Restoration and Ex-Situ Conservation

Guy Boggs
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Photo thanks to Dr Ashley Sparrow
WABSI Restoration Node Priorities

• Develop and facilitate the adoption of cost effective and scalable strategies and tools for the restoration and reconstruction of Western Australian ecosystems and the reintroduction of threatened plants and animals.

• Defining Criteria for Restoration Success
• Restoration Technologies
• Criteria for Species Reintroduction
• Reintroduction Technologies

• Priorities shaped by End Users (sector based) and Researchers
Mining

• **Erosion Rates Risk Assessment:**
  - Pilbara Rehabilitation Group Initiative
  - Four Pilbara Mining Companies
  - Working with Landloch

• **BIF Research Integration**
  - Publishing Grey Literature Reports – 2 special issues
  - 2 Review Papers:
    - BIF Species Distribution, Genetics & Ecology
    - Restoring Ecosystems in Rocky Landscapes

• **State Completion Criteria Framework**
  - Joint initiative with 8 Mining Partners, Regulators (DMP & OEPA) and WABSI Research Partners

Photo thanks to Dr Lesley Gibson
Completion Criteria Project

• An independent report analysing state and international rehabilitation research and informed by industry consultation and leading experts to provide a framework and information for developing site-specific completion criteria and associated monitoring for Western Australian mine site closure and relinquishment.

• Key Feedback from Consultation Process
  • End Land Use – significant disconnect in process between end land use considerations and regulator approved/industry developed completion criteria
  • Large variation in standard of completion criteria and associated monitoring, and relatively poor understanding across WA geographies
  • Imbalance between research driven ‘ecological completion criteria’ & implementation risk profile (including relationship with other major drivers of closure criteria)
  • Outcome must include a framework
Urban

• Rehabilitating Roe 8
  • Supporting Rehabilitating Roe 8 Working Group
  • 10 year Rehabilitation Plan in Development
  • Engaging Community in Ecosystem Restoration Processes and Outcomes

• Perth Urban Restoration Scientific Advisory Committee
  • Evolving Network of Scientists Engaged in Restoration Research
  • Social, Economic and Biophysical Research
  • Integrating across biodiversity to green infrastructure research for cumulative biodiversity outcomes

• Banksia Woodland Restoration
  • Focus on long term trajectories
  • Linking existing restoration knowledge hubs/sites
Agricultural Landscapes

- **South West Agricultural Land Research Strategy**
  - Muresk End User Workshop (Aug 20/21<sup>st</sup>)
  - Achieving ‘at-scale’ restoration:
    - Landscape Planning
    - Enhancing Economic Drivers
    - Implementation
    - Outcomes assessment

- **Dongolocking Project**
  - ECU/SWCC/DPaW/GAWA project
  - Evaluating outcomes from focal species restoration > 15 years old
  - Birds as focal species, with non-target birds, mammals & invertebrate assessment

- **ARC LIEF Critical Zone Observatory**
  - Integrating above and below ground processes in cleared, restored and uncleared landscape

- **National Experimental Restoration Guidelines & Network**
  - CSIRO Initiative with DoEE
  - Identifying opportunities to link research with restoration implementation
Thank you