Ducks Unlimited has successfully completed the first field season of black duck wintering research on Long Island and is currently engaged in the second and final season. The first season produced novel, relevant information regarding black duck movements, habitat use, stress events and an abundance of food resource samples. Resource samples are currently being analyzed at Southern Illinois University and the graduate student is preparing for the second field season. She will again trap and mark 30 female hens, follow their movements and behavior, and collect food resources samples throughout the winter and spring period. Ducks Unlimited will maintain the black duck web page to report to the public on the activities of the hens over the field season.

BACKGROUND

American black duck populations have declined in recent years by as much as 60 percent on the wintering grounds. There are several possible explanations for this decline, one of which is loss of wintering habitat. Coastal salt marshes are the most important wintering habitat for black ducks throughout the Atlantic Flyway. By 1940, 90 percent of the Atlantic Coast salt marshes between Maine and Virginia were ditched and severely degraded resulting in fewer available wintering sites and likely reduced food resources.

As a science-based wetland conservation organization, Ducks Unlimited has identified several critical research projects within the Great Lakes/Atlantic region to aid in our strategic planning process. One critical component of this planning process is determining what type and how many acres of coastal wintering and staging habitat are required along the Atlantic Flyway to support the goals of the North American Waterfowl Management Plan. In order to answer that question, several important pieces of data must be obtained. These include wintering habitat use in coastal marshes, food availability and depletion over time and a landscape analysis of habitat availability.

The study will be once again centered on Long Island, which represents a traditional wintering and staging area for black ducks and an area where numbers have been relatively stable. Three locations on Long Island, New York, are used for trapping sites during the first field season: Smithers/Hubbard County Park near Flanders, Wertheim National Wildlife Refuge in Shirley and the John F. Kennedy Memorial Wildlife Sanctuary in Oyster Bay. Swim-in style traps were set in early November at all three locations, and the first black duck hen was trapped on November 30, 2004. By December 10, 2004, 30 black duck hens were trapped and successfully fitted with radio transmitters.

The study has two components: food depletion and habitat use. Documenting the rate of food depletion over the season allows us to determine when food resources become limited based on available habitat. Spring is likely a time of critical food shortage, but without research we do not know when or where it occurs along the Atlantic Coast. Another important piece of the puzzle is understanding how birds use habitats, especially among wetlands and different wetland types.

BLACK DUCK STUDY WEBSITE: http://www.ducks.org/Conservation/MidAtlanticCoast/2883/BlackDuckStudy.html
PHASE II OF THE LONG ISLAND BLACK DUCK STUDY

FINDINGS FROM PHASE I

What do the ducks do and where do they do it?

Black ducks spend most of their time either sleeping, loafing or feeding. Of all the different habitat types, saltmarsh and mudflats were used most often by the black ducks for feeding, whereas they did most of their sleeping and loafing in freshwater habitats, open water bays, shoreline habitats and brackish water habitats.

Where did the ducks go?

To monitor habitat use, hens were followed from their capture date through their departure date from Long Island. During the month of December, eight hens left the area. On January 21, 2005, one day before a blizzard hit the island, two more hens left and never returned. Due to weather and runway conditions, the airplane pilot was unable to fly and search for missing birds until February 15, 2005. During the 6-hour flight over Long Island, the New Jersey coast and portions of Connecticut, only one of the ten missing birds was located near Sandy Hook, NJ. Periodic searches covering Long Island along with daily scanning for the remaining nine missing birds also failed to locate the missing birds. It is suspected that those birds flew to the Chesapeake Bay area.

Two more hens were harvested during the Long Island waterfowl hunting season; both of these hens were returned to us. Another six hens were lost within one week of the January 22, 2005 blizzard; starvation and stress are likely causes. Three of these birds were located before they were disturbed by scavengers and it was determined that starvation was the cause of death (necropsies were performed at Southern Illinois University, Carbondale). During this hunting season one hen was harvested in Maine, and one in New Brunswick.

NEW PARTNERSHIPS

Although this research began as a single-site effort by Ducks Unlimited, it has spurred the development of a partnership to specifically address black duck wintering and spring issues along the entire Atlantic Coast. Led by Ducks Unlimited, this effort now includes the design of two more study sites in New Jersey and the Chesapeake Bay to replicate and expand on the Long Island study. Partners include the Black Duck Joint Venture, the Atlantic Coast Joint Venture, the U.S. Fish and Wildlife Service, state biologists in New Jersey and Maryland, refuge staff in New Jersey and two academic institutions. This represents a major step forward in developing the science-based planning needed for both Joint Ventures and Ducks Unlimited.