

MARSH BIRD RESPONSE DURING TWO PRESCRIBED FIRES AT THE ST. JOHNS NATIONAL WILDLIFE REFUGE, BREVARD COUNTY, FLORIDA

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ABSTRACT

Fire managers have myriad considerations to deal with while conducting prescribed burns on our increasingly overburdened public lands. We present two case histories of prescribed burning on the St. Johns National Wildlife Refuge and our observations on the direct effects of these burns on marsh birds.

We conducted an ecological study of black rails (*Laterallus jamaicensis*) at the St. Johns National Wildlife Refuge, Brevard County, Florida during 1993–95. During this time the Merritt Island fire management crew conducted two prescribed burns in accordance with their refuge management plan. The 1993 burn was conducted in August, and included approximately 1600 acres of cordgrass (*Spartina bakeri*) marsh. This burn left a well-distributed patchwork of small (0.1–2 acres) unburned blocks of habitat. Black rails and other bird species were observed in these unburned blocks immediately after the fire. Black rails had survived the intense marsh burn by remaining in unburned patches of habitat. The second burn, conducted in January of 1995, was a more complete burn in which approximately 90% of the 2400 acres were burned. Direct bird mortality was observed, evidently resulting from birds seeking shelter in a relatively wet spot of the marsh and that area subsequently being burned.

Prescribed marsh burns should be conducted to provide a well-interspersed patchwork of unburned habitat. We strongly urge fire management personnel who are responsible for marsh burns to consider the direct effects of prescribed fire on wildlife, and to conduct burns that are specifically designed to provide escape areas for wildlife.

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