

A National IPM Resource Inventory: iSchool Pest Manager

Kaci Buhl – Presenter & collaborator
Janet Hurley – Principal Investigator
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This project is funded through a cooperative agreement between the US Environmental Protection Agency, Texas AgriLife Extension Service, Auburn University, and Oregon State University.



Introduction

- The iSchool Pest Manager will use the national school IPM implementation team and EPA Center of Expertise to develop a central hub for IPM materials for use by school districts in order to implement and practice verifiable IPM.
- We aim to make school IPM more understandable, efficient, effective and easy. The overall goal is to increase the the number of schools conducting verifiable IPM programs.

iSchool Pest Manager

- This proposal is designed to collect all school IPM resources, place them in one location, and disseminate them back in a user-friendly format.
- In addition, this proposal aims to partner with all school IPM educators in academia, government, and non-governmental organizations to ensure the high quality of information presented.
- The payoff:
 - A comprehensive website, similar to NPIC website
 - A mobile web application (“app”) for tablets and smart phones

Let's make a list.

http://www.ext.colostate.edu/pubs/natres/06520.html	Deer	website	Fact Sheet	Wildlife	Other
http://www.ipm.ucdavis.edu/PDF/PESTNOTES/pndeer.pdf	Deer	document (pdf)	Fact Sheet	Wildlife	Other
http://www.pestworld.org/media/399753/npma-pest-flash-cards-15.pdf	Deer Mice	document (pdf)	Fact Sheet Action Plan	Rodents	Mice
http://ccsipm.wordpress.com/pest-problem-solver/deer-mouse/	Deer Mouse	website	Fact Sheet	Rodents	Mice
http://www.ipm.ucdavis.edu/PDF/PESTNOTES/pndeermouse.pdf	Deer Mouse	document (pdf)	Fact Sheet	Rodents	Mice
http://schoolipm.illinois.edu/deermouse/	Deer Mouse	website	Fact Sheet	Rodents	Mice
http://schoolipm.tamu.edu/files/2012/08/DEET-Answers.pdf	DEET Answers	document (pdf)	Fact Sheet	Insects	Mosquitoes Stinging
http://apps.cdpr.ca.gov/schoolipm/overview/definition_ipm.cfm	Definition of Integrated Pest Management (IPM) as stated in the Healthy Schools Act of 2009 (Assembly Bill 1072)	website	Legislation Other		
http://www.ipm.ucdavis.edu/PDF/PESTNOTES/pndelusoryparasitosis.pdf	Delusory Parasitosis: What's Attacking Me?	document (pdf)	Fact Sheet	Insects	Nuisance: Other/all
http://www.dec.ny.gov/docs/materials_minerals_pdf/ch85deptdet.pdf	Department Determination for Emergency Pesticide Application	document (pdf)	Template/Sample - Form		
http://webdoc.agsci.colostate.edu/ipm/Fact%20Sheet%20Template%20New--Design&Construction%20fact%20sheet8.pdf	Design and Construction Guidelines	document (pdf)	Fact Sheet Guidelines		
http://njaes.rutgers.edu/pubs/fs1117/	Detecting Bed Bugs Using Bed Bug Monitors	website	Action Plan	Insects	Bed Bugs
https://www.youtube.com/watch?v=FyHkpXaHVo	Detecting spotted wing Drosophila larva in fruit using the salt water test	video	Guidelines Action Plan	Insects	Flies
http://www.idph.state.il.us/envhealth/pdf/IPM_Guidelines.pdf	Developing and implementing an Integrated Pest Management Program in Schools and Day Care Centers	document (pdf)	Guidelines Action Plan	Rodents Insects Wildlife	
http://www.ipm.ucdavis.edu/PMG/r785300711.html	Dichondra Flea Beetle	website	Fact Sheet	Insects	Beetles
http://www.ipminstitute.org/school_ipm_2015/PestWorkshop068raband.ppt	Do Yellowjacket Traps Reduce Stinging Risks?	document (ppt)	Presentation	Insects	Stinging
https://www.youtube.com/watch?v=2Tmc4hhSdH4&list=SPgU4sABHrUfrrheC4rNngB1ou7JlnKvP	Do You Have Pests in Your Child Care Center?	video	Presentation	Arachnids Insects Rodents	Cockroaches: Other/all Ants: Other/all Mice Rats Spiders
http://www.cdpr.ca.gov/docs/pestmgmt/pubs/cash_mosquitoes.pdf	Don't Grow Your Own Mosquitoes!	document (pdf)	Action Plan	Insects	Mosquitoes
http://ccsipm.wordpress.com/about-us/draft-ipm-policy/	Draft IPM Policy	website	Template/Sample - Policy		
http://schoolipm.illinois.edu/drainflies/	Drain Flies	website	Fact Sheet	Insects	Flies
http://ohioline.osu.edu/ent-fact/pdf/0041.pdf	Drain Flies (Moth Flies)	document (pdf)	Fact Sheet Action Plan	Insects	Flies
http://my.extension.illinois.edu/documents/332091703090309/MF2869.pdf	Droplet Size Calibration: A New Approach to Effective Spraying	document (pdf)	Guidelines		
http://schoolipm.illinois.edu/drugstorebeetles/	Drugstore & Cigarette Beetles	website	Fact Sheet	Insects	Beetles
http://www.ipm.ucdavis.edu/PDF/PESTNOTES/pndrywoodtermite.pdf	Drywood Termites	document (pdf)	Fact Sheet Action Plan	Insects	Termites
http://njaes.rutgers.edu/pubs/publication.asp?pid=FS778	Early-Entry Work Situations	website	Fact Sheet		

What did we find?

- 1,315 resources, including:
 - 47 videos
 - 37 Power Point presentations
 - 699 pdf files
 - 121 modifiable doc files
 - 393 websites
 - 12 interactive games/apps

What types of resources are they?

- 36 Template/sample forms
- 20 Template/sample IPM policies
- 16 Template/sample IPM plans
- 30 Other template/samples
- 59 Pest Log/forms
- 35 Posters or signs
- 78 Checklists
- 25 Sample Letters/notifications
- 31 Training materials
- 42 Regulations/legislation
- 626 Fact sheets

Pest-specific resources

- 53 resources about arachnids
- 16 resources about birds
- 7 resources about germs/microbes (cleaning)
- 422 resources about insects
- 73 resources about rodents
- 14 resources about weeds
- 52 resources about wildlife

Insect-specific resources

- Only 11 insects have 15+ resources
 - 58 resources about [ants](#)
 - 36 resources about [bed bugs](#)
 - 20 resources about [beetles](#)
 - 30 resources about [cockroaches](#)
 - 34 resources about [flies](#)
 - 42 resources about [head lice](#)
 - 21 resources about [mosquitoes](#)
 - 42 resources about [stinging insects \(bees, wasps, etc.\)](#)
 - 30 resources about [spiders](#)
 - 38 resources about [mice](#)
 - 25 resources about [rats](#)

For these insects, we seek help!

- We need to narrow the lists of resources to provide fast, efficient access to the best ones.
- Can you volunteer to help?
 - Evaluate the resources available
 - Identify out-of-date resources
 - Recommend resources that rise to the top
- Seeking IPM expertise from every region in every IPM role (educator, practitioner, regulator...)

Sign up for one or more:

- Pest-specific resource selection team
- And/Or
- Template/sample selection team
- This would involve:
 - Briefly skimming each available resource (20-40)
 - Recommend resources to remove from the inventory
 - Recommend resources that rise to the top (highly recommended)
- It can be completed via email.

What will the website do?

- Show me checklists for groundskeepers.
- Show me a fact sheet about bats in my state.
- I'm a turf manager, what do you have for me?
- Do you have a calendar/flow-chart/database?
Yes.
- Feature: Online training modules by StopSchool Pests, a companion project led by Dawn Gouge
- Connect: Links to other resources for images, interactive monitoring capability, and key tools

Bonus:

- Funders can use the inventory to see where gaps exist, and where they don't.

What will the mobile web app do?

- Quick IPM tips for major pests
- Calendar-driven reminders for maintenance & monitoring
- Selected “best of the best” resources in html (not pdf) for easy browsing on mobile devices
 - Many from eXtension.org – Urban IPM CoP
- Search for pesticide products (?)
- Training resources: videos, checklists
- What else might be essential in the web app?

Quick IPM tips in the web app:

- 200 words or less
- 8th grade reading level

Boxelder Bugs

- **Confirm their identity.** Boxelder bugs can be confused with other bugs that look similar.
- Vacuum or sweep up boxelder bugs. Discard the bugs or vacuum bag promptly. You can also freeze the vacuum bag overnight to kill the bugs.
- Wash boxelder bugs from outside walls with water or soapy water.
- Caulk or seal cracks and crevices around your home. Boxelder bugs seek shelter wherever they can find it.
- Install door sweeps, garage door seals and screens on windows, soffits and dryer vents.
- Eliminate debris near your home that may provide shelter for boxelder bugs.
- Keep the ground below boxelder trees free of fallen seedpods.
- Remove female box elder trees. They can be replaced with males, which do not produce seedpods.
- If you choose to use a pesticide, try a **lower toxicity** product first, and be sure to **read the label** before you buy.

Conclusion

- The new website and mobile web app will be available in early 2016 (Jan-Feb).
- Your input is welcome. Sign up to evaluate a batch of resources!
- If you would like to provide feedback on beta versions, let us know!
 - Email Kaci Buhl: buhlk@ace.orst.edu

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