# Measuring native plant diversity on private land across continental Australia.

Alternative title: Native Australian plant diversity held on private land  
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**Aim:** Over half of Australia is used to graze livestock under various land tenures.  
Some of Australia’s unique and diverse floral areas are protected by reserves (e.g. the Wet Tropics). However, diverse floristic areas that are not protected are effectively privately managed, and must co-exist with agricultural production (e.g. grazing of native vegetation by cattle, sheep, goats, etc). Thus it is important to determine the extent and concentration of native plant biodiversity that occurs on private land - including describing gaps in taxonomic and spatial sampling.   
  
**Location:** Continental Australia.  
  
**Methods:** We use a published dataset of Australian angiosperms to determine where high concentrations of native plant diversity occur. The dataset combines over 3 million spatial records with a phylogeny of over 90% of native Australian angiosperm genera. Combining this dataset with Australian land usage boundaries, we ask:  
  
**1).** *What proportion* of unique and diverse locations (i.e. grid cells) occur on private land?  
  
**2).** *Are there any plant genera* that have the majority of their diversity occurring on private land?  
  
**3).** *Where are the biggest gaps* in under-sampling across continental Australia?  
  
Our analyses will provide valuable baseline information to assist private land managers in their ongoing stewardship of Australia’s biological diversity. By identifying priority areas for conservation that are privately held, we can highlight their uniqueness and aid resource allocation to increased sampling within private/public partnerships.