

Worms
1000 feet



Results of Risk Analysis: Great Lakes Jurisdictional Illegal Trade and Transport of Live Organisms

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Presentation Outline

- Background of the Project
- Methods
- Results/Conclusions
 - Risk Assessment
 - Risk Management
- Next Steps
 - Additional Questionnaire development, completion, and analysis

Background

- Great Lakes Water Quality Agreement of 2012
 - Began Implementation February 2013
 - One of the new components
 - **Annex 6 – Aquatic Invasive Species**

Background

- Annex 6 – Aquatic Invasive Species
 - “**conducting** proactive, binationally coordinated **Risk Assessments on various Pathways** such as:
 - the **trade and importation of live organisms** for various uses including, but not limited to, aquariums and gardens, bait fish, live fish food markets, and biological supply houses;

Background

- Annex 6 – Aquatic Invasive Species
 - **Pathway Risk Analysis Task Team**
 - Led by me
 - TNC Team Members
 - Input from Great Lakes Fishery Commission Law Enforcement Committee

Methods

- Pathway Risk Analysis Task Team: **Questionnaire**
 - **Developed** questionnaire, submitted for review by GLFC LE & FWS LE
 - **Revised** questionnaire
 - **Submitted** to GLFC LE Committee Coordinator, who sent to Committee members
 - Questionnaire **responses/scores analyzed** for:
 - **Risk** Assessment – **Level**
 - **& Confidence** in assessment responses
 - **Risk Management Actions**

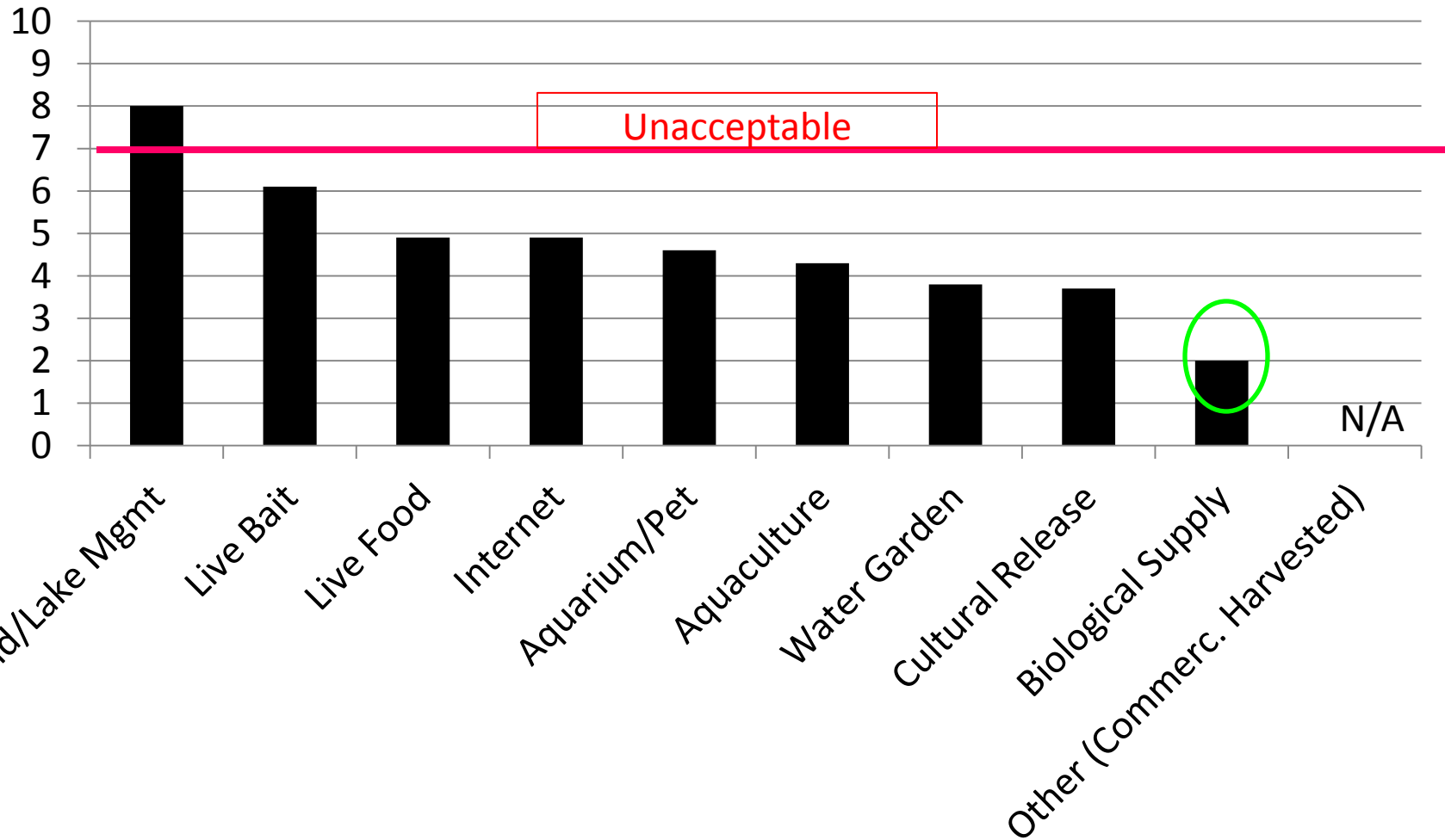
Results

- 7 Agency Responses
 - FWS and 6 Jurisdictions
 - Including ON
- Not possible to provide summary and synthesis of all results today

Mean risk ranking for each pathway.

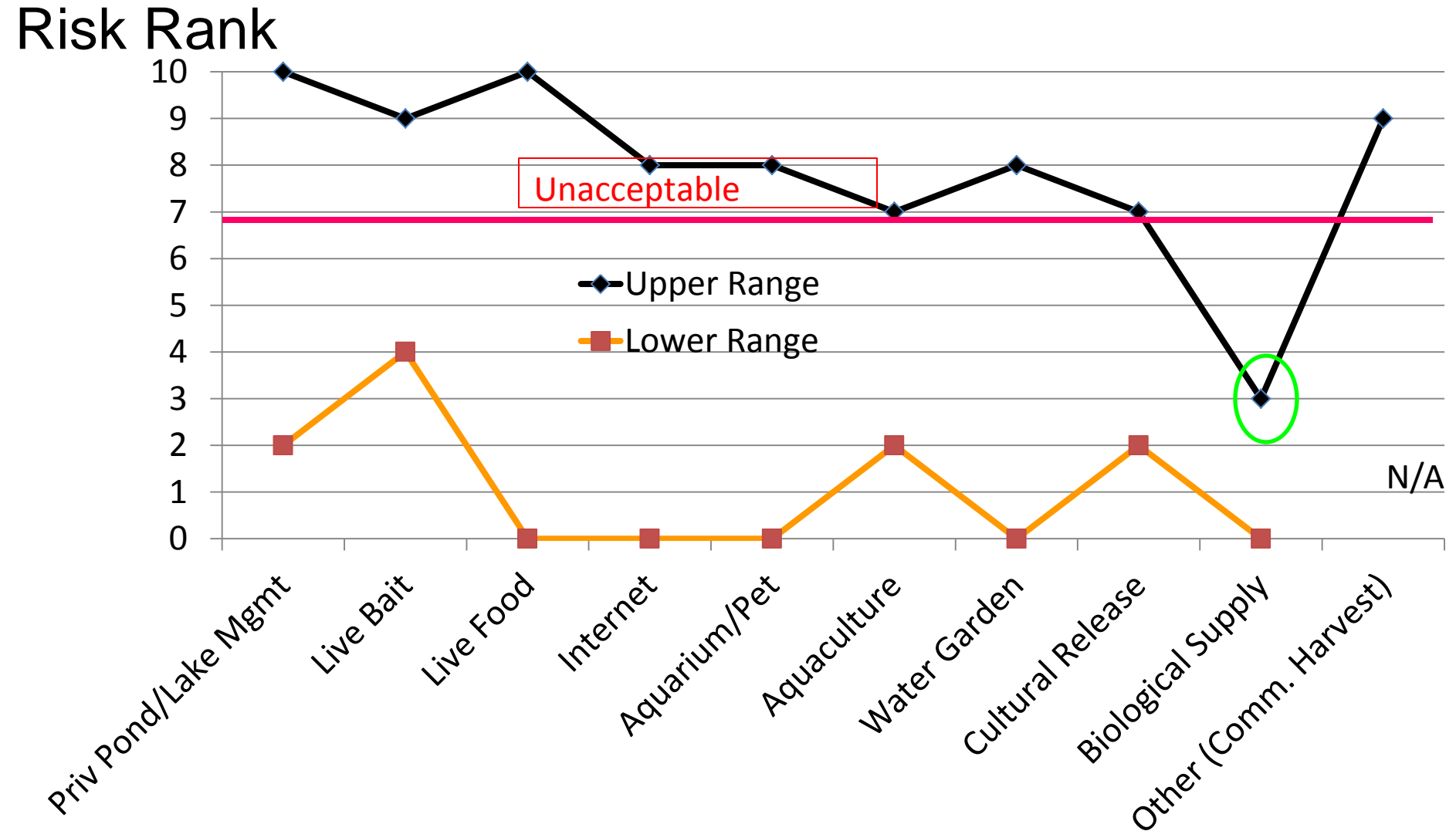
(0 = No Risk, 4-6= Medium, 7-10 = High Risk)

Mean



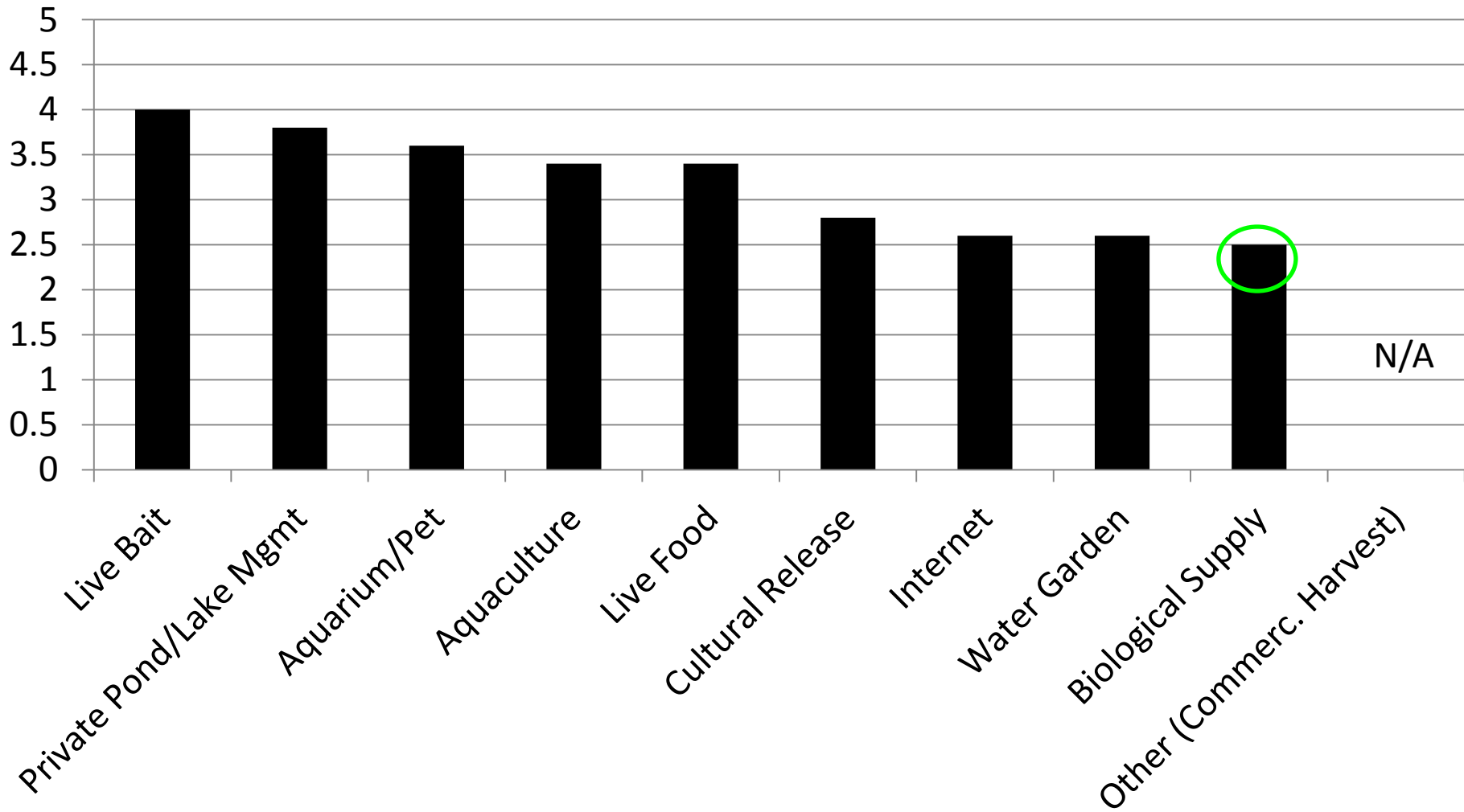
Range of pathway risk ranks.

(0 = No Risk, 4-6= Medium, 7-10 = High Risk)

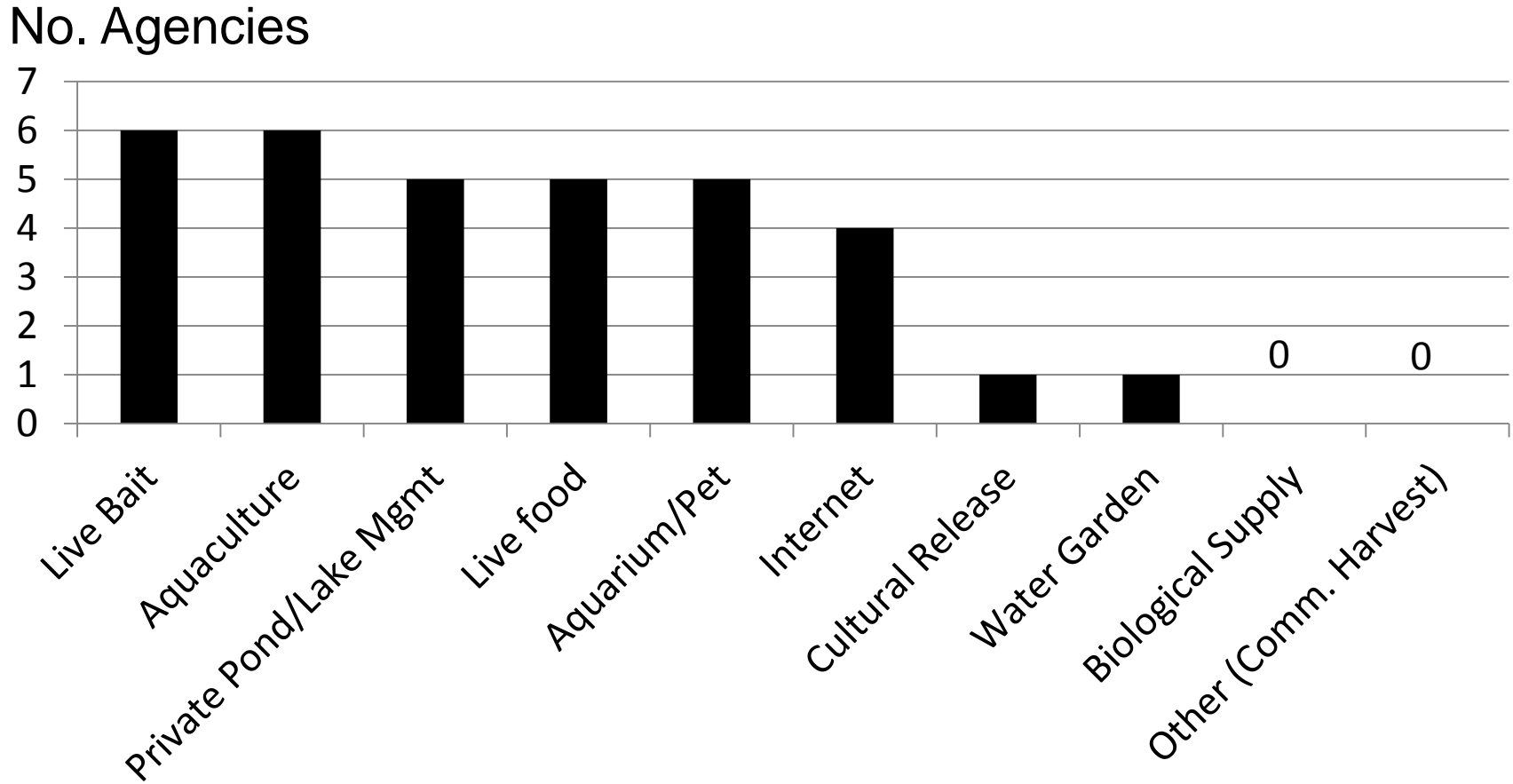


Mean confidence score for each pathway.
(0= not confident, 5 = Confident)

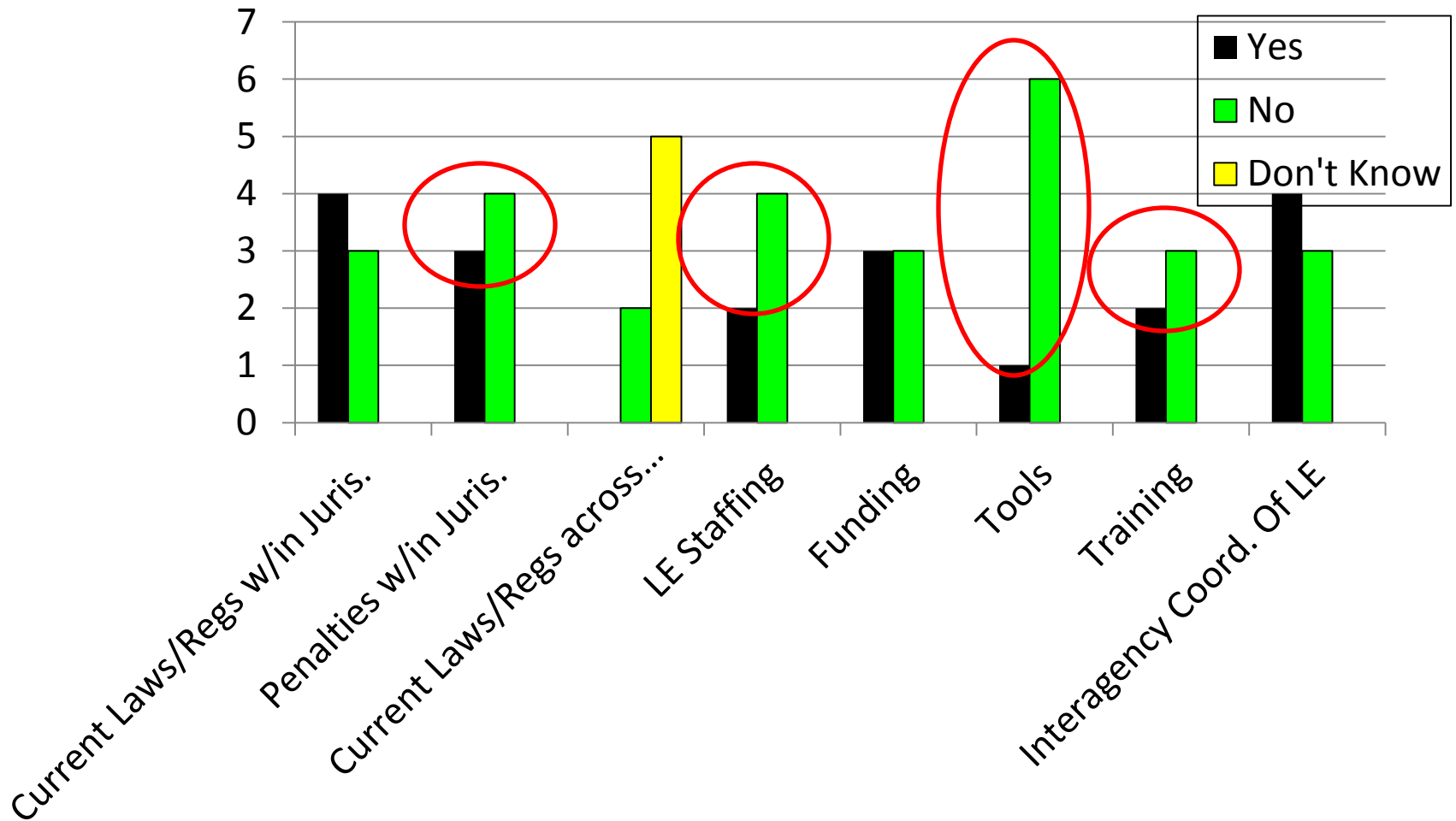
Mean



Number of agencies having investigated illegal trade and/or transport.
Based on responses from **7 agencies**.



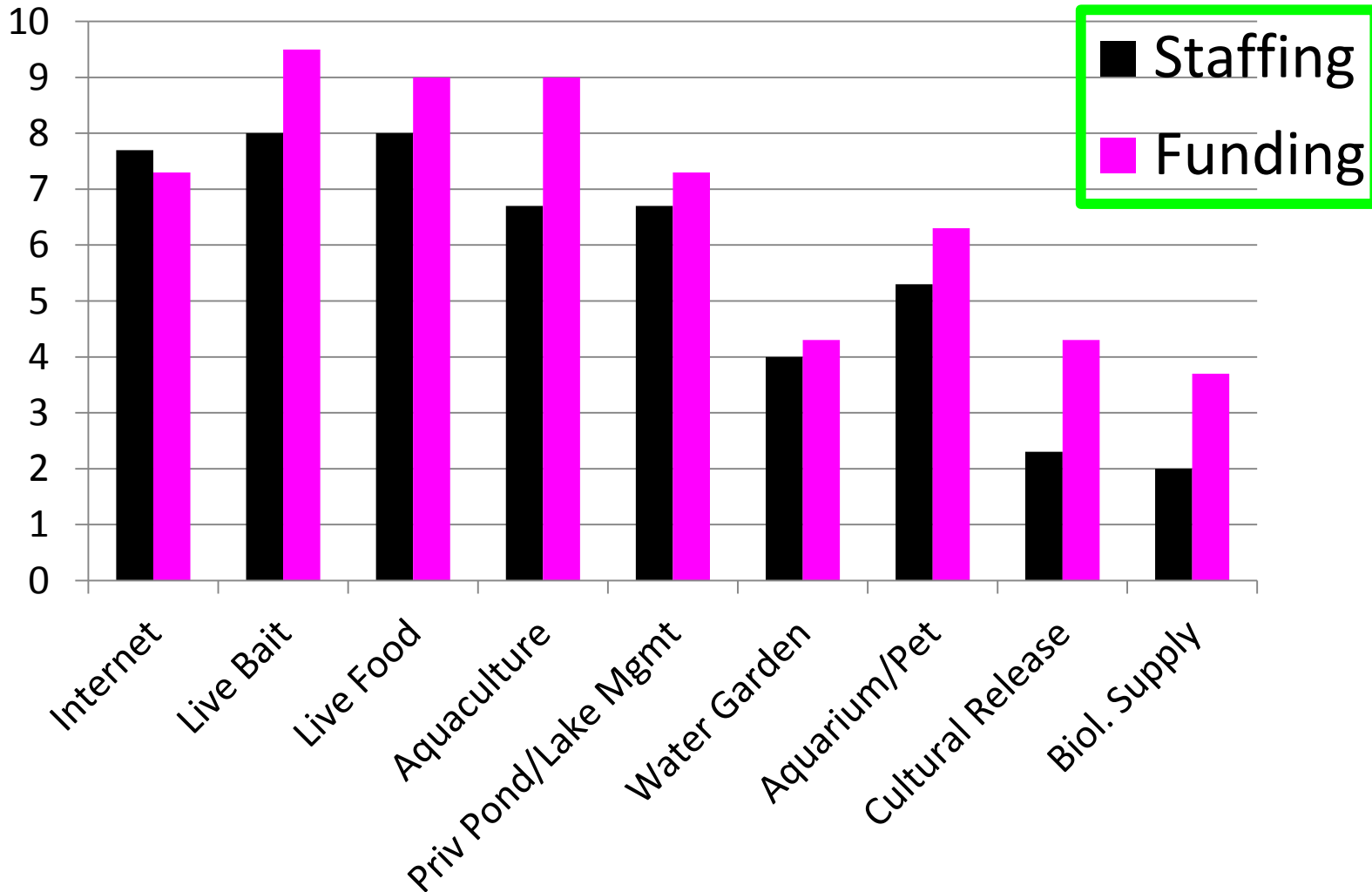
“Is current management adequate to prevent illegal trade and/or transport in your jurisdiction?”



Importance of each management action to reduce risk. Agency Staffing and Funding.

Mean (1=lowest, 10=Highest Importance).

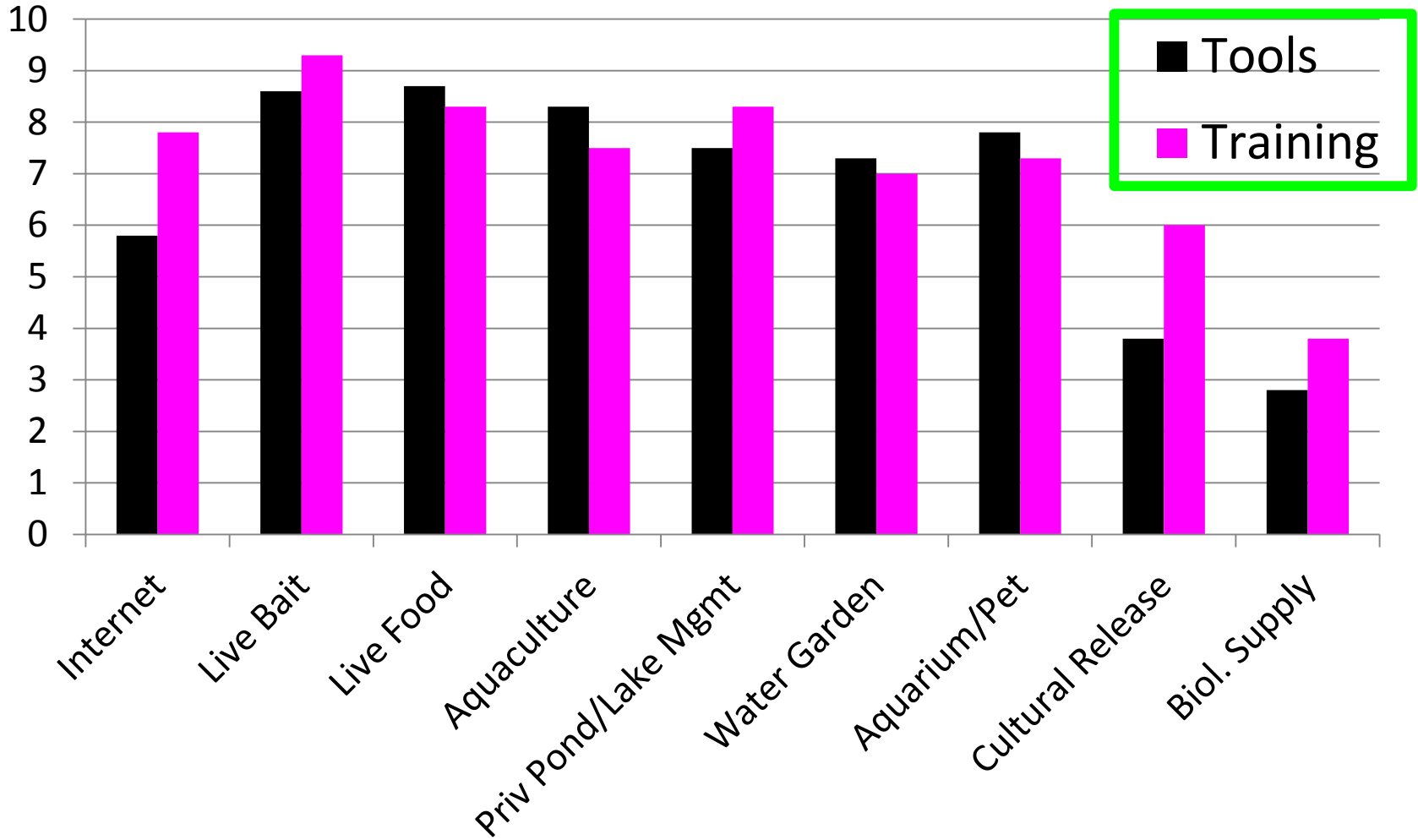
Importance



Importance of each management action to reduce risk. Officer Tools and Training needs.

Mean (1=lowest, 10=Highest Importance)

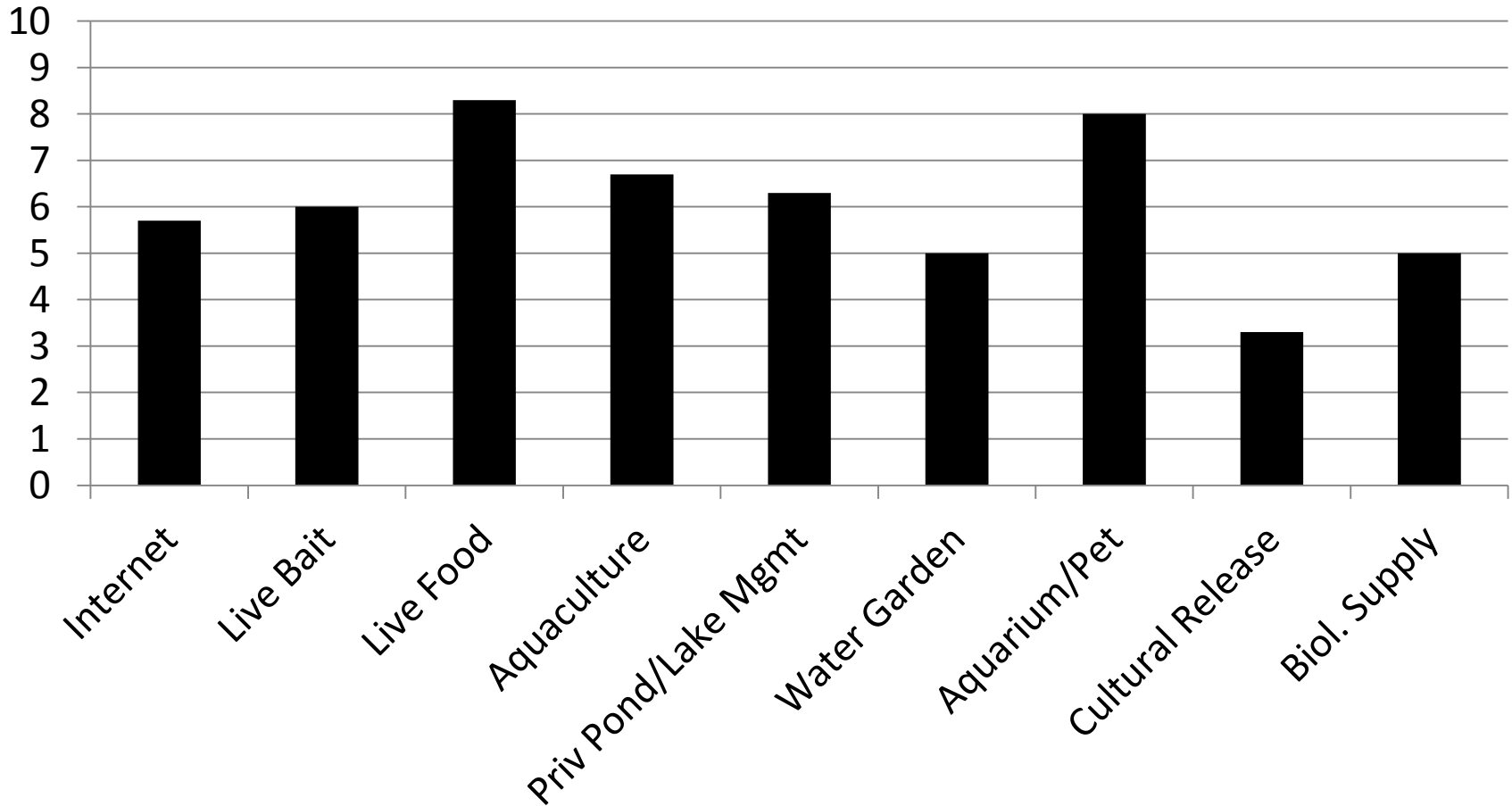
Importance



Importance of each management action to reduce risk.
Interagency Coordination of LE activities.
(1=Lowest, 10=Highest Importance).

Mean

Importance



Conclusions

- Risk Assessment
 - Mean Risk Score
 - **Highest risk pathways** include:
 - **Private Pond & Lake Management, Live Bait**
 - Upper Risk Score
 - **Ranges unacceptably high for all pathways, except Biological Supply**
 - Confidence
 - **Lowest Confidence for Biological Supply**

Conclusions

- Risk Reduction needed in one or more jurisdictions for
 - **All Pathways except Biological Supply**

Conclusions

- Risk Management
 - ≥ 3 Agencies consider **management “not adequate”** relating to:
 - LE
 - Tools
 - Staffing
 - Funding
 - Training
 - Interjurisdictional Coordination

Conclusions

- Risk Management
 - LE **Training** most highly needed to reduce risk of pathways:
 - Live Bait (Importance mean score = 9.3)
 - Private Pond/Lake Management , Live Food (tied = 8.3)
 - Internet (7.8)
 - Aquaculture (7.5)
 - Aquarium/Pet (7.3)
 - Water Garden (7.0)

Conclusions

- Risk Management
 - LE **Tools** most highly needed to reduce risk of pathways:
 - Live Food (Importance mean score = 8.7)
 - Live Bait (8.6)
 - Aquaculture (8.3)
 - Aquarium/Pet (7.8)
 - Private Pond/Lake Management (7.5)
 - Water Garden (7.3)

Conclusions

- Risk Management
 - LE **Funding increases** most highly needed to reduce risk of pathways:
 - Live Bait (Importance mean score 9.5)
 - Live Food, Aquaculture (tied = 9.0)
 - Internet, Private Pond/Lake Management (tied 7.3)

Conclusions

- Risk Management
 - **LE Staffing** most highly needed for pathways:
 - Live Bait, Live Food (Importance score tied = 8.0)
 - Internet (7.7)
 - Private Pond/Lake Management, Aquaculture (6.7)

Conclusions

- Risk Management
 - **Interagency Coordination** most highly needed to reduce risk of pathways:
 - Live Food (Importance score 8.3)
 - Aquarium/Pet (8.0)
 - Aquaculture (6.7)
 - Private Pond/Lake Management (6.3)
 - Live Bait (6.0)

Planned Next Steps

- Develop a follow-up questionnaire
 - Objective:
 - Questionnaire will request, from each agency, details about staff, funding, tools, training, [laws/regs?], coordination recommendations
- Submit it, through GLFC LE Committee, for agency completion (1 questionnaire/agency)
- Analyze, summarize information
- Report to GLFC LE Committee, and GLWQA Annex 6 Subcommittee

Questions and Discussion