

of proportion to the remainder of the body, the head's being large and provided with powerful mandibles. Since the workers of allied species exhibit no marked structural differences, the soldiers are necessary for a proper identification of the populations.

KEY TO THE SPECIES OF *PHEIDOLE* IN UTAH, FOR IDENTIFICATION OF THE SOLDIERS

1. Antennal scapes long, extending the full length of the head; legs very long and slender *desertorum* Wheeler
 Antennal scapes much shorter, not extending the full length of the head; legs not exceedingly long and slender 2
2. Body length, 3.5-4 mm.; upper portion of head coarsely reticulate; a prominent connulate process near the center of the lateral surface of the postpetiole; color deep reddish brown *pilifera artemisia* Cole
 Body length, 2.3-2.5 mm.; upper portion of head not coarsely reticulate; center of the lateral surface of the postpetiole without a prominent connulate process; color reddish testaceous 3
3. Head as long as broad; transverse occipital rugae rather numerous and coarse *californica* Mayr
 Head broader than long; transverse occipital rugae sparser and finer *californica oregonica* Emery

Pheidole pilifera artemisia Cole

Distribution.—Springdale, Cusher (Knowlton); 30 Mi. S. Provo, type locality (Cole).

Apparently only a single colony is known from the State. It was observed by the writer on a hillslope covered with *Artemisia tridentata*. The nest was a small chamber in the soil beneath a large flat stone. The two other collections represent two stray soldiers which I have referred to this subspecies.

Pheidole desertorum Wheeler

Distribution.—Castle Cliff in Washington Co. (Knowlton).

Only a few soldiers were found, and they were strays.

Pheidole californica Mayr

This small ant has abundant and rather long yellowish hairs which are of uneven length on the body, suberect on the body and scapes and short and subappressed on the legs.

Distribution.—Ironton (Knowlton); Moab, La Sal (Knowlton and M. J. Janes); Salt Lake City (Chamberlin, Grundmann).

A few colonies were found beneath stones in rather dry grassy areas.

Pheidole californica oregonica Emery

Distribution.—Moab, Fisher's Pass in Tooele Co. (Knowlton); Clover (Knowlton and M. J. Janes); Ft. Douglass Reservation in Salt Lake Co. (Grundmann); Kanab (Cole).

Nests are in the same general habitats as those of the typical *californica*. The Kanab specimens were nesting in very dry sandy soil.

Genus *CREMATOGASTER* Lund

Characterized chiefly by the cordate gaster which is carried somewhat curled