Grasso D.A., Visicchio R., Castracani C., Mori A., Le Moli F. - Preliminary investigation on glandular sources of alarm signals in *Formica cunicularia* (Hymenoptera Formicidae)

Ant colonies are well organized units, whose integrity is largely due to complex defence systems. Among them, a major role is played by collective strategies based on alarm communication and group defence. In ants, the alarm signals are mainly mediated by chemical substances. This research is a preliminary approach to the study of group defence in *Formica cunicularia* aimed to investigate the possible glandular sources of chemical alarm signals. The analysis of behavioural reactions of *F. cunicularia* workers to different glandular secretions showed that, in this context, a main role is played by the mandibular gland. Possible involvement of other glands in the alarm system of *F. cunicularia* is also discussed.

**KEY WORDS:** Ants, alarm communication, exocrine glands, chemical signals, social defence.