

of *texana* coincides with that of *huachucana*, there would be ample opportunity for cross-fertilization and, if this occurred, the two populations would soon merge. The fact that the two populations show no sign of intergradation may be taken as proof that no cross-fertilization is occurring. If it can be shown that the nuptial flights of the two species take place at different times, one need look no further for the mechanism which maintains the two populations as separate entities. The evidence on this point is scanty but it seems significant nonetheless. One nest of *huachucana*, secured on July 24th, contained a few mature males and many mature females. There were no male or female pupae in this nest and only a few callows of the sexual forms. This leads me to believe that the nuptial flight was about to take place. If so, the marriage flight of *huachucana* must occur at the end of July or the first of August. During the month of July (7th-28th) a number of nests of *texana* were examined. No winged sexual forms were found in any of them. Either the nuptial flight had taken place before July 7th or it would be some weeks before the sexual forms matured, in which case the flight would come much later in the summer. In either case the nuptial flight of *texana* would not coincide with that of *huachucana*.

The descriptions of the male and female of *huachucana* which follow deal mainly with details of sculpture, pilosity and color. The general structural features of all three castes of this insect are shown in the figures on Plate 7.

Female: length; head (exclusive of mandibles) 1.6 mm.; thorax 3 mm.; total length 8-9 mm. Mandibles with fine and rather even longitudinal striae which spread slightly as they approach the masticatory margin. Clypeus and frontal area with slightly wavy, longitudinal rugae. Longitudinal rugae on the cheeks and front notably coarser and much more wavy. Longitudinal rugae immediately behind the

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EXPLANATION OF PLATE 7

*Aphaenogaster* (*Attomyrma*) *huachucana* Creighton. Fig. 1. Worker. Fig. 2. Male, wings on left side removed. Fig. 3. Female, wings on left side removed. (Figs. 1-3 to the same scale.) Fig. 4. Head of worker (drawn from type). Fig. 5. Head of male. Fig. 6. Head of female.