

CAPS Survey Report

Year:	2016
State:	Louisiana
Cooperative Agreement Name:	Forest Health Response Program
Cooperative Agreement Number:	16-8422-1301-CA
Project Funding Period:	July 1, 2016 through December 31, 2016
Project Report:	CAPS Survey Report
Project Document Date:	March 27, 2017
Cooperators Project Coordinator:	State Survey Coordinator (SSC)
Name:	J. Brett Laird
Agency:	Louisiana Department of Agriculture and Forestry
Address:	5825 Florida Blvd., Suite 3002
City/ Address/ Zip:	Baton Rouge, Louisiana 70821
Telephone:	985-543-4024
E-mail:	brett_l@ldaf.state.la.us

Quarterly Report	<input type="checkbox"/>
Semi-Annual Accomplishment Report	<input type="checkbox"/>
Annual Accomplishment Report	<input checked="" type="checkbox"/>

- A. Write a brief narrative of work accomplished. Compare actual accomplishments to objectives established as indicated in the work plan. When the output can be quantified, a computation of cost per unit is required when useful.*

The Louisiana Department of Agriculture and Forestry (LDAF) entered into a Cooperative Agreement with the United States Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) in 2016 to conduct a Forest Health Response Program Survey. LDAF conducted this trap and visual survey according to survey guidelines set forth by the USDA, APHIS, PPQ in 2016. LDAF's Agriculture and Environmental Science (AES) division is divided into 7 districts across the state and 4 of these districts were utilized to conduct this survey due to their concentration of high risk areas for the targeted pests. There were 14 locations in 14 parishes selected by Karen Jenkins (PSS, Louisiana) and Brett Laird (SSC, Louisiana) based on high risk pathways. Two Lindgren funnel traps and one cross vane panel trap was deployed at each location. A visual inspection was also conducted at each trap location each time the traps are serviced. Traps were deployed in the first week of July, 2016. Traps were serviced once a month and were decommissioned at the end of November, 2016. Trap collections were shipped to Karen Jenkins (PSS, Louisiana) for the initial screening and then transported to Eric White (identifier, PPQ, Louisiana) for final determination of pests. All trap collections were negative for the targeted pests. Visual inspections did not produce any of the targeted pests finds.

Outreach efforts were accomplished by LDAF AES inspectors to property owners and concerned stakeholders at each trap location. Louisiana State University (LSU) county agents and United States Forest Service (USFS) personnel were informed of LDAF's activities pertaining to this survey during the prior CAPS committee meeting in order for them to field any calls from concerned stakeholders. LDAF inspectors continue to monitor the inventory of "Hungry Pests" brochures and "Don't Move Firewood" rack cards at the 13 Louisiana Welcome centers across the state.

LDAF conducted its own survey for Emerald Ash Borer (EAB) ~ *Agrilus planipennis* involving United States Forest Service (USFS), Natural Resource Conservation Service (NRCS) and LDAF Forestry Division. LDAF Forestry Division employed Delta 21 to deploy and monitor traps. PPQ provided traps and lures for this effort.

Funding Amount	Total Number of Traps	Cost Per Unit
Proposed = \$15,977	Proposed = 42	Proposed= n/a
Actual = \$15,977	Actual = 42	Actual = n/a

1. Survey methodology (trapping protocol):

	Common Name	Scientific Name
Pest:	City Longhorned Beetle Pine Witches' Broom Sixtoothed Bark Beetle European Spruce Bark Beetle Japanese Pine Sawyer Sakhalin Pine Sawyer Small White – Marmorated LH Beetle Black Fir Sawyer Needle Blight of Pine Mediterranean Pine Engraver Laurel Wilt European Oak Bark Beetle Exotic Tremex Woodwasp Red Bay Ambrosia Beetle	<i>Aeolesthes sarta</i> <i>Candidatus Phytolasma pini</i> <i>Ips sexdentatus</i> <i>Ips typographus</i> <i>Monochamus alternatus</i> <i>Monochamus saltuarius</i> <i>Monochamus sutor</i> <i>Monochamus urussovii</i> <i>Pseudocercospora pini-densiflorae</i> <i>Orthotomicus erosus</i> <i>Raffaelea lauricola</i> <i>Scolytus intricatus</i> <i>Tremex fuscicornis</i> <i>Xyleborus glabratus</i>

	Proposed	Actual
Sites (Locations):	14	14
Traps:	42	42

Number of Counties:	14
Counties:	Desoto, Grant, Jackson, Lincoln, Morehouse, Natchitoches, Red River, Richland, Sabine, Union, Vernon, Webster, West Baton Rouge, West Feliciana.

2. Survey dates:

	Proposed	Actual
Survey Dates:	July 1, 2016 through December 31, 2016	July 1, 2016 through December 31, 2016

3. Benefits and results of survey:

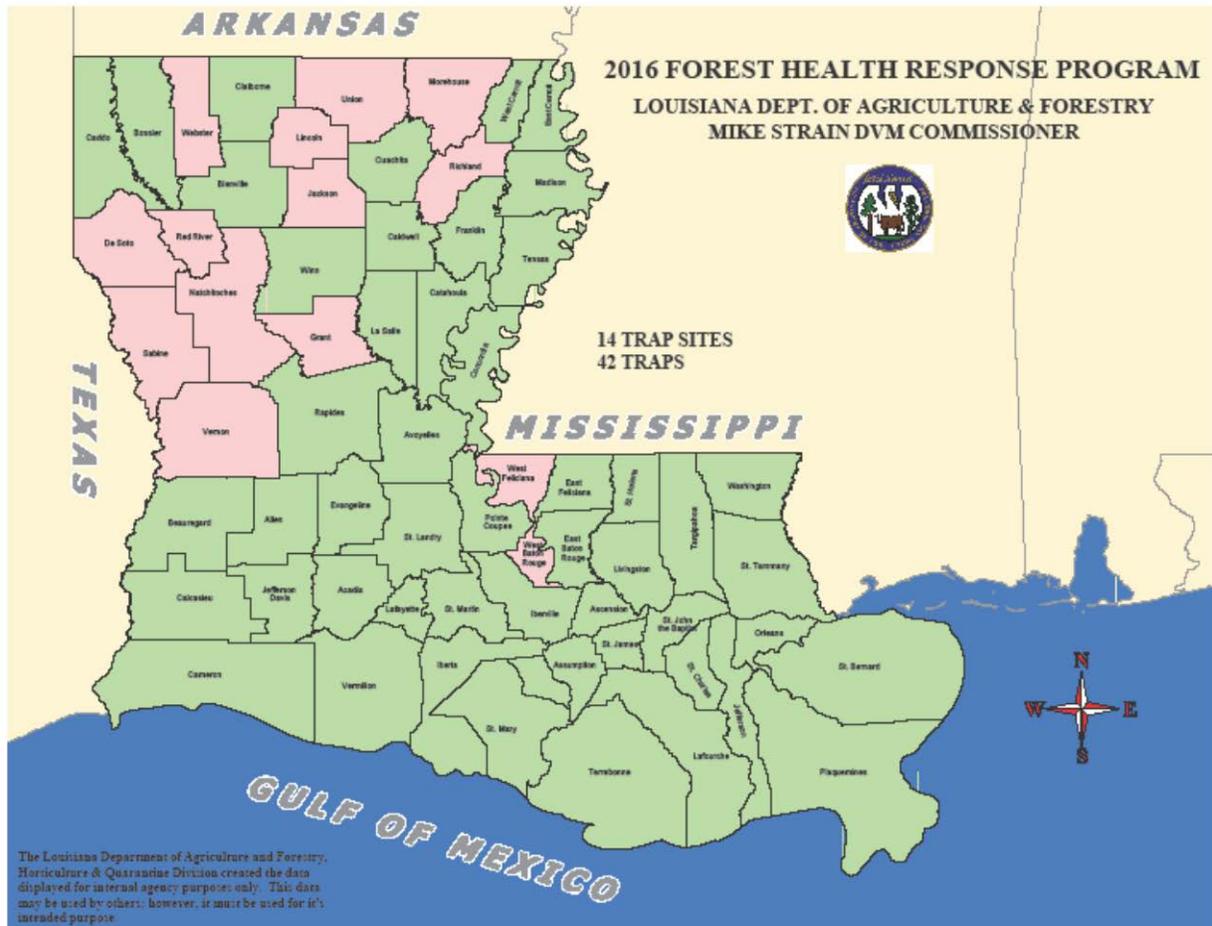
	Positive	Negative	Total Number
Traps	n/a	n/a	42

4. Database submissions:

All survey data has been entered into the NAPIS database by Brett Laird (SSC, Louisiana). All survey data has been entered into the IPHIS database by Karen Jenkins (PSS, Louisiana).

B. If appropriate, explain why objectives were not met.*
 All objectives proclaimed for this survey have been obtained.

C. Where appropriate, explain any cost overruns or unobligated funds in excess of \$1,000.*
 Cost overruns were incurred by LDAF in the amount of \$1,984.00.



***The following is the Forest Health Response Program Laboratory Report prepared by Karen Jenkins (USDA APHIS PPQ); the Pest Survey Specialist (PSS) for Louisiana.

Trap sites this year focused on saw mills, paper mills, camp grounds at parish and state parks, pallets manufacturing- solid wood packing material establishments in association with military bases, airports handling foreign and out of state garbage. Truck stops along Intrastate Highways and nurseries' that import high risk woody plant material from other states and Canada are targeted.

Louisiana's Forest consists of a 50%-50% mix of hardwoods and softwoods. The Loblolly Pine, is the primary species of pine found in Louisiana' forest. Louisiana Forest, has both the Red Oak Group and the White Oak Group.

Louisiana's Climate is considered subtropical and humid. The USDA Hardiness Zones are 8a (10°F) in the north part of the state while the southern portion is 9a (20°F). Due to the climate and plant life in the state of Louisiana, exotic pests become easily established.

The CAPS: Forest Health Response Program started in 2009. No target insect species have been found to date.

Forest Insects are some of the most dramatically destructive invasive species that has been introduced into the forest and urbane landscape of the United States. Asian Longhorn Beetle (Introduced from China found in NY: 1996), Emerald Ash Borer (Introduced from Asia, found in MI: 2002) - found in Northwestern (Bossier, Claiborne, Lincoln, Union and Webster Parishes') **Louisiana** in 2015, Red Bay Ambrosia Beetles (Introduced from Asia, found in GA: 2002)- found in Northern (Claiborne, Lincoln, Union Parishes') **Louisiana** 2014. Pine Shoot Beetles (Introduced from Europe, found in OH: 1992) are major National Domestic Forest Insect Pest Programs in the United States under surveillance. **2016 CAPS: Forest Health Response Program**, insects and diseases are causing significant damage to United States of America Forest Resources. Louisiana's lumber industry, tourist industry, and aesthetic beauty, the continued threat of exotic wood borers does significant damage annually. Forestry is the state's leading plant commodity enterprise with a production value of \$965,972,338 dollars in 2014.

The **2016 CAPS: Forest Health Response Program** is an expanded version of the USFS: Exotic Wood Borer and Bark Beetle (EWBBB) Survey. The Forest Health Response Program is in place for lumber exports. The program aids in justifying the NAPPO standards' of domestic monitoring of exotic insects and diseases.

2016 CAPS: Forest Health Response Program.

Target Insects:

1. City Longhorn Beetle (Cerambycidae: Cerambycinae: *Aeolesthes sarta*).
2. Japanese Pine Sawyer Beetle (Lamiinae: Monochamini: *Monochamus alternatus*
3. Sakhalin Pine Sawyer Beetle (*Monochamus saltuarius*).
4. Small White Marmorated Longhorn Beetle (*Monochamus sutor*).
5. Black Fir Sawyer Beetle (*Monochamus urussovii*).
6. Six-toothed Bark Beetle (Curculionidae: Scolytinae: Scolytini: Ipina: *Ips sexdentatus*).

7. European Spruce Bark Beetle: (*Ips typographus*).
8. Mediterranean Pine Engraver: (*Orthotomcus erosus*).
9. European Oak Bark Beetle: (Scolytina: *Scolytus intricatus*).
10. Red Bay Ambrosia Beetle: (Xyleborina: *Xyleborus glabratus*).
11. Exotic Tremex Wood wasp (Hymenoptera: Symphyta: Siricoidea: Siricidae: Tremicinae: *Tremex fuscicornis*).

Target Diseases:

1. Needle Blight of Pine: *Mycosphaerella gibsonii*/ *Pseudocercospora pini-densiflorae*
2. Pine Witches' Broom: *Candidatus Phytoplasma pini* `16SrXXI-A
3. Laurel Wilt: *Raffaelea lauricola*

The Orders with other species (Coleoptera, Hemiptera, Hymenoptera and Lepidoptera) insects are state of Louisiana concerned monitored insects.

The survey is conducted using Lindgren Funnel (8) Traps and Cross Vane Panel Traps. Traps and lures were serviced according to CAPS Approved Methods in the CAPS Resource and Collaboration Website: 2016 Guidelines. The wet cup (anti-freeze solution) collection method was used for both trap designs and placed 30 meters (98 feet) apart. Six toothed Bark Beetle, European Spruce Bark Beetle and Mediterranean Pine Engraver were trapped using fourteen Lindgren Funnel Traps baited with *Ips sp.* (3) Lure. Red bay Ambrosia Beetles were trapped using fourteen Lindgren Funnel Traps baited with *Manuka Oil* Lure. Black Fir Sawyer Beetle and Japanese Sawyer Beetles were trapped using fourteen Cross Vane Panel Traps baited with α -Pinene UHR Lure, Ethanol Lure and Monochamol Lure. None of the above named target pests were found in the **CAPS FY 2016 Forest Health Response Program**.

Lindgren Funnel Traps and Cross Vane Panel Traps, have passive flight intercept capabilities, and the resulting trap catches include many native wood boring beetles, and a wide range of non- target families. Some of the insects that have been found are of state concern.

Forest insects of federal and state concern are screened out for identification and can be found on the LDAF Website. Presently, there are fifty- eight plant health fact sheets listed.

Lindgren Funnel Traps do capture small beetles. The larger Coleopterans Beetles, are captured by the Cross Vane Panel Trap. NAPIS justified reportable insects found in the **2016 CAPS: Forest Health Response Program**, has been added to the database.

In 2016, twenty- eight Lindgren (8) Funnel Traps and fourteen Cross Vane Panel Traps were placed and monitored across the state of **Louisiana** from July to November, **2016 CAPS: Forest Health Response Program**.

Trap sites focus on high risk pathway analysis. Visual site survey was done for the following four Long horn Beetles, one Scolyd Beetle, and one Exotic Tremex Wood wasp.

Visual site survey was done monthly for Needle Blight of Pine, Pine Witches' Broom, and Laurel Wilt in conjunction with lure change. No adult beetles, Needle Blight of Pine or Laurel Wilt target pests were found during the visual survey. Dr. Nick Singh with LSU Plant Diagnostic Lab did not receive any disease samples this year from LDAF officers'.

Gross Farm Value per Parish Inspected

DeSoto 13/63=>\$31,831,000	Natchitoches 9/63=>\$42,545,000	Vernon 1/63=>\$78,590,000
Grant 21/63=>\$8,151,000	Red River 28/63=>\$9,832,000	Webster 18/63=>\$20,175,000
Jackson 6/63=>\$47,195,000	Richland 47/63=>\$867,000	West Baton Rouge 50/63=>\$243,000
Lincoln 20/63=>\$8,582,000	Sabine 4/63=>\$57,931,000	West Feliciana 34/63=>\$4,309,000
Morehouse 29/63=>\$9,624,000	Union 7/63=>\$43,984,000	Ω

Louisiana Summary: Agriculture & Natural Resources: 2014 (LSU- AgCenter Publication).

The twenty- eight Lindgren Funnel and fourteen Cross Vane Panel Traps yielded one hundred and ninety- five justifiable NAPIS insect samples out of four hundred and seventy- six samples (1,953 NAPIS Justified insects out of 3,325 insects captured) turned into Eric White: USDA, APHIS, and PPQ- Area Entomology Identifier in New Orleans, LA for identification.

A total of 104 NAPIS justified reportable insects have been added to the database since 2009 to the present, have been down loaded by Brett Laird LDAF- SCC into NAPIS as a result of the CAPS: Forest Health Response Program Annual Survey. Karen Jenkins USDA- PSS drown loaded CAPS: Forest Health Response Program into IPHIS database.

The native insects of Louisiana are found in the same genus as the target insects. Louisiana's Forest Community climate in target insects' native range is similar. Therefore, the exotic insects would have a high rate of establishment if introduced into Louisiana Forest Community. However, since there is an abundance of native insects in the same sub-family/tribe of the exotic invasive insects would have to successfully compete with the indigenous insect complex. The adult exotic insects are similar to appearance to the indigenous insect species. Consequently, infestations would be difficult to detect, especially at low levels. Attempts to contain or eradicate infestations would be logistically difficult. A continuation of the CAPS: Pine and Oak Commodity Survey is necessary for early detection. Eric White: USDA, APHIS, PPQ Identifier has become very familiar with the native beetles, true bugs and wasps in Louisiana, due to the six year history of program. The state of Louisiana has a better than average chance of identification being made of a quarantine significant insect due to the CAPS: Pine and Oak Commodity Survey.πππ

Eric White
USDA APHIS PPQ Area Entomologist
New Orleans, Louisiana
Submitted by: Karen E. Jenkins
Pest Survey Specialist
March 10, 2017.



Forest Health Response Program
16-8422-1301-CA

Approved and signed by

Cooperator

Date: _____

ADODR

Date: _____