

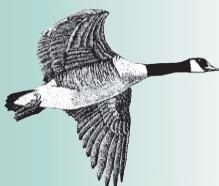
# The Flyway

Spring 2010

Quarterly newsletter of Nisqually and Grays Harbor National Wildlife Refuges

## Inside...

- Tracking the Restoration ....page 1
- Migratory Bird Day .....page 2
- Collaborating in Stewardship...page 3
- Spring Programs .....page 4
- Construction Projects .....page 5
- Shorebird Festival .....page 6



**Save the Date!**  
**The Grays Harbor Shorebird Festival will be held April 30 – May 2 in Hoquiam.**

## Restoration of the Nisqually Estuary: Tracking the Changes

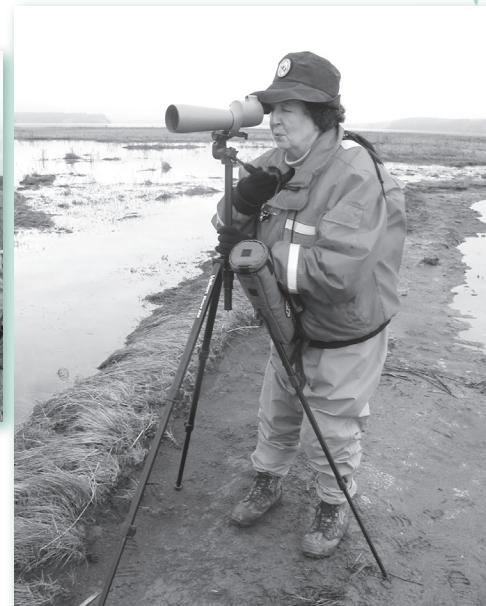
The restoration of the tides to 762 acres of the Nisqually Estuary in the fall of 2009 initiated many changes at the Refuge. As a mixture of fresh and saltwater spreads across the restored delta, the freshwater vegetation is beginning to decay, marine invertebrates have begun to colonize, and historic

The Refuge established an interagency agreement with USGS's Western Ecological Research Center to conduct restoration monitoring here. Kelley Turner, a USGS biologist, has been stationed at the Refuge for the last nine months. Data collection



Kelley Turner (USGS) and Glenn Guntenspergen (USGS Patuxent Wildlife Research Center) using a sediment erosion table to measure sediment and elevation dynamics in the delta.

tidal sloughs are re-establishing themselves, which the juvenile salmon will utilize this spring. All of these changes provide unique learning opportunities for the Refuge and the many partners involved in the project. The changes occurring everyday at the Refuge have the potential to answer many questions that others in the Puget Sound and beyond have about how an estuary recovers from decades of being cut off from the tides. Monitoring results will improve the understanding of how quickly natural processes recover the diverse habitat components of an estuary, one of the most productive habitat types on earth.



Refugee volunteer Vera Cragin helping out with the delta wide bird survey in January.

began last May to document pre-restoration conditions of many attributes including: vegetation, bird use, channel cross-sections, water levels, invertebrates, soil samples, elevation, sedimentation, aerial photos, and panoramic photo points. Since the tides have been restored, the work has intensified. All of the measurements and surveys need to be repeated in order to document the changes at the site. This information will be used to track the progress of the restoration towards meet-

*Continued on page 2*

# 2010 International Migratory Bird Day: Celebrate at a Refuge Near You!

Come celebrate International Migratory Bird day on Saturday, May 8th by viewing migratory birds at a national wildlife refuge like Grays Harbor or Nisqually! This year's theme is "The Power of Partnerships in Bird Conservation".

The US Fish and Wildlife Service (USFWS) administers the

Migratory Birds program for the country, the wildlife refuge system (providing vital habitat for migratory birds),



and shares administration of the Endangered Species program with the National Oceanic and Atmospheric Administration.

While it is one of the primary agencies leading the way for bird conservation, the USFWS cannot do it alone and strives to create and nurture partnerships that will maximize migratory bird conservation efforts.

An example of a partnership that has benefitted a species of migratory birds that can be seen at both

Nisqually and Grays Harbor Refuges is that of The Peregrine Fund and their work to restore the population of Peregrine Falcons. By 1975, fewer than 50 pairs of Peregrines were found in the United States due to the use of the pesticide DDT. The pesticide rose up the food chain from the insects to the small birds that the falcons preyed on for food. A side effect of the DDT in their system caused the Peregrines to produce thin-shelled eggs that crushed before the chicks could hatch safely.

The Peregrine Fund and the USFWS successfully worked to restore the Peregrine Falcon

*Continued on next page*

## Tracking Changes

*From page 1*

ing the project's goal of restoring the natural processes, functions, and habitats that only an estuary can provide.

Kelley has been assisted by Refuge volunteers, interns from The Evergreen State College and University of Washington (Tacoma), and other partners. Additional information

is being collected by members of the USGS Pacific Science Center to document how the estuary restoration is impacting the nearshore and Nisqually Reach of Puget Sound.

As juvenile salmon enter the delta this spring, they will have access to many miles of newly opened tidal channels that had been cut off from the delta for over 100 years. These fish will be able to take advantage of the increased habitat, food resources, and salinity gradients that will help to launch them on their long journey to the Pacific Ocean and back. The Nisqually Indian Tribe is leading the fisheries monitoring of the estuary and delta. Tribal biologists and technicians have begun sampling for juvenile fish abundance, distribution, and diets in the newly connected tidal channels and other habitats throughout the delta. The USGS Western Fisheries Research Center is assisting with studies on Chinook salmon habitat use and growth rates. Information on fish use collected by the Tribe will be paired with data being collected by USGS staff on changes in invertebrate and vegetation communities near the fish sampling locations to determine how the development of these communities affect patterns of fish use.

One important aspect of the restoration monitoring that has involved a number of Refuge volunteers are the monthly bird surveys. These surveys identify species, abundance, habitat use, behavior, and distribution of waterfowl and other birds in the restoration area and other sites throughout the estuary. In late January, a bird survey was conducted that covered the entire delta. The information from this survey and the monthly surveys will contribute to the understanding of how the restoration project will change patterns of bird use both spatially and seasonally in the delta and how birds may be utilizing the rapidly changing habitats.

Monitoring is a critical component to document habitat changes at the Refuge and how the many species that inhabit the Nisqually Delta are responding to the restoration. This information is valuable to support adaptive management decisions at the Refuge as well as to help other restoration projects learn from our experiences. The monitoring efforts will need to be sustained for years to fully appreciate the impact of the restoration and its benefits. As monitoring information becomes available, it will be posted at [www.nisquallydeltarestoration.org](http://www.nisquallydeltarestoration.org).

Published quarterly by  
Nisqually National  
Wildlife Refuge  
Complex, with funding by  
Friends of Nisqually NWRC.

Phone: 360.753.9467

Fax: 360.534.9302

[www.fws.gov/nisqually](http://www.fws.gov/nisqually)

[www.fws.gov/graysharbor](http://www.fws.gov/graysharbor)

Volume 3, Number 2

**Editor:** Jackie LaRue

**Editorial Advisor:**

Sheila McCartan

**Graphic design:**

Lee Miller

Save trees, think green

To receive *The Flyway*

electronically, email  
[nisqually@fws.gov](mailto:nisqually@fws.gov)

# Collaboration Promotes Community Stewardship in Area Youth

Over the course of the 2009-2010 school year, forty classes from the Nisqually and Chehalis watershed school districts are participating in the "Nisqually Estuary Restoration and Field Studies Program" at



Nisqually National Wildlife Refuge. Each class visited the refuge throughout the winter months to contribute to the largest restoration project in the region by planting approximately 4,000 Willow and Cottonwood live-stakes in the new riparian zone on the periphery of the Nisqually Estuary Trail.

This program is a collaboration by the

Nisqually River Education Program (NREP), Chehalis Basin Consortium (CBEC), Nisqually Nature Reach Center, and Nisqually National Wildlife Refuge and funded by a grant from The Nature of Learning program. The Nature of Learning is a National



Wildlife Refuge System conservation education program that uses national wildlife refuges to promote community stewardship through outdoor classroom experiences.

The restoration and field studies program at Nisqually Refuge highlights the ecological changes occurring in the Nisqually Delta and provides meaningful experiences for students to learn the importance of healthy estuaries and other local ecosystems.

Each class is scheduled to return to the Refuge this spring to participate in various field studies. The students will learn more about the diverse habitats in the Refuge through observation, art, and cultural history. The field trips will focus on citizen science and will include a "Nature Mapping" session that uses the students' observation skills to map the scientific data from their surround-



ings. The emphasis on wetland and watershed education encourages the students to think about two important lessons: everyone lives upstream and their actions have an impact on the ecological and sociological systems in their communities. ↗

## 2010 International Migratory Bird Day

From previous page

population. The use of DDT as a pesticide was banned in the U.S. The Peregrine was listed as an Endangered Species and given both attention and protection. Over 5,100 young falcons were raised in captivity and then released to bolster the breeding population. By 1999, there were over 3,300 adult Peregrine Falcons in the United States living in the wild. That is an amazing feat when you consider the fact that experts had predicted this particular bird would become extinct! It was the power of partnerships that prevented this from happening.

Nisqually and Grays Harbor Refuges also have a partnership with the Friends of Nisqually National Wildlife Refuge Complex that bolsters their efforts to conserve migratory birds. The Friends group is a huge supporting element of the education and outreach programs at both refuges. After all, conservation efforts are only effective if people are supportive of it, so educating children and reaching out to the surrounding communities are a vital part of achieving success in migratory bird conservation. In honor of International Migratory Bird Day 2010's theme "The Power of Partnerships", the Friends of Nisqually NWRC will offer a 10% discount on bird books

**Saturday, May 8**

**Bird Walk**

**Grays Harbor NWR**

**9:00–11:00 am**

**Bird Walk**

**Nisqually NWR**

**8:30–10:30 am**

**For more information,  
call (360)753-9467.**

in the Nature Shop (open from 9am-4pm). Both refuges also will be hosting bird walks to celebrate this special day. The Visitor Center at Nisqually Refuge offers free binocular checkout that can be used for the walk. For more information on International Migratory Bird Day, visit [www.birdday.org](http://www.birdday.org). ↗



# Announcing Spring Interpretive Programs at Nisqually NWR!

Unless otherwise indicated, all programs leave from the Visitor Center flag pole. Walking trails are beginner level, smooth with no elevation. Wear comfortable shoes. Feel free to bring binoculars or

check them out from the Visitor Center. Programs are open to the public and free of charge, but the \$3 Refuge entrance fee still applies. Programs will last anywhere from 1-2 hours, depending on the

presenter and topic. Remember, pets are not allowed at the Refuge, and biking and running are prohibited. If you have any questions, call the Refuge at (360)753-9467.

## Program Descriptions

***Quiet Beauty: the Plants of Nisqually NWR.*** Explore the Refuge with a focus on plant life.

***Take Flight: the Birds of Nisqually NWR.*** Explore the sights and sounds of various birds along the trail.

***The Wonder of Nisqually.*** Explore all the Refuge has to offer with this general nature walk.

***Historic Nisqually.*** Explore the history of the Refuge. Program may focus on the events surrounding the signing of the Medicine Creek Treaty or an overall history of the human use of the Nisqually delta.

***America's National Wildlife Refuge System.*** Slideshow presentation in the Visitor Center Auditorium.

## Program Schedule

**Saturday, April 3,** 10:00 am Wonder of Nisqually

**Saturday, April 10,** 10:00 am Wonder of Nisqually

**Saturday, April 17,** 8:30 am Take Flight

**Saturday, April 24,** 1:00 pm Wonder of Nisqually

**Saturday, May 1,** No Program

**Grays Harbor Shorebird Festival**

**Saturday, May 8,** 8:30 am Take Flight

**Saturday, May 15,** No Program

**Saturday, May 22,** 1:00 pm Wonder of Nisqually

**Saturday, May 29,** 10:00 am Wonder of Nisqually

**Saturday, June 5,** 8:30 am Take Flight

**Saturday, June 12,** 1:00 pm America's National Wildlife Refuge System

**Saturday, June 19,** 1:00 pm Historic Nisqually: Medicine Creek Treaty

**Saturday, June 26,** 10:00 am Historic Nisqually: History of the Delta

**Sunday, April 4,** 10:00 am Wonder of Nisqually

**Sunday, April 11,** 1:00 pm Quiet Beauty

**Sunday, April 18,** 10:00 am Wonder of Nisqually

**Sunday, April 25,** 8:30 am Wonder of Nisqually

**Sunday, May 2,** No Program

**Grays Harbor Shorebird Festival**

**Sunday, May 9,** 1:00 pm Quiet Beauty

**Sunday, May 16,** 10:00 am Quiet Beauty

**Sunday, May 23,** 8:30 am Wonder of Nisqually

**Sunday, May 30,** 8:30 am Wonder of Nisqually

**Sunday, June 6,** 10:00 am Wonder of Nisqually

**Sunday, June 13,** 1:00 pm Quiet Beauty

**Sunday, June 20,** 1:00 pm America's National Wildlife Refuge System

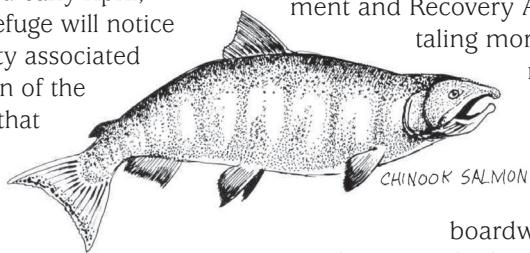
**Sunday, June 27,** 8:30 am Wonder of Nisqually

# Construction Projects at Nisqually NWR

## Boardwalk Trail

In late March and early April, visitors to the Refuge will notice a flurry of activity associated with construction of the new boardwalk that will extend over a mile into the estuary restoration area along Shannon Slough

and McAllister Creek. The contractor (Five Rivers Construction, Inc from Longview) will commence construction activities during the first full week of April and continue until the end of October. Construction of the boardwalk has been designed to allow the new Nisqually Estuary Trail on the exterior dike to remain open; however, some brief closures may be necessary to allow the safe transport of equipment or materials.



The entire boardwalk is now fully funded with American Reinvestment and Recovery Act funds totaling more than \$2.5 million. The contractor is planning to construct the entire boardwalk trail this year; however, the boardwalk will need to remain closed throughout the construction period.

Special features along the boardwalk will include an observation tower, two covered observation platforms, a blind along Shannon Slough, and four push-outs along McAllister Creek.

## Nature Explore Area

Construction began on the new Nature Explore Area adjacent to

the new Environmental Education Center in February. It is an exciting project to create an area set aside specifically for children to play, learn, and hopefully find a connection with nature and the outdoors. Upon completion of construction sometime in early summer, the Refuge will hold a Grand Opening event for both the Nature Explore Area and the new Education Center.

**Friends of Nisqually NWR**  
is a 501(c)(3) non-profit organization established in 1998 to promote conservation of the natural and cultural resources and fund education and outreach programs at **Nisqually National Wildlife Refuge Complex.**

## Join Friends Of Nisqually NWRC!

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Email \_\_\_\_\_

- Please send information on making Friends of Nisqually NWRC a beneficiary of my estate.
- Check here to receive an electronic version of *The Flyway* newsletter by email.

### Individual/Family Memberships

- \$15 Student/Senior
- \$25 Individual
- \$50 Family
- \$100 Supporting
- \$250 Partner
- \$500 Patron
- \$1000 Benefactor

### Corporate/Business Memberships

- \$250 Business Sponsor
- \$500 Community Partner
- \$1000 Sustaining Business
- \$2500 Corporate Patron
- \$5000 + Corporate Benefactor

Please make checks payable to: Friends of Nisqually NWRC, 100 Brown Farm Rd, Olympia, WA 98516

Your tax deductible contribution will help preserve the unique habitats, fish, and wildlife of the Nisqually Delta and the Grays Harbor Tideflats.

OFFICE USE Rec'd \_\_\_\_\_ Mo \_\_\_\_\_  
New \_\_\_\_\_ Renew \_\_\_\_\_ Ent \_\_\_\_\_ Mld \_\_\_\_\_

**Nisqually & Grays Harbor  
National Wildlife Refuges**

c/o Nisqually National Wildlife Refuge  
100 Brown Farm Rd.  
Olympia, WA 98516



Non-Profit Org  
US Postage  
**PAID**  
Olympia WA  
Permit #206

**Return Service Requested**

---

*“...conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people...”*

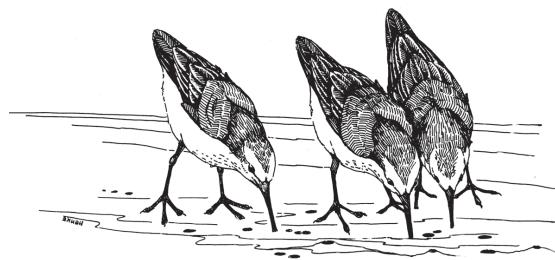
# **Grays Harbor Shorebird Festival**

## **April 30-May 2**

**Hoquiam, WA**

The 15th Annual Shorebird Festival promises you a great nature experience. Witness the migrating shorebirds at Grays Harbor National Wildlife Refuge. Take part in a variety of events including field trips, lectures, exhibitors, vendors, a banquet and auction.

**SAVE THE  
DATE!**



**[www.shorebirdfestival.com](http://www.shorebirdfestival.com)**

**1-800-303-8498**