

BROOKE COMER#, and RUTH A. CONLEY, Department of Biology, Shepherd University, Shepherdstown, WV, 25443. **Species-specific courtship calls of the *Aeluropoda insignis*, the madagascan flat-horned whistling cockroach.**

The Madagascan Flat-Horned Whistling Cockroach, *Aeluropoda insignis*, is one of several species within Tribe Gromphadorhinini that uses acoustic vocalizations during courtship behavior (Brown, Robinson and Conley, 2015). Previous research showed some males had more complex song features, possibly attributed to diet or to listening to other species housed in adjacent cages. For this study, male and female *A.insignis* were isolated from other roach species as young nymphs (before 7 days old) to prevent their development from being influenced by other species. Previous researchers categorized syllables by different visual characteristics on spectrograms (Brown, Robinson and Conley, 2015) and signal characteristics (Kenneh and Conley, 2013). In these & other preliminary studies, successful courtship occurred only twice and some songs seemed to be organized into motifs. Courtship songs reported in the literature for other species (*Grophadorhina portentosa* and *Eliptorhina chopardi*) did not show the same variability.

The recordings for this experiment show repeatable patterns with individual differences in song characteristics for songs preceding successful courtship in over 10 males. These males seemed to sing more to smaller females with comparatively long antenna and small abdomen. Some previously observed syllables were not observed in this study, presumably due to species isolation. This suggests that these cockroaches are influenced by the presence of other species' songs, as has been observed in several species of birds.