

**Speaker:**

Nicholas Poulos

PhD Student

Department of Entomology

University of California, Riverside

**Date:** Monday, Feb. 01, 2021**Time:** 4:00 pm - 4:50 pm**Zoom:** 952-3324-4564**Passcode:** 835322**Title:**

“Evaluation of an attractant to improve localized insecticide treatments targeting the western drywood termite, *Incisitermes minor*”

**Abstract:**

The western drywood termite, *Incisitermes minor* (Hagen), is a significant pest to wooden structures. It is native to the western United States and northern Mexico but has spread to other parts of North America, Hawaii, China, and Japan. Even though fumigation is the most comprehensive treatment option for drywood termites, the need for cost-effective remedial treatment options with little to no environmental hazard remains. Localized injection of insecticides into the infested wood is often employed as an alternative method, especially when the infestation level is not severe. However, drywood termite colonies live in extensive galleries inside the wood where they often aggregate in certain areas of the galleries. This characteristic can impact the effectiveness of localized insecticide treatment if the injected insecticide fails to directly contact the termites. Chemical adjuvants that are capable of luring individuals to the treated zone may improve the efficacy of localized treatment by increasing the number of individuals contacting the insecticide. Using an attractant candidate selected based on *I. minor*'s preference for certain wood types, we investigated the effect of the chemical on the termites' aggregation behavior using a simple wooden arena containing an artificial gallery. The use of the attractant resulted in more termites being found on the treated half of the gallery compared to the control group. If this behavior is consistent with real life infestations, it may offer a method that increases the amount of colony members contacting insecticide. In the future, using pesticide products that are currently available for localized treatment against *I. minor*, the attractant will be incorporated into the treatment to see if overall control efficacy can be improved.