

Zone 16

Shore	north
Total Surveys	25
Start Point	McNeil Creek
End Point	Head of Bay
Dates Walked	1987-91, 96, 98-01, 03-04, 07-09
Spring Surveys	10
Fall Surveys	22
First Walked	1987
Last Walked	2014
Total Person-Hours	493.9
Total Trash Bags Collected	96.5
Total Estimated Weight of Trash Collected	1660

General Info

Date	25-Apr-87	25-Apr-87	30-Apr-88	30-Apr-88	29-Apr to 6
Start Time					
End Time					
Lowest Tide					

at time

Temperature (F)

Sky

Vertical Zones Walked:

High		x	x	x	
Middle	x	x			
Low					

# of Observers	4	2	3	2	4
Hours Spent	2.5	3	4.75	5	12
Person-Hours	10	6	14.25	10	48
Shoreline Walked (miles)	4	3.5	5	5	8
Total Trip Mileage					
Did Observers . . .					

Hike?	x	x	x	x	
Kayak?					
Other (specify)?					horseback

Trash Bags Collected

Estimated Weight of Collected Trash

Wildlife

Birds

Loons				1	
Sea Ducks	34	62	1		12
Other Ducks and Geese		204	4	200	31
Bald Eagles					
	Adults	7	10	4	4
	Immatures	6	2	2	1
	Nests	2	3	4	1
Shorebirds					750

Seabirds	332	270	3	101	2
Crows and Ravens	1				14
Others (see separate Bird list)	61	25		4	2

Domestic Mammals

Cattle	1	8			300
Horses					20
Dogs			2		1
Other					

Land Mammals

Moose					
			Adults		
			Calves		
Black Bears					
Brown Bears					
Land/River Otters					
Red Squirrels			1		
Tracks Identified				moose	
Other					

Marine Mammals

Sea Otters					
Harbor Seals			4	1	
Steller's Sea Lions					
Harbor Porpoises					
Whales					
			Beluga		
			Orca		
			Minke		
			Humpback		
			Gray		
			Unknown		

Other/Unidentified

Please note any unusual wildlife sightings 3 dead cattle heard 1 moose 1 dead cow

Invertebrates

(from the Intertidal Biodiversity Checklist)

Please note any interesting observations or changes in abundance here Various shells empty of life were found

Sponges

Breadcrumb Sponge
Purple Sponge

Cnidarians

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

Sea Jellies

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

Worms

x

Giant Flatworm

Nemerteans

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

Chitons (for butterfly shells found, enter y)

Gumboot Chiton
Black Katy Chiton
Brick Chiton
Mossy Chiton
Tiger Chiton
Lined Chiton

Limpets

Dunce Cap Limpet
Plate Limpet

Snails (for empty shells found, enter y)

Hairy Triton
Sitka Periwinkle
Helicina Margarite
Puppet Margarite
Aleutian Moonshell
Ridged Neptune
Channeled Dogwinkle
Emarginate Dogwinkle
Frisled 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 (for empty shells found, enter y)	x		x
Nuttal's Cockle		x	
Northwest Ugly Clam			
Arctic Rock Borer			
Baltic Macoma			
Stained Macoma			
Pacific Surf Clam			
Truncated Mya			
Steamer Clam (Pacific Littleneck Clam)			
Butter Clam			
Razor Clam			
Evidence of Clam Holes, unkeyed (not dug out)			
Mussels	x	x	
Horse Mussel			
Pacific Blue Mussel			
Scallops			
Pink Scallop			
Jingles			
Rock Jingle			
Cephalopods			
Giant Pacific Octopus			
Stubby Squid			
Arthropods			
Barnacles	x		
Acorn Barnacle			
Pelagic Gooseneck Barnacle			
Thatched Acorn Barnacle			
Crabs (molts, enter y)			x
Dungeness Crab		x	
Black-clawed Cancer Crab			
Red Hermit Crab			
Striped Hermit Crab			
Decorator Crab			
Carapace Crab			
Red King Crab			
Northern Kelp Crab			
Helmet Crab			
Shrimp			
Broken-back Shrimp			
Coonstripe Shrimp			
Sand Shrimp			
Isopods			
Pillbug Isopod			
Rockweek Isopod			
Amphipods			
Skeleton Shrimp			
Small Beach Hopper			
Echinoderms			
Sea Stars			
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
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

Band
Attached
Washed Up x

Red Seaweed

Band
Attached
Washed Up

Rockweed

Band
Attached
Washed Up

Kelps

Band
Attached
Washed Up

Eelgrass

Band
Attached
Washed Up

Beach Substrate

type

Bluff and Cliff Erosion

Comments

moderate, constant small sloughs, mostly old Severe near

Human Activities

Walking	Signs of Actual observation		1	
Camping	Signs of Actual observation	2	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			
Coaling	Signs of Actual observation			
Picnicking	Signs of Actual observation			
Horseback Riding	Signs of Actual observation			
Harvesting (specify)	Signs of Subsistence activity. Actual observation			Subsistenc Subsistence activity.
Other (specify)				

Vehicle Use

Cars/Trucks	Sets of tracks Actual observation		4 1	
ATVs/Motorcycles	Sets of tracks Actual observation	4	1 3	heavy
Bicycles	Sets of tracks Actual observation			
Aircraft	Sets of tracks Actual observation			
Other (specify)	Sets of tracks Actual observation		1	1 cattle drive

Structures on the Beach

Buildings	1	1	6
Docks			1
Driftwood Structures			
Riprapped Areas			
Erosion Control Structures			
Abandoned Vehicles			
Abandoned Boats		1	2
	Boat Parts		

Archaeological Sites

Shell Middens
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	15
Beverage Bottles, glass	
Beverage Cans	55
Caps, Lids	
Clothing, Cloth	2
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	1
Crab/Lobster/Fish Traps	
Crates	
Fishing Line	

Fishing Lures		
Fishing Nets	5	
Light Bulbs/Tubes		
Oil/Lube Bottles		
Pallets		
Plastic Sheeting/Tarps		3
Rope/cable	5	1
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	1	
55-gallon Drums		3
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 garbage, mostly Glass uncc Metal and j Scattered j

Additional Observations and Comments

Unattended Have the banquet at least a week Some evid

29-Apr-90	2-May-90	4-May-91	4-May-91	4-May-91	23-Sep-96	23-Sep-96	6-Oct-96	21-Sep-98
1300	1400	1200	1200		1030	1200	1730	1330
1700	1700	1530	1500		1900	1830	2000	1430
		1.6	1.6	1.6	1.1	1.1		
		1238	1238	1238	555	555		
					42-44 cloudy	43	30-40 sunny	50 cloudy
					x	x		x
					x			
3	1	2	3	1	4	1	x	1
4	3	3.5	3	10	8.5	6.5	2.5	1
12	3	7	9	10	34	6.5	2.5	1
1.5	6	3	2	12	4	7	8	2
				24	8			
x	x	x	x		x			x
				horseback		horseback	4-wheeler	
1	1		1	1				
20	108				200			
100	42	269		250		1729		
1	4	4	2	10	1	1	5	3
5	2	2	1	15	2		3	
	1	1	1	3		2	2	
		3000		209				

100		335	30	100	125	100	50	150
	15		2		2	201	10	
3	15	6	1	29	21	12	9	2
		140	178	200	3	200		
2	1	12	15	50		35		
5		2	2					

	4		2		3
	horse	moose, be	black bear	coyote	cattle, bear, moose, fo
	2				
6					1
5				1	3

Cattle being herded pa Eagles feeding on dead cow. Bear tracks belong to t

ound: cockles, dungenε Most common were tiny pink bival Thousands of sea stars washed up.

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

x

x

x

x

x

x

x

severe

Severe in c severe, sa\

slight

slight

moderate t

severe

moderate

moderate

	1	1	1	1
3	1	14		1
2	1			3

		1		1	
1	1		1		6
				1	
2				1	4
					2

Subsistence activity.

	2			1	1	1	2	2
				1		6		
1	3	1	1	1	1	1	4	
	2	1	20			8	1	
						1		
			1					
1 tractor	2							
		1 tractor						

1 3 1 2 1

1 2
1

5 1
3

1 1
1 1

1 eroded midden at Cc
fossilized tr

4

1
2
5

10

1

2

2
2

10

2
1

1 1 1 4 2

1 36 1 3 1 2

Glass, met Glass, plas Glass, visq Plastic con Serious prc Excellent--' Lots of alcx More beer cartons and
ence of eagle predation on geese. Something needs to br Large conc (detailed n Relative c The humar

27-Sep-98	23-Sep-99	23-Sep-99	25-Sep-99	14-Oct-99	30-Sep-00	23-Sep-01	29-Sep-01	30-Sep-01
1440	1030	1315	830	1100		1000	830	735
1840	1130	1515	1330	1500		1400	1130	1150
						1	1.8	1.1
						111	742	812
45-55	42	~45	~50	45	40-50	50	45	45
partly clouc	partly clouc	cloudy	sunny	sunny	partly cloud	cloudy	partly cloud	cloudy
x	x	x	x	x	x	x	x	x
			x		x	x	x	x
1	16	10	1	1	1	6	2	1
4	1	2	5	4	5	4	3	4.25
4	16	20	5	4	5	24	6	4.25
	0.75	1	5.5	1	4	3	4	6.5
						10	8	20
x	x	x	x	x	x	x	x	x
4-wheeler			4-wheeler		4-wheeler		4-wheeler	4-wheeler
	2	4					1	2
							10	
								5
17								7
3		1	1		2	3		3
4			1		1			4
2	1	1	2		2	1		2
			2					8

13		25	6		2	28	2	50
16	3	75	2		2			
	30	4	24		3			19
	34	7						
3	2			1				

3							
moose, fox	horse, cattl	horse	moose, fox or coyote	moose, cattle		coyote	moose, fox

5

3

3

Otter tracks, sea or river unknown.

1 large bear on cliff are 4 huge pile: Moose track

Seemingly Since it was low tide and the mud is silty and ε Seeing few Beach from midtide to l Many very ε

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

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

moderate, severe moderate moderate a slight moderate not much r2 major blu: Evidence of

1	1	1		1		6
1				1		

			3			4
						2

	1					
1	1			1		
	1					
1	1	1		1		1
1			2			

Subsistence activity

1			1					1
	2	5		8	3			
1			1		4	1	1	4
3	1			2				1

	10	1		2
1				1
		1		

1 midden e 1 possible, or just high eroding midden by Cot 1 eroding at Cottonwoo Cottonwooc Cottonwooc
 ackway--very small humanoid? 1/4 mile E of McNeil Cr in stream outflow, 3' stride, 6" footprint

Cottonwood Cr stank of rot

2

		4		5
	1	3	8	2
	100	25	35	14
		46	51	1
1				5
				1
			1	3
			1	1
				1
	1			1
				1
				1

	1	1	1	2	2		1
5			1				1
			1		4		1
						1	3
		1	1		1		1
	1						10
			1				1
		1					

Aluminum, Surprising! Aluminum Aluminum Lots of bee Overall quit Very little trash. (ICC Data C
 No drift car
 More bank Not too mu There is a Coal (fresh Cow tracks Expanded gully slough cones to hig Not as muc
 minimal garbage

		6	35	20		
2						
0		16	0			
0	5	3	0	12	1	1
0			1	1		
0						
0						
0						
0						
0						
0						
Moose		moose		horse		

1

4

ks: 2 yearling sets, 1 large single adult, 3 cow/calf pairs. Black bear tracks: sow with cub.

small dogwinkle-type snails, not identified. Pacific blue mussels mostly associated with strips of freshwa

x

x

x

x

y

y

x

x

x

y

y

y

y

x
x
y
x
x
x
x
x

x
x
shell

x
x
x
x

x

x

x

x

x

x

x

x

sand/mud sand/mud cobble mud cobble and/bedroc sand/mud sand

ss road trailwne d trees d 1150 just east of Falls yes yes

			4			4
11	bbq grill	3				1
2	beer containe	2	1	3		4 x
			1			4 lots of cans
2		4	3	4	3	
	3		3			3
	beer cans					

			2			
		7				
				lots		
1		1				
4	5	1	1	12	5	1
				12	5	

butchering turkey parts

			1	lots		x	3
	5 kachemak selo			lots			1 3
5		2	4	lots	x		4 3
	1	1		lots			4

1
 1
 2 kayaks 1 2

tonwood Creek

fossils - leaf-fish

found 2 half full containers of oil, not leaking

6	3	2		3	1	1	20
0	0		1				0
0	17	2	10	10	3	1	0
35	75	1	18	20	10	1	11
47	60		81	25	27	1	81
13	17	4	11			1	0
	4		4		1	1	1
12	8		2	6	2	11	5
7				3	1		7
4	4			2			0
							0
	15		2		3	24	1
	3						0
	2						1
	3	1					0
	4						0
1	4	1	1				1
	3						0
	0						0
3	0		3				0

	1					1	0
2	4		2		1	1	0
	0					1	0
4	2						0
	0					1	0
2	1	4	2	2	1		3
3	8	2	3		1		5
	0		1		1		1
	0		1				0
	0						1
	0						0
	0						1
	0					1	1
	0		1				0
	7		7				9
	2		1	2		1	3
	3		1	4		1	0
	5	1	1				0
3						1	5
							0
2							0
							0
			3				0
							0
							0
							0
	4						5

baby stroller

old rusty car
3 rusty oil barrels

Card missing.) Aluminum, glass, plastics, styrofoam, visqueen, fishing gear all present.
ds or shoes seen.

h debris as this beach Falls Creek to Eastland creek, very clean, lots of erosion, More trash then can be
Concern about the hun
and human evidence, past walks included evidence of styrofoam but minimal garbage as a whole

Koesters	K-Selo			Jaclyn Rainwater	TOTAL
10.3.09	2011	9.24.11	9.20.14	10.6.14	
1600			12:30		
2000			15:30		
-0.3					
2055					
50			55		
clouds			Sun		
			x		
			x		
x			x		
2	78	6	5	2	
4	1.5	2	3		
8	117	12	15		
3	5	1	1	0.5	
6		2	30		
x	x	x	x		
7	25	4	2	2	
60	700	10		15	
	x				
		1			2
					449
					2853
3			2		93
					56
					36
		1			3973

1

1886
343
272

1087
160
17
0

1 1

0
0
2
0
0
16
0
2

3

1

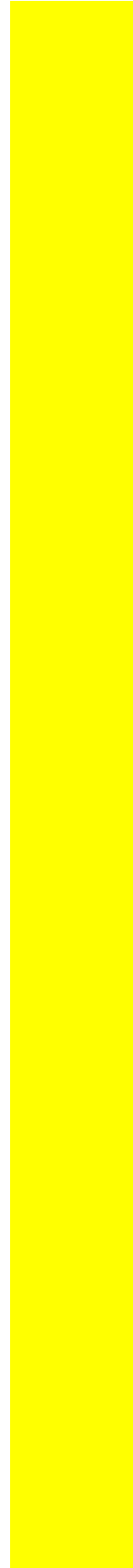
7
19
5
0

0
0
0
0
0
0
7

iter.

x

x

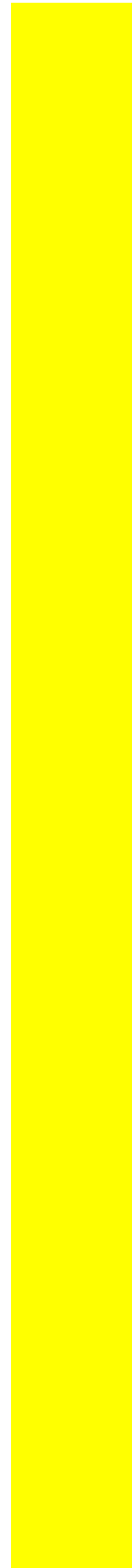


dead skate

sand/mud

abundant bluff erosion

yes



x

) 3

x

4

x

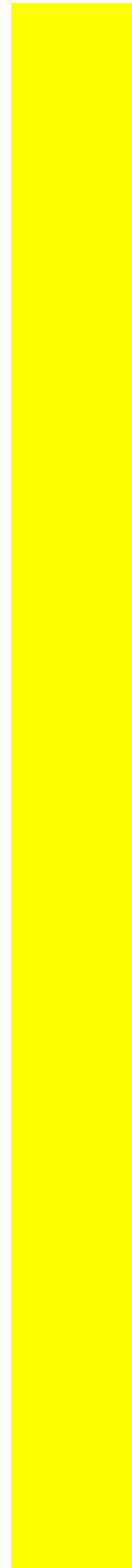
x

x

x

;

2



1

2

x

6	127	5		7	12	206
	4				1	6
9	94	2	1	9	3	201
22	10	4	1	39	30	439
113	148	16	13	821	84	1689
	13	1	1	14	34	110
1	54	1		8		83
28	12			4	9	100
3	281		10	4	18	334
					4	14
	2					2
25	5	3		38		120
	7				2	12
	8					13
	1				1	5
	2		1			6
	2					28
						11
						1
	8					14

	2					5
7	5					38
	3					4
2			3			21
	4				1	1
4	15	6	1		1	29
	1					61
						4
						1
						1
1	3					0
						5
	6		1			13
	2					3
	6	1	1	11		56
2	4					18
						52
1						11
	1					9
						1
					6	2
						6
	15	2	1			21
	149		2		1	152
	66					66
	23					23
	28			27		64

infinite number of beer cans/bottles/cups. We documented what we could pick up.

Dead seal skin, vertebrae of cow, skull of carnivore, otter skin.

The beach is beautiful and mostly clean except for the party zone.
 nans reaction to cleaning, and large amounts of alcoholic beverage containers