GPS SATELLITE MONITORING OF SPATIAL AND SEASONAL LANDSCAPE USE BY BLACK BEARS IN NEW JERSEY BEARFORT MOUNTAINS

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ABSTRACT:

This paper reports the results of a collaborative research project integrating the efforts of the New Jersey Fish and Wildlife Commission, ESU and the Northeast DNA Laboratory to advance understanding of landscape patterns of black bear distribution, environmental relationships, and population monitoring tools by using GPS satellite monitoring of a group of female black bears. The experiment was implemented in 2008-2009 in the Bearfort Mountains region in New Jersey, USA. We modelled ecological inferences from statistical analyses of bear movements and environmental conditions based on the Globalstar satellite system collar-collected data. Multivariate regression analysis and compositional analysis were used to analyze variation in bear home range selection and road distance analysis. Seasonal and spatial patterns of landscape use based on parametric and non-parametric statistical methods provided a complete description of bear movement.

TOPIC: Land cover classification
ALTERNATIVE TOPIC: Physical modeling and signatures