

IMPACTS OF FERAL HOGS ON RECLAIMED SURFACE-MINED LANDS IN EASTERN TEXAS: A MANAGEMENT PERSPECTIVE

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During the last decade, surface lignite mines in eastern Texas have experienced damage to reclaimed lands by feral hogs (*Sus scrofa*). Specifically, feral hogs have caused damage to vegetative plantings used in the reclamation process of surface lignite mines. In addition to vegetative losses, erosion control problems and water quality impacts have been noted. Box and corral traps were evaluated for their effectiveness in capturing feral hogs. Six male and 10 female hogs were radiomonitored from January 1998 - January 1999 at Big Brown Lignite Mine in Freestone County, Texas. Annual range size, habitat use, habitat selection, and diel movements of the feral hogs were determined using a geographic information system. Corral traps were more efficient than box traps in capturing feral hogs ($P < 0.000$). Male feral hogs had a mean annual range of 15.8 km². Female hogs had a significantly ($P < 0.02$) smaller annual range of 6.5 km². Hogs preferred reclaimed wildlife vegetation plantings and unmined riparian corridors on the mine site. Screening cover and free water were important landscape features that influenced hog movements. Feral hogs moved greater distances from free water and screening cover during nighttime hours. In addition, seasonal effects of distance from these landscape features were significant. Feral hogs traveled greater distances from both free water and screening during winter and spring, but during fall and summer months, they remained closer ($P < 0.0001$) to water and cover sources. Based on the information obtained from the data analysis, management strategies for reducing hog impacts at the mine site were developed. In order to decrease feral hog impacts on the mine site, use of corral traps, box traps, and vegetation management was recommended.

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