

Bird use of grassland habitat patches at a military airfield.

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In light of reported declines in grassland bird populations in North America, information about their use of airfield habitats can help inform management decisions in the context of conflicting objectives of minimizing wildlife-aircraft collisions and helping to conserve grassland bird populations. We examined breeding bird use of grassland habitats within the airfield at Air Station Cape Cod, part of the Massachusetts Military Reserve in Bourne, MA. Breeding birds were surveyed annually for three years starting in 2010 using 3 minute point counts at 154 points located in 27 grassland patches within the airfield. A total of 42 bird species were detected, including seven grassland bird species. Across all patches species richness of all birds averaged  $6.32 \pm 0.43$  species per site, and that of grassland birds averaged  $2.84 \pm 0.04$  species per site. The mean frequency of detection for grassland birds was  $0.362 \pm 0.011$ , more than double that of all species ( $0.153 \pm 0.009$ ) and three times that of non-grassland species ( $0.111 \pm 0.009$ ). Grasshopper Sparrows *Ammodramus savannarum* Gmelin, a state listed threatened species, were consistently observed in larger patches or where two or more smaller patches were contiguous, but not in smaller patches or adjacent patches separated by a runway or taxiway. Our results demonstrate grassland birds are using grassland patches at the airfield, and provide insight into how species may be responding to physical constraints inherent in airfield habitats.