

## Zone 23

**Shore** south  
**Total Surveys** 10  
**Start Point** Eldred Passage  
**Start Lat/Long**  
**End Point** Start of Sadie Cove  
**End Lat/Long**  
**Dates Walked** 1988, 90-91, 96, 98-99, 2001-05  
**Spring Surveys** 4  
**Fall Surveys** 9  
**First Walked** 1988  
**Last Walked** 2014  
**Total Person-Hours** 132  
**Total Trash Bags Collected** 10  
**Total Estimated Weight of Trash Collected** 300

### General Info

<b>Date</b>	30-Apr-88	29-Apr-90	30-Apr-91	5-May-91	??-Sep-96
<b>Start Time</b>				1045	Anne
<b>End Time</b>				1115	Wieland
<b>Lowest Tide</b>					has data

at time

**Temperature (F)** 34-44  
**Sky** cloudy

**Vertical Zones Walked:**

High x  
 Middle x  
 Low x

<b># of Observers</b>	4	1	3	4	
<b>Hours Spent</b>	2	1	8	0.5	
<b>Person-Hours</b>	8	1	24	2	0
<b>Shoreline Walked (miles)</b>	0.75	0.75	5	0.25	
<b>Total Trip Mileage</b>					
<b>Did Observers . . .</b>					

Hike?		x	x	x	
Kayak?					
Other (specify)?	boat			Marsha's boat	

**Trash Bags Collected**

**Estimated Weight of Collected Trash**

### Wildlife

#### Birds

Loons			1	
Sea Ducks			71	
Other Ducks and Geese	20			
Bald Eagles				
	Adults	6	1	1
	Immatures	1		1
	Nests		1	
Shorebirds				1

Seabirds	3	18	
Crows and Ravens			
Others (see separate Bird list)	3	9	1

**Domestic Mammals**

Cattle  
Horses  
Dogs  
Other

**Land Mammals**

Moose

Adults  
Calves

Black Bears  
Brown Bears  
Land/River Otters  
Red Squirrels  
Tracks Identified  
Other

2  
river otter, 1 moose, 1 river otter  
dog or fox shit

**Marine Mammals**

Sea Otters  
Harbor Seals  
Steller's Sea Lions  
Harbor Porpoises  
Whales

2                      2                      17  
1

Beluga  
Orca  
Minke  
Humpback  
Gray  
Unknown

Other/Unidentified

**Please note any unusual wildlife sightings** Evidence of squirrel ac No evidenc 32 dead sun stars, 1 d

**Invertebrates**

(from the Intertidal Biodiversity Checklist)

**Please note any interesting observations or changes in abundance here**

Coralline algae present.

**Sponges**

Breadcrumb Sponge  
Purple Sponge

**Cnidarians**

**Anemones**

x                      x

Burrowing Green Anemone  
Orange Colonial Anemone  
Frilled (Plumose) Anemone  
Christmas Anemone

**Sea Jellies**

Moon Jelly  
 Many-ribbed Hydromedusa  
 Compass Jelly  
 Lion's Mane Jelly

**Worms**

Giant Flatworm  
**Nemertean**  
 Amphiporus (Two-spotted) Ribbon Worm  
 Red Ribbon Worm  
**Echiurans**  
 Fat Innkeeper (Alaskan Spoonworm)  
**Sipunculids**  
 Peanut Worm  
**Annelids**  
 Mussel Worm (Clam Worm)  
 Northern Feather Duster Worm (Carpet Worm)  
 Cone Worm  
 Calcareous Tube Worm  
 Spiral Tube Worm  
 Scaleworm

**Brachiopods**

Transverse Lampshell

**Mollusks**

<b>Chitons</b>	x	x	x
Gumboot Chiton			
Black Katy Chiton			
Brick Chiton			
Mossy Chiton			
Tiger Chiton			
Lined Chiton			
<b>Limpets</b>		x	x
Dunce Cap Limpet			
Plate Limpet			
<b>Snails</b>		x	x
Hairy Triton			
Sitka Periwinkle			x
Helicina Margarite			
Puppet Margarite			
Aleutian Moonsnail			
Ridged Neptune			
Channeled Dogwinkle			
Emarginate Dogwinkle			
Friiled Dogwinkle			
File Dogwinkle			
Big-mouth Whelk			
<b>Nudibranchs</b>			
Maned Nudibranch			
False Sea Lemon (False Lemon Peel)			
Orange-tipped Nudibranch			
Opalescent Nudibranch			
Bushy-backed Nudibranch			
<b>Clams</b>		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	x
Horse Mussel			
Pacific Blue Mussel			
<b>Scallops</b>			
Pink Scallop			
<b>Jingles</b>			
Rock Jingle			
<b>Cephalopods</b>			
Giant Pacific Octopus			
Stubby Squid			
<b>Arthropods</b>			
<b>Barnacles</b>		x	x
Acorn Barnacle			x
Pelagic Gooseneck Barnacle			
Thatched Acorn Barnacle			
<b>Crabs</b>		x	
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>			x
Skeleton Shrimp			
Small Beach Hopper			
<b>Echinoderms</b>			
<b>Sea Stars</b>	x	x	
Little Six-rayed Star			x
Red-banded Star (Rainbow Star)			
Ochre Star			
Sunflower Star			
Morning Sun Star			

Stimpson's Sun Star x  
 Rose Star x  
 Leather Star x  
 True Star (False Ochre Star, Mottled Star)  
 Blood Star

**Brittle Stars**

Serpent Star  
 Daisy Brittle Star

**Sea Urchins** x x

Green Sea Urchin  
 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)

**Chordates**

**Tunicates**

Colonial Tunicate (Sea Pork)  
 Sea Peach

**Seaweeds**

Green Seaweed x x  
 Band  
 Attached  
 Washed Up

Red Seaweed x x  
 Band  
 Attached  
 Washed Up

Rockweed x  
 Band  
 Attached  
 Washed Up

Kelps x  
 Band  
 Attached  
 Washed Up

Eelgrass  
 Band  
 Attached  
 Washed Up

**Beach Substrate**

Type rocky, pebt rocky, pebt rocky, pebbles, sand

**Bluff and Cliff Erosion**

Comments moderate moderate slight

**Human Activities**

Walking	Signs of Actual observation	1	1	1
Camping	Signs of Actual observation	1	1	
Partying	Signs of Actual observation			
Fire Pits	Signs of Actual observation			
Trash Accumulations	Signs of Actual observation			
Clamming	Signs of Actual observation	1		
Fishing	Signs of Actual observation			1
Coaling	Signs of Actual observation			
Picnicking	Signs of Actual observation			
Horseback Riding	Signs of Actual observation			
Harvesting (specify)	Signs of Actual observation			subsistence fishing
Other (specify)				

**Vehicle Use**

Cars/Trucks	Sets of tracks Actual observation	1		
ATVs/Motorcycles	Sets of tracks Actual observation	1		
Bicycles	Sets of tracks Actual observation			
Aircraft	Sets of tracks Actual observation			
Other (specify)				

**Structures on the Beach**

Buildings 1  
Docks  
Driftwood Structures  
Riprapped Areas  
Erosion Control Structures  
Abandoned Vehicles  
Abandoned Boats 1  
Boat Parts

**Archaeological Sites**

Shell Middens 1  
Other (specify)

**Outfalls or Pipes**

Number  
Comments

**Toxic Pollution**

Fuel (oil, gas, etc.)  
Lubricating Oil  
Paint  
Batteries

**Trash & Debris**

(from International Coastal Cleanup Data Card)

***Shoreline and Recreational Activities***

Bags (Paper & Plastic)  
Balloons  
Beverage Bottles, plastic, 2-liter or less  
Beverage Bottles, glass  
Beverage Cans  
Caps, Lids  
Clothing, Cloth  
Cups, Plates, Forks, Knives, Spoons  
Food Wrappers/Containers  
6-pack Holders  
Pull Tabs  
Shotgun Shells/Wadding  
Straws, Stirrers  
Toys

***Ocean/Waterway Activities***

Bait Containers/Packaging  
Bleach/Cleaner Bottles  
Buoys/Floats  
Crab/Lobster/Fish Traps  
Crates  
Fishing Line  
Fishing Lures  
Fishing Nets

Light Bulbs/Tubes  
Oil/Lube Bottles  
Pallets  
Plastic Sheeting/Tarps  
Rope/cable  
Strapping Bands

***Smoking-Related Activities***

Cigarettes/Cigarette Filters  
Cigarette Lighters  
Cigar Tips  
Tobacco Packaging/Wrappers

***Dumping Activities***

Appliances (refrigerators, washers, etc.)  
Batteries  
Building Materials  
Cars/Car Parts  
55-gallon Drums  
Tires

***Medical/Personal Hygiene***

Condoms  
Diapers  
Syringes  
Tampons/Tampon Applicators

***Debris Items of Local Concern***

Styrofoam Pieces  
Plastic Pieces  
Paper products  
Metal Pieces  
Other

***Entangled Animals***

Type of Animal  
Form of Entangling Debris  
Comments

***Most Peculiar Item Collected?***

***Comments***

Lots of sty Glass, met Aluminum ( This beach was a mes

**Additional Observations and Comments**

Many fresh (Attached sheets are a This info re Anne Wiel



22-Sep-98	??-Sep-99	15-Sep-01	16-Sep-01	22.09.02	09.09.03	09.29.04	9.19.05	9.21/28.11
			700	1000	915	930	1042	12:45
			1500	1115	1030	1130	1145	13:30
			-3	0.1	-1.6	-1.1	-3.2	-1.6
			820	942	834	930	1018	9:27
50	48		49	50	50	40	50	47
cloudy	cloudy	cloudy	cloudy	ly cloudy, waast with sh		rainy	p. cloudy	p. cloudy
	x	x	x				x	x
			x	x		x		x
x		x	x	x	x	x	x	
2	2	4	4	2	3	3	3	2
1	1	1	8	1.25	1.5	3	1	1
2	2	4	32	2.5	4.5	9	3	2
1	1	1	7	0.75	1	1.5	0.6	0.5
		1.25	17	1	1	1		1
x	x	x	x	x	x	x	x	x
			x					
				skiff survey west side of 23				accessed by b
				1	0	0	0	nal, added
				none collected				
			1	0		2		
35	6	16		5	25	7	16	26
				5				
	1		3	1	9	2	1	3
			1		3	1	1	
			2	1	3	1	1	2
				1	7	0		

1	20	22		61	14	43	18	6
		43			18	15	4	2
9	4	3				1	4	2
					0	0		
					0	0		
		1			2	0	2	1
						0		
					0	0		
					0	0		
		1	scat		0	0		scat
					0	0		
					0	0		
		2		1	0	0	2	
river otter	otter, coyot	river otter	lynx or cani	river otter	0	0	land otter	coyote
	otter latrineer	otter latrine	which has been in existence since at least 1975					
	2	1	1		7	2	2	
	1				2	0		
					2	0		
		1			0	0		
						0		
					0	0		
					0	0		
					0	2		
					0	0		
					0	0		
						0		

River otter latrine note: River otter latrine--used continually 2 mating otters

Lots of sea Tide wrong.

						x	
							x
x		x	x	x	x	x	x
x			x			x	
x		x	x	x	x	x	x

		X		X			
				X	X	X	
							X
					X		
				X		X	
				X		X	
						X	
						X	
						X	
X		X	X	X	C	X	X
			X		X	X	
			X		X	X	
X			X	X	X	X	
				X	X	X	X
				X	X	X	
			X		X	X	
X		X		X	C	X	X
				X		X	
			X	X		X	
			X		X	X	
		X				X	
X							

barnacle eating acle nudibranch

x

x

x

x

shells  
shells

x

x

x

x

c

x

x

shell

x

x

x

x

x

x

c

x

x

x

x

x

c

x

x

x

x

x

x

x

x

x

x

c

x

x

x

x

x

x

x

x

x

x

x

x

x

	x		x	x	x	
	x				x	
		x			x	
	x	x	x	x	x	x
		x			x	
x						
	x	x		x	x	
	x					
		x			x	
		x	x		x	x

dead

x

bryozoan patches, abundant alaria, ulva, halosaccion, porphyra, tar spot, desmarenia,

x				x	x	
		x				
x						
	x		x		x	x
				x		x
x						
		x		x		
		x	x	x	x	x
					x	x
x						
		x		x	x	x
	x	x	x	x	x	x

rocky, pebbt rocky, pebt rocky, pebt rocky, pebbles, sand rocky, pebbles, sand  
 rocky, pebbles, sand rocky, sand & g cobble

moderate severe erosion com the in g as archeological er of years, cabin pile notes - cha yes  
 noticeable @ archeol

1

1

3

x

x

x

x

1

x

1

1

x

1

1

sawmill tracks at neighbor's cabin

3

3

3

10  
1

lot tub (one ed outhaul s

11

ex cabin &b

x

1

1

large, documented by state

documented earlier is filling in - see

Erosion sev Large, eroc Major midden--have observed over the year femur & tibia found at "usual" place

1

1

ICC data card not included, presenceid not collect trash (was not much)

3

Almost not Plastics co Aluminum, Vehicle/boat over July 4th a loud raucous party camped on the beach, I

Great eclair Erosion at : I had planned to cruise the beach by boat all the way to Sadie but deteriorating co



10.1.11 10.7.12 9.8.14 9/9, 9/17, 9/25/2017

-2  
7.44  
52  
sun sun 50

x 1  
x

14 13 1 3  
0.5 4 3 1  
7 26 3 0 0 0 0 0  
0.5 2 0.5  
4 11

x x x 1

oat accessed by b boat

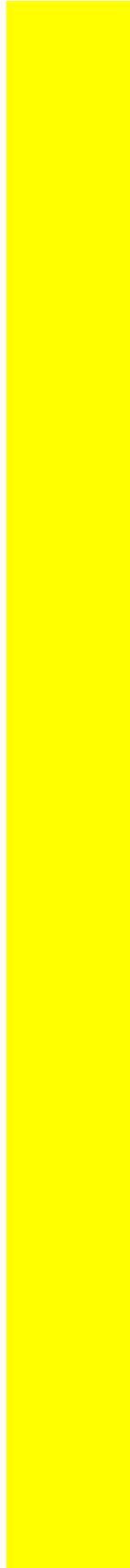
2 6  
50 250

4  
18 4  
207  
25

2 1 30  
1 1 8  
12  
9

	5	206
	large flock	82
10	cormorants 4	46
		0
		0
		6
		0
		0
4		0
		0
	11	5
		0
		0
		7
otter		0
	weasel	0
		0
4	8	40
		3
		3
		1
		0
		0
		0
		2
		0
		0
		0





1

1

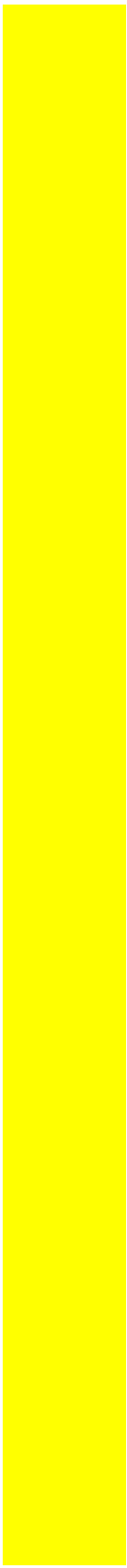
abundant

sea fir

x 1  
1  
1

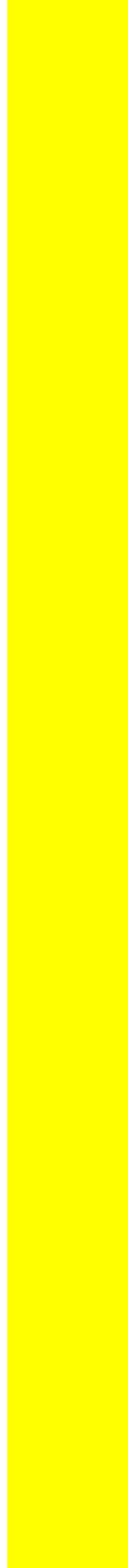
cobble/boulder

yes yes  
ogical site archaeological site continues to be eroded



x

1



1

notes

1

"human bones found many years ago"

	13	13
		0
14	12	26
5	3	8
11	21	35
7	22	29
	2	2
3	6	9
3	25	28
1	1	2
		0
9	24	33
1		1
1	1	2
		0
	2	2
	10	10
		0
	1	1
1		1
	1	1
	1	1

		0
		2
		0
	14	14
1	24	25
1	7	8
		0
	2	2
		0
		0
		0
		0
2	30	32
		0
		0
		0
		0
		0
		0
		0
701	356	1057
100	224	324
	10	10
	10	10
	24	24

near the latrine for several days and disturbed otters who have not used this latrine as extensively since.

Conditions prevented it.



0

0

0













