

P074*Tapinoma nigerrimum* as safeguard for Italian myrmecofauna against Argentine ant

Dario D'Eustacchio, Alberto Fanfani, Donato Antonio Grasso

The invasive Argentine ant (*Linepithema humile*, Dolichoderinae) spreads easily worldwide from its native range, occurring mainly in Mediterranean regions. A copious literature investigates the impact of its invasive populations, suggesting that Argentine ant dominates ant communities it invades by effective exploitation and interference competition, and displacing most of the native species. In spite of first occurrence in Italy dated at early 20th century, scientific literature lacks of topics concerning *L. humile* for this country. In a preliminary investigation, we verified the occurrence and distribution of Argentine ants in some suitable habitats: Mediterranean coastline segments of Tuscany, Latium, Campania and Sicily. We observed the following pattern of occurrence: a local abundant and patchy distribution of *L. humile* with native *Tapinoma nigerrimum* (Dolichoderinae), with several frontline areas reflecting a systematic exclusion between those two species. In fact, *T. nigerrimum* as *L. humile* often exhibited 'unicoloniality', consisting of large colonies that lack boundaries due to absence of intraspecific aggression. We investigated the impact of Argentine ant on indigenous myrmecofauna compared with presence/absence of *T. nigerrimum*. Moreover, we evaluated their ability to discover and monopolize food resources. We selected Casteporziano Reserve (Latium) as a model area for the following reasons: i) high colony density of both *L. humile* and *T. nigerrimum* with several frontline areas; ii) high myrmecological diversity. Pitfall traps and artificial baits were placed along six transects across the frontline 'hot-spots', representing various environments with different disturbance degree. First results highlight a clear reduced ant diversity in the *L. humile* patches in respect to the adjacent *T. nigerrimum* patches. Moreover, concerning the access to food resources, the two species do not seem to differ in competitive ability. Our results suggest that *T. nigerrimum*, limiting the spread and impact of the Argentine ant invasion, may act as an efficient 'safeguard' for the local myrmecofauna.