

Cooperative Agricultural Pest Survey

A Program to Detect Plant Pests And Diseases of Regulatory Concern



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large pine weevil
Hylobius abietis



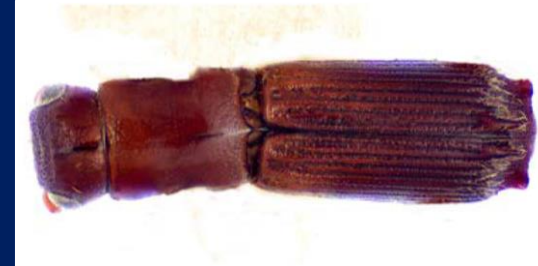
six-spined engraver beetle
Ips sexdentatus



European spruce bark beetle
Ips typographus



common pine shoot beetle
Tomicus destruens



oak ambrosia beetle
Platypus quercivorus

Exotic Wood Boring Beetle Survey

Curculionidae: Scolytinae, Platypodinae: bark and ambrosia beetles

Cerambycidae: longhorn beetles

Buprestidae: jewel beetles

EWBB



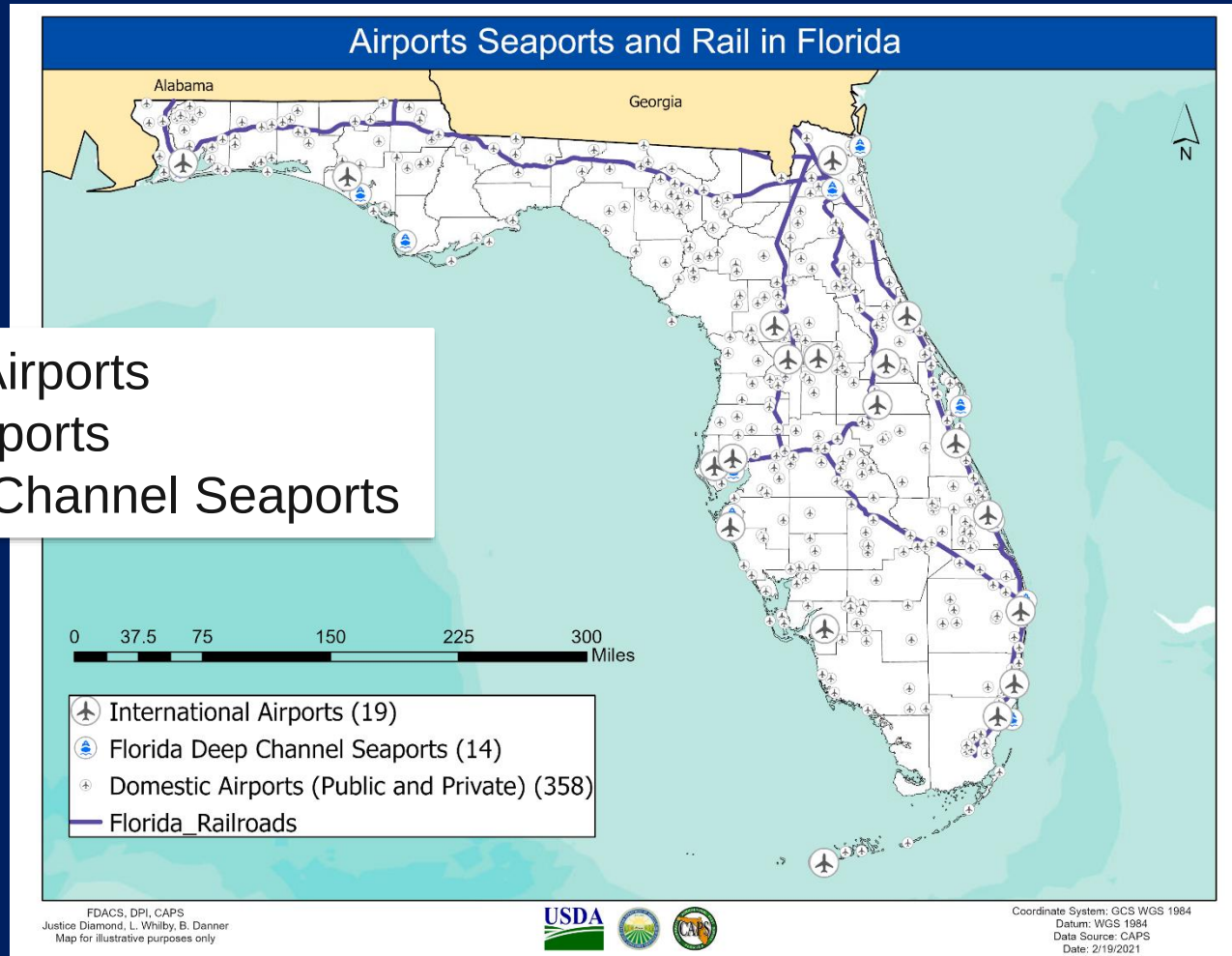
- Florida's forest industry: >\$16.5 billion, >133,000 jobs
- Plus: tourism, parks, preserves, residential and street trees

Florida is a major trade hub and receives material by rail, sea and air from all over the world, putting it at a high risk for the introduction and establishment of exotic wood boring insects.

EWBB



19 International Airports
358 Domestic Airports
14 Florida Deep Channel Seaports

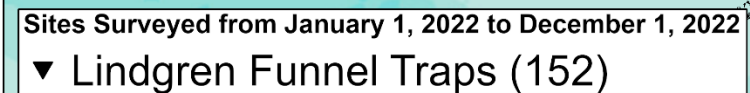


EWBB



- Survey and monitor high risk areas that pose the greatest likelihood of introduction and establishment of exotic wood boring insects via infested wood packing materials and firewood:
 - Campgrounds
 - Natural areas
 - Green areas around ports
 - Disturbed areas (natural disasters)

- **30 Counties surveyed**
- **152 Lindgren multi-funnel traps**
- **541 Trap checks**
- **30,904 Specimens screened**
- **0 Targets found**
- **4 lure types:**
 - EtOH
 - AP+EtOH
 - Quercivorol
 - Ips



EWBB: 2022 Results



No pests from the CAPS target list have been detected; however:

County records: 7

US Continental: 1

Family	Genus	Species	County
Cerambycidae	<i>Trachyderes</i>	<i>succinctus</i>	US Continental
Phlaeothripidae	<i>Elaphrothrips</i>	<i>tuberculatus</i>	Pinellas
Reduviidae	<i>Empicoris</i>	<i>rubromaculatus</i>	Jackson
Delphacidae	<i>Pareuidella</i>	<i>triloba</i>	Manatee
Aradidae	<i>Aneurus</i>	<i>leptocerus</i>	Hillsborough
Delphacidae	<i>Liburniella</i>	<i>ornata</i>	Bay
Reduviidae	<i>Pselliopus</i>	<i>cinctus</i>	Escambia, Milton, Suwannee
Delphacidae	<i>Pygospina</i>	<i>spinata</i>	Manatee



Thaumetopoea processionea 2022 Results



- *Thaumetopoea processionea* : oak processionary moth
 - Native to Europe
 - Found in a few Asian countries (Russia, Israel, Cyprus)
 - Pathway: International trade
 - Larvae are defoliators and can leave trees vulnerable
 - Larvae move in processions
 - Survey method: searching for communal nests, wing trap
 - Main host: *Quercus* spp. but can hit other hosts like birch, hazelnut, hawthorn, and others.

- 12 Counties surveyed
- 25 Traps set up
- 207 Trap checks
- 0 Targets found



Figure 3. Adult *T. processionea* [Image from Gyorgy Csoka, Hungary, Forest Research Institute, www.bugwood.org]



Figure 5. Nest with caterpillars [Image from Louis-Michel Nageleisen, Département de la Santé des Forêts, www.bugwood.org]



Visual Surveys: Asian Longhorned Beetle (ALB)/ Citrus Longhorned Beetle (CLB)

Anoplophora glabripennis

Anoplophora chinensis

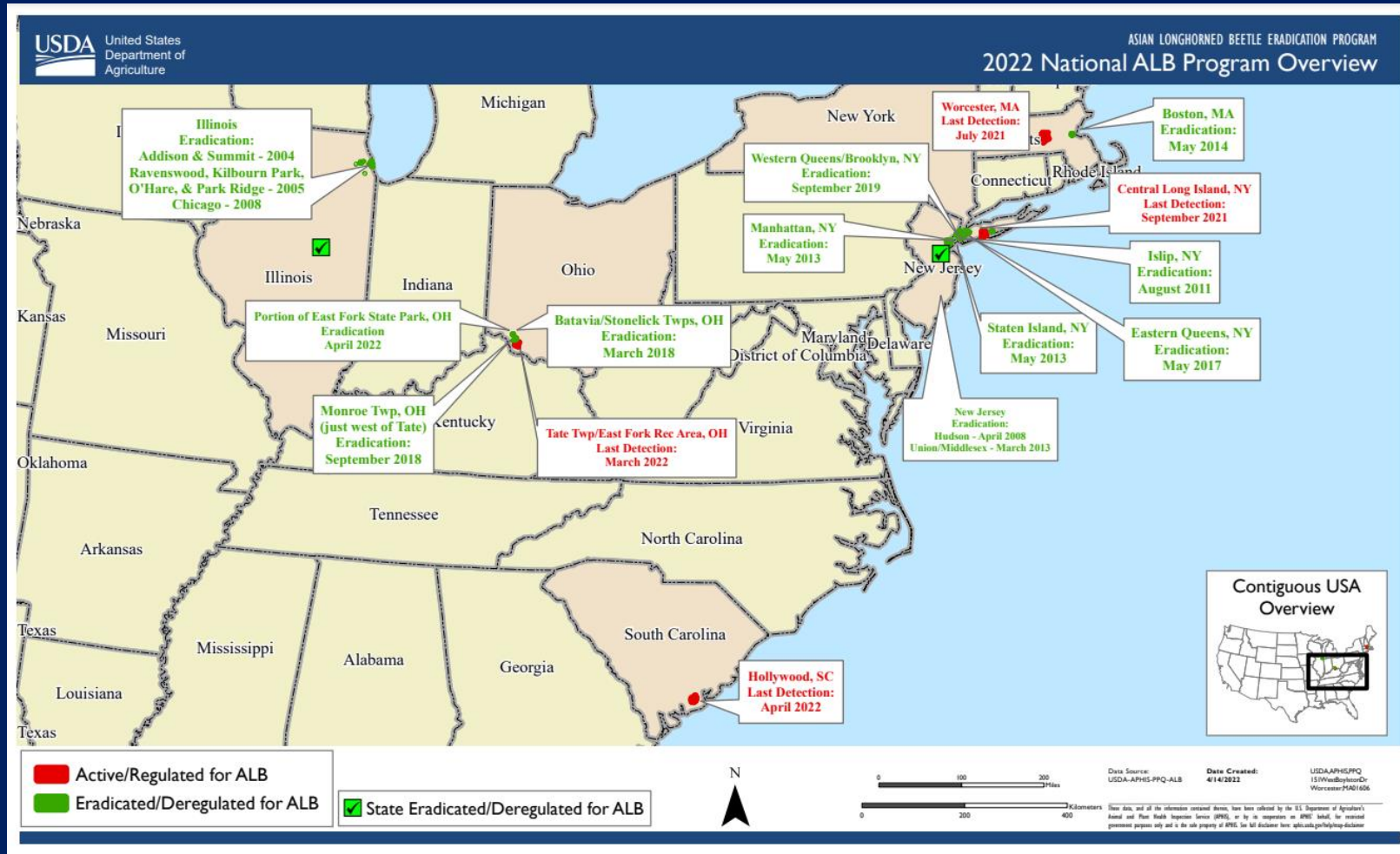
ALB



- First U.S. detection in New York in 1996; most recently found in South Carolina (2020)
- Native to China and Korea; probably introduced via wood packing materials made from poplar.
- Maples, birches and elms are susceptible to attack by ALB.
- Hosts: *Acer* spp., *Acer rubrum* (Red maple), *Ulmus americana* (American elm), *Ulmus parvifolia* (Chinese elm), and *Salix* sp. (Willow)
- Populations may go unnoticed for years before detection.

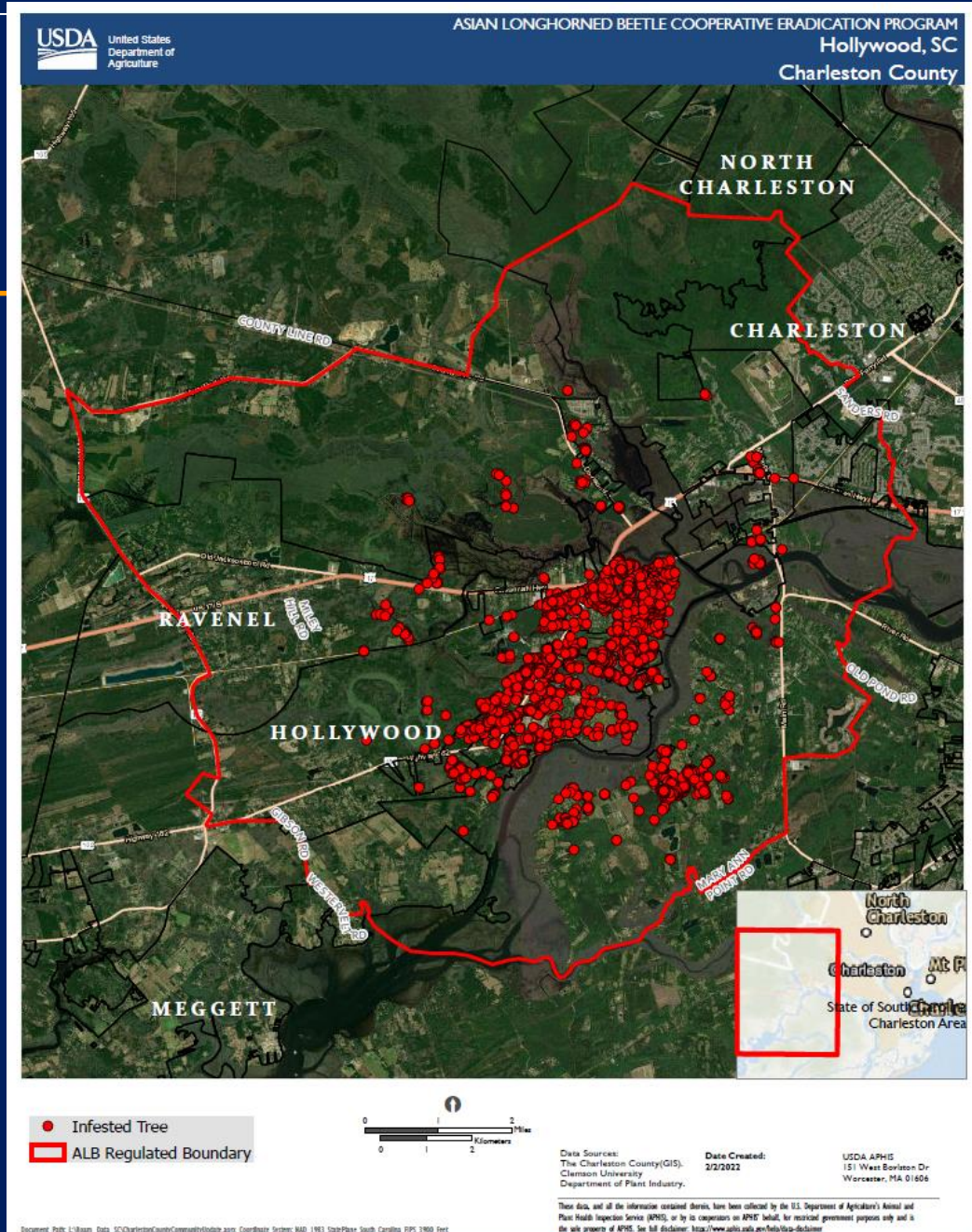


ALB



ALB SC

- Quarantine boundary
 - 76 Square miles
 - 1.5-Mile buffer around infestation



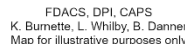
CLB



- CLB is native to Asia (Japan, Korea and China).
- In 1999, intercepted on crape myrtle bonsai shipped from China to Athens (GA) nursery.
- Last interception in California (2018) from an airport. Origin: Hong Kong.
- Hosts:
 - Citrus, poplars, Australian pine, willows, apple, etc.



- **18 Counties surveyed**
- **130 Visual locations**
- **244 Checks**
- **0 Targets found**



Lycorma delicatula 2022 Results



- *Lycorma delicatula*: spotted lanternfly
 - Native to China
 - Pennsylvania 2014-Spread
 - Wide host range
 - grapes, maple, poplar, birch, apple, tree of heaven, chinaberry, Virginia creeper, black walnut, stone fruit
 - Eggs can be laid on non-host material, such as vehicles, storage containers, etc.
 - **4 Counties surveyed**
 - **29 Locations**
 - **29 Visual checks**
 - **0 Targets found**

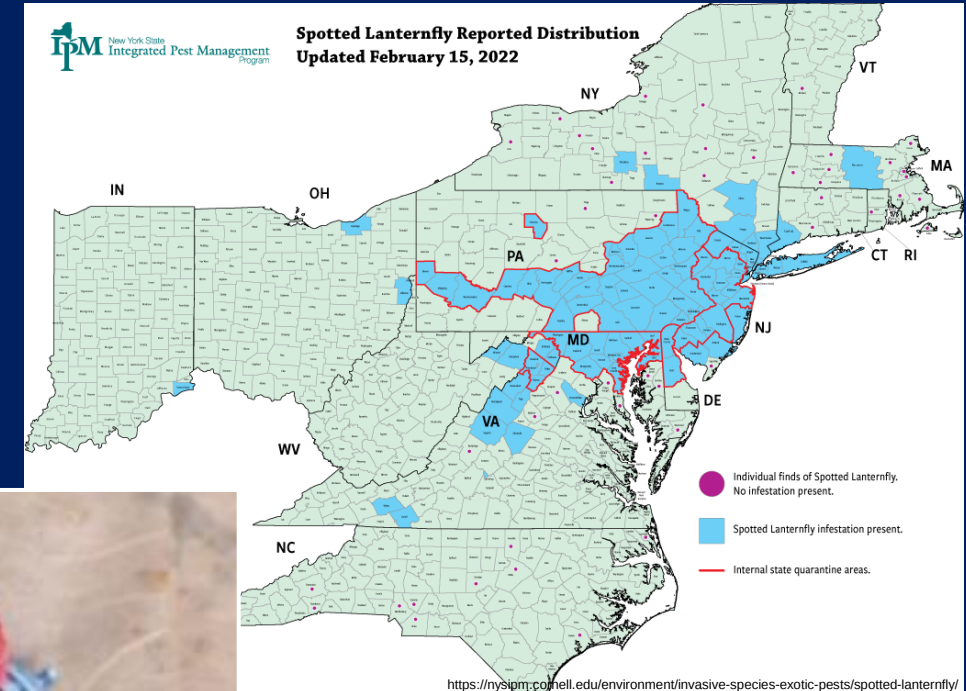


Photo by Lawrence E. Barringer, Pennsylvania Department of Agriculture and Erica Smyers, Pennsylvania State University

EWBB: 2023 Plans



- Pest list 2023:

Retaining:

- *Hylobius abietis*
- *Platypus quercivorus*
- *Tomicus destruens*
- Visual: *Anoplophora glabripennis*
- Visual: *Anoplophora chinensis*
- Visual: *Lycorma delicatula*
- *Ips sexdentatus*
- *Ips typographus*

Removing:

- *Thaumetopoea processionea*

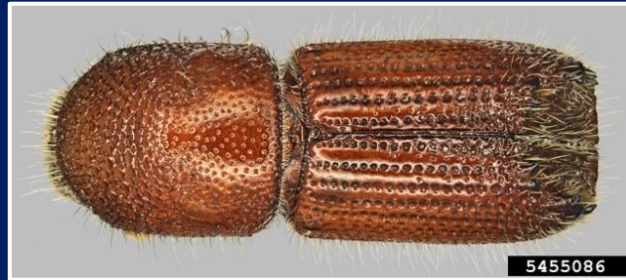




Ips typographus
European spruce bark beetle



Ips sexdentatus
Six-spined engraver beetle



Orthotomicus erosus
Mediterranean pine engraver beetle



Tomicus minor
Lesser pine shoot beetle

Early Detection and Rapid Response (EDRR)





What is EDRR?

Early Detection and Rapid Response is a cooperative program between the Florida Forest Service, U.S. Forest Service, university, and state representatives.

Goals:

- Detect, delimit and monitor newly introduced exotic bark and ambrosia beetles at selected high-risk forest areas.
- Quickly assess and respond to newly detected infestations.

EDRR



- 12 wooded sites near high-risk areas, each with 3 traps
- March – July



- 36 Lindgren funnel traps in 11 counties (Brevard, Broward, Escambia, Indian River, Marion, Miami-Dade, Palm Beach, Santa Rosa, St. Johns, Suwannee, Volusia)
- Lures
 - Ethanol
 - Ethanol and Alpha-pinene
 - Ips Lure
- Checked every 2 weeks, 6 collections total

EDRR: 2022 Results



- ~198 samples submitted
- 5,469 scolytines identified by Dr. Anthony Cognato of Michigan State University



Thank You | Questions



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