



# Willapa Tidings

Newsletter of the Friends of Willapa National Wildlife Refuge • Vol. 6, No. 3 • Spring 2006

## Snowy Owls Visit Willapa Nat'l Wildlife Refuge



Photo by Rudy Schuver

by Kirsten Brennan, Wildlife Biologist

The Snowy Owl (*Bubo scandiacus*) is a large owl with a round head (no ear tufts), distinctive white face, yellow eyes, black bill, and densely feathered legs and feet. Overall, the owl is white, but the plumage is variable depending on the age and sex of the bird. Females and juvenile birds have more thin, dark brown or black horizontal barring and spotting of their feathers than adult males, which may be pure white except for a few bars on the tail.

Typically these owls are found in the Arctic tundra, which encircles the North Pole and includes northern Alaska, northern Canada and Siberia. In winter, Snowy Owls are found in many of the same areas as they breed, but extend their range south into southern Canada and the northern portion of the United States.

In the United States, Snowy Owls primarily breed on the treeless tundra near Barrow, Alaska arriving at their breeding grounds in late April or May. Their main prey items are lemmings, a small rodent resembling a furry hamster. A female owl may lay 3 to 13 eggs. When lemming populations are abundant, Snowy Owls have more young and when lemmings are scarce, the owls may not breed at all.

*continued on p. 6: See* **Snowy Owls**

## 4th Grade Field Trip to Refuge Planned

by Kristine Massin, Refuge Outdoor Recreation Planner

My, how the year has flown! The annual Refuge field trip for area fourth graders is fast approaching.

Volunteers and staff from the Refuge have visited the classrooms four times this year. In October, Refuge staff visited each classroom for an introduction to Willapa National Wildlife Refuge and the National Wildlife Refuge System. Next, volunteers visited each classroom to teach students how to identify different species of birds, how to use a field guide, and how different beaks are adapted for eating different foods. When volunteers returned in January, students learned about different habitats and invasive species such as Spartina. In March, Refuge staff and volunteers brought live amphibians into each classroom...always a highlight!

This annual field trip will be held the third week of May. Naselle, Long Beach, Ocean Park, and South Bend students from Washington, as well as Star of the Sea

*continued on p. 6: See* **4th Grade Field Trip**

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## Spartina Control: Update 2005

By Kelly Rupp

Significant progress was made in 2005 in the fight against *Spartina alterniflora* on the Refuge. *Spartina*, of course, is an unwelcome non-native cordgrass thriving in the intertidal areas of Willapa Bay, consuming vast acreages of important mudflat habitat with its dense root mass. The grass destroys migratory shorebird and waterfowl habitat and threatens the shellfish industry by transforming soft, open mudflats into upland meadows. Between 15,000 and 20,000 acres are infested with *Spartina* across Willapa and its tributaries.



The dense root mass of *Spartina* makes it difficult to eradicate. (Photo by COAB)

A multi-year program to eradicate *Spartina* from Willapa Bay was undertaken three years ago by a collaboration of federal, state, and local resources, with the Willapa NWR team playing a major role in the treatment and re-treatment of identified areas in Willapa Bay. Washington State Department of Agriculture (WSDA) is the lead agency for the collaboration.

Dave Gonzales, Willapa Refuge Manager, notes that "2005 saw significant achievements in our battle with *Spartina*." Over 11,000 acres were chemically treated with a special mix of herbicide by a virtual armada of resources: four amphibious-tracked vehicles, six airboats, and two helicopters staffed by a team of 24 operators, technicians, and support staff. "With the helicopters, we were able to treat hundreds of meadow-covered acres

very efficiently, with the airboat units deployed in harder to reach areas, and amphibious machines deployed in areas where native grass and *Spartina* intermingle for more pinpoint treatments," noted Gonzales.

Treatment schedules were carefully planned over the summer months to maximize the "dry time" of the herbicide on the *Spartina*, treating each infected area when the tide tables assured a minimum of six hours of exposed, non-immersed plant stems. GPS guidance (tracking and mapping) was used to direct the treatment of the helicopters and amphibious teams, resulting in optimal efficiency in herbicide application of the targeted areas. Exact measures of *Spartina* "mortality" from these treatments will not be known until new shoots appear in late March and April, but preliminary estimates range as high as 85 percent, indicating significant effectiveness in such a carefully-managed treatment program.

Our eradication fight continues into 2006, with approximately 15,000 acres anticipated for treatment. "We'll selectively re-treat the acreage covered these past two

years," says Gonzales, "and plan to increase the airboat fleet to eight in addition to helicopter and amphibious unit treatment teams. With our experience, we're clearly making progress and have already regained critical habitat for our feathered friends.

Our challenge this coming year is to track up all tidal guts looking for *Spartina* along with finding optimal dry-times for the lower-lying areas where *Spartina* clones may be."

The fight against invasive species is a difficult war to wage, especially on such a large scale as Willapa NWR. The positive results and optimistic outlook are welcome news for the hundreds of thousands of shorebirds and other wildlife that depend on the Willapa mudflats for habitat.

## Willapa Tidings

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Sandy Profeta, *Editor*

To request an address change, to contribute items of interest (including photos), or to submit articles for publication, please contact Friends of Willapa National Wildlife Refuge.

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## Friends of Willapa National Wildlife Refuge

A nonprofit 501(c)(3) corporation, Friends of Willapa National Wildlife Refuge was established in July 2000 to provide support and assistance to Refuge programs and to enhance awareness and appreciation of the Willapa National Wildlife Refuge.

### Board of Directors

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Ocean Park, WA

# American Skunk Cabbage—Harbinger of Springtime

By Russ Lewis

Our first eye catching clue to the coming of early spring becomes evident while out hiking on the Willapa National Wildlife Refuge. Experiencing the sight of several husky bright yellow and very showy bracts of skunk cabbage poking up out of the cold wet swampy soils of many freshwater riparian areas is a sure clue that winter is on the way out. Flocks of foraging robins in grassy areas, the flowering of introduced daffodils, and budding pussy willows are the only other obvious clues that springtime is not too far off, even though right now it may not feel or look like it.



Photo by Sue Sweeney © 2006

Presently our landscape looks wintery with the usual encompassing grays and tans of bare limbed deciduous trees and shrubs. The sight of buttery yellow bracts appears almost tropical in contrast to the surrounding dormant landscape. It almost looks like a plant that you could buy from a nursery for landscaping purposes. Big and yellow like a flag, it is a striking and highly visible native plant.

This time of year, skunk cabbage can be found growing in wet habitats in Pacific County, and many of these plants are found on the Refuge. Skunk cabbage is a member of the Arum family. Its full Latin name places it in the Araceae family, and is further identified per genus and species as *Lysichiton americanum*. American skunk cabbage is a perennial with thick creeping underground rhizomous

stems which can form a grouping of individual flowering plants scattered about in a small area.

The bright yellow flower bracts pop up out of the soil by mid-February. It usually finishes blooming by the end of March or early April. At this time, a few very large leaves begin to form from a basal rosette, and rapidly grown into the largest leaves found anywhere in our local natural landscape. Some large leaf specimens can measure over four feet long and two feet wide—that's huge for a leaf!

Skunk cabbage has an aroma slightly suggestive of "agitated skunk", especially when the plant is in flower. Its fruits are berry-like and cling to the spent flower spike long after blooming. Its flowering scent isn't much better, because it emits a lingering almost sickening sweet smell. For humans, this plant simply goes on looks alone.

Many plants found growing out on our wild lands are often utilized for food by various species of wildlife. Sometimes, only certain parts of a plant species are edible while others are so desirable that they are completely consumed to ground level, and even the roots, by certain animal species.

Black bears find skunk cabbage highly edible. To a bear, its like eating ice cream for the first time after a long winter spent on whatever it can scavenge for subsistence. Foraging bears consider the flowers and the new developing leaves as a fine repast. Early spring is an opportune time to see a black bear sitting on its rump, eating away on a hapless, but aromatic and showy, skunk cabbage.

It is said that long ago Native Americans used mature skunk cabbage leaves to line their baskets, but rarely used this plant as food. This is probably because too much preparation time had to be spent on a food source of questionable quality and it probably required excessive leaching and roasting to be safe for human consumption. Now you can appreciate knowing that spring is really in the air when you come across a bright yellow bract of skunk cabbage and that a welcome changing of the seasons is in progress.

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## Meet Volunteer Coordinator, Patty Wood

by Bev Arnoldy

Patty Wood, active Friends member, is our new volunteer coordinator. She is the person who sends out e-mail announcements about volunteer opportunities on the Refuge. Patty also is on the Friends of Willapa NWR Scholarship Committee, helping to choose recipients of the Friends of Willapa NWR scholarship awards to Pacific County high school seniors aspiring to collegiate education in fish and wildlife

management, environmental education, forestry, and related natural resource and conservation fields.

Patty and her husband Bruce are also active in the Coastal Observation and Seabird Survey Team (COASST) program, a citizen-science program established to identify the carcasses of marine birds found on beaches along on the outer coast of Washington State as well as Grass Roots Garbage Gang coordinators for their community of Surfside. When Patty is not volunteering, she is a librarian for the Timberland Public Library System.

Thanks, Patty, for taking on the role of the Friends of Willapa NWR Volunteer Coordinator!

## Calendar of Events

March through June 2006

### Events and Activities

- Wednesday, March 22nd – Board of Directors meeting starting at 4:00 pm. Call 360-665-0115 or send e-mail to beva@pacifier.com for location and agenda.
- Wednesday, April 26th – Board of Directors meeting starting at 4:00 pm. Call 360-665-0115 or send e-mail to beva@pacifier.com for location and agenda.
- Wednesday, May 24th – Board of Directors meeting starting at 4:00 pm. Call 360-665-0115 or send e-mail to beva@pacifier.com for location and agenda.
- Friends member, Kathleen Sayce, will lead the annual Refuge plant walk. Location and date to be announced.

### Volunteer Activities

Many volunteer opportunities await your help. Contact Kristine at 360-484-3482 or kristine\_massin@fws.gov about the following activities:

- Teaching and assisting classes for the 4th grade environmental education field trip during the third week of May.
- Pulling gorse at Leadbetter Point.
- Visitor counts, surveys and sharing Refuge information.
- Maintaining trails and campgrounds on Long Island.
- Maintaining trails at Leadbetter Point.
- Placing bat boxes and bird nesting boxes on the Refuge.

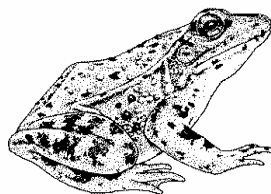
## Do you know?

Willapa National Wildlife Refuge is home to the Red-legged Frog, a medium-sized amphibian that reaches lengths of three to five inches. The Red-legged Frog is often a brown, gray, or red on top, with black flecks or patches. Underneath, this frog is white or cream, bordered by red along the belly edges and down the legs.

Red-legged Frogs can be found from sea level to 8,000 feet, all along the West Coast of North America—from extreme southwest British Columbia to the northern portion of Baja California.

They are usually found near ponds or other permanent water with extensive vegetation, but they also like damp woods. To locate a Red-legged Frog by sound, listen for a series of weak throaty notes, rather harsh, lasting two to three seconds.

Breeding takes place over a few days, usually from January to March. The frog lays its eggs in clumps in permanent bodies of water. Females can lay between 2,000 and 5,000 eggs in a single mass. The eggs are attached to vertical emergent vegetation such as bulrushes or cattails. The eggs hatch in 6 to 14 days and, approximately 3.5 to 7 months later, the tadpoles develop into frogs. Tadpoles and young frogs eat invertebrates, which they catch with their mouths. Insects are their most common prey.



## Many Thanks to Our Business Members for their Support

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 Port of Peninsula  
 Powell, Seiler & Company  
 Sand Point Clam Farms  
 Sandridge Topsoil  
 Sid's Super Market  
 The Depot Restaurant  
 The Shoalwater Restaurant  
 Willapa Hills Audubon Society

## New Members

(As of 3/10/2006)

### Family

Marcus Stiles  
 Matt & Julie Tennis  
 Harmony Frazier & Michael Breen  
 Richard & Gayle Kopra  
 Richard & Joan Robbins  
 Celia Tippit  
 Mairi M'Theao

### Individual

Kristi Freeze  
 Carole M. Berry  
 Elaine Merryfield

# President's Letter



Photo by Deanna Wilson

During the past couple of months, our 2006 board members have been reviewing the Friends of Willapa National Wildlife Refuge goals, both for the coming year and for the years to come. Briefly, these goals are:

1. To provide education and awareness programs at the primary and secondary school levels, as well as at the adult level.
2. To support the operating activities of the Refuge.
3. To advocate issues supporting the Refuge.
4. To establish and maintain programs for recruiting new and retaining existing members.

To support goal #1, we continue to provide an excellent 4th grade environmental education program for four school districts in Pacific and Clatsop counties. We also have developed a middle school curriculum focusing on "mudflats". This curriculum was taught as a science module in the spring of 2005 at the Ilwaco Junior High School and it will continue as one of our environmental education programs this spring.

Our scholarship program is in its third year. We have two \$500 scholarships available to deserving seniors (see article on page 6). Our adult education series called "Friends Gatherings" is beginning its third year, starting with "Critter Talk III", which was held on Wednesday, March 20th. Friends member, Suzy Whittey, led an educational and entertaining evening at the Peninsula Senior Activity Center.

For the support of goal #2, Friends volunteers recently helped with monitoring the Goose Check station, as well as trail maintenance at Leadbetter Point (see the list of volunteer opportunities on page 4).

Goal #3 was in evidence by the number of support letters for the continuation of the Spartina Eradication Program. The

request is to include \$1.2 million in the federal budget for FY 2007. These letters of support were sent to Senator Maria Cantwell, Senator Patty Murray, Congressman Brian Baird, and Congressman Norman Dicks. In addition to the support letters from the Friends of Willapa National Wildlife Refuge, I want to thank the following groups for their letters of support:

- Port of Ilwaco
- Port of Peninsula
- Port of Willapa Harbor
- Pacific County Commissioners
- Gray's Harbor County Commissioners
- Washington State Legislators (Districts 19, 24, 35)
- Pacific Shellfish Growers Association
- Willapa-Grays Harbor Oyster Growers Assoc.
- Willapa Hills Audubon Society
- Coastal Resource Alliance
- Shoalwater Bay Indian Tribe
- Pacific County EDC
- WSU Long Beach Extension
- Bay Center Maritime Co.
- Willapa Bay Fisheries Enhancement Group

Goal #4 is the reason why this Friends group is so active. Without your financial support and volunteerism, we would not be able to continue and initiate many of the programs that are in place or in their infancy stages. We thank you for your continued support.

We invite all of our members to our monthly board meetings generally held on the 4th Wednesday of each month, starting at 4 pm. Contact me for details if you are interested in attending.

— Beverly Arnoldy (beva@pacifier.com)



- New membership
- Renewal

## Membership Form

Invite a friend to become a member!

Make checks payable to: Friends of Willapa NWR

Send to: Friends of Willapa National Wildlife Refuge  
3888 State Route 101  
Ilwaco, WA 98624-9707

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_

- Yes! I want to receive Friends e-mail announcements. My e-mail address is \_\_\_\_\_

### Volunteer interests

- Community outreach
- Environmental education
- Membership recruitment
- Special projects and events
- Fund raising
- Public relations
- Habitat restoration
- Trail and campground maintenance
- Shorebird and waterfowl monitoring
- Fish and amphibian monitoring

Individual Membership (\$10)	} \$ _____
Family Membership (\$15)	
Patron Membership (\$50)	
Benefactor Membership (\$100)	
Advocate Membership (\$500 or over)	
Scholarship Fund Donation	\$ _____
Other Donation (Supports education programs)	\$ _____
<b>Amount Enclosed:</b>	<b>\$ _____</b>

Contributions to FWNWR are tax deductible. No goods or services are provided in exchange for your donation.

# Friends of Willapa NWR Scholarship Committee Seeks Applications from Pacific County High School Seniors

By Carole Wiegardt

The Friends Scholarship Committee is again looking for students to apply for our two scholarships. Information and applications have been sent to all schools in Pacific County plus local newspapers.

We are taking applications for the scholarship program for high school seniors in Pacific County aspiring to careers in fish and wildlife management, environmental education, conservation and related fields. "The rich wildlife habitat of our Willapa Refuge and complex ecosystem in the surrounding Bay has inspired many youth over the years to pursue advanced education in natural resources management" said Bev Arnoldy, President of the Friends of Willapa National Wildlife Refuge. "We want to further encourage students to enter these fields of study through this scholarship program."

Scholarships will be awarded and paid directly to their chosen college, to be used for tuition, books and fees. Two \$500

scholarships are available. Applications will be accepted from Pacific County high school seniors with a demonstrated grade point average of at least 3.0 and completion of the application requirements. Scholarships will not be awarded to a student receiving a full scholarship from another source. Home schooled students are encouraged to apply as well.

Applicants will be chosen by the Scholarship Committee and by vote of the Board of Directors by April 26, 2006.

In 2004, the first year of this program, one student who was eligible went on to Grays Harbor College in Aberdeen from Willapa Valley High School in Menlo. Last year, two students who qualified from Ilwaco High School were planning to go on to Clatsop College in Astoria.

Committee members are Carole Wiegardt, chair, as well as Bob Garlett, Patty Wood, and Barbara Bailey. All have served in the past and are looking forward to this year's applications. This program was instituted by Bibbi Lee, who gave of her time and effort to make it a success.

## Snowy Owls

*continued from page 1*

Snowy Owls are irregular winter visitors to Washington State and to the Leadbetter Unit of Willapa National Wildlife Refuge from November to mid-March. Irregular migrations, called irruptions, occur as mass movements of Snowy Owls head far south of their usual winter range in search of food. These irruptions are thought to occur when lemming populations have crashed or during periods of excessive cold and snow. Typically adult females stay furthest north, while immature birds move furthest to the south.

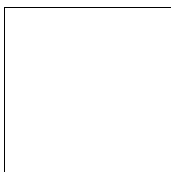
On March 1, three Snowy Owls were seen perched in the dunes at Leadbetter. The highest number of owls, six, were counted by Refuge volunteer Russ Lewis on December 14, 2006.

## 4th Grade Field Trip

*continued from page 1*

students from Oregon will each spend a full day on the Refuge. Students will rotate through seven different stations, each on a different topic. One of the most popular stations is the Skulls station. Here, students learn the difference between carnivores, herbivores, and omnivores and how to tell what an animal eats by looking at its skull.

The field trip is always a fun time for both the students and volunteers. More volunteers are always needed with this program. If you're interested in helping, please contact Kristine Massin at 360-484-3482.



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