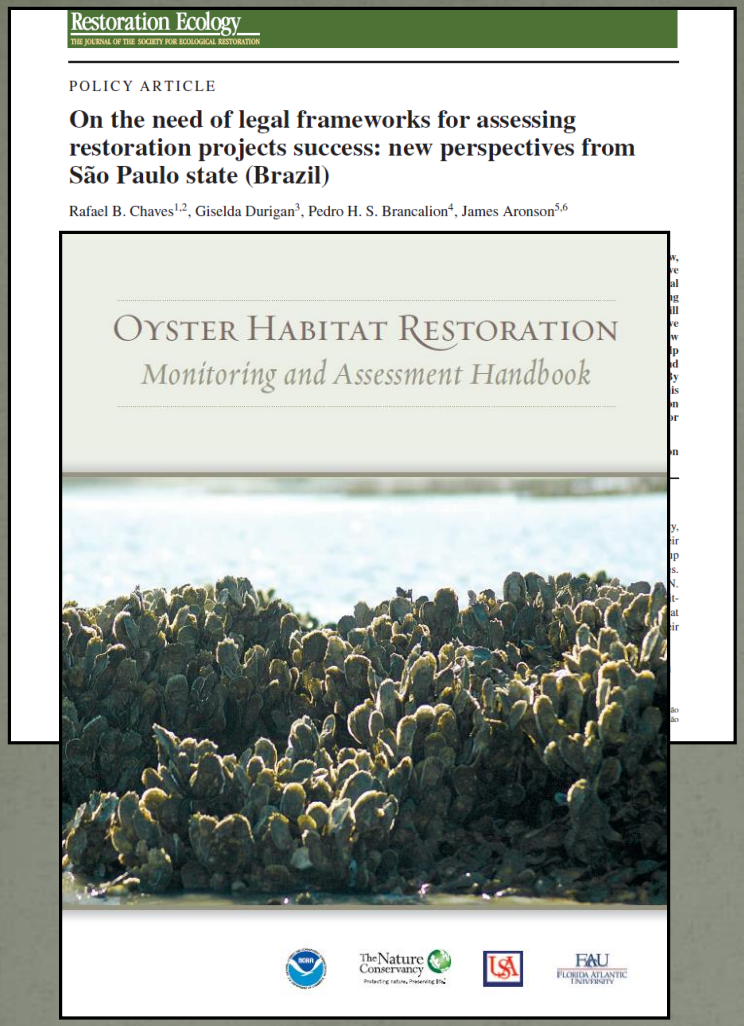
Developing Best Practices for Monitoring NRDAR Ecological Restoration Projects

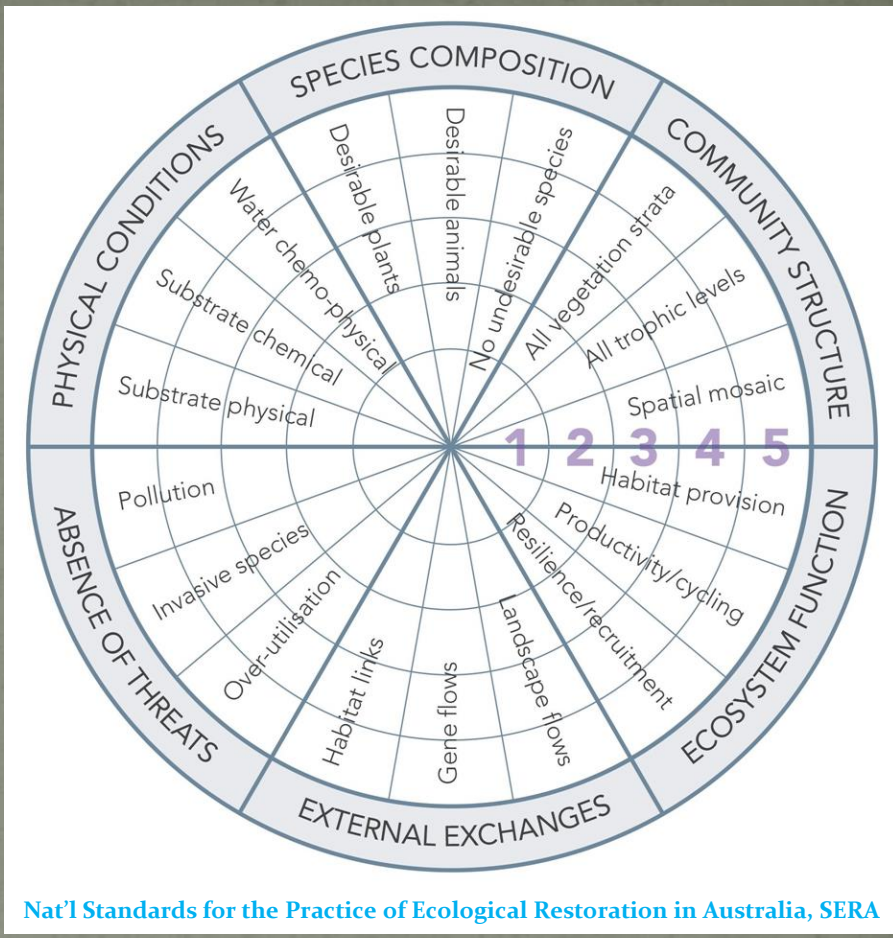
U.S. Department of the Interior

NRDAR Workshop

May 11, 2016

"Ecological indicators need to capture the complexities of the ecosystem yet remain simple enough to be easily and routinely monitored." Dale and Beyeler (2001)

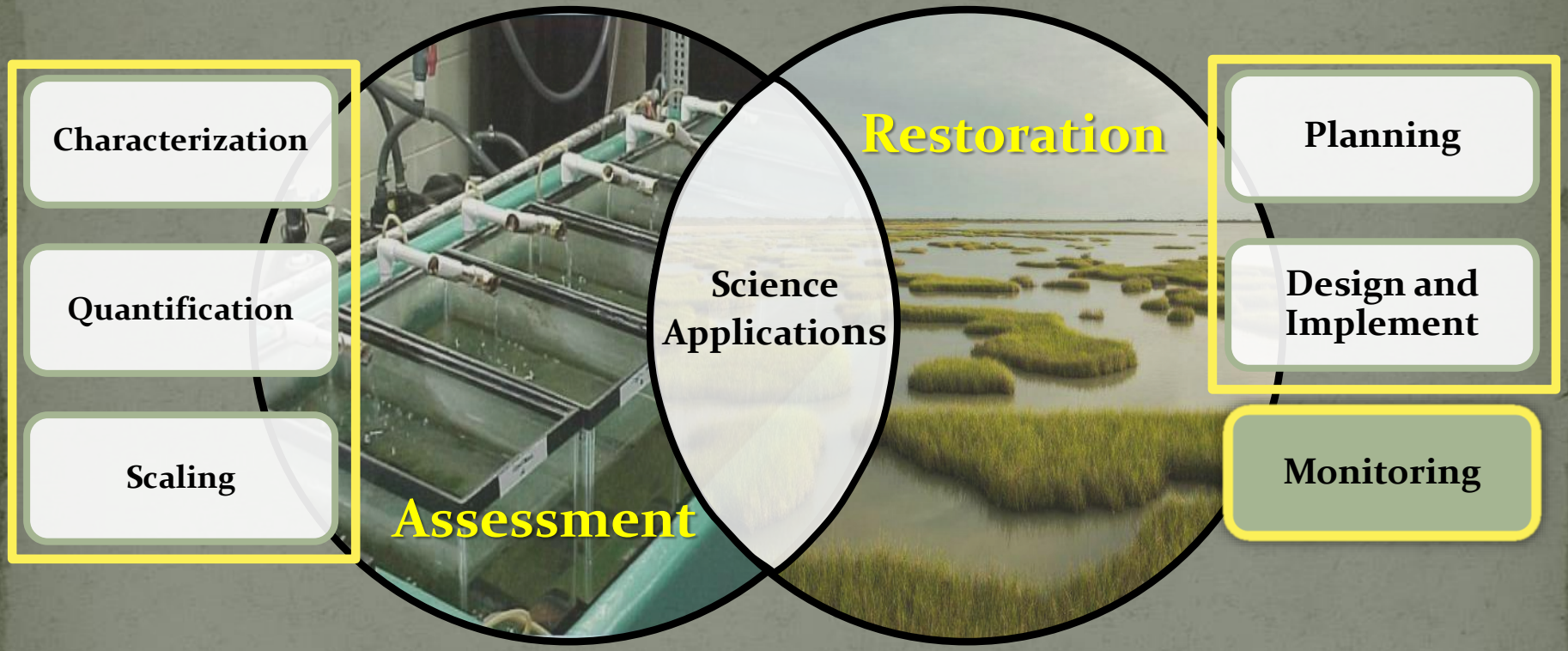




Nat'l Standards for the Practice of Ecological Restoration in Australia, SERA

- Development of legal frameworks and national standards
- Recent development of monitoring resources
  - Monitoringresources.org and tidalmarshmonitoring.org

Improving Restoration Outcomes Through the Use of Monitoring Data



Monitoring data can be used to inform future damage assessment cases and restoration planning and design

Studies in Progress

- **Existing restoration projects being used as pilot sites for developing monitoring best practices**

Studies in Progress

- Common goal of providing practitioners with reliable and cost-effective monitoring methods across various ecosystems to help meet restoration goals

- Projects were developed independently but have complementary components
  - Methods, endpoints and performance criteria that may be applicable across similar project types
  - Consistency in metrics and measures at varying levels of effort

- Linkages and opportunities for building on each other's project

Presentations

- **Restoration Monitoring Frameworks for Upland Hardwood and Grasslands: Integrating Innovative Spatial Technology** – ***Heather Theel, U.S. Army Engineering Research and Development Center , Vicksburg, MS***

- **Ecological Condition Assessments of Natural Resource Damage Assessment Freshwater Wetland Restoration Projects** – ***Pat Comer, NatureServe, Boulder, CO***

- **Restoration Monitoring of Indiana Riparian Hardwood Ecosystems** – ***Mike Hooper, USGS, Columbia, MO***