

# National Wildlife Refuge System

*Promises for a New Century*

**FISH & WILDLIFE SERVICE**

Walt Whitman



Caribou herd on the Arctic National Wildlife Refuge  
Photo by F. Maurer

Bosque del Apache National Wildlife Refuge  
Cover photo by G. Zahm

*"The mission of the National Wildlife Refuge System is to preserve a national network of lands and waters for the conservation and management of fish, wildlife and plant resources of the United States for the benefit of present and future generations."*

*Presidential Executive Order 12996, March 1996*

# A Century of Growth

1903



FWS Photo



Theodore Roosevelt Collection  
Harvard College Library

The first National Wildlife Refuge is established at Pelican Island, Florida, by President Theodore Roosevelt.

1935-66



FWS Photo

J. Clark Salver, father of the Refuge System, criss-crosses the nation, directing the purchase of over 600,000 acres of wetlands, forming over 50 new refuges.

1980



FWS Photo

Alaska National Interest Lands Conservation Act adds almost 54 million acres to the Refuge System.

1996



President issues Executive Order, clearly defines the Refuge System's mission and guiding principles, affirming the need to protect the biological integrity of the Refuge System, while enhancing wildlife-dependent visitor uses.

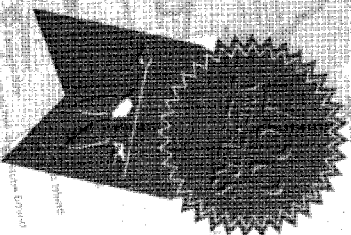
1994



J. & K. Hollingsworth

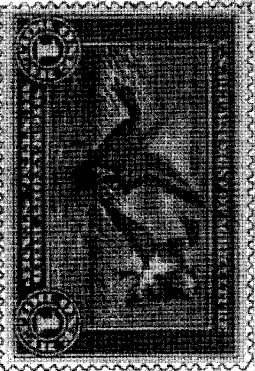
Canaan Valley in West Virginia becomes the 500th National Wildlife Refuge.

2003



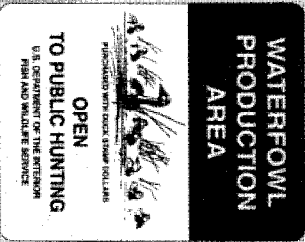
America celebrates the 100th anniversary of the National Wildlife Refuge System.

1934



Newspaper editorial cartoonist and Chief of U.S. Biological Survey "Ding" Darling designs the first Federal Duck Stamp. Duck Stamp sales have contributed to the purchase of 4 million acres of wildlife habitat for the Refuge System.

1966



National Wildlife Refuge System Administration Act passes. Waterfowl Production Areas become a part of the System.

# Our National Wildlife Refuges

The past gives roots to our vision - our *promises* - for the future.



Paul Kroegel, Pelican Island Refuge, Florida (FWS Photo)

In 1903, President Theodore Roosevelt ordered that a small shell- and mangrove-covered island in Florida's Indian River be forever protected as a "preserve and breeding grounds for native birds." Paul Kroegel, a sometime boat builder, cook, and orange grower, was hired to watch over this 3-acre sanctuary. His mission was clear: *protect the island's pelicans from poachers and plume hunters.*

With this simple promise of wildlife protection, the National Wildlife Refuge System was born.

Nearly a century later, the Refuge System has grown to over 92 million acres in size. It now includes over 500 refuges, at least one in every state, and over 3,000 Waterfowl Production Areas. This growth was nurtured by many hands. Concerned citizens, conservation groups and the states have all played a vital role.

Refuges are places where the music of wildlife has been rehearsed to perfection, where nature's colors are most vibrant, where time is measured in seasons and where the dance of the crane takes center stage.

National Wildlife Refuges are gifts to ourselves and to generations unborn... simple gifts whose treasures are unwrapped every time someone lifts binoculars to the flash of feathered color, every time a child overturns a rock, and every time a hunter sets out the decoys or an angler casts the waters.

Our mission for the National Wildlife Refuge System today is much as it was when President Roosevelt established the Pelican Island Bird Reservation. While the job now takes more than one man and one boat, we remember the promise made when the century was fresh - *preserve wildlife and habitat for people today, and for generations to come.*



President Theodore Roosevelt on Bretton National Wildlife Refuge, Louisiana (Photo: Theodore Roosevelt Collection Harvard College Library)

# The Refuge System Works for Wildlife!

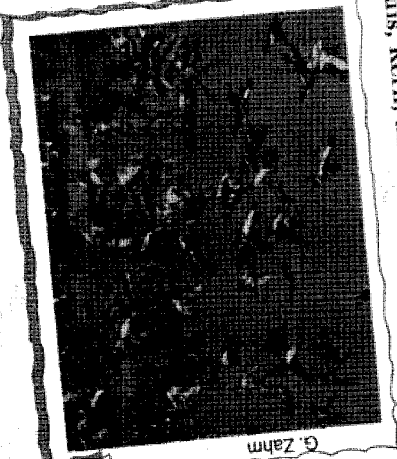
Living  
1999



J. & K. Hollingsworth

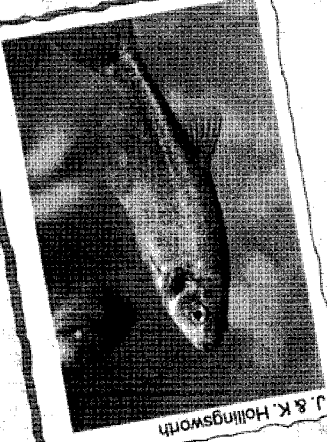
At Necedah Refuge (Wisconsin), prescribed fire is used to maintain the oak barrens habitat critical to the endangered Karner blue butterfly.

Hundreds of thousands of pintails find important wintering grounds on a string of state management areas and refuges in California's Central Valley, including San Luis, Kern, and Sacramento.



G. Zahm

Several endangered fish find homes on Arizona refuges, including the delicate Yaqui chub on San Bernardino Refuge.



J. & K. Hollingsworth

Kodiak brown bears flourish on the 1.7 million acre Kodiak Refuge in Alaska.



J. & K. Hollingsworth

Cape May Refuge in New Jersey is renowned for spectacular concentrations of warblers during migration.



S. Maslowski

Agassiz Refuge in northwestern Minnesota was the first refuge in the lower 48 states with a resident pack of gray wolves.

An estimated 40 million seabirds like the tufted puffin nest on the thousands of islands that make up the 3.5 million acre Alaska Maritime Refuge.

J. & K. Hollingsworth



D. Menke



D. Hulman

"Gang broods" of lesser scaup attest to the incredibly rich wetlands of Benton Lake Refuge in Montana.



J. & K. Hollingsworth

Bison depend on expanses of grassland at Ft. Niobrara Refuge (Nebraska), the National Bison Range (Montana), and Wichita Mountains Refuge (Oklahoma). Great care is taken to maintain the genetic integrity of these herds.



# Wildlife

*A living heritage, a heritage for life.*

In many ways, the National Wildlife Refuge System is carrying America's wildlife heritage into the 21st Century. If it has feathers, fur, scales or fins, chances are it's found on a National Wildlife Refuge. From one-ton bison to one-ounce warblers, refuges carry a priceless cargo - the heritage of a wild America that was, and is.

We watch over 700 kinds of birds, 220 mammals, 250 reptiles and amphibians and 200 kinds of fish. They come as flocks, herds, coveys, gaggles, groups, pairs and loners. Nearly 170 threatened or endangered species are found on refuges, and it is here they often begin their recovery or hold their own against extinction.

Our job is to protect, restore and manage this heritage. Although we count it, study it, band it, mark it and reintroduce it, we mostly let wildlife come naturally by managing its home, its habitat.

## Our *Wildlife* Promises

*The Refuge System will restore, protect and manage the abundance and diversity of animals representing our wildlife heritage and become the preeminent land management system for the conservation and recovery of endangered species.*

*We will be leaders in applying the best science and technology to manage fish and wildlife.*

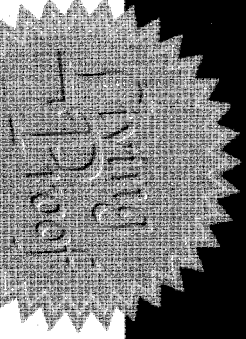


*Photo Credits*

Top left: D. Hultman

Others: J. & K. Hollingsworth

# The Refuge System Works for Habitat!



Habitat for wildlife and people rings true at several urban refuges, including John Heinz Refuge (Pittsburgh) in Philadelphia.

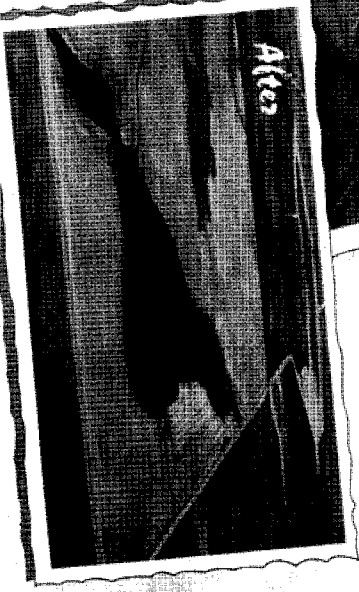


FWS photo

The Refuge System has over 20 million acres of designated wilderness, including the vast Okefenokee Refuge (Georgia/Florida).

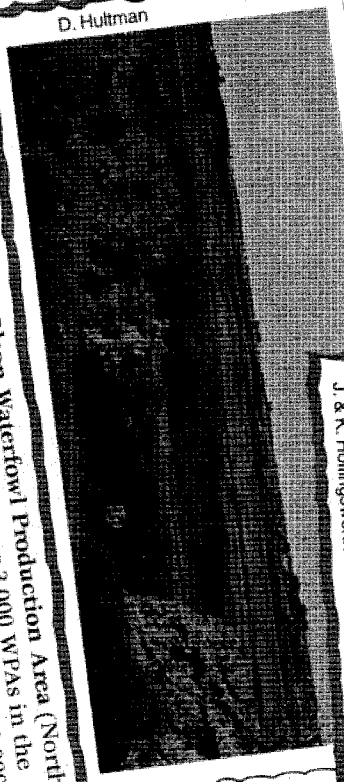
Palov

B. Angus



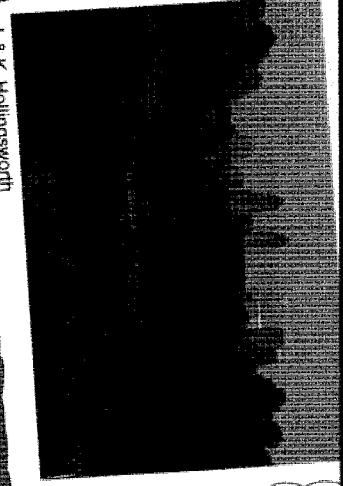
Altes

In partnership with landowners, the Lincoln Wetland District (Minnesota) has increased waterfowl production in areas by reestablishing 5,000 wetland and riparian lands.



D. Hultman

Olson Waterfowl Production Area (North Dakota) is one of over 3,000 WPAs in the Refuge System, preserving almost 700,000 acres of wetland and prairie habitat.



J. & K. Hollingsworth

Many coastal refuges provide beaches critical to marine mammals, shorebirds and sea turtles. At Monomoy Bay Refuge (Massachusetts), gray seals find a place to rest.



J. & K. Hollingsworth

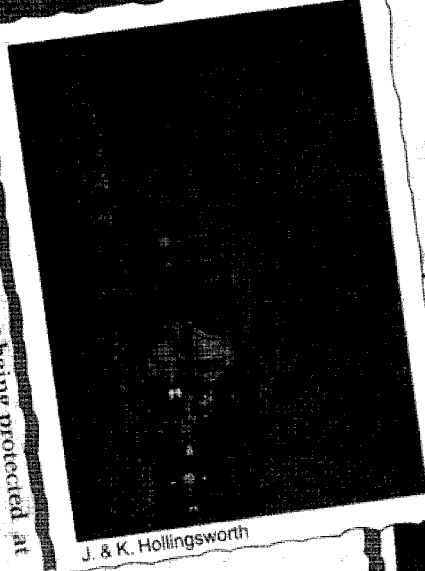
Vast wetlands at Lacassine Refuge near Louisiana's gulf coast make this one of the premiere waterfowl wintering areas in the Refuge System.



J. & K. Hollingsworth

Only 12 miles from New York City, Long Island Refuge Complex preserves over 50 habitat types and sites for the endangered Sandplain gerardia.

D. Sias, TNC



J. & K. Hollingsworth

Cypress swamps are being protected at Cypress Creek Refuge as part of a partnership with Illinois, the Nature Conservancy and Ducks Unlimited to preserve the Cache River Ecosystem.



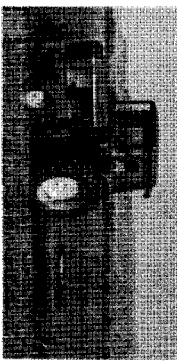
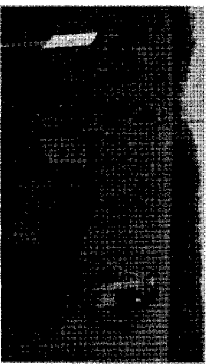
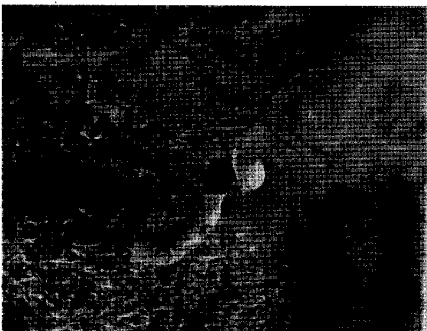
# Wetland

## Places to live, living places.

To wildlife, habitat is home: a place to eat, rest and raise young, year in and year out. The Refuge System provides a national network of homes - a lifeline for millions of ducks and geese; open spaces for elk, pronghorn and caribou; and wild niches for the rare and endangered.

This habitat is as diverse as the wild things living there. Refuges protect tundra, grasslands, deserts, forests, rivers, marshes, swamps and remote islands - virtually every type of habitat and landscape found in the United States.

On many refuges we must restore what was ditched, drained and cleared, and actively manage wetlands, grasslands and forests to provide the variety of habitat needed by diverse wildlife. On some refuges, pristine landscapes and unique plant communities need only protection, monitoring and careful visitor management to provide an array of wild wonders.



## Our Stalwart Promises

*The Refuge System will provide the quantity and quality of habitat that supports America's diverse wildlife heritage, and serve as the cornerstone of an ecosystem approach to resource conservation that considers landscapes beyond boundaries and focuses on environmental health and biological integrity.*

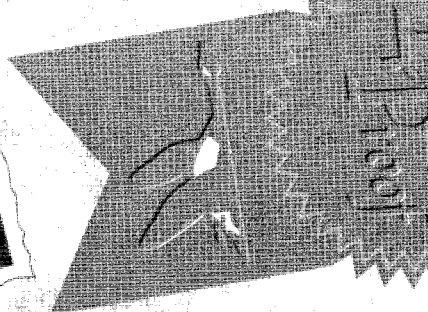
*We will be national and international leaders in the art and science of habitat management and Wilderness preservation.*

*Units of the Refuge System will serve as demonstration areas for private land wildlife conservation and models for sound land ethics and use.*

*Photo Credits  
Top right: R. Shallenberger  
Others: J. & K. Hollingsworth*

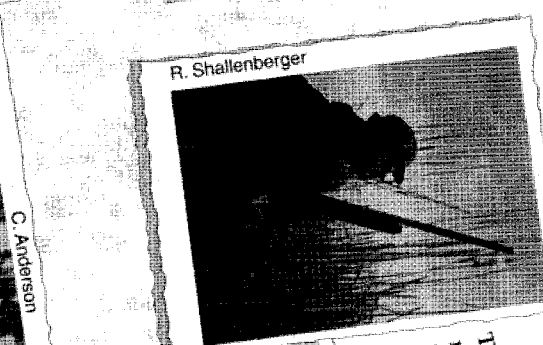
# The Refuge System Works for People!

1971  
1972  
1973



R. Shallenberger

The rewards of early morning duck hunting on Kern Refuge (California) includes the thrill of witnessing the marsh come to life.



C. Anderson

Visitors can watch wildlife near cities or half a world away in a system that includes Midway Atoll Refuge in the Pacific, and Minnesota Valley Refuge next to Minneapolis.



G. Zahm

Interpretive center dioramas help visitors to Patuxent Refuge (Maryland) learn about wildlife, face-to-face.

Bass fishing on Choctaw Refuge (Alabama). Over 5 million people fish on refuges each year.

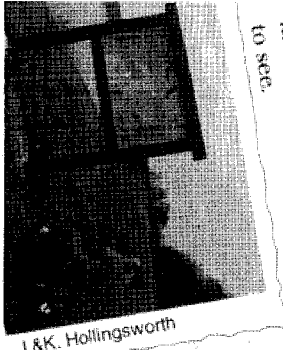


R. Shallenberger



R. Shallenberger

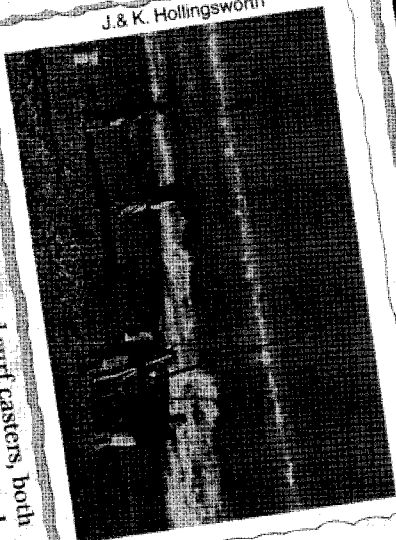
Signs help visitors to Lake Woodruff Refuge (Florida) know where to go and what to see.



J.&K. Hollingsworth

J.&K. Hollingsworth

Shore birds and surf casters, both hoping for bites on Hobe Sound Refuge (Florida).



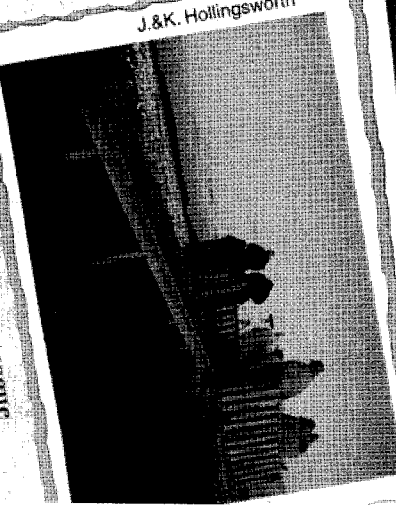
The Rocky Mountain Arsenal Refuge (Colorado) welcomes school children. Refuges across the country are outdoor classrooms for a half-million students each year.

J.&K. Hollingsworth



J.&K. Hollingsworth

An observation platform at Chimneycogue Refuge (Virginia) brings visitors close to snow geese without disturbing them.



J.&K. Hollingsworth

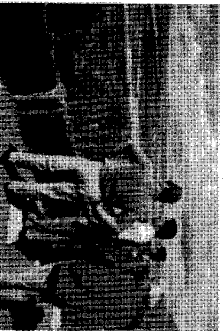
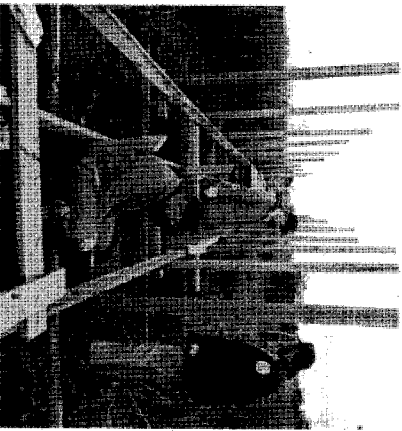
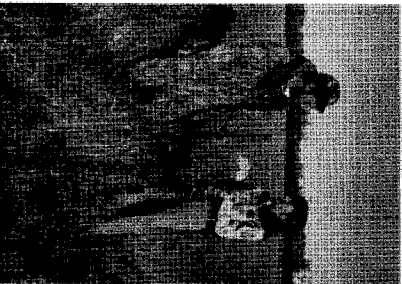
# People

## Wildlife for people, people for wildlife.


Almost 30 million people visit National Wildlife Refuges every year. While the needs of wildlife must come first, most refuges welcome those who want to enjoy the natural world: to observe or photograph wildlife, to hunt or fish, or to study and learn about wildlife and their needs.


Refuges provide both solitude and community. They are outdoor classrooms for school children, or places to take a quiet stroll in the twilight. They are places where sons and daughters first learn the magic of the duck marsh at dawn, or first hear the bellow of an alligator echo through a swamp.


Anyone who has ever been startled by a burst of wingbeats, been stopped by the beauty of a wildflower, or felt their heart race in a blind at sunrise, knows the magic of these wild places - a magic born of passion for our Nation's wildlife heritage.



### Our *People Promises*

 Priority visitor uses of refuges will be wildlife-dependent and compatible in the truest sense of "wildlife first."

 Refuges will be national treasures for wildlife and its enjoyment - places where visitors and local communities take pride in their stewardship.

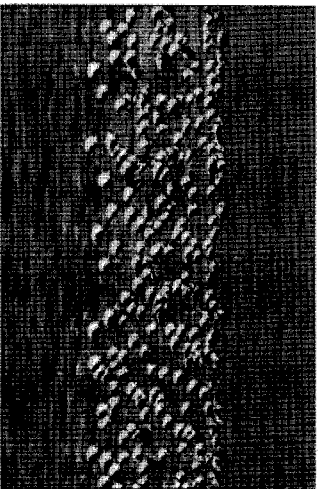
 Refuges will be safe and accessible. Visitors will feel welcome, and will easily know where to go, and how to use and enjoy each refuge.

*Photo Credits*  
Top left: FWS Photo  
Others: J. & K. Hollingsworth

# Challenges

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*The Refuge System is a unique and wonderful network of wild lands and wildlife. Yet, there is trouble in paradise. Keeping our promises to wildlife, habitat and people requires that several challenges be addressed as we approach and go beyond the System's 100th birthday in 2003.*

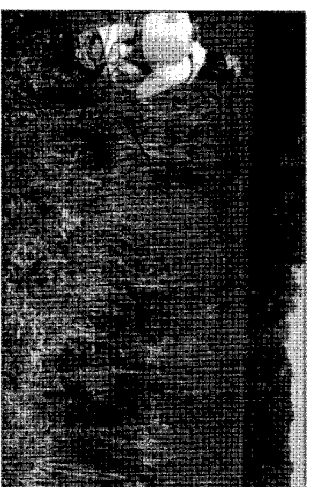


J. & K. Hollingsworth

**First and Foremost**  
Although refuges are lands dedicated to wildlife conservation, some people see them as economic opportunities or multiple-use lands. Over time, some uses of refuge lands have become entrenched and conflict with our primary conservation mission.

## Habitat Concerns

Noxious weeds and non-native animals are problems on many refuges. Weeds displace native plants and eventually wildlife. Non-native animals such as carp can turn a once productive marsh into a turbid void. Some refuges, especially in the West, do not have secure water rights and at times are left high and dry. Other refuges suffer from water quality, siltation or contaminant problems.



FWS Photo



FWS Photo

## The Wild Unknown

The National Wildlife Refuge System is a string of pearls loved by many but unknown to most. Surveys show Americans strongly favor a healthy environment, public lands, and conservation of wildlife. Yet Americans can't support a system they don't know exists.



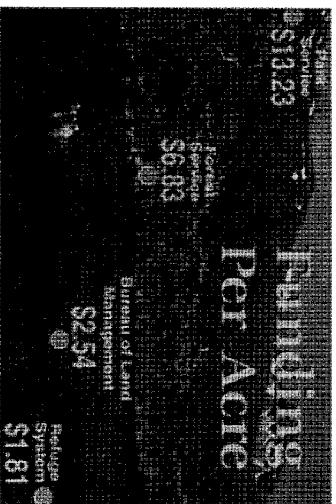
D. Hultman

### Planning Ahead

Declining habitat around refuges, concern for biodiversity and healthy ecosystems, and a more engaged public mean refuges must examine old Master Plans and chart new courses for the future. A simple, yet comprehensive plan for each refuge that considers the needs of both wild and human customers is necessary to move the Refuge System into the 21st Century.

### Running on Empty

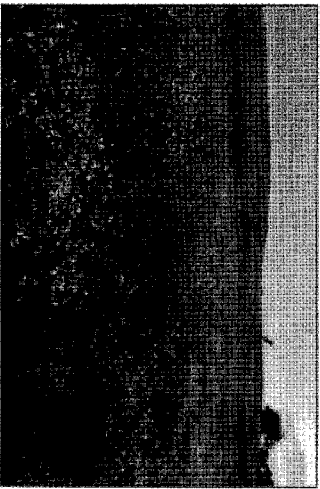
Basic operations funding is not keeping pace with need. Important habitat work is being delayed, research and monitoring are slipping, and visitor services are falling below the public's need and expectation. From 1981 to 1995 alone, 89 new refuges and several hundred waterfowl production areas were added to the Refuge System without a corresponding increase in funding. Age is also taking a toll on the infrastructure of refuges as many approach their golden and diamond anniversaries. The backlog of maintenance projects nationwide stands at over \$400 million and, left unchecked, will impact the Refuge System's ability to meet the needs of wildlife and people.



D. Menke

### New Lands

Acquisition of land from willing sellers remains a critical tool in safeguarding wildlife and habitat while providing opportunity for wildlife-dependent recreation. But increasing land costs, limited acquisition funding, and the needs of existing refuges present challenges to continued and timely additions to the Refuge System.



C. Blacklock

*2003 and Beyond...*



Bill Cannon  
Photo by G. Kramer

# Meeting The Challenges, Fulfilling Our Promises

**Wildlife First** We will ensure that visitor and economic uses on refuges are compatible with their wildlife conservation purposes. We will fully implement an improved process for deciding which uses to allow, and give priority to compatible wildlife observation, photography, hunting, fishing, environmental education and interpretation.

**A Biologist on Every Refuge** Biology is the foundation of sound wildlife and habitat management. We will strengthen this foundation by ensuring that every large refuge has at least one biologist on staff.

**Refuge Health** We will focus on providing clean and adequate water supplies for refuge wetlands and aggressively reduce harmful weeds and non-native animals.

**Reaching Out** We will increase our outreach efforts so that 100 percent of Americans have the opportunity to learn about *their* Refuge System by its 100th Anniversary. We will focus on education of youth and urban audiences, increase public involvement in decisions, and rededicate ourselves to exemplary customer service.

**System Identity** We will ensure that visitors to refuges know that each is part of a "system" and the U.S. Fish and Wildlife Service by showing how each unit ties into the overall refuge network, and by increasing the consistency of message, signs, and leaflets.

**Partnerships** We will strengthen existing partnerships and forge new ones for the next century. Local communities, volunteers, businesses, state and tribal governments, and conservation organizations will become powerful allies in meeting our mission. We will continue as leaders in helping neighbors improve their land for fish and wildlife, and by 2003 will have assisted with the creation and networking of at least 100 local citizen support or "friends" groups.

**Planning** Early in the next century, each refuge will have a new or revised *Comprehensive Management Plan* to ensure their continued health and biological integrity, and to guide wildlife management and public use decisions.

**Accomplishments and Needs** By 1998, the *Refuge Management Information System* will be fully operational to capture our accomplishments, show our true operations and maintenance funding needs to meet resource objectives, and to guide budget and policy development.

**System Growth** We will develop a more strategic plan for Refuge System growth, one that focuses on finishing acquisition within approved boundaries and continuation of the small wetland acquisition program, and one that strategically establishes new refuges in locations that best meet trust resource responsibilities. We will seek creative funding partnerships with other agencies, states, and private conservation organizations to stretch acquisition dollars.

**Embracing Technology** Whether it's satellites to monitor wildlife or the Internet to inform the public, we will use new and developing technology to become more efficient, effective and accessible. Technology like *Geographic Information Systems* will remain a tool, not an end, for better planning and better wildlife and habitat decisions.

**System Vitality** Before the Refuge System's 100th Anniversary, we will hold a national refuge manager's conference focusing on meeting the challenges and capitalizing on the opportunities of the next century. We will ensure that the Refuge System continues to be managed by the best wildlife managers in the world through a renewed commitment to training, career growth, diversity of experience, and the rewarding of excellence.

Redheads  
Photo by G. Kramer



By law, and treaty, the U.S. Fish and Wildlife Service has national and international management and law enforcement responsibilities for migratory birds, threatened and endangered species, fisheries and many marine mammals. The Service assists state and tribal governments, and other federal agencies, in helping protect America's fish and wildlife resources. The National Wildlife Refuge System plays an important



For More Information:  
1-800-344-3113