

The Flyway

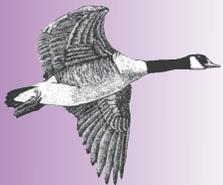
Winter 2020



Quarterly newsletter for Billy Frank Jr. Nisqually and Grays Harbor National Wildlife Refuges

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Heron at the Refuge

By Kim Adelson

Sometimes Great Blue Heron (GBH) remind me of sentries, because they stand so stiffly still and wear soldier blue. Other times, perhaps due to their harsh croak and large size, they make me think of dinosaurs. At all times I find them fascinating.

GBH, together with other herons, egrets and bitterns are members of the family Ardeidae. These long-legged waders have a rather shaggy appearance and a long, dagger-like bill. There are no diagnostic differences between heron and egret, though the name “egret” is primarily-but-not exclusively reserved for white birds. Bitterns dif-

fer from other herons in that they are camouflaged: you’ll have to look closely to find them as they stand stock still, bill pointing upwards, amongst reeds and cattails. It has recently been determined that pelicans—not the storks, cranes, and spoonbills who are also long-legged waders—are their closest relatives. The similarities amongst the unrelated long-legged waders are now attributed to convergent evolu-

tion rather than genetic relationship. Herons fly with their necks retracted in an S-shape, not stretched out like storks or cranes. They can do this because they have 20-21 cervical vertebrae, on the high end for birds. Herons also differ from the other long-legged wading birds in that they possess powder down, a substance produced when



Great Blue Heron

special feathers on their breast and thigh disintegrate into a dusty residue; it is used in preening to help keep the bird clean and dry. They are successful birds with a near global distribution—only polar regions lack them. Herons can be found near both fresh- and salt water and sometimes congregate in large groups

called “sieges”, especially when waiting for the tide.

The most common and conspicuous heron at the Refuge is the Great Blue Heron (*Ardea Herodias*). Although GBHs are found year-round across most of the United States, our resident subspecies (*A. Herodias fannini*) has a range that extends only from here north-

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Hérons

From page 1

wards to Alaska. Great Blues are the largest American heron and the third largest heron in the world; they stand about four feet tall, have a wingspan of about seven feet, and weight up to seven pounds. Males are slightly larger than female, and this is their only sexual dimorphism.

Great Blues are very long-legged and are mostly blue-grey. They have pale necks and faces with back crowns and head plumes. Their bills are thick and yellow. Their thigh feathers are rusty. When they fly you can see that their wings are two-toned with dark grey flight feathers. Their legs are orange during breeding season and grey at other times of the year. The only two birds they might be confused with are the Great Egret—but that bird is solid white and considerably more slender, and Sandhill Cranes—but that bird is bulkier, has more tan feathers mixed in with the grey, has a dark bill and a red crown.

Thanks to their very long legs, Great Blues can wade in deeper water than other wading birds to catch fish, frogs, crustaceans, etc. unavailable to smaller, shorter-legged waders. They typically hunt by standing completely motionless and then quickly grabbing prey animals that come close. They also sometimes slowly stalk their targets. In turn, they themselves are hunted by Bald Eagles (even as adults!), and their eggs and hatchlings might be eaten by ravens, crows, black bear and racoons.

Although some GBH nest on the ground, most make large, spectacular nests high in the canopy. (It always strikes me as precarious for such large birds to nest high

up in tall trees.) The nests can be four feet wide and up to four feet deep, and once built are re-used in subsequent years. The sight of their nests is all that more remarkable because GBH are colony nesters, and you can see dozens or even scores of nests at once. In our region, cormorants often share trees with the heron.

My personal favorite Great Blue Heron sighting of all time occurred at the Refuge about three years ago. One late afternoon I was walking along the dike, just about 100 yards past the end of the Twin Barns. I paused to watch a GBH standing on the side of the path stalk a prey animal located in the tall grass. Suddenly, it struck—and when it lifted its head there was a large garter snake dangling from its beak. So far, nothing too unusual. What it did next however was! It twirled its head around and around in such a way that the snake ended up wrapped around the heron's beak in a spiral. The heron then threw its head up and the snake-ball slid off the end of its bill and went several feet into the air. The



Great Egret

heron calmly opened its mouth wide, caught the snake and gobbled it down. I always look for that heron, whom I nick-named Henry, whenever I pass that stretch of trail.

The other resident Refuge heron is the American Bittern. Unless you are very lucky or very observant, you are more likely to hear them than to see them. In the spring the male gives a very loud, booming “unk-a-chunk” call. Bitterns are very well camouflaged with brown and buffy feathers and

a thick, striped neck that blends in with the tall stalks of marsh vegetation. When feeling threatened an American bittern adopts a stance in which it points its bill straight up and keeps its body motionless while swaying its neck ever so slightly (as if it were moving in a gentle breeze, like the reeds surrounding it.) In contrast when bittern walk they retract their heads and take on a rather hunched appearance.

Both Great Blue Heron and American Bittern are great photography subjects. Their tendency to stand still gives you the time to carefully compose your photo. And Great Blues are large enough to be seen even without binoculars (as are American Bittern, if you can spot them!)

In reading up to write this article, I discovered that, in the traditional lore of many groups of Pacific Northwest native people, seeing a heron means you will have good luck in your fishing. I now have yet another reason to appreciate catching a glimpse of one of these birds! ✨

Photos by John Whitehead

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Save trees, think green.

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How the *Friends* support the National Wildlife Refuges

By Justin Hall

Friends groups are organizations that support the goals and objectives of the National Wildlife Refuge System. They are independent non-profits that raise funds to assist their local National Wildlife Refuge.

The role of Friends groups is:

- To advocate for funding, protection, and programming at their Refuge and in the Refuge System
- To conduct public events that teach people about the Refuge and the Refuge system and connects the local community to their Refuge and to conservation in general
- To assist in restoring habitat, maintaining trails, and bringing volunteers to the Refuge
- To operate Nature Stores and raise funds for their local Refuge.

Friends of Nisqually National Wildlife Refuge Complex started in 1998. The forming of the Friends group came during a time of change at the Nisqually Refuge. The U.S Fish & Wildlife Service was promoting the creation of Friends group at Refuges around the nation. At the Nisqually Refuge, the Visitor Center was being built that would accommodate a Friends store for raising money and a new visitor services manager with experience with Friends groups had arrived. The Friends group started with a \$5,000 loan from a Friends group at another Refuge. The loan was used to purchase inven-

tory for the Friends store. After paying the loan back, the Friends slowly were able to support the Refuge with more and more financial assistance.

Over the past 22 years the Friends have been able to provide to the Refuge around \$400,000 to support programs at the Refuge. Our primary goal has been to support the environmental education program that serves students of all ages, from pre-school through college. Additionally, the Friends support the Refuge's volunteer program, and interpretive program. We also financially support special events like the annual Nisqually Watershed Festival at Billy Frank Jr. Nisqually National Wildlife Refuge and the Grays Harbor Shorebird and Nature Festival at Grays Harbor National Wildlife Refuge.

The Friends of Nisqually National Wildlife Refuge Complex continue to advocate for funding of the National Wildlife Refuge System both through our membership in the National Wildlife Refuge Association and through direct action. I was fortunate to get the opportunity to testify on the needs of our Refuge Complex and the entire Refuge system before Congress last year.

Our ability to provide support to our Nisqually National Wildlife Refuge Complex that we love has come from people purchasing items from the Nature Store and from memberships and donations to the Friends group. We are able to support the Refuge only because you support us! Thank you! ✨

On the Wing

By Glynnis Nakai

It's difficult to move forward without acknowledging the challenges everyone has been experiencing during these difficult times, and we extend our thoughts to all members. There is evidence of such strength and courage during this pandemic, and though it continues, we look to 2021 with hope and a willingness to adapt to the changes ahead of us.

Every year, the Friends of Nisqually National Wildlife Refuge supports the environmental education programs at Billy Frank Jr. Nisqually and Grays Harbor National Wildlife Refuges (NWR). We are extremely thankful for their support for our Education Program Manager (Davy Clark) and AmeriCorps members. With schools going to remote learning, we lost the opportunity to share our Refuges with thousands of students and decided not to host two AmeriCorps members for the 2020-21 season. This was a difficult decision ten months ago but certainly makes sense now with the safety precautions still in place to protect teachers, students and their families. The application to host members next season is around the corner and we plan to submit applications in hopes schools will be back to in-person learning.



We continue to assess the state's phases and safety officials' recommendations, but need to look ahead and plan accordingly. The next event is the Grays Harbor Shorebird and Nature Festival that is scheduled in early May. The Planning Committee realizes an in-person festival is not realistic and is formulating a plan to celebrate the shorebird migration..... more news to follow. We are

still in this state of uncertainty that is dependent upon the COVID-19 pandemic, but we have the opportunity to accomplish many of the projects that were in the "pending" stack either because of limited time or limited funding, including: refurbishing the Nature Explore Area, pressure washing the boardwalks, completing murals, and preparing a conceptual plan for a wildlife viewing area at the Black River Unit of Billy Frank Jr. Nisqually NWR off Endicott Road, to name a few.

We are so thankful for all of our Refuge supporters. Thank you for the patience and understanding while we all navigate through these tough times. We ask for you all to take good care, stay safe, and stay healthy so we can see you in person later this year.

I go to nature to be soothed and healed, and to have my senses put in order. —John Burroughs ✨

A Watershed Moment

By Davy Clark

In March of 2020, as the COVID-19 pandemic made school field trips to the Refuge come to a grinding halt, we knew that this would be one of the few times that the Environmental Education Center would remain empty. We have missed the excited school groups visiting us on field trips to discover the wonders of wildlife, and in their absence we decided to make a unique improvement to this facility.

Friends of Nisqually NWRC commissioned a local artist, Carrie Ziegler, to paint a large mural portraying the Nisqually Watershed, from glacier to sound. At over 24 feet wide and 14 feet tall, this mural celebrates the grandeur of the whole Nisqually Watershed.

Carrie is an experienced artist, naturalist, and environmental educator who knows the Refuge well. Painting this mural was truly a home-coming to Carrie, as her story and the Refuge are intertwined. She held an internship here while in college in 2002, painted another mural at the Refuge in 2013, and has been visiting the Refuge for many years.

Throughout all her projects Carrie works to connect art and science, and aims to be as realistic as possible while still taking artistic license to make her depictions of nature exciting and interesting in new and different ways. Her challenge was to capture the entire scope

of the watershed, including the forests, the estuary, the river, and Mount Rainier all in one image. This required condensing elements of a huge space into something that felt natural. To do so she employed an artistic bending-of-reality that resulted in a beautiful depiction that captures many important elements of the Nisqually Watershed. And this was also what Carrie stated her favorite part of this project was. She appreciated the chance to focus on a whole landscape, and the movement of water, from the mountain where the river is born, through the hills where water drains to the river, to the estuary, and out to the Salish Sea.

This watershed mural will be used as a teaching tool. It was created in the room where large groups of school-aged students gather to be welcomed to the Refuge. It's here that students learn what a National Wildlife Refuge is, what an Estuary is, and how we fit into the watershed as a whole. The mural will serve as a visual language to reinforce these concepts. As Refuge educators describe the narrow-fast flowing river emerging from the snout of the glacier, students will be able to look to the mural and see this. They will see the green forests of the middle watershed where creeks and streams gather water and join the river. And they will see the river's end that has been protected as a National Wildlife Refuge, where fresh and saltwater meet and mix to form the Nisqually Estuary.

This time spent alongside the watershed mural is all to provide context for the experiences that students will



Artist Carrie Ziegler with her completed Nisqually Watershed Mural

This time spent alongside the watershed mural is all to provide context for the experiences that students will

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Nisqually Watershed Students: Stewards of Our Future

By Sheila Wilson

Program Director, Nisqually River Education Project

The Nisqually River runs about 80 miles from its headwaters on Mount Rainier to the estuary in Puget Sound. Mount Rainier National Park protects the source, the Nisqually Glacier. Many partners along the river's course, including the Nisqually Land Trust, Nisqually Indian Tribe, Joint Base Lewis McChord, and others steward and protect the riparian area surrounding the river. At the Nisqually's mouth, the Billy Frank Jr. Nisqually National Wildlife Refuge protects the estuary and surrounding freshwater wetlands. And there is still more work to be done.

In order to ensure that there continues to be high water quality, abundant salmon and wildlife, and thriving communities, we need to understand the Nisqually watershed, or all of the land area that drains into the river, including all of the living and non living components, it's people, their cultures, and traditions. Any land on Earth is part of a watershed. Any water, from a raindrop, to a snowflake, or even water coming out of a garden hose, will end up in the same place. Eventually, all watersheds drain to an ocean.

The quality of water in the Nisqually, or any watershed, depends on what is happening on the land of the watershed where the precipitation falls. Unlike other lines drawn on a map that separate countries, states,

cities, etc., the boundaries of a watershed are made by nature and have real-world, natural consequences. Any rain or snow that lands on the land within a watershed will flow down to a common body of water. We call this "stormwater runoff". Stormwater runoff from a forest, for example, is very different than stormwater runoff from a parking lot or farmyard.

Nisqually River Education Project works to inform and inspire the next generation of land and water stewards. With more than 1,000 students from the communities of Ashford, Eatonville, Graham, Yelm, JBLM, Dupont, and Lacey actively engaged in citizen science, we raise awareness and investment in this special place. Students monitor water quality twice a year, and share their results at the Student GREEN Congress, providing valuable data to biologists and scientists working to recover our threatened steelhead and Chinook salmon.

You too can be part of the solution! Recycle, reuse single use plastics, and pick up litter in your neighborhood. Pick up after your dog, and keep your farm animals out of streams and rivers. Choose climate friendly transportation, like bicycles, carpools, and public transit. Plant native trees and shrubs at home, and pull weeds by hand instead of spraying them with chemicals. Unplug your electronics. If we can all work together, the future is bright and full of possibilities, much like the sparkling Nisqually River itself, as it flows from mountain to sea! ✨

Watershed

From previous page

have while exploring Refuge trails. Once out of the building, it is then that students explore the habitats of the Refuge and see wildlife thriving here at the end of this special watershed, reminding us that we all live downstream.

This mural was made possible through an outpouring of support and generosity by Friends of Nisqually NWRC members, the Nisqually Indian Tribe, and other community members who generously donated to this



Artist Carrie Ziegler beginning work on Nisqually Watershed Mural

project. Our heartfelt thanks goes out to each and every donor! We set a goal of raising \$10,000 and are thrilled to announce that we met our goal. Friends of Nisqually extend our heartfelt thanks to all who contributed towards this project. This support will serve students learning about the Nisqually Watershed for years to come. To find out more about Carrie Ziegler's amazing murals and community-based artwork that focuses on environmental and social justice,

visit her website at: carrieziegler.com ✨

Bald Eagles Nest During Winter

By Davy Clark

Although spring is the time we normally associate with nesting and breeding birds, there are some exceptions. The Bald Eagle is one such exception, as they commonly begin building their nests during second half of December or early January. This process can be quite the spectacle for those lucky enough to witness it!

Both male and female eagles retrieve branches from the ground and carefully assemble one of the largest nests among the entire bird kingdom. Most Bald Eagle nests are about five feet wide and three feet tall. The largest bald eagle nest ever recorded was found in St. Petersburg Florida and was over twenty feet tall! Making this nest can take as little as four days, but some pairs have worked to complete their nests for up to three months. Even after a nest is complete, Bald Eagles commonly add material throughout the breeding season.

Seeing a nesting bald eagle is much more common today than it once was, in large part thanks to the protections afforded to this species through conservation laws. In 1940 the Bald and Golden Eagle Protection Act was passed. This law provides for the protection of the bald eagle and the golden eagle by prohibiting the take, possession, sale, purchase, barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit. Though "Take" is commonly thought of as simply removing or killing an animal, it is important to note that disturbing an eagle is also considered "take" under this law. Disturbance is considered any action that alters or changes the behavior of the eagle.

Despite the passage of the Bald and Golden Eagle Protection Act, the species continued its precipitous decline, reaching a low point in 1963 when only 400 nesting pairs were found in the lower 48 states. In response, Bald Eagles were afforded additional protections under the Endangered Species Act when they became listed as an endangered species in 1978.

After a many years of conservation efforts, the Bald Eagle was delisted in the summer of 2007, when the species had gone from merely 400 nesting pairs in the lower 48 states to about 10,000 in the same areas. Delisting the species marked a conservation success story, but it did not mean that Bald Eagles were no longer protected under federal law. The Bald and Golden Eagle Protection act still applies today, and is an important tool to ensuring that Bald Eagles have the opportunity to thrive well into the future.

As you spend time exploring the outdoors this winter keep an eye out for Bald Eagles constructing their nests. If you're lucky enough to see this, remember to take extra care to be considerate of this species that was on the verge of extinction not so long ago. Consider how your actions may disturb these special birds during a critical part of their life-cycle, and when in doubt, exercise caution and restraint. And be sure to check their progress this spring. Bald Eagles typically hatch as early

as the first part of May, at which point both the male and female adults will be busy delivering food to their young. ✪

Photos by Michael Schramm



New and Renewing Friends and Members/Winter Flyway 2020

Student/ Senior—\$15

Laura & John Allen
Geoff Apgar
Allan &
Norma Bordon
Gary Bostwick
Karen Bryan
Judith De Buse
Donna DeVore
Lynn Edele
Debbie Fisher
Kathryn N. &
Willard E. Fox
Loretta Jones
Gerald Julian
Juanita Kelly
Dana M. Klatt-Risch
Ernest &
Diane Malick
Thomas &
Barbara Malone
Anita Niccum
Michaelyn Olson
Bekcy Russell
Kay Smith
Phyllis Standefer
Herbert Stumpf

Dorothy & Fred
Tobiason
Barbara Webster
Joelle Worthley

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Jeannette Barreca
Mary Brasseaux
Barbara A. Cook
Caren Crandell
Betty Curneen
Christine D. Galvin
Faith Garrick
Jean Gillmer
Cori Halverson
Suzanne Hansen
Bruce Hanson
Lin Hines
Kay Lennartson
Wendy Lippmann
Denise McDermott
Elizabeth Phillips
Sabin Russell
Pamela Sulenes
Todd Suna
Lois & Steven C.
Ward

Family—\$50

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Lindella Brasche
George & Sandra
Bush
Anthony Chen
Michael Clark
Care DeLeeuw
Jennifer DeSelle-
Milam
Len & Linda Elliott
Ann & James Hicks
Curt Johnson
James Killingbeck
Linda M. Langston
Jean MacGregor
Gina Massoni
Carol Mastronarde
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Marian Mehegan
William & Julia
Mitchell
Chuck & Leslie
Newquist
Maxine & Raul
Padilla
Gray & Marlene
Payne
Gerald Pumphrey

Kelly Seago
Marian Shinobu
Jeff & Susan Stuart
Janice E. T. Thuline
Dan Tufford
John & Elly
Walkowiak
Kathy & Carl
Woodward

Supporting— \$100

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Beatrice Ashburn
Marian Bailey
Christopher Bauer-
meister
Scott Burke
Marcia Cramer
John Cusick
Cherie Davidson
Cindy Fairbrook
Sharon Fisher
William A. Fulton
Michael Gillespie
Basil & Venera
Grieco
Elizabeth Hansen
Susan Hayes
Terry & Gerry Hodge

Karen Hook
Sam Hunt
Victoria Lincoln
Shauna Madden
David & Laura Nicol
Kristin & Michael
Stewart
Jean Takekawa
Kristina Wetzel
Bill & Carole
Wieland
Dolly Yates
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Carol Else
Lindsey &
Doug Ford
Phyllis J. Freitas
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- 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.

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- \$25 Individual
- \$50 Family
- \$100 Supporting
- \$250 Partner
- \$500 Patron
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Corporate/Business Memberships

- \$250 Business Sponsor
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- \$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 Tidelands.

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**Friends of Nisqually
National Wildlife Refuge**

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

The shorebirds
will migrate
north this
spring as always
and we want to
celebrate their
return to
Grays Harbor.....
Stay tuned.
Spring *Flyway*
will have the
details.

**2020 Shorebird Festival
poster winner**

Best of Show from Simpson Elementary
6th Grader at Hayden Sweet with her
piece titled *Lunch is Served!*
featuring a Marbled Gotwit.

