

# **Acanthomyops (Donisthorpea) brunneus, Latr., a species of Formicidae new to Britain.**

By HORACE DONISTHORPE, F.Z.S., F.E.S., etc.

## **Acanthomyops (Donisthorpea) brunneus, Latr.**

*Formica brunnea*, Latreille, *Ess. Hist. Fourmis France*, 41 (1798)<sup>1</sup>; *Hist. Nat. Fourmis*, 168 (1802)<sup>2</sup>; Jurine, *Nouv. Meth. Class. Hymén.*, 273 (1807)<sup>3</sup>. ["La fourmi brune," Huber, *Moeurs Fourmis*, 52 (1810)]<sup>4</sup>. *Formica brunnea*, Losana, *Mem. Accad. Sc. Torino*, 37, 319 (1834)<sup>5</sup>; Schilling, *Übers. Arbeit. Schles. Ges. vaterl. Cultur.*, 55 (1838, 1839)<sup>6</sup>. *Formica timida*, Förster, *Hym. Stud.*, 1, 35 (1850)<sup>7</sup>; Schenck, *Jahrb. Ver. Naturk. Nassau*, 8, 53 (1852)<sup>8</sup>. *Formica brunnea*, Schenck, *Jahrb. Ver. Naturk. Nassau*, 8, 126 (1852)<sup>9</sup>. *Formica timida*, Mayr., *Verh. Zool. Bot. Ver. Wien*, 5, 361 (1855)<sup>10</sup>. *Formica brunnea*, Nylander, *Ann. Sc. Nat.*, 5, 68 (1856)<sup>11</sup>. *Lasius brunneus*, Mayr, *Europ. Formicid.*, 50 (1861)<sup>12</sup>; Taschenburg, *Hymen. Deutschl.*, 240 (1866)<sup>13</sup>. *Lasius niger* race *brunneus*, Forel, *Denkschr. Schweiz. Ges. Naturw.*, 26, 46, 49, 50, 217 (1874)<sup>14</sup>. *Lasius brunneus*, Er., André, *Rev. Mag. Zool. (S.3)*, 2, 180, 202, 216, 217, 219, 226 (1874)<sup>15</sup>; *Ann. Soc. Ent. France (S.6)*, 1, 60 (1881)<sup>16</sup>; *Spec. Hym. Europe*, 2, 193, 198, 201 (1882)<sup>17</sup>; Lubbock, *Ants, Bees, Wasps*, 68 (1882)<sup>18</sup>. *Lasius niger* st. *brunneus*, Bryant, *Fourmis France*, 56 (1890)<sup>19</sup>. *Lasius brunneus*, Wasmann, *Tijd. Entom.*, 34, 41, 45, 48, 62 (1891)<sup>20</sup>. *Lasius niger* race *brunneus*, Lameere, *Ann. Soc. Ent. Belg.*, 36, 64 (1892)<sup>21</sup>. *Lasius brunneus*, Dalla Torre, *Cat. Hym.*, 7, 182 (1893)<sup>22</sup>; Wasmann, *Tijd. Entom.*, 41, 14 (1898)<sup>23</sup>; 42, 163 (1899)<sup>24</sup>; *Arch. Trim. Inst. Grand Ducal Luxemburg*, 1, 11, 12 (1906)<sup>25</sup>; Escherich, *Ameise*, 220, 221 (1906)<sup>26</sup>. *Lasius niger brunneus*, Bondroit, *Ann. Soc. Ent. Belg.*, 53, 486 (1909)<sup>27</sup>. *Lasius (Lasius) brunneus*, Ruzsky, *Hazan Vet. Inst.*, 29, 620, 633 (1912)<sup>28</sup>. *Lasius brunneus*, Adam and Foerster, *Mitt. Badisch. Landesver. Naturk. Naturs.*, 1913, 210<sup>29</sup>. *Lasius (Lasius) brunneus*, Forel, *Mitt. Schweiz. Ent. Gesell.*, 12, 52, 54, 55 (1915)<sup>30</sup>. *Lasius brunneus*, Schmitz, *Natur. Genoots. Limburg*, 1915, 72-75<sup>31</sup>. *Formicina (Donisthorpea) nigra* subsp. *brunnea*, Emery, *Bull. Soc. Ent. Italiana*, 167, 170, 174, 177 (1916)<sup>32</sup>. *Lasius brunneus*, Crawley, *Ent. Rec.*, 32, 197 (1920)<sup>33</sup>; Soudek, *Zula. Otisk. Caso. Moravsk. Musea Zemsk.*, 4, 7 (1922)<sup>34</sup>.

♀ Dirty yellow brown, head above and funiculi of antennae darker; gaster blackish brown; scapes of antennae, mandibles, and tarsi brighter yellow.

Head broader than thorax; ocelli small but distinct; eyes somewhat smaller than in *niger*; frontal furrow well marked reaching median ocellus; scapes without outstanding hairs. Thorax with short silky pubescence more distinct at sides. Scale square, slightly emarginate at apex. Tibiae without outstanding hairs. Long, 3.7-5mm. (2.5-4mm. teste André).

Described from a number of ♀♀ from Theale.

♀ Lighter or darker yellowish brown; mandibles, antennae and legs lighter yellow.

Head nearly as broad as thorax (considerably more so than in *niger* and *flavus*); scapes and tibiae without outstanding hairs; wings infusate at the base. Long: 7-8.5mm. (6-9mm. teste André).

Described from a dealated ♀ taken by me at Les Agittes, in Switzerland, October, 1912, and a winged ♀ from Bulgaria in my collection.

FEBRUARY 15TH, 1923.



Original description of *Formica brunnea*, Latreille [*Ess. Hist. Fourmis France*, 41 (1798)]:—

“17\* F. brune. *brunnea*.

O.p. Ferrugineuse foncée. Yeux, sommet de la tête et abdomen, noirâtres. Ecaïlle carrée, presque bidentée.

Femelle. Brune noirâtre. Mandibules, antennes et pattes, ferrugineuses. Ecaïlle bidentée. Abdomen large. Aîles longues: quelques nervures obscures sur la base des antérieures.”

The male of *Formica timida* was described by Schenck [*Jahrb. ver. Naturk. Nassau*, 8, 54 (1852)] as follows:—

“M. 2 L., auch kleiner. Glanzend schwarz. Oberkiefer schwarz mit einem etwas röthlichen zähne, zuweilen fast zweizähmig. Stirnrinne sehr tief, von den Stirnfeld bis zum mittleren Nebenaugen. Augen kahl. Fühler schwarzbraun, die Geißel nach dem Ende etwas heller; Steilchen und Endglied der Geißel weisslich. Beine schwarzbraun, Gelenke und Tarsen blassröthlich, oft fast gelblich. Schuppe meist stumpfwinkelig ausgerandet, auf jeder seite der Ausrandung line Spitze mit langen Borsten. Körper sparsam mit Borstenhaaren. Flügel bis zur Mitte schwach bräunlich getrübt, Adern und Randmahl braunlich. Am ähnlichsten der M. der *fuliginosa*. (den Unterschied f. bei dieser). Vor dem M. der gelben Arten schon durch die kahlen Augen leicht zu unterscheiden; charakteristisch ist auch die Gestalt der Schuppe.”

### Habitat.

*Acanthomyops (Donisthorpea) brunneus* occurs in Europe—France<sup>1</sup>, Belgium<sup>21</sup>, Holland<sup>22</sup>, Switzerland<sup>14</sup>, Germany<sup>26</sup>, Luxemburg<sup>25</sup>, Italy<sup>32</sup>, etc.; Asia—Caucasus<sup>17</sup>, Asia Minor<sup>17</sup>, Palestine<sup>17</sup>, Persia<sup>33</sup>; and Africa—Algeria<sup>17</sup>.

British distribution as at present known:—

**Berkshire**, Theale (Joy).

A strong colony of this ant was discovered by Dr. N. H. Joy in the hollow of a large felled poplar, at Theale, in Berkshire, on January 21st, 1923. As he realized that the species was unknown to him, he sent some workers on to me to name, and these I at once recognized as *A. (D.) brunneus*, Latr., an ant new to the British list. On February 6th I visited the nest with him and brought home a few of the workers to form a small colony in an observation nest. It is true that *brunneus* was recorded as British by the late F. Smith [*Cat. Brit. Fossor. Hym.*, 11, 224 (1858): *Trans. Ent. Soc. Lond.* (S. 2), 4, 278 (1858), etc.]; but in his 1871 Catalogue [*Cat. Brit. Hym. Acul.*, 2 (1871)] he gives it as a synonym of *umbratus*. It should probably have been referred to *A. (C.) mixtus* (as neither that species nor *brunneus* possess outstanding hairs on the tibiae), which was not then known as British. Smith's record for Deal consisted of a solitary female, sorted out from a lot of other ants [*Ent. Ann.*, 1858, 39], and was almost certainly *mixtus*. It will thus be seen that Dr. Joy's capture is a genuine addition to the somewhat poor ant fauna of this country.

*A. (D.) brunneus* is a very timid ant [hence Förster's appropriate name<sup>7</sup>] of retiring habits, and seldom leaves its nest; which will account for its rarity here. When the nest is exposed the ants seek safety in flight with great rapidity. It principally nests in old tree trunks—Schenck<sup>8</sup> says chiefly oak, more seldom in lime; Forel<sup>14</sup> gives walnut, chestnut, and lime; and Mayr<sup>10</sup> records it in *Populus alba* from Vienna—and prefers parks and wooded land to more open country. It has also been found under bark and in rotten wood, at the roots of trees, under stones, and even in the walls of houses.



According to André<sup>17</sup> it feeds almost exclusively on the excreta of large aphides which it rears in the galleries of the nest; Lubbock<sup>18</sup> says it devotes itself principally to the aphides which live on the bark of trees; and Schenck<sup>8</sup> mentions large grey plant lice which are found with it, and when disturbed the ants at once take them into the galleries. The marriage flight is said to occur in June and July, and Schenck<sup>8</sup> says it takes place between five o'clock and eight o'clock in the morning. The following myrmecophiles have been found with *A. (D.) brunneus* on the continent:—

**Coleoptera:** *Homoeusa acuminata*, Mark.<sup>31</sup>; *Microglossa pulla*, Gyll.<sup>20</sup>, *Ilyobates glabriventris*, Rye<sup>20</sup>, *Myrmedonia lugens*, Gr.<sup>20</sup>, *Atheta nitidula*, Kr.<sup>31</sup>, *Euryusa laticollis*, Heer.<sup>20</sup>, *E. sinuata*, Er.<sup>20</sup>, *Claviger durali*, Saulcy<sup>15</sup>, *Batrisus formicarius*, Aubé<sup>8</sup>, *Batrisodes delaporteii*, Aubé<sup>15</sup>, *B. adnexus*, Hmpe<sup>31</sup>, *B. venustus*, Reich<sup>31</sup>.

**Araneina:** *Phrurolithus festivus*, C.K.<sup>31</sup>, *Dysdera cambridgei*, Thor.<sup>31</sup>

**Acarina:** *Trachyuropoda bostocki*, Mich.<sup>24</sup>

**Crustacea:** *Platyarthrus hoffmanseggii*, Brdt.<sup>30</sup>

This is the second species of ant that has been discovered in Britain since the publication of my book on British Ants in 1915. The first of these was *Myrmica schencki*, Emery, discovered by Mr. H. M. Hallett at Sully, Glamorgan, and introduced as British by myself [*Ent. Rec.*, 27, 265-6 (1915)]. A description of the ♂ of *M. schencki* may be found in the *Record* for 1917 [*Ent. Rec.*, 29, 32 (1917)].

## On the Geographical and Seasonal Variations of *Pararge megera*, L.

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(Concluded from vol. xxxiv., p. 214.)

Grade III.: As I have mentioned in connection with *filipluma*, the summer characters of the latter get more and more accentuated as one proceeds southward, and the difference between them and those of the spring generation increase proportionately. One thus comes to a region where a distinct grade is discernible in the main line of variation, as compared with nymotypical *filipluma* of Belgium, England, etc., and where other features contribute to produce races perfectly different from it, transitional to those of the extreme south. Besides belonging on an average to grade III. by the underside of the hindwings, the shape of the wings is seen to be narrower, more pointed at apex and with a straighter outer-margin, culminating in form *porrecta*, Vrtý. (*Ent. Rec.*, xxxi., p. 126), the upperside markings are less extensive, the basal black patch of hindwings is very much lighter in tone and often nearly obliterated by the abundance of fulvous scales, the fulvous is brighter and notably so in some females. In the materials I have at hand I detect two primary races:—

Race *VIVIDIOR*, *mihi*, can be described as simply being the grade which follows *filipluma* on the main line of variation. Roughly its distribution may be said to include the greater part of the Iberic zone, the south of France (specimens I possess from Chautonnay in Vendée are already clearly a transition to this race), and the north of Italy; probably it is found even north of the Alps in particularly warm localities (certainly, for instance, in some parts of the Rhone valley). Remarkably large individuals appear now and then, especially in the female sex, and there are localities, such as the valleys of South Tyrol,