT GEBHARD ADOLF PHILIPP Frhr. v. HAMMERSTEIN-EQUORD, General-Oberst, Oberbefehlshaber [C.-in-C.] Reichswehr (1878-1943), but the attribution is possibly apocryphal. Enquiries addressed to the Goethe-Institut, London, the Institute of Germanic Studies, University of London, the German Historical Institute, London, the Institut für Zeitgeschichte, München, and other sources thought likely to hold relevant information have all failed to elicit either confirmation of the attribution to the General or a definite identification of some other source.

I divide my officers into four classes: The clever, the lazy, the industrious and the stupid ... Each officer possesses at least two of these qualities ... Those who are clever and industrious are fitted for the highest staff appointments. Use can be made of those who are stupid and lazy.

The man who is clever and lazy, however, is for the very highest command: he has the temperament and the nerves to deal with all situations ... But whoever is stupid and industrious is a menace and must be removed immediately.

³ STRAND's motives were probably mixed: he was notorious for missing no opportunity of bestowing names on entities best left unnamed, or at least better left unnamed pending the attention of specialists, not excepting the attaching of names to descriptions which had deliberately been published without names, their authors considering such action premature or otherwise inadvisable (cf., for a glaring example of the latter, DUSMET's three innominate *Eucerae*, 1926: 155, deliberately not fully described, named by STRAND, 1927: 283).

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- [Not seen by STRAND; not traced; reference details from GISTEL's list of his publications in the *Vacuna*.]
- GISTEL, J. 1848: Naturgeschichte des Thierreichs für höhere Schulen. Folio, pp. [i]-xvi, [1]-216, [1- 4], 32 pl. col. - Stuttgart; Hoffman'sche Verlags-Buchhandlung.

- [GISTEL's 'IV. Ordnung. Hautflügler, Immen. (Hymenoptera)' (pp. 140-144), included, on pp. 140-141, the descriptions of 22 species of Apoidea, four of which were illustrated on pl. 12. Although no authors names or references were given, all but one are identifiable with previously described species. The exception, '*Dasypoda germanica*', possibly represents a lapsus for *D. graeca* LEPELETIER & SERVILLE, 1828.]
- GISTEL, J. 1857: *Vacuna oder die Geheimnisse aus der organischen und leblosen Welt*. Band 1, pp. [i-iii], [1]-453; Band 2, pp. [1]-1031. - Straubing: Verlag der Schorner'schen Buchhandlung.
- [The parts of this work that are more particularly concerned in the present paper are: In Band 1, Kapitel IV, Pleroma zu den Mysterien der europäischen Insektenwelt. Mit einem systematischen Verzeichniß der Schmetterlinge und Käfer Europas, pp. [207]-453. P. [209] carries the further heading Die Mysterien der europäischen Insektenwelt; p. [298], which commences the catalogue, the heading Systematische Aufzählung der Schmetterlinge und Käfer Europas.
- According to HAGEN, the Pteroma was a reprint of a separate edition of 1856.
- In Band 2: Kapitel VIII, Deliciae entomologicae. Zur entomol. Physiologie, Geographie und Synonymik, pp. 107-148. Kapitel XI, Achthundert und zwanzig neue oder unbeschriebene wirbellose Thiere, pp. [513]- 606. [For the title page see Figure 3. Kapitel XI was also published separately, with an altered and reset title page (Figure 4) but the text (now paged [1]-94) not reset.]
- HORN, W. 1937, II. Kapitel: Über die vergangenen Zeiten der Liebhaber-Kreise in Mittel-Europa, 7. J.N.F.X. GISTEL (1811 [1803 ?] - ca. 1873), pp. 406- 408. - In: HORN, W. & KAHLE, I., unter Mitarbeit von R. KORSCHESKY, Über entomologische Sammlungen, Entomologen & Entomomuseologie (Ein Beitrag zur Geschichte der Entomologie), Teil III, pp. 297- 536, pl. XXVII-XXXVIII, Einleitung pp. I-VI. - Entomologische Beihefte aus Berlin-Dahlem, 4.
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