Skagit Marine Resources Committee
Six Years of Progress

1999-2005

Copper Rockfish

There are 229 miles of marine shoreline in Skagit County with its many islands, bays, coves, and cliffs. It's a complicated shoreline that includes Fidalgo, Guemes, Cypress, Vendovi, and Samish Islands. And surrounding the islands are the great bodies of water: Padilla, Samish, Fidalgo, Similk, and Skagit Bays, Deception Pass, Swinomish, Bellingham, and Guemes Channels, and Rosario Straits. Then there is the Skagit River, one of the largest rivers on our Pacific Coast, home to 1/3 of the Puget Sound salmon. All this in Skagit County! Scientists and volunteers have surveyed and mapped most of the shores by foot, boat, and computer, their research funded by grants from the Skagit County Marine Resources Committee (MRC). The MRC was formed by Congress under the "Northwest Straits Marine Conservation Initiative" to contribute local insight and solutions to the serious decline in Puget Sound marine species and habitat. Only the seven

North Sound counties were included in the initiative and have MRCs. It is an advisory committee only, with no power to regulate. Our 19 members come from the community - scientists and interested citizens, combined with representatives from sport and commercial fisheries, tribes, divers, marine industry, oil companies, the Port of Anacortes, the City of Anacortes, and environmentalists, all who have accepted volunteer appointments from the Board of Skagit County Commissioners. Together we have made the first steps in improving the marine environment in our County.

The plan after the science is to provide understanding that leads to decisions to take action. As a non-regulatory group with little money, we can only use science to convince the public to take and support action. We often depend on partnerships with other organizations and volunteers to accomplish our projects.

First … The Scientific Surveys

Rocky Reef Bottom Fish Survey

Underwater camera

In response to sports fisher's complaints about the absence of some species of rockfish, we investigated the possibility of establishing marine protected areas around the rocky reefs in the county. We conducted outreach meetings with fishers and asked them to indicate on maps where they could no longer find rockfish. The information was given to the co-managers of the resource, the state and the tribes, for consideration in developing marine protected areas.

As part of the original research into the condition of the rocky reefs the MRC participated in underwater surveys. The first was done with the cooperation of the University of Washington using their research vessel and roving underwater camera. Four days of mapping and surveys were conducted, especially around Burrows, Allen, Cypress, and Hat Islands. These baseline studies further documented a decline in rockfish.

Continuing interest in rocky reefs has spawned several research projects at Western Washington University's Shannon Point Marine Center in Anacortes using graduate students and divers. These underwater surveys are funded by the MRC.

Forage Fish Survey

Using funding obtained by Island County MRC and in conjunction with Whatcom and Snohomish MRCs, we participated in a forage fish survey. Dan Penttila from the Washington Dept. of Fish and Wildlife (WDFW), using volunteers as assistants, conducted the research. Forage fish are smaller fish such as sandlance, surf smelt, and Pacific herring that are fed on by larger fish as well as by birds and mammals. They are an important link in the food chains in the ocean. They are a critical food source for small Chinook salmon that feed in the estuary during their return to the ocean. Of particular interest in this survey were the sandy and gravely beaches that had not yet been examined by fisheries biologists. Some 432 stations on various county beaches were examined. As a result, 2.7 new miles of smelt spawning beach and 0.2 miles of sandlance beach were discovered in Skagit County by 12 volunteers working with the biologist.

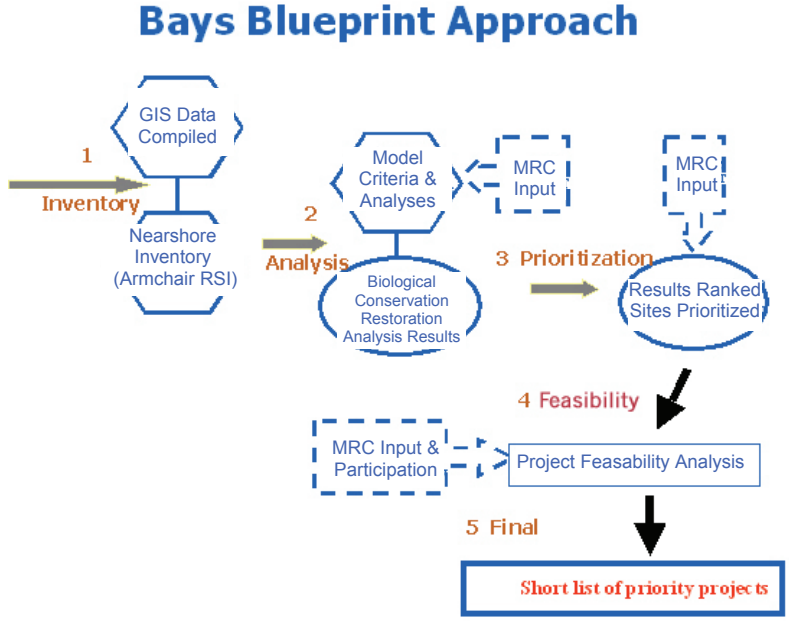
Rapid Shoreline Inventories

In order to better understand the condition of the beaches most impacted by development in Skagit County, the MRC contracted with People For Puget Sound to conduct rapid shoreline inventories (RSI) at strategic locations. The RSI uses trained volunteers to survey 150 foot sections of a beach, section after section, determining whether the shore is

composed of mud, sand, pebbles, cobble, or larger rocks and what kind of sea life is living there. They document the presence of shoreline structures such as bulkheads, docks, and jetties. They record outfalls such as pipes and streams and their condition. And they determine whether the upland is low and marshy or with a bank and bluff that is stable and/or sloughing off to feed sand to the beach below. RSIs have been completed around March's Point, Samish Island, and Guemes Island.

Skagit North Bays Blueprint

In order to complete a more comprehensive understanding of our county's shores than was provided by the RSIs, we contracted with People For Puget Sound to assemble what is called the Skagit North Bays Blueprint. This is an attempt to consolidate all the shoreline research that has been done in the county over past years and combine it with information gained by observing oblique photos taken of the shore from the air by the Dept. of Ecology. This latter part is referred to as an "armchair RSI" accomplished by looking at photos on a



computer. These photos are updated every 5 years so they show current conditions.

The Blueprint is a major undertaking, again using volunteers and then meeting with members of the MRC to observe the results and determine what is feasible to do in terms of restoration and conservation. Geographic Information System (GIS) maps are generated that show priorities for projects and enable the MRC to make action plans. This kind of research is expensive and thus we were initially able to do only the most northern shorelines from the Whatcom County line through Samish, Padilla, Fidalgo Bays and the Guemes channel of Anacortes. In 2005, the shoreline of Guemes was surveyed and we are in the process of adding those data to the Blueprint. Therefore, around 78 miles of shore are included in the Blueprint and the following is an example of what the Blueprint recommends.

March's Point Boat Launch Reconstructions

Two of the restoration projects given a high priority by the Blueprint analysis were removal or reconstruction of two boat launch ramps, located on March's Point. The first of these is the eastern boat launch, shown here, which has rock jetties that obstruct the alongshore flow of sediments. The second of the two is the oil spill response ramp/dock on the northwest side. This ramp has a very heavy concrete "footprint" on the beach. These structures cause loss of surf smelt and sand lance spawning sediments on the "downstream" sides of the launch facilities. For the eastern ramp, we are recommending complete removal or removal of the rock jetties with installation of a ground-level concrete ramp that allows sediments to flow over it. For the western ramp, a good alternative might be a small dock on pilings, which would allow sediments to flow beneath it. We are searching for funds to complete these projects in cooperation with Tesoro Refinery and other partners.

Then … Out to the Beach

Pacific Oyster Enhancement

The non-native, but commercially important, Pacific oyster (Crassostrea gigas) has been seeded in two locations in Padilla Bay. The March's Point bed, planted on Washington Department of Natural Resources (WDNR) and Tesoro tidelands, was created to enhance harvest opportunities for both treaty tribes and recreational harvesters. The Bay View State Park bed on the eastern shore of Padilla Bay was planted primarily as an educational tool to encourage the local community to repair failing septic systems. Both plantings also function in additional ways: 1) stimulate increased water quality monitoring, 2) shells add complexity to the intertidal thereby enhancing habitat and 3) shells provide settlement substrate for naturally spawning oysters, including native oysters. Once the water quality is acceptable the oysters could be harvestable in a matter of months. We hope that in future years, additional seeding will be a joint effort between local tribes and community groups.

Tree Planting at March's Point and the Tommy Thompson Trail

Eggs of summer spawning surf smelt and sand lance can suffer high mortality if they are spawned in areas without shade. Recent creation of the Tommy Thompson Trail on the western shore of Fidalgo Bay resulted in the MRC and City of Anacortes working together to plan the planting on the shoreward side of

the trail. These trees will hopefully grow to a size that will afford additional shading to eggs spawned along the beach adjacent to the trail. The Skagit Conservation District provided trees. Volunteers from the MRC and the Washington Conservation Corp did the planting. Another Blueprint priority project is to plant additional trees on the northeast corner of March's Point.

Spartina Removal

Spartina is an invasive, or noxious, salt-tolerant grass that was introduced in the 1960's for dike stabilization and cattle feed. It is an aggressive plant that can take over the intertidal zone and eventually threaten spawning and nursery grounds for many of our local species, including commercially grown shellfish.

Skagit MRC has teamed with People For Puget Sound, the Swinomish Tribe and many other environmental groups to eradicate Spartina in Skagit County using volunteer "Dig Days." So far, Skagit MRC and volunteers have held Dig Days for the last four years in the south Padilla Bay area and at two locations along the Swinomish Channel.

Additionally, March's Point and Guemes Island RSI's identified areas where Spartina was located. With this information, County weed control agents were able to find and remove these infestations before they got out of control.

Creosote Log and Piling Inventory and Removal

Creosote is a term that refers to a thick oily coal tar derivative that is used to protect wood products. Creosote can contain 300 or more chemicals, the majority of which are polycyclic aromatic hydrocarbons (PAHs). Many of these compounds are highly toxic, can accumulate in food chains and some are known carcinogens. Creosote treated wood has been used for railroad ties, telephone poles and the construction of docks and other structures for more than 100 years. Cost effective and environmentally safe alternatives to the use of creosote treated wood products in our freshwater and marine systems now exist.

Skagit MRC, working with many partners and funding from Northwest Straits Commission (NWSC) and WDNR, conducted a volunteer inventory of all treated wood products (logs, pilings, bulkheads, docks) on about 100 miles of county beaches in 2004. The inventory was then used to prioritize subsequent removal activities. About 75 tons of treated wood (about 98% creosote) was removed from beaches in 2004 and 2005 using a contractor aided by community volunteers. Recovered wood was sent to a hazardous waste landfill in Eastern Washington. A second round of inventory and removal, using the newly graduated class of Skagit Beach Watchers, will take place in 2006-07.

Native Oyster Restoration

In 2002, Skagit MRC in partnership with the Puget Sound Restoration Fund, local shellfish growers, local refineries, local and state governments began a project to restore Olympia oysters in Fidalgo Bay. The native or Olympia oyster (Ostrea conchaphila), shown here on Pacific oyster shells, at one time provided valuable shellfish resources for local tribes until it was fished to virtual extinction by commercial harvest in the late 1800s and early 1900s. The native oyster used to be locally common in Fidalgo, Padilla and Samish Bays before it was over-harvested. Native oysters also suffered substantially from discharges of untreated pulp mill waste liquors, which were toxic to larval and juvenile oysters.

Skagit MRC, the Samish Tribe, and the Center for the Study of Coast Salish Environments have been working since 2002 to restore native oysters in two locations in south Fidalgo Bay. MRC volunteers have planted more than 400,000 seed during three years under the trestle and have monitored their success. So far, survival and growth have been excellent and we are monitoring for signs of natural reproduction. An artificial oyster reef is being built on Samish Tribal tidelands on the west side of the bay.

Derelict Gear Removal

Sport fishers complained to us of the large amount of lost fishing gear on the bottom of the Sound and the response of the Northwest Straits Commission was to obtain grant money to pay for the removal of this gear. Miles of nets from gill netters and purse seiners and thousands of crab pots have been lost over the years. And many of those continue to catch and kill fish, crabs, birds, and mammals. So the divers went down and hooked on to the nets and pots and brought them to the surface to be taken to a landfill. Dead fish and birds were common as were crabs and marine mammals. A pile of bones was observed below one gill net showing that it had continued to function over a long period of time. As of February 2005, in all of the seven counties of the Northwest Straits, 686 crab, shrimp and octopus pots/traps and 260 nets were removed. The nets covered over 72.6 acres of habitat.

This extremely popular project has drawn visitors from around the country and will be replicated. For years nets have been lost around the world and they continue to function and kill. In the fall of 2005, Tom Cowan, the director of the Northwest Straits Commission, was invited to give a presentation on the derelict gear removal program to interested members at the United Nations in New York City.

Freestad Lagoon Restoration

In cooperation with the Center for the Study of Coast Salish Environments and private landowners, the MRC is helping to fund a project to restore beach spawning habitat and relieve erosion on down-current beaches and bluffs in the Freestad Lagoon on Samish Island. The project, currently in its planning and monitoring phases, will

replace existing riprap with soft armoring, plant shade vegetation, and open a freshwater lagoon to historical tidal flows.

Lone Tree Point Lagoon Monitoring

The Skagit MRC also is active in salmon recovery activities. The MRC is working with the Skagit River System Cooperative to monitor salmon and marine fish use of the Lone Tree pocket lagoon before and after a restoration project is completed. The project involves replacing a crushed culvert that is preventing fish use of the stream entering the Lone Tree lagoon. The data generated by this project will help assess the effectiveness of the project. Pocket lagoons, like Freestad and Lone Tree, are important habitat for returning Chinook salmon that prefer these small estuaries, 20 to 1, over more open water. They use them as feeding and growth nurseries until they return to the ocean. Funding of this monitoring activity by the MRC is an excellent example of its commitment to science and data collection to provide input to resource management decisions.

Education

The Skagit County MRC has supported the development of a one-day program initiated by the Anacortes Maritime Center called Fidalgo Bay Day. This has been an attempt to interest and educate citizens about the many aspects of the marine environment.

The MRC has also encouraged and supported the development of the WSU extension program called the Beach Watchers. In this program, volunteers spend around 100 hours in the classroom and then agree to work on volunteer projects for 100 hours over a two-year period. Two members of our MRC have completed the program and are at work with projects related to the marine environment.
We participated in and presented our display board describing MRC activities at The Swinomish Tribe's Annual Earth Day Celebration, Fidalgo Bay Day and Tommy Thompson Trail Day (both in Anacortes), the Bivalve Bash and Mud Run at Taylor Shellfish, and the Skagit Watershed Council's annual seminar in LaConner.

Awards

In 2004, the Northwest Straits Marine Conservation Initiative was given a fifth year review as mandated by Congress. William Ruckelshaus chaired the committee, a "nationally qualified group", and their conclusion was that the initiative was successful. They recommended that Congress reauthorize and increase funding for the Northwest Straits Initiative. Congress has therefore authorized another 5 years of the Initiative and increased its funding.

Also, in 2004, the Skagit MRC received a Partnership Award from Coastal America, a partnership of federal, state and local governments and private organizations, which protects, preserves and restores our nation's coast.

In 2005, Doug Sutherland, Commissioner of Public Lands, presented a reward of excellence to the Skagit Marine Resources Committee for their work on the creosote wood survey and removal.

The Northwest Straits Commission

In 1998 Congress passed the Northwest Straits Initiative that established the Northwest Straits Commission. This Commission provides support for the projects initiated by Marine Resources Committees in the seven northern counties of Puget Sound, Clallam, Jefferson, Island, San Juan, Snohomish, Skagit, and Whatcom.

Skagit Marine Resources Committee Members

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Tesoro Refinery

Margaret Schwertner
Port of Anacortes

Robert Knowles
Concerned Citizen

Lori Kyle
Commercial Fishing

Charles O'Hara
Swinomish Tribe

Jason Joseph
Sauk-Suiattle Tribe

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Ann Bylin
Skagit County Planning

Rick Haley
Skagit Public Works

Paul Sund
Concerned Citizen

Mike Sato
People For Puget Sound

Russel Barsh
Concerned Citizen

Christine Woodward
Samish Tribe

Scott Schuyler
Upper Skagit Tribe

Erica Pickett
Marine Dependent Business

Polly Fischer
Sports Fishing

Jeanne Robinette
Concerned Citizen

Jim Ramaglia
Divers/Marine Recreation

Visit us on the web at: www.skagitcounty.net/smrc

Planting Olympia oysters

Diver going after a net

Rockfish survey on U of W research vessel

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Paul Dinnel pp 6, 8, 9
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