

CAPS Survey Report

Year:	2016
State:	Connecticut
Cooperative Agreement Name:	Cooperative Agricultural Pest Survey
Cooperative Agreement Number:	16-8209-0327
Project Funding Period:	January 1 – December 31, 2016
Project Report:	CAPS Survey Report
Project Document Date:	March 31, 2017
Cooperators Project Coordinator:	
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Quarterly Report	<input type="checkbox"/>
Semi-Annual Accomplishment Report	<input type="checkbox"/>
Annual Accomplishment Report	<input checked="" type="checkbox"/>

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

Our objective was to conduct a national nursery survey to determine if any of the following oak and maple pests had entered Connecticut through the nursery or lumber trade:

- oak splendor beetle (OSB) *Agrilus biguttatus*
- goldspotted oak borer (GOB) *Agrilus coxalis*
- Jewel Beetle (JB), *Agrilus sulcicollis*
- Emerald ash borer (EAB), *Agrilus planipennis*
- oak processionary moth (OPM), *Thaumetopoea processionea*
- variegated golden tortrix moth (VGTM), *Archips xylosteanus*
- green oak tortrix moth (GOTM), *Tortrix viridana*
- false codling moth (FCM), *Thaumatotibia leucotreta*
- brown spruce longhorn beetle, *Tetropium fuscum*
- black spruce beetle, *Tetropium castaneum*
- black fir sawyer, *Monochamus urussovii*
- Japanese pine sawyer, *Monochamus alternatus*

A.

Funding Amount	Total Number of Traps	Cost Per Unit
Proposed = \$61,970	Proposed = 150	Proposed = \$413
Actual = \$61,970	Actual =129	Actual = \$480

1. Survey methodology (trapping protocol):

OSB, JB, EAB and GOB:

The biosurveillance survey using the native ground nesting wasp *Cerceris fumipennis* was conducted by Dr. Claire Rutledge, one summer worker, and a network of 50-70 volunteers at 106 survey sites. The survey took place beginning in June, though July and into August, during the period that adult female *Cerceris* wasps are actively hunting Buprestids.

OPM, VGTM, GOTM and FCM:

Wing traps following national protocols developed by APHIS for oak processionary moth (OPM), variegated golden tortrix moth (VGTM), green oak tortrix moth (GOTM) and false codling moth (FCM) were installed at twenty-six high risk sites (at or in the vicinity of nurseries and forest landowner property) in the first week of May. The traps were serviced every two weeks, and lures replaced as needed according to National Oak Commodity survey guidelines. Dr. Alejandro Chiriboga, Visiting Assistant Extension Educator at UConn, collaborated with Donna Ellis, IPM Program Coordinator at UConn, and Katherine Dugas, CAES State Survey Coordinator, to conduct the CAPS Forest Pest Survey FY2016. Fifteen sites were monitored by the CAPS SSC and summer worker, while Dr. Chiriboga monitored a further eleven located in the northwestern portion of the state (Hartford, New London, Tolland, and Windham Counties).

BFS, JPS, BSLB and BSB:

Lingren 8-funnel traps following national protocols developed by APHIS for brown spruce longhorned beetle (BSLB) and black spruce beetle (BSB) were installed at twenty-five high risk sites (Christmas tree farms and nursery growing fields containing pine, fir, and spruce). The traps were serviced every two weeks, and the 3-component lures replaced as needed according to survey guidelines. Dr. Alejandro Chiriboga, Visiting Assistant Extension Educator at UConn, collaborated with Donna Ellis, IPM Program Coordinator at UConn, and Katherine Dugas, CAES State Survey Coordinator, to conduct the CAPS Forest Pest Survey FY2016. Sixteen sites were monitored by the CAPS SSC and summer worker, while Dr. Chiriboga monitored a further nine located in the northwestern portion of the state (Hartford, New London, Tolland, and Windham Counties). The cross-vane panel traps planned for the BSLB and BSB survey were not set (see results of survey below).

	Common Name	Scientific Name
Pest:	Oak splendor beetle	<i>Agrilus biguttatus</i>
	Goldspotted Oak Borer	<i>Agrilus coaxilis</i>
	Jewel Beetle	<i>Agrilus sulcicollis</i>
	Emerald Ash Borer	<i>Agrilus planipennis</i>
	Oak Processionary Moth	<i>Thaumetopoea processionea</i>
	Variegated Golden Tortrix Moth	<i>Archips xylosteanus</i>
	Green Oak Tortrix Moth	<i>Tortrix viridana</i>
	False Codling Moth	<i>Thaumatotibia leucotreta</i>
	brown spruce longhorn beetle	<i>Tetropium fuscum</i>
	black fir sawyer	<i>Monochamus urussovii</i>
	Japanese pine sawyer	<i>Monochamus alternatus</i>
	Black spruce longhorned beetle	<i>Tetropium castaneum</i>

	Proposed	Actual
Sites (Locations):	50	51
Traps:	150	129

Number of Counties:	8
Counties:	Litchfield, Hartford, Tolland, Windham, Fairfield, New Haven, Middlesex, New London

2. Survey dates:

	Proposed	Actual
Survey Dates:	May - September	May 2 nd – 10/3

3. Benefits and results of survey:

OSB, JB and GOB:

Cerceris fumipennis nesting behavior began the week of 6/19. A total of 106 sites were visited, and 3596 Buprestid beetles were collected. 821 of these have been identified as emerald ash borer. No other suspect *Agrilus* were identified. No *Agrilus smaragdifrons* were collected. All other collected Buprestids have been identified as natives, full identifications are pending.

OPM, VGTM, GOTM and FCM:

Of the total 26 trap sites, 23 of them were located along the perimeter of nursery properties, while three were located on forest landowner properties. Of the nursery sites, eleven were located at wholesale locations, four are in retail situations, while the rest are in growing yards.

The traps were installed at sites beginning the week of May 1st by Katherine Dugas. They are serviced biweekly by Katherine and Zack Brown, a CAES summer worker. Starting the week of May 15th, the eleven sites in the northwestern part of the state were serviced by Dr. Alejandro Chiriboga as part of his faculty appointment as Visiting Assistant Extension Educator at UConn under subcontract with CAES.

During the months of July and August, 394 male gypsy moths were recovered from traps. In total, 1023 collections were screened for presence of target moth species. No target species were identified.

BFS, JPS, BSLB and BSB:

Of the total 25 sites, 23 were located at Christmas tree farms, while 2 were located at nursery growing fields growing fir, pine, and spruce. The Lindgren funnel traps were installed at sites beginning the week of May 15th by Katherine Dugas, Zack Brown, and Dr. Alejandro Chiriboga. Nine sites in the northwestern part of the state were serviced by Dr. Alejandro Chiriboga as part of his faculty appointment as Visiting Assistant Extension Educator at UConn under subcontract with CAES. Due to the lack of geranyl acetol lures required for the BSLB and BSB survey, the cross-vane panel traps were not set for the 2016 season. Other lure components and traps from this survey will instead be used during the CAPS survey in 2017.

A total of 214 collections were screened for presence of target beetle species. During screening, Scolytid beetles were set aside for future identification (a total of 6233 Scolytids were recovered). Many native Cerymbicids, including *Monochamus* such as *M. scutellatus* and *M. carolinensis* were found. No suspect target species were identified.

Trap Surveys:

	Number of Traps	Suspects Found	Positives
<i>Thaumetopoea processionea</i>	26	0	0
<i>Archips xylosteanus</i>	26	0	0
<i>Tortrix viridana</i>	26	0	0
<i>Thaumatotibia</i>	26	0	0

<i>leucotreta</i>			
<i>Monochamus urussovii</i> and <i>Monochamus alternatus</i>	25	0	0
<i>Tetropium fuscum</i> and <i>Tetropium castaneum</i>	0	0	0
Total	125	0	0

Biosurveillance:

Target	Number of Sites	Number of Samples	Number of Confirmed Negatives	Number of Confirmed Positives
<i>Agrilus biguttatus</i>	106	3596	3596	0
<i>Agrilus coxalis</i>	106	3596	3596	0
<i>Agrilus sulcicollis</i>	106	3596	3596	0
<i>Agrilus planipennis</i>	106	3596	2775	821

4. Database submissions:

The results from the Oak/Maple survey and Christmas tree surveys were entered into NAPIS on 11/1. Results from the USDA EWB/BB surveys were entered into NAPIS on 11/1. Final *Cerceris* data was entered into NAPIS on 1/18/17.

B. If appropriate, explain why objectives were not met.*
All objectives are being met.

C. Where appropriate, explain any cost overruns or unobligated funds in excess of \$1,000. *
No cost overruns have occurred.

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

Approved and signed by

Victoria Lynn Smith
Cooperator

Date: 22 March 17

ADODR

Date: _____