

SAMMY BANE and RUTH A. CONLEY, Dept of Biology, Shepherd Univ, Shepherdstown, WV 25443. A Behavioral Index for investigating female preference in *Aleuropoda insignis*, the flat-horned hissing cockroach.

*Aleuropoda insignis*, the flat-horned hissing cockroach, make whistling noises during courtship. Comer & Conley (2016) showed these animals display variation in the form of different syllables, which have features of whistles. *Elliptorhina chopardi* also make whistling courtship songs (Sueur & Aubin, 2006) along with several other species of Tribe Gromphadorhini, which are known for hissing sounds used in courtship and agonistic communication (Nelson & Fraser, 1980). Sexual selection may be the foundation for species-specific courtship calls since several other species of hissing cockroaches are present in Madagascar. Females may show more interest in or be more likely to respond to specific syllables or songs, forming the basis for species identification. To begin to examine female preference for species-specific courtship calls, we placed virgin males and females in a behavioral chamber and made audiovisual recordings of behavior. We created a behavioral index based on sampling behaviors observed during successful courtship, as previously described by Robinson & Conley (2015). This behavioral index includes proximity of animals to one another, antenna-tapping, antennation, and body orientation & position with certain behaviors scored as 1-3 depending on specific criteria for 'intensity'. We compared behavioral indices of females for trials categorized as successful courtship (song with copulation), unsuccessful courtship (song with no copulation) and no courtship. Behavioral indices were highest for successful courtship and lowest for no courtship indicating the usefulness of this index for studying female preference for song types and or sexual selection involved in species isolation.