

various forms of females to be met with among the Formicidæ are already foreshadowed in the small and very primitive group of the Cerapachyinae. Though we have no knowledge of the females of several of the genera, we may recognize no less than four different female forms :

1. The female of *Acanthostichus*, which, as Emery has shown ('95), is decidedly *Dichthadia*-like, *i. e.*, unmistakably like the huge blind and wingless females of *Dorylus* and *Eciton*. This female is considerably larger than the largest workers of the colony as shown in Emery's figures of *A. quadratus* which I have reproduced in outline (Fig. 4, *a*, *b* and *c*).

2. Normal winged females like those of most genera of Formicidæ but more similar to the workers in size and structure. These females are known to occur in the genera *Lioponera*, *Cerapachys* and *Sphinctomyrmex*.

3. The female of *Cerapachys peringueyi* from South Africa (Fig. 3, *a*). According to Emery ('95) this form is wingless and not much larger than the worker (Fig. 3, *b*), which it closely resembles in structure. It may be designated as an ergatoid female and is not unlike the ergatoids occasionally found in species of *Ponera* (*P. coarctata*, *P. opaciceps*, etc.).

4. The female represented by the above described *Cerapachys augustæ* from Texas. This form is wingless but in thoracic structure resembles the winged females of the Ponerinæ in general. It is but little larger than the largest workers though possessing well-developed eyes and ocelli.

This "morphological restlessness" in the structure of the females of so small a group of genera as the Cerapachyinae is, perhaps, significant as the phyletic source to which the different female forms of all the subfamilies of ants are to be traced. We may look upon the *Dichthadia*-like queens of the Dorylinæ as a further development of the conditions exhibited by *Acanthostichus*, and the ergatoids, which crop out sporadically among the Ponerinæ and the higher subfamilies, may, perhaps, be regarded as cases of reversion to females of the type of *Cerapachys peringueyi* and the Mutillidæ (*Apterogyna*, *e. g.*). The pseudogynic forms of the more specialized ants (*Formica*, *Camponotus*) resemble the female of *C. augustæ*. Finally, the winged females