

**P079**

*Detecting Argentine ants (Linepithema humile) on California's Channel Islands*

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The Argentine ant, *Linepithema humile* (Mayr), is an extremely invasive ant species that has spread to urban, commercial and natural areas worldwide. This pervasive expansion has quickly led to highly detrimental effects, both ecologically and economically. As a result, vast amounts of resources are already being allocated to the control of this species in urban and agricultural areas, while new efforts are currently being initiated to control them in ecologically sensitive habitats, such as California's Channel Islands. As Argentine ant eradication efforts are implemented in these areas, the need for a standardized detection protocol is essential. If small populations of ants go undetected during pre- or post-treatment stages eradication efforts will likely be ineffective. To aid in the creation of such protocols, we conducted field trials and assessed attractant efficacy for Argentine ant detection throughout the year. Four different attractants were placed in 50ml vials for 12 or 24 hours at designated monitoring points. After their respective durations, the attractants were collected and the number of ants at each was counted. Preliminary results suggest that cooked egg plus sucrose attracts more Argentine ants than a sucrose water solution and that 24 hour exposure captures more Argentine ants than 12 hour exposure. We also investigated other co-variables (i.e. topography, soil moisture, vegetation type and ground disturbance) that may contribute to Argentine ant bait preference in order to better understand how to detect small populations in diverse habitats. In the future, this information could be used to standardize Argentine ant detection protocols in a diversity of ecosystems.