

CAPS Survey Report

Year:	2017
State:	Connecticut
Cooperative Agreement Name:	Cooperative Agricultural Pest Survey
Cooperative Agreement Number:	17-8209-0327
Project Funding Period:	January 1 – December 31, 2017
Project Report:	CAPS Survey Report
Project Document Date:	3/30/18
Cooperators Project Coordinator:	
Name:	Katherine Dugas
Agency:	The Connecticut Agricultural Experiment Station
Address:	123 Huntington Street
City/ Address/ Zip:	New Haven, CT 06504
Telephone:	203 974 8483
E-mail:	Katherine.dugas@ct.gov

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 processionary moth (OPM), *Thaumetopoea processionea*
- variegated golden tortrix moth (VGTM), *Archips xylosteanus*
- green oak tortrix moth (GOTM), *Tortrix viridana*
- cabbage moth (CM), *Mamestra brassicae*
- European hardwood ambrosia beetle (EHAB), *Trypodendron domesticum*
- oak ambrosia beetle (OAB), *Platypus quercivorus*
- brown spruce longhorn beetle, *Tetropium fuscum*
- black spruce beetle, *Tetropium castaneum*
- black fir sawyer, *Monochamus urussovii*
- Japanese pine sawyer, *Monochamus alternatus*
- large pine weevil, *Hylobius abeitus*

A.

Funding Amount	Total Number of Traps	Cost Per Unit
Proposed = \$35,531	Proposed = 150	Proposed= \$237
Actual = \$35,531	Actual = 150	Actual = \$237

Survey methodology (trapping protocol):

OPM, VGTM, GOTM and CM:

Wing and bucket traps following national protocols developed by APHIS for oak processionary moth (OPM), variegated golden tortrix moth (VGTM), green oak tortrix moth (GOTM) and cabbage moth (CM) will be installed at twenty-five high risk sites (at or in the vicinity of nurseries and forest landowner property) beginning the first week of May. The traps will be serviced every two weeks, and lures replaced as needed according to National Oak Commodity survey guidelines. Nicole Gabelman is collaborating with Donna Ellis, IPM Program Coordinator at UConn, and Katherine Dugas, CAES State Survey Coordinator, to conduct the CAPS Forest Pest Survey FY2017. Eighteen sites will be monitored by the CAPS SSC and summer workers, while Nicole will monitor a further 7 located in the northeastern portion of the state (Hartford, New London, Tolland, and Windham Counties).

EHAB and OAB:

Lindgren 8-funnel traps following national protocols developed by APHIS for European Hardwood Ambrosia Beetle (EHAB) and Oak Ambrosia Beetle (OAB) will be installed in twenty-five high-risk sites (the same sites as the tortrix moth survey) beginning in April and will remain up until the end of August. Traps are serviced every two weeks and lures replaced as needed, according to National Exotic Wood Boring and Bark Beetle survey guidelines.

BFS, JPS, BSLB, LPW and BSB:

Cross-vane panel traps following national protocols developed by APHIS for black fir sawyer (BFS), Japanese pine sawyer (JPS), brown spruce longhorned beetle (BSLB) and black spruce beetle (BSB) will be installed at twenty-five high risk sites (Christmas tree farms and nursery growing fields containing pine, fir, and spruce). Each site will have two traps: a Lindgren funnel trap for BFS and JPS, and a cross-vane panel trap for BSLB and BSB. The traps will be serviced every two weeks, and the 3-component lures replaced as needed according to survey guidelines. Nicole Gabelman is collaborating with Donna Ellis, IPM Program Coordinator at UConn, and Katherine Dugas, CAES State Survey Coordinator, to conduct the CAPS Forest Pest Survey FY2017. Sixteen sites will be monitored by the CAPS SSC and summer worker, while Nicole will monitor a further nine located in the northwestern portion of the state (Hartford, New London, Tolland, and Windham Counties).

	Common Name	Scientific Name
Pest:	European Hardwood Ambrosia Beetle	<i>Trypodendron domesticum</i>
	Oak Ambrosia Beetle	<i>Platypus quercivorus</i>
	Brown Spruce Longhorned Beetle	<i>Tetropium fuscum</i>
	Black Spruce Beetle	<i>Tetropium castaneum</i>
	black fir sawyer	<i>Monochamus urussovii</i>
	Japanese pine sawyer	<i>Monochamus alternatus</i>
	Oak Processionary Moth	<i>Thaumetopoea processionea</i>
	Variegated Golden Tortrix Moth	<i>Archips xylosteanus</i>
	Green Oak Tortix Moth	<i>Tortrix viridana</i>
	Cabbage Moth	<i>Mamestra brassicae</i>
	Large Pine Weevil	<i>Hylobius abeitus</i>

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

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

2. Survey dates:

	Proposed	Actual
Survey Dates:	April - September	April 17 th – October 5 th

3. Benefits and results of survey:

OPM, VGTM, GOTM and CM:

Of the total 25 trap sites, 16 of them were located along the perimeter of nursery properties, while 9 were located on forest landowner properties, members of the Eastern CT Forest Landowners Association. Of the nursery sites, 3 were located at wholesale locations, 6 are in retail situations, while the rest were in growing fields or yards.

The traps were installed at sites beginning the week of May 1st. They were serviced biweekly by Katherine Dugas and/or a CAES summer worker. Starting the week of June 12th, 7 sites in the northwestern part of the state were serviced by Nicole Gabelman under subcontract with CAES.

All collections were screened for presence of target moth species. A total of 532 trap collections were screened. Native tortricids, pyralids and geometrids were identified. During the trapping period, 785 gypsy moths were recovered from traps. No target species were detected.

EHAB and OAB:

Lindgren 8-funnel traps with EHAB lures were installed beginning the week of April 17th by Katherine Dugas and a CAES summer worker in the same twenty-five high-risk sites as the OPM, VGTM, GOTM, and CM traps. Traps are serviced every two weeks and lures replaced as needed, according to National Exotic Wood Boring and Bark Beetle survey guidelines.

Beginning the week of June 26th, the EHAB lures were removed and were replaced with OAB lures the week of 7/10.

A total of 212 collections were screened and 1767 scolytids were reserved for further ID. No targets were identified. All scolytids collected were hardwood-boring native species such as *Corthylus*.

BFS, JPS, BSLB and BSB:

Of the total 25 sites, 23 were located at Christmas tree farms, while 2 were located at nursery yards growing fir, pine, and spruce. The cross-vane panel traps were installed at sites beginning the week of May 1st by Katherine Dugas and a CAES summer worker. Nine sites in the northwestern part of the state are being serviced by Nicole Gabelman under subcontract with CAES as of the week of June 12th.

Collections were screened for presence of target beetle species. A total of 392 trap collections were screened, with 1187 cerambycids and 330 weevils reserved for further ID. No target *Monochamus* were identified. Of the cerambycids collected, a large number of native *Monochamus* were recovered from the BFS/JPS traps, including 192 *M. scutellatus*, 46 *M. carolinensis*, and 9 *M. titillator*. A total of 331 native *Tetropium* and *Asemum* (a sister genus of *Tetropium*) were recovered from the BSLB/BSB traps. Some examples of other non-*Monochamus/Tetropium* cerambycids collected include *Strangalia luteicornis*, *Liopinus*, and *Prionus*. The majority of weevils collected were either *Hylobius pales* (159) or *Pissodes* (82). No suspect *Hylobius abeitus* were recovered from the BFS/JPS traps.

	Number of Traps	Suspects Found	Positives
<i>Thaumetopoea processionea</i>	25	0	0
<i>Archips xylosteanus</i>	25	0	0

<i>Tortrix viridana</i>	25	0	0
<i>Mamestra brassicae</i>	25	0	0
<i>Monochamus urussovii</i> , <i>M. alternatus</i> , and <i>Hylobius abeitus</i>	25	0	0
<i>Tetropium fuscum</i> and <i>T. castaneum</i>	25	0	0
Total	150	0	0

4. Database submissions:

Final data submissions to NAPIS were made on 2/22/18.

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

All objectives were met.

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

No cost overruns occurred.

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

Approved and signed by

Cooperator

Date: _____

ADODR

Date: _____