

# Habitat Value of Wetlands for Water Birds in Urbanized Landscapes

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## Objectives:

1. To evaluate the extent to which natural and created wetlands associated with golf courses are used as habitat by resident and migratory water birds.

**Start Date:** 2001

**Project Duration:** 2 years

**Total Funding:** \$37,800

Perhaps the greatest challenge for urbanizing landscapes is to conserve sufficient high-quality habitat to sustain resident and migratory populations of wildlife. Golf courses, because they represent large tracts of open space in combination with relatively low levels of human activity, represent unique opportunities to provide valuable benefits to wildlife, especially birds.

With the highest per capita density of golf courses in the United States (866 holes/100,000 people), and a high diversity of wetland-dependent birds (water birds), southwest Florida provides an exceptional opportunity to study water bird use of created wetlands on golf courses. Our study evaluates the extent to which natural and created wetlands associated with golf courses are used as habitat by resident and migratory water birds.



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*The most abundant birds recorded were diving, fish-eating species, such as Cormorants, Anhingas, and Hooded Mergansers.*

We compare the effects of pond management and construction on water bird use, and based on field observations and experimental manipulation of pond construction, we will develop specific recommendations for improving golf course wetlands to maximize benefits to water birds.

During year one we recorded 4,864 observations of water birds, averaging 3.5 water birds per lake per survey. We recorded 31 species, including 11 species of short- and long-legged wading birds (30% of total observations), 9 species of ducks and duck-like birds including diving, fish-eating birds (55%), 7 species of seasonal shorebirds (12%) and seasonal kingfishers (1%), and 5 species of sea birds, primarily gulls (3%).

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Mergansers. These data indicated ample food resources were available to attract and retain fish-eating species. During year two of this study we will experimentally modify several ponds to create areas with shallow littoral zones designed to concentrate prey and increase access by wading birds.

## Summary Points

- Researchers recorded 4,864 observations of water birds, averaging 3.5 water birds per lake per survey. This included 31 species, including 11 species of short- and long-legged wading birds (30% of total observations), 9 species of ducks and duck-like birds including diving, fish-eating birds (55%), 7 species of seasonal shorebirds (12%) and seasonal kingfishers (1%), and 5 species of sea birds, primarily gulls (3%).
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