

CAPS Survey Report

Year:	2014
State:	Louisiana
Cooperative Agreement Name:	Pine and Oak Commodity Survey
Cooperative Agreement Number:	14 – 8422 – 1301 - CA
Project Funding Period:	July 1, 2014 through December 31, 2014
Project Report:	CAPS Survey Report
Project Document Date:	January 27, 2014
Cooperators Project Coordinator:	State Survey Coordinator (SSC)
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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 2014 to conduct a trap and visual survey for 14 Pine and Oak Pests. LDAF conducted this survey according to survey guidelines set forth by the USDA, APHIS, PPQ in 2014. LDAF's Agriculture and Environmental Science (AES) division is divided into 7 districts across the state and 4 of those districts were utilized to conduct this survey. There were 14 locations in 11 parishes selected by Karen Jenkins (PSS, Louisiana) and Brett Laird (SSC, Louisiana) based on high risk pathways. The number of locations has decreased from 15 to 14 due to the 7.8% reduction in funds in 2013. Two Lindgren funnel traps and one cross vane panel trap were 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, 2014. Traps were serviced once a month and were picked up at the end of November, 2014. 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.

Targeted Pests:

Survey Method:

Black Spruce Beetle	Cross Vane Panel Trap
Brown Spruce Beetle	Cross Vane Panel Trap
City Longhorn Beetle	Visual
Exotic Pine Shoot Beetle	Lindgren Funnel Trap
Japanese Pine Sawyer	Lindgren Funnel Trap
Japanese Oak Wilt	Visual
Large Pine Weevil	Lindgren Funnel Trap
Mountain Oak Longhorn Beetle	Visual
Needle Blight of Pine	Visual
Oak Ambrosia Beetle	Lindgren Funnel Trap
Pine Sawfly ***	White Delta Trap
Pine Shoot Beetle	Lindgren Funnel Trap
Sakhalin Pine Sawyer	Visual
Small White Marmorated LH Beetle	Visual
Tremex Woodwasp	Visual

***The *Diprion pini* lure for the Pine Sawfly was never received by LDAF, therefore this trap was eliminated.

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 have placed “Hungry Pests” brochures and “Don’t Move Firewood” rack cards at the 13 Louisiana Welcome centers across the state. The SSC gave a presentation at the Lafayette parish Master Gardener’s club about different pine and oak pests that are a threat to our valuable industries. The SSC also attended the Southern Regional Master Gardener Conference that was held in Baton Rouge, Louisiana in October, 2014, at which the display booth was erected with pest detection activities and outreach material was handed out.

LDAF has already hosted several meetings with other agencies and concerned stakeholders in regards to our neighboring state of Arkansas reporting finds of Emerald Ash Borer (EAB) ~ *Agrilus planipennis*. We have been preparing for a possible new detection in Louisiana by informing these concerned stakeholders and developing an EAB Response Plan. LDAF Horticulture and Quarantine staff traveled to North Louisiana in the Fall of 2014 scouting for possible trapping sites for the 2015 trapping season. We also traveled to Arkansas to attend one of their EAB meetings and observe some of their infested sites.

LDAF has also hosted several conference calls and a meeting with other agencies and concerned stakeholders in response to the Redbay Ambrosia Beetle ~ *Xyleborus glabratus* find in September, 2014 by the United States Forest Service (USFS).

Funding Amount	Total Number of Traps	Cost Per Unit
Proposed = \$15,977	Proposed = 56	Proposed= n/a
Actual = \$15,977	Actual = 42	Actual = n/a

1. Survey methodology (trapping protocol):

	Common Name	Scientific Name
Pest:	Black Spruce Beetle	<i>Tetropium castaneum</i>
	Brown Spruce Beetle	<i>Tetropium fuscum</i>
	City Longhorn Beetle	<i>Aeolesthes sarta</i>
	Exotic Pine Shoot Beetle	<i>Tomicus destruens</i>
	Japanese Pine Sawyer	<i>Monochamus alternatus</i>
	Japanese Oak Wilt	<i>Raffaelea quercivora</i>
	Large Pine Weevil	<i>Hylobius abietis</i>
	Mountain Oak Longhorn Beetle	<i>Massicus raddei</i>
	Needle Blight of Pine	<i>Pseudocercospora pini-densiflorae</i>
	Oak Ambrosia Beetle	<i>Platypus quercivorus</i>
	Pine Sawfly	<i>Diprion pini</i>
	Pine Shoot Beetle	<i>Tomicus piniperda</i>
	Sakhalin Pine Sawyer	<i>Monochamus saltuarius</i>
	Small White Marmorated LHBeetle	<i>Monochamus sutor</i>
Tremex Woodwasp	<i>Tremex fuscicornis</i>	

	Proposed	Actual
Sites (Locations):	14	14
Traps:	56	42

Number of Counties:	11
Counties:	<i>Bossier, Jackson, Lincoln, Livingston, Natchitoches, Ouachita, Rapides, Red River, Tangipahoa, Union, Webster</i>

2. Survey dates:

	Proposed	Actual
Survey Dates:	July 1, 2014 through December 31, 2014	July 1, 2014 through December 31, 2014

3. Benefits and results of survey:

	Positive	Negative	Total Number
Traps	0	42	42

4. Database submissions:

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

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

The *Diprion pini* lure for the Pine Sawfly was never received by LDAF, therefore the trap for this pest was never deployed. All other objectives were met or exceeded during this survey.

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

A cost overrun of \$ 4,123.00 was incurred by LDAF for the operation of this survey.



***Following is a report from PSS Karen Jenkins.

In 2014, Fifteen White Delta traps with *Diprion pini* Lure were planned to be placed and monitored across the state of **Louisiana** from July through November for the Exotic Pine Sawfly (Hymenoptera: Tenthredinoidea: Diprionidae: Diprioninae: *Diprion pini*). Scots Pine (*Pinus sylvestris*), is found to be in very low numbers across the state. The Loblolly Pine (*Pinus taeda*), is the primary species of pine found in

Louisiana' forest. The Exotic Pine Sawfly replaced the Pine Beauty Moth in the survey. Exotic Pine Sawfly was picked last year due to an unknown sawfly find by USFS. Weyerhaeuser Lumber Co. in Livingston Parish is presently under investigation for damage due to an unknown sawfly to native Loblolly Pine Trees. The native sawflies that are found in Louisiana are; *Cimbex americana*, *Neodiprion excitans* and *Neodiprion lecontei*.

Note: Did not receive Exotic Pine Sawfly lure from Otis Lab.

Trap sites this year focused on Saw Mills, Parks with Campgrounds, Christmas Tree Plantations, and Solid Wood Packing Material establishments in association with Military Bases and in the Port of Natchitoches. This is the first half of the two year rotation, for the **CAPS: Louisiana Pine and Oak Based Commodity Survey**.

Louisiana's Forest consists of a 50%-50% mix of hardwoods and softwoods. The name was changed last year to better reflect the Forest Pests that are being found in Louisiana.

The CAPS: Pine Based Commodity Survey 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), Gypsy Moth (Introduced from Europe/Asia found in Boston, MA: 1869), Japanese Beetles (Introduced from Japan found in NJ: 1916), Red Bay Ambrosia Beetles (Introduced from Asia found in GA: 2002) and Pine Shoot Beetles (Introduced from Europe found in OH: 1992) are major Forest Insect Pest Programs in the United States under surveillance. **CAPS: Louisiana Pine & Oak Based Commodity Survey**, insects and diseases are causing significant damage to United States of America 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 \$2.9 billion dollars in 2013.

The **2014 CAPS: Louisiana Pine & Oak Based Commodity Survey** is an expanded version of the USFS: Exotic Wood Borer and Bark Beetle (EWBBB) Survey.

The survey targets' two primary Insect Beetle (Coleoptera) Orders- Longhorn Beetles and Weevils (Chrysomeloidea and Curculionoidea), one Exotic Wood wasp (Hymenoptera:Siricidae) and Exotic Sawfly (Hymenoptera:Diprionidae).

2014 CAPS: Louisiana Pine & Oak Based Commodity Survey.

Target Insects:

1. City Longhorn Beetle (Cerambycidae: Cerambycinae: *Aeolesthes sarta*).
2. Mountain Oak Longhorn Beetle (*Massicus raddei*).
3. Japanese Pine Sawyer Beetle (Lamiinae: Monochamini: *Monochamus alternatus*).
4. Sakhalin Pine Sawyer Beetle (*Monochamus saltuarius*).
5. Small White Marmorated Longhorn Beetle (*Monochamus sutor*).
6. Black Spruce Longhorn Beetle (Cerambycidae: Spondylidinae: Asemini: *Tetropium castaneum*).

7. Brown Spruce Longhorn Beetle (*Tetropium fuscum*).
8. Large Pine Weevil (Curculionidae: Molytinae: Hylobiini: *Hylobius abietis*).
9. Oak Ambrosia Beetle (Platypodinae: Platydina: *Platypus quercivorus*).
10. Pine Shoot Beetles (Curculionidae: Scolytinae: Hylesinini: Tomicina: *Tomicus destruens* and *T. piniperda*).
11. Exotic Termed Wood wasp (Hymenoptera: Symphysis: Silicide: Tremicinae: *Tremex fuscicornis*).
12. Exotic Pine Sawfly (Hymenoptera: Tenthredinoidea: Diprionidae: *Diprion pini*).

Note: Did not receive Exotic Pine Sawfly lure from Otis Lab.

Target Diseases:

1. Needle Blight of Pine: *Mycosphaerella gibsonii*
2. Japanese Oak Wilt: *Raffaelea quercivora*

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

The survey is conducted using Lindgren Funnel (8) Traps and Cross Vane Panel Traps. According to the CAPS Approved Methods, the wet cup (antifreeze solution) collection method was used for both trap designs and placed 30 meters (98 feet) apart. Large Pine Weevil, Japanese Sawyer Beetle and Sakhalin Pine Sawyer Beetle were trapped using fourteen Lindgren Funnel Traps baited with α - pinene Ultra High Release (UHR) and Ethanol (UHR). Pine Shoot Beetles were trapped using fourteen Lindgren Funnel Traps baited α - pinene bottle lure. Black Spruce Beetle and Brown Spruce Beetles were trapped using fourteen Cross Vane Panel Traps baited with Spruce Blend Lure, Geranyl Acetol Lure and Ethanol Lure.

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 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 (Ag. & Environmental Sciences: Horticulture & Quarantine Programs: Plant Pest Quarantine Programs) Plant Pest Fact Sheets. Presently, there are fifty- eight fact sheets listed.

Lindgren Funnel Traps do capture small beetles in the insect Order: Coleoptera.

Superfamilies of Coleoptera: Buprestoidea, Curclionoidea, Elateroidea and Scarbaeoidea, were found. The larger Coleopterans (Buprestoidea, Chrysomeloidea and Scarbaeoidea) and Heteropterans (Pentatomoidea) are captured by the Cross Vane Panel Trap. NAPIS justified reportable insects found in the **2014 CAPS:**

Louisiana Pine Based Commodity Survey has been added to the database.

In 2014, 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.

Fourteen White Delta Traps were not used for the Exotic Pine Sawfly.

Trap sites focus on high risk pathway analysis. Visual site survey was done monthly for Needle Blight of Pine (Ascomycota: Dothideomycetes: Davidiellaceae: *Mycosphaerella gibsonii*) and Japanese Oak Wilt (Ascomycota: Sordariomycetes: Ophiostomatales: Ophiostomataceae: *Raffaelea quercivora*) in conjunction with lure change. No adult

beetles or Needle Blight of Pine or Japanese Oak Wilt were found during the visual survey.

Gross Farm Value per Parish Inspected

Bossier \$15,792,440	Natchitoches \$36,111,625	Tangipahoa \$9,274,055
Jackson \$35,432,367	Ouachita \$10,476,344	Union \$31,809,953
Lincoln \$12,931,696	Rapides \$24,175,076	Webster \$15,172,748
Livingston \$15,382,198	Red River \$11,283,979	☺

Louisiana Summary: Agriculture & Natural Resources: 2013 (LSU AgCenter Publication).

The twenty- eight Lindgren Funnel and fourteen Cross Vane Panel Traps yielded five hundred and forty- three insect samples. The insect samples were identified by Eric White: USDA, APHIS, PPQ- Entomology Identifier in New Orleans, LA. ☀☀☀☀ Twenty vials of native beetles, true bugs and miscellaneous domestic insects were added to the New Orleans, LA; Insect Collection this year. Twelve miscellaneous insects were randomly selected and sent to SEL: Riverdale Lab for identification. **A total of 89 NAPIS justified reportable insects have been added to the database since 2009, due to the CAPS: Pine Based Commodity Survey.**

EAB



Emerald Ash Borer (Buprestoidea: Buprestidae: Agrilinae: Agrilini: *Agrilus planipennis*), Golden Spotted Oak Borer (*Agrilus coxalis*) and Oak Splendor Beetle (*Agrilus biguttatus*), were not found as a hitchhiker in the Lindgren Funnel or Cross Vane Panel Trap in the **2014 CAPS: Pine and Oak Based Commodity Survey**. EAB is being carefully monitored due to its expanded range in Southern Arkansas, Georgia and Tennessee. EAB and its relatives are not known to vector plant pathogens and organisms. Emerald Ash Borer was confirmed in Webster Parish, Louisiana on February 11, 2015 (APWLA 150402023001). Emerald Ash Borer larvae was submitted by USFS. Future Projection: Joint Delimiting Survey will be conducted in the state of Louisiana to determine how far south from the AR-LA border EAB is established. However, damage causes invasion of secondary pests to occur and speeds up host destruction. NAPIS justified reportable insects were found in the **2014 CAPS: Pine and Oak Based Commodity Survey**.

Native Louisiana Metallic Wood Boring Species:

Subfamily	Tribe	Genus	Species
Agrilinae	Agrilini	<i>Agrilus</i>	<i>bilineatus</i>
Buprestinae	Buprestini	<i>Buprestis</i>	<i>lineata</i>
Buprestinae	Buprestini	<i>Buprestis</i>	<i>maculipennis</i>
Buprestinae	Chrysobothrini	<i>Chrysobothris</i>	<i>femorata</i>

Chrysochroinae	Chrysochroini	Chalcophora	virginiensis
Chrysochroinae	Dicercini	Dicerca	lurida
Polycestinae	Haplostethini	Mastogenius	crenatus

NAPIS Justified Buprestidae is highlighted in purple.

Exotic Spruce Longhorn Beetles



Tetropium fuscum

Asian Longhorn Beetle (Chrysomeloidea: Lamiinae: Monochamini: *Anoplophora glabripennis*) and Velvet Longhorn Beetle (Chrysomeloidea: Cerambycidae: Hesperophanini: *Trichoferus campestris*), plus the seven target pests were not found in the **2014 CAPS: Louisiana Pine and Oak Based Commodity Survey**.

Velvet Longhorn Beetle arrived in 2009. The beetle has started to expand its range in the states of: IL, MN, NJ, NY and Utah. The exotic beetle attacks Forest and Fruit Trees. Louisiana has a gross farm value investment of \$1 million dollars in peaches that could be damaged by the beetle. *Tylonotus bimaculatus*, native Hesperophanini is found in Florida and is headed to Louisiana. Velvet Longhorn Beetle (Hesperophanini) will survive in Louisiana.

Asian Longhorn Beetle: *Anoplophora glabripennis*, is slowly expanding its range; IL, MA, OH. Numerous Monochamini species of Longhorn Beetles are found in Louisiana. Asian Longhorn Beetle will survive in Louisiana due to abundant host plants and climate.

Eburia baroni, was intercepted by CBP (09/02/2014: Nogales, Arizona, a quarantinable pest from Mexico. *Eburia quadrigeminata*, is confirmed in Bossier Parish. The Port of New Orleans, LA; receives containers from Mexico. *Eburia baroni*, was put on the local Louisiana Alert List.

Longhorn Beetles are known vectors of plant pathogens (wood decay fungi) and organisms (pine nematodes).

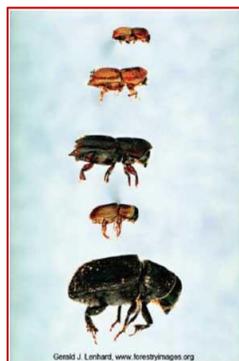
Native Louisiana Longhorn (Cerambycidae) Beetle Species:

Subfamily	Tribe	Genus	Old Name	Species
Cerambycinae	Bothriospilini	Knolliana		cincta
Cerambycinae	Clytini	Neoclytus		mucronatus
Cerambycinae	Clytini	Neoclytus		scutellaris
Cerambycinae	Clytini	Xylotrechus		colonus
Cerambycinae	Clytini	Xylotrechus		sagittatus
Cerambycinae	Curiini	Curius		dentatus
Cerambycinae	Eburiini	Eburia		quadrigeminata
Cerambycinae	Elaphidiini	Anelaphus		parallelus
Cerambycinae	Elaphidiini	Elaphidion		mucronatum
Cerambycinae	Elaphidiini	Parelaphidion		aspersum

Cerambycinae	Trachyderini	Ancylocera		bicolor
Cerambycinae	Trachyderini	Tragidion		coquus
Disteniinae	Distiniini	Elytrimitatrix	Distenia	undata
Lamiinae	Acanthocinini	Acanthocinus		nodosus
Lamiinae	Acanthocinini	Acanthocinus		obsoletus
Lamiinae	Acanthocinini	Astylidius	Leptostylus	parvus
Lamiinae	Acanthocinini	Astyloopsis		arcuata
Lamiinae	Acanthocinini	Astyloopsis		collaris
Lamiinae	Acanthocinini	Astyloopsis		fascipennis
Lamiinae	Acanthocinini	Graphisurus	Urographis	despectus
Lamiinae	Acanthocinini	Graphisurus	Urographis	fasciatus
Lamiinae	Acanthocinini	Graphisurus	Urographis	triangulifer
Lamiinae	Acanthocinini	Leptostylus		asperatus
Lamiinae	Acanthocinini	Leptostylus		transversus
Lamiinae	Acanthocinini	Lepturges		angulatus
Lamiinae	Acanthocinini	Lepturges		confluens
Lamiinae	Acanthocinini	Liopinus		mimeticus
Lamiinae	Acanthocinini	Styloleptus		biustus
Lamiinae	Acanthoderini	Aegomorphus		modestus
Lamiinae	Acanthoderini	Aegomorphus		quadrigibbus
Lamiinae	Desmiphorini	Eupogonius	Desmiphora	tomentosus
Lamiinae	Monochamini	Monochamus		carolinensis
Lamiinae	Monochamini	Monochamus		titillator
Lamiinae	Pogonocherini	Ecyrus		dasycerus
Lamiinae	Pogonocherini	Lypsimena		fuscata
Lamiinae	Pteropliini	Ataxia		crypta
Lepturinae	Lepturini	Typocerus		zebra
Lepturinae	Lepturini	Xestoleptura		crassicornis
Prioninae	Macrotomini	Mallodon		dasytomus
Prioninae	Macrotomini	Stenodontes		chevrolati
Prioninae	Prionini	Neopolyarthron	Prionus	debilis
Prioninae	Prionini	Orthosoma		brunneum
Spondylidinae	Asemini	Arhopalus		rusticus

NAPIS Justified Cerambycidae is highlighted in purple.

Forest Bark Beetles



Exotic Bark Pine Weevls' (Curculionoidea: Curculionidae: Molytinae: Hylobiini: *Hylobius abietis* and Molytinae: Pissodini: *Orthorhinus cylindrirostris* and *Pissodes castaneus*). Oak Ambrosia Beetles' (Curculionoidea: Curculionidae: Platypodina: Platypodini: Platypodina: *Megaplatypus mutatus* and *Platypus quercivorus*), (Curculionoidea: Curculionidae: 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*) and European Oak Bark Beetle (Curculionoidea: Curculionidae: Scolytinae Scolytini: Scolytina: *Scolytus intricatus*), were not found in the **2014 CAPS: Pine and Oak Based Commodity Survey**. The Ambrosia Bark Beetles and Weevils are monitored due to their ability to vector plant pathogens and organisms. Native Ambrosia Bark Beetles and Weevils 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. *Xyleborinus saxeseni* has been found but not *Xyleborinus octiesdentatus* by LDAF: AES Inspectors in the **2014- CAPS: Pine and Oak Based Commodity Survey**.

Xyleborus glabratus (Curculionoidea: Curculionidae: Scolytinae: Scolytini: Xyleborina), an ambrosia beetle native to Asia was reported for the first time (GA- 2002) in North America. Red Bay Ambrosia Beetle (*Xyleborus glabratus*) was detected by USFS, in Bernice, Union Parish (September 2014), Louisiana. Samples were confirmed by USDA, APHIS, PPQ (Riverdale, MD). Laurel Wilt (*Raffaelea lauricola*), was confirmed on *Sassafras albidum* sample in November 2014, by USFS (GA). Red Bay Ambrosia Beetle/Laurel Wilt Delimiting Survey was conducted in the Fall of 2014. Three parishes (Claiborne, Lincoln, and Union) are confirmed positive for the beetle. Red Bay Ambrosia Beetle, is a cooperative target pest with USFS- Pineville, Louisiana for **2015 CAPS-Forest Health Monitoring Program**. Joint Delimiting Survey, will determine the size of the infestation.

Xyleborus affinis, *Xyleborus celsus*, *Xyleborus ferrugineus* and *Xyleborus pubescens* has been found but not *Xyleborus glabratus* by LDAF: AES Inspectors in the **2009-2014 CAPS: Pine and Oak Based Commodity Survey**.

Native Louisiana (Curculionoidea) Ambrosia Bark Beetles and Weevils:

Family	Subfamily	Tribe	Subtribe	Genus	Species
Brentidae	Apioninae			Fallapion	sp.
Brentidae	Brentinae			<i>Arrhenodes</i>	<i>minutus</i>
Curculionidae	Baridinae	Madarini		Madarellus	undulatus
Curculionidae	Conoderinae	Lechriopini		Eulechriops	spp. of
Curculionidae	Cossoninae	Cossonini		Cossonus	spp. of
Curculionidae	Cossoninae	Rhyncolini		Rhyncolus	discors

Curculionidae	Cossoninae	Rhyncolini		Tomolips	quercicola
Curculionidae	Cryptorhynchinae	Gasterocercini		Cophes	sp.
Curculionidae	Curculioninae	Anthonomini		Anthonomus	sp.
Curculionidae	Curculioninae	Curculionini		Curculio	caryae
Curculionidae	Curculioninae	Curculionini		Curculio	nucum
Curculionidae	Dryophthorinae	Dryophthorini		Dryophthorus	americanus
Curculionidae	Entiminae	Eudiagogini		Eudiagogus	rosenschoeldi
Curculionidae	Entiminae	Eustylini		Achrastenus	spp. of
Curculionidae	Entiminae	Sitonini		Sitona	spp. of
Curculionidae	Entiminae	Tanymecini		Tanymecus	confusus
Curculionidae	Molytinae	Conotrachelini		Conotrachelus	nenuphar
Curculionidae	Molytinae	Conotrachelini		Epacelles	inflatus
Curculionidae	Molytinae	Hylobiini		Hylobius	pales
Curculionidae	Molytinae	Hylobiini		Pachylobius	pivicorus
Curculionidae	Molytinae	Lymantini		Pissodes	nemorensis
Curculionidae	Molytinae	Lymantini		Pissodes	strobi
Curculionidae	Molytinae	Molytini		Odontopus	sp.
Curculionidae	Molytinae	Sternechini		Sternechus	armatus
Curculionidae	Platypodinae	Platypodini	Platypodina	Euplatypus	compositus
Curculionidae	Platypodinae	Platypodini	Platypodina	Myoplatypus	flavicornis
Curculionidae	Platypodinae	Platypodini	Platypodina	Oxoplatypus	quadridentatus
Curculionidae	Platypodinae	Platypodini	Platypodina	Platypus	transversus
Curculionidae	Scolytinae	Hylesinini	Bothrostenina	Cnesinus	strigicollis
Curculionidae	Scolytinae	Hylesinini	Hylastina	Hylastes	porculus
Curculionidae	Scolytinae	Hylesinini	Hylastina	Hylastes	salebrosus
Curculionidae	Scolytinae	Hylesinini	Hylastina	Hylastes	tenius
Curculionidae	Scolytinae	Hylesinini	Hylastina	Hylurgops	rugipennis
Curculionidae	Scolytinae	Hylesinini	Hylestina	Hylesinus	aculeatus
Curculionidae	Scolytinae	Hylesinini	Tomicina	Dendroctonus	terebrans
Curculionidae	Scolytinae	Hylesinini	Tomicina	Dendroctonus	valens
Curculionidae	Scolytinae	Scolytini	Corthylina	Gnathotrichus	materiaris
Curculionidae	Scolytinae	Scolytini	Corthylina	Monarthrum	fasciatum
Curculionidae	Scolytinae	Scolytini	Corthylina	Monarthrum	mali
Curculionidae	Scolytinae	Scolytini	Dryocoetina	Coccotrypes	distinctus
Curculionidae	Scolytinae	Scolytini	Ipina	Ips	avulsus
Curculionidae	Scolytinae	Scolytini	Ipina	Ips	calligraphus
Curculionidae	Scolytinae	Scolytini	Ipina	Ips	grandicollis
Curculionidae	Scolytinae	Scolytini	Ipina	Orthotomicus	caelatus
Curculionidae	Scolytinae	Scolytini	Micracina	Hylocurus	binodatus
Curculionidae	Scolytinae	Scolytini	Pityophthorina	Pityophorus	sp.
Curculionidae	Scolytinae	Scolytini	Scolytina	Scolytus	multistriatus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Ambrosiodmus	leconte
Curculionidae	Scolytinae	Scolytini	Xyleborina	Ambrosiodmus	obliquus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Ambrosiodmus	rubricollis
Curculionidae	Scolytinae	Scolytini	Xyleborina	Cnestus	mutilatus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Dryoxylon	onoharaense
Curculionidae	Scolytinae	Scolytini	Xyleborina	Euwallacea	validus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xyleborinus	saxeseni
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xyleborus	affinis
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xyleborus	celsus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xyleborus	ferrugineus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xyleborus	pubescens
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xyleborus	volvulus

Curculionidae	Scolytinae	Scolytini	Xyleborina	Xylosandrus	compactus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xylosandrus	crassiusculus
Curculionidae	Scolytinae	Scolytini	Xyleborina	Xylosandrus	germanus

NAPIS Justified Curculionoidea is highlighted in purple.

Orthostethus infuscatus



Native Louisiana Elateridae Beetles:

Subfamily	Tribe	Sub Tribe	Genus	Species
Agrypninae	Agrypnini		Lacon	disoideus
Agrypninae	Hemirhipini		Alaus	myops
Agrypninae	Hemirhipini		Alaus	oculatus
Agrypninae	Oophorini		Aeolus	Spp. Of
Agrypninae	Oophorini		Conoderus	Spp. Of
Cardiophorinae			Cardiophorus	Spp. Of
Elaterinae	Megapenthini		Megapenthes	Spp. Of
Elaterinae	Agriotini	Pomachilliina	Idolus	Spp. Of
Elaterinae	Agriotini		Glyphonyx	Spp. Of
Elaterinae	Ampedini		Anachastus	spp. of
Elaterinae	Ampedini		Dipropus	Spp. Of
Elaterinae	Ampedini		Melanotus	Spp. Of
Elaterinae	Elaterini		Dolerosomus	Spp. Of
Elaterinae	Elaterini		Diplostethus	Spp. Of
Elaterinae	Elaterini		Orthostethus	infuscatus
Lissominae	Lissomini		Drapetes	Spp. Of
Lissominae	Oestodini		Bladus	spp. of
Prosterninae	Athoini		Hemicrepidus	Spp. Of
Prosterninae	Athoini		Limonius	Spp. Of
Prosterninae	Athoini		Micrathous	Spp. Of
Prosterninae	Pityobiini		Pityobius	anguinus
Prosterninae	Prosternini		Ctenicera	lobata
Prosterninae	Prosternini		Neopristilophus	Spp. Of

NAPIS Justified Elateridae is highlighted in purple.

JB



Japanese Beetle (Scarabaeoidea: Scarabaeidae: Rutelinae: Anomalini: *Popillia japonica*), was not found as a hitchhiker in the **2014 CAPS: Louisiana Pine and Oak Based Commodity Survey**. Japanese Beetle has been found in previous years by LDAF personnel. *Deltotilum gibbosum*, is the only NAPIS Justified Scarabidae found in Louisiana.

**BMS
R**



**Kudzu
Bug**



Kudzu Bug (Pentatomoidea: Plataspididae: *Megacopta cribraria*), found in Madison and Tensas Parishes Louisiana (2013) by LSU- Ag Center personnel. The Kudzu Bug has not been found as a hitchhiker in a P&OBC Survey trap.

2013	2014	2014
East Carroll	Morehouse	Saint Helena
Madison	Concordia	Tangipahoa
Tensas	West Feliciana	Washington
Franklin	East Feliciana	Saint Tammany
	East Baton Rouge	☺

Kudzubug.org

The Brown Marmorated Stink Bug (Pentatomoidea: Pentatominae: Cappaeini: *Halyomorpha halys*), has been found in 42 out of 50 states but not Louisiana. University of Arkansas- Fayetteville Campus, found BMSB on December 19, 2013 was confirmed on March 21, 2014.

Native Louisiana True Bugs:

Family	Subfamily	Tribe	Genus	Species
Cynidae	Cydninae	Cydnini	Pangaeus	bilineatus
Pentatomide	Asopinae		Alceorrhynchus	grandis
Pentatomide	Asopinae		<i>Strietrus</i>	<i>anchorago</i>
Pentatomide	Essinae	Edessini	<i>Edessa</i>	<i>florida</i>
Pentatomide	Pentatominae	Carpocorini	<i>Euschistus</i>	<i>tristigmus</i>
Pentatomide	Pentatominae	Carpocorini	<i>Euschistus</i>	<i>servus</i>
Pentatomide	Pentatominae	Carpocorini	<i>Mormidea</i>	sp. of
Pentatomide	Pentatominae	Carpocorini	<i>Oebalus</i>	<i>pugnax</i>
Pentatomide	Pentatominae	Halyini	<i>Brochymena</i>	<i>arborea</i>
Pentatomide	Pentatominae	Halyini	<i>Brochymena</i>	<i>quadripustulata</i>
Pentatomide	Pentatominae	Halyini	<i>Brochymena</i>	<i>sulcata</i>
Pentatomide	Pentatominae	Nezarini	<i>Nezara</i>	<i>viridula</i>
Pentatomide	Pentatominae	Pentatomini	<i>Banasa</i>	<i>euchlora</i>
Pentatomide	Pentatominae	Piezodorini	<i>Piezodorus</i>	<i>guildinii</i>
Reduviidae	Harpactorinae		<i>Arilus</i>	<i>cristatus</i>
Reduviidae	Harpactorinae		<i>Pselliopus</i>	<i>cinctus</i>
Scutelleridae	Pachycorinae		<i>Diolcus</i>	<i>chrysorrhoeus</i>
Scutelleridae	Pachycorinae		<i>Homaemus</i>	sp. of
Scutelleridae	Pachycorinae		<i>Tetyra</i>	<i>bipunctata</i>
Thyreocoridae			<i>Cydnoides</i>	<i>ciliatus</i>

NAPIS Justified Heteroptera: Hemiptera is highlighted in purple.

Exotic Wood wasp



Exotic Sirex Wood wasp (Hymenoptera: Symphyta: Siricoidea: Siricidae: Siricinae: *Sirex noctillo*) and Exotic Tremex Wood wasp (Hymenoptera: Symphyta: Siricoidea: Siricidae: Tremicinae: *Tremex fuscicornis*), were not found in the **2014- CAPS: Pine and Oak Based Commodity Survey**. Exotic Sirex Wood wasp (*Sirex noctillo*), was found in 2004 in the Great Lakes Area of the U.S. and of limited distribution. Exotic Tremex Wood wasp (*Tremex fuscicornis*), is not known to be present in U.S. **Firewood Issue: Three insects (EAB, ALB and Sirex Wood wasp) are known at this time to be moved by firewood.**

It attacks healthy trees upon establishment. Wood is impossible to use as lumber due to heavy adult infestation. Major ecological disruptions and loss of biodiversity will occur due to large amount of host plants affected. Not known to transmit any human or animal pathogens.

Native Louisiana (Siricidae) Wood wasps:

Family	Sub-Family	GENUS	SPECIES
Siricidae	Siricinae	SIREX	EDWARDSII
Siricidae	Siricinae	SIREX	NIGRICORNIS
Siricidae	Tremicinae	TREMEX	COLUMBA
Siricidae	Siricinae	URO CERUS	CRESSONI

The native insects of *Louisiana* are found in the same **Genus** as the target insects. Louisiana's Pine Forest Community climate in the target insects' native range is similar. Therefore, the exotic insects would have a high rate of establishment if introduced into Louisiana Pine Forest Community. 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 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 Based Commodity Survey Monitoring Program** is necessary for early detection. Eric White: USDA, APHIS, PPQ Identifier has become very familiar with the native beetles, true bugs and wasps in the state of *Louisiana*, due to four year history of the program. The state of *Louisiana* has a better than average chance of an identification being made a quarantine significant insect due to the **CAPS: Pine and Oak Based Commodity Survey Program**.

In addition to the target (Genus and Species) of insects surveyed; the Order: Coleoptera: Sub- orders: Archostemata, Myxophaga, Adephaga and Polyphaga recorded thirty families were screened out initially before they were taken to Eric White in New Orleans, LA. In addition to the Order: Coleoptera, the Order: Heteroptera: Sub-order: Achenorrhyncha and Heteroptera, recorded eight families that were taken to Eric White: USDA, APHIS, PPQ Identifier, New Orleans, LA.

Outreach

Joint CAPS Conference (June 06, 2014), with LDAF: AES Officers, USDA, APHIS, PPQ Officers, LSU Ag Center Extension Staff and USFS Officers.

Don't Move Firewood Campaign: Program handouts were given throughout the year to the public in an ongoing effort of public awareness. Announcement placed on LDAF website and billboards have been placed on Highway Interstate System in October 2014.

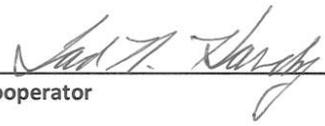
Submitted By: Karen E. Jenkins
Pest Survey Specialist
February 23, 2015



Pine and Oak Commodity Survey
14 - 8422 - 1301 - CA

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

Approved and signed by



Cooperator

Date: 2/19/2015

ADODR

Date: _____