

Zone 4

Shore	north
Total Surveys	20
Start Point	Eroding House
End Point	Beluga Slough Outlet
Dates Walked	1987-92, 98-2006, 2007
Spring Surveys	13
Fall Surveys	18
First Walked	1987
Last Walked	2009
Total Person-Hours	1985.4
Total Trash Bags Collected	316.25
Total Estimated Weight of Trash Collected	3856.5

General Info

Date	#####	#####	#####	29-Apr to
Start Time				
End Time				
Lowest Tide				
	at time			
Temperature (F)				
Sky				
Vertical Zones Walked:				
	High	x	x	
	Middle	x	x	x
	Low	x	x	
# of Observers	5	2	2	1
Hours Spent	3	4	2	2.5
Person-Hours	15	8	4	2.5
Shoreline Walked (miles)	2	5	3	4
Total Trip Mileage				
Did Observers . . .				
	Hike?	x	x	x
	Kayak?			
	Other (specify)?			
Trash Bags Collected				
Estimated Weight of Collected Trash				

Wildlife
Birds

Loons			2	
Sea Ducks			12	
Other Ducks and Geese				
Bald Eagles				
	Adults	1	1	
	Immatures			
	Nests	1		
Shorebirds				1
Seabirds	147	94	15	30
Crows and Ravens	2			
Others (see separate Bird list)	3		1	

Domestic Mammals

Cattle				
Horses			2	
Dogs	2	2	5	2
Other				

Land Mammals

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

Marine Mammals

Sea Otters	
Harbor Seals	
Steller's Sea Lions	
Harbor Porpoises	
Whales	
	Beluga
	Orca
	Minke
	Humpback
	Gray
	Unknown
Other/Unidentified	

Please note any unusual wildlife sightings 1 dead seal, 11 dead sea otters, 11 sets of tracks

Invertebrates

(from the Intertidal Biodiversity Checklist)

Please note any interesting observations or changes in abundance here

1 large dead sea star

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

Worms

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

Gumboot Chiton

Black Katy Chiton

x

Brick Chiton	
Mossy Chiton	
Tiger Chiton	
Lined Chiton	
Limpets	X
Dunce Cap Limpet	
Plate Limpet	
Snails	X
Hairy Triton	
Sitka Periwinkle	
Helicina Margarite	
Puppet Margarite	
Aleutian Moonshell	
Ridged Neptune	
Channeled Dogwinkle	
Emarginate Dogwinkle	
Friiled Dogwinkle	
File Dogwinkle	
Big-mouth Whelk	
Nudibranchs	
Maned Nudibranch	
False Sea Lemon (False Lemon Peel)	
Orange-tipped Nudibranch	
Opalescent Nudibranch	
Bushy-backed Nudibranch	
Clams	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	
Mussels	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

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

x

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

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

Band
Attached
Washed Up

Red Seaweed

x

Band
Attached
Washed Up

Rockweed

Band
Attached
Washed Up

Kelps

Band
Attached
Washed Up

Eelgrass

Band
Attached
Washed Up

Beach Substrate

Type

all

all

Bluff and Cliff Erosion

Comments

severe

severe

moderate

Erosion Present

Human Activities

Walking

Camping	Signs of Actual observation	5	11	12	1
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		1		
Horseback Riding	Signs of Actual observation		5		
Harvesting (specify)	Signs of Actual observation				
Other (specify)	Signs of Actual observation				

Vehicle Use

Cars/Trucks	Sets of tracks Actual observation			1	1
ATVs/Motorcycles	Sets of tracks Actual observation		4		
Bicycles	Sets of tracks Actual observation				

Aircraft

Sets of tracks
Actual observation

Other (specify)

Structures on the Beach

Buildings		11		
Docks				
Driftwood Structures				
Riprapped Areas				
Erosion Control Structures	1	1		
Abandoned Vehicles	1	1	1	
Abandoned Boats				

Boat Parts

Archaeological Sites

Shell Middens
Other (specify)

Outfalls or Pipes

Number	1	5	2	
Comments				

Toxic Pollution

Fuel (oil, gas, etc.)				
Lubricating Oil				
Paint				
Batteries	1			

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	27	6		
Caps, Lids				
Clothing, Cloth	1	1		

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		1	
Light Bulbs/Tubes			
Oil/Lube Bottles			
Pallets			
Plastic Sheeting/Tarps		1	
Rope/cable	4	3	
Strapping Bands		1	

Smoking-Related Activities

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

Dumping Activities

Appliances (refrigerators, washers, etc.)		1	
Batteries			
Building Materials		2	
Cars/Car Parts	16	16	1
55-gallon Drums		1	
Tires			

Medical/Personal Hygiene

Condoms
 Diapers
 Syringes
 Tampons/Tampon Applicators

Debris Items of Local Concern

- Styrofoam pieces
- Plastic Pieces
- Glass pieces
- Paper products
- Metal Pieces
- Other

Entangled Animals

- Type of Animal
- Form of Entangling Debris
- Comments

Most Peculiar Item Collected?

Comments

15 car er Lots of w 1 vehicle Vehicle p

Additional Observations and Comments

Better map for areas 1-15. |

#####	#####	#####	#####	#####	#####	#####	#####	??-??-92
		1100	1230	915	1315	1515	1000	
		1300	1430	1315	1445	1645	1300	
0.3	-4.2	-4.2	-2.6					
	1136	1136	1229					

1	1	2	1	14	21	9	76	1
2.5	4	2	2	4	1.5	1.5	3	1
2.5	4	4	2	56	31.5	13.5	228	1
2.5	4	2	3	2	0.5	0.5	1	

x	x	x	x	x	x	x	x	
---	---	---	---	---	---	---	---	--

1	1	1	1		10	4	3	
---	---	---	---	--	----	---	---	--

2							
7	50		40				50
			12				
3	4	1	4	5	1		3
1	2	2	1	3	1		
1		1		2			
					10		
18	50	35	25	50			10
	6		5	50			
	1						3

			2	manure				
2	2	3	6	3	3	3	4	1

2

1

of bird bones

sea otter 1 flounder

5 small dead crabs, old dead barnacles on rocks.

c

x

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x x

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x

all rocky, sa rocky, sa pebbles, rocky, sa sand

rocky, pebbles, sai

moderate severe severe moderate severe severe

severe

6	1		16	1	1		1
1	1	1			1		1
				1	1	1	1

1							1
		1			1		
					1		

5	2		1	1	1		1
				5			2
			2	1	1		1
							2

14 golfers

1		2	3	1	1	9	4
5	2			3	1		
1		1	14	1	1	6	1
	3			1	1		

4

1

1
2

6

4

2

1

1

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2

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3
no effluent

1

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28

4

10

2
2

1

4
2

1
1

1

1

3

6

3

1

arts rare. Glass, m Styrofoar Old vehic Glass, st Glass, al Styrofoam, plastic, metal all

There are various rusty care Beach is cleaner than we ever seen it before!

#####	#####	??-Sep-96	#####	#####	#####	#####	#####	26.09.02	10.09.03
	1320				900	1330	900	830	
	1450				1200	1430	1200	1145	
					-2.7		4.2		
					1040		1139		
				50	55	55	60	60	
cloudy	cloudy	cloudy	cloudy	sunny	cloudy	sunny	loudy thei	sunny	
				x	x	x	x	x	
	x				x	x	x	x	
				x	x	x	x	x	
4	23	1	2	12	16	18	9	10	
1	1.5	1.5	0.5	4	3	1	3	3.25	
4	34.5	1.5	1	48	48	18	27	32.5	
	1.5	2	0.5	0.25	1	0.5	1	1.5	
					2	0.5	2	2.3	
x	x	x	x	x	x	x	x	x	
					9	14	7	6	
							120	600	

					11	2	5	2
					112		241	218
					6		0	
		3			4	1	3	2
		1					1	
							0	
					5		9	6
23	12	2	17	34	52	40	23	137
2			30	45	90	1	0	205
	1				2			

				tracks				2
7	4	2	6	5	7	18	11	10
								1

1

4		2			7		2
		2				1	0
							0
							0
							0
							0
							0
							0
							0
							0

1 dead common murre

1 dead gusculpin

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

evidence of (holes borec

x	x	x
x		x
x		x
x		

spotted nudibr

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		x	x	x	x	x	x
				x		x	x
x	x		x	x	x	x	ots of molt
				x			x
				x			
			x	x		x	x
			x	x			
							x
							x
				x		x	x
x	x		x	x			
			x	x			
x							
				x		x	

2 1 2 2 1 9 28
7 8 3 19 16 24 50

1 1
2

19

30

10

1

1

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1

1
10

1

1

2

1 (rocks)

2 1 1 8 1 2 5 10 multiple
4 1

1

1

1

2

1

1

	3	1	1 C-130	1	
		1 boat		2	
1		4		1	
				1	5 one occupied v
			1		
			1		1

3			11	4	pes, 1 cul
			Gully foam (small amount)	bad	of

1		1		1	ide in freshwater ru
				1	empty rusted t
1			1		

		46	37	14	13
				1	2
		10	11	25	45
2	2	36	108	75	76
	19	17	121	88	127
			29	47	56
		7	11	4	28

		5	35	16	22
				117	168
			2	1	0
			1	3	1
			10	5	9
			11	6	1
			2	2	2
			12	0	0
			3	0	1
			1	0	6
				0	0
				0	2
			1	1	5
				0	0
			2	0	3
				0	0
				3	0
			2	0	13
				4	6
	1		6	14	17
			2	6	2
		50	18	21	8
			5	3	3
				0	3
				8	10
				4	2
				0	2
			64	52	31
1	2		4	2	3
				0	1
			1	1	0
				1	1
				1	1
				1	0
				0	0

	23
43	166
17	
	13
1	58

television out

Aluminum Bishop's 12 engine: About 98% of the trash I saw 9 out of 10 items came from

Good condition I live on t The overall condition This is ou Amount of trash has decrease

14.09.03	16.09.03	17.09.03	9.27.04	9.16.04	9.19.05	09.20.06	09.20.06	9.27.07
	1430	1220	920	930	935	900	900	900
	1530	1440	1130	1130	1050	1400	1400	300
		3.2	-1.7	-0.5			-0.15	
		1252	824	1013			1013	
	50	58	38	40		60	60	50
	sunny	sunny	overcast	overcast	p. cloudy	clear	clear	sunny
x	x	x	x	x	x	x	x	x
x	x		x	x		x	x	x
		x	x	x	x			
4	2	6	6	14	6	40	40	95 (in 3 c
3	1	2.35	2.5	2	1.5	1.5	1	3
12	2	14.1	15	28	9	60	40	95
3	1	0.75	1	2	1	1	1	3
4	1.5	2	2	4	2	2.5	2.5	6
x	x	x	x	x	x	x	x	x
5	1	4	5	5.5	5	4	4	15
100	3	100	30	85	100	75	60	150

nothing entered onto a real low

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x
x x
x x
x x

l into macoma)

x

anch
x

x
x
x x
x x
x x x

octopus, 3 lbs.

					x
	x		x	x	
		x		x	
	x		x	x	
.s		x		x	
				x	

x x

x
x

x x

x

x

x x

6	12	16	2	8	20	6	0
			2	19		5	25
1	1	7				1	0
							0
0		4	2		5	4	1
							0
several			10	25	5	3	0
			10	25			7
0							0
							0
0					1		0
0							0
0							0
0							0
0							0
0							0
0					5	1	0
0							0
0							0
0							0
0					1 driftwood		0
0							0
many	many	many	2	10	10	7	4
3	3	3		1	5	3	1
many							0
		3					0
							0
							0
							0

in air e, 2 helis in air 4 1 0

0 5
 0 0
 1 1 3 6 1 2 0
 0 5 1 0 0
 some 2 3 1
 0 0
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0 0
 0 0

some 3 2 3 1 6 3
 m city sewerage materiter drainage

noff
 barrel

								537	
15	0	12	10	8	2	44	8	19	
0	0	1	0		1		1	1	
4	0	1	50	9	3	22	3	23	
13	5	34	30	25	20	100	22	249	
22	0	15	50	39	40	30	29	79	
20	3	7	75	19	20	15	14	76	
1	1	2	3	6	2	2	14	17	

8	0	6	10	7	10	7	1	20
50	0	30	75	31	90	70	40	27
1	0	0				2		1
2	0	0		1		1	3	3
8	0	2		1	1	3		3
0	0	1		1	1	2	1	10
0	0	2		1	1	2	1	9
								73
2	0	0		1	2	1	4	2
0	0	0			1			2
0	0	0		1	1	17	11	23
0	0	0		3				1
0	0	0		1				2
0	0	0		6				4
0	0	0						4
1	0	0		3		1		0
0	0	0		2				0
0	0	0			2	5	5	2
0	0	0						0
2	0	1		1		17		11
1	1	2	5	8	3	4	7	17
1	0	0			1	3	2	5
								52
5	2	15	10	9	16	48	8	44
1	0	0		1	1	4	5	1
0	0	2						2
0	0	3		4	1	4		5
								118
2	0	0		4	2			0
0	0	0				1	1	0
0	0	9		19	2	3	21	116
0	0	1		7	3		3	2
0	0	0	1					0
1	0	1						0
								7
0	0	0			1			5
0	0	0		1				
0	0	0						0
0	0	0			1			1

					650
20	109	57	45	24	490
10					150
					10
10		1			
			1		

plastic tail to toy bicycle
board motor

bottle of advil withng sharpindy machi

beach pa beach much clean Lots of garbage in high tide zone, 1 50 gallon H2O heater

sed.

+

2

9.12.10,9.22.10,9.15.10

3
12
95



7.30.09	9.15.10	9.12.10	10.1.10	8.2.2011	9.27.2011	10.8.2011	6.2011
		1:30			10		
		3			13		
					1.7		
					8:46		
		66			50		
		sun			sun		
x		x			x		
x					x		
6		4	30	14	2	20	41
0.75	2	1.5	2	1.5	2	1	1
4.5			60	21	4	20	41
1		0.5	2	0.5	3	1	1
2		0.5	4	1	3	1	2
x				x	x	x	x
3	8	3	5	5	3	2	10
50	55	35	125	150	45	47.5	200

2

10

1

1

25

1

1

3

3

1

4

5

1

1

x

x

x

x

x

x

, boulder, mud

sand. Cobble, boulder, mud

no

large crevasis, rock crumbling away, large rock clusters near deep crevasis

yes

yes

1
8

3

3

22

18
2

1

6

20
3

2
2

2
1

3

7
1

1

1

8
2

1

3
10

1
1

2
1

1
1

1

1

1

1

3

10

x

119

686

9	158	1	19	3	3	13	94
1				14			
6	4	6	13	3	5	2	28
28	18	25	48	11	1	40	96

7	38	27	60	64	4	18	90
13	22	6	19	25		27	65
10	11		11	4	1	1	10

13	16		6		22		14	7
27	66	8	59		59		48	45
1								
1	3		1		2			1
	4		5		5		32	3
2	3		5		4		7	15
1	7		17					2
				25				
								2
			1					2
			3					1
								2
1							3	2
					1			1
	1						1	1
			1				1	
	1				2			
2			1		17			2
1	4		10			7	1	4
1	1		2					5
				178				
61	134	9	23		58		34	156
					1		2	3
							1	19
7	9		3		5		1	13
				238		2		1
	1		1					1
79	200		32		6	3	5	12
4			2			6		3
			2			2		
				3				
3								2
1					10			1
	1							
1	1		1		3			1

			481					
	12	1	293		32	4	77	86
	57		81	9		3	138	150
	30			1		2	24	46
	5	1			146		76	502
3	1				5		3	5

ine chicken wirtchup bottle

lace underwear, car chasis

full bottle of beer

Not a lot of little things comir



2011 10.6.2011

5.5.12

5.5.12

9.20.12

9.26.12

#####

Homer Middle school: Period 1 10.22.14

13:00
16:00

8:30
9:30

60
Sun

28
Sun

x
x

x
x

123
1
123

24
2
4
1
2

10
2.5
25
1
2

5
2
10
1
2

37
2
74
1
2

25
3
75
1
2

24
1
24
1
1

x

x

x

x

x

x

x

x

6
247

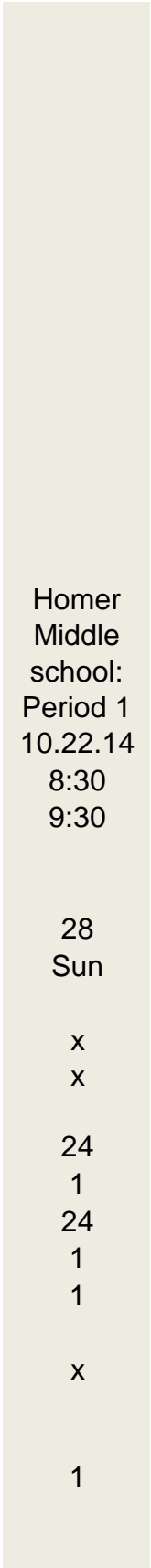
30
300

10
250

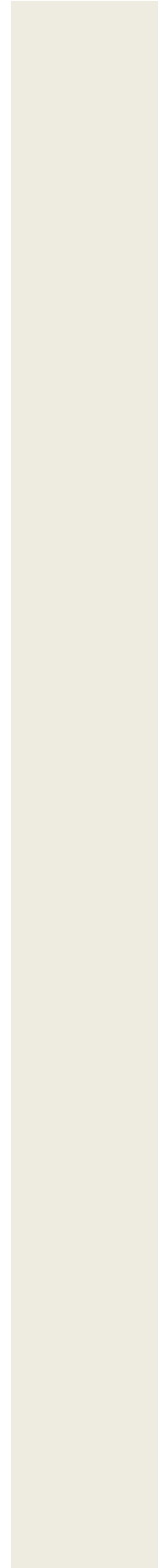
1
30

12
200

1



sis. Near water drainage



X

X

X

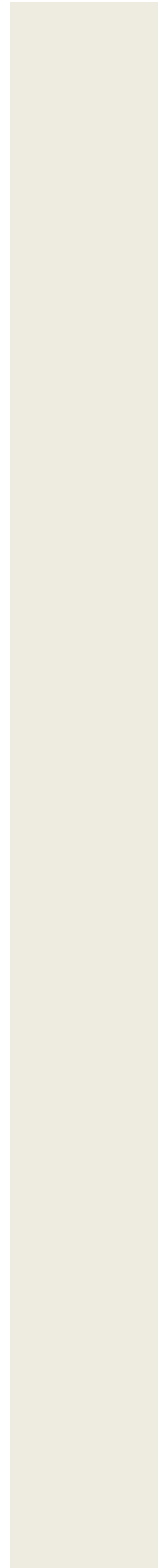
X

X

X

X

X



x

		1677						120
35	30		18	10	7	353		2
	3		2	2	2			
23	24		21	22	19		8	6
97	156		21	34	28	123		26
	46		23	18	13		19	23
59	51		19	38	28		38	14
3	19		11	9	7			4

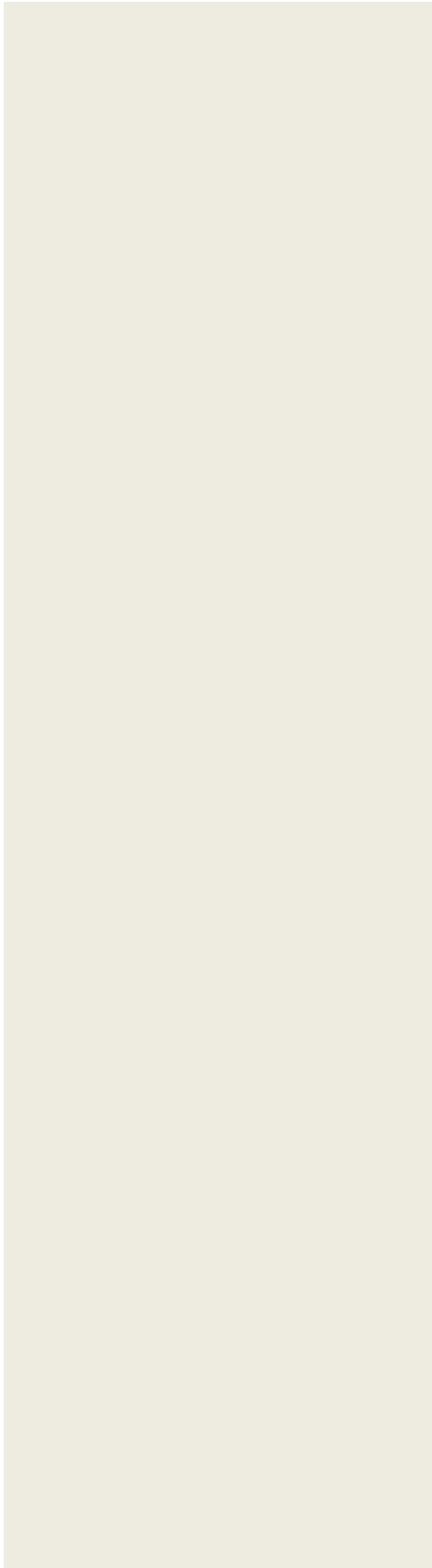
6	1		11	10	8			1
124	70		23	50	30			40
	0		0	27	27			
	3		19					
	10		4	4				3
15	3		19	59	52		11	1
2	9		4	2				
		91						15
	2		1	1	1			
	6		1	2	2			
	5		4	1	1			1
	1							
	0			2	2			
1	2		5	1	1	8		
	2		1					
				1	1			5
	1		2					
			3					
	1		1	1	1			
2	1		1	2	2			
3	9		12	8	3		11	9
				1	2		1	
		637						6
250	68		24	891	846	106	65	
6			5	1	1			1
	12			1	1			3
6	2		11	2	1			2
		113						36
			1					3
			1					
	62		10				4	33
	10		4					
			1					
		19						
	1		1	2	1			1
	1		2					

		6235						303
32	4402			27	12	120	6	264
23	319		22	50	35		117	19
	41		24	27	22			
45	12		17	313	321	265		
	52			13	11		900	20
							shotgun caps (6)	

shotgun caps, k pen

ing from the ocean. More things dropped over the cliff.

Period 3 10.22.14 10:30 11:30	Period 4 10.22.14 12:30 13:30	Period 6 10.22.14 14:30 15:30	Razdolna 4.25.17	HMS 7th grade 10.12.17
			-2.5 8:29 AM	2:15 6
35 sun	40 sun	40 sun		49 rain high
x x	x x	x x		1
25 1	25 1	25 1	26 2	93 1.5
25 1	25 1	25 1	54 1	139.5 1
2	2	1	2	2
x	x	x	1	1
2	3	6	6	28
			150lbs	244 lb 2 oz

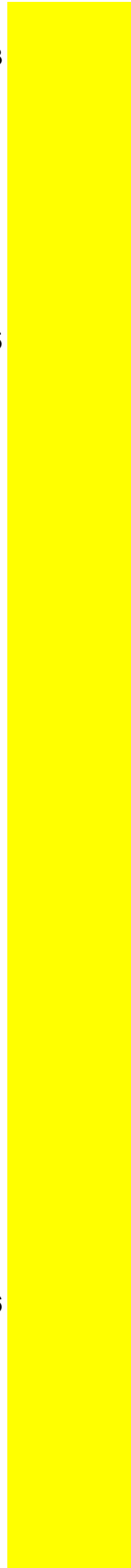


3

5

6

1



1

42	150	144
8	16	18
2		
4	18	17
3	16	6

19	56	1445
	3	70
11	51	553
19	31	2333

Sl

\$

13	17	13
4	10	10
	14	39

26	43	1494
37	101	1040
1	3	296

Over last !

3	6	9
5	44	28
	1	
	8	
		4
10	7	13
4		
	3	
		9
3	3	3
3	1	1
0	22	2
	14	1
		1
	1	
	7	
18	56	28
	3	1
18	53	27
		9
	20	50

10	37	351
73	135	1895
		69
		72
1		147
5	14	284
	10	141
		93
		31
		99
	5	7
		31
9	11	64
		15
3	4	24
		9
		37
		30
		140
	42	243
4		78
31	271	3319
1	131	125
13	1	59
3		123
		269
		15
1262	1375	1710
		121
		4
		8
1		59
		21
		74
	1	10

shoreline/re 537
 fishing 75
 smoking 52
 dumping 118
 medical 7
 smalldebris 650
 2007

303	85	20
297	75	8
6	10	9
		3
1		

reworks (1 sticker

Found an abandoned campground with tons of medical equipment, syringes, about 6 tents, mattresses, blankets, cooking supplies, old records, bags of receipts and papers, etc.

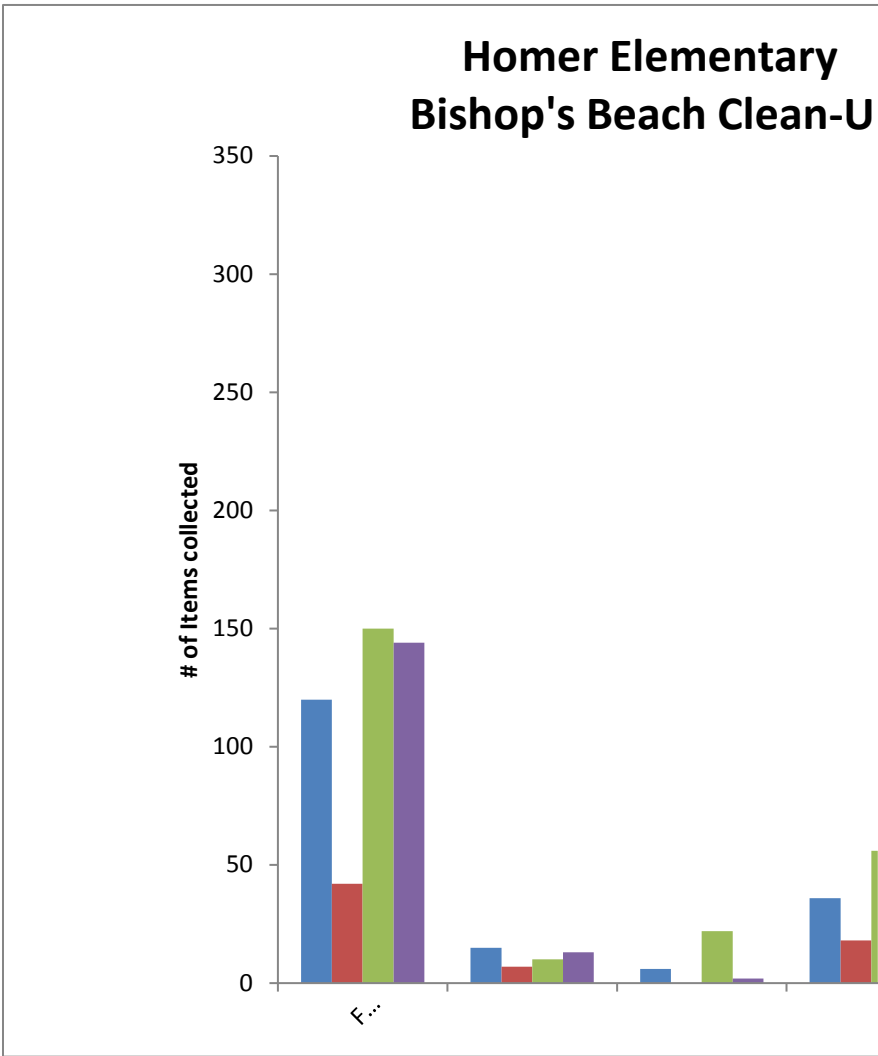
657	2956	8181
89	405	1419
13	115	0
	7	246
340	714	1734
2630	6522	1077

Bird

Dead

fireworks (Donut

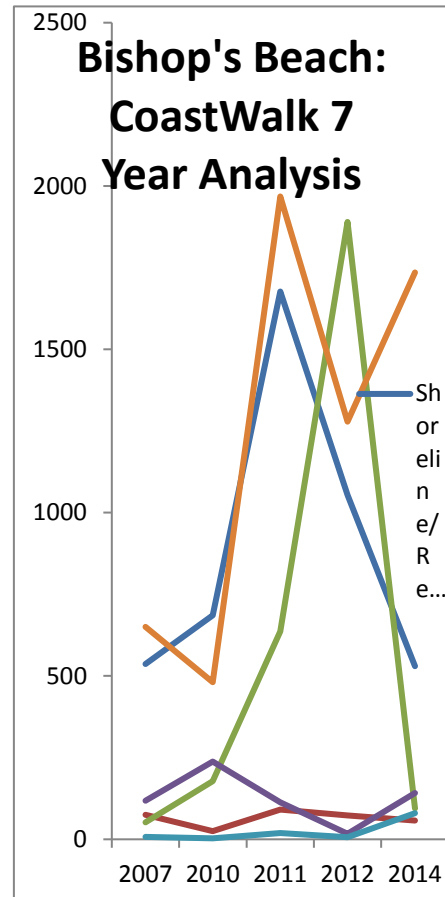
Homer Elementary Bishop's Beach Clean-U



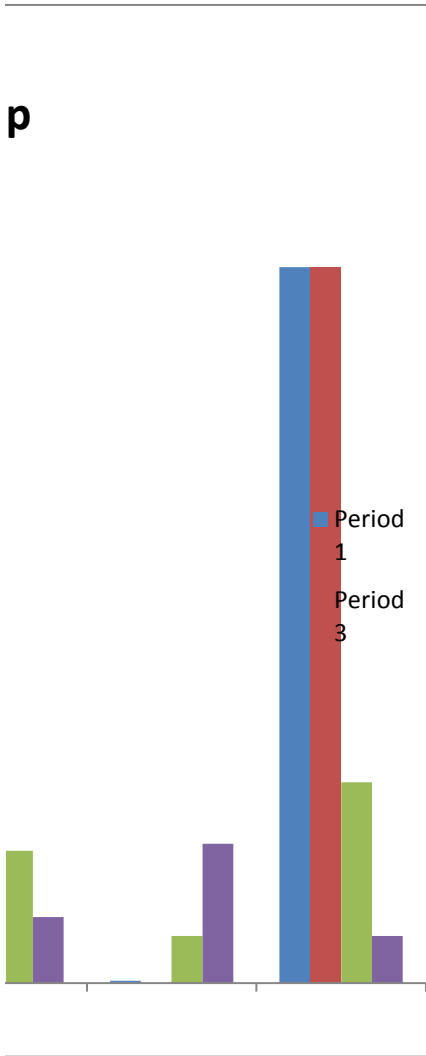
	period 1	3	4	6
HORELIN	120	42	150	144
fishing	15	7	10	13
SMOKING	6	0	22	2
dumping	36	18	56	28
medical	1	0	20	59
foam/gla ss/plasti cpieces	303	303	85	20

5 years comparison

686	1677	1054	530
25	91	73	57
178	637	1890	95
238	113	17	142
3	19	6	80
481	1968	1279	1735
2010	2011	2012	2014



Homer Middle School
10.21.15



16

38

32

39

21

4

15
17

17

1

1

10

15
7

3

2

5

1

5

121

2

3270

9

15

4

181

dead seagull