

## **PATTERNS OF ULTRASONIC VOCALIZATIONS IN NEONATES OF THE GENUS *PEROMYSCUS***

Julie L. Weston<sup>1</sup>, Barbara H. Blake<sup>2</sup>, Justin Reynolds<sup>1</sup>, Michael J. Dewey<sup>1</sup>

<sup>1</sup>Peromyscus Genetic Stock Center, Department of Biological Sciences, University of South Carolina, Columbia, SC 29208; <sup>2</sup>Department of Biology, University of North Carolina at Greensboro, Greensboro, NC 27402-6174

Ultrasonic vocalizations by neonatal murid rodents have been well-documented. Vocalization rate is known to change throughout the nestling period, typically being higher in the 1st half of the nestling stage, then dropping off as infants approach weaning age. Calling elicits retrieval by parents, and change in rates have variously been attributed to thermoregulatory ability, litter cohesiveness, and social system. In voles (*Microtus* spp.), neonates of monogamous species vocalize more than their polygamous counterparts, likely due to the near continuous presence of a parent to respond to their calls. Although neonates of the New World genus *Peromyscus* vocalize similarly, patterns of those vocalizations and underlying causes have yet to be explored. In this study, we document vocalizations of 7 *Peromyscus* species and of hybrid individuals (polygamous *P. maniculatus* × monogamous *P. polionotus*). Results indicate that patterns of neonatal calling are similar to those of voles and house mice, increasing sharply during the 1st week, remaining high during the 2nd week, and then dropping off as the young approach weaning age. Monogamous species vocalize more than polygamous species at the youngest ages. Surprisingly, vocalization rate and pattern were similar in *P. maniculatus* and *P. polionotus*, yet we found that calling rate was lower in hybrids than in parental species, or in other species observed (although our sample was small).