



## Heather Haines

**BSc (Hons) Geography - Specialization in Environment and Resource Management, MSc Physical Geography**

[h.haines@griffith.edu.au](mailto:h.haines@griffith.edu.au)

[orcid.org/0000-0003-0019-4151](https://orcid.org/0000-0003-0019-4151)

[https://www.researchgate.net/profile/Heather\\_Haines2](https://www.researchgate.net/profile/Heather_Haines2)

<https://scholar.google.com/citations?user=Dzua4RAAAAAJ&hl=en&oi=sra>

### Summary

In the Southeast Queensland (SEQ) region rainfall has been proven to play a major role in extreme climatic events. However, the frequency of these major events is uncertain as the historical instrumental record of rainfall for SEQ extends back only to a maximum date of 1870. Therefore a significant extension of the historical rainfall record is required to determine the frequency of flood events. Dendrochronology, the study of tree rings, is a key technique to develop this long term rainfall record as the rings provide annually resolved evidence of climate. This research proposes to undertake a large scale study of SEQ to develop a master tree ring chronology using tree species that have all been identified as varieties that retain an annual ring and record a precipitation signal. This master chronology will then be used to create a rainfall reconstruction for the region for the past millennia.

### Research Expertise

- Dendrochronology
- Environmental change
- Geomorphology
- Biogeography
- Paleoclimate