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NORTHERN BOBWHITE HABITAT MODELING ON A MILITARY INSTALLATION IN RELATION TO RED-COCKADED WOODPECKER MANAGEMENT

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ABSTRACT

The Department of Defense (DoD) manages natural resources on ~ 8 million ha of land. A top priority for much of this land is to restore and maintain native ecosystems and associated wildlife species. However, given the typical location (i.e., threatened ecosystems) and size of DoD lands, management conflicts usually occur among endangered/threatened species and game species. Military installations in the southeastern United States are commonly managed to protect red-cockaded woodpecker (*Picoides borealis*) (RCW) populations and longleaf-wiregrass ecosystems. Mandated RCW management is not entirely compatible with other declining species such as northern bobwhite (*Colinus virginianus*). Land managers need to be equipped with spatially-explicit habitat models that can be used to make informed decisions on how to manage for particular species. Data collected on Fort Gordon Military Installation, Georgia from male bobwhite whistle counts during summer 2010 and 2011 will be used to construct competing models on the relationship between RCW management and other habitat structure metrics as it relates to bobwhite habitat suitability. These data were collected using a robust occupancy sampling design to allow open and closed population assumptions. Preliminary data suggests the RCW habitat ranking matrix is a poor predictor of bobwhite habitat suitability and, more alarmingly, RCW population performance. These models will assist natural resource managers on DoD land in making efficient decisions in the face of uncertainty.

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Key words: *Colinus virginianus*, Department of Defense lands, northern bobwhite, *Picoides borealis*, red-cockaded woodpecker

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