

[Reprinted from PSYCHE, Vol. XXXI, Nos. 3-4 (1924)]

A GYNANDROMORPH OF *TETRAMORIUM GUINEENSE*
FABR.

By WILLIAM MORTON WHEELER.

Bussey Institution, Harvard University.

Mr. P. H. Timberlake has had the kindness to send me a very interesting gynandromorph of the common tropicopolitan ant, *Tetramorium guineense* Fabr., which was captured June 19th, 1923 by Mr. E. H. Bryan on Necker Island, some miles northwest of Honolulu. Unlike the previously recorded ant-gynandromorphs, this insect is a pure example of the antero-posterior type, the head being male, the remainder of the body female, with perfectly developed wings (Fig. 1a). I can detect no deviation in the structure of the head (Fig. 1b) from that of the normal male. The antennæ are perfectly developed and 10-jointed, and the details of the sculpture, pilosity and color of the normal male are accurately reproduced. The head of the normal female, shown in Fig. 1c, is, of course very different. The thorax, however, is precisely like that of the normal female, except that it is slightly less robust, with the mesonotum a little less flattened dorsally, and the metasternal spines are undeveloped. The thorax of the male *guineense* is very different from that of the female, since it lacks the epinotal spines as well as the metasternal spines, has a more convex mesonotum and mesosternum and the former has Mayrian furrows. The color is also darker and the surface much smoother and very differently sculptured from that of the female. The legs, petiole, post-petiole and gaster of the gynandromorph are precisely as in the normal female, even the sting, which is fully exerted, being of the same length and structure. The sculpture, pilosity and color are also as in the normal female, the thorax, legs and pedicel being yellowish ferruginous, the gaster very dark brown or blackish, with its extreme base and tip yellowish brown. There is every reason to assume that the internal reproductive organs are those of the normal female. The wings are whitish hyaline, with colorless veins and pterostigma, as in the normal female.

On looking over the specimens of *Tetramorium guineense* in my collection I find one male from Cagues, Porto Rico with

an 11-jointed left antenna. The right antenna is broken so that the number of its joints cannot be ascertained. This and similar specimens, which one finds occasionally in *Tetramorium* and other ant-genera, are probably to be regarded as exhibiting "intersexual" rather than gynandromorphic traits since in the case mentioned the number of antennal joints is intermediate between the ten of the normal male and the twelve of the normal female.

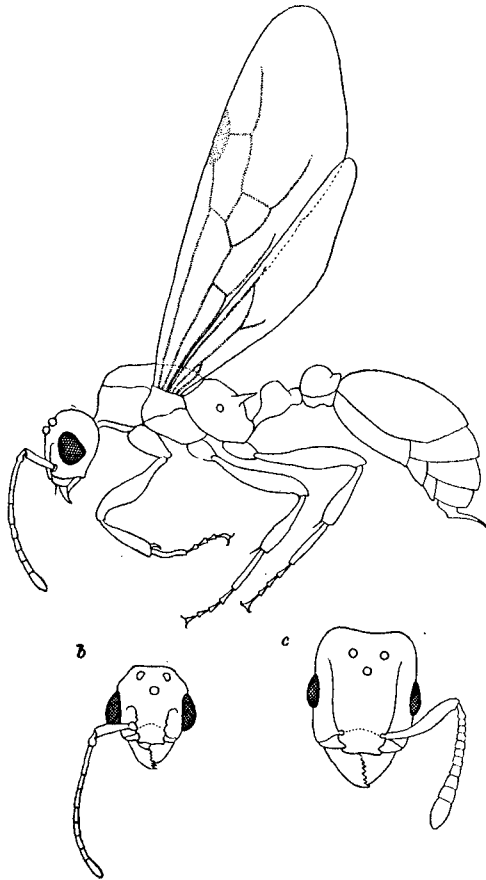


Fig. 1. Gynandromorph of *Tetramorium guineense* Fabr. a, lateral view; b, anterior view of head; c, head of normal female.