

Indiana Cooperative Agricultural Pest Survey

2015 Annual Report Exotic Woodborer/Bark Beetle Survey 1 January – 31 December



Department of Entomology at Purdue University
Indiana Department of Natural Resources (IDNR)
United State Department of Agriculture (USDA), Animal and Plant Health Inspection Service
(APHIS), Plant Protection and Quarantine (PPQ)

Prepared by Larry W. Bledsoe
Department of Entomology
Purdue University

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NATURAL RESOURCES

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APHIS

CAPS 2015 Annual Report

Year:	2015
State:	INDIANA
Cooperative Agreement Name:	Indiana Agricultural Pest Surveys (CAPS) 2015
Cooperative Agreement Number:	15-8218-0332-CA
Project Funding Period:	1 January 2015 – 31 December 2015
Project Report:	CAPS Exotic Woodborer/Bark Beetle Survey
Project Document Date:	30 March 2016
Cooperators Project Coordinator:	Larry W. Bledsoe
Name:	Philip Marshall
Agency:	Indiana Department of Natural Resources
Address:	402 West Washington, Room W-290
City/ Address/ Zip:	Indianapolis, Indiana 46204
Telephone:	317-232-4189
E-mail:	pmarshall@dnr.IN.gov

Quarterly Report	<input type="checkbox"/>
Semi-Annual Accomplishment Report	<input type="checkbox"/>
Annual Accomplishment Report	<input checked="" type="checkbox"/>

A. 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.*

Objective. Utilize cooperator and APHIS program funding, as outlined in the financial plan to collaborate with PPQ on an exotic woodborers/bark beetles survey. Collaboration consists of survey planning assistance and processing, screening, and archiving samples, and delivering the results to the NAPIS database. The Cooperator seeks to conduct a program that is expected to provide information about the presence or absence of the potentially damaging exotic pests including oak splendor beetle, *Agrilus biguttatus*, sixtoothed bark beetle, *Ips sexdentatus*, European spruce bark beetle, *Ips typographus*, Japanese pine sawyer beetle, *Monochamus alternatus*, Black fir sawyer, *Monochamus urussovii*, Mediterranean pine engraver, *Orthotomicus erosus*, sixtoothed spruce bark beetle, *Pityogenes chalcographus*, Oak ambrosia beetle, *Platypus quercivorus*, and European hardwood ambrosia beetle *Trypodendron domesticum*.

Accomplishments

- a. Exotic woodborers/bark beetle survey. Risk-based survey in cooperation with PPQ (statewide trapping network).
 Proposed data = 1,343 records. Actual data collection = 2,201 records.
 Proposed and actual funding was \$4,196.
 Cost per unit was \$1.91.

- a1. Survey Methodology (trapping protocol): This survey was an APHIS-PPQ/CAPS collaborative effort. PPQ and CAPS jointly planned the survey. Exotic Woodborer/Bark Beetle National Survey Guidelines-July 2011, were followed. PPQ set up and sampled traps and CAPS processed, identified, and archived samples. SSC uploaded results to NAPIS. One hundred fifteen wet cup Lindgren traps were deployed at 59 Indiana sites in 29 counties. One additional trap was placed at a high risk site in extreme south west Michigan. Data from this site were transferred to Michigan CAPS. Sites were identified by recognition of apparent risk of receiving target pests through commerce. One to two Lindgren funnel traps containing dilute propylene glycol antifreeze were placed at each site. Traps contained one of the following lures; Monochamol, UHR alpha pinene+ethanol, Chalcogran, Platypus quercivorous lure, lineatin, and IPS Tri-lure. Traps were monitored about biweekly (avg 16 days).

- a2. Trap locations and dates, sampled approximately biweekly;

- | | |
|---|---------------------------------------|
| 1. Bartholomew Co. 3 sites, 4/14 - 9/23 | 16. Johnson Co. 1 site, 5/11 - 9/29 |
| 2. Brown Co. 1 site, 5/12 - 10/1 | 17. Knox Co. 1 site, 3/27 - 9/19 |
| 3. Clark Co. 2 sites, 4/3 - 9/22 | 18. LaPorte Co. 3 sites, 4/4 - 9/27 |
| 4. Crawford Co. 1 site, 4/3 - 9/21 | 19. Madison Co. 2 sites, 5/18 - 9/25 |
| 5. Daviess Co. 1 site, 3/21 - 9/19 | 20. Marion Co. 6 sites, 4/30 - 10/1 |
| 6. Decatur Co. 2 sites, 4/10 - 9/25 | 21. Martin Co. 2 sites, 3/28 - 9/12 |
| 7. Delaware Co. 1 site, 5/15 - 9/25 | 22. Montgomery Co. 2 sites, 5/19-10/2 |

- | | |
|--|--|
| 8. Dubois Co. 1 site, 3/28 – 10/2 | 23. Orange Co. 1 site, 4/16 - 9/21 |
| 9. Gibson Co. 2 sites, 3/27 – 9/19 | 24. Pike Co. 1 site, 3/21 - 9/19 |
| 10. Green Co. 1 site, 3/28 - 9/12 | 25. Porter Co. 12 sites, 3/23 - 9/26 |
| 11. Hamilton Co. 1 site, 5/12 - 9/24 | 26. Shelby Co. 2 sites, 5/13 - 9/30 |
| 12. Harrison Co. 1 site, 4/14 - 9/25 | 27. Starke Co. 2 site, 4/4 - 10/3 |
| 13. Hendricks Co. 2 sites, 5/13 - 10/2 | 28. Vanderburgh Co. 1 site, 3/28 - 9/19 |
| 14. Howard Co. 2 sites, 4/3 - 10/3 | 29. Washington Co. 1 site, 4/3 - 9/22 |
| 15. Jefferson Co. 1 site, 4/3 - 9/22 | |
| | (30.) Berrien Co. Michigan, 1 site, 4/4 - 9/27 |

a3 . Benefits and results of survey:
 No target species were recovered.

a4. Database submissions:

On 25 February

Oak splendor beetle, *Agrilus biguttatus*

Date Range: 01-01-2015 thru 12-31-2015

Counties 5 Sites 5 Pos 0 Neg 65

Sixtoothed bark beetle, *Ips sexdentatus*

Date Range: 01-01-2015 thru 12-31-2015

Counties 20 Sites 35 Pos 0 Neg 342

European spruce bark beetle, *Ips typographus*

Date Range: 01-01-2015 thru 12-31-2015

Counties 20 Sites 35 Pos 0 Neg 342

Japanese pine sawyer beetle, *Monochamus alternatus*

Date Range: 01-01-2015 thru 12-31-2015

Counties 20 Sites 35 Pos 0 Neg 342

Black fir sawyer, *Monochamus urussovii*

Date Range: 01-01-2015 thru 12-31-2015

Counties 20 Sites 35 Pos 0 Neg 342

Mediterranean pine engraver, *Orthotomicus erosus*

Date Range: 01-01-2015 thru 12-31-2015

Counties 20 Sites 35 Pos 0 Neg 342

Sixtoothed spruce bark beetle, *Pityogenes chalcographus*

Date Range: 01-01-2015 thru 12-31-2015

Counties 1 Sites 5 Pos 0 Neg 60

Oak ambrosia beetle, *Playpus quercivorus*

Date Range: 01-01-2015 thru 12-31-2015

Counties 19 Sites 20 Pos 0 Neg 215

European hardwood ambrosia beetle *Trypodendron domesticum*
Date Range: 01-01-2015 thru 12-31-2015
Counties 19 Sites 20 Pos 0 Neg 151

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

All objectives for reporting period (1 January to 31 December) were met.

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

All funds were expended with no cost overruns.

D. Supporting Documents (if applicable) none attached.

**indicates information is required per 7 CFR 3016.40 and 7 CFR 3019.5*

Approved and signed by

Philip T. Marshall (Cooperator)

Date: _____

Gary W. Simon (ADODR)

Date: _____