ORAL PRESENTATION
STUDENT

The Native Bees (Hymenoptera: Apoidea: Anthophila) of Coastal Dune Environments of Florida

Anthony P. Abbate, University of Florida, 1881 Natural Area Dr. Gainesville, FL 32611 USA.
Abbata08@gmail.com

***Abstract*:** Bee communities are important in the pollination of >66% of the world's crop species and over 80% of all flowering plant species. Few studies have focused on urban habitats and the effects they have on native bee communities. We monitored bee abundance and diversity in Florida state parks, protected lands, and developed sites occurring throughout the coasts of Florida. Our aim was to assess the potential impacts that dune degradation and development could have on these economically and ecologically important insects. A total of 5,419 bees from 5 families and 56 taxa were captured during this study. Halictidae accounted for 70% of all bees collected, followed by Apidae (28%), Megachilidae (2%), Andrenidae (0.1%) and Colletidae (0.07%). Both species richness and Shannon-Wiener diversity indices were higher in protected lands when compared with developed sites (z=5.1, P<0.0001; z=4.2, P<0.0001, respectively). Most of the common bee species analyzed showed a preference for protected lands compared with developed sites. Protected lands also supported higher abundances of ground-and wood-nesting bees when compared with developed sites (z=4.3, P<0.0001; z=4.8, P<0.0001, respectively). We suspect that bee abundance and diversities are driven not only by the amount of nesting resources, but by the diversity and abundance of floral resources that native bees utilize. State parks and protected lands are ecologically important bee sanctuaries and should be supported to help sustain native bee communities.