California Forest Pest Council

"Fostering education on the pests of California forests since 1951."

CFPC:
70 Years of Connecting Science and Management for Healthy Forests

November 17th 2021
12:40pm – 1:00pm

INLAND EMPIRE RESOURCE CONSERVATION DISTRICT

Invasive Shot Hole Borer monitoring and management in the Inland Empire, southern California

"The Quality of the Environment Determines the Quality of Life"

Education

Bilingual youth & adult education

Resident education/outreach on

Environmental Stewardship & Natural resources

Natural Resources Department

Community Conservation

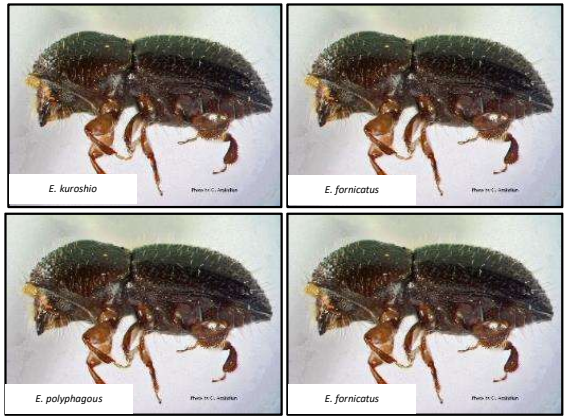
IERCD District Boundary

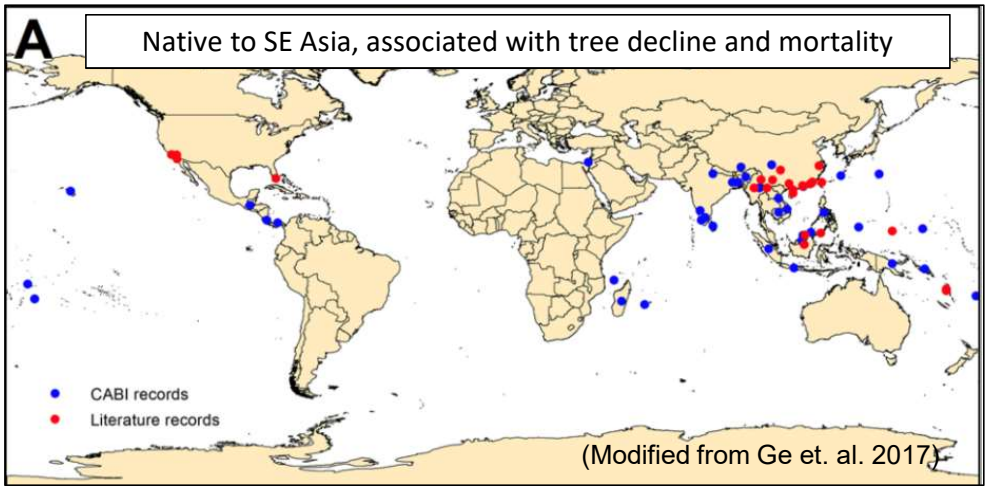
INLAND EMPIRE RESOURCE CONSERVATION DISTRICT

Invasive Shot Hole Borer monitoring and management in the Inland Empire, southern California

Brief background

ISHB = 4 ambrosia beetles





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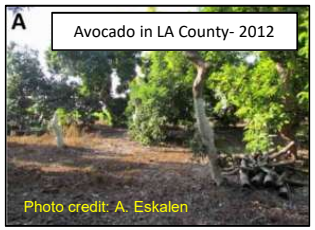
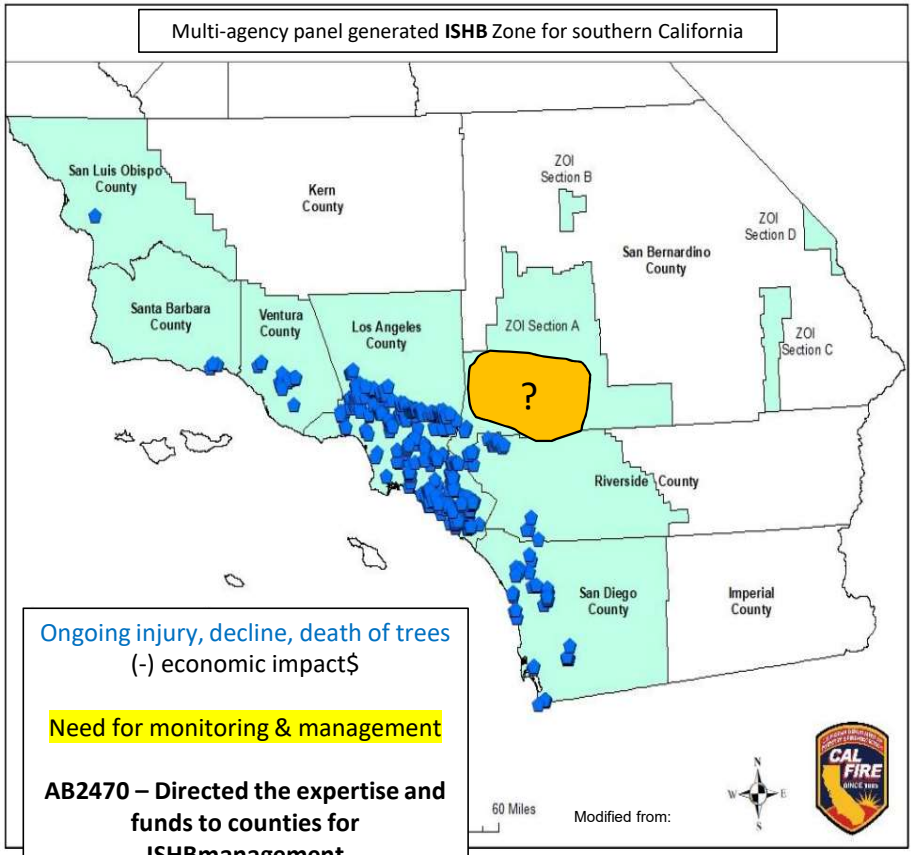
Brief background





Ongoing injury, decline, death of trees
(-) economic impact$

Need for monitoring & management

AB2470 – Directed the expertise and funds to counties for ISHBmanagement

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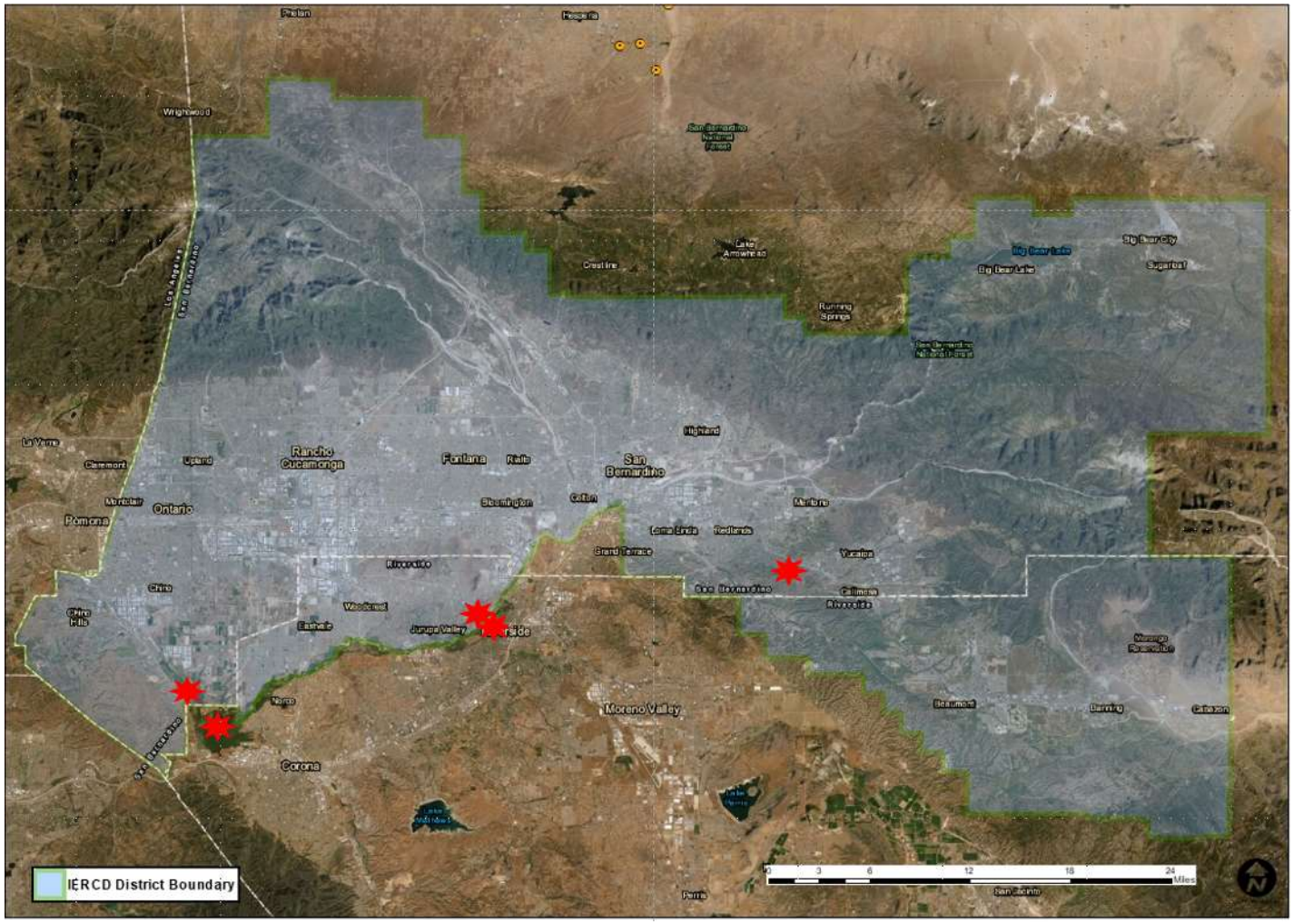
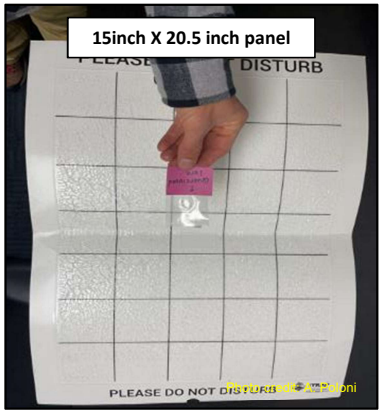
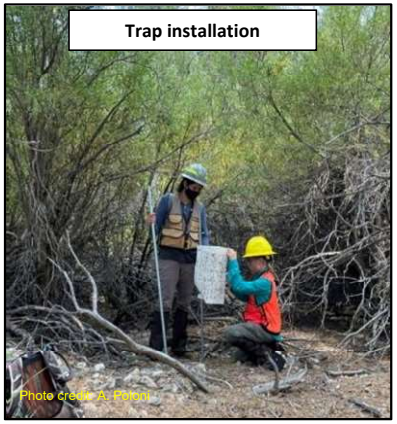


Invasive Shot Hole Borer monitoring and management in the Inland Empire, southern California

Trap network





Field surveys/visual monitoring

Survey of individual tree:

- Tree species
- Diameter at Breast Height (DBH)
- Tree height (feet)
- ISHB Exit Hole count category
  - 1, 2, 3, 4, 5
- Other observations

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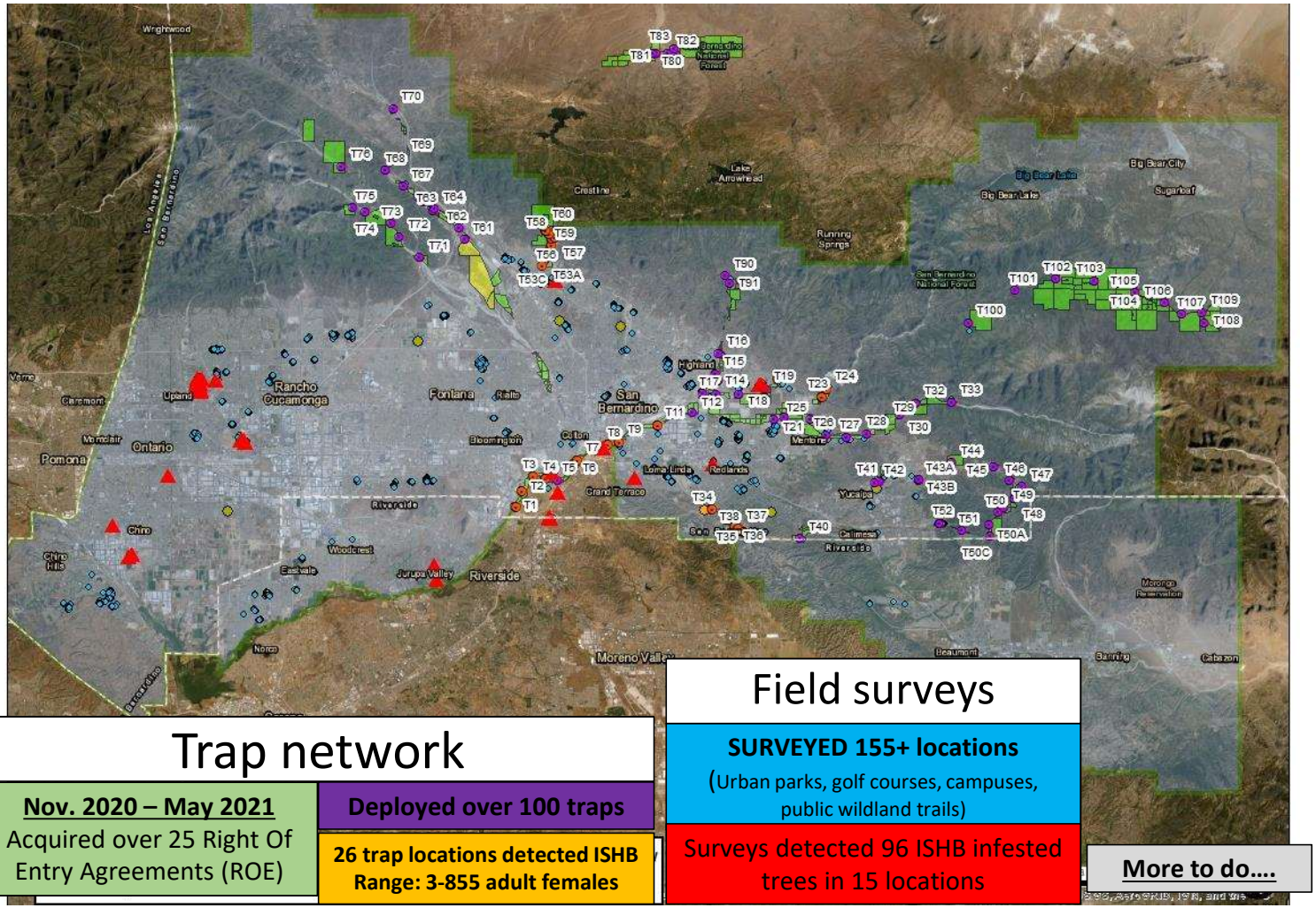
Invasive Shot Hole Borer monitoring and management in the Inland Empire, southern California



Trap network

Nov. 2020 – May 2021
Acquired over 25 Right Of Entry Agreements (ROE)

Deployed over 100 traps

26 trap locations detected ISHB
Range: 3-855 adult females

Field surveys

SURVEYED 155+ locations
(Urban parks, golf courses, campuses, public wildland trails)

Surveys detected 96 ISHB infested trees in 15 locations

More to do….

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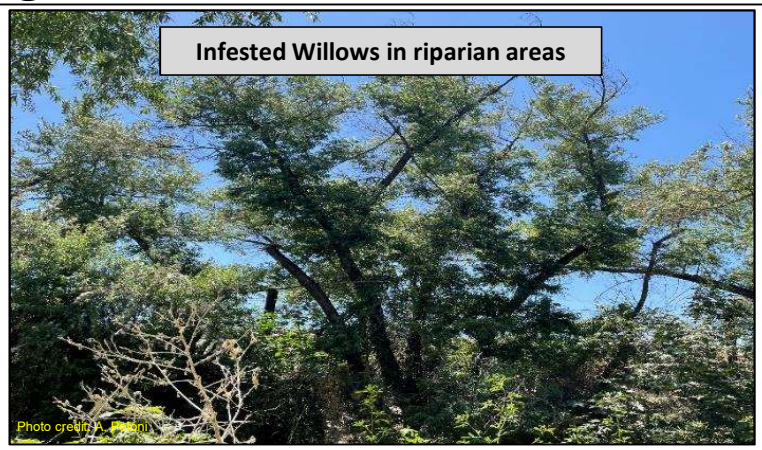
Invasive Shot Hole Borer monitoring and management in the Inland Empire, southern California

Highlights



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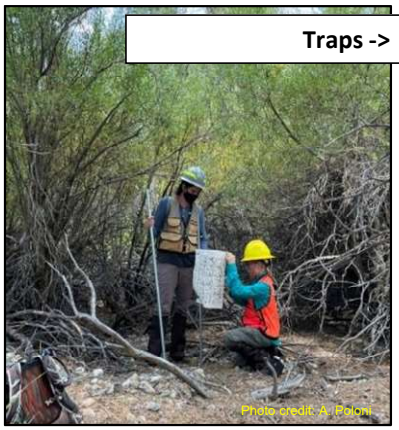
Invasive Shot Hole Borer monitoring and management in the Inland Empire, southern California

Monitoring –> Management

Traps ->



Surveys ->

Monitoring data contributes:

- ISHB distribution map @ ISHB.org
- Biweekly and quarterly updates to working groups
  - (e.g. Emerging Tree Pest)
- Informs land managers/collaborators
  - Private & local entities
  - CalFire, USFS, CA State Parks, County Agriculture, other special districts

Identify and Inform:

- Additional field surveys & monitoring
- Support direct management of ISHB infested trees (site dependent):
  - Tree trimming
  - Tree removal
  - Tree replacement
- **Facilitate 15 land managers that have ISHB infested trees**

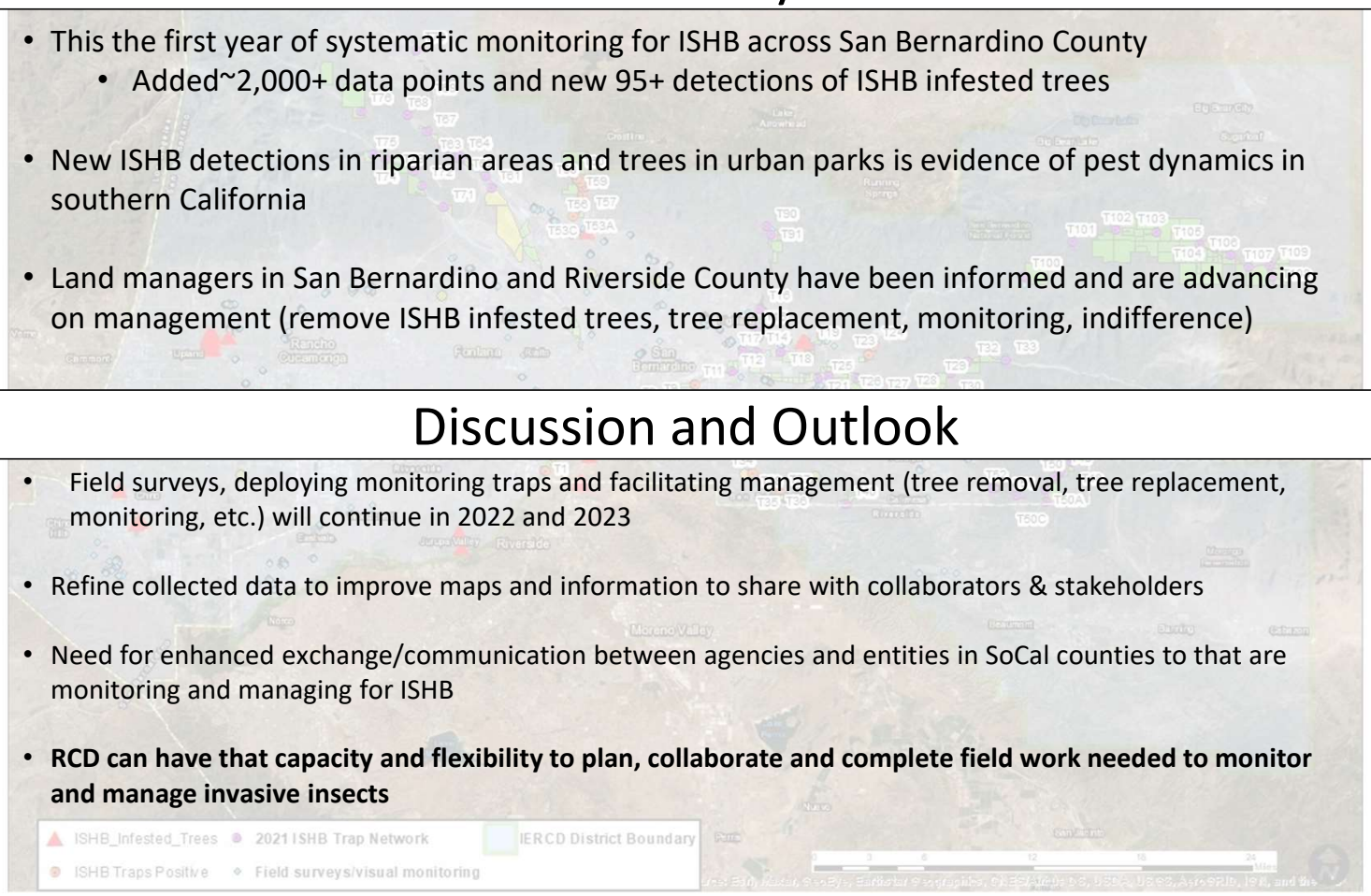
Invasive Shot Hole Borer monitoring and management in the Inland Empire, southern California

Summary

- This the first year of systematic monitoring for ISHB across San Bernardino County
  - Added~2,000+ data points and new 95+ detections of ISHB infested trees
- New ISHB detections in riparian areas and trees in urban parks is evidence of pest dynamics in southern California
- Land managers in San Bernardino and Riverside County have been informed and are advancing on management (remove ISHB infested trees, tree replacement, monitoring, indifference)

Discussion and Outlook

- Field surveys, deploying monitoring traps and facilitating management (tree removal, tree replacement, monitoring, etc.) will continue in 2022 and 2023
- Refine collected data to improve maps and information to share with collaborators & stakeholders
- Need for enhanced exchange/communication between agencies and entities in SoCal counties to that are monitoring and managing for ISHB
- **RCD can have that capacity and flexibility to plan, collaborate and complete field work needed to monitor and manage invasive insects**



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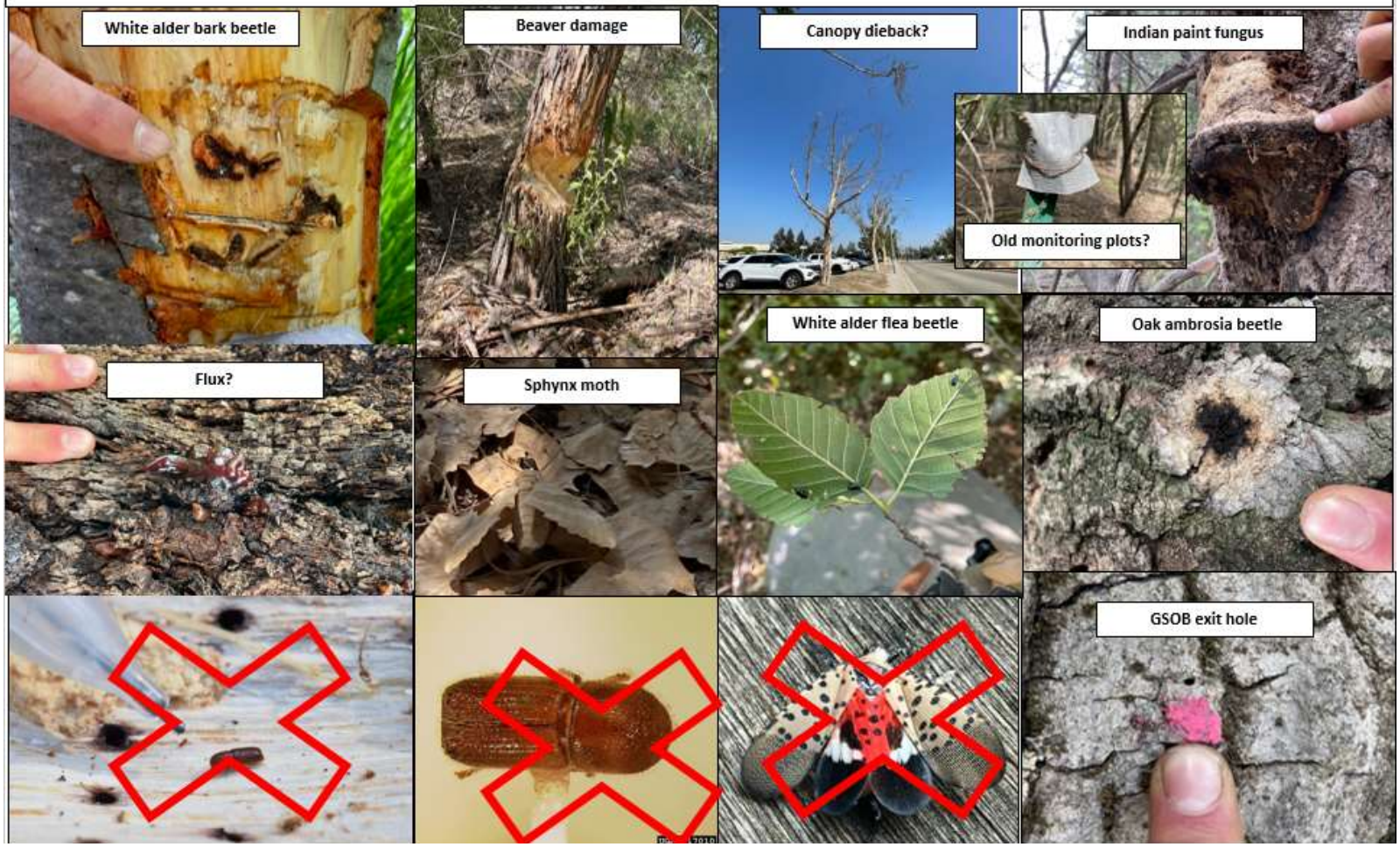
Not all about ISHB



Acknowledgements

Funding

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IERCD funding

Collaborations

- Southern California Edison
- City of Redlands
- San Bernardino Flood Control District
- The Redlands Conservancy
- Yucaipa Valley Conservancy
- San Bernardino Municipal Water District
- San Bernardino National Forest
- Beaumont Cherry Valley Water District
- Mojave River Resource Conservation District
- Natural Resource Conservation District

Support

- **Hannah Vasillis (UCANR)**
- Randall Oliver (UCANR)
- Tom Smith (Cal Fire)
- Julie Clark de Blasio (UCANR)
- Andrea Hefty (USFS - FHP)
- Stacy Hishinuma (USFS – FHP)
- Eric Downs (Riverside County Agriculture)
- Doug Chudy (The Wildland Conservancy)
- Marcus Hubbell (CA State Parks)
- Megan Siefker (UC Davis)

Field work

Julian Marenco

Sarah Randall

Steven Caro

Lus Gomez

Alex Chacon

Taylor Holloman

Gabriela Preciado

Autumn Yanez-Jacobo

Sam Nielsen

Questions & Comments

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We look forward to connecting with you!

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