

**Mitten Crab Outreach,
Education and Monitoring
Portland State University, 2004-2005**

**Report to
Pacific States Marine Fisheries Commission**

Mitten Crab Outreach, Education and Monitoring Portland State University, 2004-2005

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Introduction:

The mitten crab, *Eriocheir sinensis*, is an invasive species that poses a risk to estuaries and aquatic environments in the Pacific Northwest. The recent establishment of a large population in the San Francisco Bay as well as the potential for introductions from Asia, Europe and now California, increase the risk of additional successful introductions along the West Coast. The mitten crab, listed as injurious species under the federal Lacey Act, poses ecological, economic and possibly human health hazards to each area where it becomes established. In California mitten crabs interfere with irrigation withdrawal and fish passages, destabilize riverbanks and are a nuisance to shrimpers, anglers and sometimes even the general public. Mitten crabs may be introduced to a new area in variety of ways. Although illegal to possess, live mitten crabs remain a popular black-market seafood item and released, escaped or intentionally introduced crabs are a concern to many. Mitten crab larvae are planktonic and may be transported via ballast water coming from California, Asia or Europe. Less certain is the potential for transport of mitten crab larvae through rare oceanic processes such as el Nino events that dispersed green crab larvae from California into Oregon and Washington.

Preventing the impacts of mitten crabs in the Northwest requires early detection and rapid response to any new sighting. Trapping programs (crab condos and minnow traps) have been attempted in the past but, while useful for population studies, such traps require high densities of crabs to be successful and, as such, are of lessened utility to an early detection program. Therefore the emphasis of our work in the Northwest is on education and outreach and maintaining a hotline where volunteer monitors and the general public alike can call in sightings of unusual crabs they suspect may be mitten

crabs. Concurrently research and risk assessment are being conducted to focus outreach and monitoring efforts. The tasks of this projects fall into three categories: Public Education and Outreach, Research and Risk Assessment, and Monitoring.

Public education and outreach:

Task 1. Contact anglers at boat ramps throughout the region and provide information about mitten crabs.

Efforts were made to contact anglers directly, to discuss the mitten crab, at fishing locations and boat ramps during the distribution and posting of informative signs by Center for Lakes and Reservoirs (CLR) staff and students. Contact hours with fishermen and anglers are highest in spring and summer resulting in a broad spectrum of contacts in advance of the late summer early fall migration times when the more visible adult mitten crabs are expected. Several boxes of mitten crab identification cards have been distributed throughout 2004 – 2005. Specifically examples of angler outreach include Monaca Noble explained the ecological impacts and key features of the mitten crab to fishermen at fish cleaning stations at the Port of Bandon and the Port of Charleston. Laura Johnson had similar conversations with campsite hosts and marina owners at Whalen Island Park and Netarts Bay RV Park and Marina, respectively.

In the later winter contact with anglers shifts to outreach as sporting and fishing shows. In addition to direct contact with the general public sporting shows area also a good place to interact with other groups operating on the coast. As a result of contacts made by CLR staff at the Portland Sportsmens show three packs of CMC ID cards, several OR Sea Grant crab ID sheets and 5 CMC signs were sent to district fish biologists operating along the northern Oregon Coast.

Lastly CLR Staff includes mitten crabs in many of their presentations on aquatic nuisance species spreading outreach and education to managers and fellow researchers who are also an important part of the early detection and rapid response process.

Selected presentations:

Draheim, R. and Pfauth, M. Aquatic Nonindigenous Species Projects at Portland State University: The Center for Lakes and Reservoirs & Aquatic Bioinvasions Institute. North America Lake Management Society. Victoria British Columbia. November 2004.

Draheim, R. Oregon Update: Aquatic Nonindigenous Species Projects and Plans. Pacific Northwest Economic Region. Seattle WA. June 2005.

Draheim, R. Aquatic Nonindigenous Species Management. Oregon Invasive Species Council. Salem OR. February 2005.

Draheim R. and Parker, B. Angler Education. Oregon Department of Fish and Wildlife. May 2005.

Hanson, E. Vertical migration behavior of mitten crabs. California Interagency mitten crab workgroup. Fall 2004.

Johnson, L. Chinese mitten crab (*Eriocheir sinensis*) Threat to the West. Oregon Lakes Association meeting. Eugene, Oregon. Fall 2005.

Reports:

Sytsma, M. and Hanson, E. 2004. The Potential for Mitten Crab Colonization and Management Options on the West Coast of North America. Center for Lakes and Reservoirs, Portland State University. Portland, Oregon. Prepared for the Pacific States Marine Fisheries Commission and Alaska Department of Fish and Game.

Task 2. Distribute brochures and/or fact sheets on mitten crabs to marinas and bait and angling shops etc.

The distribution of educational materials regarding the spread of the Chinese mitten crab included the posting of educational signs (9" x 12", Mitten Crab Wanted: Dead Not Alive, in cooperation with Pacific States Marine Fisheries Commission, Bonneville Power Administration, U.S. Fish and Wildlife Service, WA Department of Fish and Wildlife and National Oceanic and Atmospheric Administration, Figure 1.) at boat launches and fishing areas in Oregon and Puget Sound, Washington, as well as the distribution of fact sheets provided by University of Washington (Sea Grant of Washington and Oregon, Pacific Northwest MIST (Marine Invasive Species Team), and National Oceanic and Atmospheric Administration), and Mitten Crab Watch ID cards provided by the Pacific State Marine Fisheries Commission. Mitten crab literature was

distributed to approximately 50 agencies/individuals during the summer of 2005. Fact sheets and ID cards were sent with packages mailed to the Puget Sound area as well as included with signs dropped off at USFS and BLM offices in Oregon. County representatives to the Oregon State Marine Board also received mitten crab literature.

The distribution of Mitten Crab Wanted: Dead Not Alive signs was implemented in conjunction with a broader project to post signs designed to promote proper boat cleaning methods to avoid the spread of invasive species at boat launches in the state of Oregon. A collaborative approach was used; assistance was provided by the Oregon State Marine Board (OSMB), USDA Forest Service (USFS), Bureau of Land Management (BLM), Columbia River Inter-Tribal Fisheries Commission (CRITFC), US Army Corps of Engineers (USACE), Oregon and Washington State Parks, county and city governments. A complete listing of contacts is available in Table 1.

During the summer of 2005 the focus of this project was to distribute signs to these agencies for posting during fall clean-up or spring maintenance activities at boat launches and public fishing areas. Many of the signs distributed were posted promptly, but many will be posted during spring. A datasheet was provided with all signs in order to track progress and maintain a database of locations of sign postings.

In Washington, Pam Meacham of the Washington Department of Fish and Wildlife provided a complete listing of Puget Sound area boat ramps (Table 2.). During 2005, agencies on this list were contacted. Agencies currently involved with the posting of signs include USFS-Olympic National Forest, Washington State Parks, Skagit and Island County Park and Recreation Departments, as well as Seattle and Mt. Vernon City Parks. The USACE were given signs to post along the Columbia River, efforts was made to determine locations and number of signs posted from Tim Darland at Bonneville Dam, a response has not been received (Tim is currently in Louisiana, responding to hurricane damage). In Oregon, participation was requested of BLM Weed Coordinators and Recreation Department Representatives. Involvement, thus far, has included the Coos Bay (North Bend) district. Within the USFS, participation in this project has been requested to all ranger districts of OR-USFS including Recreation Managers and Fish

Biologists. Involvement has included the Willamette and Suislaw National Forests. Signs were distributed by the OSMB to counties located along the Oregon coast and along the lower and middle Columbia River; these counties included Clatsop, Columbia, Clackamas, Coos, Curry, Douglas, Lane, Lincoln, Multnomah and Tillamook counties. Randy Henry (OSMB, Policy and Planning Coordinator) distributed signs at the yearly Marine Board meeting on September 29, 2005. Signs in Lincoln County were posted by Deputy Quentin Bendel as of October 8, 2005, but datasheets were not returned to CLR as of October 13, 2005. In total of at least 494 Mitten Crab Wanted: Dead Not Alive signs were distributed in Oregon and Washington during 2005. A complete list of signs distributed to agencies and individuals is available in Table 3.

The CLR created and has maintained a database for locations where invasive species public education and outreach signs are posted. This database includes the posting of Mitten Crab: Wanted Dead Not Alive signs. This database includes fields such as location name, address, directions, water body, state, county, latitude, longitude, boat ramp usage, type of boat ramp, HUC 6 watershed code for information about the location, as well as fields such as installation site, visibility, installation date and staff name. The database allows for easy data entry and expansion to include new staff and sign types. Table 4 provides a complete listing of signs posted by CLR staff or signs posted where completed datasheets were returned to CLR by Washington or Oregon agencies, including 35 locations.

In Washington, future work regarding the distribution of Mitten Crab: Wanted Dead Not Alive signs should be based around the list provided in Table 2. The Washington Department of Fish and Wildlife manages 147 of these locations, their involvement in the posting of these signs is being discussed. Additionally, the assistance of the Department of Natural Resources, National Parks Service- North Cascade, USFS-Mt. Baker Ranger District, Clallam, King, Jefferson, Mason, Pierce, San Juan, and Snohomish counties, will be requested. Table 2. includes lakes in the region, many of these can be removed from the list of locations to post signs, however, these lakes need to be assessed for the possibility of a mitten crab introduction, based on factors such as proximity to an estuary system, boat use and inflow and outflow dynamics. Future public education and outreach

may include collaboration with the Washington Extension Project and the Seattle Aquarium, as well as local groups such as People for Puget Sound and Puget Sound Keep Alliance.

In Oregon, future work regarding the distribution of Mitten Crab: Wanted Dead Not Alive signs should focus on following up the posting of signs by county representatives to the Oregon State Marine Board as well as remaining fishing locations and boat launches not targeted by the Oregon State Marine Board staff, particularly along the Oregon Coast. Increasing the involvement of local watershed groups, such as the Coos Watershed Association, Friends of the Elk River, Lewis and Clark/Young's River Watershed District and Midcoast Watersheds Council, will be a focus for future education and outreach activities.

In addition, CLR has begun working with Oregon Marine Board to provide more information to anglers and the boating public. In late fall 2005 CLR staff also provided outreach on invasive species including the mitten crab for the Marine Board's Clean Marina program and information on aquatic invasive species will be developed for future Clean Marina literature.

Research and Risk Assessment:

Task 3. Provide information on mitten crabs to ongoing monitoring and research programs in the region.

New information relevant to regional monitoring and research programs has just become available and will be disbursed to interested parties in the coming year. Below is a summary of these reports. The newly enhanced CLR website will greatly contribute to the success of this.

The Potential for Mitten Crab Colonization and Management Options on the West Coast of North America.

Personnel:

Primary: Mark Sytsma (Principal Investigator, aquatic weed expert), Erik Hanson (project coordinator, ehanson@pdx.edu).

Additional coordination provided by Steve Bollens (WSU Vancouver) and Dick Tullis (CSU Hayward).

Cooperators:

Alaska Department of Fish and Game and US Fish and Wildlife Service (USFWS) (in cooperation with Pacific States Marine Fisheries Commission).

Purpose:

Mitten crabs (*Eriocheir spp.*) are invasive species that pose a risk to the aquatic environments of the Pacific Northwest and the economic and social activities that depend upon intact aquatic systems. The recent establishment of a large population in the San Francisco Bay and the potential for introductions from California, Asia and Europe pose a significant invasion potential for estuaries and rivers from California to Alaska as West Coast estuaries exhibit similar climatic, habitat and environmental conditions as San Francisco Bay and European estuaries.

The purpose of this project is to investigate the relationship between the environmental and physical habitat of estuaries with established populations and characteristics of mitten crab life history. This information will be used to evaluate risk of establishment and population expansion in selected West Coast estuaries.

Accomplishments/Results:

Research into the mitten crabs life history, habitat requirements and environmental tolerances suggests that estuaries with limited salinity intrusion and short flushing times reduce the risk of population establishment. Large, stable estuaries, such as the Puget Sound, may support large populations. Large estuaries provide adequate temperature and salinity regimes for optimal larval survival and flushing times of sufficient duration for development within the estuary. One estuary, Coos Bay, has a flushing time similar to estuaries with mitten crabs but below the threshold required for larval development within the Bay. Small or river dominated estuaries, such as the Columbia River, have salinities below the threshold for larval development or have flushing times less than the duration of larval development.

The northern extent of a potential mitten crab population is likely to be limited by low water temperatures. Most estuary systems in Alaska have sufficient estuarine and freshwater habitat, but limited periods where water temperatures are above the mortality threshold for the larval stages and are at a low risk for the establishment of populations.

Mitten crabs may become established in smaller estuaries with short flushing times if they exhibit vertical migration behavior that prevents transport from the estuary. Experiments on vertical migration were performed at the Romberg Tiburon Center of San Francisco State University using vertical tanks and recorded using a time lapse video system. Analysis of the experiments is ongoing and initial results suggest limited vertical migration in early larval stages.

Discussion:

The average system with a mitten crab population has an estuary area of 488 km² with a salinity intrusion of 86 km and a flushing time of 43 days. The total area of Oregon and Washington estuaries, excluding Puget Sound and the Columbia River, would fit inside the average estuary with a significant mitten crab population. A large stable estuary is necessary to permit the development of zoea within the estuary and maintain population levels. A flushing time of 43 days is greater than the zoea development time at temperatures equal to or greater than 14°C.

Most west coast estuaries have extended periods of temperatures above 14°C and would allow for larval development. North of Puget Sound, average temperatures are at or below the threshold necessary to maintain populations. In years with below average temperatures, the potential development period would not be sufficient for larval development.

The examination of the key factors necessary for larval development and habitat and environmental condition suggests that the majority of the PNW is not at risk for the establishment of significant mitten crab populations. Puget Sound and Coos Bay are the only estuaries that have the proper combination of temperature, salinity and retention time for mitten crab establishment. Because of the much larger dimensions of Puget Sound, it may be expected to support larger populations than Coos Bay.

Further work:

Experiments on larval survival at temperatures between nine and 12°C would provide a more refined analysis of survival in Alaskan and near ocean waters. The current model

allows for survival at temperatures above 9° C. Mortality at 10°C would greatly restrict the potential northern range of mitten crabs and reduce the period available for larval development.

The ability of megalopae to return to brackish and freshwater areas needs to be investigated. It is unknown what cues the megalopal stage to return to upper estuary areas and at what rate they can travel. These factors can determine if megalopae flushed into near ocean areas can home in on the estuary mouth and the distance from the estuary mouth the larva must remain in for a return to adult habitat.

Mitten crab (*Eriocheir spp.*) recruitment: Factors that influence larval supply and return to settlement sites.

Personnel:

Primary: Mark Sytsma (Principal Investigator, aquatic weed expert), Erik Hanson (project coordinator).

Additional coordination provided by Steve Bollens (WSU Vancouver) and Dick Tullis (CSU Hayward).

Cooperators:

US Fish and Wildlife Service (USFWS) (in cooperation with Pacific States Marine Fisheries Commission).

Purpose:

This project investigates mitten crab recruitment dynamics in an effort to provide managers with a tool to predict years of high recruitment. The factors that influence larval supply, a key component of recruitment, will be investigated in laboratory experiments and used to build a model of recruitment. Larval behavior combined with estuary flow characteristics can determine the rate at which larvae are retained in the estuary and the potential to return from near ocean waters. Mitten crab populations experience large fluctuations that are a function of recruitment rates. Years of large downstream migrations have been extremely detrimental to management efforts in the bay-delta region. The objective is to correlate information on temperature, salinity and flow and larval vertical and horizontal migration behavior to elucidate the combination of factors that yield high recruitment levels. Research encompasses vertical migration

behavior of the zoea and megalopae stages and horizontal migration of megalopae and juvenile crabs in response to estuarine and parental habitat cues.

Accomplishments/Results:

A series of vertical migration experiments on zoea I, III and V and megalopae in two-meter columns was completed at the Romberg Tiburon Center in conjunction with Dr. Steve Bollens. Video records of the experiments are being analyzed. Initial results suggest a diel migration cycle with zoea in the upper water column during the day and a descent during the night. Additional experiments were conducted on the megalopae stage to mimic hydrostatic pressure and salinity changes indicative of a tidal change. The experiment did not result in an increase of swimming events or total time spent in the water column in comparison to a control.

Choice experiments on higher and lower salinities and estuarine versus artificial seawater were conducted in a y flume along with vertical experiments on response to tidal cues of a hydrostatic pressure and salinity increase. A full set of experiments was completed on the megalopae and juvenile crab molts I, II and III. Initial analysis suggests that the megalopae do not migrate horizontally in response to estuarine water or lower salinity. Megalopae exhibit a positive response to flow but with a limited swimming ability. Mitten crab megalopae are highly benthic and spend the majority of time clinging to substrate, primarily seaweed. The juveniles during the first and second molts do not migrate horizontally in response to flow, higher or lower salinity. At the third molt, the mitten crab responds positively to flow but avoids both higher and lower salinity changes.

A basic temperature based larval development model for the San Francisco Bay was developed. This model was based upon temperature data collected by NOAA buoy and tide gauging stations. Temperatures favorable for larval development exist from October through August.

Discussion:

Initial results suggest that mitten crab zoea and megalopae exhibit minimal behavior that would enhance retention in estuaries or provide a mechanism for reinvasion of

estuaries from near coastal waters. Previous work suggests that mitten crab populations are constrained to estuaries where the retention time is great enough to permit larval development within the estuary. Megalopae and juvenile crabs can occupy a salinity range from 35 ppt down to nearly 0 ppt. The movement of crabs back into freshwater likely occurs at a later stage, probably during the second year.

Further work:

Experiments on the cues for horizontal migration need to be continued on later crab molts. At some point in development, mitten crabs migrate from estuarine habitat to primarily freshwater habitat. Knowledge of this timing could facilitate management and assessment of population size.

Monitoring

Task 4. Maintain mitten crab volunteer monitoring sites in Oregon and Washington.

Currently there are no active volunteer mitten crab monitoring sites in Oregon and Washington. Further work on redeveloping an active monitoring program should do two things; 1) refocus on at-risk estuaries as predicted by Erik Hanson and 2) focus on risky larval recruitment years such as years with el nino currents that may transport larvae up the coast. Early detection of mitten crabs is currently dependant on eagle-eye volunteers and increasingly well informed members of the public who may catch one.

Task 5. Conduct mitten crab trapping to verify any reported sightings.

More than 10 mitten crab sightings were reported in 2004 - 2005. Several sightings have been reported directly to the Center for Lakes and Reservoirs from callers responding to a "Wanted Dead Not Alive" signs posted at a boat ramps. For example On Tuesday, May 10, 2005 a fellow named Andrew Lewis has a crab in a crab trap that he felt fit the description of a mitten crab on our sign. Because the sighting was in Washington State we alerted WDFW and asked Dr. Deborah Rudnick (former mitten crab researcher who now lives on Bainbridge Island) to check out the sighting. It was a

helmet crab. The second sighting received was a call to the 1-866-INVADER hotline. A Portland resident found what turned out to be a shore crab while vacationing in July 2005 on the coast near Seaside OR, saw a mitten crab sign and called the hotline. While we suspected the crab was not a mitten crab we had her bring the crab into the CLR offices where Monaca Noble identified it and gave the woman some additional mitten crab identification information. Other sightings have all been unusual kelp crabs caught by recreational crabbers and reported to the 1866-Invader hotline.

Task 6. Provide quarterly reports.

Quarterly reports have been provided to PSMFC and are available upon request,.

Figures and Tables

WANTED

Four spines "Hairy" claws
Notch
Carapace width
Inches 0 1 2 3+
*Adult Shown
Illustration: Randall D. Babb, for FWS Project of Oregon Sea Grant, U.S. Fish and Wildlife Service and Bonneville Power Administration

Distinguishing characteristics:

- Presence in freshwater
- "Hairy" claws on adults
- Legs twice as long as carapace width
- Light brown to olive green in color
- Notch between eyes
- Four spines on carapace

DEAD not ALIVE


MITTEN CRAB

A NON-NATIVE SPECIES IN THE PACIFIC NORTHWEST

This crab recently entered the Columbia River system and may damage native species & habitat. If found, please **do not** throw the crab back. Freeze specimen and contact the following:

In Washington, the Washington Department of Fish and Wildlife at: 360-902-2200
In Oregon, The Invasive Species Hotline: (toll free) 1-866-INVADER

For more information: Center for Lakes & Reservoirs • Portland State University, Portland, OR
503-725-3834 • www.clr.pdx.edu



In cooperation with:
*Pacific States Marine Fisheries Commission • Bonneville Power Administration
US Fish & Wildlife Service • WA Department of Fish & Wildlife*

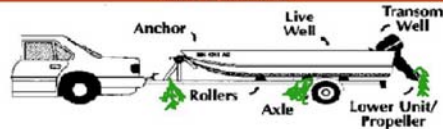
Figure 1. Mitten Crab: Wanted Dead Not Alive sign (size: 9" x 12"). (remaining ~150)

STOP Harmful Species

Unwanted plants and animals can ruin
your favorite fishing and boating waters.



It is unlawful to transport zebra mussels, noxious aquatic weeds,
and other aquatic nuisance species.



- **REMOVE** all plants and animals from boats, motors, trailers, anchors and gear before and after launching.
- **INSPECT** hard to reach spots, damp areas and other protected places where harmful species can survive for days.
- **DRAIN** all water from boats, trailers, tackle and gear before leaving the area.
- **DISPOSE** of livewell water, bait, plants and other material away from shore, or in trash cans.

To report harmful species please call (tollfree) 1-866-INVADER
or contact these agencies for more information:



Figure 2. Stop harmful species sign

Table 1. Contact list.

Name	Agency	Information	Phone	Email	Address
Washington					
Pamala Meacham	Washington Dept. of Fish & Wildlife	Asst. Aquatic Nuisance Species Coordinator	(360) 902-2741	meachpmm@dfw.wa.gov	600 Capitol Way N., Olympia, WA 98501
Eric Watilo	Washington State Parks	Northwest Region	(360) 755-9231	eric.watilo@parks.wa.gov	220 N. Walnut, Burlington, WA 98233
John Johns	Washington State Parks	Puget Sound Region	(253) 931-3907	John.Johns@PARKS.WA.GOV	2840 Riverwalk Drive SE, Auburn, WA 98002
Mike Sternbeck	Washington State Parks	Southwest Region	(360) 753-7143	Mike.Sternbeck@PARKS.WA.GOV	11838 Tilley Road S, Olympia, WA 98512
Karl Fisch	Washington State Parks	Fort Warden State Park	(360) 344-4400	Karl.Fisch@parks.wa.gov	200 Battery Way, Port Townsend, WA 98368
Marc McHenry	USDA Forest Service	Olympic National Forest- Hood Canal Ranger District	(360) 956-2402		P.O. Box 280, Quilcene, WA
Brian Sower	Port of Bremmerton	Port Orchard Area	(360) 876-5535		8850 SW Hwy 3, Port Orchard, WA 98367
Kathy Whitman	Seattle Parks	Seattle City Aquatic Manager	(206) 684-7099	kathy.whitman@seattle.gov	860 Terry Avenue North, Seattle, WA 98109
Brian Adams	Skagit County Parks			briana@co.skagit.wa.us	315 S. Third St., Mt. Vernon, WA 98273
Susan Horton	Island County Parks	WSU extension, Island County Noxious Weed Control Board	(360) 679-7327		P.O. Box 5000, Coupeville, WA 98239
Mike Elde	Mt. Vernon City parks and Recreation			mikee@ci.mount-vernon.wa.us	1717 South 13 th St., Mt. Vernon, WA 98274
Brian-manager	Washington State Parks	Green River Gorge			23700 SW Flaming Geyser Rd, Auburn, WA 98092
Oregon					
Randy Henry	Oregon State Marine Board	Policy and Planning Coordinator	503) 378-2611	Randy.H.Henry@state.or.us	
Deputy Reader	County Marine Patrol	Tillamook County	(503) 842-2275		5995 Long Prairie Rd, Tillamook, OR, 97141

US Terry Huntsman	County Marine Patrol	Tillamook County			5995 Long Prairie Rd, Tillamook, OR, 97141
Deputy Olsen	County Marine Patrol	Clackamas County	(503) 572-4247		2223 Kaen Rd, Oregon City, OR, 97045-4047
Lt. Dixon Andrews	County Marine Patrol	Clackamas County			2223 Kaen Rd, Oregon City, OR, 97045-4047
Aaron Whibzig	County Marine Patrol	Columbia County	(503) 880-2470		901 Port Ave, St. Helens, OR, 97051
Dep. Dave Peabody	County Marine Patrol	Columbia County			901 Port Ave, St. Helens, OR, 97051
Dep. Quentin Bendel	County Marine Patrol	Lincoln County		QBendel@co.lincoln.or.us	225 W. Olive St, Newport, OR, 97365-3867
Sgt. Bob Jozwiak	County Marine Patrol	Lincoln County			225 W. Olive St, Newport, OR, 97365-3867
Dep. Willie Nyberg	County Marine Patrol	Clatsop County			355 7th St, Astoria, OR, 97103-0658
Dep. Doug Strain	County Marine Patrol	Coos County			Courthouse, 250 N. Baxter St. Coquille, OR 97423
Dep. Ted Heath	County Marine Patrol	Curry County			450 N Ellensburg, Gold Beach, OR 97444-0681
Lt. John Stall	County Marine Patrol	Douglas County			Justice Bldg, Roseburg, OR 97470
Lt. Dennis Ewing	County Marine Patrol	Lane County			125 E 8th Avenue, Eugene, OR, 97401-2926
Lt. Monte Reiser	County Marine Patrol	Multnomah County			4325 NE Marine Dr. Portland, OR 97218
Michael Broncheau	Columbia River Inter-Tribal Fisheries Commission (CRITFC)		(503) 731-1258		729 NE Oregon, Suite 200, Portland 97232
Delbert Schleichert	Tillamook County Parks	Tillamook Co Parks Dept. Director		dxchleic@co.tillamook.or.us	
Pete Marvin	Oregon Parks and Rec	Coast: Nestucca Bay to Tillamook Bay			
Rick Braden	Oregon Parks and Rec	Sign coordinator	(503) 986-0765	rick.braden@state.or.us	Salem, OR

Claude Crocker	Oregon Parks and Rec	North Coast-assistant manager	(541) 265-4560	claudc.crocker@state.or.us	
Tony Stein	Oregon Parks and Rec	North Coast-manager			
Mike	Oregon Parks and Rec	Ft. Stevens State Park	(503) 861-3170 ext 23		
Mark Smith	Oregon Parks and Rec	Nehalem Bay and Tolovana Beach	(503) 368-5943		
Pete Marvin	Oregon Parks and Rec	Cape Lookout State Park	(503) 842-3182		
Kevin Welch	Oregon Parks and Rec	Bullards Beach State Park	(541) 347-2209		
Tim Darland	Army Corps of Engineers	Bonneville Dam	(541) 374-4551	Timothy.J.Darland@nwp01.usace.army.mil	
Bob Raper	BLM	Coos Bay District (North Bend)	(541) 756-0100		1300 Airport Lane, North Bend, OR
Bonnie Lippitt	USFS	Administration	(503) 808-2437	blippitt@fs.fed.us	
Jeff Uebel	USFS	Administration	(503) 808-2847	juebel@fs.fed.us	

Table 2. Listing of Puget Sound, Washington area boat launches, provided by Pam Meacham, Washington Department of Fish and Wildlife.

Region	County	Location Name	Water Body	Agency	Number of Ramps/ Launches
N. Puget Sound	Island	Deception Pass State Park	Cornet Bay	State Parks	6
N. Puget Sound	Island	Hastie Lake	Strait of Juan de Fuca	Island County Parks & Rec	1
N. Puget Sound	Island	Beach Park (Oak Harbor)	Oak Harbor	Oak Harbor City of	1
N. Puget Sound	Island	Oak Harbor Marina	Oak Harbor	Oak Harbor City of	8
N. Puget Sound	Island	Maple Grove Boat Ramp	Saratoga Passage	Island County Parks & Rec	1
N. Puget Sound	Island	Penn Cove County Park (north)	Penn Cove	Island County Parks & Rec	1
N. Puget Sound	Island	Captain Coupe Park	Penn Cove	Coupeville Town of	1
N. Puget Sound	Island	Fort Casey State Park	Keystone Harbor	State Parks	Unknown
N. Puget Sound	Island	Cavalero Beach County Park	Port Susan	Island County Parks & Rec	1
N. Puget Sound	Island	Camano Island State Park	Saratoga Passage	State Parks	2
N. Puget Sound	Island	Bush Point Resort	Admiralty Inlet	Bush Point Resort	1
N. Puget Sound	Island	Mutiny Bay Ramp	Mutiny Bay	Island County Parks & Rec	1
N. Puget Sound	Island	Freeland Park	Saratoga Passage	Island County Parks & Rec	2
N. Puget Sound	Island	Lone Lake County Park	Lone Lake	Island County Parks & Rec	2
N. Puget Sound	Island	Langley Ramp	Saratoga Passage	Langley City of	2
N. Puget Sound	Island	Langley Marina	Saratoga Passage	Langley Marina	1
N. Puget Sound	Island	Deer Lake County Park	Deer Lake	Island County Parks & Rec	1
N. Puget Sound	Island	Dave Mackie Park	Useless Bay	Island County Parks & Rec	1
N. Puget Sound	Island	Possession Beach Waterfront Park	Possession Sound	South Whidbey Island Port of	2
N. Puget Sound	King	Kenmore (WDFW) - Sammamish River	Sammamish River	Fish & Wildlife Dept of	1
N. Puget Sound	King	Taylor Landing (WDFW) - Snoqualmie River	Snoqualmie River	Fish & Wildlife Dept of	1
N. Puget Sound	King	Eddie Vine Boat Ramp	Shilshole Bay	Seattle Parks & Rec Dept	7
N. Puget Sound	King	14th Avenue NW Boat Ramp	Salmon Bay	Seattle Parks & Rec Dept	4
N. Puget Sound	King	Sunnyside Avenue North Boat Ramp	Lake Union	Seattle Parks & Rec Dept	3
N. Puget Sound	King	Magnuson Park (Sand Point)	Lake Washington	Seattle Parks & Rec Dept	7
N. Puget Sound	King	7. Kirkland Marina Park	Lake Washington	Kirkland City of	2
N. Puget Sound	King	King Co. (Mouth of Tolt)	Snoqualmie River	Fish & Wildlife Dept of	1
N. Puget Sound	King	Langlois Lake	Langlois Lake	Fish & Wildlife Dept of	1
N. Puget Sound	King	Don Armeni Boat Ramp	Elliot Bay	Seattle Parks & Rec Dept	6
N. Puget Sound	King	Duwamish River Boat Ramp	Duwamish River	Seattle Parks & Rec Dept	2
N. Puget Sound	King	Day Street Park	Lake Washington	Seattle Parks & Rec Dept	1
N. Puget Sound	King	Sayres Park	Lake Washington	Seattle Parks & Rec Dept	10
N. Puget Sound	King	South Ferdinand Street Park	Lake Washington	Seattle Parks & Rec Dept	1
N. Puget Sound	King	Atlantic City Park	Lake Washington	Seattle Parks & Rec Dept	11
N. Puget Sound	King	Mercer Island Boat Launch	East Channel	Mercer Island Parks & Rec Dept	3
N. Puget Sound	King	SE 40th St. Boat Ramp	East Channel	Bellevue Parks & Comm Serv	10
N. Puget Sound	King	Gene Coulon Beach Park	Lake Washington	Renton Parks Department	3
N. Puget Sound	King	Boren	Lake Boren	Fish & Wildlife Dept of	1
N. Puget Sound	King	Lake Sammamish State Park	Lake Sammamish	State Parks	15
N. Puget Sound	King	Pine Lake County Park	Pine Lake	King Co Parks & Rec	1
N. Puget Sound	King	Richter #2	Snoqualmie River	Fish & Wildlife Dept of	1
N. Puget Sound	King	Fall City (mouth of Raging River)	Snoqualmie River	Fish & Wildlife Dept of	1
N. Puget Sound	King	Plum #2	Snoqualmie River	Fish & Wildlife Dept of	1
N. Puget Sound	King	Burton Acres Park	Quartermaster Harbor	King Co Parks & Rec	1

N. Puget Sound	King	Dockton Park	Quartermaster Harbor	King Co Parks & Rec	2
N. Puget Sound	King	Des Moines Marina	Puget Sound	Des Moines City of	2
N. Puget Sound	King	Angle Lake Park	Angle Lake	SeaTac Parks & Rec Dept	1
N. Puget Sound	King	Shadow	Shadow Lake	Fish & Wildlife Dept of	1
N. Puget Sound	King	Redondo Boat Launch	Poverty Bay	King Co Parks & Rec	3
N. Puget Sound	King	Lake Meridian Park	Lake Meridian	Kent Parks & Rec Dept	1
N. Puget Sound	King	Meridian	Lake Meridian	Fish & Wildlife Dept of	2
N. Puget Sound	King	Wilderness	Lake Wilderness	Fish & Wildlife Dept of	2
N. Puget Sound	King	Geneva	Lake Geneva	Fish & Wildlife Dept of	1
N. Puget Sound	King	Soos Creek	Green River	Fish & Wildlife Dept of	1
N. Puget Sound	King	Morton	Morton Lake	Fish & Wildlife Dept of	4
N. Puget Sound	King	Lake Sawyer Park	Lake Sawyer	King Co Parks & Rec	2
N. Puget Sound	King	Twelve	Twelve Lake	Fish & Wildlife Dept of	1
N. Puget Sound	King	Bass	Bass Lake	Fish & Wildlife Dept of	1
N. Puget Sound	King	Fish	Fish Lake	Fish & Wildlife Dept of	1
N. Puget Sound	San Juan	Mackaye Harbor Launching Ramp	Mackaye Harbor	San Juan County Public Works	1
N. Puget Sound	San Juan	Hunter Bay Boat Ramp	Hunter Bay	San Juan County Public Works	2
N. Puget Sound	San Juan	Island Marine Center	Fishermans Bay	Islands Marine Center	3
N. Puget Sound	San Juan	Hummel Lake	Hummel Lake	Fish & Wildlife Dept of	1
N. Puget Sound	San Juan	Odlin Park - Lopez Island	Upright Channel	San Juan County Parks Dept	1
N. Puget Sound	San Juan	South Beach Park (Shaw Island)	Indian Cove	San Juan County Parks Dept	1
N. Puget Sound	San Juan	Obstruction Pass Launching Ramp	Obstruction Pass	San Juan County Parks Dept	2
N. Puget Sound	San Juan	Rosario Resort	Cascade Bay	Natural Resources Dept of	1
N. Puget Sound	San Juan	Bartwood Lodge	President Channel	Bartwood Lodge	2
N. Puget Sound	San Juan	West Beach Resort	President Channel	West Beach Resort	2
N. Puget Sound	San Juan	West Sound Marina	White Beach Bay	West Sound Marina	2
N. Puget Sound	San Juan	Jackson Beach Park (Friday Harbor)	North Bay (San Juan Island)	Friday Harbor Port of	2
N. Puget Sound	San Juan	Sportsman Lake	Sportsman Lake	Fish & Wildlife Dept of	1
N. Puget Sound	San Juan	Roche Harbor Resort	Roche Harbor	Roche Harbor Marina	1
N. Puget Sound	San Juan	Snug Harbor Resort and Marina	Mitchell Bay	Snug Harbor Resort and Marina	2
N. Puget Sound	San Juan	San Juan County Park	Small Pox Bay	San Juan County Parks Dept	1
N. Puget Sound	San Juan	Egg Lake	Egg Lake	Fish & Wildlife Dept of	2
N. Puget Sound	Skagit	Washington Park	Rosario Strait	Anacortes Parks & Rec Dept	3
N. Puget Sound	Skagit	Skyline Marina	Burrows Bay	Skyline Marina	3
N. Puget Sound	Skagit	Cap Sante Marina - Moorage	Fidalgo Bay	Anacortes Port of	2
N. Puget Sound	Skagit	March Point	Padilla Bay	Shell Oil Company	1
N. Puget Sound	Skagit	Fidalgo Bay Resort	Fidalgo Bay	Fidalgo Bay Resort	1
N. Puget Sound	Skagit	Deception Pass State Park (Heart Lake)	Heart Lake (Skagit Co.)	State Parks	2
N. Puget Sound	Skagit	Erie Lake	Erie Lake	Fish & Wildlife Dept of	2
N. Puget Sound	Skagit	Campbell Lake - Skagit	Campbell Lake (Skagit Co.)	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Deception Pass State Park	Bowman Bay	State Parks	1
N. Puget Sound	Skagit	Padilla Bay	Padilla Bay	Ecology Dept of	1
N. Puget Sound	Skagit	Swinomish Channel Boat Launch	Swinomish Channel	Skagit County Parks & Rec	3
N. Puget Sound	Skagit	La Conner Marina	Swinomish Channel	Skagit County Port of	2
N. Puget Sound	Skagit	Sherman St. Boat Ramp	Swinomish Channel	La Conner Town of	2
N. Puget Sound	Skagit	Blake's Skagit Resort & Marina	Skagit River (North Fork)	Blake's RV Park & Marina	2

N. Puget Sound	Skagit	Headquarters - Skagit River	Wiley Slough	Fish & Wildlife Dept of	2
N. Puget Sound	Skagit	Milltown - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Conway Park	Skagit River (South Fork)	Skagit County Parks & Rec	1
N. Puget Sound	Skagit	Skagit City - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Spudhouse - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Edgewater Park	Skagit River	Mount Vernon Parks & Rec Dept	2
N. Puget Sound	Skagit	Youngs Bar - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Sedro Woolley - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Clear Lake - Skagit	Clear Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Beaver Lake - Skagit	Beaver Lake	Fish & Wildlife Dept of	2
N. Puget Sound	Skagit	Big Lake	Big Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	McMurray Lake	Lake McMurray	Fish & Wildlife Dept of	2
N. Puget Sound	Skagit	Cavanaugh Lake	Cavanaugh Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Gilligan Creek	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Skagit River - Hamilton	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Pressentin - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Skagit River - Pressentin	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Grandy Lake Recreation Area	Grandy Lake	Skagit County of	1
N. Puget Sound	Skagit	Shannon Lake Boat Launch Facility	Shannon Lake	Puget Sound Energy	1
N. Puget Sound	Skagit	Fabors Ferry North - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Howard Miller Steelhead County Park	Skagit River	Skagit County Parks & Rec	1
N. Puget Sound	Skagit	Skagit River Bald Eagle Natural Area	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Marblemount - Skagit River	Skagit River	Fish & Wildlife Dept of	1
N. Puget Sound	Skagit	Copper Creek Take-Out	Skagit River	NPS North Cascades NP Ross Lk	1
N. Puget Sound	Snohomish	Caynon Creek - Hat Slough (Amy)	Hat Slough	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	Stillaguamish River - Strotz	Stillaguamish River	Fish & Wildlife Dept of	2
N. Puget Sound	Snohomish	Haller Park	Stillaguamish River	Arlington Parks and Rec Dept	1
N. Puget Sound	Snohomish	Kayak Point County Park	Port Susan	Snohomish County Parks Dept	1
N. Puget Sound	Snohomish	Shoecraft Lake	Shoecraft Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	Wenberg State Park	Lake Goodwin	State Parks	2
N. Puget Sound	Snohomish	Lake Ki	Lake Ki	Fish & Wildlife Dept of	2
N. Puget Sound	Snohomish	Marysville Boat Ramp	Ebey Slough	Marysville Parks & Recreation	1
N. Puget Sound	Snohomish	Cassidy Lake	Cassidy Lake	Fish & Wildlife Dept of	4
N. Puget Sound	Snohomish	10th Street Marine Park/Boat Launch	Port Gardner	Everett Parks & Rec Dept	20
N. Puget Sound	Snohomish	Port of Everett Marina	Port Gardner	Everett Port of	3
N. Puget Sound	Snohomish	Riverfront Park	Snohomish River	Everett Parks & Rec Dept	4
N. Puget Sound	Snohomish	Wyatt Park	Lake Stevens	Snohomish County Parks Dept	5
N. Puget Sound	Snohomish	North Cove Park	Lake Stevens	Lake Stevens City of	1
N. Puget Sound	Snohomish	Mukilteo State Park	Possession Sound	State Parks	4
N. Puget Sound	Snohomish	Edmonds Marina (Port of)	Puget Sound	Edmonds Port of	2
N. Puget Sound	Snohomish	Cady Park	Snohomish River	Snohomish City of	1
N. Puget Sound	Snohomish	Flowing Lake County Park	Flowing Lake	Snohomish County Parks Dept	2
N. Puget Sound	Snohomish	Flowing Lake	Flowing Lake	Fish & Wildlife Dept of	2
N. Puget Sound	Snohomish	Storm Lake	Storm Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	Roesiger Lake	Roesiger Lake	Fish & Wildlife Dept of	1

N. Puget Sound	Snohomish	Chain Lake	Chain Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	Wagner Lake	Wagner Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	High Bridge	Snoqualmie River	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	Baehlor	Skykomish River	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	2Monroe	Skykomish River	Fish & Wildlife Dept of	2
N. Puget Sound	Snohomish	Skykomish Boat Ramp at SR 203	Skykomish River	Fish & Wildlife Dept of	2
N. Puget Sound	Snohomish	Skykomish Boat Ramp	Skykomish River	Fish & Wildlife Dept of	1
N. Puget Sound	Snohomish	Sportsman Park	Sultan River	Fish & Wildlife Dept of	4
N. Puget Sound	Whatcom	Lighthouse Marine Park (Point Roberts)	Georgia Strait	Whatcom County Parks & Rec	1
N. Puget Sound	Whatcom	Point Roberts Marina and Resort	Georgia Strait	Point Roberts Marina & Resort	1
N. Puget Sound	Whatcom	Blaine Boat Ramp	Bellingham Bay	Bellingham Port of	2
N. Puget Sound	Whatcom	Birch Bay State Park	Birch Bay	State Parks	1
N. Puget Sound	Whatcom	Terrell Lake	Lake Terrell	Fish & Wildlife Dept of	2
N. Puget Sound	Whatcom	Fisherman's Cove	Lummi Bay	http://www.parks.wa.gov/	3
N. Puget Sound	Whatcom	Nooksack River	Nooksack River	Fish & Wildlife Dept of	1
N. Puget Sound	Whatcom	Wiser Lake	Wiser Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Whatcom	Fazon Lake	Fazon Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Whatcom	Nugent's Corner	Nooksack River	Fish & Wildlife Dept of	1
N. Puget Sound	Whatcom	Toad Lake	Toad Lake	Fish & Wildlife Dept of	2
N. Puget Sound	Whatcom	Bloedel Donovan Park	Lake Whatcom	Bellingham Parks & Rec Dept	6
N. Puget Sound	Whatcom	Squalicum Harbor	Bellingham Bay	Bellingham Port of	6
N. Puget Sound	Whatcom	6th Street Boat Launch	Bellingham Bay	Bellingham Port of	3
N. Puget Sound	Whatcom	Larrabee State Park	Bellingham Bay	State Parks	1
N. Puget Sound	Whatcom	Samish Lake	Samish Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Whatcom	Whatcom Lake	Lake Whatcom	Fish & Wildlife Dept of	1
N. Puget Sound	Whatcom	Sudden Valley R.V. Park and Campground	Lake Whatcom	Sudden Valley RV Park	1
N. Puget Sound	Whatcom	Silver Lake	Silver Lake	Fish & Wildlife Dept of	1
N. Puget Sound	Whatcom	Silver Lake Park	Silver Lake	Whatcom County Parks & Rec	1
N. Puget Sound	Whatcom	Baker Lake Resort	Baker Lake	USFS MBNF Mt Baker RD	2
N. Puget Sound	Whatcom	Horseshoe Cove Campground	Baker Lake	USFS MBNF Mt Baker RD	2
N. Puget Sound	Whatcom	Baker Lake Boat Ramp	Baker Lake	Puget Sound Energy	1
N. Puget Sound	Whatcom	Trillium Boat Ramp	Baker Lake	Trillium Corporation	1
N. Puget Sound	Whatcom	Panorama Point Campground	Baker Lake	USFS MBNF Mt Baker RD	1
N. Puget Sound	Whatcom	Shannon Creek Campground	Baker Lake	USFS MBNF Mt Baker RD	1
N. Puget Sound	Whatcom	Colonial Creek Campground	Diablo Lake	NPS North Cascades NP Ross Lk	3
N. Puget Sound	Whatcom	Gorge Lake Campground	Gorge Lake	NPS North Cascades NP Ross Lk	1
N. Puget Sound	Whatcom	Hozomeen Campground	Ross Lake	NPS North Cascades NP Ross Lk	3
Coastal	Clallam	Bear Creek - Sol Duc River	Sol Duc River	Fish & Wildlife Dept of	1
Coastal	Clallam	Sol Duc River - Salmon Hatchery	Sol Duc River	Fish & Wildlife Dept of	1
Coastal	Clallam	Lake Pleasant Comm. Beach	Lake Pleasant (Clallam Co.)	Clallam County of	1
Coastal	Clallam	Iverson - Sol Duc River	Sol Duc River	Fish & Wildlife Dept of	1
Coastal	Clallam	Whitcomb Dimmel - Sol Duc River	Sol Duc River	Fish & Wildlife Dept of	1
Coastal	Clallam	Calawah River - Forks	Calawah River	Fish & Wildlife Dept of	1
Coastal	Clallam	Rearing Pond - Bogacheil River	Bogachiel River	Fish & Wildlife Dept of	1

Coastal	Clallam	Wilson Bridge - Bogacheil River	Bogachiel River	Fish & Wildlife Dept of	1
Coastal	Clallam	Leyendecker Park -Bogacheil River	Bogachiel River	Fish & Wildlife Dept of	1
Coastal	Clallam	Dickey Boat Ramp	Dickey River	NPS Olympic National Park	1
Coastal	Clallam	La Push Marina	Quillayute River	Quileute Tribe	2
Coastal	Clallam	Swan Bay	Ozette Lake	NPS Olympic National Park	1
Coastal	Clallam	Rayonier Landing	Ozette Lake	NPS Olympic National Park	1
Coastal	Clallam	Ozette Ranger Station	Ozette Lake	NPS Olympic National Park	1
Coastal	Clallam	West Wind Resort	Neah Bay	Makah Tribal Council	1
Coastal	Clallam	Big Salmon	Neah Bay	Big Salmon Fishing Resort	2
Coastal	Clallam	Snow Creek Boat Ramp	Discovery Bay	Fish & Wildlife Dept of	2
Coastal	Clallam	Olsen's Marina	Clallam Bay	Olsens Resort & Marina	12
Coastal	Clallam	Van Riper's Resort	Clallam Bay	Clallam Bay	1
Coastal	Clallam	Coho Resort	20. Coho Resort	Coho RV Park	4
Coastal	Clallam	Pillar Point County Park	Strait of Juan de Fuca	Clallam Co Park & Rec District	1
Coastal	Clallam	Jim Creek Fishing Access	Strait of Juan de Fuca	Fish & Wildlife Dept of	2
Coastal	Clallam	Whiskey Creek Beach Resort	Strait of Juan de Fuca	Whiskey Creek Beach Resort	1
Coastal	Clallam	Fairholm Campground	Lake Crescent (Clallam Co.)	NPS Olympic National Park	3
Coastal	Clallam	Log Cabin Resort	Lake Crescent	NPS Olympic National Park	1
Coastal	Clallam	Barnes Point Boat Launch	Lake Crescent	NPS Olympic National Park	3
Coastal	Clallam	Sutherland Lake	Sutherland Lake	Fish & Wildlife Dept of	2
Coastal	Clallam	Lake Mills Day-Use Area	Lake Mills	NPS Olympic National Park	1
Coastal	Clallam	Aldwell Lake	Aldwell Lake	: Fish & Wildlife Dept of	1
Coastal	Clallam	Freshwater Bay County Park	Freshwater Bay	Clallam Co Park & Rec District	1
Coastal	Clallam	Boat Haven West Ramp	Port Angeles Harbor	Port Angeles Port of	4
Coastal	Clallam	Boat Haven East Ramp	Port Angeles Harbor	Port Angeles Port of	2
Coastal	Clallam	Ediz Hook Boat Launch	Port Angeles Harbor	Port Angeles Port of	7
Coastal	Clallam	Thunderbird Boat House	Port Angeles Harbor	Port Angeles Port of	1
Coastal	Clallam	Cline Spit County Park	Dungeness Bay	Clallam Co Park & Rec District	1
Coastal	Clallam	Dungeness Boat Launch Ramp	Dungeness Bay	Port Angeles Port of	4
Coastal	Clallam	Marlyn Nelson Park at Port Williams	Dungeness Bay	Clallam Co Park & Rec District	1
Coastal	Clallam	John Wayne Marina	Sequim Bay	Port Angeles Port of	3
Coastal	Clallam	Sequim Bay State Park	Sequim Bay	State Parks	2
Coastal	Grays Harbor	Lake Quinault - North Shore	Lake Quinault	National Park Service	1
Coastal	Grays Harbor	Falls Creek Campground	Lake Quinault	USFS ONF Quinault RD	1
Coastal	Grays Harbor	Willaby Creek Campground	Lake Quinault	USFS ONF Quinault RD	1
Coastal	Grays Harbor	Coho Campground	Wynoochee Lake	USFS ONF Quinault RD	2
Coastal	Grays Harbor	Humtulpils River - Hwy 101	Humtulpils River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Reynvaan Bar - Humtulpil River	Humtulpils River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Failor Lake	Failor lake	Fish & Wildlife Dept of	2
Coastal	Grays Harbor	Thorberg - Humtulpil River	Humtulpils River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Humtulpil River - Morley	Humtulpils River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	North Bay Park	Duck Lake (Grays Harbor Co.)	Ocean Shores City of	2

Coastal	Grays Harbor	Chinook City Park	Duck Lake (Grays Harbor Co.)	Ocean Shores City of	2
Coastal	Grays Harbor	Ocean Shores Marina	North Bay	Quinault Indian Nation	1
Coastal	Grays Harbor	East Fork Hoquiam River	East Fork - Hoquiam River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Little Hoquiam River	Little Hoquiam River	Hoquiam Parks & Rec Dept	1
Coastal	Grays Harbor	9th Street Landing and Rayonier Point	Hoquiam River	Hoquiam Parks & Rec Dept	1
Coastal	Grays Harbor	28th Street Boat Launch	Grays Harbor	Grays Harbor Port of	2
Coastal	Grays Harbor	Long Swamp - Wishkah River	Wishkah River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Aberdeen Ramp	Chehalis River	Aberdeen City of	1
Coastal	Grays Harbor	Weyerhaeuser Boat Ramp - Chehalis River	Chehalis River	Weyerhaeuser Company	2
Coastal	Grays Harbor	White Bridge W. - Wynoochee River	Wynoochee River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Black Creek - Wynoochee River	Wynoochee River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Friends Landing	Chehalis River	Grays Harbor Co Parks & Rec	1
Coastal	Grays Harbor	S. Monte - Chehalis River	Chehalis River	Fish & Wildlife Dept of	2
Coastal	Grays Harbor	2West Branch - Satsop River	West Fork - Satsop River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Highway 12 Bridge - Satsop River	Satsop River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Fuller Bridge - Chehalis River	Chehalis River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Porter Bridge - Chehalis River	Chehalis River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Oakville - Chehalis River	Chehalis River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Black River - Oakville	Black River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Johns River WRA	Johns River	Fish & Wildlife Dept of	1
Coastal	Grays Harbor	Westport Marina	Grays Harbor	Grays Harbor Port of	5
Coastal	Jefferson	Hartzell Creek Boat Ramp	Queets River	National Park Service	1
Coastal	Jefferson	Cottonwood	Hoh River	Natural Resources Dept of	2
Coastal	Jefferson	Hoh Oxbow	Hoh River	Natural Resources Dept of	1
Coastal	Jefferson	Bogachiel River - VanAusdale	Bogachiel River	Fish & Wildlife Dept of	1
Coastal	Jefferson	Hoh River - Morgans Crossing	Hoh River	Fish & Wildlife Dept of	1
Coastal	Jefferson	Triton Cove	Triton Cove	State Parks	2
Coastal	Jefferson	Point Whitney Ramp	Dabob Bay	US Navy	2
Coastal	Jefferson	Quilcene Marina	Quilcene Bay	Port Townsend Port of	1
Coastal	Jefferson	Leland Lake	Leland Lake	Fish & Wildlife Dept of	2
Coastal	Jefferson	Tarboo Lake	Tarboo Lake	Fish & Wildlife Dept of	1
Coastal	Jefferson	Crocker Lake	Crocker Lake	Fish & Wildlife Dept of	2
Coastal	Jefferson	Gardiner Boat Launch	Discovery Bay	Port Townsend Port of	1
Coastal	Jefferson	North Beach County Park	Strait of Juan de Fuca	Jefferson County Parks	1
Coastal	Jefferson	Fort Worden State Park	Admiralty Inlet	State Parks	3
Coastal	Jefferson	Fleet Marine Travelift	Admiralty Inlet	Fleet Marine Inc	1
Coastal	Jefferson	Point Hudson Jetty	Strait of Juan de Fuca	Port Townsend Port of	1
Coastal	Jefferson	Port Townsend Salmon Club Inc	Admiralty Inlet	Port Townsend Salmon Club Inc	1
Coastal	Jefferson	Port Townsend Boat Haven	Admiralty Inlet	Port Townsend Port of	0
Coastal	Jefferson	Fort Flagler State Park	Port Townsend	State Parks	3
Coastal	Jefferson	Mystery Bay State Park	Kilisut Harbor	State Parks	1
Coastal	Jefferson	Lower Port Hadlock Boat Launch	Port Townsend	Port Townsend Port of	3
Coastal	Jefferson	Lower Oak Bay Park	Oak Bay	Jefferson County Parks	1

Coastal	Jefferson	Mats Mats Boat Launch	Mats Bay	Port Townsend Port of	2
Coastal	Jefferson	Port Ludlow Marina	Port Ludlow	Port Ludlow Marina	1
Coastal	Jefferson	William Hicks County Park Ramp	Squamish Harbor	Jefferson County Parks	1
Coastal	Jefferson	Termination Point Ramp	Hood Canal	State Parks	2
Coastal	Kitsap	Point No Point	Admiralty Inlet	Fish & Wildlife Dept of	1
Coastal	Kitsap	Salsbury Point Park	Hood Canal	Kitsap County Fair and Parks	4
Coastal	Kitsap	Eglon Boat Launch	Puget Sound	Eglon Port of	1
Coastal	Kitsap	Kingston Cove Marina	Appletree Cove	Kingston Port of	2
Coastal	Kitsap	Port of Poulsbo Marina	Liberty Bay	Poulsbo Port of	1
Coastal	Kitsap	Miller Bay Ramp	Miller Bay	Bay Storage	2
Coastal	Kitsap	Keyport Boat Ramp	Liberty Bay	Keyport Port of	2
Coastal	Kitsap	Charles Lawrence Memorial Boat Ramp	Port Madison	Suquamish Tribe	1
Coastal	Kitsap	Fay-Bainbridge State Park	Puget Sound	State Parks	1
Coastal	Kitsap	Misery Point - Hood Canal	Hood Canal	Fish & Wildlife Dept of	1
Coastal	Kitsap	Waterfront Park (Silverdale)	Dyes Inlet	Silverdale Port of	3
Coastal	Kitsap	Port of Brownsville Marina	Burke Bay	Brownsville Port of	3
Coastal	Kitsap	Wildcat Lake	Wildcat Lake	Fish & Wildlife Dept of	1
Coastal	Kitsap	Chico Boat Ramp	Chico Bay	Bremerton Port of	1
Coastal	Kitsap	Tracyton Boat Ramp	Dyes Inlet	Tracyton Port of	1
Coastal	Kitsap	Illahee State Park	Port Orchard	State Parks	2
Coastal	Kitsap	Eagle Harbor Waterfront Park	Eagle Harbor	Bainbridge Island City of	2
Coastal	Kitsap	Kitsap Lake	Kitsap Lake	Fish & Wildlife Dept of	1
Coastal	Kitsap	Lions Park (Bremerton)	Port Washington Narrows	Bremerton Parks & Rec Dept	4
Coastal	Kitsap	Evergreen Park - Bremerton	Port Washington Narrows	Bremerton Parks & Rec Dept	3
Coastal	Kitsap	Fort Ward State Park	Rich Passage	State Parks	2
Coastal	Kitsap	Mission Lake	Mission Lake	Fish & Wildlife Dept of	1
Coastal	Kitsap	Tiger Lake	Tiger Lake	Fish & Wildlife Dept of	4
Coastal	Kitsap	Water Street Boat Launch	Sinclair Inlet	Port Orchard Parks & Rec Dept	3
Coastal	Kitsap	Retsil - Puget Sound	Sinclair Inlet	Fish & Wildlife Dept of	1
Coastal	Kitsap	Pomeroy Park	Puget Sound	Manchester Port of	3
Coastal	Kitsap	Yukon Harbor/ Harper Boat Access	Yukon Harbor	State Parks	1
Coastal	Kitsap	Square Lake State Park	Square Lake	State Parks	1
Coastal	Kitsap	Long Lake - Kitsap	Long Lake (Kitsap Co.)	Fish & Wildlife Dept of	1
Coastal	Kitsap	Long Lake Park	Long Lake (Kitsap Co.)	Kitsap County Fair and Parks	1
Coastal	Kitsap	Horseshoe Lake	Horseshoe Lake (Kitsap Co.)	Fish & Wildlife Dept of	1
Coastal	Kitsap	Olalla Boat Ramp	Colvos Passage	Bremerton Port of	1
Coastal	Mason	Mike's Beach Resort	Hood Canal	Mikes Beach Resort	1
Coastal	Mason	Lake Cushman State Park	Lake Cushman	State Parks	3
Coastal	Mason	Lake Cushman Resort	Lake Cushman	Lake Cushman Resort	2
Coastal	Mason	Cushman Lake	Lake Cushman	Fish & Wildlife Dept of	1
Coastal	Mason	Hood Canal Recreational Park	The Great Bend	Tacoma Public Utilities	2
Coastal	Mason	Skokomish River - Smith	Skokomish River	Fish & Wildlife Dept of	1
Coastal	Mason	Nahwatzel Lake	Nahwatzel Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Shafer State Park	East Fork - Satsop River	State Parks	1
Coastal	Mason	Lost Lake	Lost Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Lake Isabella	Lake Isabella	Fish & Wildlife Dept of	1
Coastal	Mason	Arcadia Point Public Boat	Totten Inlet	Squaxin Island Tribe	2

		Ramp			
Coastal	Mason	Shorecrest Park	Hammersley Inlet	Mason County Parks & Rec	1
Coastal	Mason	Shelton Boat Ramp	Oakland Bay	Shelton Port of	1
Coastal	Mason	Island Lake - Mason	Island Lake (Mason Co.)	Fish & Wildlife Dept of	1
Coastal	Mason	Latimer's Landing	Pickering Passage	Mason County Parks & Rec	2
Coastal	Mason	Phillips Lake	Phillips Lake	Fish & Wildlife Dept of	2
Coastal	Mason	Spencer Lake Resort	Spencer Lake	Spencer Lake Resort	2
Coastal	Mason	Spencer Lake	Spencer Lake	Fish & Wildlife Dept of	2
Coastal	Mason	Limerick Lake	Limerick Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Union Ramp	Hood Canal	Mason County of	2
Coastal	Mason	Twanoh State Park	Hood Canal	State Parks	2
Coastal	Mason	Mason Lake Park & Boat Launch	Mason Lake	Mason County Parks & Rec	3
Coastal	Mason	Fairharbor Boat Ramp	Case Inlet	Grapeview Port of	3
Coastal	Mason	Port of Allyn Waterfront Park	North Bay (Case Inlet)	Allyn Port of	3
Coastal	Mason	Deveraux Lake	Devereux Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Port of Allyn Public Boat Ramp	Hood Canal	Allyn Port of	1
Coastal	Mason	Howell Lake Campground and Picnic Area	Howell Lake	Natural Resources Dept of	1
Coastal	Mason	Tee Lake	Tee Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Menards Landing	Hood Canal	Tahuya Port of	1
Coastal	Mason	Robbins Lake	Robbins Lake	Natural Resources Dept of	1
Coastal	Mason	Aldrich Lake-P. Sharp	Aldrich Lake	Natural Resources Dept of	1
Coastal	Mason	Haven Lake	Haven Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Wooten Lake	Wooten Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Twin (Spider) Lake	Twin (Spider) Lake	Fish & Wildlife Dept of	1
Coastal	Mason	Panther Lake	Panther Lake (Mason Co.)	Fish & Wildlife Dept of	1
Coastal	Pacific	Tokeland Boat Launch	Willapa Bay	Willapa Harbor Port of	2
Coastal	Pacific	North River Resort	North River	North River Resort	1
Coastal	Pacific	Smith Creek	Smith Creek	Fish & Wildlife Dept of	1
Coastal	Pacific	Helen Davis Memorial Park	Willapa River	South Bend City of	1
Coastal	Pacific	Raymond Riverfront Park	Willapa River		4
Coastal	Pacific	Willapa Wilson	Willapa River	Fish & Wildlife Dept of	2
Coastal	Pacific	Palix River	Palix River	Fish & Wildlife Dept of	2
Coastal	Pacific	Nahcotta Boat Basin	Willapa Bay	Peninsula Port of	1
Coastal	Pacific	Loomis Lake	Loomis Lake	Fish & Wildlife Dept of	2
Coastal	Pacific	Island Lake - Pacific	Island Lake (Pacific Co.)	Fish & Wildlife Dept of	1
Coastal	Pacific	Willapa National Wildlife Refuge	Willapa Bay	US Fish & Wildlife Service	2
Coastal	Pacific	Resort Hotel - Naselle River	Naselle River	Fish & Wildlife Dept of	1
Coastal	Pacific	Fort Canby State Park	Baker Bay	State Parks	3
Coastal	Pacific	Ilwaco Boat Launch	Baker Bay	Ilwaco Port of	7
Coastal	Pacific	Port of Chinook	Baker Bay	Chinook Port of	5
Coastal	Pacific	Chinook County Park (Pacific Co.)	Baker Bay	Pacific County Parks & Rec	1
Coastal	Pacific	Knappton Boat Launch	Columbia River	Fish & Wildlife Dept of	2
Coastal	Pierce	Crescent Lake	Crescent Lake	Fish & Wildlife Dept of	1
Coastal	Pierce	Wuana/Purdy Spit	Henderson Bay	Pierce County of	1
Coastal	Pierce	Vaughn Bay	Vaughn Bay	Pierce County of	1
Coastal	Pierce	Gig Harbor Boat Ramp	Gig Harbor	Pierce County of	1
Coastal	Pierce	Jackson Lake	Jackson Lake	Fish & Wildlife Dept of	1
Coastal	Pierce	Home Boat Ramp	Van Geldern Cove	Pierce County Parks & Rec	1

Coastal	Pierce	Lakebay Marina	Mayo Cove	Lakebay Marina	1
Coastal	Pierce	Bay Lake	Bay Lake	Fish & Wildlife Dept of	3
Coastal	Pierce	Joemma Beach State Park	Case Inlet	State Parks	2
Coastal	Pierce	Longbranch Ramp	Drayton Passage	Pierce County of	1
Coastal	Pierce	Horsehead Bay	Horsehead Bay	Pierce County of	1
Coastal	Pierce	Fox Island	Hale Passage	Pierce County of	1
Coastal	Pierce	Wollochet 2	Wollochet Bay	Pierce County of	1
Coastal	Pierce	Wollochet 1	Hale Passage	Pierce County of	1
Coastal	Pierce	Narrows Marina	The Narrows	Narrows Marina	2
Coastal	Pierce	Point Defiance Waterfront	Commencement Bay	Tacoma MPD	6
Coastal	Pierce	Asarco Boat Ramp	Commencement Bay	Asarco Inc	1
Coastal	Pierce	Totem Marina	Commencement Bay	Totem Marina	4
Coastal	Pierce	Ole & Charlie's Marina	Commencement Bay	Ole & Charlie's Marina	1
Coastal	Pierce	Lake Tapps County Park	Lake Tapps	Pierce County Parks & Rec	5
Coastal	Pierce	Bonney Lake	Bonney Lake	Fish & Wildlife Dept of	2
Coastal	Pierce	Allen Yorke Park	Church Lake	Bonney Lake City of	5
Coastal	Pierce	Steilacoom Boat Launch	Puget Sound	Steilacoom Parks & Comm Svcs	2
Coastal	Pierce	Steilacoom Lake Park	Steilacoom Lake	Pierce County Parks & Rec	1
Coastal	Pierce	American Lake North Park	American Lake	Lakewood City of	4
Coastal	Pierce	American Lake	American Lake	Fish & Wildlife Dept of	2
Coastal	Pierce	Spanaway Park	Spanaway Lake	Pierce County Parks & Rec	3
Coastal	Pierce	Erickson Boats	Lake Kapowsin	Erickson Boats	2
Coastal	Pierce	Whitman Lake	Whitman Lake	Fish & Wildlife Dept of	1
Coastal	Pierce	Benbow Resort	Tanwax Lake	Camp Benbow Camp Retreat	2
Coastal	Pierce	Clear Lake - Pierce	Clear Lake (Pierce Co.)	Fish & Wildlife Dept of	1
Coastal	Pierce	Tanwax Lake	Tanwax Lake	Fish & Wildlife Dept of	1
Coastal	Pierce	Harts Lake	Harts Lake	Fish & Wildlife Dept of	1
Coastal	Pierce	Rapjohn Lake	Rapjohn Lake	Fish & Wildlife Dept of	1
Coastal	Pierce	Silver Lake Resort	Silver Lake (Pierce Co.)	Silver Lake Motel and Resort	2
Coastal	Pierce	Ohop Lake	Ohop Lake	Fish & Wildlife Dept of	1
Coastal	Pierce	Alder Lake Park	Alder Lake	Tacoma Public Utilities	3
Coastal	Pierce	Rocky Point Recreation Area	Alder Lake	Tacoma Public Utilities	1
Coastal	Thurston	Boston Harbor Boat Ramp	Budd Inlet	Thurston County Parks & Rec	1
Coastal	Thurston	Budinich Boat Ramp	Henderson Inlet		1
Coastal	Thurston	Zittel's Marina	Baird Cove	Zittel's Marina	3
Coastal	Thurston	Puget Marina	Nisqually Reach	Puget Marina	2
Coastal	Thurston	Nisqually Delta-Luhrs Landing	Nisqually Delta	Fish & Wildlife Dept of	1
Coastal	Thurston	Summit Lake	Summit Lake	Fish & Wildlife Dept of	2
Coastal	Thurston	East Bay Marina	Budd Inlet	Olympia Port of	3
Coastal	Thurston	Chambers Lake	Chambers Lake	Thurston County Parks & Rec	1
Coastal	Thurston	Salmon Shores Resort	Black Lake	Salmon Shores Resort	1
Coastal	Thurston	Columbus Park	Black Lake	Knights of Columbus Club	2
Coastal	Thurston	Black Lake	Black Lake	Fish & Wildlife Dept of	2
Coastal	Thurston	Heritage Park	Capitol Lake	General Admin Dept of	1
Coastal	Thurston	Ward Lake	Ward Lake	Fish & Wildlife Dept of	1
Coastal	Thurston	Munn Lake	Munn Lake	Fish & Wildlife Dept of	1
Coastal	Thurston	Hicks Lake	Hicks Lake	Fish & Wildlife Dept of	1
Coastal	Thurston	Long Lake - Thurston	Long Lake-Thurston Co	Fish & Wildlife Dept of	1

Coastal	Thurston	Patterson Lake	Patterson Lake (Thurston)	Fish & Wildlife Dept of	1
Coastal	Thurston	St. Clair Lake	St. Clair Lake	Fish & Wildlife Dept of	1
Coastal	Thurston	Black River - Gate - Rochester	Black River	Fish & Wildlife Dept of	1
Coastal	Thurston	Black River - Littlerock	Black River	Fish & Wildlife Dept of	1
Coastal	Thurston	Millersylvania State Park	Deep Lake- Thurston	State Parks	2
Coastal	Thurston	Offut Lake	Offut Lake	Fish & Wildlife Dept of	1
Coastal	Thurston	McIntosh Lake	McIntosh Lake	Fish & Wildlife Dept of	2
Coastal	Thurston	Lawrence Lake	Lawrence Lake	Fish & Wildlife Dept of	1
Coastal	Thurston	Clear Lake - Thurston	Clear Lake - Thurston	Fish & Wildlife Dept of	2

Table 3. List of signs delivered or sent via mail.

Washington	Agency	Location Name
39	Washington State Parks	Northwest Region
25	Washington State Parks	Puget Sound Region
13	Washington State Parks	Southwest Region
2	Washington State Parks	Fort Warden State Park
1	Washington State Parks	Green River Gorge
12	USDA Forest Service	Olympic National Forest
15	Seattle City Parks	
5	Skagit County Parks	
12	Island County Parks	
1	Mt. Vernon City parks	
125	Washington Total	
Oregon		
24	Oregon State Marine Board	Clatsop County
20	Oregon State Marine Board	Columbia County
10	Oregon State Marine Board	Clackamas County
33	Oregon State Marine Board	Coos County
28	Oregon State Marine Board	Curry County
26	Oregon State Marine Board	Douglas County
41	Oregon State Marine Board	Lane County
55	Oregon State Marine Board	Lincoln County
58	Oregon State Marine Board	Multnomah County
30	Oregon State Marine Board	Tillamook County
unknown	Army Corps Of Engineers	
25	BLM	Coos Bay District (North Bend)
15	USFS	Suislaw National Forest
4	USFS	Willamette National Forest-Eugene
369	Oregon Total	

Table 4. List of signs posted. A complete database is maintained at the Center for Lakes and Reservoirs, Portland State University.

Installation Date	Sign Type	State	Location Name
8/25/05	Wanted Mitten Crab B/W	WA	Big Creek Campground
8/25/05	Wanted Mitten Crab B/W	WA	Brown Creek Campground
8/25/05	Wanted Mitten Crab B/W	WA	Coho Campground
8/25/05	Wanted Mitten Crab B/W	WA	Dungeness Forks Campground
8/30/05	Wanted Mitten Crab B/W	WA	Edgewater Park
9/25/05	Wanted Mitten Crab B/W	WA	Fay-Bainbridge State Park
9/10/05	Wanted Mitten Crab B/W	WA	Flaming Geyser State Park, Green River Gorge
9/25/05	Wanted Mitten Crab B/W	WA	Fort Ward State Park
9/30/05	Wanted Mitten Crab B/W	WA	Fort Worden State Park
9/10/05	Wanted Mitten Crab B/W	WA	Hope Island State Park
9/24/05	Wanted Mitten Crab B/W	WA	Illahee State Park
9/10/05	Wanted Mitten Crab B/W	WA	Jarrell Cove State Park
10/1/05	Wanted Mitten Crab B/W	WA	Kopachock State Park
8/25/05	Wanted Mitten Crab B/W	WA	Seal Rock Campground
7/8/05	Wanted Mitten Crab B/W	OR	Big Barn Marina and RV Park
5/14/05	Wanted Mitten Crab B/W	OR	Bullards Beach State Park
7/8/05	Wanted Mitten Crab B/W	OR	Cape Lookout State Park
7/8/05	Wanted Mitten Crab B/W	OR	Cape Meares
5/14/05	Wanted Mitten Crab B/W	OR	Coos Bay-Public Boat Ramp
7/8/05	Wanted Mitten Crab B/W	OR	Downtown Tillamook
7/7/05	Wanted Mitten Crab B/W	OR	East Devil's Lake State Park Boat Launch
7/8/05	Wanted Mitten Crab B/W	OR	Long Prarie Road Launch
7/8/05	Wanted Mitten Crab B/W	OR	Memaloose Point
7/8/05	Wanted Mitten Crab B/W	OR	Netarts Bay RV Park and Marina
7/8/05	Wanted Mitten Crab B/W	OR	Netarts Boat Launch Ramp
7/7/05	Wanted Mitten Crab B/W	OR	Pacific City County Boat Ramp
7/7/05	Wanted Mitten Crab B/W	OR	Pacific City Launch
5/14/05	Wanted Mitten Crab B/W	OR	Port of Bandon
5/14/05	Wanted Mitten Crab B/W	OR	Port of Charleston
5/14/05	Wanted Mitten Crab B/W	OR	Rocky Point County Park
7/8/05	Wanted Mitten Crab B/W	OR	Sand Lake Recreation Area
5/14/05	Wanted Mitten Crab B/W	OR	Sunset Jetty-Charleston
7/7/05	Wanted Mitten Crab B/W	OR	Three Rocks-Knight Park
7/8/05	Wanted Mitten Crab B/W	OR	Wayside
7/7/05	Wanted Mitten Crab B/W	OR	Whalen Island Park

Appendix A

Please complete and return to:

Laura Johnson
Center for Lakes and Reservoirs
Environmental Sciences and Resources Program
Portland State University
P.O. Box 751
Portland, OR 97207
FAX (503) 725-3834

Email:ljohnso@pdx.edu

Signs Data Sheet

Place Name _____

Ownership: Private/Agency (circle) Agency Name _____

Operator Name: _____

Type of Location: Unimproved Boat Ramp Usage: Hi/ Med/ Low/ Unknown (circle)
(circle) Improved Boat Ramp
Misc. Boat Ramp
Bait Shop
Fishing location
Other _____

Contact Person: Name, Phone, Address, Email _____
(if available) _____

Driving Directions: _____

Location Address: _____

County _____ State _____ Water Body _____

Lat-decimal degrees _____ Long-decimal degrees _____

Comments: _____

Sign Type Posted: Stop Harmful Species/ Mitten Crabs (circle)
Date Posted: _____ Installed by (your name): _____

Where was sign installed? Post/ Sign board/ Tree/ Kiosk/ Window/ Other/ Unknown

Visibility of sign from Ramp: Hi/ Moderate/ Low

THANKS!!!!