

IISC Virtual Meeting - Tuesday, February 16, 2021

10:00 am. Welcome and roll call

1. Welcome, roll call and introductions: – IISC chairperson Michael Warner

Council members present:

Michael Warner, (IISC chair) Certified Forester at ArborTerra, representing industry, mwarner@arboterra.com
Megan Abraham, representing Department of Natural Resources' Division of Entomology and Plant Pathology, MAbraham@dnr.IN.gov

Linda Broadfoot, Director – representing Indianapolis Parks and Recreation, lindabroadfoot@indy.gov

Eric Fischer, representing Indiana Department of Natural Resources' Division of Fish and Wildlife, efischer@dnr.in.gov

Matthew Kraushar, representing Indiana Department of Transportation, mkraushar@indot.in.gov

Heather Reynolds, Professor of Biology, Indiana University representing research, hlreynol@indiana.edu

Kate Sanders, representing Indiana State Department of Agriculture, kasanders1@isda.in.gov

Kelli Werling, Representing Indiana State Board of Animal Health, kwerling@boah.in.gov

Steve Yaninek, Professor of Entomology, Representing Dean of Agriculture, Purdue University, yaninek@purdue.edu

Council members not present

Rick Haggard, Indiana Nursery and Landscape Association, representing industry, haggard.rick@att.net

Other attendees:

Phil Marshal, Forest Health Specialist, DNR Division of Forestry, PMarshall@dnr.IN.gov

Elizabeth Barnes, Purdue University, barne175@purdue.edu

Ellen Jacquart, IISC Invasive Plant Advisory Committee, ellenjacquart@gmail.com

Doug Keller, DNR Division of Fish and Wildlife, Invasive Species Supervisor, dkeller@dnr.in.gov

Brenda Howard, Indy DPW Engineering Land Stewardship, brenda.howard@indy.gov

Stephanie Schuck, Restoration Ecologist, Marian University, sschuck@marian.edu

Will Drews, Knox County SWCD, willem.drews@in.nacdnet.net

Larry Bledsoe, Indiana Cooperative Agricultural Pest Survey, Dept. of Entomology, Purdue University lbledsoe@purdue.edu

2. **Adoption of agenda (M. Warner):** No Modifications/corrections were requested. M. Warner motioned to accept agenda. Motion seconded by H. Reynolds. Motion carried.
3. **Review and approval of minutes from the 10 Nov 2020 IISC meeting (M. Warner):** No modifications/correction to the previous meeting minutes were requested. Chair motioned for adoption of minutes. Motion seconded by H. Reynolds. Motion carried.
4. **Review and approval for reconstructed minutes from 21 July 2020 meeting (M. Warner):** No modification/correction to the minutes were requested. Chair requested a motion for approval. Motion to accept minutes made by L. Broadfoot. Motion seconded by K. Sanders. Motion carried.
5. **Annual election of IISC Chairperson: Chair entertained nominations (M. Warner):** Motion by H. Reynolds to nominate M. Warner as continuing IISC Chair. Nomination accepted by M. Warner. Motion seconded by M. Abraham. Motion carried.
6. **IISC member Land Trust extended vacancy (M. Warner):** A Council recommendation to appoint Ellen Jacquart is awaiting approval by the Deputy Assistant to the Governor of Indiana. No response has been communicated to IISC as of 16 Feb 2021. According to Indiana Code describing IISC requirements, although a Council member's term is three years, incumbents are expected to continue in service until a replacement member is named. Term of L. Broadfoot expired in Dec. 2020. Discussion of possible replacements included Brenda Howard, Indy DPW Engineering Land Stewardship. **L. Broadfoot will discuss possible strategy for**

replacing her Council member position with the Chair at a later date. Additionally, M. Warner will communicate with the Deputy assistant to the Governor for resolution on the nomination of E. Jacquart to the Council.

Partial list of member terms

Chris Krouse, representing land trusts, vacant

Rick Haggard, representing horticultural industry, term ends 31 Dec 2022

Linda Broadfoot, representing Parks and Recreation, term end 31 Dec 2020

Heather Reynolds, representing research, term ends 31 Dec 2019 (extended to 2022?)

Mike Warner, representing forest industry, term ends 31 Dec 2022

7. Review and discussion of the Indiana Invasives Initiative (III) ten-year strategic plan. (M. Warner):

- M. Kraushar recognized for edits, comments, and suggestions to the plan draft.
- First draft includes mission and values, strategic direction/overview, and budget considerations.

III plan summary provided by W. Drews representing Dawn Slack.

- Dawn Slack was credited with the integral development of the plan.
- Approach to the plan is to address both current and future issues to increase effectiveness and efficiency. The development of the plan is intended to be flexible and adaptable as circumstances change.
- Target annual budget is \$500K. This primarily represents an Exec. Director and support staff.
- Next steps in the III plan development are (relative to Covid-19 restrictions) to begin face to face meetings and/or field trips with potential partners, collaborators, legislators, and state officials. Possible show-and-tell venues include The Nature Conservancy and IDNR properties, etc.
- Direct specific questions regarding the development and content of the III plan to D. Slack and W. Drews.
- Question: (P. Marshall) Is this plan for SICIM or IISC? Ans. Neither, it is for III. IISC involvement in plan development is encouraged. The III plan is “tied to our (SICIM) contribution agreement with NRCS.”
- Question: (P. Marshall) It appears that SICIM is writing the plan, but should it be the IISC strategic plan? Ans. This is a strategic plan for III only. IISC contribution to plan development is welcome.
- Comment: (P. Marshall) If this becomes an IISC strategic plan, then there will be possibly more funding opportunities from the National Invasive Species Council. Lastly, if the general public will have access to this plan, use acronyms sparingly and carefully. Response: The III plan is primarily intended for agency submission, not for general public view; however, this has been considered. The current draft is early in the plan development and can still be amended.
- Comment: (M. Warner) This should remain an III document developed by SICIM/CISMAs. IISC contributions are welcome. After the plan is completed, the IISC role should be assisting implementation.
- Question: (P. Marshall) How is III as an entity defined? Is this a stand-alone organization, or is it merely a guiding concept on paper? Ans. The III strategic plan is a “SICIM-driven initiative” with as many partners that are needed/interested, and is intended to maintain the NRCS funding agreement.
- Question (P. Marshall) Are differences/similarities/roles in III and IISC clear and unambiguous? Ans. The III is another name for the current NRCS contribution agreement. SICIM is guided by its own strategic plan.
- Question: (H. Reynold): Is III plan development feedback still accepted? Ans. Yes, however, it is important to refer to the most current draft. Grammatical/typo edits are not needed at this point. Conceptual/content suggestions are welcome and desired.
- Comment/Question: (H. Reynolds) First page of the document implies that this is a SICIM/CISMA plan (“We” used as first-person plural). Contributions/interactions of IISC are not mentioned in the document, and that an umbrella organization will be created to partner with conservation related entities. This sends the message that IISC is irrelevant. IISC should consider the role (if any?) that it has in the development/implementation of the III plan. Is IISC irrelevant? Ans. No, the plan is still in an initial stage and the IISC Chair has been involved in the development/implementation of the plan to determine where IISC fits in.
- Comment: (M. Kraushar) The IISC mandates, strategic roles, and responsibilities should guide the Council’s interaction with/for a plan that is being created by another entity. Direct contribution to plan development/implementation may not best represent the role of the Council. Providing support to legislative matters relative to the plan may be one venue for Council interaction. Advisory body to III may be another venue.

- Comment: (M. Warner) The primary role of IISC is to make recommendations to governmental legislative bodies. It provides dialogue and testimony with/to state legislature/commissions/study committees for funding issues. Identifying, connecting, assisting conservation partners for possible interaction with the III plan is another role. Identifying these roles should be included in the III plan.
- Comment: (H. Reynolds) Another potential role involves the IISC mandate to hold a biennial conference. The III plan includes holding an annual CISMA conference. An opportunity for IISC contribution to the III plan is to collaborate every other year on a conference with expanded scope. The Council should be thinking about other ways of providing input to the III plan.
- Comment: (P. Marshall) The III plan is similar to a narrative for applying for a federal grant. Funding requests for invasive species issues that include collaboration with a state invasive species council have greater probability/history of success. The III plan introductory phrase “we the CISMAs” should be revised as “we the IISC.”
- Comment: (H. Reynolds) The III plan should not become the IISC plan. SICIM is the parent organization that has planned and executed the plan development and should remain identified as its author. However, IISC should be present and relevant.
- Question: (M. Abraham) Does the III plan contain a budget or other type of financial plan? Ans. Yes, currently on page 6. Current projected total is approximately \$500K/year. The narrative suggests that future funds come from federal, state, and private grants. Currently, approximately 55 percent of funds come from federal grants. Increasing the state funding and creating a more diverse portfolio are priorities.
- Comment: (M. Abraham) A budget narrative should have detail added that specifically describes where funds will be allocated. Response: the majority of funding will be for personnel, followed by travel and then equipment.
- Comment: (M. Warner) In previous discussions on the potential scope of III with D. Slack, \$500K/yr. seems insufficient. Much of the current funded work is performed by volunteers.
- Comment: (P. Marshall) There is a need to consider how the concept of fund-matching by agencies will affect the budget.
- Question: (M. Reynolds) One of the IISC mandates is to provide grants. Were IISC biennial conference funds provided to SICIM, and could this be used as an example of III collaboration? Ans. Yes, the last IISC biennial/CISMA joint conference proceeds were forwarded to SICIM which will provide funds to local CISMAs as grants.
- Comment: (M. Abraham) Consider that new allocations deemed non-essential by the Indiana legislature in 2021 and beyond will be extremely difficult due to significant reductions in state revenue caused by Covid-19 issues.
- Comment (M. Warner) Recent activity of the “SB 99” work group regarding III planning resulted in some next-step recommendations. Summarized by W. Drews.
 - Share III current draft with partners and potential partners to look for potential collaborations: IISC, ICP, NRCS, IDNR, IDEM, ISDA, etc.
 - Efforts to diversify funding portfolio should increase. Possible venues are increased funding from the Clean Water Indiana program (which gets allocation from the cigarette tax), and the proposed Carbon Credit Bill.
 - The creation of a summer study committee for a “SB99”-like bill is planned for 2022 for a funding request in FY2023.
 - Outreach to legislators will continue.
- Comment: (M. Warner) The IISC should be a significant part of the outreach component of keeping legislators engaged in understanding the need for the III.
- Question: (H. Reynolds) E. Jacquart has a long history with IISC and other conservation organizations. Do you (E. Jacquart) have insights for the role of IISC in the III plan? Ans. (E. Jacquart) I have not seen a copy of the III draft plan, but from the preceding discussion, I have several thoughts.
 - A fundamental difference between the IISC and the proposed III is that IISC has a responsibility to all invasive taxa (and animal health) and not primarily to invasive plants as is the case for the more narrowly focused SICIM and CISMAs. This difference significantly broadens the scope of the IISC compared to the III.

- Clarity of overlap of collaboration by IISC and III and other organizations/agencies is needed to maximize organizational synergy and to avoid interference and competition for resources.
 - IISC is intended to act in an advisory capacity and not logistically.
- Comment: (K. Sanders) The III plan is biased to solicit partnerships with entities that already understand the need to manage invasive species. There is a need to present more perspective and effective illustrations that would draw in groups that are less in tune to invasive species management issues. Data-sharing and annual summaries of how the III and partners show impact should be widely accessible. This may be difficult, but very important and will reach a broader audience. Response: (W. Drews) A preface that provides more/better background information is a good idea and might be a solution to facilitate greater acceptance, but meaningful and practical metrics that demonstrate need and/or results are very difficult/cumbersome to obtain. Something more specific than just the number of volunteer hours, management plans written (with associated acreage), educational meetings, and/or “Weed Wrangles” are needed. Target species can be reported, but the amount of effort per species and extent of environmental impacts from remedial action are lacking. One possibility is that plant community inventory plots can be measured by noting species and estimating initial biomass and comparing to post remediation biomass and effort expended. A metric like truck loads of biomass removed is helpful.
 - Question: (M. Kraushar) Regarding the idea of IISC advocating another legislative summer study session to consider III/IISC issues and concerns, will the IISC be now advocating the III plan only? Ans. (M. Warner) The IISC SB99 workgroup was broader than just III implementation. Its goal was to address Indiana invasive species from different perspectives (IISC, SICIM, etc.) at the legislative hearing that failed to produce a study committee.
 - Comment: (P. Marshall) The IISC can still promote the idea of a summer study committee before the Natural Resources Commission in the annual activity report of the IISC to the Commission.

8. Invasive Species Awareness Week (M. Abraham)

- A request was submitted for a gubernatorial proclamation for Invasive Species Awareness Week in Indiana to be recognized April 18-24. Waiting for confirmation.
- The date of this event was chosen to coincide with National Volunteers Week. (portion of audio lost??) This was done to possibly increase the response to the call for volunteers to assist with invasive species projects on state properties.
- IDNR is working on outreach materials, but is dealing with Covid-19 related issues. Various forms of social media are being used to push the IS week activities. The Nature Conservancy and Indiana Fish & Wildlife are cooperating.
- Question: (K. Sanders) When will the Governor’s proclamation occur? Ans. Requests must be at least 6 weeks in advance. The public announcement can occur as late as the week before the event or not at all. The Indiana Invasive Species Awareness Week will occur regardless of when, or if, the proclamation occurs.
- Question: (M. Warner). Does the Indiana IS Awareness Week coincide with the National IS Awareness Week? Ans. No. NISAW Part I – Information and Advocacy, February 22-26, 2021; NISAW Part II Outreach and Education, May 15-22, 2021. IDNR will also promote these dates on social media.

9. Invasive plant advisory committee updates. (M. Warner for D. Slack)

- IPAC has been engaged in monthly invasive species write-ups. These were posted on SICIM website.
- TPR guides have not been delivered to most of the sponsoring agencies.
- Two quarterly CISMA “Lunch and Learn” events have occurred since last IISC meeting. These events reached about 123 total participants.
- Presented 4 programs for the “Women for the Land” series with about 150 total participants
- There were 629 outreach events by the end of 2020.
- There were 359 landowner visits and written plans involving over 18,000 acres.
- Thirty-four CISMAs are in operation.

- A multiday CISMA conference is being planned for 2021 with the theme of “Why Do We Manage Invasive Species?”

10. Economic assessment of the new plants ranked high on the updated official plant list. (M. Abraham)

- There has been little current activity on the assessment. A new summary is expected at the next IISC quarterly meeting.
- Kyle Daniel (Purdue Horticulture) is assisting with gathering data.
- **M. Abraham will send the 2020 summary of economic assessment/commercial plant inventory in Indiana and National Plant Board information on surrounding states to the Council.**
- Question: (M. Warner) Were there any surprises? Ans. There was a lot less of the stock that IDNR thought would be difficult to reduce. It appears that the message has been disseminated to growers, and/or that demand has decreased.
- Question: (H. Reynolds) Were there any instances where the economic threshold fell on any species that would now allow legislative action? Ans. No. Callery pear numbers are down, but still has too much stock in inventory to be actionable.

11. Agency Reports and Updates

Representing Fish & Wildlife-Aquatic Species (E. Fischer)

- Indiana aquatic species management plan was approved by the Federal Aquatic Nuisance Species Task Force.
- **F&W website will be updated with 2021 aquatic management plan details.**
- F&W will collaborate on National and Indiana Invasive Species Awareness Week events.
- Governor’s proclamation will be helpful in using the media to remind the public to protect Indiana’s waters.
- There are no recent reports of the appearance of new aquatic invasive species.
- Preparations are underway for 2021 water treatment season. A federal grant of \$250K will be distributed to contractors for invasive aquatic plant control. Most of the work will occur in northern Indiana to manage Eurasian water milfoil and especially, starry stonewort.

Representing Board of Animal Health (K. Werling)

- No new foreign diseases of animals were reported since the last IISC meeting, however there were four investigations of two diseases.
 - Bovine vesicular disease negative (2)
 - Equine vesicular disease negative (1)
 - rabbit haemorrhagic disease negative. (1)
- Avian influenza continues to be absent, however monitoring continues.
- African swine fever monitoring continues with no positive reports. New potential strains have occurred in China, possibly due to ineffective/dangerous black-market vaccines. Indiana ASF emergency response planning continues.
- Tigers at the Fort Wayne Children’s Zoo tested positive for Covid-19 virus. A capuchin monkey that died while exhibiting Covid-19-like symptoms tested negative.
- Chronic wasting disease was recently recorded in wild whitetail deer in NW Ohio (Wyandotte Co.). This incident of occurrence is located approximately 80 miles east of the Indiana state line. CWD has not been detected in Indiana.
- The annual pseudorabies virus status application renewal was updated in conjunction with IDNR and Fed F&W with the addition of the state feral swine management plan, and resubmitted to USDA. This would continue Indiana status as being considered pseudorabies virus free in the commercial swine population. The application is in review.
- BOAH meat inspection increased dramatically in 2020. The Covid-19 closures of large regional processors resulted in increased demand for processing by Indiana facilities. About two million more pounds of meat were processed in Indiana between April and June 2020 than the same time in 2019. Meat inspectors logged more 1200 overtime hours in 2020.
- Comment (M. Warner) Local meat processors are now booked four months in advance.

- There is a request to state legislators to increase funds to hire 10 more meat and poultry inspectors.
- The federal Covid-19 Food Assistance Program provided additional funds to 32 processing facilities in the state to manage the increased demand.

Representing Fish & Wildlife-Terrestrial Invasive Species. (Doug Keller)

- Implementation of the Terrestrial Invasive Species Management Plan (TISMP) is stalled due to a change in DNR administrative priorities. There are no current plans to hire a coordinator/biologist which is an essential part of the plan. The current invasive species supervisor (D. Keller) will assume part of the responsibilities included in the plan. D. Keller pointed out that he has an aquatic biology background, but would move the parts of the terrestrial plan forward.
- Question: (M. Abraham). Can Division of Entomology and Plant Pathology assist in implementing the plan? Ans. No. That is not possible/practical due to way the plan is written. The terrestrial coordinator position was intended to assist other programs.
- Question: (M. Warner) Is there any part of the plan that IISC could assist? Ans. Assistance in the promotion of invasive plant remediation on state and private properties is a possibility. This could be assisting in the further education of F& W biologist and managers with regards to invasive species ecology and management. A possible way to do this is for F&W to partner with CISMA staff in training events/bioblitz/management plan assistance, etc. This may also be a part of a proposed III plan function.
- Question: (S. Yaninek) Was the coordinator/biologist position included in the TISMP? Ans. Yes. It was the primary component of the plan. This plan was the result of the prior realization that invasive species had high impact on dwindling wildlife diversity and abundance.
- Question: (S. Yaninek) How should IISC assist in revitalizing funding the plan; perhaps a letter supporting the need for this position? Ans. No response.
- Comment: (M. Abraham) Loss of this position is likely the result of Covid-19 issues surrounding state revenue reductions. Also, there are more funding sources (e. g. federal) for aquatic programs than for terrestrial programs. There should be some IISC mechanism of support and encouragement for DNR administration to fund this position and the plan should be kept in front of administrators when the opportunity arises.
- Comment (M. Warner) Is this a topic for a future legislative summer study session or a support letter. No response.
- Question: (M. Warner) How many properties need a management plan? Ans. A guess would be 20 F&W areas, an undetermined number of hatcheries, and about 400 public boating access areas.
- Comment:(M. Warner) Your idea of collaborating with III staff in some type of a contribution agreement may provide the needed expertise for plan development and execution.
- Question: (H. Reynolds) Is expertise needed to development the plan, or is it workers boots-on-the-ground to execute a plan? Ans. The primary idea of TISMP utilizing the III is to gain assistance in plant inventory as a first step in developing management plans.
- Question: (H. Reynolds) Can this concept be added to III proposed plan? Ans. That's a great idea and is encouraged, but I don't know how the III plan will integrate with other agencies.
- Comment: (W. Drews) This may be possible by interacting with regional specialists and not with the CISMAs to develop management plans. CISMAs are working on their own properties and would not write a plan for a F&W property. A coordinator in a SWCD may be able to write a mgt plan for you.
- Comment: (D. Keller) Assistance in writing a plan is not needed. Temporary knowledgeable helpers are needed to physically inventory species distribution and abundance. F&W would write the plan.
Comment: (W. Drews) It is possible that regional specialists could do both.
- **Comment (M. Warner) Suggest that W. Drews, D. Slack, and D. Keller discuss possible integration of state F&W terrestrial invasive species management plan with III strategic plan.**

Representing Indiana Department of Agriculture (K. Sanders)

- No updates beyond previous comments.

Representing Division of Entomology & Plant Pathology (M. Abraham, State Entomologist and Plant Regulatory Official)

- Planning has begun on Indiana Forest Pest Awareness Week and will occur about mid-August 2021. State will collaborate with Purdue University, Department of Forestry and Natural Resources on planning.
- **Please forward suggestions for potential dates for the Indiana Forest Awareness Week.**
- Over 130 stop-sales occurred on plants prohibited under the state Terrestrial Plant Rule. Most of these actions were at “big box” and chain stores. An issue is that inventory is usually owned by an unrelated distributor. Prior TPR notices were evidently not forwarded to out-of-state parties which continued to send prohibited plants. This situation has been corrected and is not expected in 2021.
- Gypsy moth management public meetings (virtual) have occurred. Refer to IDNR DEPP website for treatment areas and dates. There were few attendees of the virtual meeting, but 155 views of the recorded meeting have occurred to date.
- Be aware of the possible appearance of the spotted lanternfly. It is an important pest of commercial grape/wine production and to other commodities to a lesser extent. It has not been detected in Indiana to date. Adults and egg masses on rail cars are emerging as the principle mode of long-distance movement. Point of origin is Pennsylvania. SLF is now in eastern Ohio. SLF can fly short distances. Tree-of-Heaven is the principle wild host. Indiana continues to survey for this pest using a high-risk pathway analysis approach. West coast states will/are enacting quarantines of this pest, and restrictions on modes of transportation of high-risk products from the Midwest.
- Question: (S. Yaninek) Did your division experience budget reductions in 2020/21? Ans. Yes. Every IDNR division was expected to reduce expenditures by 20 percent. DEPP is sheltered from some of this reduction by receiving phytosanitary and nursery licensing fees, and federal grants (e. g. for gypsy moth). The kudzu management program has Indiana maintenance funds that are somewhat protected. Travel costs have declined due to Covid-19 restrictions and an increased emphasis on low-cost outreach (multi-media driven) programs has replaced some of the need for travel. Lastly, DEPP has fewer staff to support than most of the other IDNR divisions and therefore can better absorb the impact of budget reversion.
- Question: (S. Yaninek) Will your inspectors be able to maintain current DEPP responsibilities? Ans. Yes. All inspectors work from their satellite offices. They had to adjust work schedules to visit sites when public foot-traffic was the lightest. The interstate flow of commercial products did not stop during the pandemic and therefore, the inspections did not stop.
- Question (M. Kraushar) Is there a national strategy for managing the spread of spotted lanternfly by rail? Ans. Yes. This is a very difficult pest to contain, but national efforts to address this have begun. This effort may be something like removing Tree-of-Heaven from rail yards/corridors, however, this may not be very realistic. Population effects from natural predator/prey interactions have not been observed. National efforts targeted at education of the transportation industry represents the greatest opportunity to manage spread.
- Question: (M. Kraushar) What is the economic impact of this pest to Indiana? Ans. Adult stage SLF in late fall will have the greatest impact to commodities, particularly vineyards. SLF tend to congregate and produce copious amounts honeydew resulting in high levels of pathogenic sooty molds on vines. Also, feeding activity changes the pH signature of the plants which affects wine production. Development of control methods/management are in the initial stage. Other than for vineyards and the wine industry, the economic impact to other commodities will be low as science catches up to the problem. The nursery industry has approved products to manage general pests with piercing-sucking type mouthparts.
- Comment: (M. Kraushar) A check of the Purdue Department of Horticulture and Landscape Architecture website estimated losses from SLF in 2016 could reach \$604 million per year.

Representing Division of Forestry (P. Marshall)

- Beech leaf disease found in NW Ohio not yet detected in Indiana.
- Laurel wilt (pathogen of sassafras and spice bush) found south of Louisville, KY. It is presumed to be in southern Indiana (Brown Co.), but has not been detected.

Representing Indiana Department of Transportation (M. Kraushar)

- INDOT applied herbicide on approximately 90K areas of right-of-way in 2020.
- Bush honeysuckle and autumn olive were mechanically removed on about 1000 acres.

- Callery pear density in Indiana road and utility right-of-ways is significantly higher than expected and is becoming a major problem.

Representing Research (H. Reynolds)

- A list of 40 Indiana biology departments that have potential for invasive species networking and information sharing is being developed. Two universities have been contacted and shared information. A summary of these communication will be emailed to the Council.

Representing Purdue University, Dean of Agriculture (S. Yaninek)

- The Purdue Invasive Species Working Group developed educational training materials for invasive species signature programs in 2020 and will present and refine the programs in 2021. These training tools are designed to be able to acquire impact metrics.
- This working group tries to meet monthly.
- The Entomological Society of America along with several other organizations sent the Biden administration (agency-specific) a set of recommended priorities and issues that need to be addressed for effective invasive species management.
- Comment: (E. Barnes) Brood X of the periodical cicada will appear in Indiana in 2021. Outreach material is being prepared/updated. Educational material is designed to be used by the general public, and by the nursery industry. There will be a community outreach science campaign to direct cicada emergence observations to the I-Naturalist website. Posters are being developed in cooperation with Indiana State Parks. An online question and answer list will be prepared.
- Comment: (M. Abraham) Attention should also be given to natural predators in the wasp family called cicada killers. These endemic wasps become common in years of cicada abundance and will likely result in many erroneous reports of the similar-looking, murder hornet that has recently appeared on the west coast. Response: (E. Barnes) Yes, the distinction between the two species will be made. Another common question from the public is if the cicadas are edible.
- Comment: (M. Warner) A common question to include in the cicada emergence Q&A is should tree planting be delayed? Response (E. Barnes) Recommendations to address this inquiry are being formulated and can be sent to the Council if desired. Comment: (M. Warner) Yes, that would be a good thing.
- Comment: (M. Abraham) It would be beneficial to include the significance of twig/branch oviposition injury to tree health in the Q&A.
- Comment (L. Bledsoe) The Cooperative Ag Pest Survey is actively working with multiple agencies to detect exotic pests with the potential of negatively impacting Indiana commerce.

Representing Indianapolis Department of Parks and Works (B. Howard)

- DPW is conducting local landscape restoration and assisting CISMAs in conferences.
- No report.

12. Other New Business: (M. Warner)

- H. Reynolds announced that Michigan has a web series on invasive species prevention and response. https://www.michigan.gov/egle/0,9429,7-135-3308_3333-539592--,00.html Will send link to M. Abraham.
- H. Reynolds suggests that IISC form a network with IS councils in surrounding states. This could result in a multi-council conference where ideas and information are shared regionally. The National Invasive Council should play a role in bring state councils together.
- M. Warner will contact the chair of surrounding IS councils to explore the networking concept at the next IISC meeting.
- M. Warner and M. Kraushar will continue IISC interaction in the development of the III strategic plan and report to the next meeting.
- S. Yaninek has sent the link for the National Environmental Coalition on Invasive Species website <necis.net> to the Council listserve.

Action items.

1. L. Broadfoot will discuss a possible strategy for replacing her Council member position with the Chair at a later date.
2. M. Warner will communicate with the Deputy assistant to the Governor to get resolution on the nomination of E. Jacquart to the Council.
3. M. Abraham will send the 2020 summary of economic assessment/commercial plant inventory in Indiana and National Plant Board information on surrounding states to the Council.
4. E. Fischer will update F&W website with 2021 aquatic management plan details.
5. W. Drews, D. Slack, and D. Keller will discuss possible integration of state F&W terrestrial invasive species management plan with III strategic plan.
6. M. Abraham requests suggestions for potential dates for the Indiana Forest Awareness Week.
7. H. Reynolds will email a summary of two university biology departments communications on invasive species issues to the Council.
8. E. Barnes will send recommendations that address the cicada emergence/delayed tree planting inquiry to the Council when completed.
9. H. Reynolds will send the Michigan web series on invasive species prevention and response link https://www.michigan.gov/egle/0,9429,7-135-3308_3333-539592--,00.html to M. Abraham.
10. M. Warner will contact the chair of surrounding IS councils to explore the networking concept and report at the next IISC meeting.
11. M. Warner and M. Kraushar will continue IISC interaction in the development of the III strategic plan and report at the next meeting.

14. Next meeting in 2021 is Tuesday 18 May. The meeting will likely be virtual.

Motion to adjourn made by S. Yaninek, seconded by M. Kraushar. Meeting Adjourned.