

The Linnean *Ichneumon* types of the Stockholm Museum.

By

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Before my 1932 paper in this journal on the Linnean *Ichneumon* types in London, no such types were known to exist in Sweden. The types of *Mus. Ludovicæ Ulricæ* in Upsala contain no parasitic Hymenoptera, but in the Stockholm Museum I have discovered three Linnean Ichneumonid types, all belonging to the De Geer collection. De Geer's big work »Mémoires sur les Insectes», in seven volumes (in reality eight, tome II being in two parts), is well known though seldom consulted. To most Swedish entomologists of the 19th century its French text was inaccessible, modern languages not being taught in our public schools during the earlier half of the century. What still exists of De Geer's collection is separately placed in 18 drawers, the species arranged below their original labels with page and figure quotations.

ariolator L. (*spinus* De Geer) was mentioned by me in 1932 as a Cryptine ♂ the ♀ of which I had found in N. Brazil. As to genus, in Schmiedeknecht's key of 1904 one arrives at *Chromocryptus* Ashm. 1900 if the areolet is considered as convergent towards the radius, at *Gambrus* Foerst. if considered as parallel-sided. The areolet is not large but broad, with a little convergent sides and weakly closed at apex. These gay, often threecoloured Cryptines form a very common type in tropical America and were usually described as *Hemiteles* by the older authors after Gravenhorst. By their propodeum they belong, however, to the tribe *Cryptini* and have their nearest ally in the Oriental genus *Goryphus* Holmg. 1868 (*Loiada* Cam. 1905), from which they are separated with difficulty, but apparently in a definite way. The *ariolator* type by closer inspection, specially of the antennæ, was found to be a ♀ with the abdomen eaten hollow and the tip with terebra missing, evidently the work of *Monomorium pharaonis*, the small red house-ant of the tropics. Since no description exists but those imperfect ones of Linné and De Geer, I give one of the Brazilian specimen, followed by the differences of the type from Surinam.

♀. Nigra albosignata, thorace & pedibus maxima parte rufis. Caput thorace vix latius, pone oculos fortiter in linea recta angustatum, antice visum subtriangulare ore parvo, facie parallela haud lata, fronte rugosa linea media elevata longitudinali, foveis geminis basalibus politis, oculis magnis, temporibus & genis os versus dilatatis, his mandibularum basi brevioribus, mandibulis æquidentatis. Nigrum facie cum clypeo max. parte rufis, orbita frontali tota latius, genarum apice linea transversa, mandibulis præter dentes palpisque, albis. Antennæ graciles filiformes, postannello scapo duplo longiore, articulo 4. flagelli abrupte brevioris at latitudine sua triplo longiore; nigræ articulis 4.—9. flagelli annulum album extus nigrum formantibus. Thorax leviter compressus altitudine circ. $1,5 \times$ longior opacus, pronoto epomiis minoribus rectis, mesonoto notaulis tenuibus ad medium extensis, scutello nitido basi tantum marginato, mesopleuris speculo elongato nitido, epicnemiis medium superantibus completis, subtus non elevatis, sternaulis integris sinuatis crenatisque, pectore saccato leviter transverso, mesolco postice ocluso; segm. medianum supra visum vix transversum, opacum postice rugulosum, ante angulos dentatos longitudinaliter fere costulatum, costis pleuralibus & transversa basali medio angulata solis delineatis, spiraculis parvis subcircularibus, angulis supero-posticis dente obtuso. Rufus collare supra dentibusque segm. mediani albis. Abdomen depressum thoracis latitudine, capite + thorace vix longius, segmento 1. petiolo leviter depresso lateribus saltem inferne teretibus, postpetiolo subtransverso nitido area media foveola tantum indicata, segmento 2. apicem versus dilatato latitudini apicali æquilongo, opaco alutaceo, spiraculo utrinque in medio latere, limbo sat approximato, sito, 3° transverso parallelo opaco, reliquis magis nitidis sensim brevioribus, ventre medio acute plicato, sternitis 2.—4. utrinque plaga cornea nigra munitis, terebra recta apice supra hastata longius acuminata, valvulis circ. segmenti 1. longitudine. Nigrum petiolo subtus rufescente, segmentis 1.—3. limbo lato apicali, 6° macula angusta, 7° lata transversa (8° nigro) albis, ventre testaceo lateribus nigroplagiatis. Pedes mediocres tibiis I incrassatis nec inflatis, femoribus III segmentum 5. abdominis attingentibus, latitudine sua fere $6 \times$ longioribus, calcare longiore III medium metatarsi vix attingente, hoc I—III articulis tarsi ceteris unitis sublongiore, articulo 4. profunde fisso, 5° II 2° æquali, I & III brevioribus, unguiculis simplicibus pulvillo parvo longioribus. Rufi, coxis I—II partim, III extremo apice & plaga supera testaceis, trochanteribus I—II partim, III fere totis, femoribus I—II linea supera, III apice latius, tibiis I—II partim, III fere totis, calcaribus & tarsis omnibus, nigris vel fuscis, tibiis II—III annulo parvo subbasali albo. Alæ apicem segmenti 4. abdominis fere attingentes, nervulo nonnihil antefurcali,

angulo brachiali infero-externo subacuto, nervo parallelo e triente supera egrediente, nervo recurrente 2. recto fenestra trientem mediam occupante, areola haud magna (latitudine cellulæ radialis duplo brevior) sed lata 5-angulari, radium versus subangustata, ultra nervum recurrentem 2. obsolete occlusa, nervis parum distinctis, stigmatate angusto radium vix pone medium emittente; posticæ nervo cubitali mox ante nervellum fortius arcuato, hoc infra medium fracto opposito, hamulis 5. Hyalinæ, anticæ maculis 2 dilute fuscis, altera in cellulis brachiali & discocubitali sita, altera apicem alæ occupante ornatis, nervis stigmatateque nigris, radice testacea, tegula thoraci concolore. Long. 10,5, ala antica 7, valvulæ terebræ circ. 2 mm. — Amazon, lower Rio Branco ²⁵⁻²⁷/₆ 1915, 1 ♀. G. Huebner (who kindly gave it to me with a few other insects).

The type is darker than the described ♀, face, clypeus & cheeks being quite black, 1st abdominal sternite and the hind coxæ likewise, the latter with reddish base and their upper side with a testaceous spot, hind femora mostly black, their extreme base and upper side except tip red, wing spots dark fuscous, tegula piceous with a white spot anteriorly. Whole collar of pronotum with a white line, propodeum behind the transverse and pleural costæ rather densely, longitudinally costate.

From the Old World genus *Goryphus* Holmg. (+ *Melcha* Cam.), the New World allies of *ariolator* are separated by the abdominal petiole, whose sides are rounded below, not angular.¹ But the numerous New World species will probably have to fall into se-



Cross sections (schematic) of petiole: *Goryphus* (left), *Neogoryphus* (right).

veral genera, and I think a good name for that one with *ariolator* as genotype will be *Neogoryphus*, for the resemblance in habitus and colour is striking. The discovery of the petiolar character is due to my friend R. Malaise who compared *ariolator* with our *Goryphus* types and told me the result, which was confirmed in several species from each side.

pugillator L.: The pair carrying this name in the Linn. Soc. collection, an Anomalonine species, was accepted with doubt, which the real type shows to be well justified. Linné in 1758 quotes De Geer I, tab. 6, fig. 12 (1752) and the latter author, I page

¹ In other words: the Old World *Goryphus* with allies have flat sides of the petiole, both above and below limited by a longitudinal edge or carina. The New World *Neogoryphus* with allies has such a limit to the sides only above.

705, quotes Linné, F. suec. 975 (1746). The De Geer collection contains a ♀ of *Campoplex canaliculatus* Foerst., for a long series of years placed below the *cantator* label. Holmgren saw it there and, in his *Campoplex* paper of 1872, gave it out for the type of that species, without consulting De Geer's description. Both *pugillator* and *cantator* were reared by De Geer, the former one from *Notodonta ziczac*, the latter one from *Zygæna filipendulæ*, and he gave figures of both. *Pugillator* evidently is *canaliculatus*; the specimen was wrongly placed and rightly belonged to the immediately following label without species name, but with the correct *pugillator* quotation. I have put it there and written »*pugillator* L.» on the label.

saturatorius L.: When I saw in the Linn. Soc. collection a pair of the species usually going under this name, no doubt about its correctness occurred to me. In Stockholm, however, I observed that Linné quotes De Geer I tab. 23, fig. 16 and nothing else. In the De Geer collection, there is a ♀ of *Eurylabus larvatus* Chr. reared from *Notodonta ziczac* and taken by de Geer for a ♂. It corresponds well both with description and figure and is no doubt the type of *saturatorius*.¹ In the description, the anus is said to have a white point, but *larvatus* normally has no anal spots. This contradiction is thus solved, that the anus carries a small mass of whitish fecal matter (usual in reared specimens) concealing the tip of the terebra. With the weak magnification of the 18th century entomologists this was simply seen and described as a white point. Linné is silent about the conspicuous yellow facial markings which De Geer had duly noted, but they are not visible from above so he probable never saw them, and the French description he did not understand.

cantator De Geer: Holmgren's misuse of this name induced me to read De Geer's description, VII page 595. No type exists, but host, figures and description show without any doubt that *Charops decipiens* Gr. is meant and has to take the older name.

lineator Fabr.: Here may as well be appended a discussion of this sorely misunderstood species. Its type in the Banksian collection (Brit. Mus. of Nat. Hist.) is a ♂ of *Stenichneumon trilineatus* Gm. which fits the description in Ent. syst. 2 p. 168 fairly well, though »thorax immaculatus» is hardly accurate. Morley in his 1909 paper on the Banksian collection evidently took the traditional *Coelichn. lineator* Gr. for granted, or he would have discovered the old mistake. In the description, the expressions »Caput --- lineis duabus flavis, vel potius orbita oculorum flava» and »Pedes quatuor antici ferruginei» are better suited to *trilineatus*

¹ See note next side!

than to *lineator* Gr. — The latter species ought to take the name *biguttatus* Thunb. 1784, with *nigrator* F. 1793 as a synonym, both meaning the ♀ and mentioning the white points before the scutellum.

The types here discussed give the following results:

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| <i>Campoplex pugillator</i> L. | for <i>canaliculatus</i> Foerst. (<i>cantator</i> Holmg. nec De Geer). |
| [<i>Eurylabus saturatorius</i> L. | » <i>larvatus</i> Chr. (<i>vinulator</i> Thoms. 1894. The quotation of Thomson, De Geer I p. 580, describes the species but gives no name).] ¹ |
| <i>Charops cantator</i> DG. | » <i>decipiens</i> Gr. |
| <i>Stenichneumon lineator</i> F. | » <i>trilineatus</i> Gm. (<i>biguttatorius</i> Thunb. 1822). |
| <i>Coelichneumon. biguttatus</i> Thunb. | » <i>nigrator</i> F. (<i>lineator</i> Gr. nec F.). |

¹ After consideration of Linné's diagnose, I think he made a mistake in quoting De Geer, so the traditional *Melanichn. sat.* is still correct.