

E. A. Schwarz, has anticipated some of the preceding observations in a short paper published several years ago.<sup>1</sup> Speaking of the mistletoe on the trees of Bear Canyon, near Ft. Lowell, at the foot of the Santa Catalina Mts., Arizona, he says: "The majority of the more accessible mistletoe bushes proved to be more or less infested by *Lecanium phoradendri* and, in many instances, plants had been killed by the prevalence of the scale. A search for Coccinellid enemies produced, after considerable exertion, only a few specimens of *Cephaloscymnus occidentalis* Horn. Occasionally mistletoe branches, either not or but feebly infested with scales, were observed to be dead or wilting and it was found were hollowed out for a distance greatly varying in length, according to the thickness of the twig. The author of these galleries proved to be a Curculionid larva of the genus *Otidocephalus*, the particular species being still undescribed. The beetle makes its exit through a round hole at the side of the twig, and the deserted gallery is then usually occupied by a colony of ants, *Cremastogaster* sp., which attend to and protect the *Lecanium* scales.

"The infested twig is not killed at once by the boring of the *Otidocephalus* larva, but remains green for one season or longer, but at any rate long enough to allow colonies of a Scolytid beetle, to undergo one or two generations in the terminal portion of the twig. This Scolytid, one of the smallest of our fauna, is also undescribed, and belongs, as far as I can make out at present, in the neighborhood of *Stephanoderus*. It is an 'inside borer,' but no regularity whatever can be observed in the tiny galleries, nor could one find any trace of 'ambrosia.' The colonies are extremely populous, a single one containing between seventy and a hundred specimens, but the males appear to be just as rare as in *Xyleborus*."

Schwarz also mentions a Bostrychid larva (*Amphicerus* sp.) which bores in the mistletoe stems and a Lycænid larva (*Thecla halesus*) which feeds on the leaves.

There can be little doubt that similar phenomena were observed both by Schwarz in the Santa Catalina Mts. and by myself in the Huachuca, and that the *Cremastogaster* and beetle are specifically identical in the two localities. The scale *Lecanium phoradendri*, however, lives on the outer surface of the mistletoe and was not seen

<sup>1</sup>"On the Insect Fauna of the Mistletoe," Proc. Ent. Soc. Wash., Vol. IV, 1901, pp. 392-394.