

W0.223.

REPRINTED FROM

THE ENTOMOLOGIST

Vol. LXXIV, October, 1941

SUBSCRIPTION 12s. PER ANNUM, POST FREE

PRINTED BY
ADLARD & SON, LIMITED
Bartholomew Press, Dorking

DESCRIPTION OF A NEW SPECIES OF *CREMATOGASTER*
LUND, SUBGENUS *PHYSOCREMA* FOREL, WITH A
LIST OF, AND A KEY TO, THE KNOWN SPECIES OF
THE SUBGENUS.

BY HORACE DONISTHORPE, F.Z.S., F.R.E.S., etc.

***Crematogaster (Physocrema) moorei* sp. n.**

♀. Blackish brown, mandibles, lateral projections of clypeus, insertions of antennae, epinotum, petiole, joints two to four, and base of fifth of tarsi yellow; teeth black; shining and clothed with fine sparse yellow pubescence.

Head subquadrate, slightly narrowed anteriorly; posterior angles rounded, posterior border considerably excised in middle, extremely finely coriaceous, and minutely punctured, very finely longitudinally striate at inner sides of frontal carinae; *mandibles* longitudinally striate, armed with 4 or 5 teeth; *clypeus* triangular, convex and round in centre of dorsal surface, anterior border almost straight, posterior border semicircular; *frontal area* and *frontal furrow* not defined; *frontal carinae* short, diverging posteriorly, not extending as far as anterior border of eye; *antennae* moderate, 11-jointed, *club* 3-jointed; *scape* short, not extending as far as posterior border of head by about $\frac{1}{3}$ of its length; *eyes* moderate, not very convex, situated behind centre of sides of head. *Thorax* narrowed anteriorly, slightly more conspicuously coriaceous than head; *pronotum* forming a neck, *suture* between pronotum and mesonotum not defined, *suture* between mesonotum and epinotum extending into a wide shallow furrow in centre; *epinotum* longer than pro- and mesonotum taken together, and considerably broader, very considerably inflated and swollen, broadest at base, where it is about as broad as head; *declivity* abrupt, flat, shorter than dorsal surface; a very large circular hole is situated on each side, beneath and close to the epinotal stigmata, being considerably larger than the latter. *Petiole* longer than broad, narrow, flat above, narrowed in front and behind, broadest about middle; *post petiole* transverse, broader and higher, but considerably shorter than petiole, rounded above and at sides, posterior surface with a circular constriction, or furrow, before apex; *gaster* short, heart-shaped, broader than epinotum. *Long.* 4.8 mm.

Type in B.M. (N.H.).

Described from a single worker—Philippine Is., Luzon, Bagnio, 25.ii.1920. Dr. A. Moore, B.M. 1922, 101.

This insect does not agree with any description of any known species of *Physocrema*. It comes nearest to *inflatus* Smith in appearance, but the scapes are shorter, the petiole is longer and narrower, and the whole insect is smoother and more shining, etc.

The following is a list of the species known to date:

1. *Crematogaster (Physocrema) inflatus* Smith, ♀. *Journ. Proc.*

Forel (*Mem. Soc. Ent. Belg.*, 19, 220, 1912) established the subgenus *Physocrema* for the reception of the species of *Crematogaster* with the epinotum swollen, or inflated (*renflé*), and he mentions *inflatus* Smith, *difformis* Smith, and *montezumia* Smith as examples without, however, fixing a type. Wheeler (*Ann. New York Acad. Sci.*, 23, 82, 1913) cited *inflatus* Smith as type. Emery (*Gen. Ins.*, 174b, 139, 1922) limits the subgenus to the Indo-Malayan species, in which the club of the antennae is 3-jointed, excluding the American forms *arcuata* Forel and *montezumia* Smith (and subspecies) with a 2-jointed club. These are placed in the subgenus *Orthocrema* Santschi. The characters of *Physocrema* are:—♂ and ♀: frontal carinae developed; antennae 11-jointed, club 3-jointed; epinotum more or less swollen. ♂: Antennae 12-jointed. Thorax short and broad; epinotum not much swollen.

These very interesting insects play the part of "Honey-ants," the thorax, however, instead of the gaster being swollen, the swollen part of the thorax forming a pocket for the reception of a sweet secretion. The inflation of the epinotum is due to a pair of subcutaneous cavities with rigid walls filled with air. These cavities each consist of a chamber in which the cribellum of the metasternal glands opens. The external opening is situated in the epinotum, and there appears to be a continual flow from this aperture of a sweet fluid. Smith noticed that in dried specimens crystallized particles were apparent, not only within the orifice itself, but also scattered over the surface of the inflation. Bingham observed workers of these ants licking one another's thoraces vigorously. The opening is larger in some of the species (*inflatus*, *moorei*), not so large in *difformis*, and in *mucronata* and *tumidulum*, in which the epinotum is not so swollen, it is represented by a slit. The position of this orifice varies with the species; but in any case it is homologous to the regular opening of the metasternal glands in all ants, which is present in all the castes, and does not exist in any other members of the Hymenoptera.

CELASTRINA ARGIOLOUS IN THE CITY.—As I was walking down King William Street, City of London, to-day (August 22) at 11 a.m. (B.S.T.), I saw flying towards me a blue butterfly which proved to be a female specimen of *C. argiolus* in fresh condition. Its flight appeared to be weak and the specimen showed signs of exhaustion as though it had travelled a long way, and its capture would have been an easy matter. It tried to settle on some sandbags. An unusual visitor to the heart of the "blitzed" city. In previous years I have seen *Pieris rapae*, *P. brassicae*, *P. napi*, *Aglais urticae*, *Vanessa atalanta*, *Nymphalis io*, *Gonepteryx rhamni* and *Polyommatus icarus* all flying in various thoroughfares of the City of London at different times.—A. E. STAFFORD; 83, Colborne Way, Worcester Park, Surrey.