

# The Effect of Land Practices on Waterfowl in Illinois

by Stephen P. Havera

Waterfowl habitat includes wetlands, deepwater habitats, and areas with water levels manipulated for management (for example, agricultural land and bottomland forests.) Wetlands are generally defined as lands where water saturation is the dominant factor that determines both soil development and the plant and animal communities living in the soil as well as on its surface. Thus, wetlands are transitional lands between terrestrial and aquatic systems, areas covered by shallow water or where the water table is near or at the surface. Technically, wetlands must have at least one of three characteristics: 1) the land supports, at least periodically, predominantly hydrophytic plants; 2) the substrate is composed of predominantly undrained hydric soils; 3) the substrate is non-soil and saturated or covered by shallow water sometime during the growing season each year (Wilén and Frayer 1990). Thus, marshes, swamps, ponds, potholes, bogs, sloughs, wet meadows, mud flats, and river overflows are all considered wetlands (Wilén and Frayer 1990). Deepwater habitats are permanently flooded lands that lie below the deepwater boundary of wetlands (6.6 ft., 2.0 m), the maximum depth at which emergent plants usually grow (Wilén and Frayer 1990).

Unfortunately, from colonial times until the last two decades, "Wetlands have been regarded as nuisances, wastelands, habitat for pests, and threats to public health" (Wilén and Frayer 1990:182). In the name of progress, they have been "reclaimed" by draining, clearing, and filling. In recent years, however, wetlands have become appreciated for functions as well as for their less tangible values. The varied benefits of wetlands include regulating the flow of water, storing water, ground water recharge, filtering and purifying water, trapping sediments, providing habitat for plants and animals, and creating recreational opportunities.

Approximately 75 percent of the bird species in North America depend upon wetlands for resting, feeding, or nesting (Steinhart 1990). Describing our more gentle, patient cultures, cultures that depended on rivers and wetlands, one observer wrote, "Living by water nurtures curiosity, fascination with the intangible, patience, and trust" (Steinhart 1990).

## Wetland loss and degradation in Illinois

In the early 1800s, approximately 38.2 percent of Illinois was forested, 61.2 percent was a prairie, and less than 0.6 percent was water. Most of the prairie included wet prairies and marshes located mainly in the central and northern areas of the state. Northeast Illinois had an abundance of diverse wetlands. Central Illinois was blessed with wet prairies and marshes. Wet depressions supported many plant species, including prairie cordgrass, bluejoint reedgrass, marsh blazing-star, and rattlesnake master (Vestal 1914; Sampson 1921). Approximately 31 percent of the forest area found in Illinois in 1820 exists today, and a remnant 11,600 acres remain in a relatively undisturbed condition (Iverson et al. 1989; Iverson 1991). Only about 2,300 acres of good quality prairie remain (White 1978).



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We found a conservative estimate of presettlement wetlands in Illinois of 8,261,600 acres. The most recent inventory of wetlands in Illinois (Suloway and Hubbell 1994) revealed that approximately 917,765 acres of natural wetlands remain, a decline from approximately 23.1 percent of the surface area during presettlement to about 2.6 percent in the 1980s. All existing wetlands, including those modified and created, occupied about 1,254,000 acres or 3.5 percent of

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