

A PTERERGATE OF *ACANTHOMYOPS* (*CHTONOLASIUS*\*) *FLAVUS* F.  
(HYM. FORMICIDAE).

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On June 25th last Mr. R. B. Benson captured a pterergate of *Acanthomyops* (*Chthonolasius*) *flavus* F. in a colony of that species on the downs near Princes Risborough, Bucks.

At first sight it might be taken for a macrergate, being large, robust and dark in colour. The possession of vestigial wings, however, proves it to be a pterergate.

*Description*:—Yellowish-brown, the greater part of the head darker, mandibles brownish-yellow, cheeks, scale, antennae and legs yellow.

The *pro-* and *mesonotum* are robust, and a *metanotum*, pale in colour, is distinctly indicated. The vestigial *fore wings* spring from the *mesothorax* and are chitinous, triangular and pointed at the apex, and of equal length (*long.* .2 mm.). The *hind wings* are still more vestigial and are placed on each side of the *metanotum*. They consist of two very small projecting tubercles, which are longer than broad (*long.* .05 mm.).

*Long.* 4 mm. Specimen in B.M. Coll.

A pterergate is defined in 'British Ants' as 'a worker with vestiges of wings, the thorax being either that of the normal worker, or somewhat approaching that of the female.'

As far as I am aware, this is only the third pterergate that has been taken in Britain.

The first was taken by Mr. J. H. Keys in a colony of *Myrmica scabrinodis* Nyl. at Yelverton, Devon, in August, 1913. It was a little larger than the other workers and possessed a minute chitinous nodule anteriorly on each side of the mesothorax. Specimen in Donisthorpe Coll. in B.M.

The second was also a specimen of *Myrmica scabrinodis* Nyl. taken by me in a colony of that ant at Weybridge, Surrey, on July 30th, 1915. Two small forewings were present which possessed traces of veins; the one measured 2 mm. in length and the other only .7 mm. The hind-wings were represented by two very small projecting tubercles. Specimen in Donisthorpe Coll. in B.M. Coll.

*Historical.* In 1878 Dewitz called attention to the fact that the imaginal discs of larvae of workers of the common European ant, *Formica rufa* L., possessed minute vestiges of wings, which he also traced in the pupal stage. These are situated on the sides of

\* This is the correct spelling of '*Chthonolasius*.' Emery altered it to '*Chthonolasius*' in 1925, and everyone, including the writer, followed him. Emery also incorrectly stated that Ruzsky had not cited a genotype for '*Chthonolasius*.' He also in 1916 gave the date of Ruzsky's subgenus as 1908 (in the Gen. Ins. he gives 1913), whereas the date is 1912. Ruzsky cited *flavus* F. as the type of his subgenus *Chthonolasius*, and split it thus.

the two posterior thoracic segments and normally disappear in the pupal stage.

Wheeler in 1905 suggested that owing to the highly variable character of vestigial organs, one should occasionally find adult worker ants with such structures, and indeed, among the thousands of workers which had come under his observation up to that date, he had discovered four such individuals. On September 5th, 1904, he found in a colony of a form of *Myrmica scabrinodis* at Bronxville, New York, three workers which were normal in every other respect but bearing vestiges of the anterior wings. In one specimen these wings measured nearly 1.7 mm. in length. In a second these organs were barely .4 mm. long, and consisted of small opaque pads or sacs. In the third specimen the right wing consisted of a small nodular appendage and the left of a minute papilla. His fourth individual was a soldier of *Cryptocerus aztecus* Forel, which he took on December 27th, 1900, near Cuernavaca, Mexico. This specimen was a normal soldier, except that it bore 'on the external angles of the mesonotum a pair of symmetrical organs representing anterior wings.' They measured .8 mm. in length. It is in this paper that he first suggested the name of 'pterergate' for such abnormalities.

In 1915 Donisthorpe described in 'British Ants' the specimen taken by Keys, mentioned above, and in the Entomologist's Record of the same year he records the one taken by himself at Weybridge. In 1916 Wheeler, in a paper on an anomalous blind worker ant, writes: 'The absence of wings is another character in worker ants, which is sometimes supposed to have arisen as a mutation, but, though very rare, anomalous workers with vestigial wings (pterergates) are known to occur. . . . As the worker phase of the ants must have been perfected and fixed as a family character not later than the Eocene Tertiary, and probably as early as the Cretaceous, it is not surprising that at the present time organs characterising stages intermediate between the workers and females should be so rarely resuscitated as anomalies.'

In 1927 Viehmeyer described as a 'Zwischenform' a specimen of *Myrmica ruginodis* Nyl. var. *ruginodo-laevinodis* For. This was clearly a pterergate (as pointed out by me in 1922) from his own description, as it possessed a partly female thorax and vestigial wings.

In the same year Teranishi described and figured what he called an 'ergatogyne' of *Technomyrmex gibbosus* Wheeler, taken in his garden at Osaka. The paper is in Japanese, but there

is an abstract in English, and by his description and figure this also is undoubtedly a pterergate.

The above-mentioned pterergates are all that have been recorded, as far as I am aware.

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#### THE TACHINIDAE OF THE MEADE COLLECTION.

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(Concluded from p. 157)

*Macquartia ciliaris* Zett. A ♀ so named, without data, proved to be *Rhynchista prolixa* Mg. This probably disposes of the record of *ciliaris* in Ent. Mo. Mag., 1891, p. 156.

*Loewia brevifrons* Rond. Two bad specimens ♂ and ♀, apparently those referred to in Ent. Mo. Mag., 1892, p. 261. Both labelled 'Manningham, Bradford,' the ♂ (without abdomen) bearing date 3/8/77 and the ♀ 30/8/77. These two belong to the species now called *foeda* Mg. (= *intermedia* B. & B.). Three other ♀♀ in good condition from 'Felden, Herts, 24.vii.99, A. Piffard,' proved, however, to be *phaeoptera* Mg. True *brevifrons*, if a distinct species, still seems unknown as British.

*Aphria angustifrons* Meade. One ♂ only, a very worn specimen with most of the hairs and setae rubbed off, mounted on a card, and on back of card 'Folkestone' and on a separate disc 'From Mr. Pascoe.' Evidently the