

Living Lakes Initiative



To strategically deliver conservation to obtain maximum effectiveness and benefit for continental waterfowl populations, DU has refined the focus of its conservation work in Minnesota and Iowa to improve the most valuable wetland resources for waterfowl: shallow lakes and large wetlands. The following is a summary of this exciting new initiative.

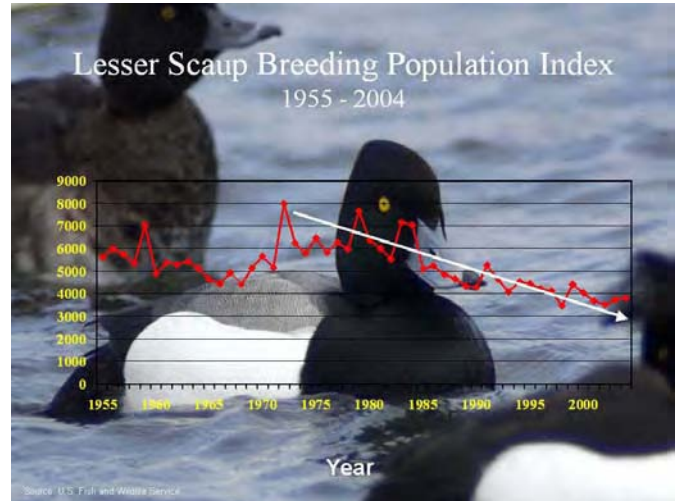
Minnesota and Iowa were originally blessed with an abundance of lakes and wetlands. Accounts of early settlers indicate a landscape nearly impassible due to the presence of so much water. Today, following more than a century of expanding crop production, timber harvest and human development, the landscape looks dramatically different. The well-documented loss of wetland and grassland habitats has greatly diminished the waterfowl production capability of Minnesota and Iowa, but these states continue to provide vital waterfowl migration habitat that include large marshes and shallow lakes on the prairie and natural wild rice wetlands in the northern forest.

These large wetlands are the cornerstones of Minnesota and Iowa's remaining waterfowl habitat, serving as a vital link between southern wintering grounds and breeding areas to the north and west. During prairie droughts, more permanent water in Minnesota's lake country offers refuge to displaced waterfowl. Although direct drainage no longer threatens these wetlands, recent waterfowl research suggests that productivity in these wetlands has seriously declined and may be directly impacting waterfowl populations.

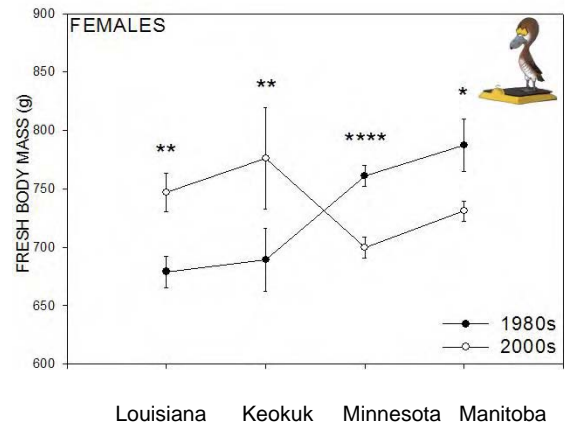
Declining Scaup Populations

Continental scaup populations have declined steadily since 1980 with recent levels estimated at 30% below the long-term (1955-2003) average.

Scientists have proposed several hypotheses to explain the scaup decline, but evidence is mounting that scaup migrating north in the spring through Iowa and Minnesota are unable to find the aquatic food resources necessary to maintain body mass, causing some females to either delay or forgo nesting – which ultimately affects population levels.



Recent analyses comparing spring scaup body mass and diets between 1980 and 2000, have found that scaup are significantly lighter today and their diets have switched from mainly amphipods (scuds or freshwater shrimp) to less preferable food items as they make their way north from Keokuk Pool in extreme southeastern Iowa through Minnesota and Manitoba.



Additional data suggests that the abundance of other waterfowl species in Minnesota and Iowa has declined during the fall migration, likely due to the degradation of these same large staging wetlands. These recent trends in scaup and other migratory waterfowl indicate that wetlands in the upper midwest are in trouble and deserving of focused and dedicated conservation action.



Ducks Unlimited's Response

Intensive prairie land use, altered hydrology, expanding fish populations, and wetland outlet modifications are threatening use and productivity of large prairie marshes and shallow lakes. In Minnesota's forested region, pressures on wild rice lakes from shoreline development, forestry practices, and burgeoning beaver populations are mounting. Based on the importance of Minnesota and Iowa's large wetlands and shallow lakes to migrating waterfowl and the growing threats to these vital habitats, DU has launched its ***Living Lakes Initiative***.

Ducks Unlimited's vision for Living Lakes is to establish stepping stones of perpetually protected and managed high-quality wetland complexes from Keokuk Pool in southeastern Iowa through northern Minnesota that will provide waterfowl with the necessary food and habitat resources as they travel across this migratory pathway each year.



Shallow Lake Watershed Improvements

Improving lake water chemistry reduces algal blooms and stimulates growth of desirable aquatic plants and invertebrates, which serve as the food base for migrating waterfowl. Shallow lakes can be enhanced by restoring adjacent small wetlands and grasslands as well as establishing buffers around basins with degraded watersheds. Promoting USDA's Wetlands Reserve Program (WRP), Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), and other state and federal agency incentives will be major tools in this effort. Restoring wetlands and grasslands within shallow lake watersheds has the added benefit of providing nesting cover for upland-

nesting waterfowl. Wetland and grassland restorations also provide breeding habitat for waterfowl. By focusing watershed restoration efforts in landscapes containing at least 20% grassland cover per four square miles, breeding waterfowl will have increased odds of achieving nest success capable of maintaining populations.

Shoreline Protection and Land Acquisitions

Ducks Unlimited will also protect shorelines and outlets of shallow lakes through conservation easements. A rapidly growing market for shoreline property and lake access threatens the ecology of shallow lakes and the ability of conservation agencies to manage them effectively for waterfowl. It is critical that we accelerate our efforts to protect shorelines and secure conservation ownership of strategic lake outlets to allow proper water level management.



Solicitation of donated conservation easements from shoreline landowners will be the main thrust of this effort. When land adjacent to shallow lakes or land containing large drained wetlands becomes available in critical areas, DU may also decide to purchase these tracts in fee title. Purchased tracts will be restored, protected with conservation easements and then resold to conservation buyers under a revolving land strategy. Capital recuperated from the sale of land will be reinvested in acquisitions of additional properties that become available in the future.

Shallow Lake and Large Marsh Restorations

The potential for wetland restoration in Iowa and Minnesota is extensive, and the need is obvious. Whenever possible, Ducks Unlimited will continue to engineer and restore drained shallow lakes and

large marshes through partnerships with the U.S. Fish and Wildlife Service and both the Minnesota and Iowa Departments of Natural Resources as well as through helping landowners enroll and restore wetlands through the WRP. Ducks Unlimited will also use GIS models to target restorations to gaps in the migration pathway in order to create “stepping stones” of restored and protected wetlands that will allow waterfowl to obtain resources necessary to maintain body mass along their migration pathway.

Shallow Lake Enhancement and Management

Restoring shallow lakes and protecting their shorelines and outlets are not enough without a commitment to manage the habitat to its full potential. Increased runoff from surface ditches and drain tiles has raised water levels in large prairie wetlands allowing fish such as fathead minnows, carp, suckers and bullheads to enter, over-winter, and persist. Young fish trigger a chain of events that reduces the density of aquatic invertebrates and submerged plants, while adult fish often uproot aquatic vegetation, stir lake sediments, and create more young fish. To remedy these negative impacts, DU is working with public agencies to install water control structures with state-of-the-art fish barriers to manage water levels while preventing fish movement into critical prairie wetlands. Drawdowns and the fish toxicant Rotenone are used to extirpate fish once barriers are in place. While DU realizes that there is a place for aquaculture efforts, we believe that shallow lakes without fish histories should not be used for fishery purposes and their fish populations should be minimized to improve habitat for waterfowl and other wetland wildlife. In the forest, recent inventories suggest that northern Minnesota contains 700 wild rice lakes covering 60,000 acres. Ducks Unlimited has targeted 100 of these lakes to improve water level management. Lake outlets are being managed to allow water levels to fluctuate naturally and promote the germination and growth of wild rice. Our goal is to actively manage the outlets of 100 wild rice lakes annually to enhance 30,000 acres of wild rice habitat.

Call to Action!

Biological and ecological indicators are clearly suggesting that the lakes and wetlands of Minnesota and Iowa have crossed a critical threshold. Ducks Unlimited's ***Living Lakes Initiative*** calls for focused and timely conservation actions necessary to reverse these trends and restore and protect the wetland base in this region. Through ***Living Lakes***, Ducks Unlimited will work with its partners to establish stepping stones of perpetually protected and productive wetland complexes from Keokuk Pool in southeastern Iowa through northern Minnesota that will provide waterfowl with the necessary food and habitat resources as they travel across this migratory pathway each year. This Initiative, while providing critical habitat for migrating waterfowl, will also address many of the water-related concerns of the citizens of Minnesota and Iowa. Wetlands are a unique natural resource, an essential habitat for waterfowl and many other species of wildlife, and a key component of our cultural and natural heritage. Today, Ducks Unlimited has the opportunity to restore and preserve that heritage – an opportunity that we cannot let pass, and one that will be challenging and expensive to implement. Funding for this Initiative will be critical, and major gifts and large donations will be needed. Please join us by helping fund these efforts to bring life back to the lakes and wetlands across the ***Living Lakes*** landscape. For more information about the Living Lakes Initiative and DU conservation programs, e-mail Jon Schneider (jschneider@ducks.org) or Roger Pederson (rpederson@ducks.org).

