

**Cooperative Agricultural Pest Survey  
Annual Accomplishment Report FY 2009**

**State:** Rhode Island

**Year:** 2009

**Agency:** RI Department of Environmental Management, Division of Agriculture & Resource Marketing

**I. Infrastructure Activities:**

**A. State Survey Coordinator:**

**Name:** Elizabeth M. Lopes-Duguay  
**Agency:** RIDEM-Division of Agriculture & Resource Marketing  
**Address:** 235 Promenade St.  
Providence, RI 02908

**Phone:** 401-222-2781 x4510  
**Fax:** 401-222-6047  
**Email:** liz.lopesduguay@dem.ri.gov

**B. Member name, if applicable, of National CAPS Committee:** N/A

**C. Comparison of actual accomplishments to objectives established for the period.**

- 1) State Survey Coordinator (SSC) RI DEM/Division of Agriculture & Resource Marketing will provide a SSC responsible for coordination of the state's CAPS program and the State CAPS Committee and to act as liaison with CT PPQ office.**

The SSC continues to identify appropriate plant industry organizations throughout the state to provide information and outreach in relation to ongoing pest surveys. Whenever possible, the SSC will participate in industry trainings and workshops to provide outreach and information on exotic non-native invasive pests. The RI Flower Show and the RI Nurseryman and Landscapers Association are examples of training sessions the SSC has attended in the past. In addition, press releases have also been issued by the Department of Environmental Management Public Relations office to inform the public of exotic foreign pests, such as the Asian Long horned beetle. The SSC continues to network with the Division of Forestry Environment and their Forest Health Program pest surveys. In 2009, the Division of Forest Environment complemented the CAPS WBBS survey activities by conducting an Early Detection Rapid Response (EDRR) survey in forested and wooded areas in close proximity to companies that are known to import their products from Asian and/or European countries for the surveillance of wood boring bark beetles. On April 10, 2009, DEM/Div. of Agriculture & Forest Environment staff met with the CT PPQ SPUD and a representative from the Narragansett Indian Tribe to update and discuss activities relating to the State's Plant Pest Emergency Plan and drafting of an emergency plan to address an Asian Longhorned beetle infestation, if discovered in Rhode Island. The CAPS program continues to maintain it's cooperative working relationship with the University of

Rhode Island, as it is a vital to the successful protection of RI's economy and biodiversity.

The SSC participated in the following meetings and training sessions:

1. Regional SSC Conference Calls- 2009
2. Joint USDA/Forest Service Taxonomy Training – 2009
3. Northeastern Forest Pest Council Meeting- 2009
4. RI Arborist Workshop – October 2009

**2) Data Management State coordination of survey data collection and NAPIS database.**

All data for all surveys have been entered into NAPIS and as required data pertaining to the Emerald Ash Borer has been entered into ISIS as well. The SSC has also entered survey data conducted in Rhode Island for the Light Brown Apple Moth and Asian Gypsy Moth surveys conducted by the regional PPQ office.

**3) Priority Pest List. The SSC, in conjunction with the CAPS committee, will work with other state, county and federal and public entities to create an invasive species list that is of concern to that state. The list will help focus survey and outreach priorities in coordination with other neighboring states in the region and across the nation.**

The SSC continues to research several invasive pests databases such as the Global Pest and Disease database to determine which pests maybe of significance to our state, and has been in contact with the CAPS committee as well as other stakeholders such as the University of Rhode Island extension and other state entities to develop a Priority Pest List that is of concern to Rhode Island. The CAPS Committee held their meetings on June 18, 2009 and again on November 16, 2009. The Priority Pest List was discussed and revised based on pests problems of national and state concern as well as previous pest surveys and the proposed work plans for 2009. The SSC is also considering to revamp CAPS Committee and is in the process of surveying current members to see if they wish to continue to serve on the committee, otherwise she will pursue other organizations and contacts within the state from various agricultural and environmental organizations that best represent the goals of the CAPS mission and objectives to see if they are interested to serve on the committee.

**2010 State Pest List:**

Rank	Scientific Name	Common Name	Pest Type
1	<i>Anoplophora glabripennis</i>	Asian Longhorned Beetle	Insect
2	<i>Phytophthora ramorum</i>	Ramorum Blight	Disease
3	<i>Agrilus planipennis</i>	Emerald Ash Borer	Insect
4	<i>Tetropium fuscum</i>	Brown Spruce Longhorned Beetle	Insect
5	<i>Monochamus alternalis</i>	Japanese Pine Sawyer Beetle	Insect
6	<i>Ips sexdentatus</i>	Six tooth bark beetle	Insect
7	<i>Hylurgus ligniperlda</i>	Red-Haired bark Beetle	Insect
8	<i>Pityogenes chalcographus</i>	Spruce Engraver	Insect
9	<i>Epiphyas postvittana</i>	Light Brown Apple Moth	Insect

10	<i>Adoxophyes orana</i>	Summer fruit Tortix	Mollusk
11	<i>Lobesia botrana</i>	European Grape Vine Moth	Insect
12	<i>Archips xylosteanus</i>	Variegated golden moth tortix	Insect
13	<i>Eudocima fullonia</i>	Fruit piercing moth	Insect
14	<i>Globodera pallida</i>	Potato Cyst Nematode	
15	<i>Ralstonia solanaceorum</i>	Bacterial Wilt of Potato	Disease
16	<i>Potyvirus PPV</i>	Plum Pox Virus	Disease
17	<i>Tropilaelaps sp.</i>	Parasitic mites	Acaricide
18	<i>Agriotes sp.</i>	Exotic Wireworm	Insect
19	<i>Copitarsia decolora</i>	No data available	Insect
20	<i>Sirex noctilio</i>	Sirex Woodwasp	Disease
21	<i>Lymantria discr asiatica</i>	Asian Gypsy Moth	Insect
22	<i>Polygonum perfoliatum</i>	Mile-A-Minute	Weed
23	<i>Operophtera brumata</i>	Winter Moth	Insect

**4) Pest Risk and Pathway Analysis Using the Priority Pest List developed in #3 above, the SSC in conjunction with the Pest Survey Specialist (PSS) and State CAPS Committee will assess pest specific risk within the state by examining existing pest risk assessments to determine possible pathways into the state.**

In preparing for the Light Brown Apple Moth Survey, the SSC reviewed nursery stock purchase information maintained by the Supervisor of Plant Insect & Disease Program as part of their annual Nursery and Dealer License renewal applications. This information proved helpful in determining which nurseries buy their nursery stock out-of-state, especially from the western states where the pest risk is the greatest. Sites identified for the Oak Commodity survey included some of the same sites selected for the LBAM as well as oak stands located on state forest management areas. This year the WBBS survey also included selecting Christmas tree farms for the Brown Spruce Long horned beetle survey component.

**5) Public Outreach and Risk Communication Education and communication must be an integral part of the CAPS program.**

The work plan calls for coordination with various state and federal cooperators, University Cooperative Extension Staff, Agricultural Industry Representatives, the Green Industry, Professional Grower Groups, Master Gardeners and the General Public in providing and organizing public outreach and communication regarding these pests. The SSC has contacted many of the organizations to inform them of her availability to speak at any training sessions and workshops regarding information pertaining to the CAPS program. Also, the SSC has participated in several TV segments addressing the Asian Long horned beetle as well as other invasive pest problems. Channel 10 conducted an interview with the SSC and the Supervising Forester from the Div. of Forest Environment on ALB damage. The SSC will continue to identify organizations and plant industry associations and provide outreach to groups that will benefit from the training on detection and monitoring of invasive exotic pests. Educational Material is always provided during site visits, when seeking out survey sites. A separate CAPS homepage has also been added to the Division of Agriculture webpage. Information on the homepage will be periodically reviewed and updated as deemed necessary. The website is <http://www.dem.ri.gov/programs/bnatres/agricult/caps.htm>

The SSC attended the following events:

1. R.I. Flower Show – February 19 – 22, 2009 – This is a major public event that usually draws about 5,000 – 10,000 people. ALB and EAB outreach material was made available at the Division of Agriculture booth.

2. Rhode Island Nurseryman & Landscape Association Short Course – January 20,21, 2009. This event is the winter meeting for members of RINLA. Table display of the ALB and EAB information; along with Nursery Inspection outreach material. Approximately 200- 300 members.

3. RI Federation of Garden Clubs – May 2009. This meeting is an annual meeting of all the presidents of the state’s Garden Clubs.

4. Periodically attend Pesticide Applicators Training Sessions jointly held and sponsored by URI and DEM.

**D. Objectives Not Met:**

All objectives are being met for this work plan.

**E. Cost Overruns.**

No cost overruns

**F. State CAPS Committee Narrative:**

The fall CAPS meeting was held on November 16, 2009 at the Providence office, Providence, RI. In attendance were:

- 1) Liz Lopes-Duguay, SSC, RIDEM Division of Agriculture
- 2) Ken Ayars- Chief, RIDEM, Division of Agriculture
- 3) Matt Green- Supervisor of Plant Insect & Disease Program, RIDEM, Division of Agriculture
- 4) Bruce Payton- Supervising Forester- RIDEM, Division of Forest Environment
- 5) Patty Douglass- SPHUD, USDA-APHIS-PPQ
- 6) Nicole Campbell- PSS, USDA-APHIS-PPQ
- 7) Lisa Tewksbury- Research Technician, URI Plant Science Dept.
- 8) Heather Faubert – Research Technician, URI Plant Science Dept.

**The agenda was as follows:**

2009 ANNUAL CAPS COMMITTEE MEETING

Monday November 16, 2009

Div. of Agriculture

Providence Office

10:00 AM – Introductions

10:15 AM- Brief Discussion of 2009 Progress

Surveys

Wood Boring Bark Beetle – 10 sites

Brown Spruce long horned Beetle – 10 sites

Emerald Ash Borer- 20 sites

Exotic Sirius – 10 sites

Oak Commodity – 10 sites (LBAM, SFTM, Variegated Tortrix)

11:00 Am- Discussion – 2010 Survey Planning

1. Survey Consideration/Planning

11:30 AM- Adjourn-Consideration of Fall Meeting

Committee members discussed and finalized plans for surveys for 2010, including continuation of WBBS survey, the Brown Spruce Longhorned beetle at Christmas Tree Farms, and the Oak Commodity surveys. In addition since one of the samples from the Oak Commodity survey was suspected as Apple Ermine Moth also considered a regulated non native insect species but could not be confirmed, there was discussion to select some sites, including the suspected site and conduct a survey for Apple ermine moth to see if it is present in Rhode Island. There was also discussion about pursuing the utilization of an electronic database for assessing and identifying movement of nursery stock into the state, as well as assessing potential pathways of exotic insect pests into the state. Due to staff and other resource constraints, it may be a while before these suggestions could be implemented. Currently, in order to identify potential pathways and risks of wood Boring Bark Beetles & Siricid wood wasps within the state, the SSC accessed the RI Dept. of Economic Development Directory of Imports and Exports Facilities and Businesses. For the Emerald Ash Borer Survey, municipalities were contacted to obtain a street tree inventory or for a list of parks that have ash trees. Both nurseries and Christmas Tree growers were contacted for the Oak Commodity surveys.

#### State Survey Committee members

Name	Organization	Discipline
Patricia Douglass	USDA-APHIS-PPQ	Regulatory
Nicole Campbell	USDA-APHIS_PPQ	Regulatory
Cathy Sparks	RIDEM-Div. Of Forest Environment	Forest Health
Sue Sosnowski	RIDEM-Agricultural Advisory Council	Horticulture
Al Bettencourt	RI Farm Bureau	Farm Services
Steve Cotta	RI Nurseryman's Association	Horticulture/Entomology
Ken Ayars	RIDEM-Div. Of Agriculture	State Regulatory
Liz Lopes-Duguay	RIDEM-Div. Of Agriculture	State Regulatory-SSC
Heather Faubert	Univ. of Rhode Island	Plant Pathology/Entomology
Alan Hill	RI Fruit Growers Association	Horticulture/Entomology
R.Matthew Green	RIDEM-Div. Of Agriculture	Sup. Plant Insect & Disease Control

#### G. NAPIS database submissions: CAPS program pest and date of submission

Pest	Date(s) of NAPIS submission
N/A	N/A

## **II. CAPS survey activity (Part II)**

### **Part II: Oak Commodity Survey**

#### **A. Survey Methodology (trapping protocol)**

Ten Sites were surveyed throughout the state for the Oak Commodity survey. The following pests were included in the survey; the Light Brown Apple Moth (LBAM); Summer Fruit Tortrix Moth (SFTM) and the Variegated Tortrix Moth. Trapping began in mid June and ended on November 3, 2009. Selected sites include RI's highest risk nurseries, abandoned orchards and retail garden centers. Nurseries were chosen according to the origin of their stock. Those nurseries that receive stock from high-risk areas in California were targeted for this survey. Two Jackson Traps equipped with species pheromone lures are being deployed at each site for LBAM, for a total of 20 traps. In addition, five of these sites also were selected for the SFTM and the variegated Tortrix moth. There were another 5 sites selected as sites for the SFTM and the Tortrix moth traps located in oak stands within state management areas for a total of 10 sites.

#### **B. Rationale underlying survey methodology**

This survey is being conducted as per the national protocol.

#### **C. Survey dates**

This survey began on June 15, 2009 and ended on November 3, 2009.

#### **D. Taxonomic services**

**Heather Faubert, Research Assistant.**

University of Rhode Island

Dept. of Plant Science

9 E.Alumni Ave. Ste.7

Kingston, RI 02881

Phone: 401-874-2750

Fax: 401-874-2494

Email: [hfh@uri.edu](mailto:hfh@uri.edu)

#### **E. Benefits and results of survey**

We have placed all traps according to the survey protocol listed above. Trapping occurred in three of the five RI counties. To date, we have had no positive collections for any of the target tortricids. However, there was in one of the samples collected, the Apple Ermine moth was a suspect and was sent to the PPQ identifier for confirmation, however, positive identification was difficult. All traps were serviced biweekly and lure changes made at appropriate intervals.

Traps were checked for possible suspects and any traps having Tortrix suspects were collected and delivered to URI for identification.

**Current Results:**

Target	Number of Sites	Number of Traps	Number of Traps Serviced	Number of Suspects	Number of Negatives	Number of Positives
<b>Adoxyphyes orana</b>	10	10	10	7	7	0
<b>Tortrix viridana</b>	10	10	10	12	12	0
<b>Epiphyas postvittana</b>	10	20	20	0	0	0

**Please note: suspects are specimens that were forwarded to URI for identification. Not all samples were sent to URI for identification. Only one of those samples collected was forwarded to the PPQ identifier for further confirmation.**

The ultimate benefit of this survey is to ascertain whether Light Brown Apple Moth (LBAM), Summer Fruit Tortrix Moth (SFTM) or the variegated Tortrix Moth are a potential threat to RI’s agriculture and natural lands by detecting the presence or absence of the pest determine whether the pest is present in the state. Early detection of this pest and distributional data will aid RIDEM and APHIS in making regulatory decisions to eradicate or manage this pest should it be found.

**F. NAPIS database submissions: CAPS program pest and date of submission**

Pest	Date(s) of NAPIS submission
Summer Fruit Tortrix Moth ( <i>Adoxyphyes orana</i> )	November 23, 2009
Variegated Tortrix Moth ( <i>Tortrix viridana</i> )	November 23, 2009
Light Brown Apple Moth ( <i>Epiphyas postvittana</i> )	November 30, 2009

**Part II: Exotic Wood Borer Bark Beetle Survey**

**A. Survey Methodology (trapping protocol)**

Ten sites have been established throughout RI for the WBBB, Brown Spruce Longhorned beetle (BSLB) and Siricids. Trapping for WBBB began on March 26 and ended on October 21, 2009. Trapping for Siricids began on May 26, 2009 and ended on October 21, 2009. Trapping for BSLB began on June 4, 2009 and ended on October 20, 2009. For WBBB, three eight tier Lingren Funnel traps were deployed at each location for a total of 30 traps. Traps were baited with three different combinations of lures including alpha-pinene, ethanol UHR and an IPS lure. For the Siricids, ten-8 tiered Lingren funnel traps were baited with 70/30 combinations Alpha-Pinene/beta-pinene lures according to protocol and placed at the 10 sites associated with the WBBBW survey locations. Ten Christmas Tree Farms located throughout the state were selected for the BSLB survey using the same lingren funnel traps and baited with a combination of Fuscumol and 6 component lures. All traps were monitored approximately every two-three weeks throughout the survey.

**B. Rational underlying survey methodology**

The survey methodology being used is part of the national protocol. We chose the different lure combinations to increase the number of different targets that we could attract to our traps.

**C. Survey Dates**

This survey began on March 26 and ended on October 20, 2009.

**D. Taxonomic Services**

**Wood Boring/Bark Beetles**

John Rawlins, Ph.D  
Invertebrate Zoology Section  
Carnegie Museum of Natural History  
4400 Forbes Ave.  
Pittsburgh, PA 15213-4080

Phone: 412-688-8668  
Fax: 412-688-8670  
Email: [rawlinsj@carnegiemnh.org](mailto:rawlinsj@carnegiemnh.org)

**Exotic Siricids & BSLB**

Heather Faubert, Research Assistant  
University of Rhode Island  
Dept. of Plant Sciences  
9 E.Alumni Ave. Ste 7  
Kingston, RI 02881

Phone: 401-874-2750  
Fax: 401-874-2494  
Email: [hfh@uri.edu](mailto:hfh@uri.edu)

**E. Benefits and Results of Survey**

We have placed all traps according to the survey protocol listed above. Traps were placed in three of the five RI counties. All samples sent to Carnegie and URI has been identified and there were no positive collections for any of the target beetles. All traps are being serviced approximately every two-three weeks and lure changes made at appropriate intervals. Identification results from URI and Carnegie the recovered the following species from the sample collections: *Urocerus cressoni* (horntail wood wasp). In addition other beetles recovered from samples sent to Carnegie included *Tremix columba* (pigeon tremex), *Nipponoserica peregrina* (scarab beetle) *Psenocerus supernotatus* (currant woodborer), *Amphimallon majalis* (European chafer) and *Styloleptus biustus* (flatfaced longhorned)

**Current Results:**

Targets	Lure Combination	Number of Sites	Number of Traps	Number of Trap Collections	Number of Suspects	Number of Negatives	Number of Positives
Hylurgus ligniperda, Hylurgops palliates, Tomicus destruens	<b>UHR Ethanol &amp; UHR a-pinene</b>	10	10	104	0	104	0
General lure- no specific target	<b>UHR Ethanol</b>	10	10	104	0	104	0

Ips sexdentatus, Ips typographus, Orthotomicus erosus	<b>EBB/3 Ips</b>	10	10	104	0	104	0
Sirex noctilio	<b>70/30 alpha/beta pinene</b>	10	10	72	0	72	0
Tetropium castaneum, Tetropium fuscum	<b>Spruce blend, fuscol, &amp; UHR ethanol</b>	10	10	70	0	70	0

Survey results will contribute data on the distribution and range of WB/BBs and exotic wood wasps in the state of Rhode Island. In addition, USDA, APHIS and DEM will be provided with a greater understanding of the pathways by which pests might be introduced into the state. This information can be utilized by state and federal-level decision makers involved with the control and quarantine of pests within the US.

**F. NAPIS database submissions:**

<b>Pest</b>	<b>Date(s) of NAPIS submission</b>
Monochamus alternatus (Japanese Pine Sawyer)	December 1, 2009
Hylurgus ligniperda (redhaired Pine Bark Beetle)	December 1, 2009
Ips typographus (European Spruce Bark Beetle)	December 1, 2009
Ips sexdentatus (Sixtoothed Spruce Bark Beetle)	December 1, 2009
Orthotomicus erosus (Mediterranean Pine Engraver)	December 1, 2009
Pityogenes chalcographus (Sixtoothed Spruce Bark Beetle)	December 1, 2009
Tomicus destruens (Pine Shoot Beetle)	December 1, 2009
Tomicus piniperda (Pine Shoot Beetle) Psb	December 1, 2009
Trypodendron domesticus (European Hardwood Ambrosia Beetle)	December 1, 2009
Tetropium castaneum	November 23, 2009
Tetropium fuscum (Brown Spruce Longhorned beetle)	November 23, 2009
Sirex noctillio (European Woodwasp)	November 23, 2009

**Approved and signed by**

\_\_\_\_\_ Date: \_\_\_\_\_

**Cooperator**

\_\_\_\_\_ Date: \_\_\_\_\_

**ADODR**