

OR182*The evolution, diversification, and biogeography of the ants***Corrie Moreau**

The ants (Hymenoptera: Formicidae) are undoubtedly one of the major evolutionary success stories. With over 13,000 described species distributed on all continents except Antarctica and exhibiting ecological dominance in almost all terrestrial habitats understanding the factors that have facilitated their diversification may shed light on broader evolutionary patterns. With a long evolutionary history dating back ~140 million years ago for the modern ants, investigating the role biogeography and shifts in rates of diversification play may provide insights into the factors that have facilitated their evolutionary success. Also, understanding the role co-evolved microbes play in diet shifts and habitat use have provided new insights into how these coevolved systems have facilitated the diversification of the ants. Taken together our work demonstrates that several factors have promoted the evolutionary success of the ants including the rise of the flowering plants and expansions of the associated tropical ecosystems, as well as associations with novel gut bacteria.