



Rebekah Grieger

**BSc (Ecology and Conservation Biology) Honours
Class I**

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Summary

Coastal ecosystems around the world are being threatened by climate changes and the associated effects of rising sea levels and increased temperatures. Research into the effects that climate change will have on the most coastal ecosystem, mangrove forests, hypothesises that a landward migration of these forests will occur, resulting in increased prevalence of mangrove forests in the coastal zone. This provides difficulties for the coastal freshwater wetlands, which are already threatened by urban development and implications of human altered flow patterns. These ecosystems sit in the coastal zone, but are largely dominated by freshwater flows, hence they are a highly valuable and unique system. My research will provide insight into the current vegetation patterns of coastal freshwater wetlands along the east coast of Australia, identifying differences along the temperature gradient. We aim to investigate the restoration potential of these systems through a series of soil seed bank germination experiments (reproductive potential). The resilience of coastal freshwater wetlands will be investigated through mesocosm and sod experiments, examining survival and growth rates under differing salinity, flow, and temperature conditions.

Research Expertise

- Coastal wetland vegetation ecology
- Climate change impacts on coastal ecosystems