

Zone 19									
Shore	south								
Total Surveys	6								
Start Point	Halibut Cove (Right Beach Campsite)								
Start Lat/Long									
End Point	Peterson Point								
End Lat/Long									
Dates Walked	1988, 91, 2000-01, 2003-06								
Spring Surveys	3								
Fall Surveys	7								
First Walked	1988								
Last Walked	2006								
Total Person-Hours	102.25								
Total Trash Bags Collected	11								
Total Estimated Weight of Trash Collected	285								
General Info									
	halibut cove lagoon						halib		
Date	30-Apr-88	4-May-91	9-May-91	17-Sep-00	8-Oct-01	07.09.03	9.24.04	9.14.05	9.15.06
Start Time			1400		1330		1200	1830	1615
End Time			1545		1500		1400	1930	1915
Lowest Tide					5				
at time					1230				
Temperature (F)				40+	42	65	55		19c
Sky				sunny	cloudy	sunny	clear	clear	clouds/rain
Vertical Zones Walked:									
High						x	x	x	x
Middle					x			x	
Low	x			x			x	x	
# of Observers	2	2	1	2	2	3	3	8	13
Hours Spent	2	4	1.75	2	1.5	4.5	2	1	3
Person-Hours	4	8	1.75	4	3	13.5	6	8	39
Shoreline Walked (miles)			1.75	3	1.5	1	1	3	2
Total Trip Mileage						1	3.5		2.5
Did Observers . . .									
Hike?		x			x	x	x	x	x
Kayak?	x			x					

Date	30-Apr-88	4-May-91	9-May-91	17-Sep-00	8-Oct-01	07.09.03	9.24.04	9.14.05	9.15.06
Other (specify)?		boat	rowboat			skiffed			
Trash Bags Collected						5	1	2	2
Estimated Weight of Collected Trash						210	10		40
<u>Wildlife</u>									
<i>Birds</i>									
Loons						0	3	1	3
Sea Ducks			17		16	0		8	
Other Ducks and Geese	6					0		1	
Bald Eagles									
Adults	2	4		1	1	0	1	2	2
Immatures	1	2	1			0		1	
Nests	1				1	0			
Shorebirds			2			0			
Seabirds	4	300	21	14	6	es, 2 g.wing	68	65	78+
Crows and Ravens			15			0		1	1
Others (see separate Bird list)			5				8 wild turkeys	1 great blue he	
<i>Domestic Mammals</i>									
Cattle						0	0		
Horses						9	7		
Dogs		2		1		1	0	1	2
Other						0	0	chickens 6	
<i>Land Mammals</i>									
Moose									
Adults						0	0		
Calves						0	0		
Black Bears						0	0		
Brown Bears						0	0		
Land/River Otters						0	0	1	
Red Squirrels			2			0	x		
Tracks Identified			moose			0	0		coyote
Other							0		
<i>Marine Mammals</i>									
Sea Otters		1				0	0	2	
Harbor Seals	2			1		5	0		11

Date	30-Apr-88	4-May-91	9-May-91	17-Sep-00	8-Oct-01	07.09.03	9.24.04	9.14.05	9.15.06
Frilled Dogwinkle									
File Dogwinkle									
Big-mouth Whelk	x								
Nudibranchs									
Maned Nudibranch									
False Sea Lemon (False Lemon Peel)									
Orange-tipped Nudibranch									
Opalescent Nudibranch									
Bushy-backed Nudibranch									
Clams		x	x						
Nuttal's Cockle									
Northwest Ugly Clam									
Arctic Rock Borer									
Baltic Macoma									
Stained Macoma									
Pacific Surf Clam									
Truncated Mya									
Steamer Clam (Pacific Littleneck Clam)							x	x	
Butter Clam						x		x	
Razor Clam									
Mussels	x	x	x	x					
Horse Mussel									
Pacific Blue Mussel						x		x	x
Scallops									
Pink Scallop									
Jingles									
Rock Jingle									
Cephalopods									
Giant Pacific Octopus									
Stubby Squid									
Arthropods									
Barnacles		x	x	x					
Acorn Barnacle								x	x
Pelagic Gooseneck Barnacle							x		
Thatched Acorn Barnacle									
Crabs		x	x						

Date	30-Apr-88	4-May-91	9-May-91	17-Sep-00	8-Oct-01	07.09.03	9.24.04	9.14.05	9.15.06
Dungeness Crab						x			x
Black-clawed Cancer Crab									x
Red Hermit Crab								x	
Striped Hermit Crab						x			
Decorator Crab									
Carapace Crab									
Red King Crab									
Northern Kelp Crab									
Helmet Crab									x
Shrimp									
Broken-back Shrimp									
Coonstripe Shrimp									
Sand Shrimp									
Isopods									
Pillbug Isopod									
Rockweek Isopod							x		
Amphipods									
Skeleton Shrimp									
Small Beach Hopper									
Echinoderms									
Sea Stars	x	x		x					
Little Six-rayed Star									
Red-banded Star (Rainbow Star)									
Ochre Star									
Sunflower Star									
Morning Sun Star									
Stimpson's Sun Star									
Rose Star									
Leather Star									
True Star (False Ochre Star, Mottled Star)									
Blood Star									
Brittle Stars									
Serpent Star									
Daisy Brittle Star									
Sea Urchins									
Green Sea Urchin		x	x	x					

Date	30-Apr-88	4-May-91	9-May-91	17-Sep-00	8-Oct-01	07.09.03	9.24.04	9.14.05	9.15.06
Signs of				1		x	1		
Actual observation						x			
Harvesting (specify)									
Signs of									
Actual observation									
Other (specify)						oysters			
<u>Vehicle Use</u>									
Cars/Trucks									
Sets of tracks							2		
Actual observation							2		
ATVs/Motorcycles								1	
Sets of tracks							1		
Actual observation						1			
Bicycles								2	
Sets of tracks						1	2		
Actual observation							2		
Aircraft								2	
Sets of tracks						3			
Actual observation						3	1		
Other (specify)				20 boats docked					
<u>Structures on the Beach</u>									
								Halibut Cove	
Buildings	homes	yes	11					yes	
Docks		yes	10			1		yes	2
Driftwood Structures						1	1		1
Riprapped Areas						1		yes	
Erosion Control Structures							12	no	crat
Abandoned Vehicles									
Abandoned Boats			3						
Boat Parts				1	1				
<u>Archaeological Sites</u>									
Shell Middens		1 in Halibut Cove				1			
Other (specify)					1 cave by Boy Scout Island				

Date	30-Apr-88	4-May-91	9-May-91	17-Sep-00	8-Oct-01	07.09.03	9.24.04	9.14.05	9.15.06
<u>Outfalls or Pipes</u>									
Number			7			2			
Comments			untreated to primary treatment						
<u>Toxic Pollution</u>									
Fuel (oil, gas, etc.)									
Lubricating Oil									
Paint									
Batteries									
<u>Trash & Debris</u>									
(from International Coastal Cleanup Data Card)									
<i>Shoreline and Recreational Activities</i>									
Bags/Food Wrappers				1	1	3	3	2	1
Balloons						0			
Beverage Bottles, plastic, 2-liter or less				1		0	3	6	1
Beverage Bottles, glass					1	0		1	1
Beverage Cans						4	3	2	
Caps, Lids						1		3	
Clothing, Cloth						0			1
Cups, Plates, Forks, Knives, Spoons						2	2		
Diapers						0	2		
Fast-food Containers						1	1	2	8
6-pack Holders						0			
Pull Tabs						1		1	
Shotgun Shells/Wadding						0		1	1
Straws, Stirrers						0			2
Toys						2			1
<i>Ocean/Waterway Activities</i>									
Bait Containers/Packaging						0	1		
Bleach/Cleaner Bottles						0	1	1	
Buoys/Floats					2	0	1	60	4
Crab/Lobster/Fish Traps					1	0	43		

Date	30-Apr-88	4-May-91	9-May-91	17-Sep-00	8-Oct-01	07.09.03	9.24.04	9.14.05	9.15.06
Form of Entangling Debris									
Comments									
<i>Most Peculiar Item Collected?</i>						massive dc	Large orange styrofoa	a nose to a	
<i>Comments</i>	Glass, metal, plastic, f	Glass, met	Good condition. Little trash in park.						
<u>Additional Observations and Comments</u>	Viewed fro	Subsistenc	Subsistenc	Lots of was	Many cut trees all along beach--ones chainsawed and p				

Date	9.30.06								
Other (specify)?									
Trash Bags Collected	1								
Estimated Weight of Collected Trash	25								
<u>Wildlife</u>									
<i>Birds</i>									
Loons									
Sea Ducks	0								
Other Ducks and Geese	12								
Bald Eagles									
Adults	0								
Immatures									
Nests									
Shorebirds									
Seabirds	24								
Crows and Ravens	12								
Others (see separate Bird list)	None								
<i>Domestic Mammals</i>									
Cattle									
Horses	x								
Dogs	x								
Other									
<i>Land Mammals</i>									
Moose									
Adults									
Calves									
Black Bears									
Brown Bears									
Land/River Otters									
Red Squirrels									
Tracks Identified									
Other									
<i>Marine Mammals</i>									
Sea Otters									
Harbor Seals	x								

Date	9.30.06								
Steller's Sea Lions									
Harbor Porpoises									
Whales									
	Beluga								
	Orca								
	Minke								
	Humpback								
	Gray								
	Unknown								
Other/Unidentified	ad herring								
<i>Please note any unusual wildlife sightings</i>									
<u>Invertebrates</u>									
<i>(from the Intertidal Biodiversity Checklist)</i>									
<i>Please note any interesting observations or changes in abundance here</i>									
<i>Sponges</i>									
Breadcrumb Sponge									
Purple Sponge									
<i>Cnidarians</i>									
<i>Anemones</i>									
Burrowing Green Anemone									
Orange Colonial Anemone									
Frilled (Plumose) Anemone									
Christmas Anemone									
<i>Sea Jellies</i>									
Moon Jelly									
Many-ribbed Hydromedusa									
Compass Jelly									
Lion's Mane Jelly									
<i>Worms</i>									
Giant Flatworm									

Date	9.30.06								
Red Sea Urchin									
Sea Cucumbers									
Silky Burrowing Cucumber									
Orange Cucumber (Red Cucumber)									
Tar-spot Cucumber (Black Cucumber)									
Sand Dollars									
Green-spined Sand Dollar (Northern Sand Dollar)									
<u>Chordates</u>									
Tunicates									
Colonial Tunicate (Sea Pork)									
Sea Peach									
<u>Seaweeds</u>									
Green Seaweed									
Band									
Attached									
Washed Up									
Red Seaweed									
Band									
Attached									
Washed Up									
Rockweed									
Band	x								
Attached									
Washed Up									
Kelps									
Band									
Attached									
Washed Up									
Eelgrass									
Band									
Attached									
Washed Up									
<u>Beach Substrate</u>									
Type	man made								

Date	9.30.06								
<u>Outfalls or Pipes</u>									
Number									
Comments									
<u>Toxic Pollution</u>									
Fuel (oil, gas, etc.)									
Lubricating Oil									
Paint									
Batteries									
<u>Trash & Debris</u>									
(from International Coastal Cleanup Data Card)									
<i>Shoreline and Recreational Activities</i>									
Bags/Food Wrappers						11			
Balloons						0			
Beverage Bottles, plastic, 2-liter or less	1					12			
Beverage Bottles, glass						3			
Beverage Cans						9			
Caps, Lids						4			
Clothing, Cloth						1			
Cups, Plates, Forks, Knives, Spoons						4			
Diapers						2			
Fast-food Containers						12			
6-pack Holders						0			
Pull Tabs						2			
Shotgun Shells/Wadding						2			
Straws, Stirrers						2			
Toys						3			
						0			
<i>Ocean/Waterway Activities</i>									
						0			
Bait Containers/Packaging						1			
Bleach/Cleaner Bottles						2			
Buoys/Floats						67			
Crab/Lobster/Fish Traps	6					50			

Date	9.30.06								
Form of Entangling Debris									
Comments									
<i>Most Peculiar Item Collected?</i>	fireworks rocket								
<i>Comments</i>									
<u>Additional Observations and Comments</u>	robably dumped into bay--more than 2 dozen. By Scout Island: one tree partially chainsawed up								

<u>Zone 19</u>									
Shore									
Total Surveys									
Start Point									
Start Lat/Long									
End Point									
End Lat/Long									
Dates Walked									
Spring Surveys									
Fall Surveys									
First Walked									
Last Walked									
Total Person-Hours									
Total Trash Bags Collected									
Total Estimated Weight of Trash Collected									
<u>General Info</u>									
Date									
Start Time									
End Time									
Lowest Tide									
at time									
Temperature (F)									
Sky									
Vertical Zones Walked:									
High									
Middle									
Low									
# of Observers									
Hours Spent									
Person-Hours									
	0	0	0	0	0	0	0	0	0
Shoreline Walked (miles)									
Total Trip Mileage									
Did Observers . . .									
Hike?									
Kayak?									

