Building Our Refuge

Detroit River International Wildlife Refuge

2008

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Dear Friends,

Ten years ago my very good friend, the late Peter Stroh, and I charged a group of U.S. and Canadian conservationists with reviewing the state and quality of the Detroit River and western Lake Erie to make recommendations for furthering bilateral collaboration in preserving this unique ecological corridor. Out of that Canadian-U.S. effort emerged the goal to establish the first international wildlife refuge in North America right here in southeast Michigan. I took this idea back with me to Washington and drafted legislation that, in December 2001, became law in the Detroit River International Wildlife Refuge Establishment Act.

Each subsequent year, the Refuge continues to grow toward the fulfillment of our conservation vision for this fragile ecosystem. Just last year we raised over $1.5 million for projects, acquired Plum Creek Bay in Monroe County, and substantially increased public outreach programs with a full-time Park Ranger and a part-time ornithologist. Originally only 300 acres back in 2001, the Refuge now contains over 5,200 acres. Along with protecting habitat and wildlife, this remarkable resource continues to provide outstanding opportunities for quality-of-life improvements, as well as ecological and cultural opportunities for present and future generations. In terms of economic impact, over $15 million has been leveraged in the local economy to grow the Refuge and reap these many benefits. Most importantly, though, in 2008 alone the Refuge was able to connect over 20,000 individuals with the preserved natural beauty stretching throughout their communities along the Detroit River and Lake Erie.

This grand project began with Humbug Marsh ten years ago and now, after a decade of progress, we see an environmental education shelter, handicap-accessible trails, an observation deck, a wetland boardwalk, and a pedestrian stream crossing. All this combines to provide a world-class outdoor classroom for students, teachers, community groups, and citizens. What a wonderful accomplishment and gift for our children and grandchildren.

I encourage you to review all the Refuge accomplishments presented in this annual report and to get involved in one of the many partnership projects to expand and improve our International Wildlife Refuge. As ever, I look forward to working alongside you to reach out and teach the next generation of conservationists about the remarkable opportunities that our Refuge affords us everyday, right here, in southeast Michigan.

With every good wish,

John D. Dingell
Member of Congress

INTRODUCTION

The lower Detroit River and western Lake Erie, located in the heart of the Great Lakes basin, support a great diversity of wildlife and the habitats they depend upon. This ecosystem also links the U.S. and Canada, who share a long history of cooperation, including many cooperative conservation initiatives. Out of this international cooperation, 48 miles of shoreline along the lower Detroit River and western Lake Erie have been designated North America's only international wildlife refuge – the Detroit River International Wildlife Refuge (Refuge).

The Refuge is demonstrating how collaboration, innovation, partnerships, and creativity can achieve significant conservation results with considerable environmental, economic, and community benefits. The Refuge is a major source of community pride and is helping to build an ecotourism economy, achieve regional competitive advantage, and attract and retain the next generation of employees. Today, governments, businesses, foundations, and many dedicated volunteers and community groups are protecting and restoring wildlife habitats, championing environmental education, and improving outdoor recreational opportunities within the Refuge.

Over the last 30 years there have been many environmental improvements in the Detroit River and western Lake Erie that have laid the foundation for one of the most remarkable ecological recoveries in North America. This ecosystem has seen the return of bald eagles, peregrine falcons, lake sturgeon, lake whitefish, walleye, and burrowing mayflies. The Refuge and its ecological recovery offer hope and opportunity to the region, and provide a much-needed boost for community optimism. However, much remains to be done.

The Refuge continues to be in a growth mode while the opportunities for land acquisition still exist. Much remains to be done to achieve our binational goals of sustainability, protection of wildlife and the habitats they depend upon, and reaching and teaching the next generation of conservationists and sustainability entrepreneurs.

This annual report is intended to celebrate progress and inspire more citizens, businesses, and communities to get involved in this work. It represents a collaborative effort between the U.S. Fish and Wildlife Service (USFWS) and the International Wildlife Refuge Alliance (IWRA), a nonprofit alliance of organizations and individuals that builds the capacity of the USFWS to deliver its mission for the Refuge.

Did you know?

- The Detroit IWR was established by an Act of Congress on December 21, 2001 and is the only international wildlife refuge in North America.
- In just seven years since its creation, the Detroit River IWR has grown from 300 acres to over 5,200 acres.
- The Refuge contains islands, coastal wetlands, marshes, shoals, and riverfront lands along 18 miles of the lower Detroit River and 30 miles of western Lake Erie.
- These habitats support over 30 species of waterfowl, 23 species of raptors, 31 species of shorebirds, 160 species of songbirds, and 117 species of fish… all within an urban area of six million people!
- Over 300,000 diving ducks, 75,000 shorebirds, and hundreds of thousands of land birds and fall raptors come to this area to rest, nest and feed.
- The Detroit River and western Lake Erie have been recognized for their biodiversity in the North American Waterfowl Management Plan, the United Nations Convention on Biological Diversity, the Western Hemispheric Shorebird Reserve Network, and the Biodiversity Investment Area Program of Environment Canada and U.S. Environmental Protection Agency.
- This area's "Number 2" economy is tourism and outdoor recreation, and the IWR is working with many community partners to protect wildlife and enhance wildlife-compatible outdoor recreation and ecotourism right in our backyard.

Opposite page: Humbug Marsh Unit ribbon cutting, D. Mitchell. Congressman Dingell at Humbug Marsh Unit, M. Kidd.

Cover, center: Humbug Marsh ribbon cutting, B. Ziegler. Top, L to R: Humbug Marsh aerial, BASF Corporation. Mayapples, B. Ziegler. Dunlin, K. Skrocki. White-tailed deer, K. Skrocki. Common tern, J. Jourdan.

HABITAT CONSERVATION

PLUM CREEK BAY

In 2008, Monroe County donated 126 acres of Plum Creek Bay to the Refuge. The value of this donation was used to acquire $250,000 from the North American Wetlands Conservation Act program for additional land acquisition in Monroe County.

FIGHTING ISLAND STURGEON SPAWNING REEF

Construction of the first ever fish habitat restoration project in the Great Lakes undertaken with both Canadian and U.S. funding was completed in 2008, involving 15 different partners. This $248,000 project, located off Fighting Island in LaSalle, Ontario, represents a major milestone in binational efforts to restore this threatened species in Michigan and Ontario.

BALD EAGLE NESTING PLATFORM ON HUMBUG ISLAND

A bald eagle nesting platform was constructed on an 85-foot pole placed at a strategic location on Humbug Island by the International Brotherhood of Electrical Workers – Local 17, DTE Energy, the City of Gibraltar, and USWFS. The nesting platform can be easily viewed from the wildlife observation deck in Humbug Marsh.

Oppostite page, top to bottom: Plum Creek Bay, J. Hartig. Fighting Island, BASF Corporation. Bald eagle, USFWS. Eagle nesting pole, J. Banfield. This page, background: Common tern on Grosse Ile Free Bridge, J. Jourdan. Below: DTE's Monroe Power Plant shoreline before & after restoration, Nativescape.

ELIZABETH PARK SHORELINE RESTORATION

With funding from USFWS and project management assistance from Michigan Sea Grant, a small stretch of shoreline along the Elizabeth Park canal in Trenton was restored using soft engineering techniques. Restoration included planting native aquatic plants, including sedges, rushes, and shrubs, and removal of *Phragmites*, an invasive, non-native plant.

RIVER RAISIN SHORELINE RESTORATION

The Refuge worked in partnership with Nativescape, DTE Energy, the City of Monroe, Metropolitan Affairs Coalition, Michigan Department of Environmental Quality, Monroe County Drain Commissioner, Michigan Sea Grant, River Raisin Watershed Council, River Raisin Institute, Wildlife Habitat Council, and the Monroe County Lotus Garden Club to rehabilitate 500 feet of concrete-reinforced bank along the River Raisin near DTE Energy's Monroe Power Plant to a more natural state.

BEFORE

AFTER

COMMON TERN HABITAT

A rope-lattice structure was installed at the Grosse Ile Free Bridge to protect habitat and deter avian predators in one of the last strongholds for common terns in the Detroit River. Monitoring is underway to evaluate the success of this experimental structure. The Refuge also partnered with Detroit Water and Sewerage Department and Detroit Zoo to create a large common tern nesting area at a historical nesting site on Belle Isle.

WETLAND RESTORATION AT BRANCHEAU UNIT

Full funding was secured for wetland restoration at the Brancheau Unit and all necessary permits were submitted in preparation for restoration in 2009.

WETLAND RESTORATION AT REFUGE GATEWAY

In 2008, USFWS retained Pheasants Forever and JF New to prepare architectural and engineering drawings for wetland and shoreline restoration at the Refuge Gateway. This architecture and engineering work will be completed in 2009.

INVASIVE SPECIES MANAGEMENT IN HUMBUG MARSH

Refuge staff continued to partner with IVM Partners, ITC, and volunteers in removal and control of invasive species in Humbug Marsh Unit. Efforts targeted *Phragmites*, buckthorn, and garlic mustard.

RESEARCH & MONITORING

HUMBUG MARSH UNIT INSECT INVENTORY

Biological monitoring at Humbug Marsh Unit was expanded in 2008 with biologists from the Rouge River Bird Observatory conducting the second year of dragonfly and butterfly surveys. More investigation of the significant russet-tipped clubtail population was conducted with Refuge staff. Forty-three species were recorded this year with seven records contributing to new early or late flight dates for Wayne County. Thirty-nine species of butterflies and 21 moths were positively identified, along with Northern Oak Hairstreak, a species of special concern in Michigan.

LAKE STURGEON RESEARCH

USFWS continued to collaborate with U.S. Geological Survey and others on lake sturgeon research in support of evaluating the effectiveness of the sturgeon spawning reef off Fighting Island.

NEARSHORE FISH COMMUNITY STUDY

Refuge staff assisted Michigan Department of Natural Resources on a survey of the lower Detroit River, focusing on the Canadian side. Abundance and distribution of 27 species of fish were documented.

COLONIAL WATERBIRD MONITORING

Refuge staff continued collaboration with researchers from the University of Minnesota to survey all colonial waterbirds within the Refuge. A week-long Refuge survey documented some of the largest colonies of great blue herons, black-crowned night herons, terns, and gulls in the Great Lakes.

COMMON TERN RESEARCH

Common tern population surveys were continued in 2008, along with a pilot study on nest site selection at artificial nesting locations.

DETROIT RIVER HAWK WATCH

The Refuge and IWRA assumed the responsibility for this fall raptor migration program underway since 1983. 2008 represented the 9th year that a paid counter collected migration data. All data are entered into a national database and are available online.

GRASSY ISLAND

In 2008, the USFWS convened a roundtable for key stakeholder groups to review all technical data requirements for completing the investigative phase for Grassy Island.

MONROE POWER PLANT BIRD COUNTS

Bird counts were conducted over the summer breeding months at restored prairies and wetlands created by DTE Energy and the USFWS. These data will be used to evaluate effectiveness of restoration efforts. Sound recordings were also taken and sent for processing for future training and certification programs throughout the U.S.

AVIAN INFLUENZA MONITORING

Refuge staff sampled 160 Canada geese as a part of national efforts to monitor strains of avian influenza in North America, in collaboration with staff from Pointe Mouillee State Game Area.

INVASIVE SPECIES CONTROL & MONITORING AT HUMBUG MARSH UNIT

The second year of a *Phragmites* control project was conducted with IVM Partners, including a study on the impact of deer browse, light gaps, and selective vegetation removal in the early-successional forest. Results showed that *Phragmites* was controlled effectively.

Oppostite page, top to bottom: Black birds flying over Pointe Mouillee, K. Skrocki. Russet-tipped Clubtail, J. Craves. *Hylephila phyleus*, J. Craves. Lake sturgeon, J. Hartig. This page, background: Humbug Island, K. Skrocki. L to R: Osprey, S. Seely. Robin in winter, K. Skrocki. Common tern, J. Jourdan.

COMMUNITY ENGAGEMENT

OPEN HOUSES & INTERPRETIVE PROGRAMS

Over 2,500 people participated in open houses, public programs, and on-site interpretation in the Refuge including International Migratory Bird Day, wildflower walks, and an "Owl Prowl."

VOLUNTEER WORKDAYS

Over 800 hours of volunteer time was logged working on trail maintenance, invasive species removal, trash collection, and construction projects within the Refuge.

ENVIRONMENTAL EDUCATION

Over 250 students participated in on-site environmental education on the Refuge, while over 800 students participated in Refuge-focused environmental education activities held in area schools.

SUMMIT ACADEMY VOLUNTEER DAYS

Students and teachers from Summit Academy in Flat Rock participated in several workdays at Humbug Marsh Unit, including trail clearing and construction, and invasive species removal.

HAWKFEST

In September over 6,000 people attended the annual HawkFest at Lake Erie Metropark.

POINTE MOUILLEE WATERFOWL FESTIVAL

In September over 8,000 people attended the 61st annual Pointe Mouillee Waterfowl Festival at the Pointe Mouillee State Game Area. The Refuge and IWRA once again provided staff and assistance to help make the festival a success.

PADDLE BY YOUR REFUGE

Also in September, IWRA coordinated the third annual kayaking event held at Lake Erie Metropark to increase awareness of the Refuge.

COMCAST CARES DAY

On May 3, twenty-eight employees of Comcast joined IWRA and Refuge staff to clear trails and remove invasive species in Humbug Marsh Unit in preparation for the summer's trail construction work.

THE NATURE CONSERVANCY'S STOPOVER WORKSHOP

In cooperation with The Nature Conservancy and other organizations, Refuge staff helped convene a migratory bird stopover workshop at Humbug Marsh Unit.

This page: Students hiking in Humbug Marsh Unit, B. Ziegler. Opposite page, background: View from observation deck on Humbug Marsh, D. Mitchell. L to R: FLW angler Mark Frickman, R. Newell. Lowe's Heroes & Navy Seabees, B. Ziegler.

HUMBUG MARSH EDUCATIONAL TRIANGLE PROJECTS

Over 40 organizations, including the Navy Seabees, NTH Consultants, DTE Energy, and Mid-American Group, worked with volunteers and Refuge staff to construct environmental education infrastructure in the Humbug Marsh Unit. Between summer and fall, an environmental education shelter, accessible trails, rustic trails, a stream crossing, and a wetland boardwalk were constructed. Over 20 volunteers from the Lowe's Heroes program joined Seabees in building the wetland boardwalk. These accomplishments were celebrated with a ribbon cutting celebration on October 31, 2008.

VOLUNTEER RECOGNITION BBQ

Over 150 volunteers, including approximately 40 Navy Seabees and their families, celebrated their accomplishments on the Refuge with a BBQ dinner held at Detroit Edison's Trenton Channel Power Plant. Secretary of the Interior Dirk Kempthorne joined Congressman Dingell to thank volunteers for their hard work.

FISHING TOURNAMENTS

In April, FLW Outdoors hosted a walleye tournament that awarded over $500,000 in prize money. In July, FLW Outdoors hosted the Chevy Open for smallmouth bass that awarded $1.5 million in prize money. The Refuge and IWRA staffed a booth for the weekend Family Fun Zone as part of the FLW tournament.

NATIONAL PUBLIC LANDS DAY

Over 34 volunteers joined Refuge staff at the Humbug Marsh Unit on September 27 to work on trail maintenance and invasive species removal. Over 170 total volunteer hours were logged.

NATIONAL WILDLIFE REFUGE WEEK & THE BIG SIT!

To celebrate National Wildlife Refuge Week, the second annual Big Sit! was held at Humbug Marsh Unit. Over 35 volunteers and counters participated, tallying 51 species in less than 24 hours on October 12. Twenty four of these volunteers were students from Madonna University.

ADVENTURE IN THE REFUGE

Over 100 Refuge supporters enjoyed a cruise on the Detroit River, followed by a dinner on BASF's Fighting Island as part of a fundraiser for IWRA. More than $10,000 in proceeds from the fundraiser went towards the environmental education shelter built in Humbug Marsh Unit.

INTERNATIONAL MIGRATORY BIRD DAY (IMBD)

Sixty five kids participated in an outdoor photography workshop and contest to celebrate IMBD. Photos taken by the children were used in a Refuge calendar, designed and printed by IWRA. An early-morning bird walk, wildflower walk, and open house were also held to celebrate the occasion.

ANNUAL BENEFIT DINNER

The third annual Benefit Dinner was attended by over 450 people that raised over $100,000 to assist in growing the refuge. Major sponsors of the event included General Motors Corporation, BASF Corporation, DTE Energy, ITC Holdings, CN Railroad, Ford Motor Company, Praxair, Riverside Kayak Connection, and WadeTrim.

BOAT DOCK & FISHING PIER AT REFUGE GATEWAY

In 2008, Metropolitan Affairs Coalition received funding from Great Lakes Fishery Trust to prepare architecture and engineering drawings for a boat dock for Michigan Sea Grant's Great Lakes Education Program schoolship at the Refuge Gateway and for a fishing pier that provides a world-class shore fishing experience. Work is being performed by Hamilton Anderson Associates and will be completed in 2009.

NUMEROUS REFUGE PRESENTATIONS

Throughout 2008 numerous presentations were made to raise awareness and build support for the Refuge, including to the Trenton Rotary, Lutheran Luncheon Club of Detroit, Trenton Parks and Recreation, University of Toledo's Lake Erie Conference, Monroe County Community College, Citizen Environment Alliance of Windsor, University of Windsor, Downriver Summit, Bay View Yacht Club, Downriver Walleye Federation, U.S. Environmental Protection Agency's Area of Concern Conference, Detroit Riverfront Conservancy, Grosse Ile Nature and Land Conservancy, Grosse Ile Rotary Club, Downriver Community Conference, Belle Isle Nature Center, University of Michigan-Dearborn, and Wayne State University.

IWRA WEBSITE

In 2008, IWRA launched its website (www.iwralliance.org).

CAPACITY BUILDING

The Comprehensive Conservation Plan for the Refuge calls for fostering partnerships to deliver the mission of USFWS. To help achieve that goal and build capacity, the Refuge established a Friends Group (IWRA). IWRA's sole mission is "to support the first International Wildlife Refuge in North America by working through partnerships to protect, conserve, and manage the Refuge's wildlife and habitats, and to create exceptional conservation, recreational and educational experiences to develop the next generation of conservation stewards."

Both the Refuge and IWRA have experienced growth in the past year. The IWRA hired a full-time executive director, Lisa Appel, in spring of 2007. Suzanne Petre provided voluntary administrative support. The board members include: Mr. Dick Micka (Chairperson), Ms. Anita Twardesky (Vice Chairperson), Ms. Andrea Kline (Secretary), Mr. Tim Bowman (Treasurer), Dr. Bruce Jones, Mr. Dick Whitwam, Mr. George Mans, Mr. Lloyd Semple, Ms. Molly Luempert-Coy, Mr. Randy Hicks, Ms. Mary Bohling, Dr. Jim Bull, Mr. Steve Sczytko, Ms. Yvette Pugh, Mr. Richard Tuzinsky. Joining the board in 2009 will be Steve Beachum of Consumers Energy and Thomas O'Hara Jr. of Monroe Bank & Trust.

In February the Refuge welcomed a new permanent Park Ranger, Kristi Thiel, to the staff. Kristi is responsible for outreach and visitor services, as well as the Refuge volunteer program. Greg Norwood served as a biological technician working on a variety of Refuge projects, including the common tern project and avian influenza monitoring. Becca Sowder worked on a Metropolitan Affairs Coalition-International Wildlife Refuge Fellowship to oversee design and construction of the shelter and trails at Humbug Marsh Unit. Many other volunteers provided assistance in the Annual Benefit Dinner, trail building, Humbug Marsh cleanups, invasive species removal, and outreach activities. Metropolitan Affairs Coalition continued to provide grant writing support for proposed projects common to the Greater Detroit American Heritage River Initiative and the Detroit River IWR. Finally, U.S. Environmental Protection Agency's Large Lakes Research Station continued to provide office space and support for Refuge staff.

What's Next?

A high priority will continue to be placed on growing the Refuge, through public-private partnerships, while opportunities still exist. A list of Refuge priorities for 2009 is presented below:

- Acquiring at least three new Refuge tracts with $1.8 million of funding from U.S. Department of Transportation or through donation
- Working with Canadian partners to add high quality habitat lands to the Canadian portion of the Refuge
- Completing a Refuge Visitor Services Plan
- Completing the capital campaign case statement for the Refuge Gateway/Visitor Center and supporting the Capital Campaign Committee in their efforts to secure the first major gift
- Completing the daylighting of Monguagon Creek at the Refuge Gateway and leveraging $200,000 of brownfield cleanup funding to achieve final grade on approximately 8 acres of land on the southwest corner of the Refuge Gateway
- Completing the architectural and engineering work for the boat dock/fishing pier at the Refuge Gateway, and for the shoreline restoration at the Refuge Gateway
- Constructing the perimeter greenway trail on the outside of the fence at Humbug Marsh Unit with funding from U.S. Department of Transportation
- Continuing invasive species management at Refuge management units, including undertaking prescribed burns at Humbug Marsh Unit and Strong Unit
- Completing a 65+ -acre wetland restoration at Brancheau Unit in Monroe County
- Completing common tern habitat restoration on Belle Isle in partnership with Detroit Water and Sewerage Department and Detroit Zoological Society, and performing monitoring of all common tern nesting sites
- Securing Phase 3 funding (i.e., post-project monitoring and outreach) for the sturgeon spawning reef constructed off Fighting Island in 2008)
- Securing necessary funding to complete the investigative phase of Grassy Island
- Assisting in the construction of a green marina in Trenton with funding from U.S. Fish and Wildlife Service's Boating Infrastructure Grant Program
- Supporting another IWRA fund raiser in 2009
- Continuing to support established events such as International Migratory Bird Day, the Big Sit, National Public Lands Day, FLW Outdoors Fishing Tournaments, the annual HawkFest, Pointe Mouille Waterfowl Festival, a Lotus Tour with the Monroe Garden Club, and Paddle By Your Refuge
- Expanding Refuge educational/outreach activities, such as guided tours of Humbug Marsh Unit and interpretive programs
- Working with Canadian and U.S. partners to convene another State of the Strait Conference on April 28, 2009 at University of Windsor, and
- Updating Refuge and IWRA websites on a regular basis

Oppostite page, top to bottom: HawkFest, L. Appel. Park Ranger Kristi Thiel with students, B. Ziegler. Kids with backpack, L. Appel.
This page, background: Paddle By Your Refuge, L. Appel. L to R: Navy Seabees at Humbug Marsh Unit, B. Sowder. Volunteers working on Belle Isle common tern habitat, Detroit Zoo. Students hiking through Humbug Marsh Unit, B. Ziegler.

Boat Dock & Fishing Pier at Refuge Gateway

Visitor Center at Refuge Gateway

Renderings by Hamilton Anderson Associates

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For more information:
www.fws.gov/midwest/detroitriver/index.html