

Exotic Grass Impacts on Northern Bobwhite Habitat in South Texas

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Abstract: There is growing concern about the impacts that exotic grasses may have on northern bobwhite (*Colinus virginianus*) and other grassland birds. Large areas of South Texas have been seeded to or have been invaded by several species of exotic grasses including Guinea grass (*Urochloa maxima*), Bermuda grass (*Cynodon dactylon*), King Ranch bluestem (*Bothriochloa ischaemum*), Kleberg bluestem (*Dichanthium annulatum*), buffelgrass (*Pennisetum ciliare*), and Lehmann lovegrass (*Eragrostis lehmanniana*). Impacts of exotic grasses on northern bobwhite are largely unknown. While exotic grasses such as buffelgrass have the potential to provide roosting and nesting habitat for northern bobwhite, landscapes dominated by invasive exotic grasses are potentially detrimental to bobwhite habitat because of the negative impact these grasses may have on diversity and abundance of native herbaceous vegetation and arthropod communities. Native grasses can also provide adequate roosting and nesting habitat and should not be considered inferior to exotic grasses within this context. Economic significance of the northern bobwhite in South Texas, coupled with potential impacts of exotic grasses on useability of bobwhite habitat, makes knowledge generated by research of this topic crucial from a management standpoint. We provide a review of current literature regarding impacts of exotic grasses and northern bobwhite in Texas, with specific emphasis on buffelgrass and Lehmann lovegrass in South Texas. We propose an agenda for future research that is designed to set priorities for studies of specific exotic grasses and their relationship to the ecology of South Texas rangeland communities.

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