

**Invasives Species Task Force
Meeting #1, November 15, 2007
NREC at Fort Benjamin Harrison State Park, Indianapolis**

Members present: Sandy Norman, Ellen Jacquart, Phil Marshall, Bob Waltz, John Miller, Phil O'Connor, Keith Ruble, Rick Haggard.

Others present: Lynn Dennis and Angela Hughes

At the beginning members introduced themselves and were asked to share what they hoped would be an outcome of this Task Force.

Ellen Jacquart began. She is the director of Stewardship for The Nature Conservancy and is Chair of the Invasive Plan Species Assessment Work Group (IPSAWG) and is serving on this committee representing IPSAWG. She hopes for better coordination in the state in the form of a standing council. She hopes to get all parties talking about what is going on.

Bob Waltz, State Chemist, formally state entomologist, worked very closely with IPSAWG, green industry, forestry, etc. Same interests that Ellen articulated--better regulatory oversight relative to invasive species. As an improvement be flexible between a council, agreements, etc., whatever works, addressed in statute or rule. Bottom line: arriving at a solution that provides better ability to assess and respond to invasive species issues that doesn't arbitrarily select what is going to happen.

Phil Marshall, state entomologist, formally forest health coordinator. He too agrees with both Ellen and Bob, get task force/council set up. He described an ad hoc group, within DNR and another forest group—IEFPAC (Indiana Exotic Forest Pest Advisory Committee). There is also an aquatic invasive plant group and a gypsy moth multi state, multi agency group - Gypsy Moth Slow the Spread Foundation. He hopes this will be a good model for this task force to consider as an operational way to manage invasive species.

Sandy Norman, State Board of Animal Health. She has been involved with the invasive species issue the last 3 or 4 years ago. She got involved because of the West Nile virus affecting animals. During her past participation she learned much about insects and plants. She is always worried about invasive foreign animal diseases and the connection between animal diseases especially as they relate to humans. She is concerned about how we are able to get that into the whole knowledge base.

Rick Haggard, Hobbs Nursery and President of the Nursery and Landscape Association and Treasurer of Green Industry Alliance. We do have unilateral decision making (i.e., speak in one voice for advocacy efforts.) We keep our members informed too. EAB is a good example – we have to keep our members involved and understanding the issues. In his various roles he has opportunity to meet and talk with a number of people.

Keith Ruble, Vigo Co Parks, forestry consultant and pond management consultant. He works with a many private landowners. The County has recently received a grant to get an invasives coordinator, especially for Asian bush honeysuckle. His interest is to get legislators and people aware of the threat posed by this invasive shrub and the damage done by bush honeysuckle to our woodlands. He wants to see educational information passed out around the state. He has been working with Ron Rathfon, extension forester, on a research project on chemically controlling bush honeysuckle. It currently can run \$60 to \$300 per acre. Landowners are not willing to spend that much. We have to come up with something that landowners can afford.

Phil O'Connor, with the Division of Forestry, a member of IPSAWG and DNR's intradepartmental invasives group. He administers a federal grant that has given us some money for private and industrial forest land as well as the state forests. He is more interested in on the ground work rather than theory. He has signed up 478 acres of state forest and 1200 acres of private lands for invasives work. Hopes this group can explore ways to generate revenues for state to assist private landowners – federal funds are being cut because of cost of fire control in the western U.S...

Ellen noted that in addition to this, the Midwest gets less money from the federal government than other regions.

John Miller, Oak Heritage Conservancy Land Trust. Volunteer past president of Oxbow Land Trust. Oak Heritage's service areas lies between US 50 in Dearborn to I65 at the Ohio River. He hopes that through this process and working closely with the legislature some funding for assistance in controlling invasive species can be generated. Currently Oak Heritage is working on a new donated property that will cost them \$74,000 to eradicate invasives; and then they will have to restore the land.

Next, Ellen provided background on how the Task Force evolved and about the work of another state's invasive species task force. She talked briefly about the previous work to improve invasive species statute and regulation when Bob Waltz was the State Entomologist.

In terms of leadership and facilitation of the Task Force, the group agreed that Phil Marshall and Ellen would be co-chairs. They will provide leadership and facilitation, setting agenda, meeting places and keeping the task force on track and moving forward.

Lynn Dennis will communicate the work of the task force with legislators throughout the process. After each meeting a brief newsletter with photos will be produced for legislators and key stakeholders. Each task force member will communicate with the sector they represent. A website will be provided through DNR at www.invasivespecies.in.gov.

A binder of news articles will be maintained, organized by taxa, by species, by state, region, etc. If you have an article, provide it to Krystal MacDonald at The Nature

Conservancy. Her contact information is: kmacdonald@tnc.org, (317) 951-8818 or fax (317) 917-2478.

The task force determined a list of stakeholder groups must be developed. Here are initial thoughts:

- Legislators
- Farmers – Farm Bureau and Farm Service Agency and NRCS,
- City and county parks
- Township Trustees (Generally they are not aware, but have ability to put weed control work done by the trustee on the property tax bills of landowners who do not address noxious weeds problems.)
- Dept. of Agriculture
- County commissioners
- Association of Indiana Counties and Indiana Association of Cities and Towns
- Indiana Land Protection Alliance (ILPA)
- Extension Director at Purdue
- INDOT
- IDEM
- Hoosier Environmental Council (HEC)
- Indiana Conservation Alliance (INCA)
- DNR Natural Resources Commission – Phil will do a presentation in January
- Damien Schmelz
- DNR Natural Resources Advisory Council
- DNR groups – have them reach out to them.

It was also noted that we should keep in touch with developments on biofuels.

Potential calendar of activities:

December - Full task force to meet on December 13 (since the meeting, that has been canceled because of inability to get necessary members there.) Subgroup to meet to draft skeleton of report.

January - Full task force back together to address aquatic invasives, vertebrates, and animal diseases; to hear about recommendations made by David Lodge et al in a recent Ecological Society of America report, and to review work of subgroup and pull together an initial draft.

February – Work on draft; go out to our colleagues and constituents for input.

March - Task force back together for making changes through discussions with stakeholders.

By April we will have a draft and go back to stakeholders.

May and June finishing writing the findings and final recommendations

Bob Waltz noted that at some point we must have a discussion about those things we can't do anything about. Example: Japanese beetle. At this point we aren't ever going to do anything about it. We have learned lessons about ability to control and/or eradicate and we must go forward with intelligence. Phil added that you manage something going

for eradication if achievable, but this is what we do. Those are things we bring up: process, procedures, and science-based decisions about why we act the way we do.

At lunch the task force members again discussed stakeholders and what their interest might be, i.e. land management (LM), environmental integrity (EN), etc.

Stakeholder	Interests
Land Trusts/ILPA	land management, EN
Green Industry	land management, economy, products, production cycles, export certification
Big box sellers	same as GI, but they are also one of the major rapid introduction source. Retail Council – contact for them.
County Commissioners, township trustees, AIC, IACT	land management, quality of life, recreation, neighbor problems
Forest professionals	land management, Forest products or health, movement of forest products, FSI contractors
RC&D (forestry committee) SWCDs – IASWCD Parks – State, city county, IPRA	land management, outreach, land management, contract land management, quality of recreation, safety issues (applies to all groups holding land)
Farmers, Farm Bureau, Extension, FSA, NRCS	land management, seed law issues, product, control costs, export issues, suggestions for species
Indiana Society of Landscape Architects	
Railroads	land management, safety issues,
INDOT	Litigation costs, land management, safety issues, plant selection
Utilities	Land Management
Pipelines	Land Management
GIS Council	Data management – help counties by mapping invasives

DNR	land management, quality of recreation, safety issues
IDEM	
ISDA	
USDA Forest Service	
USDI NPS & USFWS	
Universities – research PU, IU, ND, BSU, ISU, Taylor, Hanover (River’s Institute)	outreach land management, plant selection, teaching students
Indiana Academy of Sciences	plant selection, land management
Indiana Land Use Consortium	land management
Neighborhood Associations	plant selection, land management

Bob Waltz reminded us we have to think about ways that invasive species affect these parties. Example: Hydrilla, affects swimming and particularly children getting caught in it. There are other components that we may not think about. Key components:

- Land management
- Human health
- Recreation
- Natural lands
- Agriculture lands
- Environmental integrity

Phil Marshall’s presentation of Invasive Insect and Disease Overview

He discussed briefly species currently on their radar and talked about the Indiana Cooperative Agricultural Pest Survey (CAPS). They may be aware of a species in a survey, but they may not actively manage all species. Most active management is for gypsy moth; EAB second, then Pine shoot beetle. For Hemlock Woolly Adelgid HWA, the Division of Nature Preserves is mapping all stands of native hemlock in preparation for a response should HWA be introduced into Indiana. Nursery inspectors also have HWA on their list of pests to monitor for. Asian Longhorned Beetle ALB is almost eradicated. Bacterial leaf scorch is of some concern as it could impact our grape industry in addition to our urban trees. He is more concerned about exotic bark beetles as pallets are a big pathway for all these beetles and they have the greatest mortality risk to our trees. More activity is spent on insects than on diseases. Phil gave an overview of the gypsy moth “Slow the Spread Program” (STS). A foundation has been created for Slow the Spread Program.

Phil provided an overview on Emerald ash borer efforts and status, including surveys, traps, quarantines and movement of firewood.

Ellen asked Phil if he could summarize what needs to be addressed through this task force:

- One improvement is the current quarantine law specifies an infested area is considered a township. And, the law implies to determine an infested area that the insect has to be actually found in the township. The current law does afford the ability to quarantine a larger area such as a county based on biological knowledge of the pest. Providing this ability to quarantine more than a township would afford the management of a quarantine to better suit the biology of the pest while managing the impact to industry and still meeting the mission to protect our natural resources.
- Needs ability to do proactive quarantine based on modeling – science based.
- He needs to clarify procedures in-house (DNR) which is still part of his learning of the state entomologist job. DNR will need ability to respond rapidly, which it has this ability now, but perhaps needs to be clarified and improved. A quarantine can take more than one year to become fully enacted. It has to go through the Natural Resource Commission eventually as the rule-making body for the DNR.
- Prevention requires certification standards for entry into your state. You can't ever say don't bring that in here because that is a trade issue. But you can say that you have to inspect it or treat it (the person bringing it in.) If you are going to ship in, you have to notify the state entomologist. There may be the need to improve the ability to impose 'external quarantines'.

Bob Waltz said one of the fundamental things is surveying. It is so critical that you know what you know and what you don't know. We need a free flow of information.

Phil added to Bob's comment on surveying. Referring to STS, it begins with survey. It floats up through an analysis process that has been developed. Then budgets are developed down at the bottom level of STS management and then brought up to the top level of management for approval. Research is also part of the process so you can maintain what you are doing. An economic analysis of the whole STS program is now underway to determine if STS has a good cost benefit.

A knowledge base is valuable in the survey and instigating a new survey. Because there are so many species, we have lost a basic recognition of what's natural and what's new. How many times you see things that are normal, but you need to see what is abnormal and get it diagnosed. No embarrassment in asking for diagnoses. Using resident knowledge is very important. You know what looks normal – the abnormal is the thing to grab.

Fundamental of what regulatory science is all about. It is a combination of the best available science in the realm of public discourse. Five years from now it may be different. Second is there evaluation in what the public sees as valuable or the regulated community sees as value. It won't happen if you don't have that. It is always a blending of public opinion with science – all a part of this discipline.

Ellen Jacquart's Presentation Invasive Terrestrial Plants.

She discussed some of the definitions of “invasive species.” There are existing definitions, but we are going to have to define for ourselves.

Indiana has 2905 species in Indiana and about 25% are alien. However, relatively few of these aliens are invasive, probably less than 100. They are cause of environmental, economic or human health harm.

Garlic mustard is one of our fastest moving plant invaders in Indiana.

Stilt grass, tree of heaven, Asian bush honeysuckle, oriental bittersweet, Japanese knotweed are some of the most invasive plants. Almost every county has record of Japanese knotweed.

She went through of the characteristics of some of these plants and what damage they can do. Hartman and McCarthy study shows the impact that Asian bush honeysuckle can have on the big trees of the forest canopy – 53% reduction in tree growth.

Garlic mustard - Pieridae butterflies eat native mustard like toothwort. There is a chemical attractant call sinigrin in these plants and they know where to lay their eggs. Garlic mustard, however, has a chemical that causes the larvae to die. Mainly anecdotal. Could be end of the population.

Bottomline: we don't always know all the impacts an invasive plant is having.

Prevention. Keep something out of state or keeping it from moving from one part of state to another.

Intentional v. unintentional. Introductions. Woody invaders 82% were intentional introductions for, soil erosion, landscaping, etc.

Regulatory banning species vs. voluntary measures

Ellen went through various statutes and regulations (see binder).

Voluntary efforts:

Invasive Plant Species Assessment Work Group (IPSAWG)

They have been meeting for 6 years and have gone through 45 species. They have printed a few brochures and fact sheets.

Don't move invasives around unintentionally. On you. Boots, boot brush stations. Clean carts, mowers, ATVs, Velcro on jackets, etc. There is little implementation of these basic prevention BMPs in Indiana.

Around 25 years ago DNP started managing invasive plants on nature preserves; first in the state to do so. They have a long history of working on invasive plant control and their staff is some of the best resources on this issue.

Cooperative Weed Management Areas in southern and western Indiana by RC&Ds
There is a voluntary group coming together in Brown County. Their goal is to inventory, map, and eradicate Japanese knotweed, Tree of Heaven, Asian bush honeysuckle and Autumn Olive from Brown County.

Early detection and rapid response.

Little regulatory oversight/guidance with a few exceptions:

Kudzu project DNR-DEPP

Declares pest or pathogen

May enter property to verify it

Data may be collected

(This refers to current work and ability of the Division of Entomology and Plant Pathology under its law and rules.)

The Kudzu eradication project of DNR- DEPP is currently treating 100 acres a year at this time as this is a manageable approach at this time.

Phil Marshall said they are mapping all Kudzu sites. An important question is 'what it is going to cost? It is difficult to get it because it can cost different amounts at different sites.

Agencies (DNR-DEPP and Conservation Officers) have the right of entry (constitutional right), so it is very important that we recognized that and uses it judiciously.

Cooperative Agricultural pest survey (CAPS)

Many states don't seem to focus on invasive plants. Chris Pierce had a strong interest and incorporated it into his CAPS in Indiana.

Giant Hogweed and Goats Rue were both in his survey. They found Giant hogweed in two sites in Indiana. Great effort. Rapid response was not necessarily part of the program, but DNP went in and eradicated the sites.

Indiana's most unwanted invasive plant pests. www.extension.entm.purdue.edu/CAPS/

Midwest Invasive Plant Network (MIPN) is a regional level effort with representatives from all the Midwestern states. They initiated an early detection program for the Midwest and produced a flyer called "Keep a Lookout". There are currently 16 species at

early detection levels. Some we have in abundance in Indiana, others we don't have at all. Purdue Plant and Pest Diagnostic Lab take reports from these flyers.

Control and management

There are a few species that have control mandated (Johnson grass, Canada thistle) but most of the control efforts going on in the state are entirely voluntary. There are many of these efforts going on by landowners, from the DNR to universities to city and county parks to land trusts. All are working on control because of the adverse effects seen on the land from plant invaders.

One important new initiative is Cooperative Weed Management Areas (CWMAs). There is some interest in starting them locally in Indiana. These groups bring together landowners and interested parties in a given geographic area to define invasive species management goals and share resources to get the job done across land boundaries. It is a very effective way to attack invasive species, and increasingly grant funds are made available only to such organized groups. This assures a greater likelihood of success than individual landowners working alone.

Bob noted there is a rather obscure part of Indiana law. Horticulture districts. Allows local entities to band together to purchase common property to manage for pests and liquidate those assets. Can be as small or large as needed to be. They can incorporate buy equipment and buy contracts and then back out after done.

Summary points from Ellen's talk, and discussion:

Ellen noted that we have no official list of invasive species in natural areas of Indiana.

Prevention – statute/rules cover few species, and mostly Ag weeds. Little acceptance of management BMPs to prevent movement of invasive plants.

Early detection/rapid response – little authority exists or capacity to do it and needed funding is the huge limiting factor. Need to institutionalize mapping and reporting of invasive plants.

Ellen said that she gets report every week from people telling her about some weed somewhere, but she has nothing to do with the information. No place for it to reside.

Control and management little authority. Michigan has funneled funds from feds for this. Very little support of control and management efforts from state. On the ground managers would like support for the efforts going on.

New York invasive species task force really emphasized CWMAs. They got \$3.5 million in first year and now \$10 million. (This money came from an appropriate for their environmental protection fund which is a dedicated fund from the real estate transfer tax.)

Coordination is needed between all affected agencies and organizations on invasive issues. Within DNR need to have coordinated, consistent approach across divisions.

Used to have an invasives committee, but hasn't been active with all the changes in DNR.

Bob, control and management – looking at grantsmanship angles, facilitation, etc? Yes, more of a state level view of support and guidance for people doing control on the ground.

Keith wonders if we will decide that the state needs to hire an invasives species coordinator.

Phil says it would be tough for one person to take that on.

Now we have an aquatic invasives coordinator (funded with federal dollars). Should there be other counterparts – a terrestrial invasives coordinator?

Do other states have invasives coordinators? Varies

Illinois does. The mission and purview seems to vary a lot. Not many have it. Until you get to Florida, Hawaii, etc.

Rick noted that as long as you have somebody working on it they don't appoint one.

Indiana is the only state that still has the Cooperative Agriculture Pest Survey coordinator at the university level. Usually it is in the Dept. of Ag. They can use all the benefits of the university and being able to use the extension to get the word out.

Invasives species educator at Purdue – unusual. Jodie Ellis' appointment is in entomology.

There is no defined pest list for the state. Why not create a state list. It would be for purposes of regulations, statute,

John clarified discussion saying that we are looking for the process for listing, but not a list in statute.

State Board of Animal health has such a list.

Important to note that within the purview of our current law we have authority to address pests and pathogens. Under that authority, we have the ability to evaluate species. For instance, they could evaluate stilt grass. It is a long process and there needs to be a clear benefit that would come from such evaluation. For instance, tree-of-heaven could be evaluated and shown to be highly invasive. So what? It's not in trade, and it is so well established in the state that eradication is not feasible. What do we gain from a statute/rule on this species? In some cases – like kudzu – it is very useful to create a rule

to stop its further introduction and spread because state-wide eradication is a feasible goal.

There was a bill submitted by Rep. Cherry, to ban/eradicate? Multiflora rose, autumn olive and bush honeysuckle. Not a very feasible plan.

Black/white list discussion – for instance, tropical fish species are an area of concern. There are more things coming and potential that they could live in Indiana water. We could develop a white list of things that have been in trade forever and are not causing problems and a black list of prohibited species. Then to catch everything, you must have a permit process for new species that aren't on one of the lists. Then a decision would be made about which list it would be. You don't want to have 300 species coming through every year because you wouldn't be able to evaluate them.

List of what we are starting to look for. This would be valuable. Early detection list is needed.

A survey is a needle in a haystack. But as we do that, we are learning more about what is out there. Conversely, those doing research, when you see that odd thing, then you have to be aware and report. If you are "Joe homeowner", you don't call.

Next meeting was later set to January 30.

February we should all plan to meet with our members, constituents, interested groups.

March 19 and April 22 were later set to be the subsequent meeting dates.