



Evolution of Australian sundews (*Drosera* spp.).

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Since the first sundews (*Drosera* L. spp.) were described in 1753, the taxonomy of *Drosera* has been in a state of flux, with additional species described regularly. *Drosera* is most diverse in Australia; however, the evolutionary relationships between taxa within the major groups remain poorly understood. Previous phylogenetic studies show conflict between phylogenetic tree topologies and the traditional higher classifications for some taxonomic groups; however, these studies included comparatively few Australian taxa and were limited mainly to *rbcL* and *ITS* sequence data. In order to assess the monophyly of each group, we partnered with the Genomics for Australian Plants Initiative (GAP) to sequence representatives from all Australian *Drosera* subgenera and sections. Using the Angiosperms353 and OzBaits bait sets, we recovered genomic data from hundreds of nuclear regions for 96 *Drosera* samples from field collections and herbarium accessions across Australia, including the type species for each subgenus and section where possible. Here, we present our preliminary analyses of this large genomic library. These results provide a backbone phylogeny for the genus in Australia and show that the current infrageneric classification requires updating, especially for the tuberous sundews (section *Ergaleium* Planch.).

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