Spatial Characteristics of Black Bear and of Bear Hunters in Garrett County, Maryland

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Abstract: We used GPS technology to examine spatial relations of black bear hunters and black bears *(Ursus americanus)* in Garrett County, Maryland. During the 2005 hunting season, we equipped 35 hunters and 4 adult female black bears with GPS transmitters to track their movements. We compared the following spatial variables relative to both bear and hunter movements: road corridors, riparian corridors, slope, and habitat type. Hunters used a variety of habitats, with mixed forests and wetlands used in greater proportions than expected. Hunters generally remained within 260 m from road and 400 m from riparian corridors while hunting. Because of logistical challenges, spatial data was only available from one of four bears during the 2005 hunting season; her fall home range encompassed approximately 30 km^2. One GPS hunter was found to have hunted within close proximity of a GPS bear, although interaction between the two could not be confirmed. Results from this three-year study will help managers understand black bear movements and aid in development of nuisance bear strategies and future harvest regulations.

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