

# NEARSHORE REPORT

## THE WORK OF ISLAND COUNTY MARINE RESOURCES COMMITTEE



Saratoga Passage and the Cascade Mountains, as seen from Langley. Sarah Schmidt photo.



**At Cornet Bay the MRC is partnering with Washington State Parks in a shoreline restoration project to remove unnecessary alterations such as bulkheads and pilings that interfere with a natural beach. We've already begun the first of a series of changes that should improve shoreline spawning conditions for forage fish and growing conditions for marine eelgrass. Both are important to salmon and other marine life.**

## **Our mission — to lead the local marine turnaround**

Island County Marine Resources Committee (MRC) is an advisory body of volunteers from the local community, with diverse expertise. We are appointed by the county commissioners. Our MRC is one of seven from the counties of northern Puget Sound that provide local leadership within the Congressionally-mandated Northwest Straits Commission.

We gather scientific data, identify problems, recommend solutions and build partnerships to improve shoreline health and marine water quality. We also promote marine stewardship to visitors and residents of Island County.

## **MARINE LIFE AND HABITATS**

### **We're restoring shoreline for fish at Cornet Bay**

With funding from a large National Fish and Wildlife Foundation grant, we are partnering with Washington State Parks in a multi-year project to rehabilitate a section of shoreline at Cornet Bay in Deception Pass State Park.

This beautiful bay lies on a major salmon migration corridor from the nearby Skagit River to the open waters beyond Deception Pass. By removing unnecessary bulkheads and toxic creosoted timbers we will help fish and other marine life, and all who enjoy them.

## MARINE LIFE AND HABITATS

### **We're retrieving lost nets and traps that kill marine life**

In partnership with the Northwest Straits Commission (NWSC) we are working to map and recover lost, snagged and abandoned nets, crab pots and recreational gear from the Island County seafloor. This gear often continues to catch and kill marine life for decades after it is lost, posing a risk also to divers, swimmers, vessels, marine mammals and diving birds.

### **We're helping rid beaches of toxic treated wood**

We are partnering with the state Department of Natural Resources, the Northwest Straits Commission and Washington State University (WSU) Beach Watchers to map and remove treated wood from our beaches.

For many decades our county's beaches have accumulated tons of toxic creosoted logs, timbers, boards and other carcinogenic debris. At many points along our 212-mile shoreline creosoted pilings remain from docks and over-water structures long since abandoned or destroyed.

## MARINE WATER QUALITY

### **We're leading a pilot project to clean water biologically**

On central Whidbey we are the lead partner in a \$75,000 phytoremediation pilot project. The project will use trees in a swale on the edge of Coupeville to filter polluted stormwater that otherwise would flow untreated into Admiralty Inlet. If successful this could become the model for a much larger project to divert polluted water away from our shores. We're partnering with the Town of Coupeville and Island County.



Rex Porter photo

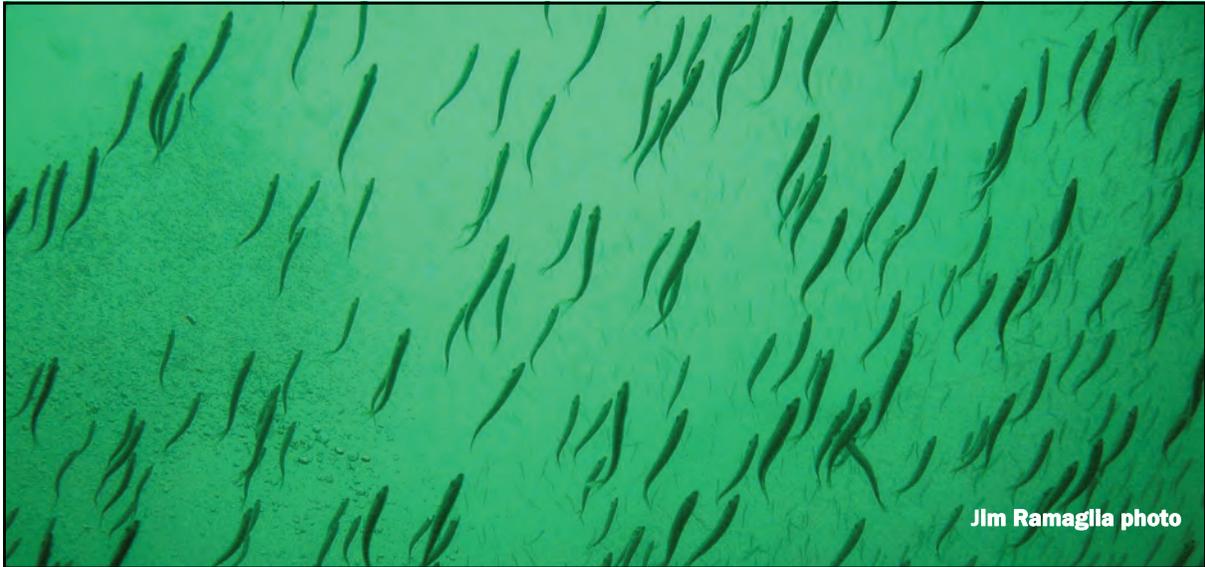
**Volunteers prepare to plant poplars and willows in a Coupeville bioswale. The pilot project will help determine whether the town's stormwater may be cleaned biologically and re-used for irrigation.**

## MARINE WATER QUALITY

### **We're looking at diverting wastewater to farm fields**

In partnership with the Town of Coupeville, we're exploring a proposal to divert the town's stormwater and wastewater to agricultural use on Ebey's Prairie. Currently, treated wastewater and untreated stormwater flow from marine outflows into Penn Cove, delivering unwanted nitrogen to the marine environment and lowering the already low level of dissolved oxygen.

The MRC is an active partner with the Town of Coupeville in studies to determine whether this water could cost-effectively be diverted to where it is desperately needed, on the farm fields of central Whidbey, which receive very little rainfall during the summer months. If this is found to be safe and feasible, it might also provide much-needed nitrogen to agriculture.



Jim Ramaglia photo

Three kinds of forage fish — surf smelt, sand lance and Pacific herring — lay their eggs on unaltered beaches or on the blades of eelgrass. They are the staple food of salmon and a critical link in the marine food chain. The MRC has mapped the entire county shoreline to identify forage fish spawning beaches and establish a baseline for future surveys.

**SCIENCE**

**We're mapping feeder bluffs, forage fish, eelgrass beds and shoreline hardening**

Since our founding in 1999 we have mapped our entire shoreline for forage fish spawning beaches, eelgrass beds, feeder bluffs and shoreline hardening features. We provide data to Island County



Mary Jo Adams photo

Eelgrass is vital to healthy nearshore habitat.

government and work with Whidbey Camano Land Trust, parks and other local agencies and governments to identify areas of particularly high value for preservation and restoration.

**Our funding equips team to video-map eelgrass beds**

In 2008 the MRC funded a team of WSU Beach Watchers to equip a boat with cameras, global positioning equipment, data recorders and a computer to carry out underwater video mapping and analysis of eelgrass beds in Island County. The team carried out a successful pilot project at Cornet Bay using protocols of the Department of Natural Resources (DNR), and then went on to map eelgrass beds in Holmes Harbor.

These highly trained local volunteers are mapping eelgrass beds using state-recognized protocols at a small fraction of the cost of hiring outside contractors, greatly leveraging the MRC's ability to assess changes in eelgrass distribution and health.

## SCIENCE

### **We're studying breeding success of the guillemots**

Every summer, volunteers from Whidbey Audubon and the MRC join forces to study Pigeon Guillemot breeding success on the bluffs of Whidbey Island. For several years the MRC has sponsored a university intern to gather extended data on the birds' nesting habits and the specific types of fish they catch.

Guillemots are the only seabird to commonly nest on Whidbey Island. They live year-round in Puget Sound and along the coast from California to Alaska. Our local population fluctuates as they migrate in and out.

Guillemots court in May and lay one or two eggs in June. The eggs hatch in July, after which the parents deliver fish to the young birds until they fledge in about August.

Pigeon Guillemots are high in the food chain and their numbers provide an important picture of ecosystem health. We have presented the results of our research at the Puget Sound Georgia Basin Ecosystem Conference and online at [www.pigeonguillemot.org](http://www.pigeonguillemot.org).

### **We're supplying nets, gear for estuary salmon study**

Using nets, waders and other gear funded by the MRC, teams of highly-trained WSU Beach Watchers are carrying out seining studies of Island County pocket estuaries. An MRC member participates as part of this team, which operates in close collaboration with the National Oceanographic & Atmospheric Administration, Washington Fish Conservancy and the Skagit River Systems Cooperative to gather data on how juvenile salmon use our shoreline.



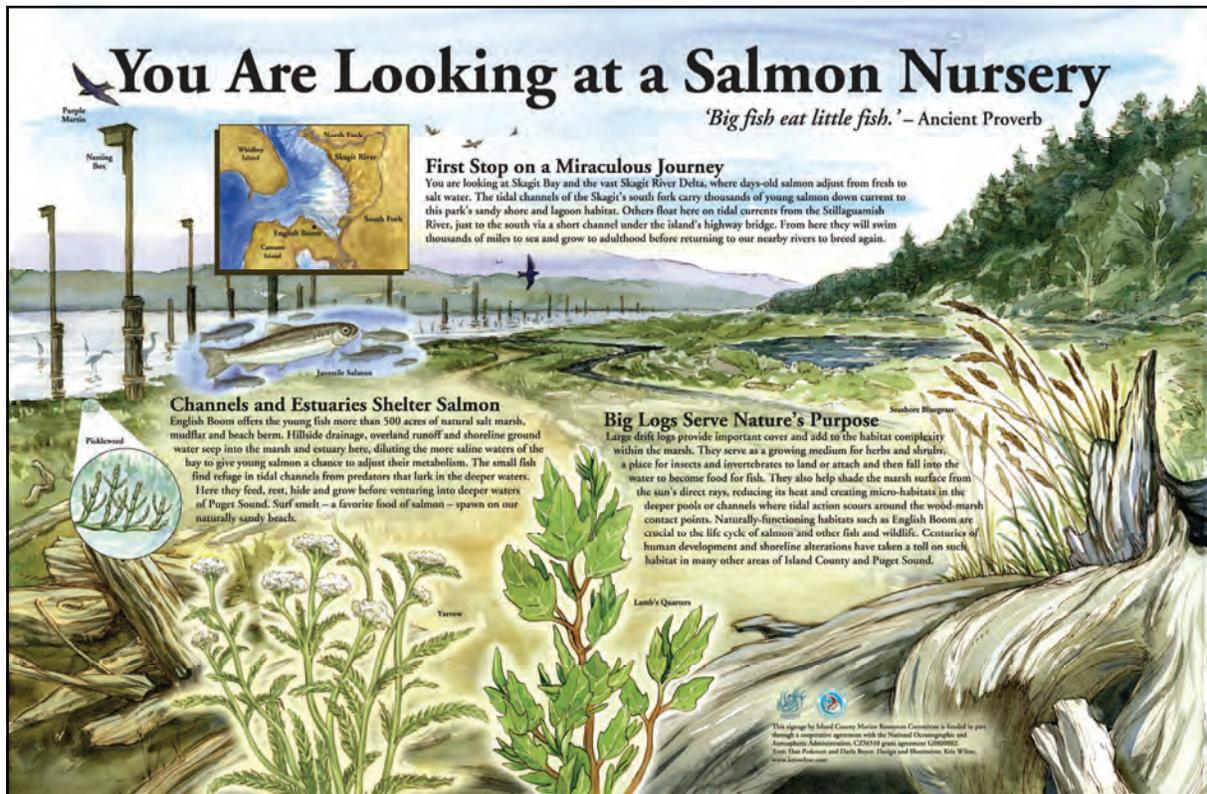
**Pigeon Guillemots are the only seabird to commonly nest in Island County and are an important indicator of ecosystem health.**

### **We're partnering with UW on water quality studies**

Since 2008 we have funded several graduate-level projects by student teams from the University of Washington. In 2010-2011 the students conducted experiments to help us determine optimum soil amendments and compost to improve the effectiveness of our phytoremediation pilot project for Penn Cove stormwater.



**Nets, waders and other gear funded by the MRC equips a team of highly-trained WSU Beach Watchers to conduct research in how juvenile salmon use the islands' pocket estuaries and nearby shoreline. The team works in consultation with the National Oceanographic & Atmospheric Administration and other research agencies.**



This 4- x 2-foot MRC interpretive panel is one of three at English Boom Historical Park on Camano Island. Our signage is displayed at 19 shoreline parks, trails and waysides throughout the county. The signs help the public understand the county's educational marine stewardship areas, how to care for our shores, and the unique attributes of many shoreline areas.

## EDUCATION AND OUTREACH

### Marine stewardship areas make county's waters an education platform

Island County commissioners in 2003 designated the Admiralty Inlet and Saratoga Passage marine stewardship areas, encompassing all the waters of the county. These stewardship areas are the centerpiece of the MRC's campaign to raise public awareness of our precious marine waters and teach both residents and visitors an ethic of stewardship toward them.

### Interpretive signs explain marine processes, ethics

Our marine interpretive signs at 19 sites along the county shoreline leverage the two large marine stewardship areas, linking them to our voluntary Shore Stewards program to inform property owners.

We work in partnership with the City of Oak Harbor, City of Langley, Island County Parks, Port of Coupeville, Port of South Whidbey Island, Washington State Parks, Oak Harbor Rotary, Maxwellton Community Club and Friends of Camano Island Parks. They have supplied funds, labor and volunteers to help install the popular signage.

## EDUCATION AND OUTREACH

### **We're partnering on a Port Susan MSA**

Since 2007 we've been partnering with Snohomish MRC, the Northwest Straits Commission and the Tulalip Tribes to develop a science-based marine stewardship area spanning the two counties that surround Port Susan Bay, a biologically rich inland sea.

### **Our guide to the shoreline is the county's best-seller**

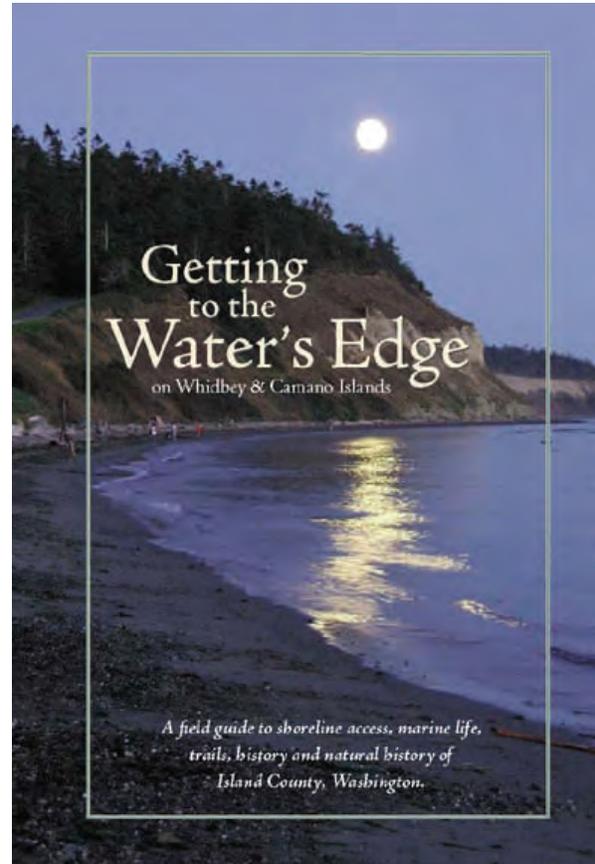
In 2006 we partnered with WSU Beach Watchers on a runaway best-seller, *Getting to the Water's Edge on Whidbey and Camano Islands*. This thoughtful guide not only catalogs 67 places where the public may access the shoreline on the two islands, but conveys a wealth of gentle stewardship education and insight about the marine life of Island County.

### **We're cosponsoring Sound Waters University**

Every February, more than 550 people come together on Whidbey Island for the largest annual public gathering in the county devoted to the local marine environment and natural history. The event attracts a top keynote speaker, as well as state legislators, county commissioners and mayors. The MRC collaborates with organizers on speakers and also helps fund publicity.

### **We're helping teach LID to contractors and public**

MRC grants are helping Whidbey Island Conservation District train contractors to pour pervious concrete and are helping local planners and the



**Our 170-page guide to shoreline public access, a joint project with WSU Beach Watchers, has been the best-selling book in Island County since we published it in 2006. It conveys a wealth of stewardship education and best practices.**

public learn about the many rain gardens and other low-impact demonstration sites installed on Whidbey Island in the last several years.

### **Our speakers share insights on marine problems, issues**

We invite educational speakers to one meeting a month. Topics run the gamut from oil spills to shoreline access, eelgrass monitoring, marine water quality, phytoremediation, estuary restoration and tidal energy generation. These programs often attract interest and inquiries from students, the general public, county staff, elected officials and our local news media.

## EDUCATION AND OUTREACH

### **Our Shore Stewards enrolls 700+ shoreline owners**

Shore Stewards is our frontline educational program to teach best practices to more than 700 shoreline property owners who have voluntarily enrolled. It reinforces the educational mission of our two marine stewardship areas, our interpretive signage and shoreline guide, *Getting to the Water's Edge*.

WSU Beach Watchers on Camano Island developed the program's guidelines and launched the pilot project for the MRC in 2003. The MRC later exported it to Whidbey Island and throughout Puget Sound. Members include private individuals, parks, farms, port districts and shoreline industries.

Property owners who enroll in Shore Stewards receive our popular *Guide for Shoreline Living*, outlining 10 wildlife-friendly practices for managing their properties. They also receive an optional Shore Stewards yard sign and a subscription to our information-packed, online, monthly newsletter. From time to time, we offer shoreline workshops of special interest to Shore Stewards and invite them to attend at no charge.



**Melissa and Bruce Russell of Freeland are the 500th Shore Stewards in Island County. Regionally, the program now enrolls about 3,000 Puget Sound residents.**

### **We're starting a project to share our data with public**

One of the toughest challenges we've faced as an MRC is finding the right online platform on which to archive our shoreline data and make it available to the public and decision-makers. In 2010 we found a promising solution and embarked on a pilot project with the City of Bellingham called "Sound IQ." Our goal is to make our studies readily accessible to all.

## **NEARSHORE REPORT: THE WORK OF ISLAND COUNTY MRC**

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