Studies of Ants and Ant Guests at the INL Site

Typical Nest of the Harvester Ant, Pogonomyrmex Salinus Olsen, at the INL Site, Showing Digging, Presumably by Heteromyid Rodents for Plant Seed Caches.

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Past studies of William Clark and Paul Blom are the basis of a study of ecological relationships between some of the ant taxa at the INL Site and a variety of ant guests.

One such ant guest taxa, a desert beetle (Coleoptera: Tenebrionidae, *Philolithus elatus*) was collected in *Pogonomyrmex salinus* nests and is the subject of the study and description. Photographs using light and scanning electron microscope were taken, and a *Philolithus elatus* female ovipositing on a *Pogonomyrmex salinus* nest was observed. The results of this study will be published in the future.

An undescribed species of Jerusalem cricket (Orthoptera: Stenopelmatidae, *Stenopelmatus* sp.) has been found at the INL Site. The *Stenopelmatus* was found in the ant nests during previous fieldwork. A series of live individuals, including both males and females, were needed for a proper species description. Live specimens were collected in July 2013, and additional specimens were collected during September 2014. In addition, one specimen was found in one of the excavated ant nests. They have been shipped to the specialist in the group for rearing and description. This relationship will require more study during future visits to the INL Site.

An Undescribed Species of Jerusalem Crick (Stenopelmatus sp.)

In addition, during 2015, field observations of predation on *Pogonomyrmex salinus* were made, and this turns out to be a different spider species as predator of the ant from what we have previously reported for the site (Clark and Blom 1992). The spider has since been identified as Xysticus, a member of the family Thomisidae (crab spiders). This family and genus are likely new records for the INL Site and are predators on *Pogonomyrmex salinus*.

Most nests of *Pogonomyrmex salinus* with small holes dug into them were observed, presumably by heteromyid rodents. This interaction has been reported in the literature by Clark and Comanor (1973) for *Pogonomyrmex occidentalis*, but not yet reported for *Pogonomyrmex salinus*. These stores in ant nests may represent a significant food source for the rodents at INL.