



Invasive Crayfish Collaborative Five-Year Strategic Plan Meeting – Summary Notes

January 30, 2024
11:00am – 12:35pm CT
Virtual Zoom Meeting

Facilitated by Natalia Szklaruk, Katie O'Reilly, and Greg Hitzroth, Illinois-Indiana Sea Grant

11:00-11:20, Welcome and Introduction

Szklaruk welcomed all members, introduced herself and her team (O'Reilly and Hitzroth), and gave a brief introduction to the ICC. O'Reilly summarized the five-year strategic planning process, NOAA's strategic planning framework, and the five-year strategic plan survey that was sent out in November 2023. Szklaruk then summarized key results from the survey and introduced five focus goals that would be the basis of the meeting's discussion.

11:20-12:20, Facilitated Break-out Rooms

The group was divided into three break-out rooms, each facilitated by O'Reilly, Hitzroth, or Szklaruk. In each break-out room, groups discussed their needs and desired outcomes for the ICC. Groups developed concrete outcomes and objectives for each of the five focus goals. The five focus goals and related questions for the discussions are listed below:

1. Detection, Response, Control, Containment, and Eradication
 - a. What are the current methods used for each? What are key research topics that we should prioritize? How do we coordinate efforts across stakeholder groups?
2. Organism-In-Trade Pathways
 - a. How can we better address OIT pathways? How should we support enforcement and regulations within OIT pathways?
3. Interjurisdictional Collaboration
 - a. How can we share and manage data better? What does bi-directional flow of information look like?
4. Education, Outreach, and Activity from Diverse Partnerships
 - a. How do we recruit and engage with diverse partners and those not well represented in the ICC community? How can we get the community interested? How do we keep them interested?
5. Program Sustainability
 - a. How do we diversify funding to ensure ongoing success? How do we measure program effectiveness? Are there any measurable indicators or metrics we can use to highlight our effectiveness?

12:20-12:30, Reporting Back

After the discussion, groups were brought back into one meeting room, and O'Reilly, Hitzroth, and Szklaruk briefly reported out a summary of specific items that were discussed in their respective break-out rooms. The following topics were discussed:



Focus Goal 1: Detection, Response, Control, Containment, and Eradication

- Need to clearly identify management needs so that researchers can prioritize work- the ICC can help facilitate those conversations
- Continue hosting webinars on current and upcoming research to engage others
- Generate a discussion with other state agencies (multiple groups and presentations in one call)
- Continue using and promoting early detection efforts with iNaturalist
- Engage with non-expert audiences (public) in finding/monitoring new invasive populations (e.g., iNaturalist)
 - Challenges ICC members face in doing engagement – time, money/resources, matching up with other goals, getting funding to do, crayfish keys aren't super accessible to non-experts, connecting with education (e.g., curriculum); agency folks involved in ICC may not have direct interactions with public; ICC coordinating efforts/having better tools to communicate within orgs (so on-the grounds folks can do outreach)
- There is value in the consistent monitoring of waterbodies likely to become invaded (locations near populations, angler activity, etc.) – risk based on previous data/modeling/etc.
- Local/regional governments may not care about /prioritize crayfish – ICC could help provide guidance on policy changes
- Facilitate information sharing/connections about new invasions – who can folks contact to learn more?

Focus Goal 2: Organism-In-Trade Pathways

- More outreach on scientific names in pet stores (signs, brochures, pamphlets)
- Add pet shop/bait shop outreach component within all stakeholder groups
- Have trained volunteers visit pet stores to establish relationships with retailers - are they posting signs/understand species?
- Educate suppliers so information can effectively “trickle down” the OIT chain
- Increase law enforcement efforts
 - Get state representatives to address resources
- Engage with consumers through workshops, events, social media campaigns
- Create ICC specialty groups to target all possible pathways and risks
- Facilitate connecting experts with regulators of crayfish. Establish a formal process for this region-wide
- Share user-friendly keys for bait shop owners (MO has a resource); follow-up enforcement after education
- ICC can facilitate larger, interjurisdictional projects

Focus Goal 3: Interjurisdictional Collaboration

- Not a lot of collaboration or communication between various projects being conducted in nearby regions, which causes sampling locations to overlap- communication is lacking
 - ICC can solve this by facilitating communication between local groups
- ICC can help identify the different skill sets within each research lab and provide a “contact list” to know who they can reach out to for help and resources; create a page that directs others to additional databases and repositories (i.e., GLANSIS, NAS, American Crayfish Atlas, etc.)
- ICC can establish a framework for shared data and identify best management practices (e.g., how often the data needs to be updated)
- Have more in-person discussions within government/academic/management groups. Participants want more discussion-based meetings with more focused objectives (i.e., research, management, policy, outreach, etc.). An annual “general” meeting may be beneficial.



- Establish topical sub-groups
- Sharing data can be challenging for a number of reasons – lack of shared framework, some people protective of data, institutional/funding agency guidelines
 - Need to be thoughtful about types of data we share (things like distribution/density are easy to share, but need to develop consistent standards)
 - Alternative idea: Share *descriptions* of data that researchers have (but not actual data themselves to prevent sharing sensitive information)
- Questions for ICC to consider: What types of data of data should be public/private? What other repositories already exist and what do they offer? Which repositories are appropriate for which data?
- Tap into other repositories and resources (e.g., national early detection and rapid response framework being developed by Department of the Interior)

Focus Goal 4: Education, Outreach, and Activity from Diverse Partnerships

- Engage with crayfish subreddit (hobbyists) and open membership to them- offer our resources
- In-person workshops for those interested in crayfish (i.e., aquarium store workshops, learn more about local crayfish)
- Produce interesting videos, pictures, and other visuals of crayfish to boost engagement and interest in crayfish with the general public. Follow Chris Barnhart's *Unio Gallery* that increased awareness of freshwater mussel importance
- Understand how to draw people to the ICC
 - Directly reach out to consumers/retailers and support: regulation, identification resources, unwanted crayfish best practices, EDRR (community science; iNaturalist landing page for crayfish – for people to report things they think are invasive)
 - Measure ICC engagement success by: counting number of people joining the group, send out survey that analyzes *why* they joined the group, keep track of the number of products disseminated, the number of businesses ICC is engaged with
- ICC could host webinars aimed at industry/consumer audiences
- It's really difficult to access/connect with industry partners (even just understanding and identifying who's involved in the supply chain, what are the steps in pathways, etc.)
- ICC could build relationships with industry
- Crayfish aren't always super obvious to people just interacting with waterbodies, and bringing a live invasive crayfish somewhere poses its own risks
 - Aquarium exhibits already have the audience and resources to hold and display crayfish- ICC could partner with aquariums (i.e., Chicago Shedd "touch exhibits" and GL exhibit) and reduce risks of personal transport

Focus Goal 5: Program Sustainability

- Support Request For Proposals (RFPs) for invasive crayfish projects
- Create a directory referring to specific labs and experts to promote their work and increase funding support (or possibly tap into other repositories found online)
- There has been some lag time between applying for a grant and receiving it- how can ICC help with this?
- Create a funding opportunity section on ICC site
- Collaborate with other labs for funding support
- Increase communication to get those connections with funders
- ICC could provide letters of support for grant proposals



- Data sharing: Participants brought up existing resources like Crayfish Atlas, GLANSIS (primarily map data/locations)
- Continuous funding is always an issue
- ICC should play role as facilitator in Great Lakes-wide crayfish issues, facilitating relationships and research activity
- Have ICC participants be able to tie their work back to the bigger picture of regional-wide ICC vision
- ICC could facilitate collaborations between academics and non-academics, connect and share perspectives from industry

12:30-12:35, Next Steps

Szklaruk briefly discussed the next steps, which included continuing to draft the plan throughout February and March 2024 and to address member feedback from past discussions. By the end of March, the ICC will be working with the ICC advisory committee to finalize the draft. By the end of June, the ICC will have a completed final copy of the five-year strategic plan that will be distributed to the ICC membership via email, posted on the ICC website (InvasiveCrayfish.org), and presented at relevant conferences and meetings (i.e., Great Lakes Panel meeting in June). If you have any questions, you can email:

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12:35, Adjourn



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