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ON VARIOUS NEW OR LITTLE KNOWN BRITISH DIPTERA, INCLUDING SEVERAL SPECIES BRED FROM THE NESTS OF BIRDS AND MAMMALS.

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It has been my privilege to examine a large amount of material in Diptera, accumulated in recent years by my friend Mr. E. B. Basden in the course of his investigations of the insects to be obtained from the nests of birds and mammals; from some of his earlier material I described three new species in the pages of this Magazine (1933, **69**: 272-5); his subsequent painstaking researches have brought to light other new or little known species, concerning which he has asked me to publish some notes. At the same time I take the opportunity to record the occurrence in this country of certain additional Anthomyidae, though they are not known to have any association with nests.

Mr. Basden will soon publish a full account of his researches, when more detailed particulars of the occurrence of all the species will become available.

PHORIDAE.

Diploneura pilosella Schmitz.

This is one of a small group of closely allied species all of which were included under the old name of *Phora concinna* Mg. (= *Dohrniphora concinna* Mg. of Lundbeck). Father Schmitz has shown that the name *concinna* has no right to be used for any species of this small group, but should be used in place of *crassicornis* Mg. of Verrall's 'List' (1901). He has proved that the old '*concinna*' really represents at least eight species (the *nitidula*-group), of which four appear to occur in this country. This *nitidula*-group is distinguished from the true *concinna*-group by the absence of small anterodorsal bristles to hind tibiae, and the British species may be distinguished as follows:—

1 (2) Halteres yellow. Right side of male hypopygium with a number of hairs and bristles of different lengths; anal tube yellowish at least towards tip ..... *D. nitidula* Mg.

2 (1) Halteres dark.

3 (6) Frons not, or only very little, wider than long (at most as 5 : 4).

4 (5) Palpi yellow. A long bristle on left side of male hypopygium and a number of shorter bristles and hairs on right. Front of frons convex, but not markedly produced at middle ..... *D. pilosella* Schmtz.

5 (4) Palpi dark. No long bristle on left side of male hypopygium. Front of frons strongly produced at middle ..... *D. rostralis* Schmtz.

6 (3) Frons very distinctly wider than long. A long bristle on each side of male hypopygium. Proboscis of female very broad and bulbous about base ..... *D. glabra* Schmtz.

character for the subdivision of the genus *Chloropisca* does not hold good in all specimens.

EPHYDRIDAE.

Hydrellia tenebricosa sp.n. ♂.

A uniformly dull, very dark grey (or greyish-black) species, with black palpi.

♂. Frons and face with black reflections. Antennae black, arista with only five plumes. Jowls below lowest point of eye almost one-third height of eye. Thorax with a pair of strong presutural dorsocentrals, almost as long as postsutural pair, and about as distant from them as from each other. Pleurae similar in colour to rest of thorax. Abdomen not quite so dull as thorax, the so-called fourth (last long) segment no longer than previous one. Hypopygium small. Legs entirely dark, middle tibiae conspicuously dilated. Wings with the second costal segment not quite so long as next two together. Knobs of halteres pale yellow.

Length 1.75 mm.

This species is very distinct from any of the section with black palpi at present described. *H. argyrogenis* Beck., with which it has some characters in common, has still wider jowls, while the face, pleurae and sides of abdomen are almost silvery grey.

Described from a male bred by Mr. Basden on June 2nd, 1934, from the nest of a coot found at Black Park (Bucks).

CARNIDAE.

Carnus hemapterus Nitsche.

This interesting genus is closely related to *Meoneura* Rdi., but easily distinguished, when the wings are present, by the absence of the outer crossvein closing discal cell, but apparently the wings are quickly broken off soon after emergence from the puparium; in such specimens the much wider facial keel, which has an impressed middle line making it V-shaped in section, the absence (or microscopic size) of postvertical bristles* (a pair close together immediately behind ocellar triangle), and the densely haired or bristled side membrane of abdomen (more evident when abdomen is distended, as in mature insects which have fed and are preserved in spirit), will serve to distinguish the genus. The legs are also stronger and there are less numerous hairs on thoracic disc than in *Meoneura*.

The British specimens, of which I have examined a large number, are shining black, with (even in immature specimens) only a very slight tendency to a brownish colour; second antennal joint,

* De Meijere in his masterly account of the genus (1912, *Schrift. Phys.-ökon. Ges. Königsberg*, 53: 1-18) mentions 'zwei sehr kurze Börstchen, in der Mitte des hinteren Scheitelrandes dicht nebeneinander gelagert,' as representing the postverticals, but I can find no trace of such bristles in any of my material, nor do they appear to be indicated in de Meijere's figures.

trochanters and tarsi, yellowish; tibiae also pale at both ends, front tibiae often almost entirely yellow. They were all bred by Mr. Basden from birds' nests (starling, barn owl, hedge-sparrow, and blackbird), except one specimen 'found alive in starling's nest,' and it is interesting to note that this was the only specimen with wings broken off. Nitsche's original type specimens were found on young starlings and were figured in Ahren's 'Fauna Insectorum Europae,' Fasc. ix, Tab. 24 & 25, as browner in colour with their distended abdomen apparently bearing shorter, more spinose, bristles; but it is difficult to believe that our British insect can be other than the same species. In fact, it seems possible that there is only one palaearctic species, though a second (*C. setosus*) has been described by Stobbe (1913, *Deuts. Ent. Z.*, **1913**: 193) from a woodpecker (*Picus major* Linn.). I have seen the types of this species and could not distinguish them from some Roumanian specimens in my collection from *Falco sacer* Gmel., which more closely agreed with Ahren's figures of *C. hemapterus* than do our British specimens. Moreover some of this same consignment of Roumanian specimens had been examined by Dr. Stobbe and passed as *C. hemapterus* Nitsche. De Meijere considered that this was certainly a blood-sucking species, but it seems more probable that Engel (1920, *Z. wiss. Insektenbiol.*, **15**: 249) was correct in suggesting that they fed upon skin secretions and fatty exudations from budding feathers.

DROSOPHILIDAE.

Camilla atripes Duda.

This is the species incorrectly introduced by me as British in 1911 (1911, *Ent. Mon. Mag.*, **47**: 231) as *C. acutipennis* Lw. Mr. Basden found a specimen at the entrance to a rabbit's burrow at Temple (Berks) on Sept. 15th, 1934, and I can record it from Waxham (Norfolk).

There would appear to be differences of specific value in species of *Camilla* in the extent of microscopic dusting on thorax and abdomen. In the closely allied British species *glabra* Fln., and *fuscipes* Coll., the former has the greater part of notopleural depression devoid of dust, and a very small dusted area on third abdominal tergite; whereas in *fuscipes* nearly all the notopleural depression is dusted, and there is a large triangular dusted area on third abdominal tergite.

Raylands, Newmarket.

March 29th, 1939.