

Developing a new frame work for biocontrol in the Western States

Darcy Oishi

Hawaii Department of Agriculture

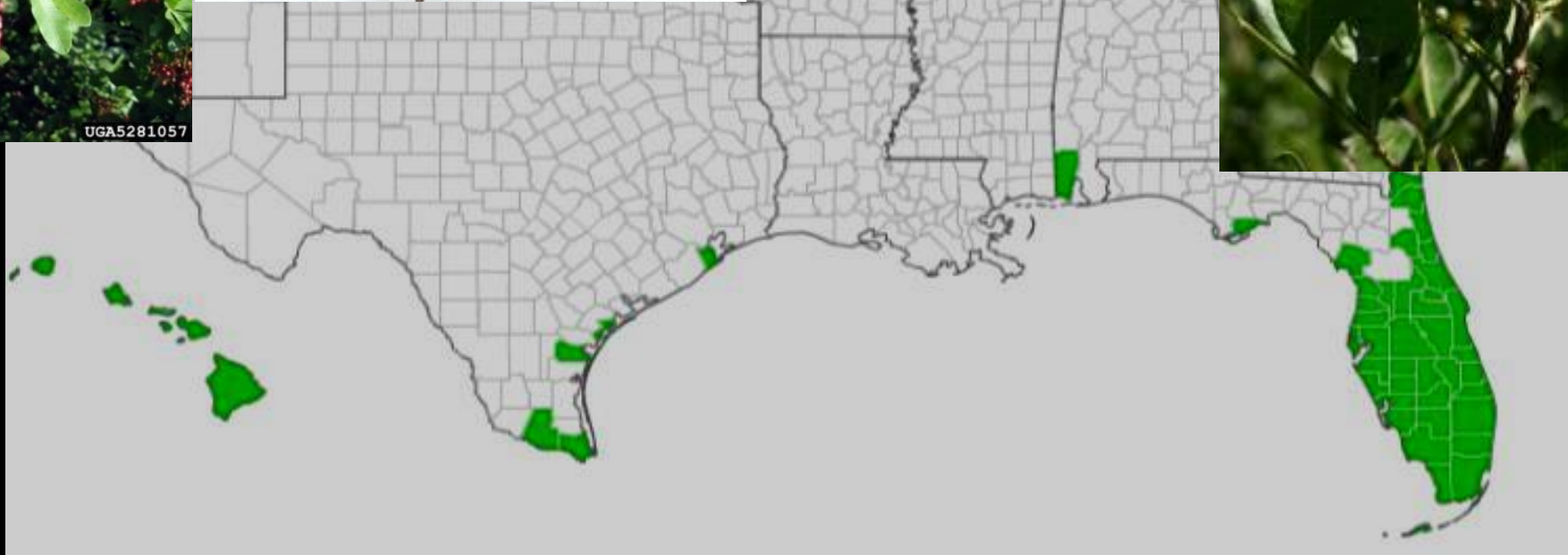
Western Governor's Association, December 10, 2018

Fairmont Orchid, Hawaii

Communication



Hawaii has always worked collaboratively...



Being Proactive is Good

- Biocontrol is normally reactive
- There are numerous targets we can proactively plan for
- Planning means opportunity for collaboration

OUTLOOK

Proactive biological control: A cost-effective management option for invasive pests

Proactive biocontrol could accelerate responses to invasive pests in urban areas — where pesticide use may be unpopular — before they spread to agricultural areas.

Mark S. Hoddle, UC Cooperative Extension Specialist, Department of Entomology, and Director, Center for Invasive Species Research, UC Riverside

Kevi Mace, Senior Environmental Scientist, Office of Pesticide Consultation and Analysis, California Department of Food and Agriculture, and Research Associate, UC Davis Department of Agricultural and Resource Economics

John Steggall, Senior Environmental Scientist, Office of Pesticide Consultation and Analysis, California Department of Food and Agriculture, and Research Associate, UC Davis Department of Land, Air and Water Resources

Invasive pests regularly threaten California agriculture as well as the state's diverse urban and wilderness areas. Approximately nine nonnative species of invertebrates (i.e., insects, mites, spiders, etc.) establish in the state each year, of which about three become pests (Dowell et al. 2016). These invasive species move globally through trade and tourism. Biological control programs are typically implemented as part of an integrated pest management (IPM) approach for some invasive species infestations in California. However, a proactive approach would be to screen a pest's natural enemies and approve them for release ahead of time, before the pest establishes in California. Such a project is just getting underway.

California's agricultural enterprises are vast (valued at \$46 billion in 2015), and the state is a world leader in the development of science-based pest management solutions. Biological control and IPM originated here. IPM is a comprehensive approach to managing pests and combines plant and pest management practices, which biological control aims to reduce pest damage and pesticide use. Biological control involves the intentional use of natural enemies for suppression of pest populations to a non-damaging level.

natural enemy species from the invader's native area for pest control.

Biological control programs in California began 125 years ago, with numerous achievements over the years in agricultural crops (e.g., citrus, olives, grapes, alfalfa) and urban areas (e.g., ash and eucalyptus). In several cases, imported natural enemies have suppressed invasive pest populations so that they no longer require management, and in many instances they have contributed significantly to IPM programs by reducing the need to spray pesticides. When a new invasive pest becomes established, IPM programs that carefully manage insecticide use may be disrupted as spraying increases in response to pressure from the new pest. In urban areas, which can be hot spots for invasive species that threaten agriculture, pesticide use to eradicate or control an invasive pest can cause public resistance, which sometimes results in legal actions and the termination of pest control programs.





International Collaborations
are of benefit all around

- 
- Biocontrol project part of an international collaboration between CABI, New Zealand and Hawaii

Photos courtesy of

Benefits of collaboration

- Better justification to pursue projects
- Leveraging of resources
- Shared costs
- Better canvassing of the world for foreign exploration



The Path Forward

US Regional
Coordinator

US territories and states

Leverage broader regional priorities

Engage with
Australia and
New Zealand

Expand and leverage targets in the Pacific.

Increased trade between the Pacific and Asia increases risk to
Continental US

Improve
facilities and
staffing at
the local
level

We need to improve capacity to address local and regional needs for
biocontro



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