



NRNC Proposes Aquatic Reserve Status for Nisqually Reach and Nisqually Delta

What will South Puget Sound look like in 50 years? Will salmon and rockfish, shorebirds, eagles, invertebrates, and marine mammals be flourishing? Will our children and grandchildren enjoy a Nisqually estuary that is similar to, better, or worse than today? As a step towards ensuring the future of a healthy marine environment surrounding the Nisqually delta, the Nisqually Reach Nature Center (NRNC) has submitted a proposal to the Washington Department of Natural Resources requesting that approximately 10,000 acres of state-owned South Puget Sound waters be designated a Washington State Aquatic Reserve.

"The Aquatic Reserve Program offers us a very exciting opportunity to participate in protecting our marine environment in South Puget Sound," said NRNC Director Daniel Hull. "The Center would like to play a leading role in preserving what we have today—something that is very special—for future generations."

The reserve management plan will actively advocate for environmentally sound practices to encourage long-term environmental protection and enhancement of Nisqually Reach and the Nisqually delta. For more information on NRNC's Aquatic Reserve proposal, please see the insert in this newsletter or visit our website at www.nisquallyestuary.org.



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In Memoriam: Dave McNett

We regret the recent passing of Dave McNett, a founding member of the Nisqually Reach Nature Center. For many years Dave was one of our most dedicated volunteers, hosting visitors to the Center and teaching students about the rich environment that surrounds it. In recent years Dave's health prevented his active involvement in the Center, and we missed his presence. His enthusiasm for learning and teaching will be missed by all who knew him.

Dave McNett demonstrating the spotting scope to young birders.



Director's Note

So much has happened at the Center over the last several months that we have not had much time to get the word out about all the great work we have been doing. Since our last issue we have placed four interns in research and education, gained new volunteers, increased our membership, completed another successful summer camp, proposed an Aquatic Reserve to help protect the rich area surrounding Nisqually Reach, and moved forward with our partners in carrying out research of restored estuarine habitat. It energizes me to work with such dedicated and talented volunteers.

Alongside all that, our Luhr Lore team has been working with South Bay Press to create a new look for our newsletter so that we may better highlight our story of conservation. I am pleased to say that NRNC and its partners are working hard to share our common message with people both young and old: despite the many woes that face our environment, by working together we can make a difference. It is my intention that this redesigned newsletter do justice to all the hard work we have done at the Center and in turn inspire people to do whatever they can to help keep the Puget Sound and its surrounding communities healthy for generations to come.

Daniel Hull, NRNC Director

Become a Supporter of the Nisqually Reach Nature Center

Become a Member of the Nisqually Reach Nature Center, or renew your membership, and help support marine science education programs for children and adults. All Members will receive:

- A subscription to the Center's newsletter, *Luhr Lore*
- Priority consideration for Center activities and events
- Volunteer and docent opportunities

To join, fill out this application and mail it to:
 Nisqually Reach Nature Center
 4949 D'Milluhr Road NE
 Olympia, WA 98516

Special note to our Members: On occasion the Nisqually Reach Nature Center receives requests from like-minded nonprofit organizations for the use of our mailing list. However, we would like to honor your wishes. If you do not want the Nature Center to provide your address to others, please check the box below.

Please do not release my name to other organizations.

Name: _____
 Address: _____
 City, State, Zip: _____
 Telephone: _____
 Email: _____
 Please make check payable to: Nisqually Reach Nature Center



Yes!! I want to support the Nisqually Reach Nature Center, its goals, and educational programs. I wish to become a Member of the Center as a (check one):

<input checked="" type="checkbox"/>	Membership Category	Annual Dues
<input type="checkbox"/>	Senior/Student	25.00
<input type="checkbox"/>	Individual	35.00
<input type="checkbox"/>	Household	50.00
<input type="checkbox"/>	Supporting	75.00
<input type="checkbox"/>	Patron	100.00
<input type="checkbox"/>	Benefactor	250.00
<input type="checkbox"/>	Sponsor	500.00

NRNC Activities are Diverse and Exciting!

By Daniel Hull

Since the beginning of 2008, NRNC has conducted 56 education programs that reached 1300 area students. But education programs are only one part of NRNC's current activities, which include a diverse array of exciting projects, such as a new proposal to create an aquatic reserve in the South Sound (described on page 1). In large measure, NRNC is able to carry out these activities as a result of funding assistance from The Russell Family Foundation and the Washington State Department of Fish and Wildlife.

Following are updates for some of NRNC's exciting projects and programs.

Education: Key to the Future

Anderson Island Science-based Curriculum Project. This summer, NRNC began a joint education program with Anderson Island home schoolers. Naturalists from NRNC will go to Anderson Island and conduct a near-shore educational program with home school students and teachers. The goal of this shared program is to enable teachers on the island to use the science curriculum the Center provides.

Near-Shore Education. This year we will be working with the vessel Indigo to give students from Komachin Middle School the opportunity to compare and contrast near-shore and off-shore habitats. The program on the Indigo will focus on the offshore deep-water component, while NRNC will focus on the near shore and connections to the off-shore component of the education curriculum. We intend to continue to be a part of this very valuable and rare experience for students in the South Sound.



Bird monitoring at the restoration site.



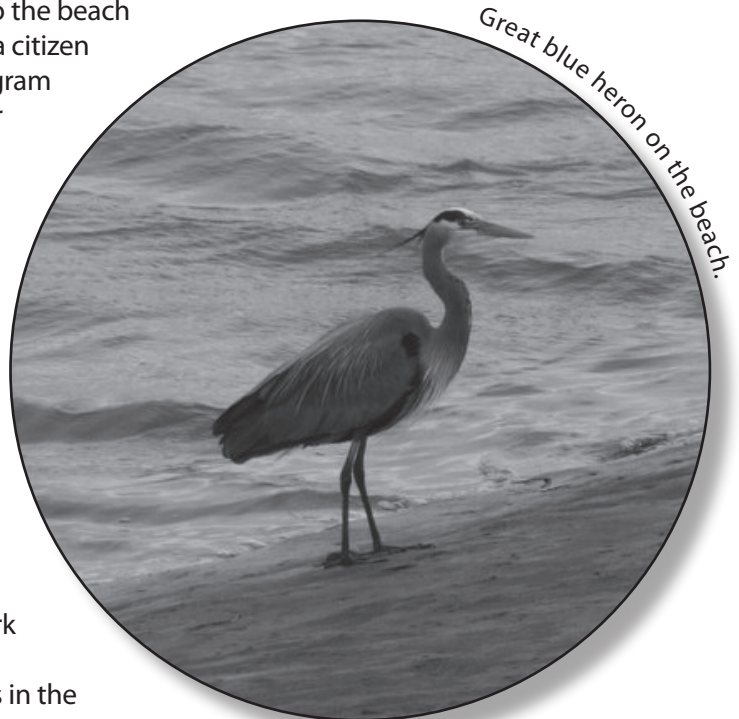
Invertebrate monitoring volunteer Karly McKee at the microscope.

In addition, this type of partnership provides the Center with an excellent opportunity to highlight the purpose of our proposed aquatic reserve. During our education programs, a portion of the time is spent discussing the purpose of environmental protection and its connection to our aquatic reserve proposal and draft management plan.

Restoration Monitoring: Involving the Community in Science
Solo Point Restoration Project. The Center is in the process of soliciting volunteers from Fort Lewis to come down to the beach and help with a citizen monitoring program at Solo Point, prior to restoration work we will complete in the next 3 years as part of

a US Fish and Wildlife grant. This will be an opportunity for NRNC to work with an underserved transitory population, connecting active duty and non-active service men and women and their families to one of the richest natural environments the Pacific Northwest has to offer. After the restoration projects on Solo Point beach are complete in 2009-10, we hope to train docents from Fort Lewis to continue monitoring the beach profile (slope of the beach), forage fish populations using a seine net, and invertebrate populations using random quadrat sampling.

Invertebrate Monitoring. We are currently extending our work with the Nisqually Tribe and Nisqually Wildlife Refuge in the continuation of citizen monitoring of terrestrial invertebrates in the restored Braget Marsh.



Great blue heron on the beach.

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NRNC Activities, continued from page 3

We are eager to see comparisons between the Phase 1 and Phase 2 sites when we are finished with the samples this year. Right now we are set to have samples from 2007 completed by the end of November 2008. Volunteers are stepping up to the plate, spending hundreds of hours at the microscopes.

Samples have been collected by volunteers in 2008 and we will start the identification efforts sometime in 2009. Many thanks go out to all the dedicated volunteers that help make this program a huge multi-year success. We are really making a difference when it comes to understanding restoration and biological response.

Bird Monitoring. This year we have also strengthened our partnership with The Evergreen State College, bringing on two interns and a faculty member, Alison Styring (ornithology professor) to help with creating a workable protocol for the Phase 2 restoration site. The biggest difficulties we face are the large size and diversity of the site. After conducting a high-frequency monitoring program, we worked with Alison's Restoration Monitoring class during the summer and identified parcels that best represent the different areas on the Phase 2 site. Even though summer is not the most productive time to monitor bird restoration sites, we still came up with 54 bird species, some of which are threatened or endangered. We will be working together to help create a new protocol for assessing bird populations using volunteers on the Phase 2 area of restoration in the Braget Marsh. For more information and a paper by Amber Carver and Kristen Andrews, TESC interns, see our website at www.nisquallyestuary.org.

Environmental Education Goes "Green" at Summer Camp By Jeanine Toth

After attending the statewide 17th annual conference of the Environmental Education Association of Washington, Reinventing Green, which was held November 8-10, 2007 in Seattle, I couldn't help but begin to think of new ways to reinvent green at NRNC. Some of the sessions that helped me most to accomplish this goal were those that focused on scientific inquiry in K-12 field-based science education. Through these sessions I received many guidelines about how to approach field-based science by using the scientific inquiry methods as tools for learning. In doing so, one can also help schools meet state standards and essential learning requirements.

I decided to "reinvent green" education through the programs offered at NRNC. One of my goals has been to improve the education that we do here and design it so that it is more viable for local teachers, schools, communities and school systems. This conference helped give me some of the tools, information, resources and contacts to do just that.

After looking at everything we do at our summer camps, it seemed as if we touched the surface on many of the concepts presented at the conference. Some concepts we did really well and others we just seemed to touch on. I applied the principles



Campers show off one of their shore crabs.

of scientific inquiry to the already in-place beach surveys that we have been doing for years. My goal was to get students to see the bigger picture: when we are doing real science, the methods and the procedure for doing things are important so that the work can be repeated. It is important for students to begin to think about why we are doing a beach survey, what exactly do we want to know and why, what may or may not happen, what actually does happen, and what does it all mean. This is all part of scientific inquiry.

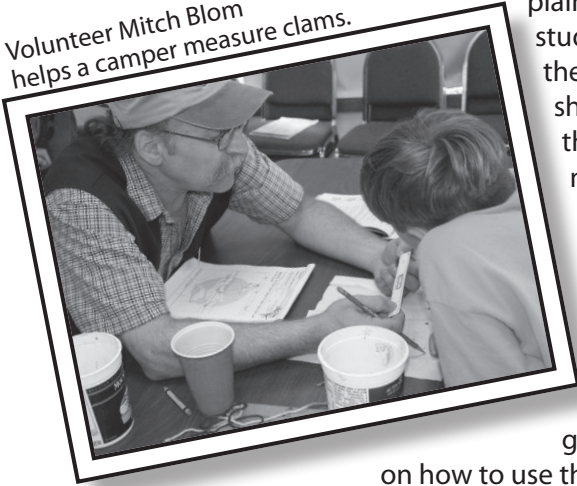
Jeanine and Daniel Krentz help campers with the seine net.



In addition to our beach surveys this year, students were challenged to go more in depth into the scientific method of each field-based inquiry we did. Students were shown the procedure through instructional Power Point presentations so that they clearly understood what they would be doing and in what order.

"We had them collect data, graph it, and analyze it to see if any trends appeared or any assumptions could be made that could be further tested," Daniel Krenz, Environmental Education Intern explained about the format of the new curriculum. According to Daniel many students were able to draw conclusions that may not have been apparent on the surface. For example, if during the bivalve survey we found mostly clam shells with perfectly round holes in them in the lower tidal zone, students then thought about what drilled the holes and what this would mean. One might conclude that moon snails prefer the low zone because there is more water.

Volunteer Mitch Blom helps a camper measure clams.



Daniel Krenz is a Fort Lewis veteran studying Wildlife Conservation and Education at The Evergreen State College. He is also a children's piano teacher and was a wonderful addition to our summer camp staff as our intern this year. He not only was great with the children, but he also designed many creative worksheets for our summer camp workbooks, games and activities, and a lesson about dichotomous keys and an activity on how to use them. Daniel is also currently assisting us with a summer camp database.

This will be an amazing tool for us as we have years of data that we have collected from student surveys and have not had any particular way to organize and analyze the data. We are so pleased to have Daniel continue to volunteer at NRNC.

Last year at the summer camps, we touched on some Native studies as well as bringing a little yoga into the classroom as a tool for calming the students down to get them to focus better on the next activity. This year I tried to adapt these portions of the curriculum to focus on awareness and appreciation of the natural environment. In addition to our summer camp workbook, each student made a nature journal which they used to reflect on their time at summer camp. The journal could be about wildlife they saw or an activity they particularly liked, or maybe data from one of our surveys that made them want to investigate more or remember better.

Another aspect that we added to our programming was just an end of the day circle of thanks. We used this activity as a way to end our day with a recap of what we really enjoyed about the day at camp. Students were only allowed to talk when holding a rock, which we passed around the circle. Each student then had to state something they learned and/or something they were thankful for during that day of summer camp. For some it was the eagle they saw, or a friend they made, or even a crab they discovered that was missing a claw. I really enjoyed this experience as it showed what areas, events, lessons and experiences left a mark on each child. Through teaching students to sit quietly and listen to nature and reflect about what they love about nature, we can foster the development of a sense of place and an understanding, appreciation, and respect for their environment. By instilling these important values in young students through the use of new education tools, I hope that students will hold on to these experiences for a long time and perhaps influence their own choices and paths as responsible adults. This is truly the way I hope to "reinvent green" at NRNC.

Daniel Krentz, Daniel Hull, and Jeanine Toth with one group of campers.



Demonstration Bulkhead Native Garden at NRNC

Thanks to our volunteers and a generous donation of five yards of mulch from Great Western Supply, we have completed the first stage of a native plant garden at NRNC. The intent of this garden is to get native plants established on the bulkhead that not only provide food and cover for native birds but also bring a bit of ecologic function to an otherwise intrusive bad thing for the beach (a bulkhead). By getting native plants to hang over the bulkhead and over the water we can add possible cover (branches) and a food source (insects) for passing fish. This will by no means replace the natural function of the beach but will lessen the impact of the bulkhead, which is essential to the Center. We plan to monitor the effectiveness of this project over the coming years and use this as a demonstration garden for other beaches with bulkheads.

A portion of the Center's bulkhead at high tide.



Partnering within the South Sound Community

By Daniel Hull

NRNC is working to develop new funding sources and new partnerships. We have recently received two new grants and are networking with the newly established Puget Sound Partnership.

Community Foundation Grant. A new NRNC grantor, The Community Foundation of South Puget Sound, provided \$2,800 to the Center this summer to purchase binoculars and microscopes. Currently we are going to be using the new binoculars, Bushnell Buckhorn 10x42, for student monitoring/education with the Nisqually River Education Project on the Braget Restoration site. We are very grateful to The Community Foundation for assisting us in bringing our equipment up to date and helping to fulfill our education and research missions.

National Fish and Wildlife Foundation grant. As part of a grant to the Nisqually River Foundation (NRF) from the National Fish and Wildlife Foundation, NRNC will receive \$3,300 to provide students in grades 4-12 the opportunity to participate in a monitoring program at Luhr Beach. The students will learn to conduct beach profiling, quadrat surveys of mollusks and shore crabs, and plankton surveys to track the impact on Luhr Beach of the Braget Marsh restoration, which is taking place on the east side of the Nisqually estuary. We look forward to collaborating with the NRF's Nisqually River Education Project to provide students in our community with yet another opportunity to learn about the estuary and citizen science.

Puget Sound Partnership. The creation of a new organization, the Puget Sound Partnership (PSP), has given NRNC the opportunity to network with the many stakeholders that are gathering information to create the PSP's action agenda. We have attended several meetings pertaining to the PSP, focusing our attention on organizations with which NRNC can collaborate. Together, we can send a consistent message to address the local needs of the South Sound. During this process we have strengthened our partnerships with People for Puget Sound, South Sound Green, North Thurston Conservation District and the Nisqually River Education Project. We at NRNC hope to combine some of our education outreach with that of these other organizations, to give students in the South Sound greater opportunities to access environmental inquiry-based science in the field. Such collaborations would tie community information together from watershed to watershed, connecting throughout the Puget Sound. We are all currently working with PSP ECO-Net (PSP-sponsored Environmental Education arm) to help foster the connection between regional and local organizations and to enhance our ability to reach the public with our shared message.

As Executive Director at NRNC, I am glad to see such a commitment to local nonprofit operations, as our many collaborative activities demonstrate. Without the help of our grantors, partners, volunteers and others, the Center would not reach as many people as it does with its mission, nor would it have the opportunity to create and test the quality citizen science programs we have developed over the last four years.

When it comes to healing environmental wounds, I think hope comes from the fact that the issues we face are issues we have created, and therefore we can undo. Our programs at NRNC look not only to provide fun times on the beach using critical thinking skills to understand problems, but also to help people realize that human perception can be the first and biggest problem.

Annual Pig Roast Benefits NRNC Programs

Rain showers and chilly temperatures did not dampen the enthusiasm of the 65 lucky people who attended NRNC's Second Annual Pig Roast fund-raising event on September 21. After a sunny start to the day, showers and drizzle moved in during the afternoon, but canopies on the pier protected some of the more intrepid diners from the elements. Inside, music, beer on tap, wine, good conversation, and loads of food provided entertainment and enjoyment. The event increased our revenue by approximately \$3300 for NRNC's programs.

Once again, Fish Tale Brewery contributed Organic Wild Salmon Pale Ale, Spire Pear Cider, Hodgson's India Pale Ale, and ginger brew for the event and the taps were flowing. Ramblin' Jacks smoked the 90-pound pig to perfection and contributed salad and baked beans. The Oly Mountain Boys, an aggressive style of Stanley-esque bluegrass, provided the music which, although moved inside because of the weather, served as a rousing background to the event.

The Oly Mountain Boys rockin' at the pig roast.



Clockwise from left: Jeanine Toth, Austin McKinley, Chris Bradshaw, Daniel Hull, and the pig.



This year we added a fishbowl raffle to the event, which raised \$500! Caretaker Jeanine Toth and Board members Alan Ramer and Kaia Peterson procured items from local businesses, which were raffled off to purchasers of \$1 tickets.

We are so grateful to the businesses who contributed to the event--particularly Fish Tale Brewery and Ramblin'

Jacks, our principal sponsors--and to all donors for our raffle. We also would like thank those who made this great event possible: Jeanine Toth, principal organizer; former caretaker Austin McKinley; intern Daniel Krenz; all volunteers, especially Tad Stein, Clare Isomaki, Kerri Wilson, Chris Bradshaw; and Board members who helped put it all together on Sunday. A special thanks to all the new memberships we received as we prepared for the event. Last but not least, we express our gratitude to everyone who attended this amazing event. Thank you for supporting what we do at NRNC!

See more event photos at our website at www.nisquallyestuary.org.

Enjoying the beer before the rain.



Thanks to our Donors!!

The Nisqually Reach Nature Center extends its sincerest thanks to those local businesses that made the Annual Pig Roast possible! Thank you for supporting your local environment as well as what we do at the NRNC!

Batdorf and Bronson Coffee

Boston Harbor Marina

Bruce Sanford Art

Bruce Wood Mineral

Café Vita

Cicada

Compass Rose

Copper Moon Massage

Costco

Crescent Moon

Fish Tale Brewery & Brew Pub

Home-Body Eco-Luxe Living

Hoodsport Winery

Harmony Antiques

Kris Vameer Art

McMenamins

Olympia Seafood Company

Olympic Wine Merchant

Plenty/Swing

Ramblin' Jacks

Traditions

The Wine Loft

Walter Dacon Winery

Wild Birds Unlimited

Wind Up Here

New Volunteers and Interns Helping NRNC

The backbone of our operation at NRNC is its volunteers. This year, to add to the many volunteers who faithfully assist the Center in its many endeavors, we made concerted efforts to recruit new volunteers. As a result, we have been very fortunate to welcome the following Interns and new volunteers who are assisting us in our mission of research and education.

Assisting us with our education programs and student monitoring:

Daniel Krenz, volunteer/ Intern with The Evergreen State College (TESC)
Gerardo Chin-Leo, volunteer

Assisting us with Monitoring Protocols for the Phase 2 Restoration Site:

TESC Interns Amber Carver and Kristen Andrews
Alison Styring, TESC

Assisting with Invertebrate Identification:

Garion Bienn - TESC Intern
Paula Craft

Karly McKee
Bethaney Autry
Jacqueline Winter

Visitor Center staffing, aquarium maintenance:

Bethaney Autry, VC
Albert Coats, VC, aquarium
Donna G Dorris, VC
Mary Martin, VC
Allison Pappas, VC, aquarium
Tad Stein: Landscaping, aquarium

The Nisqually Reach Nature Center (NRNC) is a private, nonprofit 501(c)(3) organization dedicated to environmental education, outreach, and research. All contributions are tax-deductible. The Center is located at Luhr Beach, on the west side of the Nisqually delta. Our facilities are provided by the Washington Department of Fish and Wildlife. No state funds are provided for the operation of the Center.

The Center is open to the public Wednesday, Saturday, and Sunday between 12 and 4 pm.

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