

DEPARTMENT of the INTERIOR

news release

FISH AND WILDLIFE SERVICE

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Megan Durham 202/343-5634

OUR VANISHING WETLANDS

When the first European explorers arrived in the New World, they were astonished by the abundance and variety of wildlife and fish they found. Early reports described 10-inch oysters in the waters of Manhattan Island, 25-pound lobsters in New England, and 5-foot lake trout in Lake Champlain. The countryside teemed with deer, moose, bears, ducks, geese, cranes, and a host of other creatures.

Much of this natural bounty of fish and wildlife was embraced by the 127 million acres of wetlands estimated to have existed in the United States at that time. These marshes, swamps, bogs, estuaries, and other waterlogged lands served as nursery areas for fish and shellfish, breeding and wintering grounds for waterfowl, and habitat for countless other species.

Acre for acre, wetlands are among the most productive lands on earth. Yet these areas have long been regarded as wastelands and today nearly half of the wetlands that existed in colonial times are gone. They have been ditched, dredged, drained, and filled; converted to farmland, housing developments, shopping centers, airports, and garbage dumps. From 200 to 300 thousand acres of wetlands are destroyed in the United States each year.

What Are Wetlands?

Definitions of wetlands vary, because there are many different types of wetlands. They include timbered swamps, bogs, fens, coastal marshes, potholes, estuaries, shallow lakes, and intermittently flooded bottomland

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forests. Wetlands may be fresh or salt water and may vary in size from small ponds to swamps covering thousands of acres. Each type of wetland supports a unique network of animals and plants. All are complex, delicate systems not easily restored once they have been damaged.

Destruction of Wetlands Costly

The destruction of wetlands can have negative effects on people's lives and even the Nation's economy.

For example, people whose homes have been flooded may be, in part, victims of wetland destruction upstream. Wetlands are important for flood control because they hold water and slow runoff. When wetlands are filled, increased runoff can cause costly flood and erosion damage downstream.

A farmer whose well has gone dry or begun pumping salty water might also consider what has happened to local wetlands. Wetlands are important to water supplies because some of the water they trap seeps into the ground to recharge the groundwater supply. This is particularly important in dry areas where irrigation and other activities have depleted groundwater supplies.

Wetlands also affect water quality. By trapping silt and organic matter, wetland basins act as natural filters, preventing these materials from running off into streams, rivers, and lakes where they can cause ecological changes that damage fisheries and pollute drinking water. Wetlands are easily overloaded, however, and today many are being choked by erosion and effluents from agricultural, industrial, and construction activities.

Such siltation and pollution cause complex changes that disrupt the entire ecosystem. For example, water becomes cloudy, reducing the amount of light reaching submerged plants. Surface plants like algae and duckweed and plants that require little light grow profusely and their respiration and decay decrease the amount of oxygen in the water. Fish die; some choice waterfowl foods are reduced; and aquatic mammals like beavers, muskrats, and otters can no longer find suitable habitat. Species diversity is reduced while the few remaining species become abundant. Unhappily, these are often species like carp which are of little value to people and which may compete with or prey on more desirable species. Under such conditions, wetlands can no longer function as natural filters nor support the diversity of food chains and complex webs of life that formerly existed in them.

Pollution and destruction of wetlands damages commercial and sport fisheries. Tidal marshes and estuaries are among the most fertile areas in the world, producing life-giving nutrients that feed clams, oysters, crabs, shrimp, and many species of fin fish. These areas also serve as nursery grounds for juvenile fish and as breeding areas for adult fish such as striped bass. The renowned oysters and crabs of the Chesapeake Bay and the shrimp fisheries of the Gulf of Mexico are just two examples of multi-million dollar fisheries that depend on estuaries and coastal marshes. About two-thirds of the sport and game fish of the Atlantic Ocean and Gulf of Mexico depend on estuarine habitat, including coastal wetlands, during some part of their life cycle.

Wetlands for Wildlife

Perhaps the most obvious effect of wetland destruction is on wildlife. Wetlands provide essential breeding, feeding, staging, and wintering grounds for ducks, geese, and many other types of waterfowl. The insects, snails, and other tiny invertebrate creatures and lush vegetation that thrive in these areas provide nutrients that birds need for egg production and growth. Wetlands also help protect nests and young birds from predators. Wetlands do not even have to be very large to be valuable to waterfowl. Seemingly insignificant potholes, some of which may be as small as one-fifth of an acre and hold water only part of the year, produce enormous numbers of waterfowl when they occur in large complexes as in the northern prairie States.

Besides waterfowl, wetlands provide habitat for many other living things. Such species as deer, moose, fox, muskrats, beavers, mink, otters, upland game birds, songbirds, alligators, turtles, frogs, snakes, snails, and myriads of insects all use wetlands to one degree or another. Many endangered or threatened species, from whooping cranes to salt-marsh harvest mice, also need wetlands to survive.

Public Support Needed

Unfortunately, time is running out for wetlands. Draining, filling, and pollution continue at a rapid rate.

Waterfowl hunters help to preserve wetlands by purchasing Migratory Bird Hunting and Conservation Stamps, or "duck stamps." Money from duck stamp sales goes directly to buy habitat for waterfowl, thus preserving wetlands both for birds and for the many other species that live there. Since 1934 when duck stamps first went on sale, more than 2 million acres of waterfowl habitat have been preserved with duck stamp funds.

But more help is needed. The Interior Department encourages nonhunters who enjoy wildlife to contribute to the U.S. conservation effort by buying duck stamps at any first- or second-class post office.

Wetlands preservation is a task that cannot wait for long. Public support is needed now to preserve these valuable natural resources for the future.

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