

Dr. Andrew Doust

Department of Botany

Dr. Andrew Doust joined the Oklahoma State University faculty in 2007 as an assistant professor in botany. He earned his bachelor's degree from the University of Sydney and his doctorate from the University of Melbourne, Australia. He completed postdoctoral appointments at the University of Missouri-St. Louis and the University of Florida.

At OSU, Dr. Doust is part of the biodiversity cluster and uses modern molecular techniques to understand the evolution of morphological diversity in grasses and mustards. Practical applications of this research include understanding the genetics of biomass accumulation in biofuels grasses and maximizing fruit size in mustards.

Specific research objectives include:

- Using the foxtail millet system as a model for understanding the genetics of branching and flowering in switchgrass and other biofuels grasses
- Using the foxtail millet system as a genetic model for understanding water use efficiency in biofuels grasses
- Understanding the genetics underlying the evolution and diversification of fruit shape in the genus *Paysonia*, a model for fruit shape evolution in the mustards (Brassicaceae).
- Untangling complex species level phylogenetic and population genetic relationships in *Paysonia*, a genus with many species of conservation concern.



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