

Filago apiculata, G. E. Sm.
 — *spathulata*, Presl.
Gnaphalium norvegicum, Gunn.
Hieracium rupestre, All.
 — *pallidum*, Biv.
 — *oreades*, Fr.
 — *saxifragum*, Fr.
 — *atratum*, Fr.
 — *cæsium*, Fr.
 — *dovrense*, Fr.
 — *gothicum*, Fr.
 — *corymbosum*, Fr.
Orobanche Picridis, F. W. Schultz.
Teucrium Botrys, L.

Statice Dodartii, Gir.
Anacharis Alsinastrum, Bab.
Simethis bicolor, Kunth.
Luzula Borreri, Bromf.
Sparganium minimum, Fr.
Potamogeton trichodes, Cham.
Naias flexilis, Rostk.
Carex brizoides, L.
 — *Cederi*, Ehrh.
Apera interrupta, Beauv.
Triticum laxum, Fr.
Lolium linicola, Sond.
Cystopteris dentata, Sm.
 And the Charæ.

SPECIES SUPPRESSED.

Nasturtium anceps.
Brassica Cheiranthus.
Viola lactea.
Cerastium atrovirens.
Hypericum maculatum.
Prunus insititia.
 — *domestica*.
Rubus fastigiatus.
 — *tenuis*.
 — *Borreri*.
 — *Leightonianus*.
 — *Lingua*.
 — *humifusus*.
 — *Schleicheri*.
Carduus Forsteri.
Hieracium Schmidtii.
Linaria italica.
Atriplex microperma.
 — *prostrata*.

Urtica Dodartii.
Ulmus campestris.
 — *major*.
 — *carpinifolia*.
 — *glabra*.
 — *stricta*.
Salix decipiens.
 — *Russelliana*.
 — *amygdalina*.
 — *rugosa*.
 — *ferruginea*.
 — *sphacelata*.
 — *cotinifolia**, &c.
 — *propinqua*, &c.
 — *radicans*, &c.
 — *retusa*.
Zostera angustifolia.
Poa montana.

Remarks on "*Hymenopterologische Studien* by ARNOLD FOERSTER, 1^{stes} Heft, Formicariæ, Aachen, 1850." By WILLIAM NYLANDER, M.D., of Helsingfors.

Having had an opportunity of seeing the above-named treatise by M. Foerster, on the species of Formicidæ inhabiting the German provinces on the Rhine, in which he has done me the honour of bestowing special attention on my essay on the natural history of this family †, I have thought that the expression of my opinion concerning the determination of some species in his work would not prove altogether unserviceable. As Mr. Walker has at the same time kindly

* The changes of nomenclature render it impossible to extricate singly the species suppressed in this and the two next groups.

† Adnotationes in Monographiam Formicarum borealium, 1846; Additamentum in Monogr. Form. bor. 1846; Additamentum alterum in Monogr. Form. bor. 1847.

submitted to me for examination typical specimens of the major portion of M. Foerster's species, transmitted to him by the author, it is on them chiefly that the following remarks are based. And I trust that the author will excuse me, if in some instances I entertain views differing from his; and I hope that he will not consider I have been, in penning them, prompted by any other motive than the advantage of our science. M. Foerster generally considers minute, and in my opinion too obscure characters, as sufficient ground upon which to found a species. With all deference to him, I must remark, that the same species of Ant does not always construct its nest of the same materials nor in the same manner, so that specific distinctions, taken from such circumstances, cannot be looked upon as very stable: the hill-making Ants gather the materials they find nearest at hand; if they inhabit pine-woods, they make use of the needles of those trees; if they inhabit meadows, of bits of grass, &c. Some species however (*F. pressilabris*, *exsecta*) prefer meadows or thickets; other, dry sterile heaths or fir-woods (*F. rufa*, *congerens*). The size is also very variable in every species, and the colour is frequently more or less pale or dark. I will now proceed to the remarks on the species:—

1. Under the name of "*Formica congerens*" (l. c. page 17. 5) is transmitted to Mr. Walker my *F. congerens* ♀ and *F. rufa* ♀ ♂.

2. Under the name of "*F. polyclena*" (l. c. 15. 4) I can see only a form of *F. rufa*.

3. Under the name of "*F. piniphila*" I see my *F. congerens*. To this may belong *F. truncicola*, Foerster, l. c. 21. 7, which is certainly not *F. truncicola* of my essay.

4. "*F. sanguinea*" (l. c. 20. 6) is my *F. dominula*, and perhaps Latreille's *F. sanguinea*; but his description agrees also with *F. truncicola*, whose geographical range is equally wide; for this reason I was unable to decide on the identity of either; but as his typical specimens are in all probability lost, the question will most likely remain for ever unsettled*. I believe however that M. Foerster's opinion is correct, and I can have no predilection for my own names. I may observe that my *F. dominula* occurs in all kinds of nests, and on this account I am induced to consider, that it takes up its residence in the deserted nests of other species. Thus I have found it living in trunks of trees, in nests probably previously inhabited by *F. truncicola*, *fusca* or *glebaria*, or more rarely in old hills of *F. exsecta*, but most frequently in burrows in the earth, belonging I think to *F. glebaria*, whose workers only it enslaves. The *F. truncicola* also sometimes makes its nest in the earth.

5. "*F. exsecta*" (l. c. 23. 8), "*F. flava*" (l. c. 38. 17), *F. fuliginosa* (l. c. 28. 11), *F. glebaria* (l. c. 31. 13, *F. fusca*, Latr.), are the insects which are described under the same names in my essay.

6. "*F. stenoptera*" (l. c. 26. 10) as far as I can judge does not differ from *F. cunicularia*, Latr.

* I may observe that in the magnified figure of the head given by Latreille, the clypeus is figured entire, whereas in my *F. dominula* it is constantly notched.

7. "*F. fusca*," Foerster, *l. c.* 33. 11, is undoubtedly the same as *F. nigra*, L. This opinion is based not only on the traditional testimony of the northern collections, but also on the characters given by Linnæus himself: "*Formica minor* e fusco nigricans;" whilst on the contrary he says of his *F. fusca*: "*Formica media*, corpus certo modo ad lucem videtur nigrum, alias cinereum," which agrees perfectly with my *F. fusca* or *glebaria*. [On this subject as well as the synonymy of the other Linnæan species I have treated in the 'Sællskap. pro Fauna et Flora Fennica Notiser,' Heft 1. 239 *seqq.*] Unfortunately there are now no specimens of these two species with the Linnæan tickets in the collection preserved by the Linnæan Society. M. Foerster asserts somewhat too positively, that it is solely on the authority of Latreille, that I have founded my interpretation of the Linnæan *F. nigra*.

8. "*F. timida*" (*l. c.* 35. 15) and "*F. aliena*" (*l. c.* 36. 16) appear to me only different forms of one species distinguished principally by their size, the latter being the smaller. But whether both these species are not merely forms of *F. nigra*, L. (*F. fusca*, Foerster) is perhaps a question requiring further examination, for a paler colour, and the legs and antennæ a trifle more naked are, perhaps, characters too fugitive upon which to establish specific distinctions. I admit that I should have easily referred the individuals of these species, which I have seen, to *F. nigra*, L.

9. "*Tapinoma collina*" (*l. c.* 43. 21) is my *F. glabrella* (Addit. 2. 38); and I cannot understand why M. Foerster has established a distinct genus for it, only on the single character, that in this species the little scale of the petiole is inclined forwards and almost incumbent. My subdivisions of *Formica* and *Myrmica* had undoubtedly afforded more substantial generic characters. *Formica glabrella* appears to be a species widely distributed throughout the central and southern regions of Europe. At Paris it is of frequent occurrence, and inhabits all kinds of soil, sometimes dry sandy places, and sometimes humid mossy situations, often in very large and numerous tenanted nests, and is remarkable for its extreme agility and the sweet nectareous odour which it emits.

10. "*Myrmica ruginodis*" (*l. c.* 66. 36), "*M. lævinodis*" (*l. c.* 64. 35), "*M. scabrinodis*" (*l. c.* 67. 37), are absolutely identical with my species of the same names.

11. "*M. acervorum*" (*l. c.* 61. 32); the specimens sent to Mr. Walker are a pale form of my species bearing the same name.

12. "*M. fuscula*" (*l. c.* 56. 29) is likewise mine (i. e. *M. cespitum*, Latr.). In the male sent I can discover no tooth on the metathorax, but merely an obtuse angle.

13. "*M. impura*" (*l. c.* 48. 22) is in my opinion nothing more than a pale form of *M. fuscula*, which is very variable both in size and colour, and colonies are sometimes found consisting entirely of large individuals, while others are inhabited by small individuals only. I have observed the same circumstance in other species, more particularly in *F. nigra* and *F. herculeana* (cf. Addit. 2. p. 28). Perhaps *M. modesta*, Foerster, *l. c.* 49. 23, which I have not seen, is also a

form of my *M. fuscula*; and possibly by a typographical error its length has been indicated as $3\frac{1}{2}$ lin., since in the description it is compared with "*M. impura*," *fuscula* and *tuborum*, which species are little more than a line long.

14. "*M. læviuscula*" (l. c. 54. 27) is identical with my *M. nitidula*; very possibly I have erroneously described its antennæ as consisting of twelve joints; if so, I shall be happy to rectify my mistake as soon as I have an opportunity of re-examining my northern specimens. It may be remarked that the intermediate articulations of the flagellum are closely approximate.

In *M. muscorum*, Foerster, l. c. 59. 31, which I have not seen, I can scarcely recognise my *Myrmica* of the same name, for the antennæ entirely pale and the abdomen with a fuscous band, appear to indicate a different species. M. Foerster does not state whether his species has the thorax continuous above, or with a distinct transverse suture.

I trust shortly I shall have another opportunity of returning to this subject.

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

June 11, 1850.—W. Spence, Esq., F.R.S., in the Chair.

The following paper was read:—

SYNOPSIS OF THE SPECIES OF ANTELOPES AND STREPSICERES,
WITH DESCRIPTIONS OF SOME NEW SPECIES. BY J. E.
GRAY, ESQ., F.R.S., P.B.S. ETC.

The genera in this Synopsis are arranged after the plan, first suggested in a paper on the genera of the Hollow-horned Ruminants (*Bovidæ*) in the 'Annals and Mag. of Nat. Hist.' xviii. 227.

ANTELOPES.

The Antelopes contain a large number of species separated into several genera, which may be arranged in the following sections:—

I. The ANTELOPES OF THE FIELDS have a tapering nose, with the nostrils bald within.

1. The *True Antelopes* are light-bodied and limbed, and small-hoofed, with a short or moderate tail covered with elongated hair to the base; horns lyrate or conical.

2. The *Cervine Antelopes* are large-sized, rather heavy-bodied and large-hoofed, and have an elongated tail with short hair at the base and tufted at the end; horns lyrate or conical.

3. The *Caprine Antelopes* are heavy-bodied and limbed, and large-
Ann. & Mag. N. Hist. Ser. 2. Vol. viii.



1851. "Remarks on "Hymenopterologische studien by Arnold Foerster, 1stes Heft, formicariæ, Aachen, 1850." by William Nylander, M.D., of Helsingfors." *The Annals and magazine of natural history; zoology, botany, and geology* 8, 126–129. <https://doi.org/10.1080/03745486109494972>.

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