

<b><u>Zone 31</u></b>				
Shore	south			
Total Surveys	3			
Start Point	Point Pogibshi (Port Graham)			
Start Lat/Long				
End Point	Russian Point			
End Lat/Long				
Dates Walked	1991, 96, 2001, 2003			
Spring Surveys	1			
Fall Surveys	3			
First Walked	1991			
Last Walked	2003			
Total Person-Hours	163			
Total Trash Bags Collected	6			
Total Estimated Weight of Trash Collected	0			
<b><u>General Info</u></b>				
3 were done on beach in front of school				
Date	16-May-91	27-Sep-96	19-Sep-01	26.09.03
Start Time	915	940	1000	800
End Time	1315	1110	1130	1130
Lowest Tide		-3.4	-2.7	
at time		2131	1024	
Temperature (F)		42	low 50s	50
Sky		cloudy	cloudy	cloudy
Vertical Zones Walked:				
High				
Middle				
Low		x	x	x
# of Observers	8	45	12	13
Hours Spent	4	1.5	1.5	3.5
Person-Hours	32	67.5	18	45.5
Shoreline Walked (miles)	3	0.5	0.25	1.5
Total Trip Mileage				3
Did Observers . . .				
Hike?	x	x	x	x
Kayak?				

Date	16-May-91	27-Sep-96	19-Sep-01	26.09.03				
Other (specify)?								
<b>Trash Bags Collected</b>	1		4	1				
<b>Estimated Weight of Collected Trash</b>				?				
<b><u>Wildlife</u></b>								
<b><i>Birds</i></b>								
Loons				0				
Sea Ducks				5				
Other Ducks and Geese				0				
Bald Eagles								
Adults	2		2	3				
Immatures	2		2	0				
Nests	1			0				
Shorebirds	6			0				
Seabirds	1	35	15	43				
Crows and Ravens		7		50				
Others (see separate Bird list)		1	1 tangled in fishing net commorant					
<b><i>Domestic Mammals</i></b>								
Cattle				0				
Horses				0				
Dogs	1			0				
Other				0				
<b><i>Land Mammals</i></b>								
Moose								
Adults				0				
Calves				0				
Black Bears				0				
Brown Bears				0				
Land/River Otters				0				
Red Squirrels				0				
Tracks Identified				0				
Other				0				
<b><i>Marine Mammals</i></b>								
Sea Otters			1	10				
Harbor Seals				0				





<b>Date</b>	16-May-91	27-Sep-96	19-Sep-01	26.09.03				
Frilled Dogwinkle			x					
File Dogwinkle			x					
Big-mouth Whelk			x					
<b>Nudibranchs</b>								
Maned Nudibranch								
False Sea Lemon (False Lemon Peel)			x	x				
Orange-tipped Nudibranch								
Opalescent Nudibranch								
Bushy-backed Nudibranch								
<b>Clams</b>	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)								
Butter Clam								
Razor Clam								
<b>Mussels</b>	x	x						
Horse Mussel			x					
Pacific Blue Mussel			x	x				
<b>Scallops</b>								
Pink Scallop				nearly dead on beach				
<b>Jingles</b>								
Rock Jingle								
<b>Cephalopods</b>								
Giant Pacific Octopus		x	x	x				
Stubby Squid								
<b>Arthropods</b>								
<b>Barnacles</b>	x	x						
Acorn Barnacle			x					
Pelagic Gooseneck Barnacle								
Thatched Acorn Barnacle			x					
<b>Crabs</b>	x	x		rhino crab				

<b>Date</b>	16-May-91	27-Sep-96	19-Sep-01	26.09.03				
Dungeness Crab								
Black-clawed Cancer Crab			x	x				
Red Hermit Crab								
Striped Hermit Crab								
Decorator Crab			x	x				
Carapace Crab								
Red King Crab								
Northern Kelp Crab								
Helmet Crab				x				
<b>Shrimp</b>		x						
Broken-back Shrimp				x				
Coonstripe Shrimp			x					
Sand Shrimp			x					
<b>Isopods</b>								
Pillbug Isopod								
Rockweek Isopod			x					
<b>Amphipods</b>								
Skeleton Shrimp								
Small Beach Hopper			x					
<b>Echinoderms</b>								
<b>Sea Stars</b>	x	x						
Little Six-rayed Star			x	x				
Red-banded Star (Rainbow Star)								
Ochre Star								
Sunflower Star				x				
Morning Sun Star								
Stimpson's Sun Star								
Rose Star								
Leather Star								
True Star (False Ochre Star, Mottled Star)								
Blood Star								
<b>Brittle Stars</b>								
Serpent Star								
Daisy Brittle Star			x					
<b>Sea Urchins</b>		x						
Green Sea Urchin			x	x				

<b>Date</b>	16-May-91	27-Sep-96	19-Sep-01	26.09.03				
Red Sea Urchin								
<b>Sea Cucumbers</b>		x						
Silky Burrowing Cucumber			x					
Orange Cucumber (Red Cucumber)								
Tar-spot Cucumber (Black Cucumber)			x					
<b>Sand Dollars</b>								
Green-spined Sand Dollar (Northern Sand Dollar)			x					
<b>Chordates</b>								
<b>Tunicates</b>								
Colonial Tunicate (Sea Pork)								
Sea Peach								
				gunnells, sculpin, rhino crab				
<b>Seaweeds</b>								
Green Seaweed	x	x						
Band				x				
Attached				x				
Washed Up								
Red Seaweed	x	x						
Band								
Attached			x	x				
Washed Up			x	x				
Rockweed								
Band			x	x				
Attached				x				
Washed Up								
Kelps								
Band				x				
Attached				x				
Washed Up			x	x				
Eelgrass								
Band								
Attached								
Washed Up			x	x				
<b>Beach Substrate</b>								
Type	rocky	rocky	rocky, sand	rocky				







<b>Date</b>	16-May-91	27-Sep-96	19-Sep-01	26.09.03				
Fishing Line								
Fishing Lures								
Fishing Nets								
Light Bulbs/Tubes								
Oil/Lube Bottles								
Pallets								
Plastic Sheeting/Tarps								
Rope								
Strapping Bands								
<b><i>Smoking-Related Activities</i></b>								
Cigarettes/Cigarette Filters								
Cigarette Lighters								
Cigar Tips								
Tobacco Packaging/Wrappers								
<b><i>Dumping Activities</i></b>								
Appliances (refrigerators, washers, etc.)								
Batteries								
Cars/Car Parts								
Construction Materials								
55-gallon Drums								
Tires								
<b><i>Medical/Personal Hygiene</i></b>								
Syringes								
Condoms								
Tampons/Tampon Applicators								
<b><i>Debris Items of Local Concern</i></b>	City dump.							
<b><i>Entangled Animals</i></b>								
Type of Animal				commorant				
Form of Entangling Debris				fishing line				

<b>Date</b>	16-May-91	27-Sep-96	19-Sep-01	26.09.03				
Comments								
<i><b>Most Peculiar Item Collected?</b></i>								
<i><b>Comments</b></i>	Fishing gear, vehicle/bc Aluminum, buoys, glass, metal, plastics, styrofoam, fishing line all pr							
<i><b>Additional Observations and Comments</b></i>	Subsistence activity.							

<b><u>Zone 31</u></b>	
<b>Shore</b>	
<b>Total Surveys</b>	
<b>Start Point</b>	
<b>Start Lat/Long</b>	
<b>End Point</b>	
<b>End Lat/Long</b>	
<b>Dates Walked</b>	
<b>Spring Surveys</b>	
<b>Fall Surveys</b>	
<b>First Walked</b>	
<b>Last Walked</b>	
<b>Total Person-Hours</b>	
<b>Total Trash Bags Collected</b>	
<b>Total Estimated Weight of Trash Collected</b>	
<b><u>General Info</u></b>	
<b>Date</b>	
<b>Start Time</b>	
<b>End Time</b>	
<b>Lowest Tide</b>	
<b>at time</b>	
<b>Temperature (F)</b>	
<b>Sky</b>	
<b>Vertical Zones Walked:</b>	
High	
Middle	
Low	
<b># of Observers</b>	
<b>Hours Spent</b>	
<b>Person-Hours</b>	
<b>Shoreline Walked (miles)</b>	
<b>Total Trip Mileage</b>	
<b>Did Observers . . .</b>	
Hike?	
Kayak?	

<b>Date</b>	
Other (specify)?	
<b>Trash Bags Collected</b>	
<b>Estimated Weight of Collected Trash</b>	
<b><u>Wildlife</u></b>	
<b><i>Birds</i></b>	
Loons	
Sea Ducks	
Other Ducks and Geese	
Bald Eagles	
	Adults
	Immatures
	Nests
Shorebirds	
Seabirds	
Crows and Ravens	
Others (see separate Bird list)	
<b><i>Domestic Mammals</i></b>	
Cattle	
Horses	
Dogs	
Other	
<b><i>Land Mammals</i></b>	
Moose	
	Adults
	Calves
Black Bears	
Brown Bears	
Land/River Otters	
Red Squirrels	
Tracks Identified	
Other	
<b><i>Marine Mammals</i></b>	
Sea Otters	
Harbor Seals	

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

<b>Date</b>	
<b><i>Nemerteans</i></b>	
Amphiporus (Two-spotted) Ribbon Worm	
Red Ribbon Worm	
<b><i>Echiurans</i></b>	
Fat Innkeeper (Alaskan Spoonworm)	
<b><i>Sipunculids</i></b>	
Peanut Worm	
<b><i>Annelids</i></b>	
Mussel Worm (Clam Worm)	
Northern Feather Duster Worm (Carpet Worm)	
Cone Worm	
Calcareous Tube Worm	
Spiral Tube Worm	
Scaleworm	
<b><i>Brachiopods</i></b>	
Transverse Lampshell	
<b><i>Mollusks</i></b>	
<b><i>Chitons</i></b>	
Gumboot Chiton	
Black Katy Chiton	
Brick Chiton	
Mossy Chiton	
Tiger Chiton	
Lined Chiton	
<b><i>Limpets</i></b>	
Dunce Cap Limpet	
Plate Limpet	
<b><i>Snails</i></b>	
Hairy Triton	
Sitka Periwinkle	
Helicina Margarite	
Puppet Margarite	
Aleutian Moonsnail	
Ridged Neptune	
Channeled Dogwinkle	
Emarginate Dogwinkle	

<b>Date</b>	
Frilled Dogwinkle	
File Dogwinkle	
Big-mouth Whelk	
<b><i>Nudibranchs</i></b>	
Maned Nudibranch	
False Sea Lemon (False Lemon Peel)	
Orange-tipped Nudibranch	
Opalescent Nudibranch	
Bushy-backed Nudibranch	
<b><i>Clams</i></b>	
Nuttal's Cockle	
Northwest Ugly Clam	
Arctic Rock Borer	
Baltic Macoma	
Stained Macoma	
Pacific Surf Clam	
Truncated Mya	
Steamer Clam (Pacific Littleneck Clam)	
Butter Clam	
Razor Clam	
<b><i>Mussels</i></b>	
Horse Mussel	
Pacific Blue Mussel	
<b><i>Scallops</i></b>	
Pink Scallop	
<b><i>Jingles</i></b>	
Rock Jingle	
<b><i>Cephalopods</i></b>	
Giant Pacific Octopus	
Stubby Squid	
<b><i>Arthropods</i></b>	
<b><i>Barnacles</i></b>	
Acorn Barnacle	
Pelagic Gooseneck Barnacle	
Thatched Acorn Barnacle	
<b><i>Crabs</i></b>	

<b>Date</b>	
Dungeness Crab	
Black-clawed Cancer Crab	
Red Hermit Crab	
Striped Hermit Crab	
Decorator Crab	
Carapace Crab	
Red King Crab	
Northern Kelp Crab	
Helmet Crab	
<b>Shrimp</b>	
Broken-back Shrimp	
Coonstripe Shrimp	
Sand Shrimp	
<b>Isopods</b>	
Pillbug Isopod	
Rockweek Isopod	
<b>Amphipods</b>	
Skeleton Shrimp	
Small Beach Hopper	
<b><i>Echinoderms</i></b>	
<b>Sea Stars</b>	
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	
<b>Brittle Stars</b>	
Serpent Star	
Daisy Brittle Star	
<b>Sea Urchins</b>	
Green Sea Urchin	

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

<b>Date</b>	
<b><u>Bluff and Cliff Erosion</u></b>	
Comments	
<b><u>Human Activities</u></b>	
Walking	
	Signs of
	Actual observation
Camping	
	Signs of
	Actual observation
Partying	
	Signs of
	Actual observation
Fire Pits	
	Signs of
	Actual observation
Trash Accumulations	
	Signs of
	Actual observation
Clamming	
	Signs of
	Actual observation
Fishing	
	Signs of
	Actual observation
Coaling	
	Signs of
	Actual observation
Picnicking	
	Signs of
	Actual observation
Horseback Riding	
	Signs of

<b>Date</b>	
	Actual observation
Harvesting (specify)	
	Signs of
	Actual observation
Other (specify)	
	<b><u>Vehicle Use</u></b>
Cars/Trucks	
	Sets of tracks
	Actual observation
ATVs/Motorcycles	
	Sets of tracks
	Actual observation
Bicycles	
	Sets of tracks
	Actual observation
Aircraft	
	Sets of tracks
	Actual observation
Other (specify)	
	<b><u>Structures on the Beach</u></b>
Buildings	
Docks	
Driftwood Structures	
Riprapped Areas	
Erosion Control Structures	
Abandoned Vehicles	
Abandoned Boats	
	Boat Parts
	<b><u>Archaeological Sites</u></b>
Shell Middens	
Other (specify)	

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

<b>Date</b>	
Fishing Line	
Fishing Lures	
Fishing Nets	
Light Bulbs/Tubes	
Oil/Lube Bottles	
Pallets	
Plastic Sheeting/Tarps	
Rope	
Strapping Bands	
<b><i>Smoking-Related Activities</i></b>	
Cigarettes/Cigarette Filters	
Cigarette Lighters	
Cigar Tips	
Tobacco Packaging/Wrappers	
<b><i>Dumping Activities</i></b>	
Appliances (refrigerators, washers, etc.)	
Batteries	
Cars/Car Parts	
Construction Materials	
55-gallon Drums	
Tires	
<b><i>Medical/Personal Hygiene</i></b>	
Syringes	
Condoms	
Tampons/Tampon Applicators	
<b><i>Debris Items of Local Concern</i></b>	
<b><i>Entangled Animals</i></b>	
Type of Animal	
Form of Entangling Debris	

<b>Date</b>	
Comments	
<b><i>Most Peculiar Item Collected?</i></b>	
<b><i>Comments</i></b>	esent.
<b><u>Additional Observations and Comments</u></b>	