



Human Ecology

Field Projects

June 29, July 13, 24 & 31; August 3, 9 & 16,
2007

Juvenile Spot Prawn Survey

SERVICE OBJECTIVES:

- Contribute to the efforts by Washington Department of Fish and Wildlife and Snohomish County Marine Resources Committee to identify and assess habitat of Puget Sound shellfish.
- Assist Washington Department of Fish and Wildlife with a survey of juvenile spot prawn habitat along the beach at Picnic Point and below the low tide line between Picnic Point and Mukilteo.
 - We will conduct surveys along the beach at Picnic Point.
 - We will conduct surveys via traps and a boat between Mukilteo and Picnic Point.
 - We will measure and weigh trapped prawns to track growth and settlement patterns over time
- Answer the following research questions:
 - Where is the juvenile spot prawn habitat in Snohomish County marine waters?
 - Which types do they prefer?
 - When do juveniles settle and reside in this habitat?
 - How does growth proceed in this habitat and when do most juveniles move to habitat characteristic of adults?
- Help the county and state to develop public policy using the best available science.
- Assist People For Puget Sound and Snohomish County Parks and Recreation in the maintenance of Picnic Point park.
 - Remove invasive species (mostly English Ivy) from the backshore area.
 - Clean and help maintain trails.

LEARNING OBJECTIVES:

- Identify and assist government agencies and non-profit organizations involved in sustainable stewardship.
 - Familiarize yourself with the Northwest Straits Commission, Snohomish County Marine Resources Committee, Snohomish County Parks and

Recreation, Washington Department of Fish and Wildlife, and People For Puget Sound.

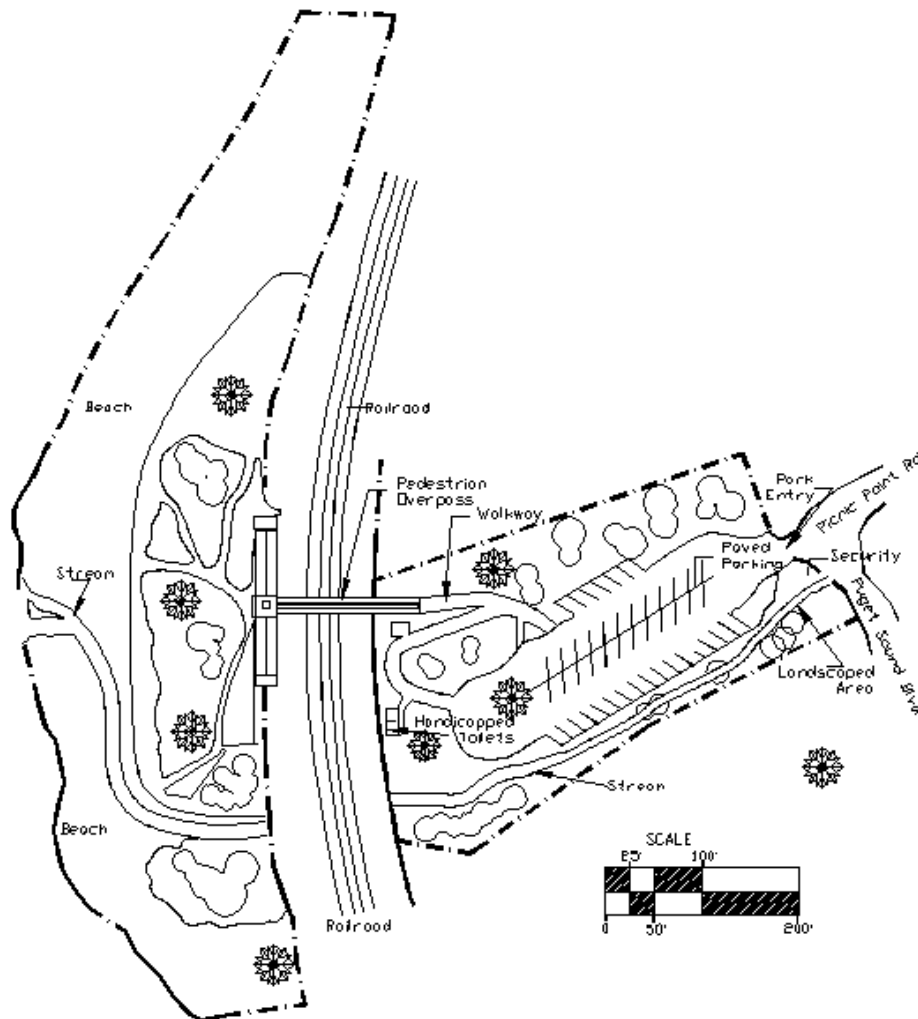
- Describe the significance of the back shore, near shore and intertidal zones to the ecosystem (including humans) of Western Washington.
 - Recognize spot prawn and distinguish them from other prawns and shellfish.
 - Describe the importance of the spot prawn fishery in Washington's economy.
 - Recognize English Ivy and distinguish it from native plants.
 - Identify the native plants that occupy the backshore zone, especially Nootka Rose, Dune Rye Grass and Shore Pine.
 - Recognize and distinguish common species of intertidal macrophytes in Puget Sound: Native Eelgrass, Surfgrass, Sea Lettuce, Green Ribbon, Rockweed, Nailbrush or Sea Moss, Turkish Towel, Turkish Washcloth (Black Tar Spot), Black Pine, Wireweed or Strangle Weed, Winged Kelp, and *Acrosiphonia coalita*.
 - Distinguish between the following eight habitat types: silt/sand and eelgrass; silt/sand and macroalgae; silt/sand and mixed vegetation; silt/sand and no vegetation; gravel/cobble and vegetation; gravel/cobble and no vegetation; mixed substrates with vegetation; and mixed substrates with no vegetation.
 - Use a key to identify other species of shellfish as well as sponges, cnidarians (anemones, hydroids, jellies), worms, mollusks, crustaceans, echinoderms, and others marine animals.
 - On June 29th visit Alderwood Manor Heritage Cottage in Lynnwood.
 - Outline the historical patterns of land use in the Lynnwood/Alderwood area.
 - Describe Puget Mill Company and their relationship to Alderwood Manor.
 - Maintain field notes recording your activities.
 - Start a new page of field notes for each day of service. Do not remove pages. If you make an error, cross it out, and proceed.
 - Include the following information for each service project:
 - Name of site where you are working.
 - Date and time of day.
 - Weather conditions.
 - Latitude, longitude, and altitude of one or more reference points. Include a description of the reference point(s) and relationship(s) to the work site.
 - Names of other volunteers with whom you worked.
 - Names and descriptions of the plants and animals you learned to identify.
 - Two to three pages of descriptions of the days activities (can include the descriptions of plants and animals) and how these activities helped you meet the objectives outlined above.
 - Whether or not you carpooled and with whom.
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DESCRIPTION AND LOCATION:

Check the syllabus for a schedule. Some days we will go to Picnic Point beach. Others we will go to the Everett Marina from which we will take a boat with WDFW.

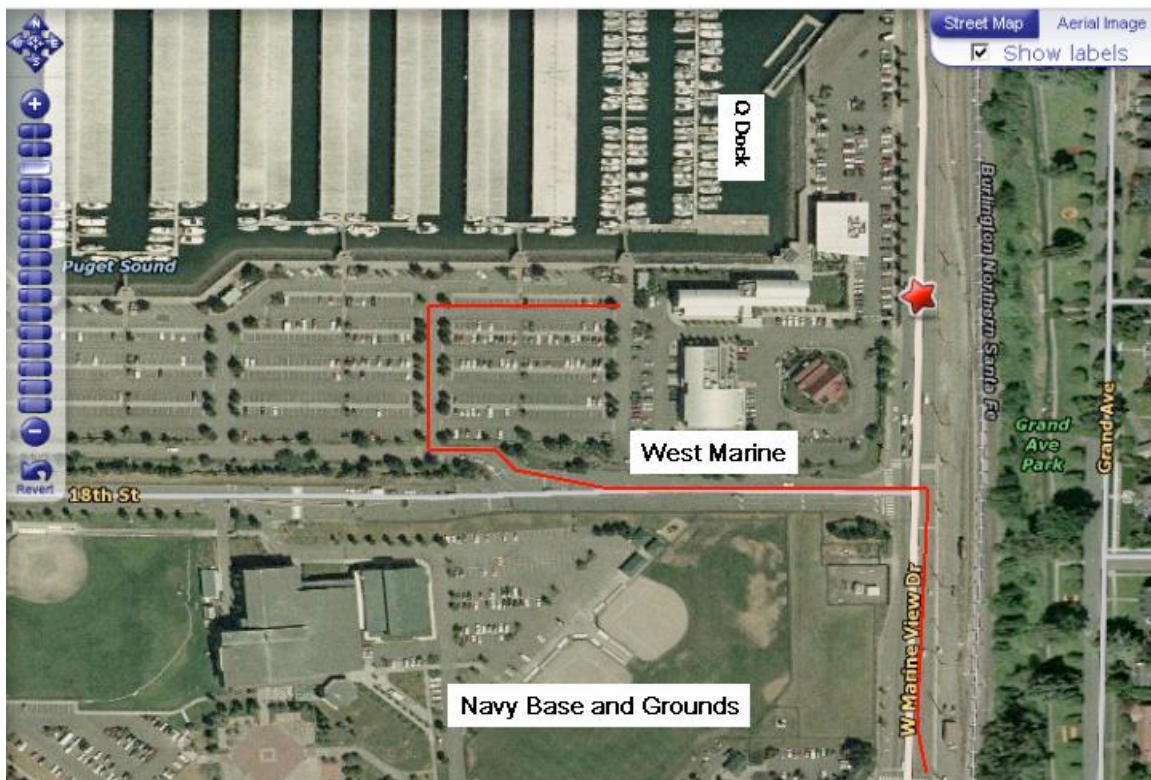
Directions from campus to Picnic Point Park (from Map Quest, edited):

- 1: Start out going EAST on 200TH ST SW
- 2: Turn LEFT onto WA-99. 2.2 miles
- 3: Turn LEFT onto 168TH ST SW. 0.4 miles
- 4: Turn RIGHT onto 52ND AVE W. 1.7 miles
- 5: Turn LEFT onto PICNIC POINT RD. 0.1 miles
- 6: Turn RIGHT to stay on PICNIC POINT RD. 1.3 miles
- 7: End at **Picnic Point County Park**, 7200 Picnic Point Rd, Edmonds, WA 98026, US
- 8: Park in the parking lot and follow bridge across railroad tracks to the beach.



Directions to Everett Marina's south basin where the WDFW boat is moored at dock Q, space Q13. From Don Velasquez. See the aerial photo pasted below.

- Take I-5 northbound to the Pacific Avenue exit in Everett (Exit 193)
- From the exit, proceed westbound on Pacific Avenue through downtown Everett to West Marine View Drive.
- Turn right on West Marine View drive and continue north passing the Kimberly Clark Plant and the Everett Navy Base.
- Continue past the 19th St light which is the main entrance to the Navy Base.
- Turn left at the 18th St light (the next intersection) and get immediately into the right lane.
- Take a right into Everett Marina Parking Lot, south basin.
- Drop people off by the gate to Q dock and park in the long term parking where no permit is required.



TRANSPORTATION:

We will meet at 8:00 am at the south entrance to Snohomish Hall on the dates indicated on the syllabus and at the top of this field guide. We will proceed from there to the various work sites. In the interest of minimizing pollution and enhancing your learning experiences we recommend traveling to and from the site in carpools.

In an emergency you may contact Tom Murphy via cell phone, 425-478-5567.

WHAT TO BRING:

Please come prepared to get dirty, rain or shine. Bring the following items.

- One pair of rubber-palmed gardening gloves.
 - Water-resistant coat and pants (if raining).
 - Short rubber boots (for boat).
 - Lunch.
 - Water or a non-disposable mug or cup.
 - Three-ring binder.
 - Field notes.
 - Hat (recommended).
 - Pojar & Mackinnon's *Plants of the Pacific Northwest Coast* (recommended).
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PRE-FIELD ASSIGNMENTS:

- Read this field packet, especially the attached material about prawns. Read Snohomish County Marine Fact Sheets for Dungeness Crab and Eel Grass (linked below).
 - http://www.co.snohomish.wa.us/documents/Departments/Public_Works/surfacewatermanagement/marine/2001_06DungenessCrab.pdf
 - http://www.co.snohomish.wa.us/documents/Departments/Public_Works/surfacewatermanagement/marine/2001_06Eelgrass.pdf
- Visit Oregon State University's Tide Pool Page and review the main features of the interactive site (also linked to your Blackboard classroom).
<http://hmsc.oregonstate.edu/projects/rocky/intro.html>
- Peruse the material at WDFW's web site about prawns and shrimps. Explore their web site.
 - <http://wdfw.wa.gov/fish/shelfish/shrimpreg/shrimp.htm>
- Visit the web pages for the Northwest Straits Commission and Snohomish County Marine Resources Committee. Read the introductory pages and browse other sections of the sites.
 - <http://www.nwstraits.org/nsi.html>
 - <http://marine.surfacewater.info/>