

CAPS Survey Report

Year:	2012
State:	Louisiana
Cooperative Agreement Name:	Pine Commodity Survey
Cooperative Agreement Number:	12-8422-1301-CA
Project Funding Period:	January 1, 2012 to December 31, 2012
Project Report:	CAPS Survey Report
Project Document Date:	March 11, 2013
Cooperators Project Coordinator:	State Survey Coordinator (SSC)
Name:	J. Brett Laird
Agency:	Louisiana Department of Agriculture and Forestry
Address:	P.O. Box 3596
City/ Address/ Zip:	Baton Rouge, Louisiana 70821-3596
Telephone:	985-543-4024
E-mail:	brett_l@daf.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 2012 to conduct a trap and visual survey for 10 Pine Pests. LDAF conducted this survey according to survey guidelines set forth by the USDA, APHIS, PPQ in 2012. LDAF's Agriculture and Environmental Science (AES) division is divided into 7 districts across the state and 5 of those districts were utilized to conduct this survey. There were 15 locations selected by Karen Jenkins (PSS, Louisiana) and Brett Laird (SSC, Louisiana) based on high risk pathways. There was 4 traps deployed at each location and a visual inspection performed each time traps were checked. There were 2 cross vane panel traps, 1 lindgren funnel trap and 1 milk carton trap deployed at each location. Traps and lures were set according to the 2012 approved methods for each pest. Traps were deployed in July, 2012, serviced once per month and then picked up in November, 2012. 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 10 pests targeted in this Pine Commodity Survey. Karen Jenkins (PSS, Louisiana) also deployed one Lindgren Funnel Trap at her residence in Livingston Parish. 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) 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.

Outreach efforts were also conducted in September, 2012, in Tensas Parish at the Tensas River Wildlife Refuge's annual Hunting and Fishing Day. LDAF personnel set up a display booth with traps from our Pine Commodity Survey and different aspects of our pest detection work. "Don't Move Firewood" outreach material was distributed to the public during this event. This event had over 2500 visitors and LDAF inspectors were able to network with the public and explain the importance of our efforts.

Funding Amount	Total Number of Traps	Cost Per Unit
Proposed = \$17,328.00	Proposed = 60	Proposed= \$288.80
Actual = \$17,328.00	Actual = 61	Actual = \$288.80

1. Survey methodology (trapping protocol):

	Common Name	Scientific Name
Pest:	Greater European Spruce Beetle	Dendroctonus micans
	Siberian Moth	Denrolimus superans sibiricus
	Large Pine Weevil	Hylobius abietis
	Sakhalin Pine Sawyer Beetle	Monoctonus saltuarius

	Small White Marmorated Beetle European Wood Wasp Pine Shoot Beetle Brown Spruce Beetle Slender – Banded Pinecone Longhorn Beetle Japanese Pine Sawyer Beetle	Monochamus sutor Sirex noctilio Tomicus destruens Tetroplium fuscum Chlorophorus strobilicola Monochamus alternatus
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------

	Proposed	Actual
Sites (Locations):	15	15
Traps:	60	61

Number of Counties:	15
Counties:	<i>Caddo, Claiborne, Jefferson Davis, Livingston, Madison, Morehouse, Ouachita, Pointe Coupee, Rapides, Richland, Sabine, St. Tammany, Vernon, Webster, West Carroll.</i>

2. Survey dates:

	Proposed	Actual
Survey Dates:	July, 2012 to November, 2012	July, 2012 to November, 2012

3. Benefits and results of survey:

	Positive	Negative	Total Number
Traps	0	61	61

4. Database submissions:

All negative data was entered into the NAPIS database at the conclusion of the survey by Brett Laird (SSC, Louisiana). Data was also entered into the IPHIS database by Karen Jenkins (PSS, Louisiana).

B. If appropriate, explain why objectives were not met.

The Pine Commodity Survey performed as expected and all objectives were met.

C. Where appropriate, explain any cost overruns or unobligated funds in excess of \$1,000.

LDAF extended the survey and kept the traps in the field for an extra month (November) due to the amount of insects collected during this time in 2011. This extra month provided some good information to PPQ due to the fact that Pine pests are rarely collected in the month of November. LDAF incurred expenses of \$ 3,114.00 over what the CA provided.

**indicates information is required per 7 CFR 3016.40 and 7 CFR 3019.51*



*** The following report was provided by Karen Jenkins (USDA APHIS PPQ, PSS, Louisiana).

In 2012, Fifteen Modified Green Milk Carton Traps with *Dendrolimus sibiricus*/*Dendrolimus pini* Lure were placed and monitored across the state of Louisiana from Late July thru November for the Siberian Silk Moth and Pine Tree Lappet Moth (Lepidoptera: Lasiocampidae). It is the last year to monitor for the Siberian Silk Moth and the Pine Tree Lappet Moth. The moths will be replaced with the Pine Beauty Moth (Noctuidae: Hadeninae). The Plastic Bucket Trap will replace the Green Modified Milk Carton Trap starting next year. Trap sites this year focused on saw mills, parks with campgrounds, Christmas tree plantations, railroad intermodal yards and highway welcome centers. This is the second of the first year for the Pine Based Commodity Survey; all sites are relocated every two years. The Pine Based Commodity Survey started in 2010, no target insects have been found to date.

Forest Insects, are some of the most dramatically destructive invasive species that have been introduced into the forest and urban landscape of the United States (e.g. Buprestoidea: Buprestidae: Agrilinae: Agrilini: Emerald Ash Borer, Chrysomeloidea: Ceambycidae: Lamiinae: Monochamini: Asian Long horned Beetle, Curculionoidea: Curculionidae: Scolytinae: Hylestinini: Tomicina: Pine Shoot Beetle and Hymenoptera: Siricoidea: Siricidae: Exotic Wood Wasp). Pine Based Commodity Survey, insects are causing significant damage to United States Forest Resources. The continued threat of exotic wood borers does significant damage annually to Louisiana's' lumber industry, tourist industry, and aesthetic beauty. Forestry is the state's leading plant commodity enterprise with a production value of nearly \$800 million in 2011.

The Pine Based Commodity Survey: Exotic Wood Borer and Bark Beetle (EWBBB) Survey targets primarily two Orders (Coleoptera and Hymenoptera) of insects; Beetles (Chrysomeloidea and Curculionoidea) and Wood Wasps (Siricoidea). Within these groups nine species are specifically targeted: the Slender- banded Pine Cone Long horn Beetle (Cerambycidae: Cerambycinae: Clytini: *Chlorophorus strobilicola*), Japanese Pine Sawyer Beetle (Cerambycidae: Lamiinae: Monochamini: *Monochamus saltuarius*), Small White- marmorated Long horn Beetle (Cerambycidae: Lamiinae: Monochamini: *Monochamus sutor*), Brown Spruce Long horn Beetle (Cerambycidae: Spondylidinae: Asemini: *Tetropium fuscum* & *T. castaneum*), Large Pine Weevil (Curculionidae: Molytinae: Hylobiini: *Hyllobius abietis*), Great Spruce Bark Beetle (Curculionidae: Scolytinae: Hylesinini: Tomicina: *Dendroctonus micans*), Pine Shoot Beetle (Curculionidae: Scolytinae: Hylesinini: Tomicina: *Tomicus destruens*) and Sirex Wood Wasp (Siricoidea: Siricidae: *Sirex noctilio*). None of the target insects were found in the 2012 Pine Based Commodity Survey. The Orders with other species (Coleoptera, Hemiptera and Hymenoptera) insects are state concern monitored insects.

The survey is conducted using Lindgren Funnel (8) Traps and Cross Vane Panel Traps. According to CAPS Approved Methods, the wet cup (anti-freeze solution) collection method was used for both trap designs and placed 30 meters (98 feet apart). Sixteen Lindgren Funnel Traps were baited with α -pinene ultra high release (UHR) and ethanol

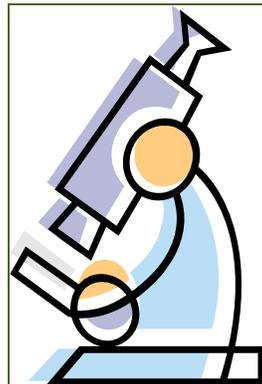
(UHR) for the Order: Curculionoidea. Fifteen Cross Vane Panel Traps were baited with α -pinene ultra high release (UHR) and ethanol (UHR) for the Order: Buprestoidea and Chrysomeloidea. Fifteen Cross Vane Panel Traps were baited with Sirex Lure for Siricoidea:Siricidae: Sirex noctilio. Funnel Traps and 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 are of state concern. Forest Insects of federal and state concern are screened out for identification and can be found on the LDAF Website (Ag. & Environmental Sciences: Horticulture & Quarantine Programs: Plant Pest Quarantine Programs)- Plant Pest Fact Sheets. Lindgren Funnel Traps do capture beetles in the Insect Orders: Buprestoidea, Curculionoidea, Elateroidea, Heteroptera and Scarbaeidea. NAPIS justified reportable insects are being found in the initial screening process in the Pine Based Commodity Survey, and are added annually to the database.

In 2012, sixteen Lindgren Funnel Traps and thirty Cross Vane Panel Traps were placed and monitored across the state of Louisiana from August thru November. Trap sites in prior years focused on saw mills, campgrounds in parks with large stands of pine trees and high tourism areas. A visual site survey was done monthly in conjunction with lure change of the Lindgren Funnel and Cross Panel Traps. No adult beetles were hand catch during the survey.

Gross Farm Value per Parish Inspected

Caddo \$13,218,186	Madison \$3,920,694	Rapides \$27,099,787	Vernon \$49,073,649
Claiborne \$26,487,194	Morehouse \$6,462,626	Richland \$1,169,257	Webster \$11,712,279
Jefferson Davis \$2,750,694	Ouachita \$12,225,418	Sabine \$36,227,232	West Carroll \$219,324
Livingston \$16,576,490	Pointe Coupee \$5,760,470	Saint Tammany \$16,464,320	☺ ☺ ☺

The forty six traps yielded five hundred and twenty-two native Beetle and native Wood Wasp suspect samples for the four month period were identified by Eric White: USDA-APHIS-PPQ Entomology Identifier, New Orleans, LA.



Thirty- five vials of native Beetles, native True Bugs and native Wood Wasps were added to the USDA-APHIS-PPQ Plant Inspection Station, New Orleans, LA Collection.



Emerald Ash Borer (Buprestoidea: Buprestidae: Agrilinae: Agrilini: *Agrilus planipennis*), Gold spotted Oak Borer (*Agrilus coxalis*) and Oak Splendor Beetle (*Agrilus biguttatus*), were not found in the 2012 Pine Based Commodity Survey. NAPIS justified reportable insects were found in the 2012 Pine Based Commodity Survey.

Native Louisiana Metallic Wood Boring Species:

Subfamily	Tribe	Genus	Species
Buprestinae	Buprestis	Buprestis	lineata
Buprestinae	Chrysobothrini	Chrysobothris	femorata
Chrysochroinae	Chrysochroini	Chalcophora	virginiensis
Chrysochroinae	Dicercini	Dicerca	lurida



Bamboo Borer (Chrysomeloidea: Cerambycidae: Cerambycinae: Clytini: *Chlorophorus annularis*) and Chinese Long horn Beetle (Chrysomeloidea: Cerambycidae: Hesperophanini: *Trichoferus campestris*), were not found in the 2012 Pine Based Commodity Survey. Native Louisiana Long horn Beetles in bold print are new this year.



Native Louisiana Long horn (Cerambycidae) Beetle Species:

2012 LHB.xlsx



Oak Ambrosia Beetle (Curculionoidea: Curculionidae: Platypodina: Platypodini: Platypodina: *Platypus quercivorus*), Lesser Spruce Shoot Beetle (Curculionoidea: Curculionidae: Scolytinae: Hylesinini: Hylastina: *Hylurgops palliates*), Red-haired Pine Bark Beetle (Curculionoidea: Curculionidae: Scolytinae: Hylesinini: Tomicina: *Hylurgus ligniperda*), Pine Shoot Beetle and Lesser Pine Shoot Beetle (Curculionoidea: Curculionidae: Scolytinae Hylesinini: Tomicina: *Tomicus* spp. of) and Six-toothed Bark Beetle (Curculionoidea: Curculionidae: Scolytinae Scolytini: Ipina: *Ips sexdentatus*), European Spruce Bark Beetle (Curculionoidea: Curculionidae: Scolytinae Scolytini: Ipina: *Ips typographus*), Mediterranean Pine Engraver (Curculionoidea: Curculionidae: Scolytinae Scolytini: Ipina: *Orthotomicus erosus*), Six-toothed Spruce Bark Beetle (Curculionoidea: Curculionidae: Scolytinae Scolytini: Ipina: *Pityogenes chalcographus*), Walnut Twig Beetle (Curculionoidea: Curculionidae: Scolytinae Scolytini: Pityophthorina: *Pityophthorus juglandis*), European Oak Bark Beetle (Curculionoidea: Curculionidae: Scolytinae Scolytini: Scolytina: *Scolytus intricatus*) and Red bay Ambrosia Beetle (Curculionoidea: Curculionidae: Scolytinae Scolytini: Xyleborina: *Xyleborus glabratus*), were not found in the 2012 Pine Based Commodity Survey. Native Curculionoidea: ssp. of were added to NAPIS.

Xyleborinus octiesdentatus (Curculionoidea: Curculionidae: Scolytinae: Scolytini: Xyleborina), an ambrosia beetle native to Asia, was reported for the first time (2010) in North America based on specimens from Alabama and Louisiana. Kistatchie National

Forest (Winn Parish), Louisiana. Kistatchie National Forest, is under rotational surveillance by LDAF: AES- Monroe District Inspectors. The insect was not been found by LDAF: AES Inspectors in the 2012 Pine Based Commodity Survey.

Native Louisiana (Curculionidae) Ambrosia, Bark Beetles and Weevils:



2012 Weevil.xlsx



Japanese Beetle (Scarabaeoidea: Scarabaeidae: Rutelinae: Anomalini: *Popillia japonica*), was not found in the 2012 Pine Based Commodity Survey. NAPIS justified reportable insects were found in the 2012 Pine Based Commodity Survey.

Native Louisiana Scarab Beetles:

Family	Subfamily	Tribe	Genus	Species
Scarabaeidae				spp. of
Scarabaeidae	Centoniinae	Cetonini	Euphoria	spp. of
Scarabaeidae	Dynastinae	Phileurini	Phileurus	spp. of
Scarabaeidae	Dynastinae			spp. of
Scarabaeidae	Melolonthinae	Diplotaxini	Diplotaxis	spp. of
Scarabaeidae	Melolonthinae	Melolonthini	Fosscarus	spp. of
Scarabaeidae	Scarabaeinae	Canthonini	Deltochilum	gibbosum
Scarabaeidae	Scarabaeinae	Oniticellini	Onthophagus	spp. of



BMSB

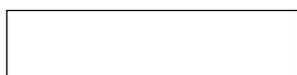


Kudzu

Brown Marmorated Stink Bug (Hemiptera: Heteroptera: Pentatomoidea: Pentatomidae: Pentatominae: Cappaeini: *Halyomorpha halys*) and the Kudzu Bug (Pentatomoidea:

Plataspididae: *Megacopta cribraria*), was not found in the 2012 Pine Based Commodity Survey. NAPIS justified reportable insects were found in the 2012 Pine Based Commodity Survey.

Native True Bugs:



Sirex Wood Wasp (Hymenoptera: Siricoidea: Siricidae: *Sirex noctilio*), the target species was not found in the 2012 Pine Based Commodity Survey. This is the second year we have found wood wasps (October/November) in Louisiana. I believe it is due to the fact that the program was started later in the year due to budget issues. The first year (2010) the LDAF completed the project in September, no Wood Wasps were found.

The Order: Hymenoptera: Siricoidea: Siricidae, recorded a variety of insects that was added to the USDA-APHIS-PPQ Plant Inspection Station Collection. NAPIS justified reportable insect were found in the 2012 Pine Based Commodity Survey.

Native Louisiana Wood wasps:



The second of the first year of study has provided the state of Louisiana personnel with the knowledge of the known native insect species in the state. The native insects are found in the same **Genus** as the target insects. The climate in the native range of the exotic insects is similar to Louisiana and will attack similar hosts. Therefore the exotic insects would have a high likelihood of reproducing and becoming established if introduced. However, since there is an abundance of native insects in the same sub- family/tribe the exotic insects would have to

successfully compete with the indigenous insect complex. The adult exotic insects are similar in appearance to the indigenous 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 Pine Based Commodity Survey Monitoring Program is necessary for early detection. Eric White: USDA-APHIS-PPQ Identifier has become very familiar the native beetles, true bugs and wasps in the state. The state of Louisiana has a better than average chance of an identification being made due to Pine Based Commodity Survey Program, if an exotic insect is found.

In addition to target (Genus and Species) of insects surveyed; the Order: Coleoptera: Sub-Orders: Archostemata, Myxophaga, Adepfaga and Polyphaga recorded 30 families were screened out initially before taken to Eric White from the forty- six traps. In addition to the Order: Coleoptera the Order: Heteroptera: Sub- Order: Achenorrhyncha and Heteroptera, recorded eight families that was taken to the identifier to look for Brown Marmorated Stink Bug: *Halyomorpha halys*, Kudzu Bug; *Megacopta cribraria*, and Cotton Seed Bug: *Oxycarenus hyalinipennis* that are of federal/state concern.



Submitted By: Karen Jenkins
Pest Survey Specialist- Louisiana
March 01, 2013

Approved and signed by

Cooperator

Date: _____

ADODR

Date: _____