



Education,
Research,
Stewardship

Beach Log

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WASHINGTON STATE UNIVERSITY
ISLAND COUNTY EXTENSION

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Beach Seining Projects Contribute to Fisheries Science

Camano and Whidbey Islands are adjacent to three major Puget Sound rivers, the Skagit, the Stillaguamish, and the Snohomish. This puts them in the out migration path of young salmon fry



shortly after they hatch in these rivers. The importance of the river habitat has been a focus of salmon recovery efforts for some time. More recently, it is becoming increasingly apparent that Camano and Whidbey pocket estuaries are also very important for salmon recovery efforts.

Starting with efforts in the early 2000s by the Skagit River Cooperative to measure salmon fry usage of the pocket estuaries in Skagit Bay, the monitoring has expanded to include efforts by the Stillaguamish Tribe in Port Susan, the Tulalip Tribe at Elger Bay, the organization Washington Trout along the west side of Whidbey, and NOAA participates at several sites. All the groups are using a similar data sheet so that the data can be compared. The data has been compiled into the report "Habitat and Fish Use of Pocket Estuaries in the Whidbey Basin and North Skagit County Bays, 2004 and 2005" and is now available on line at http://www.skagitcoop.org/EB2207_Beamer%20et%20al_2006.pdf.

A juvenile salmon is measured by Beach Watchers participating in the seining project.



Photo by Mike Eddu

Beach Watchers on both islands have been playing an active part in the beach seining, working alongside the fisheries professionals. Starting in 2005, Beach Watchers have helped with the monitoring at Elger Bay on Camano Island and Race and Harrington Lagoons on Whidbey Island. For 2007, Beach Watchers participation will be expanding to include English Boom on Camano and Ala Spit on Whidbey.

With the expansion of the program to additional sites, Beach Watchers are recruiting additional volunteers. The beach seining is a good opportunity for hands-on participation with fisheries professionals, providing an opportunity to make a difference in the knowledge of salmon fry usage and habitat needs, which in turn can have a real impact on how these pocket estuaries are managed. Plus, it's just plain fun! It's a good excuse to get on the beach and observe the various critters, and you never know what will turn up in the net! Training is provided to learn to identify the various species. Seining begins in February and runs into June.

If you would like more information or would like to sign up to participate, contact Barbara Brock at 360-387-7903 or wbbrock@wavecable.com for Camano. On Whidbey, contact Bob Buck, bbuck@whidbey.net. See also the Beach Watcher web page, www.beachwatchers.wsu.edu/whidbey/Seining/index.htm.

Barbara Brock, BW Class of 2002



Monitoring Madness

After the Storm

A couple days after the recent big storm, I decided to head for the beach to see what the waves had tossed up. You know which storm I'm talking about; it was the one that kept us huddling around our wood stoves gnawing on beef jerky for several days as we tried to keep warm and fed while the power was out! Anyway, I figured all that storm energy had probably dislodged some interesting things and pitched them up on the beach, so I headed for the Hastie Lake Boat Ramp on the west side of Whidbey Island to see what I could find.

One of the first things I noticed was that there were a lot of big piles of kelp. We know that our local bull kelp (*Nereocystis leutkeana*) is an annual. The large surface area of the sporophyte phase of this seaweed cannot withstand the churning seas that accompany winter storms. However, its two-stage life cycle perfectly accommodates this because while the spore-producing stage is being torn loose and transformed into detritus, its tiny gametophyte offspring are hunkered down on the bottom producing sperm and eggs that will, after fertilization, germinate into a new gen-



Photo by Mary Jo Adams

The "small" perennial kelp, *Macrocystis integrifolia*.

eration of sporophytes when the sunny days of spring arrive.

Many of the kelp piles I saw contained not bull kelp, but instead another of the giant kelps, *Macrocystis integrifolia*. One common name for this species is "small perennial kelp" but the term "small" is relative because it can grow almost a hundred feet long. According to Dr. Kozloff's *Seashore Life of the Northern Pacific Coast*, this seaweed ranges from British Columbia to Monterey, California. One place it is found in abundance is near Sooke, on the southern end of Vancouver Island, quite possibly the point of origin of what was tossed up on our West Whidbey beaches. *Macrocystis integrifolia* has distinctively crinkled blades edged by tiny teeth, with each blade attached to an elongated float that joins it to the stipe, so it's easy to recognize.

Gumboot chitons (*Cryptochiton stelleri*) appeared to have taken quite a beating from the storm, judging from the number of them tossed up by the waves. The largest chiton species in the world, gumboots can grow to a



Photo by Mary Jo Adams

Macrocystis integrifolia blades are attached to an elongated float.



Photo by Mary Jo Adams

A gumbot chiton, *Cryptochiton stelleri*, was wrenched loose by the storm surge.

length of 13 inches. When the force of the water current exceeds the big chitons' ability to cling to the substrate, they are swept away. In addition to gumbot chitons, I also found a *Mopalia* chiton dislodged from its rocky home turf. Turning it over afforded me an opportunity to see its mouth, foot, and other structures.



Photo by Mary Jo Adams

Dead sea pen found on West Beach



Sea pen as observed at Seattle Aquarium.

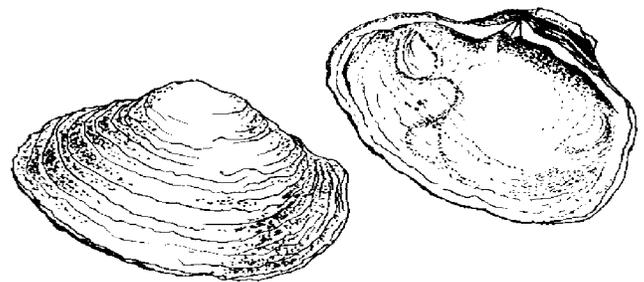
One other prize find was that of an orange sea pen (*Ptilosarcus gurneyi*) lying amongst the beach debris. Usually subtidal, we don't often see them on beach walks, but they are common in the display tanks of Pacific Northwest public aquariums so that's a good place to go if you want to see one. It may surprise you to learn that sea pens belong to the phylum Cnidaria, home to jellyfish, anemones, and corals. Inhabitants of soft substrates, sea pens have a stem-like primary polyp (the rachis) that is kept partially buried to act as an anchor. Branching rows of secondary feeding polyps give it a feathery look. Each of the tiny feeding polyps has eight tentacles, so when viewed under strong magnification they have the appearance of minute anemones. Other secondary polyps are specialized to control water flow through the colony and can cause it to expel water, thus the deflated appearance of the one I found on the beach.

Mary Jo Adams, BW Class of 1999



Photo by Mary Jo Adams

The underside of a *Mopalia* chiton, with its structures labeled. The ctenidia (gills) are contained within the mantle cavity but are not visible in this photo



Dates to Remember
Upcoming Camano Island and Whidbey Island Events
and Other Items of Interest



Camano Island

February 3, Saturday 2007. *Sound Waters; A One-Day "University" For Everyone.* Mark your calendars!

February 5, Monday 2007. *Camano Island Beach Watcher Monthly Meeting.* 9:00 am at the Camano Community Center.

February 24-25, Saturday-Sunday 2007. *Snow Goose Festival.* Camano Island Beach Watchers will be involved in this event. Mark your calendars. The Beach Watchers will have an educational booth at Four Springs.

March 17, Saturday 2007. *Elger Bay Shoreline Workshop.*

An all-day workshop for residents of the community.

Whidbey Island

January 23, Tuesday 2007. *Public Review of the Port of Coupeville Comprehensive Planry.* Come support WSU Beach Watchers interests in the future plans for the Coupeville wharf. 6 – 8 pm at the Coupeville Recreation Hall.

January 25, Thursday 2007. *Public Review of the Port of Coupeville Comprehensive Planry.* Come support WSU Beach Watchers interests in the future plans for the Coupeville wharf. 2 – 4 pm at the Greenbank Progressive Club.

February 3, Saturday 2007. *Sound Waters; A One-Day "University" For Everyone.* Mark your calendars!

February 15, Thursday 2007. *Whidbey Island Beach Watcher Monthly Meeting.* 6 – 8 pm at the Coupeville Rec Hall. Two of our very own Beach Watchers, Sandy Dubpernell & Jill Hein will be presenting a slide show on their trip to Antarctica.

March 1, Thursday 2007. *Penn Cove Mussel Fest.* If you are interested in helping with the Beach Watcher booth please call (360)679-7391.

March 21, Wednesday 2007. *Marine Mammal Stranding Network Training.* Taught by Dr. Stephanie Norman from 6:30 – 9 pm at the Race Rd. Fire Hall. Call (360) 679-7391 if interested in attending.



Beach Watchers training awakens the adventure of island living

From the Whidbey News Times; Dan Pederson

Life on an island is an adventure – or it *should* be – believes Kristen Cooley of Oak Harbor. “If you want to be surrounded by interesting people, learning something new, making discoveries and sharing them with others, we have a suggestion – WSU Beach Watchers.”

Cooley shares the adventure of island living every day in her role as coordinator of the program on Whidbey and Camano islands.

“If you love to learn and feel you still have some talent or enthusiasm to give to your community, Beach Watchers is the way to do it,” Cooley says. She pointed out that Beach Watchers attracts retirees, especially, because it gives them the tools and training to engage their neighbors, children, family and friends, helping them value and understand Puget Sound’s priceless marine environment.

Since the innovative educational and community service program was founded in 1989 it has enriched the lives of hundreds of Whidbey and Camano islanders. Beach Watchers are engaged in ongoing science, study, education and outreach projects, and have made such important contributions to Puget Sound’s health that the Island County program is now expanding throughout the region.

Those interested in the class of 2007 may download the application right now from the Beach Watchers’ website, www.beachwatchers.wsu.edu/about/training, request a printed copy at the WSU Extension office in Coupeville, Admiralty Head Lighthouse, or ask for it by mail from Kristen Cooley (360) 679-7391. The deadline to apply is Friday, Feb. 2.

Training will take place every Tuesday and Thursday in March and October from 9 a.m. – 4 p.m. Most classes will be held in Coupeville, but trainees also will participate in field trips to such locations as Skagit County’s Padilla Bay and south Whidbey’s Maxwellton Outdoor Classroom. During the summer months the trainees will engage with seasoned Beach Watchers in active projects such as intertidal monitoring, serving as docents at the Rosario tide pools, staffing the Coupeville Wharf Discovery Center, and more.

Beach Watcher training includes agriculture, aquaculture and shellfish, beach litter clean-up, chemicals and the environment, coastal geology, estuaries, forage fish, forestry stewardship, ground water, growth and shoreline manage-



Photo credit: Charlie Eddy

Matt Kukuk of Island County Planning Department leads a field trip to the beach to explain soft shoreline armoring techniques. This group from the Beach Watchers class of 2006 was photographed on Penn Cove just west of Coupeville.

ment, Island County government, low-impact development, marine mammals, monitoring, mushrooms and fungi, native plants, Penn Cove mussel farm, Rosario interpretive tour, salmon and the nearshore, seabird decline, Shore Stewards, septic systems, soils and bio-solids, solid waste and recycling, and marine mammal stranding. Classes are taught by top professionals.

Marine Mammal Stranding Network Class

The Central Puget Sound Marine Mammal Stranding Network is offering the next class in stranding response on Wednesday, March 21, from 6:30 p.m. to 9:00 p.m. at the Race Road Fire Station. The fee is \$20, for which you will receive a textbook and become an authorized responder.

If you are interested in attending, or need more information, please contact Sandy Dubpernell at 360-678-3765, sandradubpernell@yahoo.com or Susan Berta, 360-678-3451,

susan@orcanetwork.org. The class is also open to any present responder who wants to “brush-up.”

Sandy Dubpernell, BW Class of 1993



Night of the Moon Snails

It was a festive group of folks who gathered Dec. 21 for the annual Whidbey Island Beach Watcher Christmas party. Coincidentally, the tide schedule for the evening showed a -2.4 foot low tide at ~11 p.m. and this drew the attention of Sarah Schmidt and Kristen Cooley. What a great opportunity for a post-party beach adventure at Snakelum Point,



Photo by Mary Jo Adams

Kristen and Sarah continue the party on the beach.

just down the road from the location of the party! In keeping with the holiday spirit, Kristen arrived on the beach decked out with warm clothes and bright red boots. Sporting headlamps and carrying lanterns, it didn't

take them long to discover some great intertidal species including countless sand dollars (*Dendraster exentricus*); mottled sea stars (*Evasterias troschellii*), both large and small; and quite a number of sand lances (*Ammodytes hexapterus*) that wriggled their way up out of the intertidal underworld. Sand lances are skinny little forage fish that spend a lot of time dug in under the surface of sandy substrates. Their very appropriate genus name is Greek for "sand diver." In



Photo by Mary Jo Adams

The barnacle-eating nudibranch, *Onchidoris bilamellata*, on a rock.

addition, Sarah and Kristen found about half a dozen barnacle-eating nudibranchs (*Onchidoris bilamellata*). These warty-looking little brown and white sea slugs reach a maximum length of about an inch and as their common name implies, feed on acorn barnacles. Sarah reported that the highlight for her was finding caprellid amphipods as they moved inchworm-fashion through the eelgrass. Kristen was thrilled to see moon snails burrowing through the sand, with only the tops of their shells visible as they searched for a clam dinner.

Mary Jo Adams, BW Class of 1999



Photo by Mary Jo Adams

A sand lance at Snakelum Point, with a sand dollar near its head.



Photo by Mary Jo Adams

Kristen examines a moon snail mantle.



Photo by Mary Jo Adams

A moon snail reveals itself.

DPSP Needs You!



Photo by Mary Jo Adams

English ivy is a beautiful plant and many folks enjoy it as a houseplant, but it does not belong at Deception Pass State Park where it forms massive tangles that choke out native vegetation. Park manager Jack Hartt is tackling the problem of invasive ivy with volunteer work parties and could use your help. He has scheduled the second Saturday of every month as volunteer work party days. Five volunteers showed up on January 13th and spent a couple hours pulling ivy from tree trunks at Rosario. There's a lot of ivy left though, plus Scotch broom and other non-natives that need to be dealt with. This is an opportunity to get lots of fresh air and exercise while making a difference at the park. Bring your work gloves and "weapons of choice". Call the park office (675-2417) for meeting times and locations.

See you there!



A Visit to the End of the World

As many of you know, fellow Beach Watcher Jill Hein and I took our “trip of a lifetime” to the Antarctic in November. The scenery was spectacular and pristine – huge glaciers, tabular icebergs, snow-covered peaks and islands literally covered in penguins. Computer guru Jill is preparing a Power Point show for a future Beach Watcher meeting, so we can share our memorable experiences. In the meantime, I thought I would share with you a quick overview of the natural history of the penguins and marine mammals that we saw.

Today’s 17 species of penguins are closely related to petrels and albatrosses. They are flightless, having evolved from an ancestor that was a strong underwater swimmer and capable of flight. Various insulating, circulatory, metabolic and behavioral adaptations have evolved in order for the penguin to endure the very low temperatures of land and sea. Feathers are relatively short and stiff and densely packed on the entire body, trapping warm air beneath and waterproofing the body. Those species living in the colder regions also sport a layer of dense subdermal fat for insulation and food storage. Wings have been reduced to flipper-like appendages with flattened bones and major joints fused, serving as effective high propulsion paddles for swimming.

Penguins are superb divers and swimmers and most species swim by arching out of the water (called porpoising) enabling them to breathe without slowing down. Their characteristic ungainly waddling gait ashore is due to their short legs set far back on the body. The feet also serve to propel them across the ice and snow when tobogganing on their bellies.



Photo credit: Sandy Dubpernell

Red-orange bills and triangular white eye patches identify a pair of Gentoo penguins.

Only two species, the Adelies and Emperors breed on the Antarctic Continent itself. The rest of the penguins breed in Sub-Antarctic areas, including many more Adelies.

The Gentoo penguin (*Pygoscelis papua*) has black plumage distinguished by a red-orange bill and a triangular white patch above and behind the dark brown eyes. The underside of the flipper is white, the feet dull orange-brown. An adult Gentoo stands between a little over 30 inches tall and weighs up to 18 lbs. The female weighs a bit less and has a shorter bill and flippers. The Gentoo feeds on crustaceans and fish and can dive more than 300 feet below the surface. Pair bonds are monogamous for 2-3 seasons. They build nests of small pebbles, soil, molted feathers and albatross bones. They generally lay two eggs. Most Sub-Antarctic colonies are in decline due to overfishing of prey species.

The Adelie penguin (*Pygoscelis adeliae*) is black on the entire upper side, including the upper side of the flipper, head and throat, sharply contrasting to the silky white underside of belly and flippers. The bill is black and there is a distinctive white ring around the black eyes. The feet are pale pink. The Adelie ranges in size to about 28 inches and can weigh up to 18 lbs. Females are smaller in weight, bill and flipper lengths. Adelies eat crustaceans, some fish and cephalopods, caught by pursuit diving to 120 feet below the surface. Krill is the preferred food around the Antarctic Peninsula (as one can tell by the copious amounts of orange penguin



Photo credit: Sandy Dubpernell

A pair of krill-loving Adelie penguins.



poo). Relationships are monogamous with two eggs being laid in shallow scrapes.

Another medium-sized black and white brush-tailed penguin is the Chinstrap (*Pygoscelis antarctica*). It is easily distinguished from the Adelie by the distinctive narrow black line extending from the sides of the head and under the white chin. The eyes are dark orange-brown, feet pinkish and bill black. Height ranges from 27-30 inches, with a weight to 12 lbs. Chinstraps feed on crustaceans and fish by pursuit diving close to the surface. Pair bonds are monogamous and long lasting, with two eggs laid in nests of small stones, feathers and bones.



Photo credit: Sandy Dubpernell

The aptly-named Chinstrap penguin

We also visited the breeding grounds of the Magellanic penguin (*Spheniscus magellanicus*) in Tierra del Fuego. This penguin is characterized by the bold white bands on the sides of the black head, breast and body. It is approximately 28 inches tall and weighs up to 17 lbs. Breeding

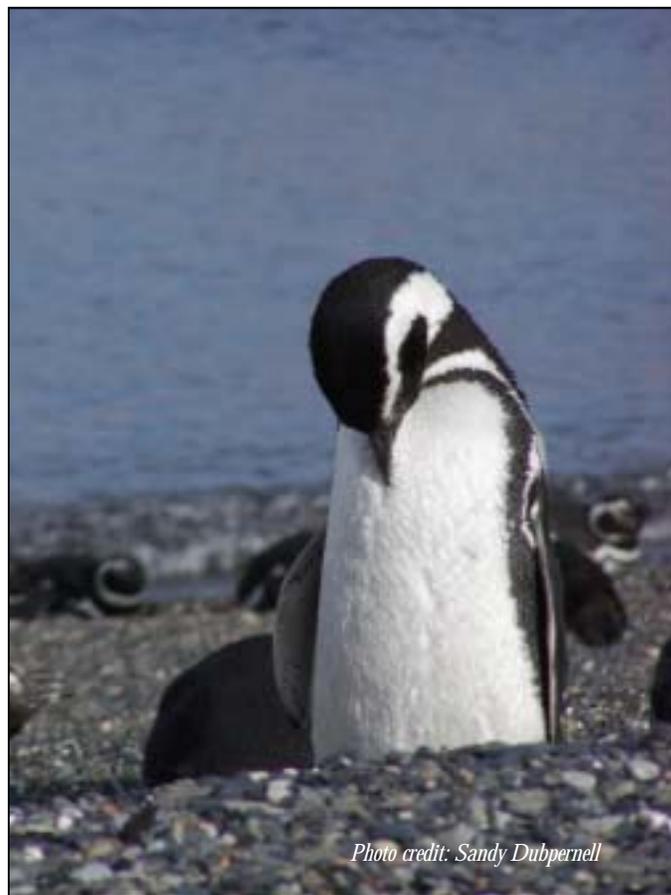


Photo credit: Sandy Dubpernell

In Tierra del Fuego, a Magellanic penguin grooms.

pairs are monogamous, breeding in deep burrows on open beaches, sand dunes and grassy meadows. The population of Magellanics is declining in Southern Argentina due to oil spills, land development and competition with commercial fisheries.

For you marine mammal fans, we did see many sea lions and several Weddell seals. Unfortunately it was too early in the season to see whales. The Weddell seal is among the largest of seals with a rotund body and proportionately small flippers and head. The Weddell seal is very laid-back and placid and generally ignores human presence. It moves over land slowly with a short "humping" gait. The pelage is short and dense ranging from dark bluish gray to blotched gray and white. The male tends to be darker in color on its dorsal surface. The Weddell seal can grow to almost 10.5 feet in length, the female being slightly larger. They can weigh up to 1300 lbs. A newborn pup is almost 5 feet long and weighs about 65 lbs.



Photo credit: Sandy Dubpernell

A Weddell seal pup demonstrates its characteristically relaxed demeanor.

The Weddell seal is the most southerly-breeding seal and is distributed circumpolar. It is most abundant near the coast, inhabiting both pack and fast ice. Its diet consists mostly of fish with some crustaceans, cephalopods and an occasional Chinstrap penguin. This seal is capable of diving to 2400 feet for as long as 73 minutes. Its navigational abilities allow it to travel several kilometers beneath the ice and return to the same entry and breathing hole. The Weddell seal, protected since 1961, is not threatened.

Sandy Dubpernell, BW Class of 1993



If you would like to learn more about the Beach Watcher Program, please contact Kristen Cooley, Program Coordinator at 360-679-7391 or kcooley@wsu.edu.

We've Got Passion!

I'm in kind of a unique position: I'm a little older than a Baby Boomer. I'm a failure at retirement. In Beach Watchers I'm both volunteer and staff. And I'm pretty sure I have the distinction of being the oldest employee on the Island County WSU extension staff. From this rather peculiar vantage point I am beginning to look at things with a new zeal.



It's about people in *our demographic* group, which is largely (but certainly not exclusively) retirement age. Some of us are rookies at retirement. And others of us have been at it long enough to have practically forgotten what it was like to make that daily trip to the office, or school, or plant, or shop. But because so many of us are retired, I have a few words for, well, us.

It would be easy to fall into the trap of staring at our wall plaques and photographs—kudos for a lifetime of accomplishments—as if the significant times were all in our past. But actually I find our volunteers have little time for that sort of thing. So why would I go lecturing the already- persuaded? Not because we don't "get it," but because we *do* get it and are well placed to be a model for others who do not go so agreeably into their retirements.

What we can demonstrate through our volunteer work is that people should not, and do not, need to curl up in a cocoon of indifference just because they are **r-e-t-i-r-e-d**. When others meet us at, say, Sound Waters, Rosario, Cama, Maxwellton, on the beach, collecting tires, or wherever they find us doing our volunteer thing, they will see people who still have a vision.

And we can never give up that vision. There is no age or status that allows us to cease caring. Whether it's enhancing our communities, protecting our environment, or teaching our children; we can never say, "We've done our bit. It's up to them (those younger) now." You and I can be a great model for people who might cave in to retired apathy, because we do have a vision, and we do care about the future with passion and with hope.

Stewart Congdon, BW Class of 2006 and BW Projects Coordinator



DESALT DA SEA LETTUCE

Sea Lettuce - Ulva

Roaming beaches, one often notes a bright green, translucent alga with a most appropriate common name: Sea Lettuce - known to those more scientifically inclined by its genus names *Ulva* and *Ulvaria*.

Found on rocks, shells, pieces of wood and such at lower tide levels, the often torn from same and the substratum and then pushed up the beach slope by inclining waves, Sea Lettuce leaves (called blades technically), and other adrift seaweeds, are deposited on the beach as the seawater retreats. The left-behind fresh Sea Lettuce indeed do somewhat resemble store purchased or home-grown lettuce, but seem thinner, more fragile, more see-throughish. On the beach it's more like over-ripe, discardable, still fairly green, table lettuce that can be overlooked and begin breaking down in the vegetable drawers of our refrigerators.

Its look of fragility can be quite misleading, however, because the detached Sea Lettuce can continue to photosynthesize - live on - as a free-water-floater. It is, in reality, hardier than some far larger algal marine life - although it reportedly is unable to withstand moderate to strong wave action. Any fragility manifested may be attributed to the fact that microscopic examination of thin slices of the lettuces' thin wide fronds has established that they are a mere one or two cells thick, depending on their genus and species. Some Sea Lettuce leaves appear as sheets, some as sheets perforated with holes, some as raggedy edged or ruffled sheets, others adhering to one another - little more than globs of green.

Writer/photographer, Anne Wertheim* describes *Ulva* as "essentially a two layered sheet of photosynthetic tissue". She further informs us that these sheet forms are very efficient and productive as they present large surfaces to the sun's rays, thus maximizing photosynthetic areas. She also states that *Ulva* "is the commonest form (of algae) in the intertidal". One reason they are found from the Bering Sea to Chile is that they are tolerant of a wide range of temperatures. And when fertile conditions prevail, the leaves can cover large areas.

Sea Lettuce and its relatives are adapted to utilize the more intense sunlight of intertidal water - water not too deep. Hence, we at times will see lettuce blades out of the water

on intertidal rocks in bright sunlight where they may appear quite dried out. Good chance, though, if we returned later at a higher tide when liquid-bathed again, the leaves would have soaked up Puget Sound fluid and be just fine. But as the sun beats down on detached, more permanently beached Sea Lettuce, and prolonged drying occurs, it will become rather crinkly-looking and crisp - and will feel more like gift wrapping tissue paper than seaweed. Eventually the stranded lettuce will bleach until quite colorless.

Only one of some 600 species of seaweed in Puget Sound, and a member of a group that makes up at least half of all living matter on earth, Sea Lettuce and other seaweeds are right down there at the base of the Sound's food web - a web which supports all marine life and determines the health of all Sound species. They are a most important food source to many forms of sea life. They, as we know, also take carbon dioxide from the water and give off oxygen as a waste product which fish and other organisms absorb. Supplying places for critters to attach to, hide in and reproduce in are other roles Sea Lettuce and other seaweeds effectuate.

So marine plants such as Sea Lettuce are more than at times wet and slimy stuff whose consistency has been compared to wet wax paper - contributing to piles of beach debris we see and occasionally carelessly slip on when walking beaches. Critical to the offshore/shoreline environment? You bet!!

Most beach walkers and visitors will be totally uninterested in carrying a dab home to spike their luncheon salad; however, Sea Lettuce is edible as well. It is rich in protein, in vitamins such as C, and elements such as iron and iodine. Traditionally Hawaiians utilized it as foodstuff in a variety of ways - mixed with other seaweeds to serve with sushi, made into a light soup, and mixed into stews. Native Americans also used it as foodstuff.

Seaweeds taste more primo when harvested early in the spring growing season far away from possible pollutants. They can then be integrated into recipes either fresh or dried. Harvested *Ulva* blades should be completely grass green in color. Merely rinse them in fresh water to remove the strong salty taste and - Voila! - it's ready to mix into a salad or whatever - a fine addition and enhancement to a meal. Bon appetite!

Pat Nash, Beach Watcher, Class of '94

*Anne Wertheim Rosenfeld, [The Intertidal Wilderness](#), University of California Press, revised March 2002, ISBN: 0520217055.



Rosario Volunteer Beach Naturalist Training

At last Beach Watchers is set to train volunteers to act as naturalists at Rosario Beach. Training is being offered at no cost, in May and June, in a cooperative program developed by Beach Watchers organizations in Island, Skagit, Whatcom, and Snohomish counties. The lead trainer will be naturalist Doug Spark of ReSource. He will be assisted by able volunteers from Beach Watchers as well as staff of Washington State Parks.

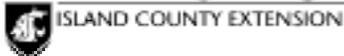
Once trained, these volunteers will be formed into teams to help school groups and the public enjoy and care for Rosario as well as other beach parks they visit.

If you are interested in this training, you may contact Stewart Congdon by email scongdon@wsu.edu, or by phoning either Stewart or Kristen Cooley at 679-7391.

BEACH NATURALIST TRAINING SCHEDULE: (Tentative Schedule)

Team Leader Training	Wednesday, May 9 Or Thursday, May 10	Evening Day
Volunteer Naturalists' Training	Wednesday, May 30 Padilla Bay Center	Classroom Training
	Saturday, June 2	Field training— Rosario Beach and Washington Park
	Wednesday June 6	Classroom Shannon Point Marine Center

WASHINGTON STATE UNIVERSITY



“In the end we will conserve only what we love; We will love only what we understand;

We will understand only what we have been taught.”

~Baba Dioum, Senegalese ecologist



**DEADLINE FOR NEXT BEACH LOG
February 2, 2006**