

Social Organization among Colonies
in the Ant, *Formica opaciventris*
Gerald Scherba
San Bernardino-Riverside State College
Project Number 80

Work this summer has involved an attempt to describe a pattern of social organization believed to exist between individual colonies of a species of Western mound-building ant. The population under study is located on Moose Island, in the ox-bow of the Snake River and has been under surveillance since 1957.

Results gathered this year indicate that:

1. Population size has remained stable over the 5 year period at approximately 400 mounds. These mounds can be classified into size and activity classes and their reproductive condition determined. Of the total population of mounds, 78% produced a brood in 1962, the remainder were broodless.
2. Workers visit between mounds up to a distance of 82 feet. Visiting rate is low, approximately 1%, but increases for bud nests recently founded. Workers from one nest visit at several nests and individual nests are visited by workers from more than one nest. The rate at which workers from one nest will visit other nests differs; one heavily visited nest has recently become less active and broodless. This single finding opens further possibilities for exploring and understanding the pattern of visiting which occurs.
3. An unexpected finding was that of a rodent, probably the Meadow Vole, *Microtus montanus*, that nests within the ant mounds. Laboratory observations indicate that the ants do not avoid the voles and that neither newborn nor adult voles are insensitive to the ant bites. Presumably the voles adjust their entry and departure from the ant mounds so that they do not coincide with the periods of greatest ant activity, but this is conjecture.

Supported by a three year grant from the National Science Foundation.
Assisted by Norman Heryford, University of Kansas.