

Native Wildlife Adjust Activity Patterns to Temporally Avoid Wild Pigs

Adrienne Dykstra, Mississippi State University, Mississippi State University, Mississippi State, MS

DJ Steakley, Mississippi State University, Mississippi State University, Mississippi State, MS

Garrett Street, Mississippi State University, Mississippi State University, Mississippi State, MS

Bronson Strickland, Mississippi State University, Mississippi State University, Mississippi State, MS

Kurt VerCauteren, USDA, APHIS, National Wildlife Research Center, Fort Collins, CO

Marcus Lashley, Mississippi State University, Mississippi State University, Mississippi State, MS

ABSTRACT: Wildlife species have defined activity patterns that are important for conserving biological rhythms and altering these rhythms can cause physiological stress. Species often shift activity patterns to minimize predation risks or to temporally partition competition. Thus, when a new predator or competitor is introduced into a community, the activity patterns of the whole community could be affected, and this effect may increase the stress wild pigs cause to native wildlife. To test the hypothesis that wild pig activity patterns affect those of native wildlife, we monitored activity patterns of native wildlife and wild pigs before and after aerial gunning events that manipulated pig activity patterns. Using the Statistical R-package – Overlap option, we generated species activity curves which showed aerial gunning caused a substantial shift in wild pig activity patterns from peaking near sunrise to peaking near sunset. Native species not directly at risk from aerial gunning, such as raccoon, armadillo, rabbits, squirrels, and opossum, shifted their activity patterns to a lesser degree than that of pigs, but most species adjusted activity peaks to favor lulls in pig activity. Thus, by manipulating swine activity patterns we provide evidence that wild pigs affect the activity patterns of many native wildlife species. Not only does our data demonstrate the flexibility of pigs to alter activity patterns to avoid removal, it also indicates that these animals cause an additional unappreciated stress on native wildlife by altering their biological rhythm.

Proceedings of the 18th Wildlife Damage Management Conference.
(J.B. Armstrong, G.R. Gallagher, Eds.). 2019. Pp. 33