



# Reducing the risk of aquatic invasive species introduction through a partnership with the bait industry

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# Problem statement



- The bait pathway remains a priority OIT pathway for the Great Lakes
- Education resources for bait industry leaders and retailers are lacking
- Previous proactive engagement between regulatory staff and bait industry leaders has been limited

# Regional coordination of outreach and engagement with the bait industry

- Received funding in 2024 to initiate a Great Lakes Panel led project focused on the engaging with the bait industry
- Project includes two main objectives
  1. Develop a regional bait identification guide
  2. Engage with bait industry to reduce risk of invasive species introduction



# Project timeline: Past

- **2024** – Project planning
  - Review existing bait guides
- **2025** – Initial engagement with the industry at NCRAC
  - Solicit feedback from law enforcement and regulatory staff
  - Develop interview questions

# Objective 1. Regional bait guide

- Review and adapt existing bait identification Resources to frame development of a regional Bait identification resource
- Reviewed 18 bait resources
- Identify common themes, features, format options, or unique aspects from regional bait guides in the Great Lakes to consider for development of a regional bait guide

Guide Name	State/Region/Province
Quick ID Features for Baitfish	Ohio
Baitfish of Vermont	Vermont
The Baitfish Primer	Ontario
2022 Pennsylvania Fishing Summary/Boating Handbook	Pennsylvania
Stream Fishes of Ohio Field Guide	Ohio
Sport Fish of Ohio Identification	Ohio
Ohio Lake Erie Shoreline Fish Community Survey	Lake Erie
Inland Fishes of New York	New York
Pennsylvania Fishes	Pennsylvania
Fish Descriptions	Pennsylvania
Fish ID	Wisconsin
Fishes of New York	New York
Fish Identification - New Jersey Freshwater Fishes	New Jersey
Fish Maps of New York	New York
Michigan Fishes	Michigan
Fishes of Toronto	Ontario
A Field Guide to Freshwater Fishes of Ontario	Ontario
The Comprehensive Bait Guide	Ontario/Great Lakes/NE United States



# Regional Bait Guide Recommendations

1. Non-specialized tone
2. Organize by fish family
3. Comprehensive species information (e.g., color, size, special markings, etc.)
4. Include visual aids
5. Guidebook style
6. Regulatory information
7. Environmental awareness (e.g., impact, species at risk, AIS)



## Objective 2. Engage with bait industry to reduce risk of invasive species introduction

- Want to develop a resource that has the maximum utility for the industry
- Understand their concern/ needs
- Modify bait guide based on feedback
- Begin a conversation with bait harvester and producers
- Meet with industry representatives in person
- Offer honorarium to harvesters and producers to incentivize interview participation

# Objective 2 Rescoped

Host a regional symposium for AIS management staff, conservation law enforcement, and industry partners



Plan and lead in-person engagements with bait industry representatives





# Interviews with industry

Interviews with bait harvesters and producers that supply to the Great Lakes AND bait retailers across GL states

- ✓ Feedback on the bait guide
- ✓ Knowledge of regulations
- ✓ Concerns about invasive species
- ✓ Ability to ID invasive species
- ✓ Response to AIS detection
- ✓ Resources/ information needed
- ✓ Start relationship building

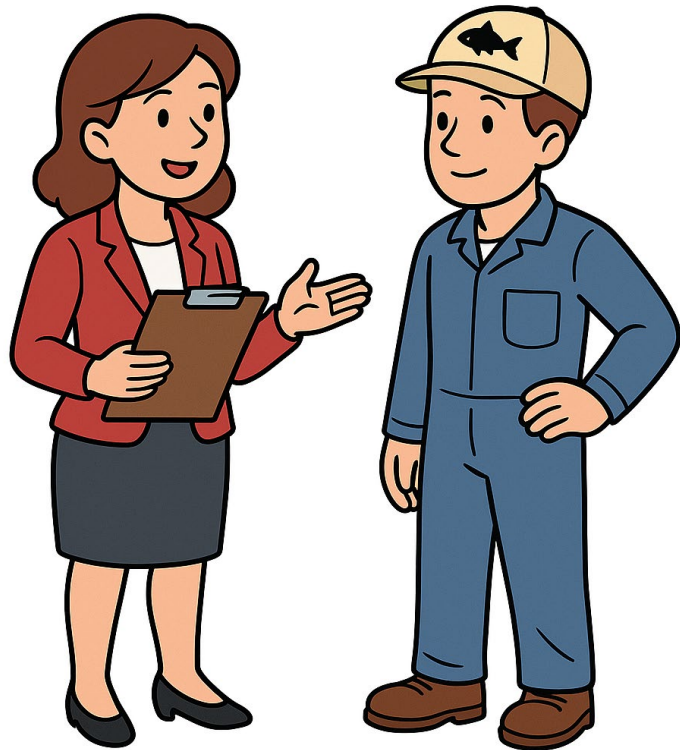
# Objective 2 Approach

1. Learning best practices for engaging with bait wholesalers, retailers and harvesters
  - Conversations with Sea Grant aquaculture extension and academic partners
2. Understanding law enforcement and regulatory/management perceptions to inform the bait industry surveys
  - Law Committee Engagement
  - Regulatory/management Engagement

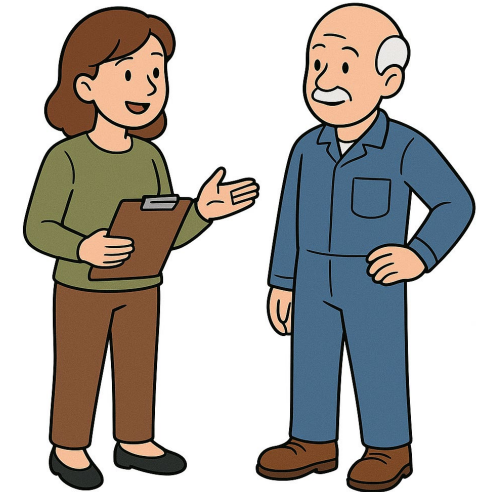
# Initial Feedback from Law Enforcement

- Overall interest from the Committee in engaging in the project
- Suggested that enforcement be allowed to review the bait guide before its finalized
- The Committee was encouraging of including common hitchhikers (especially crayfish) in the bait guide
- There was a suggestion to create resources other than printed materials (e.g., phone applications) to help industry and retailer easily ID species. The Clam Counter app by Toronto Zoo and DFO may be a good format to follow if industry is interested in utilizing phone apps
- "Pay Lakes" in Ohio and potentially other GL states are a nothing concern for AIS introduction – they have their own inner circle of paying people to catch bait for their operations and it seems highly un-regulated. Described as "legal gambling"

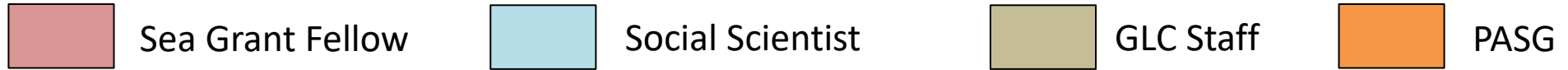
# Objective 2: Central approach



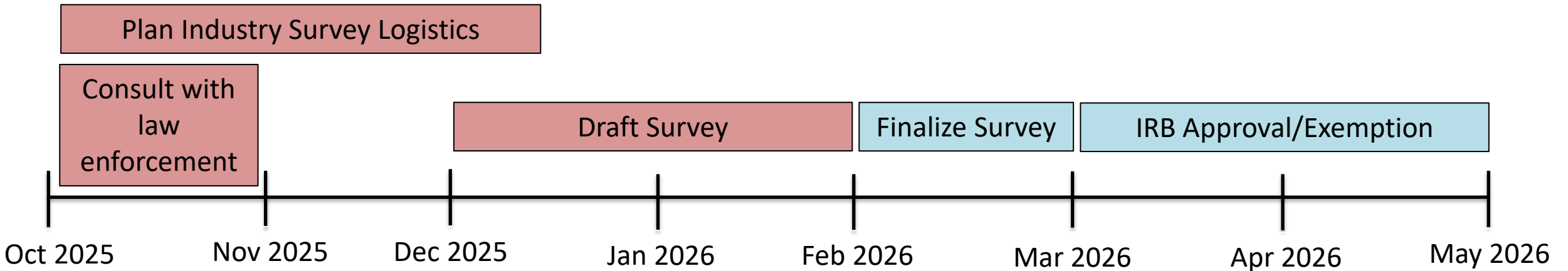
# Objective 2: Rely on existing experts



# Timeline: Future



## Preparation



# Timeline:Future



Sea Grant Fellow



Social Scientist



GLC Staff

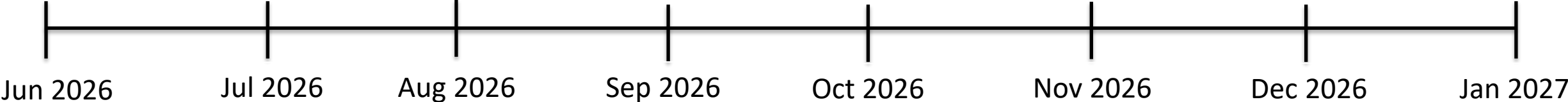


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## Surveys

Conduct Surveys with Retailers

Conduct Surveys with Industry Leaders



# Timeline: Future



Sea Grant Fellow



Social Scientist

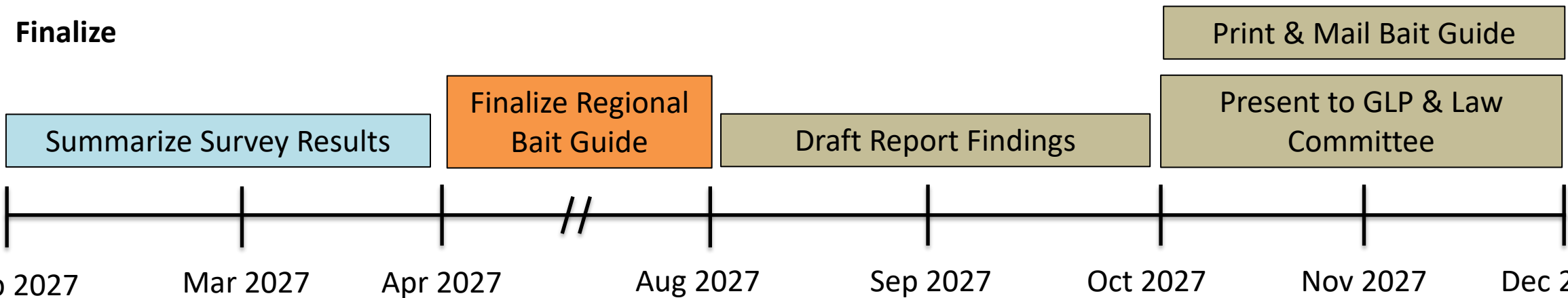


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## Finalize



# Feedback

- Prior to interviews with industry, we'd like your input on:
  - The current landscape of the bait industry within your jurisdiction
  - The current relationship you have with the bait industry
  - What to include in a regional bait guide to make it useful
- Goal
  - To help inform our survey questions for industry to ensure resulting bait guide is useful from a regulatory/management perspective
- We are flexible/open to:
  - Feedback now
  - Short meeting/discussion before the end of the year
  - Short online survey before the end of the year

# Example Feedback Questions

- Tell us about the relationship your regulatory/management staff has with the bait industry.
  - Do your staff regulate bait harvest, visit wholesale suppliers or retailers, or lead outreach/education campaigns?
- Thinking about bait wholesalers, harvesters, and retailers that you engage with:
  - What are the biggest challenges you face?
  - In your experience, how much do you perceive they are concerned about AIS prevention?
- Do you believe bait wholesalers, harvesters, or retailers would find the regional bait guide useful? How could we make it useful?



# Thank you!

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