

## Notes on Aculeate Hymenoptera described in the period 1758-1810

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Part III

### C. ONE BEE AND TWO WASPS, ALL DESCRIBED AS *APIS SURINAMENSIS*.

*Apis surinamensis* Linné, 1758, p. 579, no. 36 (not Linné, 1758, p. 575, no. 6).

This bee has been known as *Euglossa surinamensis* (L.) or *Eulaema surinamensis* (L.) (see DALLA TORRE, vol. 10, p. 311), until in 1907 COCKERELL rejected the name *surinamensis* because LINNÉ had used the name *Apis surinamensis* in the same work on p. 575 for an American wasp. Since then the name *mussitans* Fabr. has been used for this species, but Padre MOURE has informed me that FABRICIUS's species belongs to a different genus (*Euplusia* Moure, 1943).

Apparently COCKERELL and later authors have overlooked that LINNÉ himself was the first to discover the homonymy, for in the twelfth edition of the "Systema Naturae" (1767) the species described under no. 6 of the genus *Apis*, *A. mexicana*, is exactly the same as the *Apis surinamensis* no. 6 of the tenth edition.

In both editions the description reads: "A.[pis] atra, alis atro-caerulescentibus, abdominis petiolo obovato. Habitat in America. Rolander. Magna, facie Sphegis, sed lingua instructa." We may conclude, therefore, that LINNÉ himself acted in this case as the first reviser, and since he chose to reject the name of *Apis surinamensis* no. 6 and to retain that of *Apis surinamensis* no. 36, the synonymy is as follows:

*Zethus mexicanus* (Linn.), 1767 = *Apis surinamensis* Linn., 1758, p. 575, no. 6 (rejected by LINNÉ, 1767) = *Apis mexicana* Linn., 1767, p. 953, no. 6 (replacement name; objective synonym of *Apis surinamensis* L., 1758, p. 575, no. 6).

*Eulaema surinamensis* (Linn.), 1758 = *Apis surinamensis* Linn., 1758, p. 579, no. 36 = *Eulaema mussitans* (Fabr.) Moure, 1950, p. 187 (misidentification; not identical with *Apis mussitans* Fabr., 1787).

*Apis surinamensis* De Geer, 1773, p. 569, pl. 28, figs. 1 and 2 — "Surinam", leg. ROLANDER (type lost?).

This species was recognized as a Bembecine wasp by DAHLBOM (1843, p. 187), and has since been called *Monedula surinamensis* (De Geer), until in 1929 PARKER erected the genus *Rubrica* for *Monedula gravis* Handl. (type species), *surinamensis* (De Geer), and *denticornis* Handlirsch.

Unfortunately, it has been overlooked that the name *surinamensis* De Geer is invalid under the Rules of Zoological Nomenclature, because it is a junior primary homonym of *Apis surinamensis* Linné, 1758, p. 575, no. 6 (= the Vespid *Zethus mexicanus* (Linné, 1767)), and also of a bee described under this

name in the same work on p. 579, no. 36 (*Euglossa surinamensis* (Linn.) in DALLA TORRE's catalogue, vol. 10, p. 312).

If the synonymy given by HANDLIRSCH (1890, p. 115) is correct, the next available name for DE GEER's species is *Vespa nasuta* Christ, 1791, described from an unknown locality. According to the description and the figure of this species, it has yellow lines on the mesoscutum, a character that is lacking in all of our 20 specimens, which are from Surinam, Brazil, Argentina and Uruguay. According to HANDLIRSCH (l.c., p. 118) specimens with yellow lines on the mesoscutum are very rare; PARKER (1929) mentions such specimens in a description of the variation with regard to colour, but he does not say whether they are numerous or where they occur. For the moment we may accept that CHRIST had such a brightly coloured specimen before him.

Other old synonyms are *Bembex striata* Fabricius, 1793 ("Habitat — Mus. Britann.") and *Bembex continua* Fabricius, 1804 ("in America meridionali Dom. Smidt, Mus. Dom. de Sehestedt"). *Bembex striata* agrees with CHRIST's species in having yellow lines on the mesoscutum; the description of *B. continua* applies well to the specimens of our series with dark mesoscutum. Unless *Vespa nasuta* Christ should be found to represent a different species, I am inclined to identify our specimens as *Rubrica nasuta continua* (Fabr.).

#### D. ON TWO UNRECOGNIZED WASPS DESCRIBED BY LINNÉ.

##### *Sphex capensis* Linné, 1764, p. 407.

"*Sphex nigra laevis*, antennis tibiis alisque testaceis; his apice nigris. Habitat ad Cap. b. spei. Tulbagh. Corpus magnitudine *S. viaticae*, totum nigrum, glabrum. Thorax supra minus glaber. Abdomen sessile. Antennae ferrugineae, filiformes. Palpi ferruginei. Tibiae Tarsi & Plantae ferrugineae. Alae ferrugineae, sed limbus apicis & marginis tenuioris fuscus."

This species is listed by DALLA TORRE (vol. 8, p. 418) as an unidentified species of *Sphex*, with CHRIST (1791) as the most recent reference. In the same volume of this catalogue, however, we find on p. 216 a *Salix capensis* (Fabr.) D.T., with as first reference: "*Sphex capensis* Fabricius, Spec. Insect. I, 1781, p. 449 n. 44 [non Linné]". I do not yet know why DALLA TORRE considered this species to be different from *Sphex capensis* Linné, but since FABRICIUS in all his works from 1781 to 1804 described this species by quoting the first line of LINNÉ's description, and always referred to "Linn. Syst. Nat. 2. 942.4 Mus. Lud. Ulr. 407", it is evident that there does not exist a *Sphex capensis* Fabricius, but that LINNÉ is the author of the insect of this name.

In 1804 FABRICIUS transferred *Sphex capensis* to the genus *Pompilus*. According to DAHLBOM, Hym. Eur. p. XIX, a specimen of this *Pompilus* in the collection of FABRICIUS at Kiel is identical with *Hemipepsis capensis* Dahlbom, described in the same work on p. 123. Although it is uncertain whether DAHLBOM really intended to describe *capensis* as a new species in his new genus *Hemipepsis*, (he does not refer to FABRICIUS on p. 123, which may have been published before p. XIX), the specimen on which his description was based is apparently identical with the type of *Sphex capensis* L. (see SCHULZ, 1912, p.

56). Consequently the correct name of the species called *Hemipepsis capensis* Fabr. by ARNOLD (1932, p. 328) as well as of *Hemipepsis capensis* Dahlb., the type of the genus *Hemipepsis* (see PATE, 1946, p. 89), is *Hemipepsis capensis* (Linn.), 1764.

*Vespa emarginata* Linné, 1758, p. 574.

The original description is as follows:

"V[espa] scutello emarginato, abdominis nigri petiolo incurvo utrinque unidentato. M.L.U. [=Museum Ludovicae Ulricaе]. Habitat in America."

A more extensive description was published by LINNÉ in 1764:

"Vespa scutello emarginato, abdominis nigri petiolo incurvo utrinque unidentato. Syst. Nat. 574. n. 16. Habitat in America. Caput nigrum, Labio ovato, ferrugineo. Maxillae ovatae in rostrum subulatum. Lingua Apis. Antennae subclavatae, ferrugineae, versus apices fuscae: articulo primo ad apicem Denticulo obsoleto notato. Thorax nigro-ferrugineus apice subbifido. Abdomen ovatum, nigrum. Petiolus clavatus, fusco-ferrugineis, longitudine fere abdominis, incurvus, notatus in medio utrinque Denticulo minimo. Pedes ferruginei."

This species appears to have remained unidentified until the present day. DALLA TORRE (1894) gives a few references to eighteenth century authors, who copied LINNÉ's short diagnosis, and states that the habitat of the species is "Am. bor.". DE SAUSSURE (1855) did not mention the species in his monograph of the Vespidae (s.l.) of the world, but in his paper on the solitary wasps of America (1875) he noted on p. 379 under the "species dubiae" that "*Vespa emarginata* Gmel. Ed. Linn. 2759. 26" [which is indeed the same as *V. emarginata* Linn. 1758] might belong to the genus *Eumenes*. In the Catalog of North American Hymenoptera (1951) the species is not mentioned, and neither does the name occur in the recently published Supplement (1958).

Yet the solution of the problem appears to be rather simple. All authors seem to have overlooked that an important clue has been given by DE GEER, who in the third volume of his well known "Memoires" identified LINNÉ's *Vespa emarginata* with his *Vespa maxillosa* (1773). Remarkably enough, it was DE SAUSSURE who in 1890 introduced DE GEER's name, *Vespa maxillosa* for one of the most common African solitary wasps of the genus *Eumenes*, noting that the type locality was based on an error ("Cette espèce a été indiquée par erreur comme originaire de Surinam."); he omitted to mention, however, that DE GEER regarded his species as identical with *V. emarginata* Linn. If we consider the possibility, that DE GEER's error goes back to LINNÉ, with whom he had close contacts, it becomes very probable indeed that LINNÉ's specimen came from Africa and not from America. The generally overlooked extensive description of LINNÉ (1764) applies very well to the African *Eumenes maxillosus* (De Geer); moreover it helps to solve the problem of the "scutello emarginato" in the original diagnosis: the scutellum is not emarginate, but the apex of the thorax is, which means that LINNÉ used the word "scutello" to indicate the propodeum.

If this interpretation is found to be acceptable, the name *Eumenes emarginatus* (Linné) must be used for the species which has been known from 1890 as *Eumenes maxillosus* (De Geer).

It should be noted that the description given by DE GEER on pp. 577 and 578 of his work, as well as the figures 1 and 2 on pl. 29 refer indeed to the African *Eumenes maxillosus*, and that a specimen under this name in his collection belongs to this same species (SCHULZ, 1912, p. 60). However, the species described under the same heading on p. 579 as "une autre Guêpe de Surinam" (pl. 29, fig. 3) is apparently the South American *Eumenes argillaceus* (Linn.) (= *canaliculatus* Oliv.).

The fact that LINNÉ's type of *Vespa emarginata* is not in the collection of the Zoological Museum at Uppsala (see SCHULZ, 1912, p. 56) raises the question whether the specimen in DE GEER's collection might perhaps originate from LINNÉ and could thus be regarded as a syntype.

#### E. ON A SPECIES OF SPHEX DESCRIBED BY POIRET IN 1787.

In a paper on some insects from Algeria ("Barbarie, la partie qui répond à l'ancienne Numidie") POIRET described three new species, viz. *Gryllus numidicus* (p. 242 and pl. fig. 1), *Sphex maxillosa* (p. 244 and pl. fig. 2) and *Culex argenteus* (p. 245). The scientific names of the new species are written in capitals, but otherwise not separated from the descriptions.

*Sphex maxillosa* Poiret, 1787, p. 244, pl. fig. 2. — The original description is as follows:

"SPHEX MAXILLOSA, nigra, abdomine petiolato violaceo, apice fulvo, alis hyalinis fulvis, anterioribus apice violaceis, maxillis arcuatis, acutis, longitudine & forma capitatis (Voy. planch. I, fig. 2).

Ce très-bel insecte, qui approche de la guêpe, étoit, quand je l'ai trouvé, enveloppé dans la toile d'une araignée dont je parlerai plus bas. Peut-être avoit-il été imprudemment l'attaquer; car l'on sait que cet insecte s'empare des araignées, ou de larves d'insectes, qu'il les tue, & dépose les oeufs dans leurs cadavres. Ensuite, avec ses deux pattes de derrière, il forme un trou en terre, y place l'insecte qui renferme sa famille, & bouche l'ouverture avec soin. Ses petits un à un dans chaque insecte, trouvent, en sortant de l'oeuf, la nourriture qui leur convient. Ils ne quittent leur prison que lorsqu'ils sont insectes parfaits. Je n'ai pu rencontrer ailleurs ce joli *Sphex*. Il a des caractères si particuliers que j'étois tenté d'en faire un genre nouveau. Cependant il se rapproche des *Sphex* de Fabricius, dont il ne diffère que par sa longueur de ses mâchoires.

Sa tête est plate, semi-hémisphérique. De chaque côté partent deux fortes mâchoires en forme de pinces, longues, effilées, très-aigues, couvertes de plusieurs petits poils rous-sâtres. Sa bouche est environnée de quatre barbillons. Ses antennes comme celles des *Sphex*.

Son corcelet a, sur la partie antérieure, deux grosses tubercules noires. La tête et le reste du corcelet sont également noirs. Les ailes sont fauves, l'extrémité des premières est bleue.

La ventre a une très-jolie forme ovale. Il est lisse, d'une bleu d'acier trempé, un peu tacheté de roux aux derniers anneaux. Les pattes sont (p. 245) fauves. Cinq articulations aux tarses; à chaque articulation des poils roux en forme de brosettes."

The accompanying figure (2) shows a 35 mm long wasp with long, curved, mandibles, with curved and rather short antennae, two tubercles on the pronotum, a long thorax (especially the part behind the wings), and a shortly petiolate abdomen; the tarsi are long in relation to the tibiae. Although the figure is only a rather rough sketch (details of wing venation and of segmentation of thorax and abdomen are lacking), it helps to identify POIRET's insect with certainty as a female specimen of the only representative of the genus *Chlorion*

in N.W. Africa: *Cbl. xanthocerum apicalis* (Guér.). This means that *Cblorion xanthocerum* (Illiger, 1801), is a junior subjective synonym of *Cblorion maxillosum* (Poiret, 1787).

Unfortunately, the name *maxillosa* (or *maxillosus*) has been in use for many years for a palaearctic species of *Sphex*, described by FABRICIUS in 1793 under this name from "Barbaria, Mus. Dom. Desfontaines". One can only guess the reasons why FABRICIUS selected this name, for his species is not distinguished by the shape of its mandibles as is that of POIRET, but I strongly suspect that he was aware of the existence of a Barbarian "*Sphex maxillosa*", perhaps because he received the species under this name from DESFONTAINES. Unlike in the case of *Vespa ruficornis*, however, (see part I, no. 3), the homonyms refer here with certainty to widely different insects. According to the International Rules of Zoological Nomenclature, the junior homonym is invalid, and unless POIRET's name is suppressed for the purpose of homonymy, *Sphex maxillosus* (Fabricius) must take the name of its oldest available synonym, which appears to be *Sphex leuconota* Brullé, 1832.

In DALLA TORRE's catalogue (vol. 8, p. 431), the list of references to *Sphex maxillosus* Fabr. is headed by the following two lines:

"— Poiret, Journ. de physique XXV [sic !], 1787 p. 244; T. 1 F. 2.

— Poiret, Voyage en Barbarie 1789 I. p. 322."

Either DALLA TORRE has not seen the original work of POIRET, or he has preferred to regard this author's scientific names as being invalidly published. There is nothing in POIRET's paper, however, to support such a conclusion.

#### Literature

(See also parts I and II, *Ent. Ber.* 19 : 65 and 127)

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