

T3.10.2 Basin Wide Conservation Prioritisation

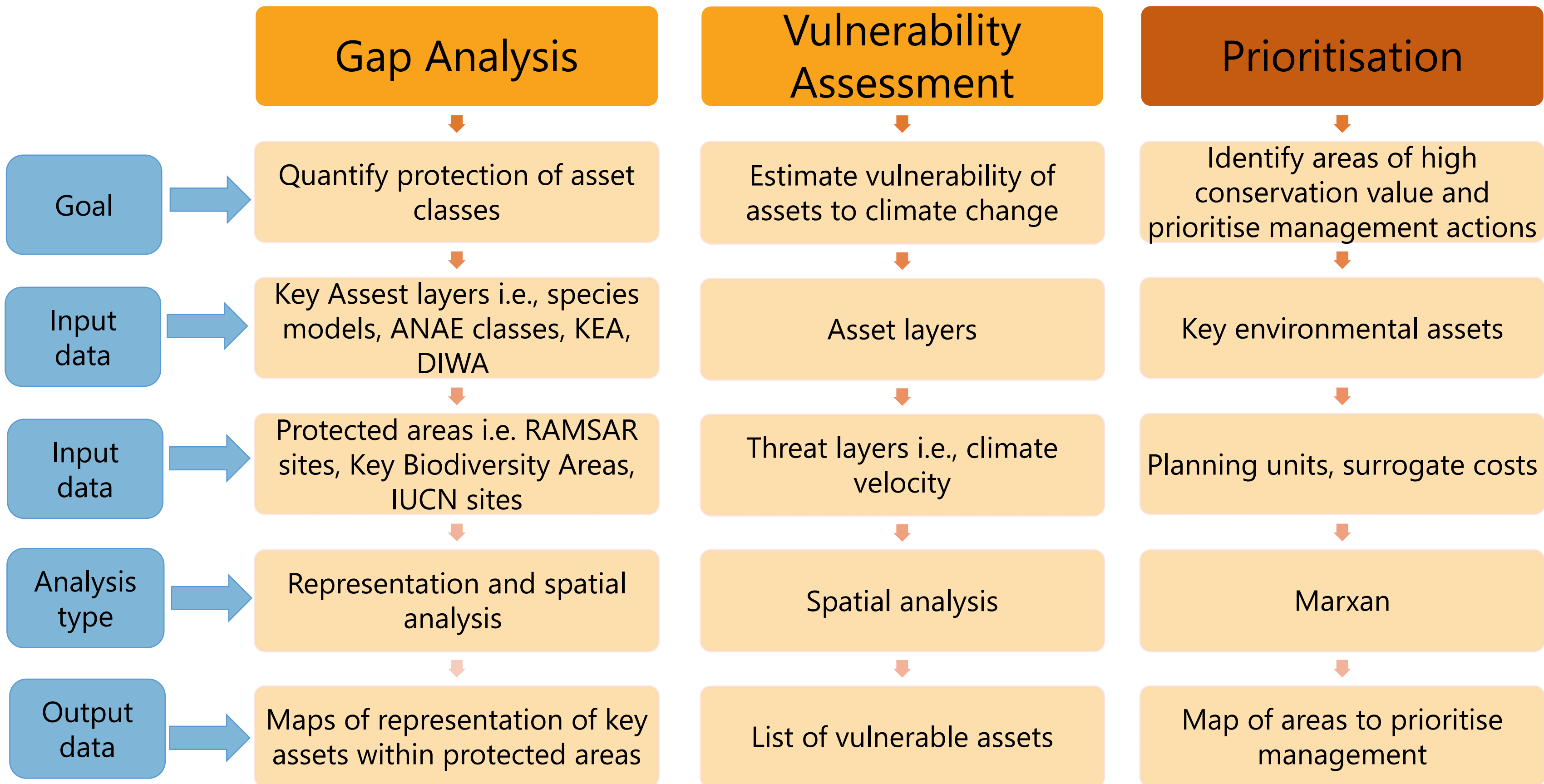
Dr Jenna Wraith*, Dr Ali Chauvenet, Prof Mark Kennard

Aims

This project aims to provide the Australian Government with information that will help identify places of high conservation value and prioritise management actions to conserve the critical assets, values, and functions in these areas.

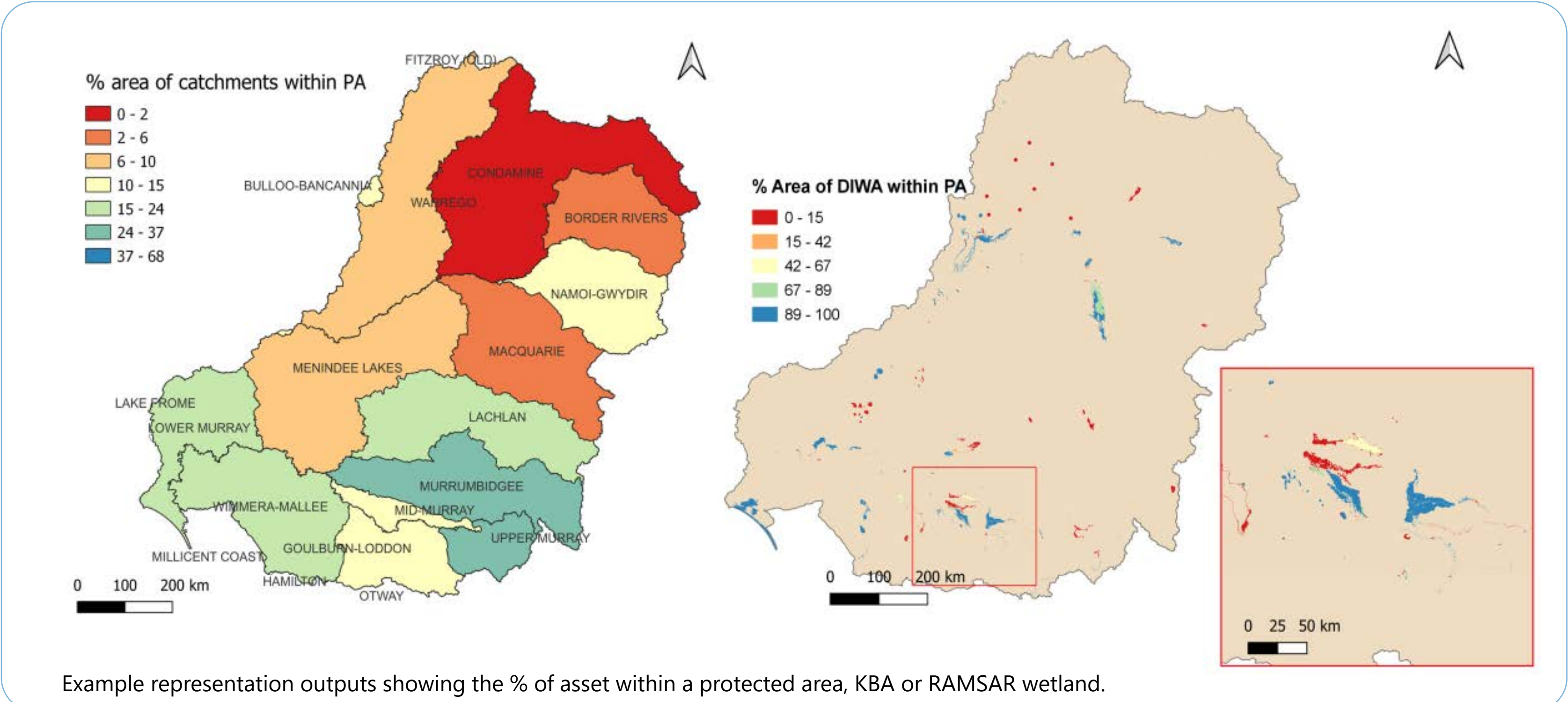
- 1. Evaluate representation gaps in the existing protected area network for high conservation value aquatic ecosystems.
- 2. Assess the vulnerability of assets, values, and functions to climate change.
- 3. Co-design and conduct basin-wide conservation prioritisation analysis.

Methods



Representation Gap Results

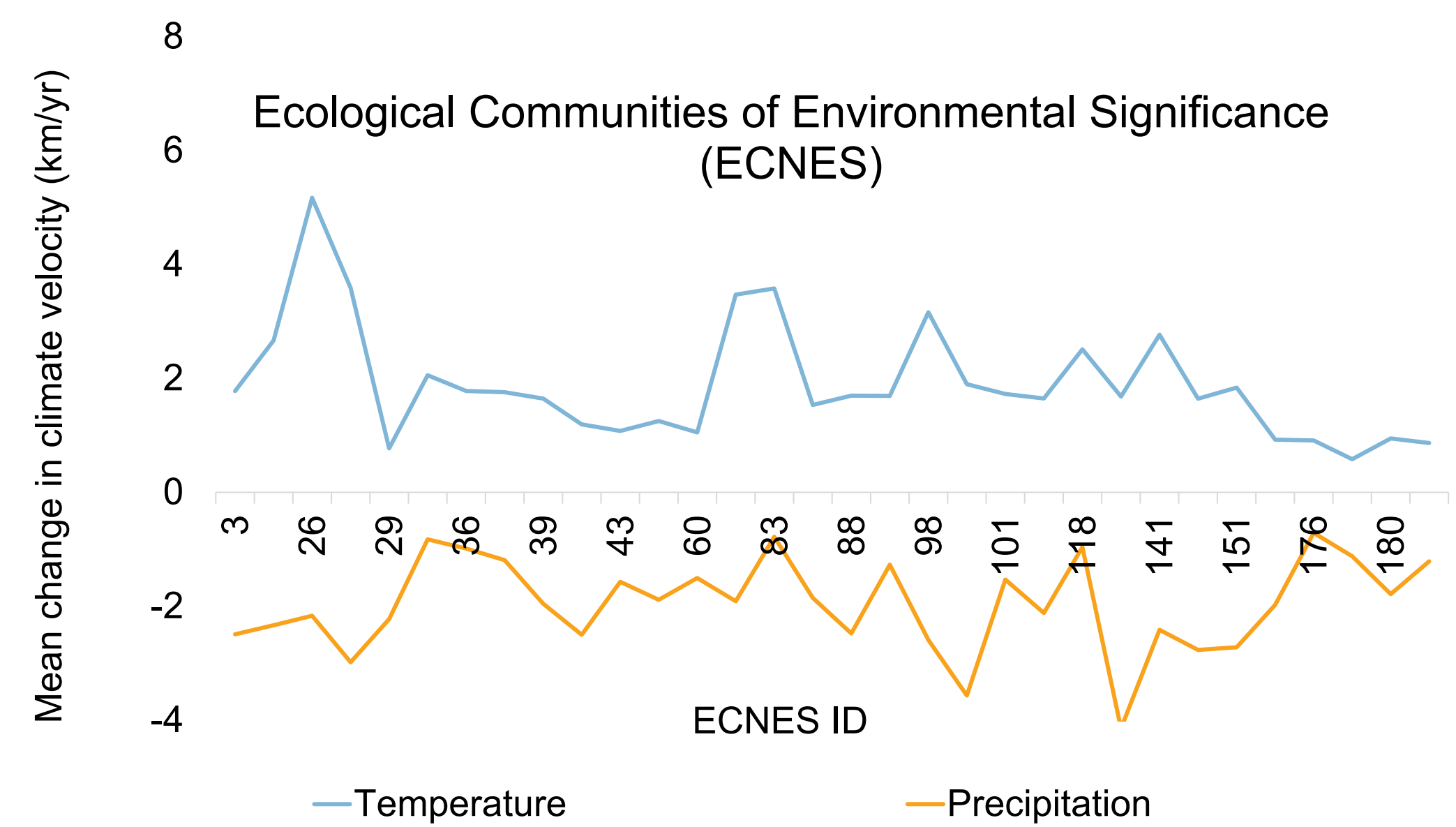
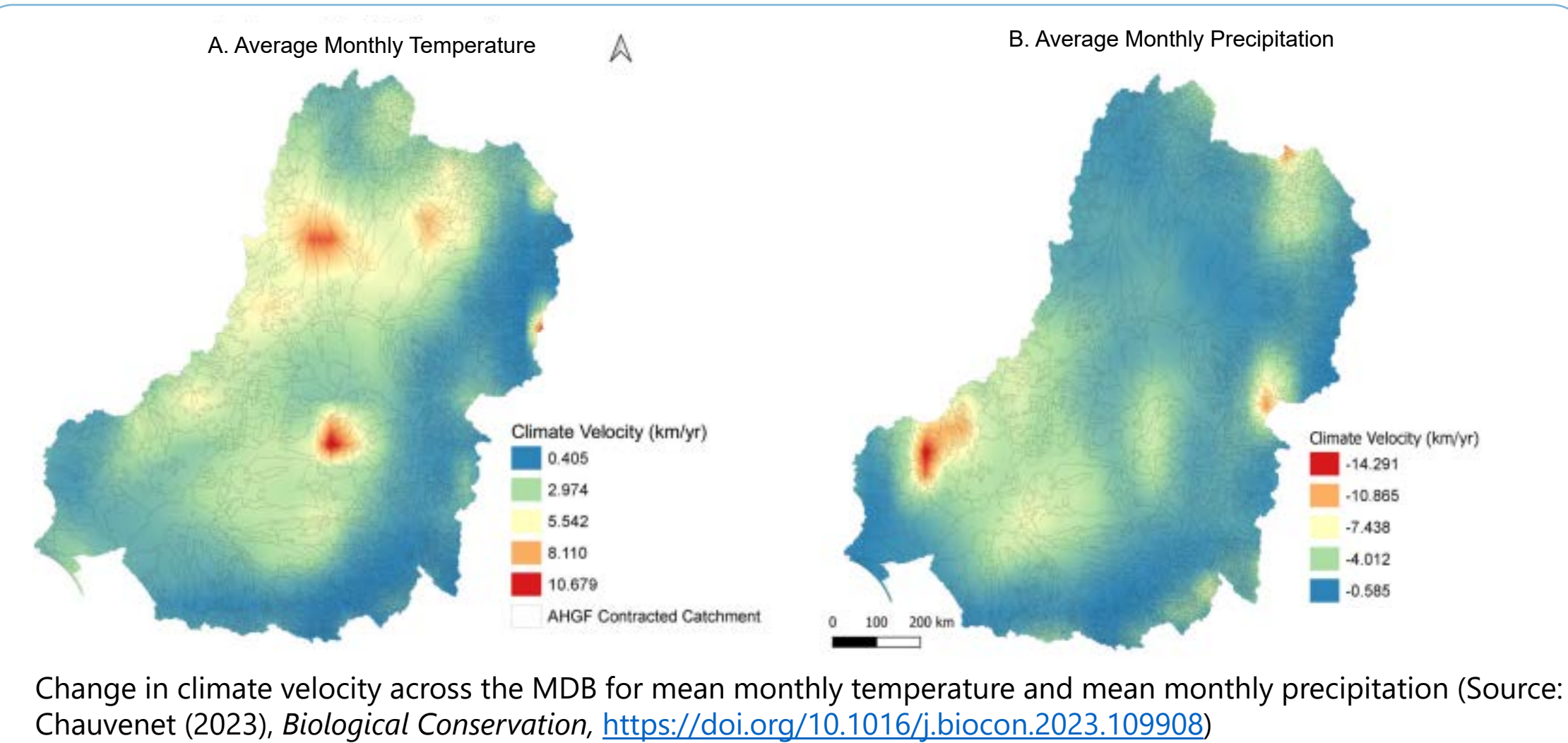
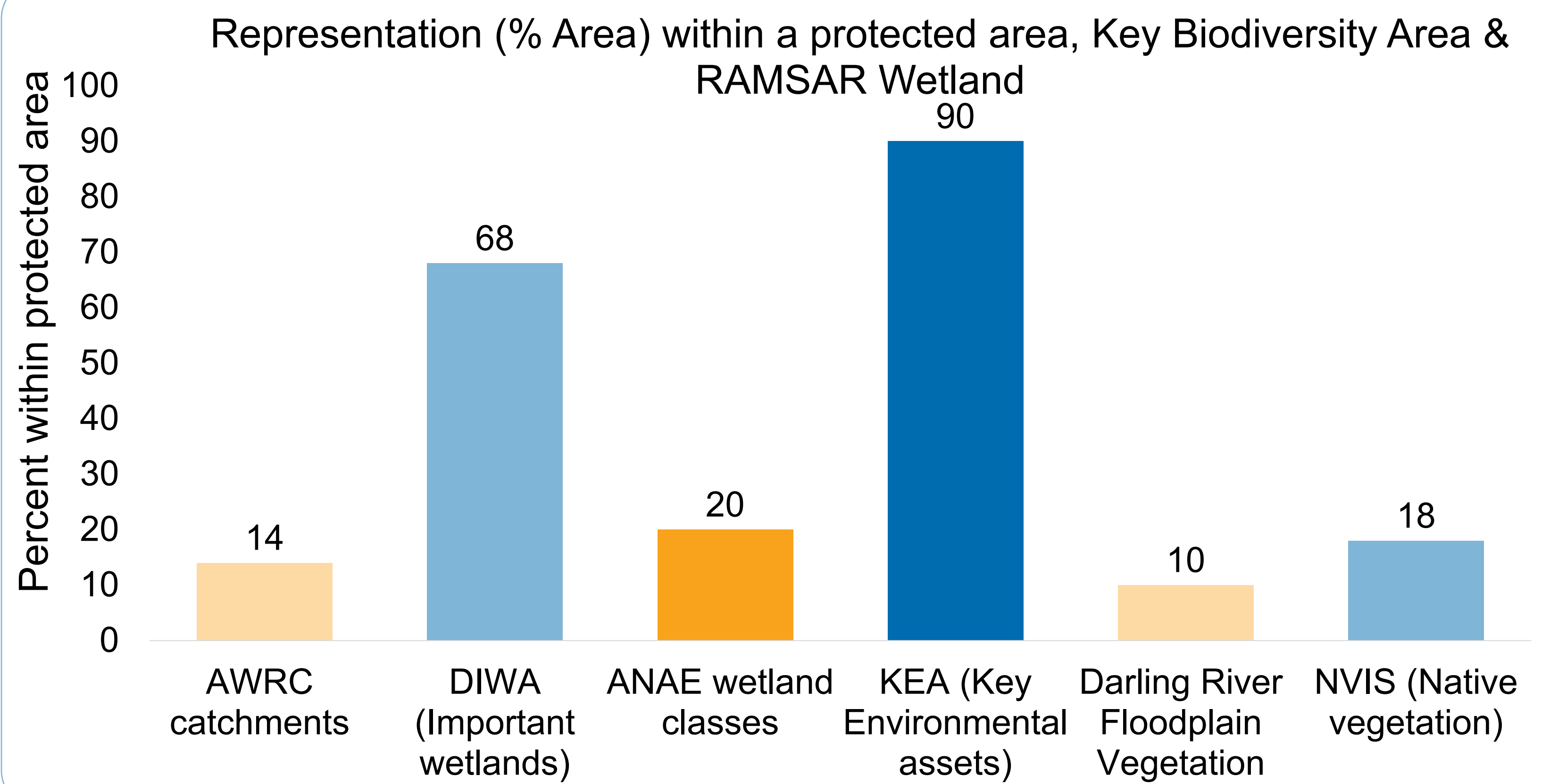
- A total of 14% of the Murray-Darling Basin is within either CAPAD, KBA or RAMSAR wetlands, 24% of the Basin is potentially waterable with 4% both represented and potentially waterable.
- Important wetlands (DIWA and KEA) have higher representation in protected areas, KBA or RAMSAR wetlands than other assets.
- ANAE wetland types are generally poorly represented, particularly some stream types.
- Native vegetation is poorly represented in protected areas, KBA or RAMSAR wetlands across the basin.
- The Condamine has the least representation overall but contains a relatively high number of species of National Environmental Significance, particularly for reptiles and mammals.
- The Hopkins River has the highest number of unrepresented species of National Environmental Significance (39) with the majority birds and plants.
- Ecological Communities of National Significance are not well represented in protected areas.



Vulnerability Results

Many species occur in areas with significant changes projected in future climate conditions, particularly:

- Native species within the Ecological Community of National Environmental Significance dependent on natural discharge of groundwater from the Great Artesian Basin
- Black box woodlands of the Darling Riverine Plains & Brigalow Belt, Poplar Box
- Small-leaved Little Dry Shrub, salt pipewort, curly bark wattle
- Grey grasswren, Yakka skink, greater bilby, greater stick-nest rat, Bridled Nail-tail Wallaby, Burrowing bettong



Next steps

Conduct iterative Marxan analyses to answer the following objectives:

1. Prioritise a set of areas for efficient conservation management to benefit priority native species
2. Prioritise critical wetland habitats for priority/threatened species and ecosystems within the basin
3. Prioritise areas to protect migratory species within CAMBA, JAMBA, ROKAMBA

*Contact: j.wraith@griffith.edu.au

We acknowledge the Traditional Owners of the lands on which we meet today and pay our respects to their Elders past, present and emerging and extend that respect to any First Nations people present today.

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The MD-WERP Environmental Outcomes theme brings together researchers and Cultural leads from La Trobe University, Griffith University and Murray Lower Darling Indigenous Nations.

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