

Diaprepes abbreviatus (Coleoptera: Curculionidae)



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Seasonal Occurrence of Diaprepes in Encinitas, CA

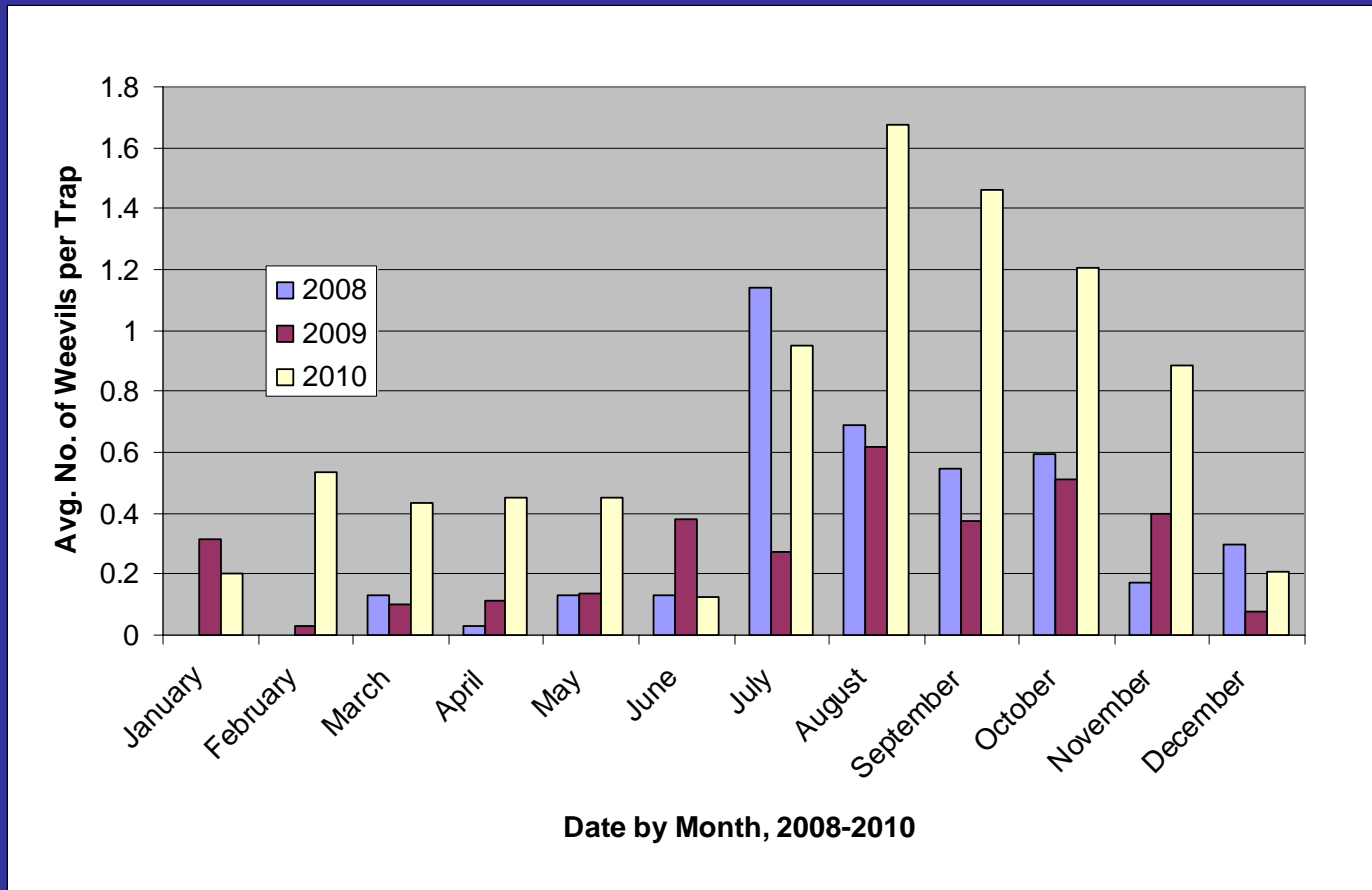
Studies Conducted in Olivenhain
2008-2010

Transect in Lemon Grove



Transect Study

Average Number of Weevils per Trap per Month, 2008-2010



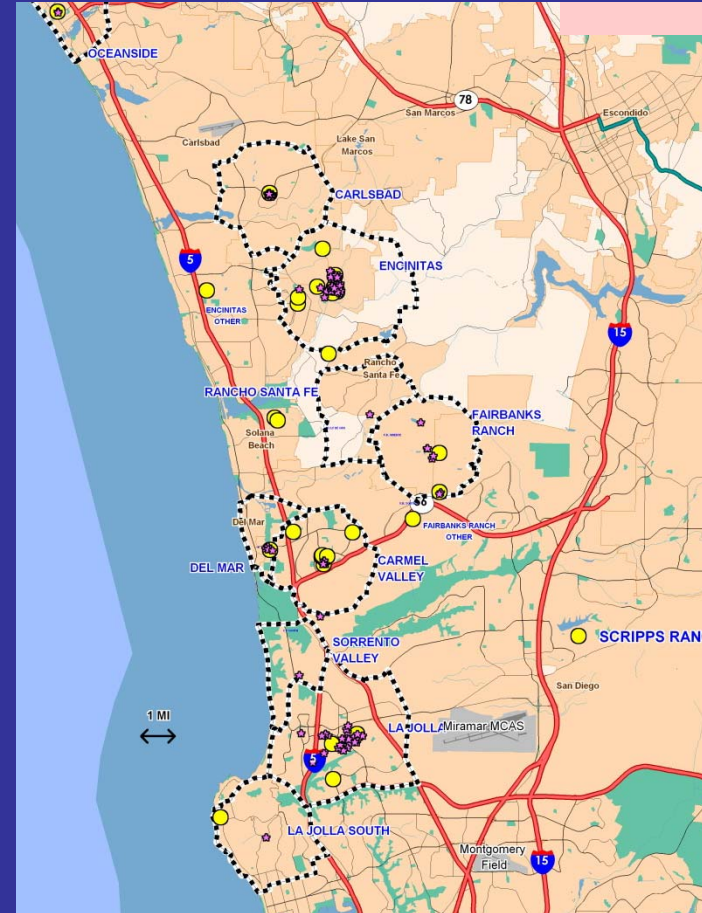
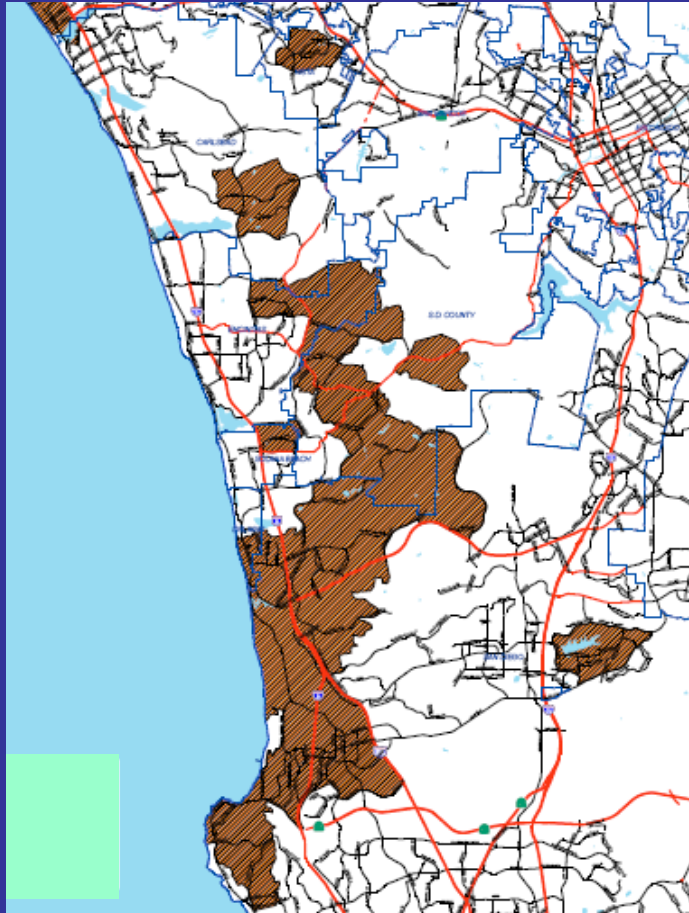
Biological Control of the Diaprepes Root Weevil

Parasitoid Wasps

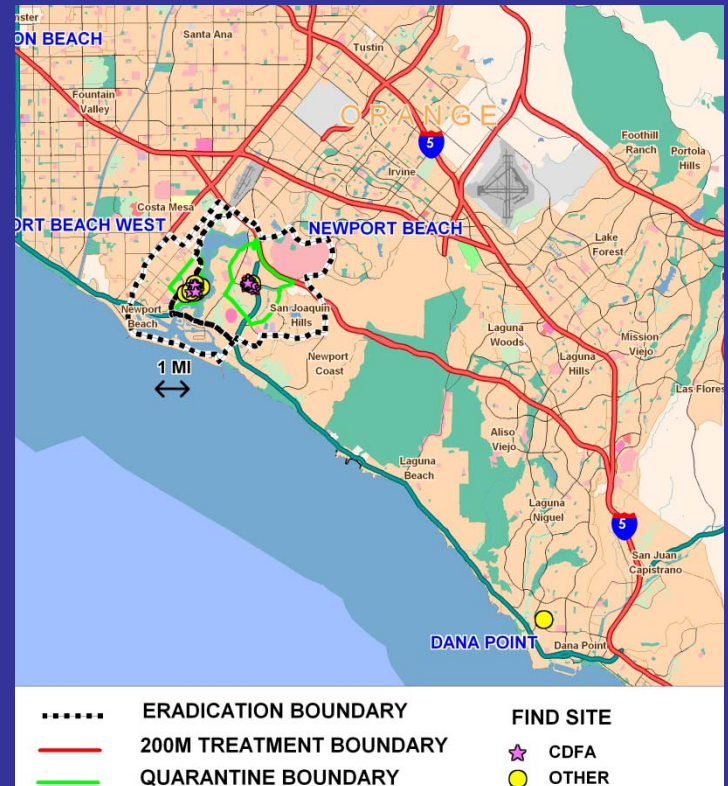
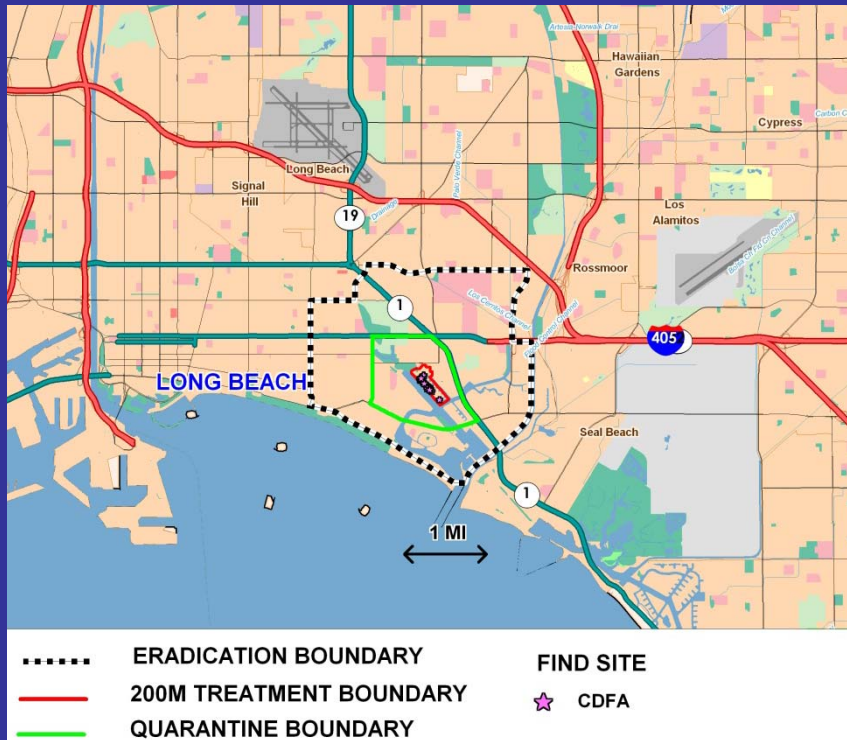
Aprostocetus vaquitarum Parasitoid Wasp Adult



San Diego County Wasp Release Areas



Study areas in Los Angeles and Orange Counties

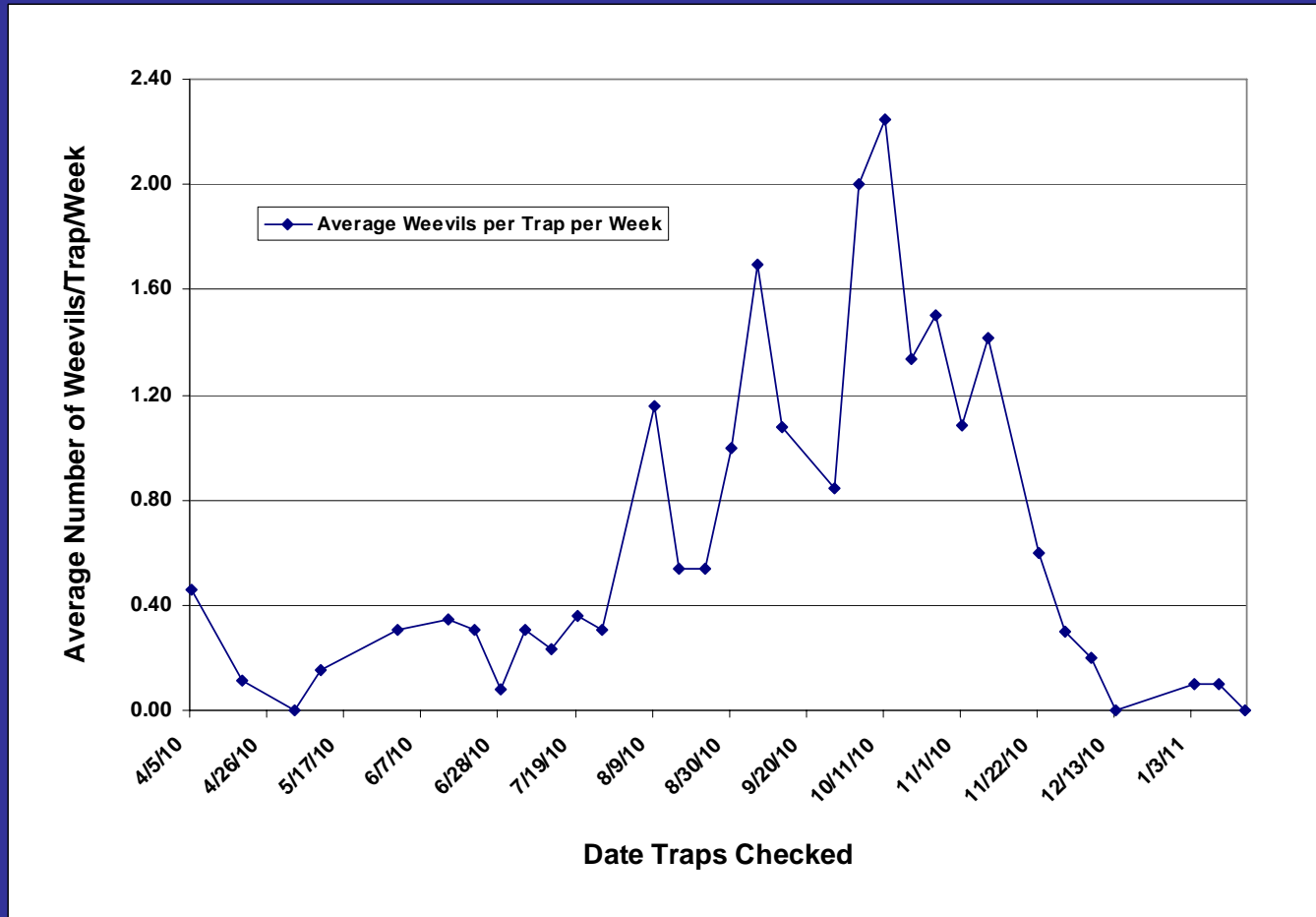


Tedders Trap Under *Caliandra*



2010 Weevil Trap Counts

Belcourt Community, Newport Beach, CA



Parasitoid Releases

- October 2007 thru November 2009
 - 7847 wasps released in Encinitas and Rancho Santa Fe
- 2010
 - 2217 wasps released in San Diego, Orange, and Los Angeles Counties

Sleeve Cage on *Caliandra* (*Powderpuff*, a legume)



Muslin Bag on Citrus



Results of Bagging Study

- 42.9% of bags with *Aprostocetus* wasp pupae



How Do We Know the Wasps are Established in the Environment?

Traps?

Surveys?

Greenhouse in Encinitas (Olivenhain)



Initial Trap Design



Visual Surveys to Locate Egg Masses



Results of Egg mass Searches:

- Newport Beach, CA
- July 23, 2010
- 100 egg masses; 141 weevils
- September 28, 2010
- 49 egg masses; 331 weevils
- October 12, 2010
- 55 egg masses; weevils were not collected

- Encinitis/Rancho Santa Fe
- June 15, 2010
- 0 egg masses
- August 18, 2010
- 9 egg masses

- NO WEEVIL ACTIVITY OBSERVED

Keep Your Eyes Open



Thank you all for your kind cooperation.