

and fro about the branches of a few small lote bushes (*Zizyphus lycioides*) in the open desert, in precisely the same manner as I have seen the males of *Prenolepis imparis* dancing about the Japanese barberry bushes in April in the Arnold Arboretum, near Boston. The winged females of *imberbiculus* were far from numerous and were found running on the ground near the lote bushes. Mating was not observed.

5. *Atta* (*Moellerius*) *versicolor* Pergande.

The marriage flight of this fungus-growing ant is very different from that of any ant I have observed, and was witnessed under unusually favorable conditions. We had left our camp July 30 about 30 miles north of Florence, Ariz., and were crossing the desert on our way to Phoenix. The air was very still and clear after a heavy rain on the preceding day. At 5.50 a. m., just after sunrise, we entered a region several miles in extent where the marriage flight of *Atta versicolor* was in full swing. The ants were aggregated in numerous sharply defined swarms, each of which was egg-shaped or elliptical, about six to ten feet long and three to four feet broad, stationary some twenty to thirty feet above and with its long axis perpendicular to the surface of the earth. In some places the swarms were only about forty or fifty feet apart but more frequently the distance between them was fully a hundred feet or as many yards. As far as the eye could see over the desert similar swarms could be discerned. Within each swarm the large dark brown males and females were darting about in vertiginous, zigzag flight. Closer examination showed that each swarm was constantly receiving single males and females flying straight to it from a distance, but it did not grow in size because pairs of ants *in copula* were constantly raining down to the ground from its lower extremity, so that under each swarm there was a dense layer, often a yard or more in diameter, of writhing and struggling ants. One of the swarms happened to be poised above a puddle of water so that the surface of the latter became black with the fallen pairs. We rode for fully half an hour through these swarms, which must have comprised hundreds of thousands of ants. The activity of the insects was truly surprising, for the workers of *versicolor* are sedate and slow-moving like all other Attii. The whole phenomenon was rendered remarkably clear and striking