

OR047*Chemical communication during column foraging in Nearctic Messor species***Nicola Plowes**, Bert Hoelldobler

Our research focuses on chemical communication during foraging in seed harvesting ants found in Nearctic *Messor*. This group is particularly interesting from an evolutionary perspective, because, like *Pogonomyrmex*, it has species which display a variety of different foraging strategies from individual to group foraging. Three Nearctic *Messor* species employ a spectacular mode of foraging where thousands of individuals follow columns for distances of up to 40m before individual ants disperse and forage independently. The foraging columns function both to lead workers to rich ephemeral food sources, as well as to avoid conflict with neighboring colonies. We present data on a combination of field, laboratory, and chemical analyses which have elucidated a multi-modal orientation and navigation strategy during foraging in *M. pergandei*. In addition, we will describe differences in the chemical ecology between several species of Nearctic *Messor*. Our results lend further support linking Nearctic *Messor* with *Novomessor* rather than Palearctic species of *Messor*.