

Indiana Invasive Species Council

Draft Agenda: Wednesday 8 November 2023. 10:00 am to 1:30 pm Eastern Standard Time

1) Call to Order (K. Werling)

• Roll Call (K. Werling)

○ Council Members Present

- Megan Abraham, Director, Division of Entomology and Plant Pathology, representing Department of Natural Resources, MAbraham@dnr.in.gov
- Phyllis Boyd, Director, representing Indianapolis Parks & Recreation, phyllis.boyd@indy.gov
- Eric Fischer, Aquatic Invasive Species Coordinator, representing Indiana Department of Natural Resources Division of Fish and Wildlife, efischer@dnr.in.gov
- Rick Haggard, Executive Director, Indiana Nursery and Landscape Association, representing industry, haggard.rick@att.net
- Alicia Kelley, IN CAPS State Survey Coordinator, representing Dean of Agriculture, Purdue University (Secretariat), ajkelley@purdue.edu
- Matt Kraushar, Roadside Maintenance Specialist, representing Indiana Department of Transportation, mkraushar@indot.in.gov
- Heather Reynolds, Professor and Director of Graduate Studies in Biology, Indiana University, representing research, hlreynol@indiana.edu
- Kate Sanders, Resource Specialist, representing Indiana State Department of Agriculture, kasanders1@isda.in.gov
- Mike Warner, President of ArborTerra Consulting, Inc., representing Indiana forest industry, mwarner@arboterra.com
- Kelli Werling (IISC Chair), Director of Swine Health Programs, representing Indiana State Board of Animal Health, kwerling@boah.in.gov

○ Non-Council Members Present:

- Robert (Bob) Bruner, Exotic Forest Pest Educator, Department of Entomology, Purdue University, rbruner@purdue.edu
- Katie Grong, Institute for Digital Forestry, Department of Forestry and Natural Resources, Purdue University
- Phil Marshall, Forest Health Specialist, Division of Forestry, pmarshall@dnr.IN.gov
- Katie O'Reilly, Illinois-Indiana Sea Grant, Aquatic Invasive Species Specialist, keo@illinois.edu
- Dawn Slack, State of Indiana Cooperative Invasives Management (SICIM), Project Coordinator / (Chair) IISC Invasive Plant Advisory Committee, dawn@sicim.info

2) Adoption of Agenda (K. Werling)

- Motion: M. Kraushar
- Second: K. Sanders
- Vote: Passed

3) Review and approval of minutes from prior meeting (K. Werling)

- Motion: M. Abraham
- Second: E. Fischer
- Vote: Passed

4) Guest Presentation

- Katie Grong, representing Dr. Songlin Fei, Director, Institute for Digital Forestry, Department of Forestry and Natural Resources, Purdue University
 - Alien Forest Pest Explorer (AFPE) is an interactive web tool which provides detailed spatial data describing pest distributions and host inventory estimates for damaging, non-indigenous forest insect and disease pathogens currently established in the US. The AFPE currently includes 74 species of forest insects and 15 species of forest pathogens.
 - Shows county-by-county data for pest presence/absence
 - Map is still in beta. Katie is working on making the map more user-friendly.
 - Discussion
 - P. Marshall: Can occurrence data be done by year?
 - K. Grong: It's not set up for that right now, but that would be a good feature.
 - H. Reynolds: I wonder if including invasive plants as a layer option could be a future ambition.
 - K. Grong: We discussed the invasive plants tool as a separate dashboard, but having the ability to cross-reference them on the same map is a good idea.

5) Member Reports/Updates

- Indiana Department of Natural Resources, Division of Entomology and Plant Pathology (M. Abraham)
 - Spongy moth
 - There are record numbers of populations nationwide. It is spreading to new areas.
 - There will be a few treatment sites this spring that we will be working on.
 - Spotted lanternfly
 - Two years ago we found it in Switzerland; one year ago we found it in Huntington.
 - This year we have found it in four more counties: Elkhart, Mishawaka, Porter, Allen.
 - It's traveling along freight lines because areas around rails have high populations of Tree-of-Heaven.
 - It has also been found in Illinois (Chicago), Kentucky, and Tennessee.
 - The environmental impact statement for the country has been done now, which opens up the USDA funding for applications. There is a five-year strategic plan from the USDA in which 80% of funding is spent on high-risk areas, such as rail/transportation hubs; 15% is going toward research; 5% going toward outreach.
 - Outreach has been working. Billboards have been set out across Indiana.
 - In Indiana it's expected to be mostly a nuisance pest. Some vineyards will be affected.
 - Box tree moth
 - States have been finding them in residential areas. Typically, we monitor nurseries for pest movement, but regular pesticide application at these locations is masking the pests. When plants end up in a landscape and are no longer sprayed, the pests become apparent.
 - Currently in Michigan, Ohio, and New York.
 - We know it's going to get here, so our plan is to brace for it and not let it affect the nursery industry as much as possible.
 - Additional information on forestry pests (P. Marshall)
 - This year was the first occurrence of spongy moth in Dubois County. The only county left that doesn't have any life stages is Sullivan County.
 - There was increased moth catch this year.

- Five areas will be managed in 2024; one is the eradication site southwest of Richmond, IN. We're going back to use mating disruption in that area. We're also treating in North Manchester, Huntington, and Berne.
 - There is a lot of movement in Illinois and Iowa.
 - Oak wilt confirmations are increasing. Reconfirmed in Morgan, Franklin, and Huntington Counties.
- Discussion
- M. Kraushar: The map we just saw showed only the northeast corner as infested, but Phil is saying we've detected it in every county.
 - M. Abraham: Male moths get blown to other spots and are detected, but the leading reproductive edge is in the northeastern counties.
 - P. Marshall: The leading edge is above US Highway 30.
 - H. Reynolds: Megan, is the threat of box tree moth an opportunity to push the industry away from boxwoods and to a native alternative?
 - R. Bruner: Boxwoods already have other pests and diseases. I've been encouraging Master Gardeners to not plant them.
 - M. Abraham: It's a big upward battle to talk people out of boxwoods.
 - R. Haggard: At the Great Lakes Nursery Association Leadership Council, which Indiana Nursery and Landscape Association (INLA) is a part of, this is a hot topic. Landscape Ontario has talked about the devastation of this pest.
 - M. Abraham: What we are lacking is guidance on which plants to push them towards.
 - R. Bruner: I push toward pollinator friendly plants.
 - H. Reynolds: We could look at lists which have alternatives to invasive plants. If boxwood isn't on any of these lists, we could research recommendations ourselves. I would be willing to look into this.
 - K. Sanders: Do we want to put our effort into something that will die on its own anyway, or put our effort into something that's an aggressive invasive species?
 - M. Kraushar: Since box wood is a host for so many insects and pathogens, when does it become enough of a liability for the state to regulate it in order to reduce the spread of pests?
 - M. Abraham: The issue is that these pests aren't attacking anything other than boxwood.
 - D. Slack: Midwest Invasive Plant Network (MIPN) has put together a huge resource of alternative plants, and I don't recall if it includes an alternative to boxwood. We have so many more landscaping plants that are a larger problem that would be a better focus.
 - R. Bruner: It is a good conversation opener for outreach.
 - D. Slack: Yes, it is a good example of the harm that non-native plants can cause.
 - Action item: H. Reynolds will inspect MIPN recommendations on boxwood alternatives.
 - R. Haggard [in chat]: Heather - University of Georgia did a great article to MIPN regarding Boxwood alternatives:
<https://extension.uga.edu/publications/detail.html?number=C1107#>:
 - H. Reynolds [in chat]: MIPN lists *Viburnum prunifolium* (Black haw) as a good native alternative to privet, an invasive species with similar phenotype/use as boxwood. *V. prunifolium* has small white flowers in dense clusters; dark blue berries persist into winter
<https://bugwoodcloud.org/mura/mipn/assets/File/MIPN%20Landscape%20Alternatives%202013.pdf>

- Purdue University College of Agriculture (A. Kelley)
 - Purdue Extension is participating in a University Initiative called the Purdue Broadband Team, which is aimed at enhancing broadband access for the residents of Indiana.
 - The federal government, in partnership with states, is deploying broadband funds through the Broadband Equity, Adoption, and Deployment program also known as BEAD. Indiana is receiving close to \$870 million. A map compiled by the FCC will dictate where these funds go. We need to make sure Indiana's map is as accurate as possible.
 - Part of the reason this map is being updated is because broadband data is very muddy. In the past, the FCC compiled data from providers that report where they offer service, with what technology, and their maximum advertised download and upload speeds. However, because this data is provider self-reported and not validated by consumers, it can overestimate broadband availability.
 - Indiana residents can support this effort by going to connectingindiana.com and conducting a speed test.
 - People can also submit a challenge to the FCC map to report no service.
 - People can also go to their local extension office to receive assistance.
 - Action item: A. Kelley - Share broadband initiative flier with IISC.
- Indiana Department of Natural Resources, Division Fish and Wildlife (E. Fischer)
 - Division Fish and Wildlife (DFW) is undergoing reorganization
 - Eric will be assuming role of Aquatic Invasive Species Supervisor, and someone else will be hired into his previous role.
 - The current carp program will be expanded further. Eric will be supervising the carp program, and another staff will be hired to assist with this program.
 - Outreach and Education activities
 - Carmel Clay Middle School Invasive Species projects
 - Invasive species detections
 - Hydrilla was found in a private pond in Michigan; it was already being worked on for parrot feather and they found hydrilla.
 - Signal Crayfish detected in Minnesota.
 - IN does not have cray fish regulation currently. There isn't an invertebrate rule at the moment.
- State Board of Animal Health (K. Werling)
 - On September 1, 2023, the previously highly pathogenic avian influenza (HPAI) infected backyard poultry premises in Posey County completed its 120-day fallow period. The quarantine was released, and restocking of the farm was approved. With this milestone, and after 577 days since the first diagnosis, Indiana's 2022-2023 HPAI outbreak is now considered officially closed. There continue to be cases of HPAI diagnosed across the US, with cases increasing this Fall.
 - BOAH's application for USDA Cooperative Agreement Funding to cover producer costs for obtaining Genomically Estimated Breeding Values (GEBV) for farmed white-tailed deer in the state was successful. GEBV's reflect the additive genetic merit of white-tailed deer with respect to differences insusceptibility to chronic wasting disease (CWD). It has been demonstrated that susceptibility and variation in natural disease progression are both highly heritable polygenic traits in U.S. farmed white-tailed deer. Through GEBV analysis and selective breeding, the overall susceptibility of a herd can be decreased.
 - Discussion
 - M. Abraham: How many producers of farm-raised deer do we have in Indiana?
 - K. Werling: 192.

- M. Abraham: Are the deer sold for meat?
- K. Werling: Various things. We have just under 20 hunting preserves as well. Some producers will have a breeding permit and/or a hunting preserve herd. A lot of breeding herds will supply the hunting preserves if they don't have one of each. There are very few states we can import deer from due to our rules on interstate movement of deer into Indiana. Our regulation is that if you have had a CWD diagnosis in your state in the past five years, you cannot bring deer into Indiana. Our producers also sell a lot of deer out of state because we are one of the only states that can ship deer due to our CWD-free status. The CWD-resistance breeding program is very appealing for our producers because we will already have the process started for breeding resistance if/when we detect CWD in our state.
- M. Kraushar: Is this program available for elk as well?
- K. Werling: Right now, it is just white-tailed deer. That may change in the future. Elk are subjected to the same rules as any other CWD-susceptible cervid, but we don't have nearly as many elk herds as white-tail.
- H. Reynolds [in chat]: It is so ironic to hear that deer farms are so big in this state, given that overpopulation of white-tailed deer has been an on-going cause of forest degradation, crop damage, and homeowner irritation. We need more hunting programs for wild deer! Overabundant wild white-tailed deer are of course an ongoing contributor to many forest invasives, since they often prefer native plants, thus keeping natives down which allows the invasives to thrive.
- BOAH has been collaborating with the aquatic invasive species coordinator at the Indiana DNR to validate and clarify Indiana's viral hemorrhagic septicemia (VHS) regulations for summary documents being put together by the Great Lakes VHS Regulatory Stakeholders Working Group. The team continues to create a VHS risk assessment tool hoping to inform more practical requirements for movement of fish from classified facilities.
 - Discussion
 - E. Fischer: I've discussed this with Dr. Jennifer Strasser as well. We're harmonizing the regulations and making sure the industry understands what the rules are. DFW keeps track of fish stocking and importations, and BOAH has regulations on VHS specifically, but we both see official documentation to ensure the fish coming in are healthy. I work closely with her for that. In my role I monitor a lot of aquaculture permits and looking for non-native species. There's certainly a permit for bringing things in, but there's not a lot of monitoring of those permits, other than from me, as to which non-native species are being brought in. It requires a lot of pre-coordination to prevent a terrible new invasive. We've run into situations a few times of people wanting to bring in an odd species from the middle of nowhere for aquaculture purpose.
- In addition to responding to sick bird calls and ruling out avian influenza, BOAH conducted three foreign animal disease investigations this quarter. These cases ruled out vesicular stomatitis in a horse, rabbit hemorrhagic disease, and foreign vesicular diseases in two pet pigs that turned out to be Seneca virus A.
- The IDOH entomologist located in Southern Indiana has conducted numerous targeted tick drags, including premises diagnosed with Theileriosis, after the first detection of the Asian Longhorned Tick (ALT) in Spring 2023. The entomologist has collected approximately 2,000 ticks while dragging 75 miles from May to July 2023. From the 2,000 ticks collected, only four were confirmed as ALT. These were all nymph stages found in Switzerland, Ohio, and Dubois counties.
- Staffing Updates: New Veterinary Epidemiologist started October 2023. New Poultry Health Specialist starting November 2023. One new Animal Health Specialist hired and starting in

- January 2024. Currently recruiting and interviewing for two Animal Health Specialist Positions.
- General questions/discussion
 - M. Kraushar: Are we still watching African swine fever?
 - K. Werling: Yes, this is still a huge concern. Closest it has come to us is the Dominican Republic and Haiti in July 2021. USDA has sent teams down to help those countries with the epidemic. In September 2023 it was detected in Sweden.
 - Indiana Department of Transportation (M. Kraushar)
 - Acreage treatments are ongoing.
 - INDOT reporting methods are under revision to improve species data capture.
 - We are continuing to discuss focusing more treatments on Tree-of-Heaven, with the intent of helping to slow the spread of SLF. It's challenging because the Tree-of-Heaven infestations are on our property and adjacent properties, and we don't have the ability to treat the entire population.
 - Discussion
 - M. Abraham: How closely do you work with rail workers?
 - M. Kraushar: There are only a few lines that we deal with directly.
 - M. Abraham: Can we give them outreach posters for SLF? It is extremely challenging to get cooperation from the rail operators in the effort to search for SLF. It would be helpful to have a point of contact who would assist us with monitoring along the rails.
 - Action item: M. Kraushar will discuss with multimodal division about potential insertion into communication channels regarding SLF outreach materials, and ask if there's a way we can allow DNR inspectors access to the railways.
 - D. Slack: Would it help if we reach out to the landowners who have land next to the rails with Tree-of-Heaven?
 - M. Kraushar: Yes, I think there is an opportunity there.
 - D. Slack: I would need a packet of information with the information you want to give to them. I think the CISMA members could do that.
 - Indiana Department of Agriculture (K. Sanders)
 - Clean Water Indiana grant applications ended in September. At the last Soil and Water Conservation board meeting, they announced the applications that were funded.
 - 46 applications submitted
 - 25 funded
 - Over \$600,000 of awarded funds for invasive species technicians, invasive species removal and replacement, pollinator/native plantings, and equipment to install pollinator plantings.
 - Research (H. Reynolds)
 - Recently came across a paper in Nature in 2021: High and rising economic costs of biological invasions worldwide (<https://www.nature.com/articles/s41586-021-03405-6>). They estimate the annual mean cost could reach \$162 billion. Invertebrates/insects are the highest, then vertebrates, then plants. Another interesting find is that the damage costs are an order of magnitude higher than the management costs.
 - Nursery (R. Haggard)
 - Getting ready to have 2024 Indiana Green Expo, Jan 17-19. IISC has a complimentary booth.
 - Kyle Daniel at Purdue University asked if anyone on the Council would like to give a talk on invasive species in Indiana.

- At the Great Lakes Conference there was discussion about regulating plants on the cultivar level. New York passed this legislation successfully.
- Discussion
 - M. Kraushar: Does Indiana already have this covered with our Terrestrial Plant Rule?
 - M. Abraham: Yes, Indiana regulates plants on a species level.
- Parks and Recreation (P. Boyd)
 - Invasive plant mapping efforts continue. The city's Land Stewardship Division, who carries out the work of invasive species control in the parks, is focused on 37 parks.
 - Successful in getting USFS grant, with \$12 million going to Indianapolis Canopy Growth and Resilience Initiative. About \$3 million of that is going to invasive species control in 16 parks.
 - Indy Parks does about 25 nature hikes per year to teach about invasive species.
- Forest Industry (M. Warner)
 - No update.
 - M. Kraushar will be in attendance for the Forest Stewardship Meeting representing the IISC.
- Indiana Plant Advisory Committee and SICIM (D. Slack)
 - IPAC
 - Continuing to work through list on new species.
 - III (Indiana Invasive Initiative)
 - CWI funding: 17 proposals with invasive species work were awarded
 - SICIM was not awarded, so we are working on funding ourselves.
 - 41 CISMAs in the state covering 50 counties.
 - Over 500 weed wrangles completed.
 - Over 1100 private land assessments completed covering almost 42,000 acres.
 - Completed over 1200 outreach events, plus partner training and our annual conference.
 - Southern Indiana Sentinel Landscape (SISL) received a Regional Conservation Partnership Program (RCPP) award for \$24 million to improve private land conservation on farms and forests in southern Indiana.
 - III has partnered with the SISL on an American Beautiful grant. If awarded, we will have \$250,000 to use for invasive species management.
 - Fun run was last Saturday. Our goal was \$50,000; we raised \$10,000. 112 people attended.
 - Invasive species plant list
 - The language has been updated to add more clarity to the rankings and intention of the list.

6) Old Business

- Outstanding Action Items from prior meetings
 - M. Kraushar & K. Werling: Biennial Report
 - Data items are needed on new invasive species added during reporting time frame and updated III and CISMA statistics.
 - Action Item: Council Members review and provide feedback by Nov 30.
 - Action item: K. Werling to add to next meeting minutes to revise strategic plan.
 - Action item: M. Kraushar to add mention of the strategic plan in the biennial report.
 - E. Fischer: Share dates for Landing Blitz.
 - June 28 – July 14
 - Terrestrial Plant Rule additions/status update (M. Abraham)

- It is still stuck behind House Bill 1623. DNR is not putting forward any proposals until this is over. Hundreds of lines of law are being codified.
- Everybody has a backup of legislation that will go on the (Natural Resources Commission) NRC agenda. Eight months' worth of new legislation needs to go before them so we don't know what will make the agenda.
- Action item: M. Abraham to reach out to D. Slack about including any new "high" ranked species added to the TPR.
- Media Committee Update (A. Kelley)
 - A new IISC website is being created which will allow for members to post articles and updates. New website should be completed in early 2024. Report INvasives social media will be used to share articles. Members are encouraged to send content.

7) **New Business**

- 2024 IISC Quarterly Meetings
 - February 14
 - May 8
 - August 7
 - November 6
- Next Meeting date:
 - Proposed: February 14 2024
 - Location: The Nature Conservancy, 620 E Ohio St, Indianapolis, IN, 46202
- Action item: Follow up on locations for future meetings.

8) **Review of assigned action items**

- H. Reynolds will inspect MIPN recommendations on boxwood alternatives.
- A. Kelley to share broadband initiative flier with IISC
- M. Kraushar will discuss with multimodal division about potential insertion into communication channels regarding SLF outreach materials, and ask if there's a way we can allow DNR inspectors access to the railways.
- Council Members review and provide feedback on biennial report by Nov 30.
- K. Werling to add to next meeting minutes to revise strategic plan.
- M. Kraushar to add mention of the strategic plan in the biennial report.
- M. Abraham to reach out to D. Slack about getting new "high" ranked species on the TPR.
- K. Werling to follow up on locations for future meetings.

9) **Adjournment**

- Motion: A. Kelley
- Second: M. Kraushar
- Vote: Passed