

this, forming a central row, are eight spots, eight in the centre with dark borders, becoming entirely dark with more superficial focussing; apparently these lie immediately above the channel formed by the epi- and hypo-pharynx leading to the gullet.

In *Cicada* the epi-pharynx, which forms the under surface of the clypeus, is channelled, and the edges of channel are raised into two strong arches. In the central portion of this channel is a double row of ten spots similar to those described in *P. tessellata*, and back of these in a direct line toward the pharynx is a sac-like organ apparently with an opening into the channel and with a delicate tube leading from its neck, and within its boundaries two clusters containing four spots each, lying one on each side of the median line.* These spots are very similar to structures that I have examined which are similarly located in the honey ant, and which evidently correspond with the sense organs of the honey bee described as located here.

These organs, which seem never to have been described in Hemiptera heretofore, are present in such Hemiptera as I have been able to examine, and when fresh specimens are at hand, it is hoped that their structure and office may be more fully determined. It seems most probable, however, that they are organs of sense, and their location would warrant the belief that they may be connected with taste, though they may be connected with smell instead, or it is not impossible, owing to the close relation of these senses even in the highest animals, that they might perform a double office. The wax-secreting glands located on the dorsal surface of each segment consist of circular groups of large pavement cells disposed beneath the epidermis.

Prof. Thomas, in his work on Aphididæ (8th Rept. State Entomologist of Ill.), places this species in the genus *Schizoneura*, but following the venation of the wings according to which the genera are divided, it cannot be placed in this genus since the third discoidal vein is not forked, while in other characters, as well as this, it agrees with *Pemphigus*.

The venation, however, is not constant, for in examining the wings of over thirty specimens, one was found in which the third discoidal of the front wing was distinctly forked, while in one other the second oblique of the hind wing was forked.

* Can this structure be analogous to the "taste goblets" which are found in the fungiform and circumvallate papillæ of the human tongue?