

Phragmites Use by Birds in New Jersey

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by Richard Kane

Introduction:

Phragmites marshes have been disparaged by some as degraded wetlands or as wetlands that don't compare favorably with other wetlands types such as spartina or bullrush. Probably reed suffers by comparison in that less research has been conducted on reed than on some of the other wetland types. One obvious characteristic of reed is its use by birds, migrant, wintering and resident. In New Jersey, common reed(phragmites) hosts a number of resident bird species, including species listed by the state of New Jersey as threatened or endangered, as well as species that are rare breeders in New Jersey. Important local populations of some bird species are resident in reed marshes. Some of these birds use reed as nest material. Reed is used here throughout as synonymous with phragmites.

Background:

The author has spent 30 years conducting field trips and field work in all parts of New Jersey. Field work includes habitat inventories of tributaries to the Delaware Bay, tributaries to the Arthur Kill, and the Hackensack River(Kane and Githens 1997). A survey of breeding wildlife and roosting herons was conducted in Kearny Marsh in the 1970's(Kane 1978). Less systematic but frequent observations were made over 30 years in reed marshes in Cape May Point State Park, South Cape May Meadows, Fishing Creek, Pond Creek marshes(all in Cape May County); reed stands associated with intracoastal waterway islands hosting colonial waterbirds in Cape May, Atlantic and Ocean counties(Kane and Farrar 1976; 1977); and reed marshes in South Amboy, Pedricktown, Union, and the Salem River. Helicopter counts of colonial waterbirds were performed by the author in 1977, 1978, 1979, 1985 and 1995, affording a good view of many reed stands. Observations included in the present article come from published articles as cited as well as unpublished notes.

Observations of phragmites use by breeding birds:

Birds found using phragmites in the Kearny Marsh(Hudson County) were described in Birds of the Kearny Marsh(Kane 1978, with photos). Documented nesting birds included Pied-Billed Grebe, Black-crowned Night-Heron, Yellow-crowned Night-Heron, Glossy Ibis, Green Heron, and Least and American Bitterns. The marsh was also a nightly roost site for all the egrets summering in the Hackensack drainage(Kane 1978). Breeding waterfowl included Canada Goose, Mallard, Gadwall, Green and Blue-winged teal, Am. Black Duck and Ruddy Duck. Common Moorhen and American Coot were common breeding birds; other rallids were not found there in the 1970's(Kane 1978), but Virginia Rail was found nesting in reed subsequently in Kearny(Kane pers. obs. downy young) and elsewhere in the Hackensack Meadows at Moonachie(Kane and Githens 1997). Most of these species used reed for their nest material.

Other species found to be nesting in reed marsh in the Hackensack Meadowlands were H. Harrier(Dunne 1984; Kane and Githens 1997); and Tree Swallow(in boxes in reed marsh), Willow Flycatcher, Marsh Wren, Yellow Warbler, Common Yellowthroat, Swamp Sparrow, Common Grackle and Red-winged Blackbird(Kane and Githens 1997; Kane, pers. obs.). Except for Tree Swallow, Yellow Warbler and Willow Flycatcher, these species attached their nests to reed. Harrier was also observed nesting in phragmites in southern New Jersey(Dunne 1984) and used reed as nest material in the Hackensack Meadowlands in 1975 and 1979(Kane, pers. obs.). All of the above species

documented as breeding in reed in the Hackensack Meadows in the 1970's are still nesting there as of the late 1990's(Walsh et al. 1999).

Elsewhere in the state, Glossy Ibis, Black-crowned Night-Heron and Snowy Egret were found nesting in reed stands in reed nests on spoil islands in the intracoastal waterway of southern New Jersey(Kane and Farrar 1976; see photos). Other heron species as well have been found nesting in reed stands on bushes(see table 1). American Coot, Pied-billed Grebe and Common Moorhen were found nesting in Fishing Creek reed marshes in Cape May County(Kane, pers. obs.). Sora has been recorded in reed in Pond Creek marshes in June in the 1970's(Kane pers. obs.). Pied-billed Grebe, Am. Coot and Ruddy Duck have nested in reed marsh at the Pedricktown spoils near the mouth of Oldman's Creek(Kane, Ward Dasey pers. obs.). At this point, it appears that two species breed only in reed in New Jersey: Am. Coot and Ruddy Duck.

New Jersey Bird Species that Nest in Phragmites:

Pied-billed Grebe
Mallard
Am. Bittern
Blue-winged Teal
Least Bittern
Gadwall
Great Egret
Ruddy Duck
Snowy Egret
Virginia Rail
Little Blue Heron
Sora
Tricolored Heron
Co. Moorhen
Cattle Egret
Am. Coot
Green Heron
Willow Flycatcher
BCN Heron
Tree Swallow
YCN Heron
Marsh Wren
Glossy ibis
Yellow Warbler
Mute Swan
Com. Yellowthroat
Canada Goose
Swamp Sparrow
Green-winged Teal
Red-winged Blackbird
Am. Black Duck
Com. Grackle
N. Harrier

Other use of reed by New Jersey birds:

Many of the herons and other non-breeding waterbird species(cormorants, Least Terns, Forster's Terns, Greater Yellowlegs for example) use phragmites marshes also for feeding. It is not surprising that these fish-eating species would hunt prey there, especially in view of recent research documenting fish resources in reed marsh(Fell et al 1998; Meyer and Gill 1998). Many waterfowl species and rails, grebes, coots and moorhens also feed in phragmites marshes(Kane 1978). Some landbirds use reed for cover in migration stopovers(Gustafson 1986-87). Species other

than herons using reed as roost site include N. Harrier and Rough-legged Hawk(Bosakowski 1983). Downy Woodpeckers and Black-capped Chickadee forage in reed(Kane pers. obs.) and pheasants use phragmites for cover. Participants in Christmas Bird Counts can document land birds such as Am. Tree Sparrow and other sparrow species using reed as protection against the winter winds.

Comment:

Reed is important for certain endangered and threatened species in New Jersey such as the night-herons, Am. Bittern and Pied-billed Grebe. Some New Jersey-nesting species such as Ruddy Duck and Am. Coot are found nesting only in reed. For other species such as Common Moorhen, Least Bittern, Glossy Ibis and the egrets, as well as Marsh Wrens, Swamp Sparrows and blackbirds, reed may be very important for local populations of these birds. Obviously, phragmites marshes that are ponded or flowed with creeks and that have mud flats will be more productive, as they are for example in the Hackensack Meadowlands.

More research needs to be done on reed marshes, especially with a view to management strategies that maintain productivity. In the foreseeable future, the intense development in New Jersey with its roads, dikes, berms, fills and secondary impacts probably favors the proliferation of reed in our marshes and waterways, though that may be offset in places by rise in sea level. Eradication of reed for whatever purpose(mitigation, management of wetlands) should not be an automatic reflex decision, and should never occur without an on-site inventory of the resources present.

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