

Invasives group

Overarching Questions

1. What are the distribution, abundance and spread of invasive species in the GYA at multiple scales?
 - a. Need for an integrated and standardized baseline and monitoring data of invasive species and the larger system including human dimensions

2. What are the drivers (ecological processes and species traits) of spread of invasive species?
 - a. Need for baseline ecological knowledge
 - b. Need for baseline knowledge of human spread (vectors)

3. What are the biological and ecological impacts of invasive species in the GYA? What is the biological and ecological state of understanding of role of invasive species in the systems where they occur and methods to prevent and control them?
 - a. Need specific research determined by scenario planning
 - b. Need for basic research

4. How do we identify information gaps for scenario planning, control, and risk assessment?
 - a. What are the gaps in current knowledge of risk?
 - b. Where do we need new information

5. How do we engage the public on issues related to invasive species
 - a. Need for better understanding of human dimensions including values, expectations, behavior, and economic costs of invasive species

6. What are likely future scenarios (e.g. climate change land use change) of invasive species in the GYA at scales that are directly relevant to management issues?
 - a. Need for a GYA infrastructure to support regional and specific management scenario development needs

7. How do we share and communicate data information and scientific results to regional community of stakeholders?
 - a. Need better education and outreach tools including assessment
 - b. Need for basic research

8. How do we control and prevent invasive species?
 - a. Proactive
 - b. Reactive
 - c. Integrated Management
 - d. Influencing human behavior

Institutionalization (Including academic institutions)

1. Funding and training for a standardized field protocol
2. Assessment and inventory of human and computer resources and
3. What are alternative outside resources to contribute to repetitive but needed work (students, citizens)

Key Invasive Species topics (Priorities)

1. Information synthesis
2. Moving beyond presence and absence
 - a. Moving toward scenarios and forecasting
 - b. Need cover and abund data; modeling capabilities
 - c. Need long-term monitoring data
3. What are long-term effects of treatments
4. Management scale = fine scale
 - a. Issues w/ on line modeling

Invasives Research Priorities

1. Scenario Planning and RA

- a. Need for adequate staff and funding for agencies/managers to take on
- b. Skill set is limited to those trained and experienced; managers need to be involved in data collection, but specialized staff conducting SP
- c. Managers need scenarios describing future challenges (i.e. science and research describing potential problems)
- d. Scenario Planning - Integrating information for prioritizing efforts

2. Integrated data monitoring

3. Economic analysis

- a. Efficacy
- b. Optimal Management

4. R&D Treatments

- a. What are factors that influence invasion
- b. Ecological factors that facilitate invasion – how to identify and treat those

5. Education and Outreach