Monitoring and Assessing Wetlands Condition: National Program Perspectives

EMAP Symposium 2007

Wetlands Survey Methods and Influencing Policy

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Monitoring and Assessment Goals: EPA's Wetlands Program

- Work with States and Tribes to build capacity to implement comprehensive wetlands monitoring and assessment programs

- Establish a baseline of ambient wetland condition across the nation

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Wetlands Program Toolbox

- CWA 104(b)(3) Wetlands Program Development Grants (WPDG)
- National Wetlands Monitoring and Assessment Work Group (NWMAWG)
- Regional Monitoring Councils
- Technical and Policy Guidance

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Desired Outcomes from NWCA

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National Assessment Objectives

1. Produce a national report that describes the quality of the nation's wetlands

2. Help States and Tribes implement wetland monitoring and assessment programs that will guide policy development and aid project decision-making

3. Advance the science of wetlands monitoring and assessment

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Baseline Assessment of Wetland Condition

- First-ever assessment of wetland condition
  - Eventually, track trends in wetland condition
  - Greater national focus on wetland quality
- Support national goals
  - SP 4.3.1 – net gain in wetland quantity AND quality
- President's Initiative – Earth Day 2004
  - move beyond "no net loss" of wetlands to attain an overall "net gain" in the quantity AND quality of wetlands

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FWS Status and Trends

- 1956: First report on wetland status and classification
- Remotely sensed imagery for about 4,500 sample plots throughout conterminous US
- Important long-term information about wetland change
- Measure progress toward national policy goal of “net gain” in wetland acreage

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Status and Trends 2005 Plot Locations

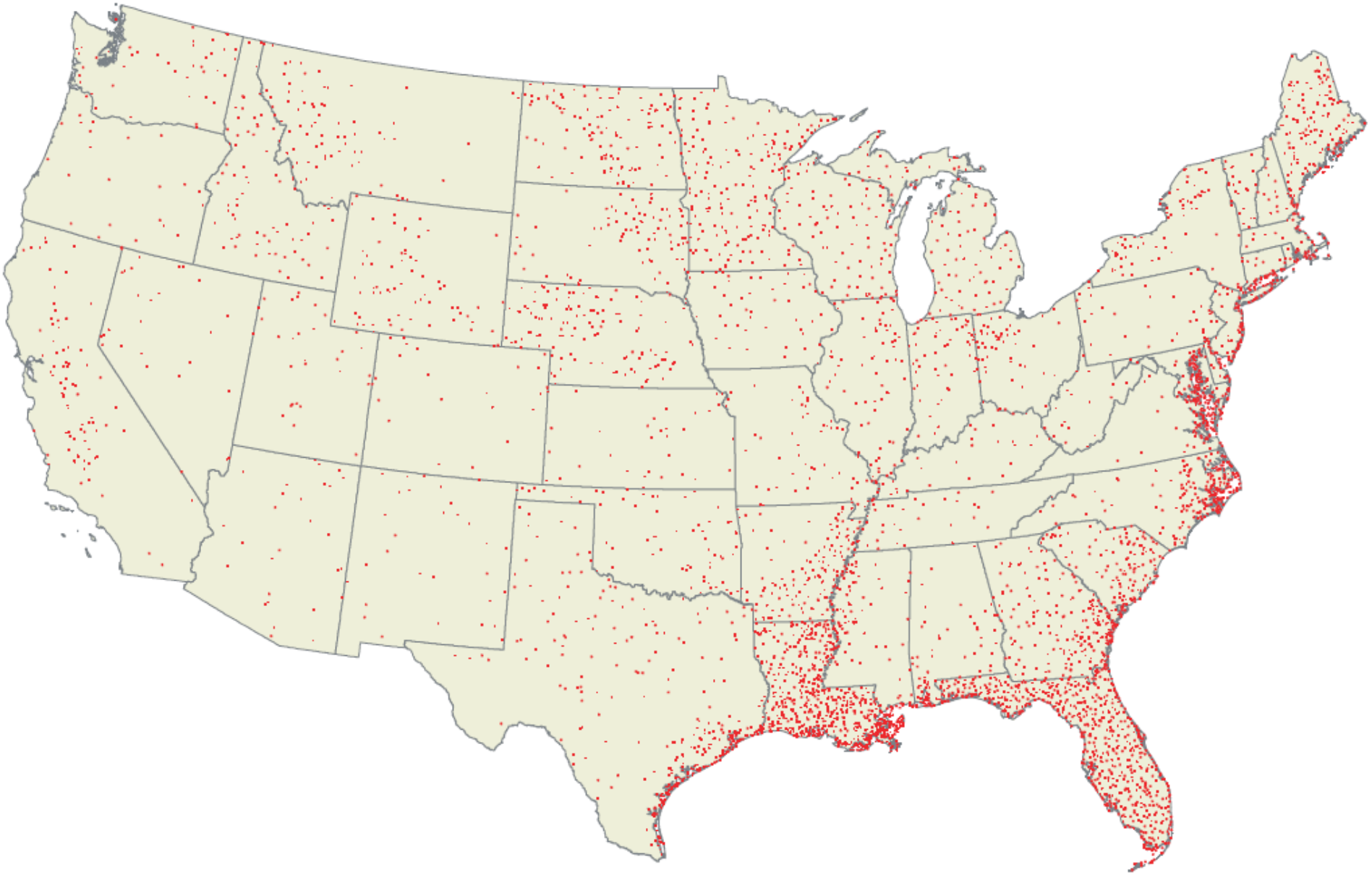
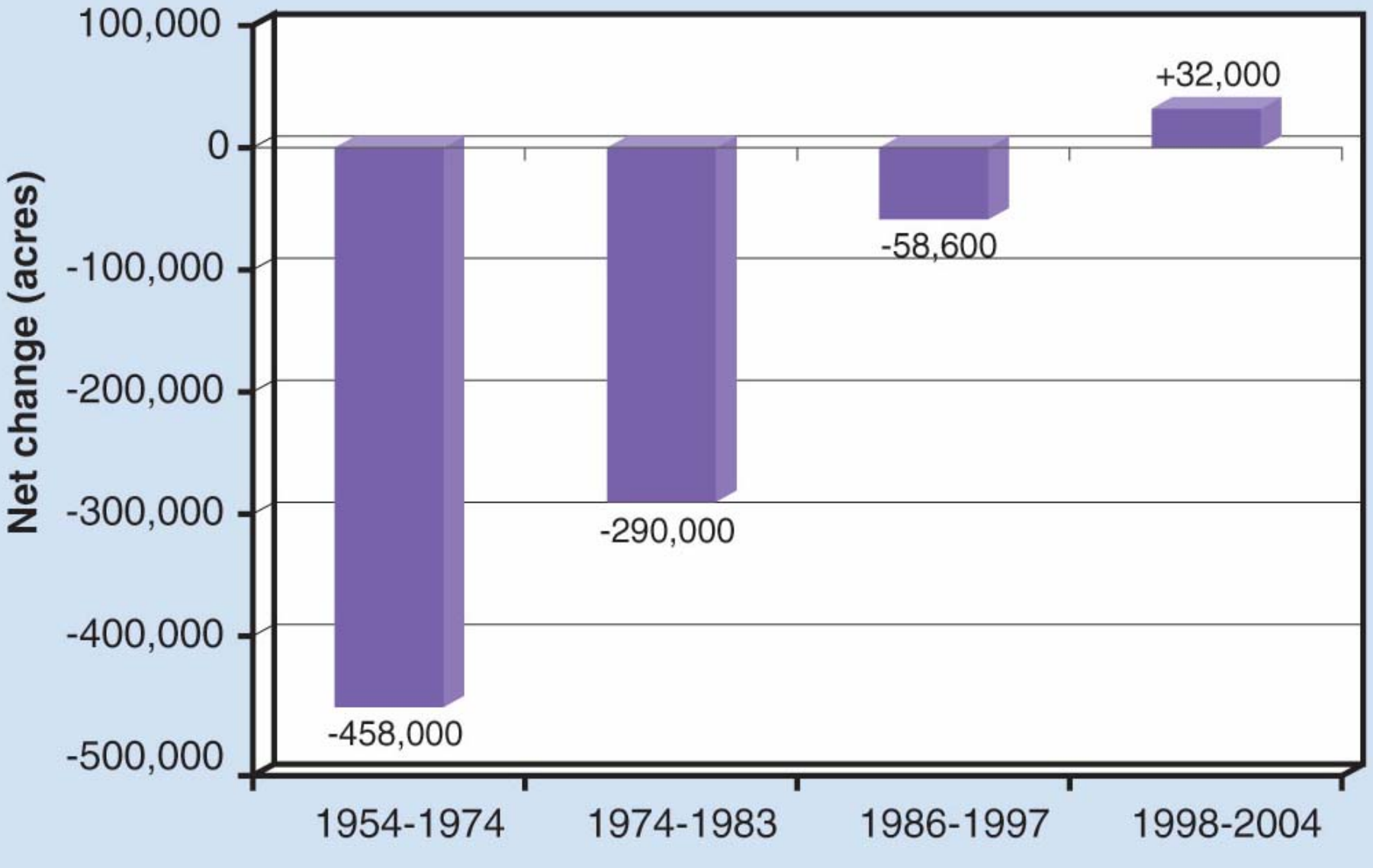


Figure 020-1. Average annual change in wetland acreage, 1954-2004



Change in Wetland Area for Selected Wetland Categories, 1998-2004

FW Ponds	+ 12.6%
FW Emergent	- 0.5%
FW Shrub	- 4.9%
FW Forested	+ 1.1%
Estuarine intertidal vegetated	- 0.7%
Estuarine intertidal non-vegetated	+ 1.0%

Source: *Dahl, T.E. 2006. Status and trends of wetlands in the conterminous United States 1998 to 2004. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C. 112 pp.*

Photo by Jennie Sauer

What does this Mean?

- Wetland acreage trends may not be the best indicator of overall wetland health
  - Need for corresponding quality information
- Vegetated wetlands many be transitioning to open water.
- Restoration and compensatory mitigation projects not successful (yet)
- Wetland acreage ⬆; wetland functions and values ⬇

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Collaboration with FWS

- EPA will collaborate with FWS in designing NWCA
  - ensure the national condition assessment most effectively complements the Service's Wetlands Status and Trends Study.
- NWI Status and Trends documents trends in wetlands acreage
  - Valuable long-term information, foundations well documented
- NWCA will evaluate the ambient condition of the nation's wetlands resources.
- Together these reports will offer the most comprehensive ecological evaluation
- Provide valuable information to support policy and resource management decisions.

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State and Tribal Capacity

- "Turn key" protocol for states and tribes
  - Indicators, assessment methods, expertise, equipment
  - Institutional knowledge to implement comprehensive wetlands monitoring
- Greater Integration with "traditional" WQ monitoring programs
  - Leverage resources/expertise
  - Identify sustainable funding sources

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State and Tribal Capacity

- Demonstrate the utility of ambient monitoring data to support decision making
  - Prioritize wetlands restoration in a watershed context
  - SAMPs, ADIDs
- Utilization of ambient monitoring tools to support administration of CWA 404 program
  - Compensatory mitigation bank performance standards
  - ID jurisdictional waters

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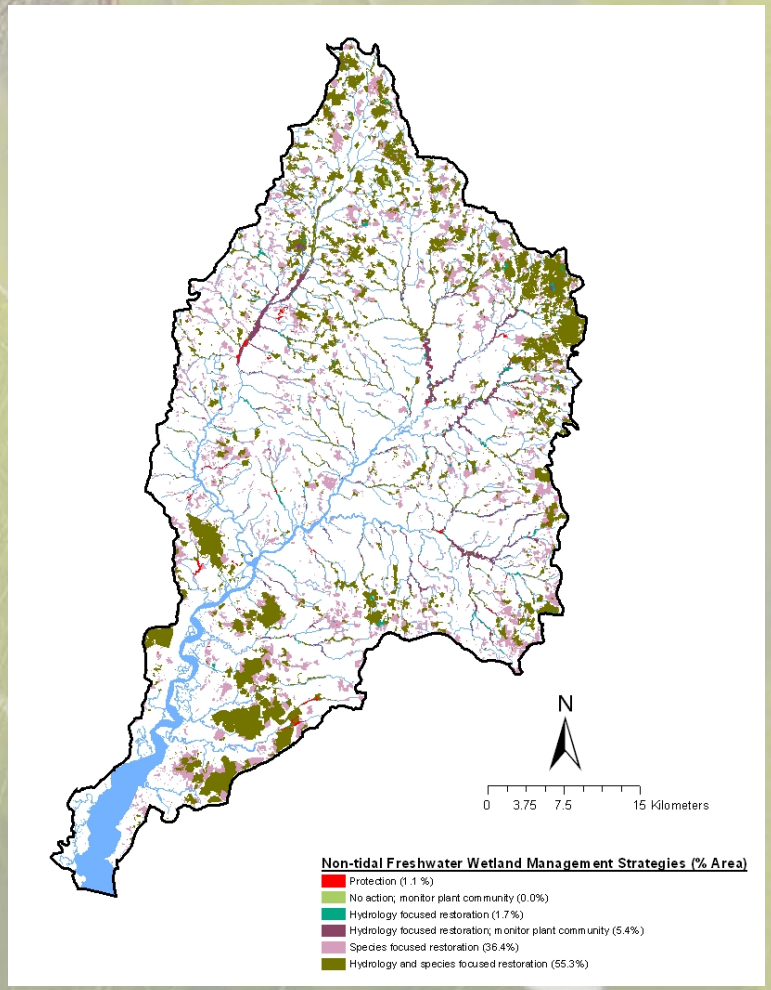
States and Tribal Capacity

- Intensification Studies
  - Intensify sampling in “focus states/watersheds” throughout country
  - Smaller-scale assessment that inform state-level management and policy needs
  - Capture “rare” wetlands of interest not included in the national draw (e.g. vernal pools)



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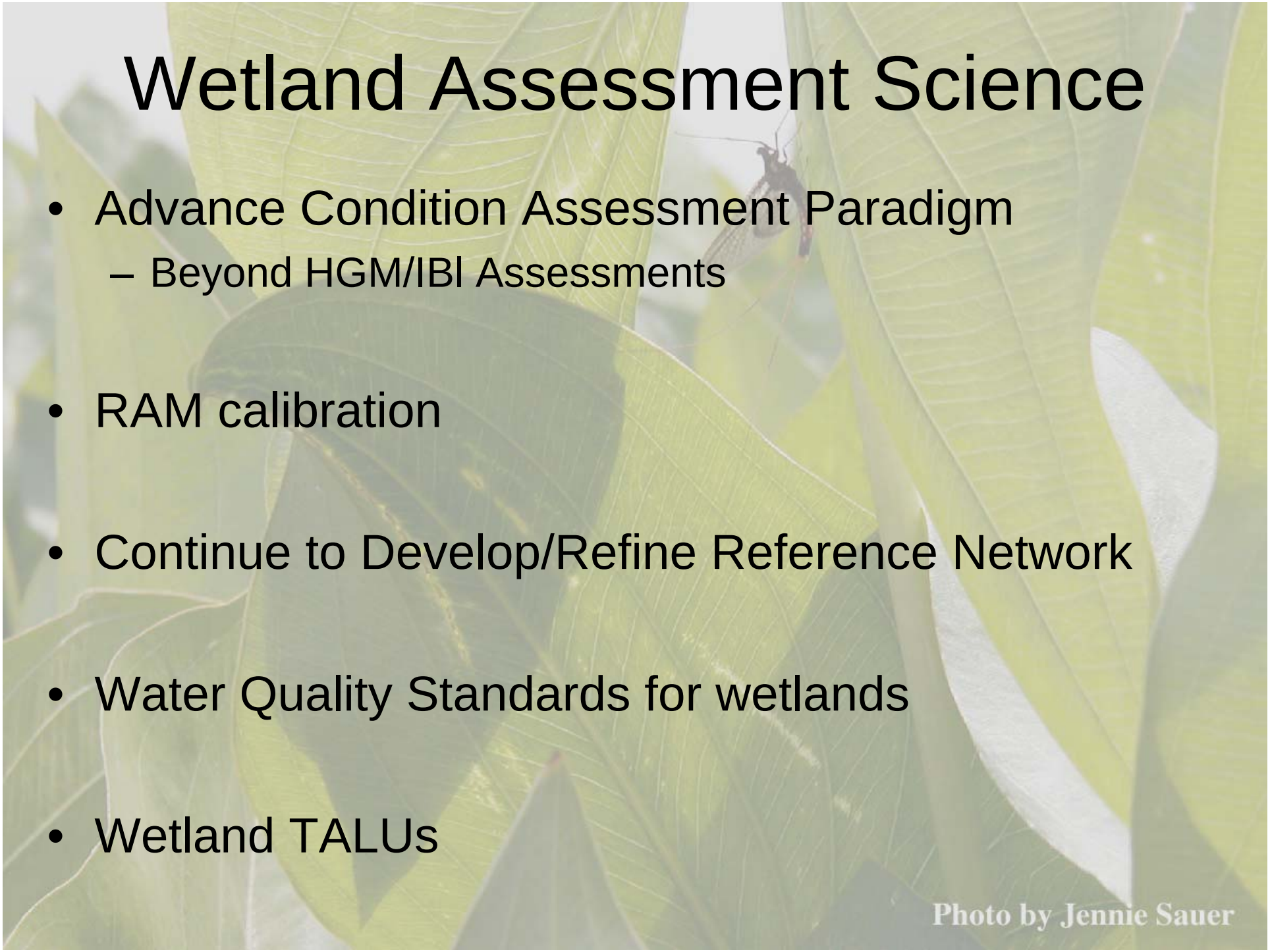
Wetland Assessment Science

- Advance Condition Assessment Paradigm
  - Beyond HGM/IBI Assessments
- RAM calibration
- Continue to Develop/Refine Reference Network
- Water Quality Standards for wetlands
- Wetland TALUs



Take Home Message

- NWCA is an opportunity to advance wetland monitoring *Elements*
- Unique challenges for wetlands
- Benefit of going last

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