



National Environmental  
Research Program

TROPICAL ECOSYSTEMS *hub*

# **Project 7.2 – Invasive species risks and responses in the Wet Tropics:**

## **Prioritising weed management in connected landscapes**

**Helen Murphy, CSIRO Ecosystem Sciences**



**Forum Title: Managing for Change**



## RELEVANCE OF WORK

- Land managers in the region have identified the need for:
  - Regional and landscape-scale tools for prioritising invasive species management activities
  - A forecasting and pro-active management context to existing pest management strategies
- Overall objective:  
Assess current and future invasive species risks and responses in the Wet Tropics
  1. Networks of weed spread and landscape-scale prioritisation
  2. Climate change and emerging weed risks
  3. Modelling the invasion-management spatial dynamic



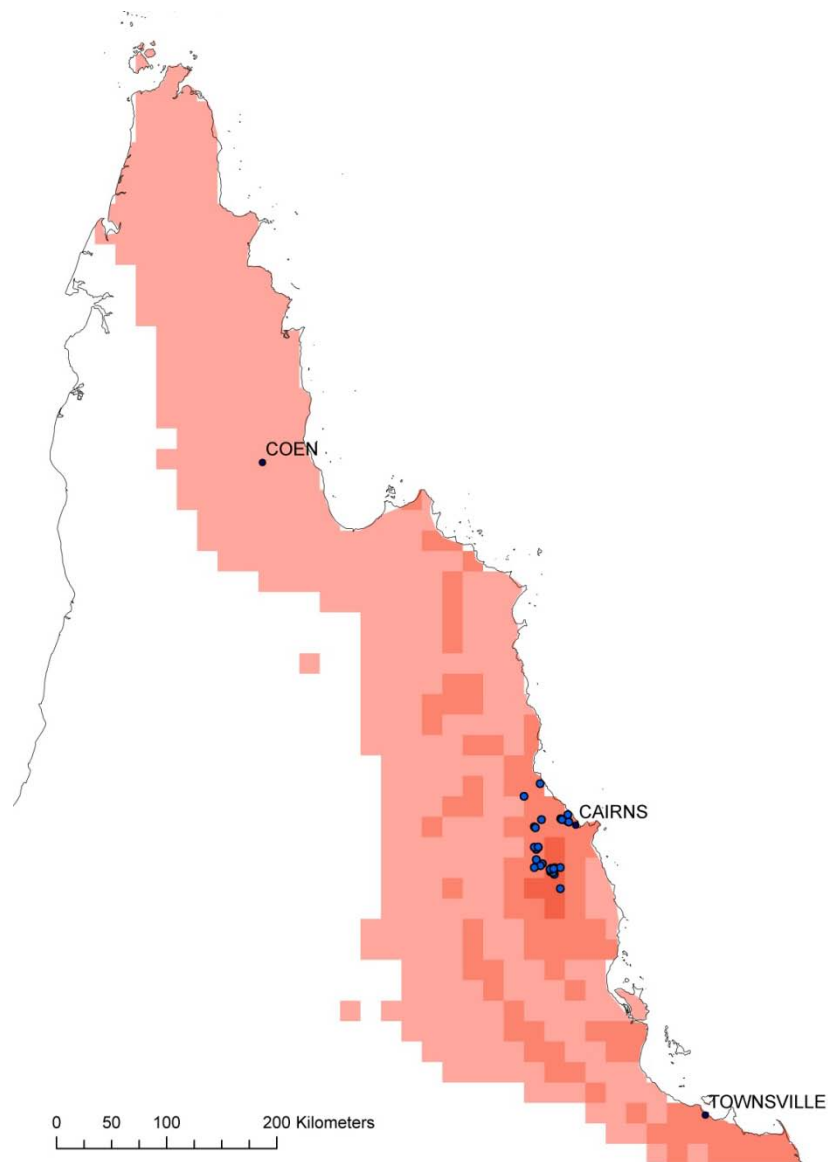
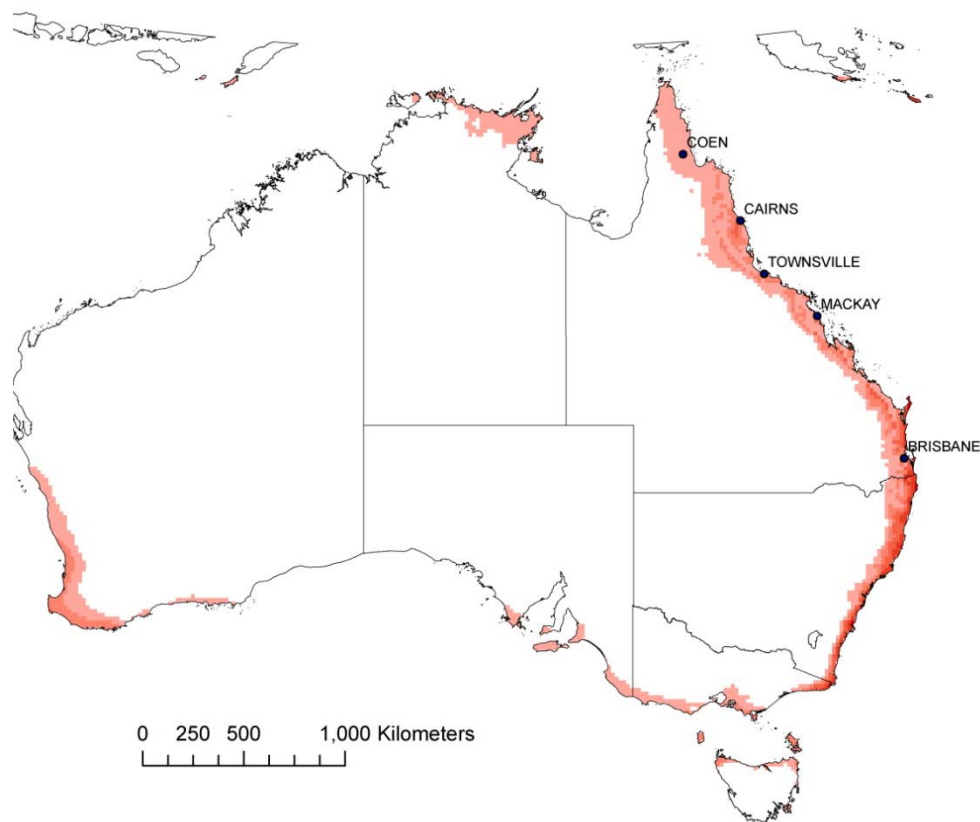
## METHODS

- Example – case study with Turbina (*Turbina corymbosa*)
  - Scrambling woody vine, grows along rainforest margins and in riparian vegetation
  - Still relatively limited in extent in Australia, restricted to the Wet Tropics – emerging weed
  - Not declared; considered of ‘high’ ecological concern (QPWS)



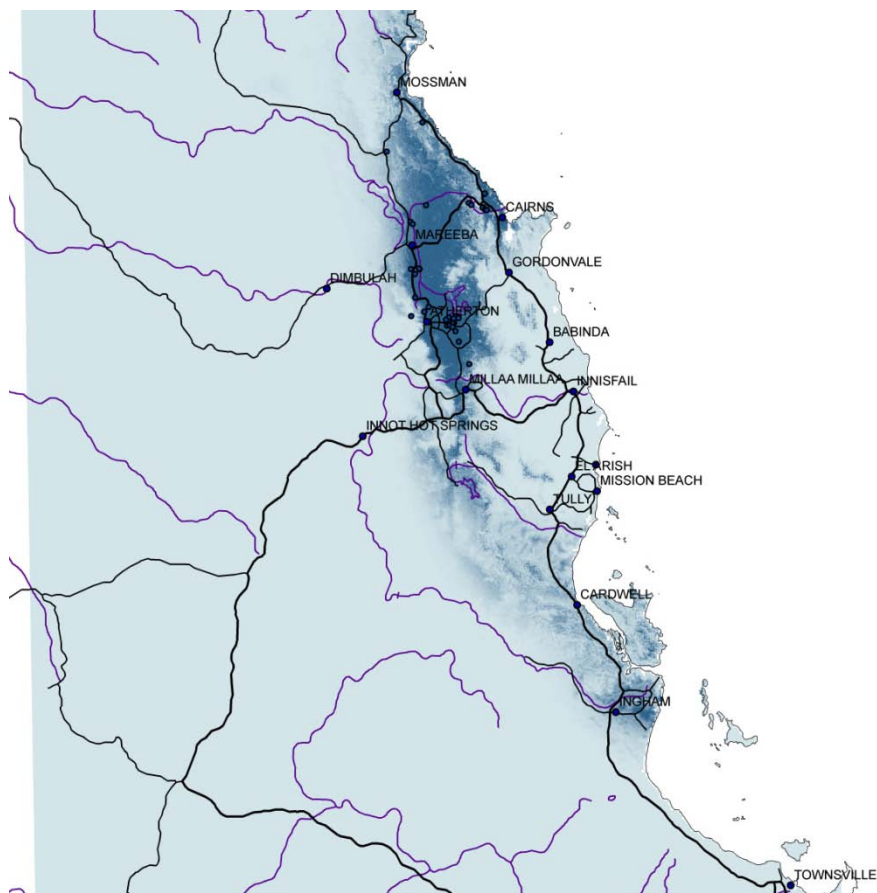


# RESULTS





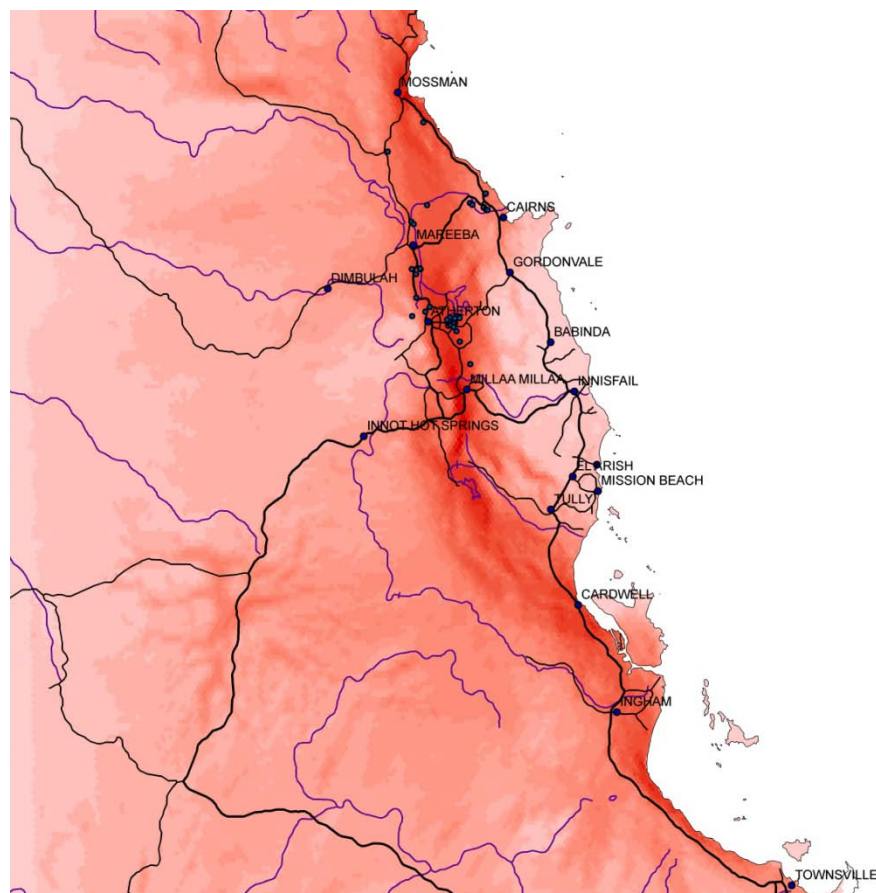
## RESULTS



Habitat suitability



Landscape connectivity

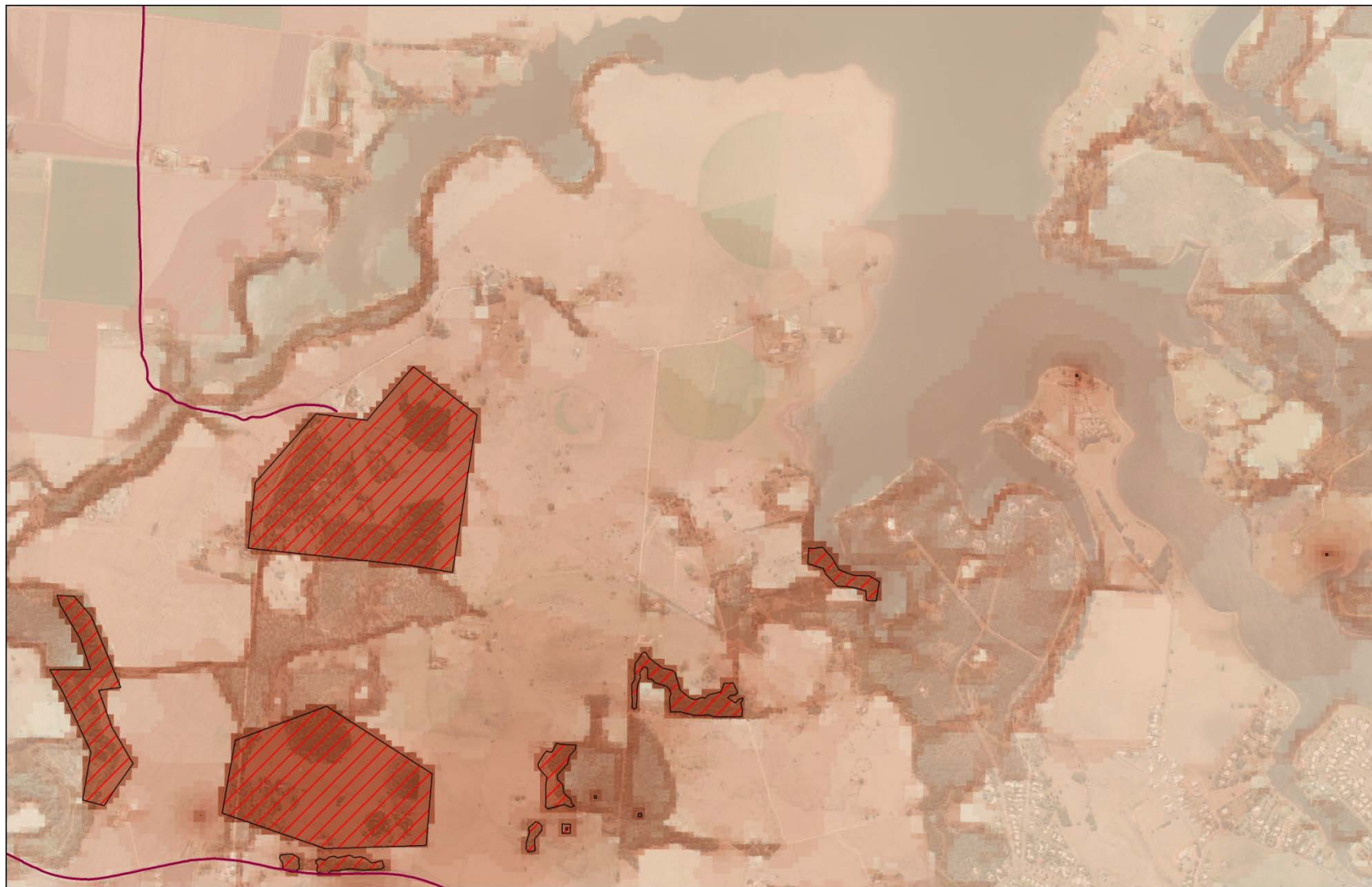






National Environmental  
Research Program

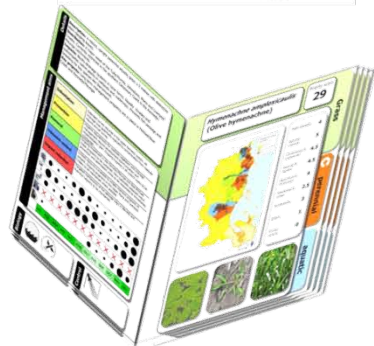
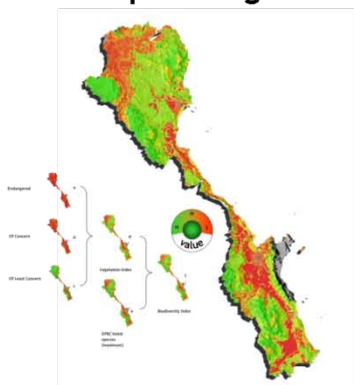
TROPICAL ECOSYSTEMS *hub*



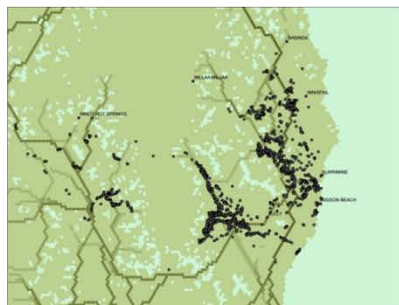
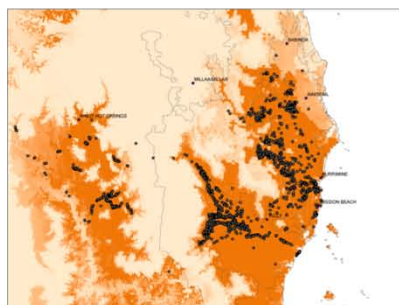


# APPLICATION OF WORK

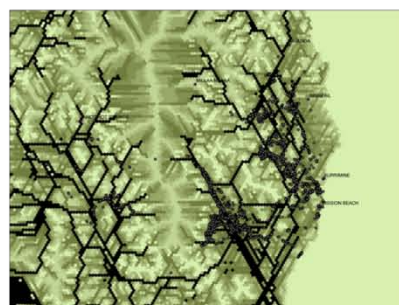
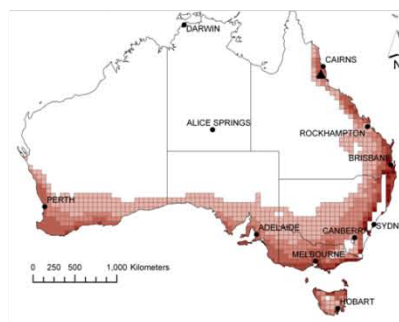
## Current situation analysis and planning



## Immediate threats and trends

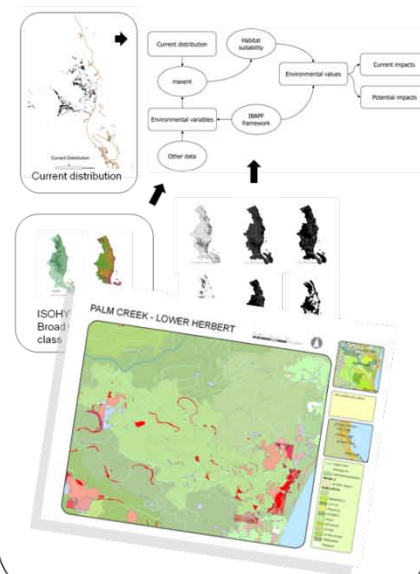


## Projected threats and trends



## End user communication and adoption

### Pest Adaptation Response Strategy





National Environmental  
Research Program

TROPICAL ECOSYSTEMS *hub*

# THANK YOU

Helen Murphy, CSIRO Ecosystem Sciences, [Helen.Murphy@csiro.au](mailto:Helen.Murphy@csiro.au)

