

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

Indiana State Survey Coordinator (SSC): Dr. Christopher M. F. Pierce
Purdue University, Department of Entomology
901 West State Street
West Lafayette, Indiana 47907
Telephone: (765) 494-9522
E-mail: cpierce@purdue.edu

State CAPS Committee Members:

Name	Organization	Discipline
Dr. Christopher Pierce, SSC	Purdue University	Entomology/ Invasive Species
Philip Marshall, SPRO	IN Dept. Natural Resources	Entomology/ Regulatory Science
Gary Simon, SPHD	USDA APHIS PPQ	Regulatory Science
James Manor, PSS	USDA APHIS PPQ	Regulatory Science
Dr. Steve Yaninek	Purdue University	Biological Control/ Invasive Species
Dr. Robert Waltz	Purdue University	State Chemist
Cloyce Hedge	IN Dept. Natural Resources	Plant Ecology/ Identification
Ellen Jacquart	The Nature Conservancy	Plant Ecology/ Identification
Susan Schechter	CERIS	NAPIS
Gail Ruhl	Purdue University	Plant Disease Diagnostics
Dr. Karen Rane	Purdue University	Plant Pathology
Dr. Cliff Sadof	Purdue University	Ornamental Pests/ Identification
Dr. Chris Oseto	Purdue University	Entomology/ Identification
Dr. Ray Martyn	Purdue University	Center for Crop Biosecurity
Dr. Peter Hirst	Purdue University	Horticulture
Steve Cain	Purdue University, E.D.E.N.	Disaster Education & Outreach
Jodie Ellis	Purdue University	Entomology/ Outreach Education
Glenn Nice	Purdue University	Weed Science

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

Dr. Carole Lembi	Purdue University	Invasive Aquatic Plants
Doug Keller	IDNR Fish and Wildlife	Invasive Aquatic Plants

**Cooperative Agreement Representative
State Plant Regulatory Official (SPRO):**

Philip Marshall
Indiana Department of Natural Resources
Division of Entomology and Plant Pathology
402 West Washington, Room W-290
Indianapolis, Indiana 46204
Telephone: (317) 232-4189
Facsimile: (317) 232-2649
E-mail: pmarshall@dnr.in.gov

State Plant Health Director (SPHD):

Gary Simon
USDA APHIS PPQ
120 Professional Court, Suite D
Lafayette, Indiana 47905
Telephone: (765) 446-0267
Facsimile: (765) 446-8274
E-mail: Gary.W.Simon@aphis.usda.gov

Indiana Cooperative Agricultural Pest Survey (CAPS)
Semi-Annual Report for 2007

<u>Table of Contents</u>	<u>Page</u>
Indiana SSC and SCC	1-2
Indiana State Plant Regulatory Official and State Plant Health Director	2
Table of Contents	3
January Accomplishments	4
February Accomplishments	5
March Accomplishments	6
April Accomplishments	7
May Accomplishments	8
June Accomplishments	9
Indiana CAPS State Survey Committee meeting minutes (May 30 th , 2007)	10
NAPIS Data for Indiana (January 1 through June 30 th , 2007)	14

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

January Accomplishments:

- In January, I began to purchase supplies for the upcoming FY 2007 surveys.
- In January, I began compiling information and writing the FY 2006 Annual Accomplishment Report.
- I continued to work on the development of the Indiana CAPS website.
- In conjunction with Dr. Robert Waltz (IDNR), Dr. Tim Gibb (Purdue Entomology) and myself, we began producing an article for the Indiana Academy of Science titled: An overview of arthropod activity in Indiana during 2006.
- I continued to process and assimilate native bark and longhorned beetle samples from the exotic bark and longhorned beetle survey.

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

February Accomplishments:

- I began to purchase supplies and contacting sites to participate in the upcoming FY 2007 SWPM survey.
- I continued to compile information and write the FY 2006 Annual Accomplishment Report.
- I continued to work on the development of the Indiana CAPS website.
- I continued working with Dr. Robert Waltz (IDNR), Dr. Tim Gibb (Purdue Entomology) and myself, in producing an article for the Indiana Academy of Science titled: An overview of arthropod activity in Indiana during 2005.
- I continued to process and assimilate native bark and longhorned beetle samples from the exotic bark and longhorned beetle survey.

Month	Date	Task
February	5 th - 7 th	Attended the Central Plant Board Meeting in Columbus, Ohio

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

March Accomplishments:

- I submitted the FY 2006 Indiana CAPS Annual Accomplishment Report.
- I continued to work on the development of the Indiana CAPS website.
- I continued working with Dr. Robert Waltz (IDNR), Dr. Tim Gibb (Purdue Entomology) and myself, in producing an article for the Indiana Academy of Science titled: An overview of arthropod activity in Indiana during 2006.
- I took part in ISIS (Integrated Survey Information System) Training. United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ). Indianapolis, Indiana.

Month	Date	Task
March	Thursday, 15 th	ISIS (Integrated Survey Information System) Training
	Tuesday, 20 th	IPSAWG Meeting at TNC in Indianapolis

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

April Accomplishments:

- I continued to work and update information on the Indiana CAPS website.
- I continued working with Dr. Robert Waltz (IDNR), Dr. Tim Gibb (Purdue Entomology) and myself, in producing an article for the Indiana Academy of Science titled: An overview of arthropod activity in Indiana during 2005.
- I gave a presentation at the Pokagen State Park on invasive species in Indiana
- I contacted Dr. Amanda Hodges, SPDN Entomology Coordinator, and Cassandra Bates, NCPDN, about Purdue University hosting a Coleoptera Workshop: Specialized Taxonomic Training for Entomologist (SWPM) in the Central Plant Board (North East and North Central U.S.). We agreed to continue discussions about this project and will talk later in the fall semester.
- Talked with John Obermeyer and Drs. Tim Gibb, Doug Richmond, and Cliff Sadof on surveying for European chafer, Oriental beetle and Asiatic garden beetle at Purdue University PACS and golf courses in northern Indiana with black light traps.

Month	Date	Task
April	Tuesday, 3 rd	Deployed and set SWPM traps
	Wednesday, 4 th	Deployed and set SWPM traps
	Thursday, 5 th	Deployed and set SWPM traps
	Friday, 6 th	Deployed and set SWPM traps
April	Tuesday, 17 th	Surveyed SWPM traps
	Wednesday, 18 th	Surveyed SWPM traps
	Wednesday, 18 th	Sudden Oak Death Training (P&PDL)
	Thursday, 19 th	Surveyed SWPM traps

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

May Accomplishments:

- I continued to work and update information on the Indiana CAPS website.
- I continued to survey, sort through, and identify samples from the SWPM survey.
- I organized a monthly teleconference for the Central Plant Board SSC's to discuss and update each other on what was going on in our individual
- I coordinated and lead the Indiana CAPS State Survey Committee Meeting on May 30th, (1:00-4:00am), 104 Smith Hall at Purdue University.

Month	Date	Task
May	Tuesday, 1 st	Surveyed SWPM traps
	Wednesday, 2 nd	Surveyed SWPM traps
	Thursday, 3 rd	ER CAPS (Central Plant Board) State Survey Coordinators Tele-conference (2:00-4:30 PM)
May	6 th - 10 th	Invasive Species Workshop (SPDN) Clemson, South Carolina
May	Tuesday, 15 th	Surveyed SWPM traps
	Wednesday, 16 th	Surveyed SWPM traps
May	Thursday, 24 th	Indiana Exotic Forest Pest Advisory Council Meeting (IEFPAC) (Indianapolis, DNR Forestry Conference Room: 1:00 - 4:00 PM)
	Friday, 25 th	Invasive Plant Species Advisory Work Group (IPSAWG) meeting (10:00 AM – 2:00 PM) TNC, Indianapolis
May	Tuesday, 29 th	Surveyed SWPM traps
	Wednesday, 30 th	Indiana CAPS Meeting (1:00-4:00 PM Room 104 Smith Hall)
	Thursday, 31 st	Surveyed SWPM traps

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

June Accomplishments:

- Governor Mitch Daniels proclaims “June is Invasive Species Month”
- I began working on the Semi-Annual Report for FY 2006.
- I continued to work and update the new Indiana CAPS website.
- I continued to survey, sort through, and identify samples from the SWPM survey.

Month	Date	Task
June	Monday, 6 th	Indiana CAPS Committee Meeting (9:00-12:00am), 104 Smith Hall, Purdue University
June	Monday, 11 th	Surveyed SWPM traps
	Wednesday, 13 th	Surveyed SWPM traps
June	Monday, 25 th	Surveyed SWPM traps
	Tuesday, 26 th	Surveyed SWPM traps
	Wednesday, 27 th	Invasive Plant Species Advisory Work Group (IPSAWG) meeting (10:00 AM – 2:00 PM) TNC, Indianapolis

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

Indiana CAPS State Survey Committee May 30th, 2007 Meeting Minutes

Attendance:

Christopher Pierce
Gary Simon
Bob Waltz
Steve Yaninek
Gail Ruhl
Karen Rane
Melissa Shepson
Carole Lembi
Glenn Nice

Overview of 2006 Surveys

2006 Indiana CAPS Surveys:

- [Giant African Land Snail Survey](#): (Survey results negative)
- [Hot Zone \(Exotic Invasive Bark and Woodboring Beetles\) Survey](#)
- [Old World Bollworm Survey](#): (Survey results negative)
- [Siberian Silk Moth Survey](#): (Survey results negative)
- [Sirex Noctilio Survey](#): (Survey results negative)
- [Sudden Oak Death Survey](#): (Survey results negative)

2006 Additional Invasive Species Surveys:

- [Asian Gypsy Moth Survey](#): (Survey results negative)
- [Asiatic Soybean Rust Survey](#)
- [Emerald Ash Borer Survey](#)
- [European Gypsy Moth Survey](#) (Survey results negative – New county added)
- [Giant Hogweed Survey](#)
- [Karnal Bunt of Wheat Survey](#): (Survey results negative)
- [Kudzu Survey](#)
- [Pine Shoot Beetle Survey](#): (Survey results negative – No new counties added)
- [Sirex Noctilio Port Survey](#): (Survey results negative)

New Exotic Invasive Species State Records - 2006:

- [Asiatic Garden Beetle](#): In 2006, Asiatic garden beetle was collected from traps in Allen, Porter, and St. Joseph Counties in northern Indiana.
- [Asiatic Soybean Rust](#): In October 2006, Asian soybean rust was detected on soybean leaf samples from 6 Indiana counties (Know, Vanderburgh, Pike, Posey, Warrick, and Tippecanoe). Incidence was low, and the disease had no impact on yield in 2006.

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

- [European Chafer](#): In 2006, European chafer was collected from traps in Allen, Porter and St. Joseph Counties in northern Indiana.
- [Hydrilla](#): On August 31, 2006, hydrilla was confirmed in Lake Manitou (Fulton County, at Rochester).
- [Ramorum Blight/ SOD](#): *Ramorum* blight/ SOD was detected in Indiana for the first time in July 2006, on a viburnum that had been shipped to a retail outlet from an Oregon nursery. Surveys are conducted annually in Indiana nurseries that receive plant material from west coast sources. Plants were quarantined and eradicated.
- [Roman Snail](#): In 2006, Roman snail was first detected in Fayette County.

New Exotic Invasive Species County Records - 2006:

- [Common Pine Shoot Beetle](#): In 2007, common pine shoot beetle was reported in Switzerland County. In Indiana, 67 of the 92 counties are under quarantine for common pine shoot beetle.
- [Emerald Ash Borer](#): In 2006, emerald ash borer was found in the following counties: Allen, DeKalb (Newville Township 03-03-07), Hamilton, Huntington, Marion, Porter, St. Joseph, and White. Emerald ash borer is known to occur in 13 Indiana counties: Adams, Allen, DeKalb, Hamilton, Huntington, Lagrange, Marion, Porter, Randolph, St. Joseph, Steuben, Wells (03-19-2007), White, and Whitley (05-09-07).
- [Giant Hogweed](#): In 2006, giant hogweed was found near Lakeville (St. Joseph County). Also, in 2004, giant hogweed was found near Warsaw, Indiana (Kosciusko County). Eradication of both giant hogweed sites is ongoing.
- [Giant Resin Bee](#): In 2006, Giant resin bee was discovered in two locations in Tippecanoe County.
- [Granulate Ambrosia Beetle](#): Granulate ambrosia beetle (a.k.a. Asian ambrosia beetle) was found in the following Indiana Counties: Bartholomew, Boone, Crawford, Hamilton, Jefferson, Orange, Scott, and Switzerland. Since 2002 when it was first discovered in Indiana in Jackson County, granulate ambrosia beetle occurs in 41 counties in Indiana.
- [Japanese Stilt Grass](#): In 2006, Japanese stilt grass was reported at Fort Harrison State Park in Marion County. Japanese stilt grass can be found in 21 Indiana Counties.
- [Large Yellow Underwing](#): Large yellow underwing was discovered in the following Indiana Counties: Dubois, Jennings, Porter, Tippecanoe, and Whitley.

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

- [Kudzu](#): In 2007, kudzu was reported in Howard and Vigo Counties. To date, kudzu is known to occur in 35 counties; in all, there are 102 sites totaling 100.65 acres of kudzu.
-

2007 Indiana CAPS Surveys:

- [Giant African Land Snail Survey](#):
- [Hot Zone \(Exotic Invasive Bark and Woodboring Beetles\) Survey](#)
- [Old World Bollworm Survey](#)
- [Potato Cyst Nematode Survey](#)
- [Siberian Silk Moth Survey](#)
- [Sudden Oak Death Survey](#)

2007 Additional Invasive Species Surveys:

- [Asian Gypsy Moth Survey](#)
 - [Asiatic Soybean Rust Survey](#)
 - [Emerald Ash Borer Survey](#)
 - [European Gypsy Moth Survey](#)
 - [Giant Hogweed Survey](#)
 - [Karnal Bunt of Wheat Survey](#)
 - [Kudzu Survey](#)
 - [Pine Shoot Beetle Survey](#)
-

P&PDL: Central Repository for invasive plant pest samples:

- Gail and Karen have noted an increase in the number of calls associated with invasive plants
- Protocol for invasive plant pest claims: Who goes out to identify invasive plants? Need to establish a protocol
- Who funds for lab identification?
- Exotic invasives should be charged to exotics – Christopher will check with Phil Marshall about CAPS and IDNR support
- CAPS should be able to support \$2,000-3,000.00 for infrastructure for FY 2008 (identification).

Voucher specimens:

- What about herbarium/voucher samples? Butler University is a repository site as is Notre Dame University
 - Becky Dolan (Butler University) – Voucher samples
-

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

- Collecting samples is very important; it is particularly important to document quarantined items, they should definitely be vouchered
- What about a gap in the “chain of custody”?
- Use GPS coordinates to document location of samples
- Invasive insects are vouchered in the Department of Entomology at Purdue

Invasive Species Communication Plan:

- What about a communication plan? Indiana CAPS program makes sure that everybody knows (but it didn’t work with hydrilla last year). In the process of developing a communication plan that addresses each entity involved in invasive plant pests
- Flow chart to display – how do we let everyone know about a positive find (whether exotic or invasive)
- Central repositories for information: P&PDL and 1-866-NOEXOTIC
- We need to give state and federal agencies to come up with a plan of action if pest is actionable
 - Marty Benson at IDNR and Jodie Ellis are responsible for press releases

CAPS committee membership:

- James Carroll, USDA APHIS PPQ: retired
- James Pheasant, Purdue University: retired
- Bob Waltz, IDNR: Now State Chemist (Still active member of CAPS)
- Removed Ad-hoc status
- Carole Lembi and Doug Keller are full committee members
- Susan Schechter will be invited to replace James Pheasant and become a member of the Indiana CAPS Committee due to her involvement with NAPIS and can provide National input
- Current CAPS representation provides a “bridge” between Industry

CAPS Web site:

- In the process of being revamped
 - User friendly
 - Will be asking to review before public release
 - Want to release to public in June (June is “Invasive Species” Month)
 - New format will allow to search Indiana’s “Most Unwanted” invasive plant pest list by:
 - Pest
 - Commodity
 - Distribution: All recorded invasive plant pests by county
-

Indiana Cooperative Agricultural Pest Survey (CAPS) Semi-Annual Report for 2007

FY 2008 Work plan and surveys:

- FY 2008 Work plan is due August 15th, 2007
- Tiers for funding 100K, 200K, 400K
- Applying for 200K due to educational outreach, data entry and Indiana CAPS Web site

- Soybean commodity survey – Talk to the following about existing surveys
 - Chris Novak
 - Christian Krupke
 - Bill Connolly
 - Bill Johnson
 - Greg Shanier
 - PIPE sentinel sites scattered throughout IN

- Hardwood is the most valuable commodity
 - Jeff Holland – Exotic bark and woodboring beetle survey

- Infrastructure: Palm pilots for ISIS next year
- Pests to add to FY 2008 list
 - *Xylella* survey
 - Black swallowwort
 - Hill mustard
 - Plum pox virus survey?
 - EAB as a national threat – identify what you want to do, budget, then expand in case you get additional support
 - Mullosks (USDA APHIS PPQ survey)
 - Chris will talk to neighboring states regarding surveys

Next Indiana CAPS meeting: Reconvene to identify core activities

- Christopher will schedule a meeting = more news to follow
- Week of July 9th – 13th
- Week of July 16 – 20th
- **Next CAPS Meeting = August 3rd, 2007; 9:00 AM to 12:00 PM Room 104 Smith Hall**

NAPIS Data Entry from January 1, 2007 through June 30, 2007 for the state of Indiana.

Indiana Cooperative Agricultural Pest Survey (CAPS)
Semi-Annual Report for 2007

Target Pest	Counties	Sites* Plants	Traps	Positives	Negatives
SUDDEN OAK DEATH; RAMORUM BLGT VISUAL PHYTOPHTHORA RAMORUM P RAMORUM NATIONAL NURSERY SURVEY	17	431		0	431
EMERALD ASH BORER VISUAL AGRILUS PLANIPENNIS EMERALD ASH BORER SURVEY	5	11		11	0
EUROPEAN CHAFER (EC) TRAP RHIZOTROGUS MAJALIS TRAP;40 W BLACKLIGHT	1		10	10	0
ASIATIC GARDEN BEETLE TRAP MALADERA CASTANEA TRAP;40 W BLACKLIGHT	2		20	20	0
PINE SHOOT BEETLE (PSB) TRAP TOMICUS PINIPERDA TRAP;LINDGREN	2		11	11	0
GRANULATE AMBROSIA BEETLE TRAP XYLOSANDRUS CRASSIUSCULUS TRAP;LINDGREN	1		1	1	0
JAPANESE HOPS LITERATURE HUMULUS JAPONICUS DATA DERIVED FROM LITERATURE REVIEW	1	1		1	0
BROME; SMOOTH CONSENSUS BROMUS INERMIS SCIENTIFIC CONSENSUS/GENERAL AGREEMENT	92	92		92	0

Indiana Cooperative Agricultural Pest Survey (CAPS)
Semi-Annual Report for 2007

TALL FESCUE	92	92	92	0
CONSENSUS				
FESTUCA ARUNDINACEA				
SCIENTIFIC CONSENSUS/GENERAL AGREEMENT				
JAPANESE STILT GRASS	1	1	1	0
LITERATURE				
MICROSTEGIUM VIMINEUM				
DATA DERIVED FROM LITERATURE REVIEW				
KUDZU	9	14	14	0
AERIAL				
PUERARIA LOBATA				
AERIAL SURVEY				
YELLOW FLOATING HEART	1	1	1	0
VISUAL				
NYMPHOIDES PELTATA				
WEED SURVEY GENERAL;INF. AREA				
