

superintendent's corner



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The loss of grassland habitat in the New York metropolitan region is a well documented phenomenon, exemplified dramatically by the rapid disappearance of the Hempstead Plains on Long Island. Grassland acreage continues to decline due to both urban encroachment and the absence of natural factors that influence successional changes. And because of habitat loss, grassland-dependent fauna are declining. Several grassland birds are now on the Endangered, Threatened, and Special Concern lists for most states in the U.S. Northeast.

Gateway's Floyd Bennett Field, a former municipal airport for New York City and later a military airfield, has a history of supporting populations of grassland birds; current surveys have recorded over 150 species. In the past decade northern harrier, American kestrel, upland sandpiper, barn owl, shorteared owl, horned lark, eastern meadowlark, and grasshopper sparrow have all frequented the prairie-like grasslands which have developed on the dredge spoil used in the 1920s and 30s to transform the salt marshes of Barren Island into airport. Most of these species utilize the grasslands for both nesting and feeding. The barn owl and kestrel are cavity nesters, and depend on the grasslands for feeding habitat. This impressive list of grassland-dependent nesting species is augmented by migrant and wintering birds, most dramatic of which are roughlegged hawks and other raptors.

In 1979, the first formal suggestion of grassland management at Floyd Bennett Field was made. This came in a parkwide survey of avifauna done by New York City naturalist, Dr. Peter Post. The proposal recognized the threat that successional changes posed to the continued existence of this regionally unique habitat. The subsequent Gateway General Management Plan, Natural Resource Management Plan and the Floyd Bennett Field Development Concept Plan reiterated these concerns and suggestions, based not only on wildlife, but also on the need to retain the flat, open landscape of Floyd Bennett Field's historic civil aviation period. By 1984, through the encouragement of Al Appelt, New York City Chapter of the Audubon Society, Gateway National Recreation Area (NRA) and other conservation organizations had assembled to form the Grassland Restoration and Management Project Committee; G.R.A.M.P.'s for short.

Composed of staff from Gateway, representatives

of New York City Audubon Society, the Seatuck Research Program of Cornell Laboratory of Ornithology, and scientists from local universities, the G.R.A.M.P. Committee has directed a program of management oriented research into bird/habitat relationships at Floyd Bennett Field. Cooperatively funded research conducted by Seatuck biologists began in 1984 and will continue through the 1987 field season, thanks to a recent Herbert E. Kahler Research Fellowship from the Eastern National Parks and Monument Association. With Gateway's budget priorities, these "outside" funds were instrumental in completion of necessary field work for the final year's investigation.

This research has produced a number of products both immediately applicable to habitat management at Floyd Bennett Field, and useful as baselines for future comparisons. A covertype map and survey of breeding birds, important in their own right, formed the basis of a multivariate analysis. Cluster analysis of these data revealed four species associations; habitat generalists, shrubland species, grassland species, and development species. Based on these associations, the outcome of various habitat management scenarios was projected and has formed a partial basis for Gateway grassland and visitor-use management decisions.

While such latitude in habitat management is uncharacteristic of most National Parks, Floyd Bennett Field is unique, in that, its landform is primarily human created. The General Management Plan called for a "new, natural landscape . . . created on the underlying impacted land." The Floyd Bennett Field Development Concept Plan also endorsed the idea of restoring the landscape to a condition more in harmony with surrounding natural areas, and called for retaining the existing grasslands. Finally, the concepts of habitat and species diversity, on both a site-specific and regional level had to be considered.

As open grasslands disappear, so too would all the grassland-dependant bird species. Considering the regional rarity of these species, loss of these populations would be significant. Based on a concept of increased diversity, and using maps of habitat interspersion and juxtaposition, the Seatuck reports recommended consolidating some of the existing, fragmented grasslands by removing encroaching shrub patches. Subsequent reconnaissance has found that of over 1,400 acres at Floyd Bennett Field, approximately 120 acres can be managed to provide a large continuous grassland. With this approach, Gateway will retain its population of grassland birds; it will also be managing for unimpeded succession, which will continue on roughly 760 additional acres of Floyd Bennett Field. Thus, both grassland and woodland wildlife can be managed for, with the commensurate benefits of wildlife observations, series of walking trails, wildlife and species diversity, camping skills, and other non-resource consumptive recreation activities.

Implementation of active management began in the winter of 1985-86 as "roughneck" crews from New York City Audubon Society began clearing patches of bayberry and black cherry from a 25 acre parcel. As called for in a Floyd Bennett Field Grassland Management Action Plan, this process of initial clearing will continue until 1988. Following this phase in each area, a period of intense cutting of resprouting growth is envisioned, ultimately settling into a routine of mowing half the entire grassland area each year.

As management proceeds, so too will scientific and resource management monitoring activities. Breeding birds will continue to be mapped throughout the grasslands, and changes in bird species composition in the

managed area will be noted. Photo monitoring stations and line transects will be used to document changes in the physical structure and species composition of vegetation in the managed area, as well as to compare with changes in similar but unmanaged areas.

The anticipated outcome is that by the mid-1990s, Floyd Bennett Field could become a national focal point for grassland wildlife management and a working model of how these diminishing grassland species can be managed. The cooperative nature of this project is rewarding; each party is able to offer a service or ability that complements the others and has enabled the project to progress so far. The activity however, is "biological" in nature thus long-term. Only the targeted bird species can "tell" us the success of this project, with their changing numbers over the years.

This is an exciting activity that has fostered all the necessary ingredients for expressing the traditions of National Park Service science, resource management, and cooperative activities. The project is creating biologically productive, diversified, and educational urban wildlands within the nation's largest metropolitan area. It is an attempt to show that we can, if we try, live in harmony with our environment.

Any questions or requests for copies of the documentation to date on this project should be addressed to John T. Tanacredi, Chief, Officer of Resource Management and Compliance, Gateway National Recreation Area, Floyd Bennett Field, Brooklyn, New York 11234.