



Comparative phylogeography of east Australian carnivorous plants and kleptoparasitic bugs.

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The sundews (*Drosera sp.*) are a diverse family of carnivorous plants with about 160 species occurring in Australia. Their leaves are covered with sticky hairs that act as fly paper-style traps that catch invertebrates to be digested as supplemental nutrition. However not all invertebrates are prey to the sundew; the sundew bug (*Setocoris sp.*, Hemiptera) is a kleptoparasite that lives obligately on the plant and feeds by stealing the plant's prey. The aim of my PhD project is to study the comparative phylogeography of five sundew species in eastern Australia, and the several species of associated *Setocoris* bugs. I am testing the theory that these plants and insects are cospeciated by analysing single nucleotide polymorphism (SNP) data generated by Diversity Arrays Technology. In this talk I will present my preliminary analysis of SNP data from populations of *S. binataphilus* bugs and their *Drosera peltata* complex host plants from New South Wales, Victoria and Tasmania. There is strong geographically-structured variation within species and similar patterns of variation are seen in bugs and their plant hosts, suggesting they may be cospeciated.

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