

Asian Longhorned Beetle Sacramento 2005



**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
PEST DETECTION/ EMERGENCY PROJECTS**

Chronology

- Over a two-day period in June 2005, three live Asian longhorned beetles were collected from the Rox Pro Warehouse in Sacramento. OK, one was dead and flattened, but before the employee smashed it, it was alive.
- After Exclusion collected the single dead and one living beetle, they notified PD/EP. Two PD/EP personnel went to the Rox Pro warehouse and placed lindgren funnel traps in the interior and immediate perimeter of the building. Two traps were placed inside and eight outside.

Chronology (cont.)

- While PD/EP staff were at the warehouse, they looked at the crates identified as the source of the beetles. They also visually surveyed the warehouse for possible exit locations for the beetles. Upon inspection of the grated openings (3' x 4') in the warehouse another live beetle was captured in the dust and debris around one of the four grated openings.
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Crate at Rox Pro



Crate at Rox Pro – exit holes



Crate at Rox Pro – exit hole



Beetle Found by Grated Opening

“a beetle in the hand is worth”



Beetle Found by Grated Opening



Inside Rox Pro Warehouse

(yes, this slide is blurry)



Warehouse mitigation measures



DETECTION TRAPPING

- 190 Lindgren funnel traps baited with ethanol were located in the 9-square mile area around the find site
- The core square mile contained 50 traps and the density of the remaining 8-square miles was 25 traps per.
- The traps were inspected every two weeks and removed at the end of October. They will not be redeployed.

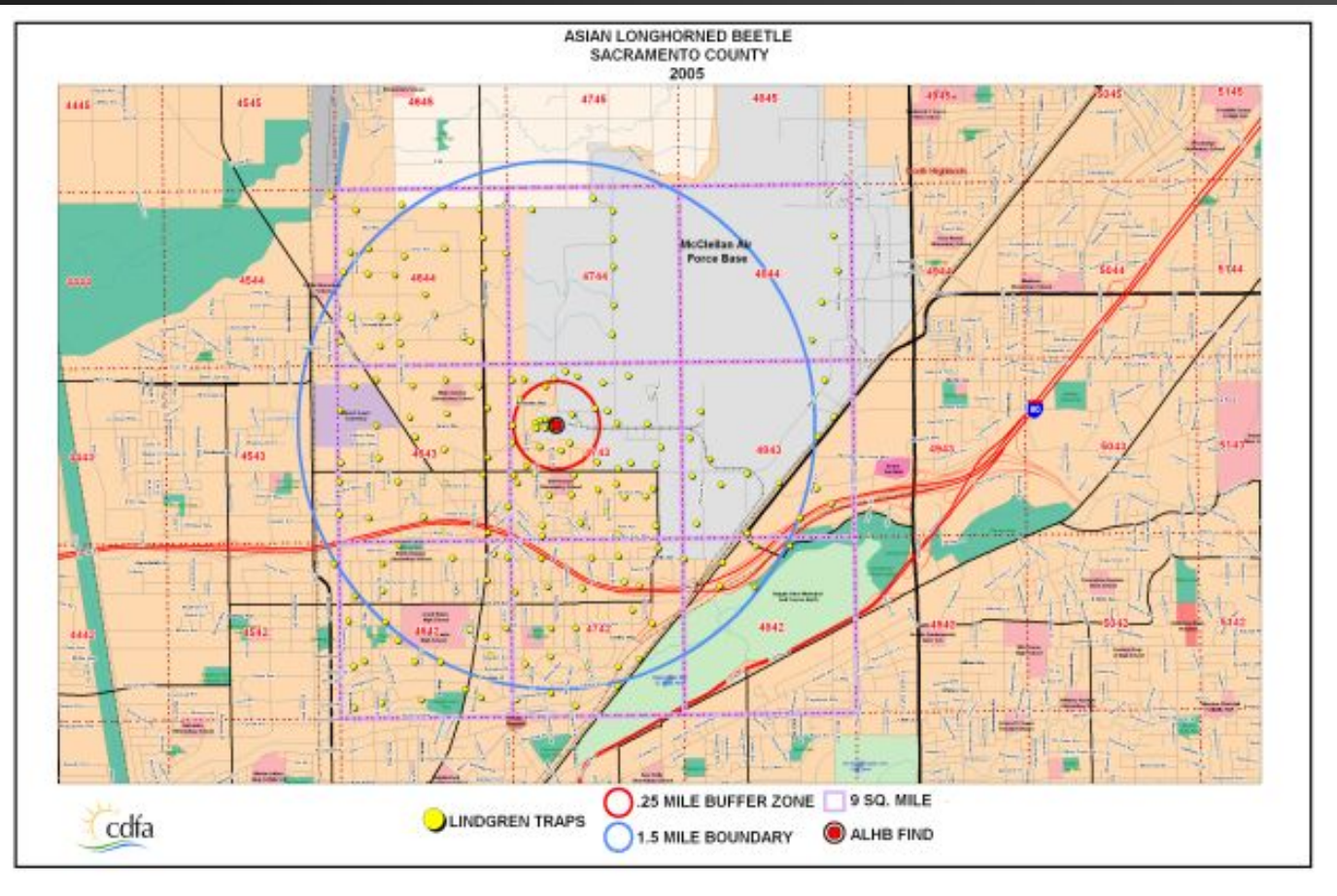
Lindgren funnel trap at Rox Pro



Checking Lindgren Funnel Trap



Lindgren Funnel Sites in 9-sq Mile Area



Visual Survey Host List

- The visual host survey crew utilized the May 2003 ALB host list put together by Alan Sawyer, USDA-APHIS-PPQ.
 - Trees in the first three categories (very good, good, and occasional or rare in the US) were surveyed.
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Hosts within the ¼-mile Radius

- 187 host trees are within the ¼ mile radius around the ALB finds.
 - These include: willow, ash, sycamore, silk tree, maple, hackberry, elm, poplar and cottonwood.
 - Of these trees, the most prevalent is sycamore (70 trees).
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Hosts in 9-Square Mile Area

- Of the 5322 properties surveyed in the 9-square mile area, 8403 of the trees are considered hosts for ALB. In this area, the remaining 22,769 trees are non-hosts.
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Various Surveys

- Detection – Lindgren funnel traps
 - Visual survey – 9 square miles around Sacramento Rox Pro site
 - USFS tree climbers
 - Trace Forwards (where items were shipped statewide from the three warehouses)–
 - Exclusion and County personnel (follow-up SWPM)
 - PD/EP (100 meter visual survey and traps - if deemed necessary)
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Surveys (cont.)

- Call Backs – Phone banks:
1-800-491-1800
 - Public Outreach – USFS and USDA-APHIS print material (bookmarks, Pest Alert flier, posters, removable tattoos!), meetings with the Master Gardeners, Sacramento Tree Service agency, neighborhood associations and UC-IPM.
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Survey Utilizing USFS Tree Climbers

- July 11, four smoke jumpers from the Redding USFS station arrived to climb and visually survey host trees within a quarter-mile radius of the Rox Pro facility.
 - The survey was completed in three days with negative results.
 - Re-survey with tree climbers in fall or spring?
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Tree Climber Staging





Tree Climber



Tree Climber



Where's Waldo?



Treatment Considerations

- Dr. Phil Lewis, with USDA PPQ OTIS, visited the Meadowview facility and demonstrated various treatment methods for ALB. The treatment options included trunk and soil injections using the Mauget™ system and other applications.
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Shade Tree NIGHTMARE



Asian Longhorned Beetle Lifecycle



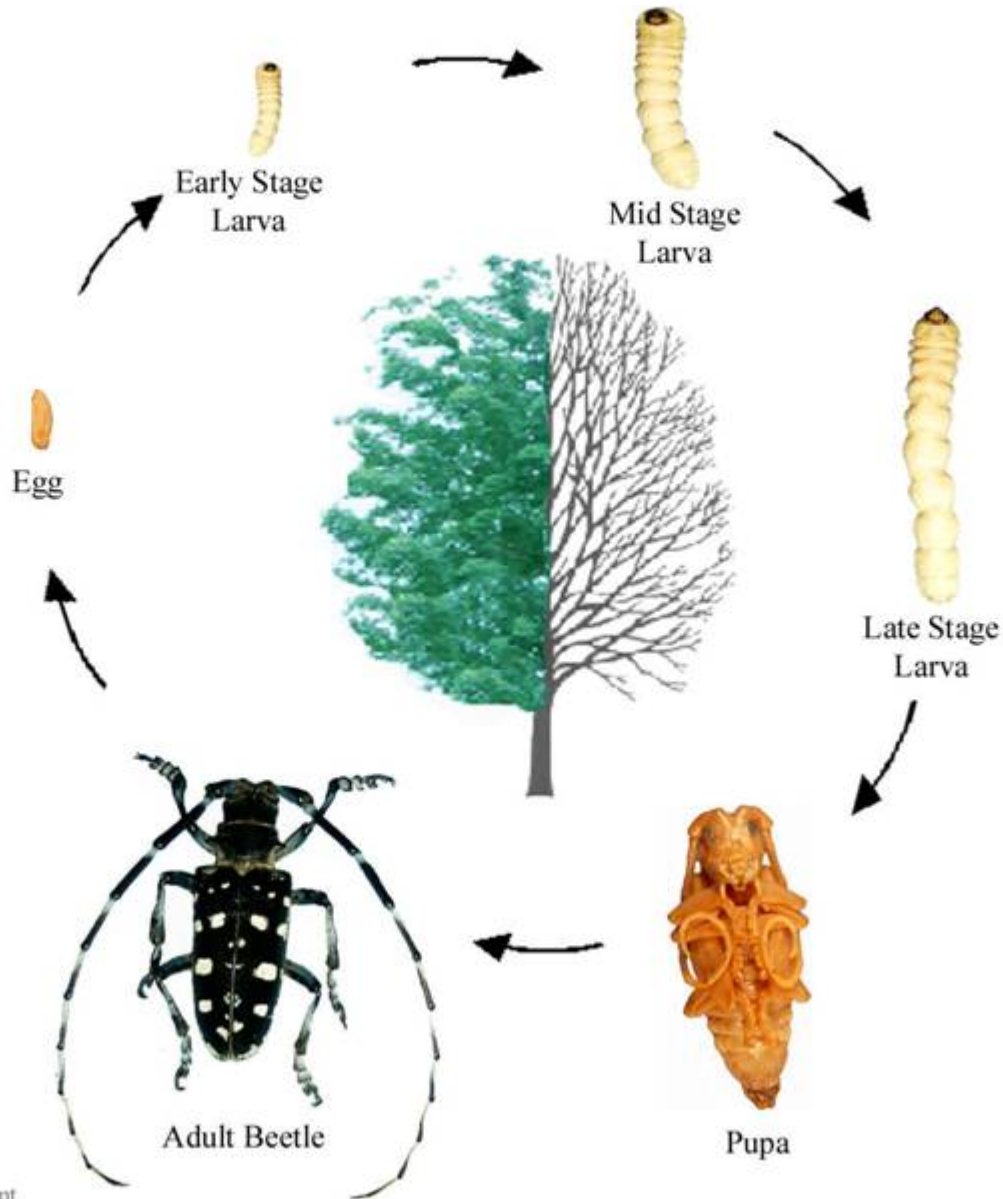
Adults and oviposition scars



Emergence holes



Adult emerging from tree

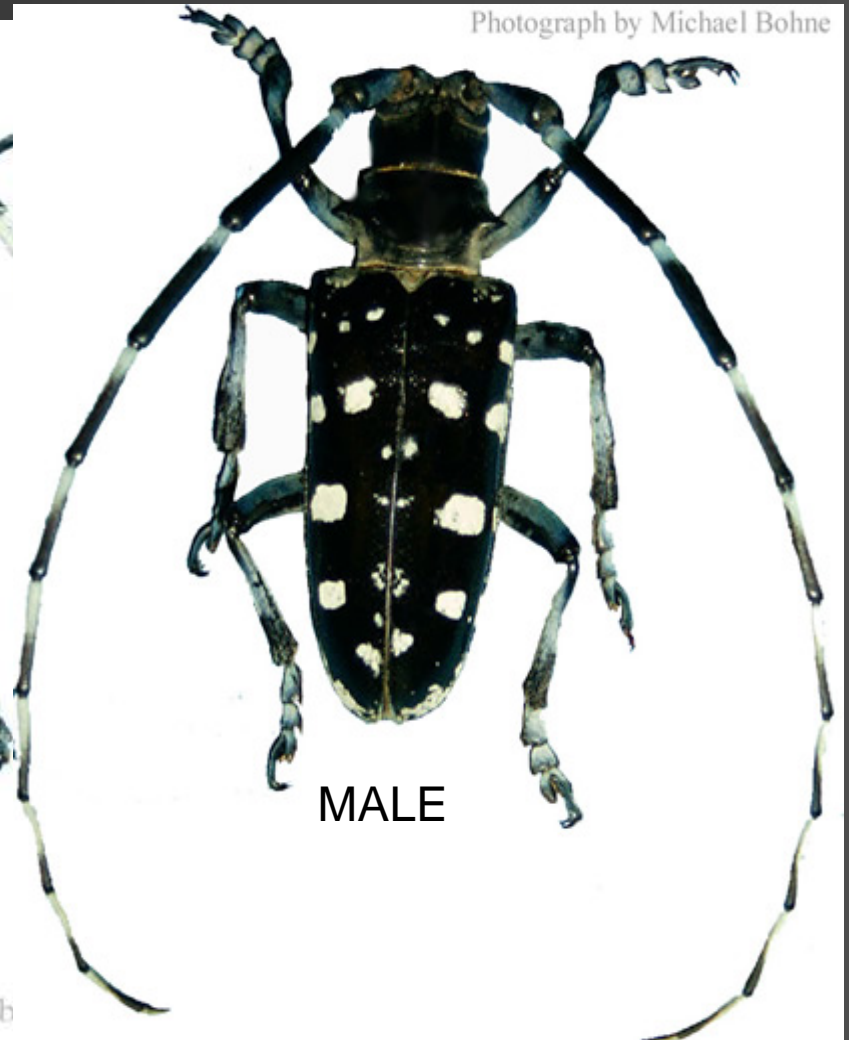


Larva in tree



Pupal chamber in tree

Adult stage



Asian Longhorned Beetle





Maturation Feeding



Maturation feeding on leaves







Oviposition Site





Egg sites on maple in Jersey City, NJ

Thank you's to:

- Tim Larson and Rod Kerr (CDFA – PD/EP) for the “a beetle in the hand is worth...” photo, the photos around of the interior and exterior of the Rox Pro facility, and the lindgren funnel traps.
- Mark Lubinski, John Pozzi (CDFA – PD/EP), and Sacramento County for coordinating and preparing the maps.
- Dave Wilson (Sacramento county) for conducting the public outreach meetings.
- APHIS and USFS for their assistance in providing the tree climbers and public outreach publications.



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