CAPS Survey Accomplishment Report Template

CAPS Survey Report

Year:	2018
State:	Connecticut
Cooperative Agreement Name:	Cooperative Agricultural Pest Survey
Cooperative Agreement Number:	18-8209-0327
Project Funding Period:	January 1 – December 31, 2018
Project Report:	**CAPS Survey Report**
Project Document Date:	3/31/19
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	☐
Semi-Annual Accomplishment Report	☒
Annual Accomplishment Report	☐

A. Write a brief narrative of work accomplished. Compare actual accomplishments to objectives established as indicated in the work plan. If reporting on a combined surveys work plan, report accomplishments by survey. When the output can be quantified, a computation of cost per unit is required when useful.*

Our objective was to conduct national nursery and Christmas tree surveys to determine if any of the following oak, maple, or coniferous pests had entered Connecticut through the nursery trade:

- oak processionary moth (OPM), *Thaumetopoea processionea*
- green oak tortrix moth (GOTM), *Tortrix viridana*
- 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*
- pine processionary moth (PPM), *Thaumetopoea pityocampa*
- Siberian silk moth (SSM), *Dendrolimus pini*
- pine tree lappet (PTL), *Dendrolimus sibricus*

Funding Amount	Total Number of Traps	Cost Per Unit
Proposed = $69,476	Proposed = 245	Proposed= $284
Actual =$69,476	Actual =214	Actual =$325

1. Survey methodology (trapping protocol):

Nursery Survey:

OPM and GOTM:

Wing traps following national protocols developed by APHIS for oak processionary moth (OPM) and green oak tortrix moth (GOTM) 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. Jude Hsaing is collaborating with Donna Ellis, IPM Program Coordinator at UConn, and Katherine Dugas, CAES State Survey Coordinator, to conduct the CAPS Forest Pest Survey FY2018. Thirteen sites will be monitored by the CAPS SSC and summer workers, while Jude will monitor a further 12 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. A second lindgren 8-funnel trap baited with ethanol will be installed at each site as a generalist scolytid trap. Traps are serviced every two weeks and lures replaced as needed, according to National Exotic Wood Boring and Bark Beetle survey guidelines. Again, UConn will be assisting in monitoring 12 sites in northeastern Connecticut.

Christmas Tree Survey:

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 thirty high risk sites (Christmas tree farms and nursery growing fields containing pine, fir, and spruce). Each site will have two cross-vane panel traps: one baited with ethanol, alpha pinene and monocamol lure for BFS, JPS and LPW, and one baited with ethanol, spruce blend, and geranyl acetol lure for BSLB and BSB. The traps will be serviced every two weeks, and the 3-component lures replaced as needed according to survey guidelines. Jude Hsaing 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. Fifteen sites will be monitored by the CAPS SSC and summer worker, while Jude will monitor a further 15 located in the northwestern portion of the state (Hartford, New London, Tolland, and Windham Counties).

PPM, SSM and PTL:

Wing and milk carton traps following national protocols developed by APHIS for pine processionary moth (PPM), Siberian silk moth (SSM) and pine tree lappet (PTL) will be installed at the same thirty high risk sites where the cross-vane panel traps are installed. The traps will be serviced every two weeks, and the lures and kill strips replaced as needed according to survey guidelines. Jude Hsaing 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. Fifteen sites will be monitored by the CAPS SSC and summer worker, while Jude will monitor a further 15 located in the northwestern portion of the state (Hartford, New London, Tolland, and Windham Counties).

Pest:	Common Name	Scientific Name
	European Hardwood Ambrosia Beetle	*Trypodendron domesticum*
	Oak Ambrosia Beetle	*Platypus quercivorus*
	Brown Spruce Longhorned Beetle	*Tetropium fuscum*
	Black Spruce Beetle	*Tetropium castaneum*
	Black Fir Sawyer	*Monochamus urussovii*
	Japanese Pine Sawyer	*Monochamus alternatus*
	Oak Processionary Moth	*Thaumetopoea processionea*
	Green Oak Tortix Moth	*Tortrix viridana*
	Pine Processionary Moth	*Thaumetopoea pityocampa*

	Siberian Silk Moth	*Dendrolimus pini*
	Pine Tree Lappet	*Dendrolimus sibricus*
	Large Pine Weevil	*Hylobius abeitus*

	Proposed	**Actual**
Sites (Locations):	55	55
Traps:	245	214

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

2. Survey dates:

	Proposed	**Actual**
Survey Dates:	4/15/18 – 10/1/18	4/16/18 – 10/5/18

3. Benefits and results of survey:

Nursery Survey:

OPM and GOTM:

Wing traps for oak processionary moth (OPM) and green oak tortrix moth (GOTM) were installed at sites beginning the week of April 29th. The traps were serviced every two weeks, and lures replaced as needed according to National Oak Commodity survey guidelines. Jude Hsaing began servicing sites the week of May 27th, however due to a leg injury the 13 UConn sites were serviced by Jennifer Dacey for the remainder of the season. A total of 304 trap collections were screened, and no suspect Tortricids were recovered.

EHAB and OAB:

Lindgren 8-funnel traps for European Hardwood Ambrosia Beetle (EHAB) and a generalist scolytid lure were installed at 24 sites beginning the week of April 15th. One site's trap deployment was delayed due to an extended hunting season, and therefore EHAB was not trapped at that location. OAB traps were installed the week of June 10th. All remaining EHAB traps were switched to Oak Ambrosia Beetle (OAB) the week of June 10th. Traps are being serviced every two weeks and lures replaced as needed, according to National Exotic Wood Boring and Bark Beetle survey guidelines. Jennifer Dacey from UConn assisted in monitoring 12 sites in northeastern Connecticut. A total of 4991 scolytids were collected from screened trap collections. While native *Trypodendron* were recovered, no target suspects were identified.

Christmas Tree Survey:

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) were installed at sites beginning the week of April 29th. The traps were serviced every two weeks, and the 3-component lures replaced as needed according to survey guidelines. Jude Hsaing began servicing sites the week of May 27th, however due to a leg injury the 15 UConn sites were serviced by Jennifer Dacey for the remainder of the season. A total of 659 beetles were recovered from the *Monochamus* cross-vane traps, 378 of which were *M. scutellatus*. The remainder included *M. carolinensis, M. notatus, and Rhagium inquisitor*. Two hundred twenty-seven beetles were recovered from the *Tetropium* cross-vane traps, mostly *Asemum* and *Monochamus.* Additionally, 131 weevils were recovered from both types of traps. No suspects were identified.

PPM, SSM and PTL:
Wing and milk carton traps following national protocols developed by APHIS for pine processionary moth (PPM), Siberian silk moth (SSM) and pine tree lappet (PTL) were installed staring the week of April 29th. On June 21st, the survey guidance for *Dendrolimus* was updated to require a trap component that CAES did not have access to. The *Dendrolimus* traps were removed, and no insects were recovered or identified. One hundred eighty-three PPM trap collections were screened, with no suspects identified.

	Positive	Negative	Total Number
Traps			
Thaumetopoea processionea	0	25	25
Tortrix viridana	0	25	25
Platypus quercivorus	0	25	25
Trypodendron domesticum	0	24	24
Scolytid Ethanol	0	25	25
Thaumetopoea pityocampa	0	30	30
Monochamus urussovii, *M. alternatus,* and *Hylobius abeitus*	0	30	30
Tetropium fuscum and *T. castaneum*	0	30	30
Dendrolimus pini and sibricus	0	0	0
TOTAL	0	214	214

4. Database submissions:
The CAPS NAPIS database submissions occurred on 12/4 and 12/5**.**

B. If appropriate, explain why objectives were not met.
Due to an extended hunting season, we were unable to install bark beetle traps at one forest site until mid-June. Therefore no survey for EHAB took place at that site.

C. **Where appropriate, explain any cost overruns or unobligated funds in excess of $1,000**. *
No cost overruns have occurred. Funding originally obligated for insect identification by Carnegie has instead been obligated for hiring a second seasonal assistant to assist with insect sorting and identification.

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

Approved and signed by

_____ **Date: _____**

Cooperator

_____ **Date: _____**

ADODR