



Center for Alaskan Coastal Studies

Bringing You the Nature of Alaska Since 1982

COASTWALK ANNIVERSARY EDITION 2004

The Center for Alaskan Coastal Studies has coordinated the annual effort to monitor the Kachemak Bay shoreline for 20 years. Volunteers choose a predetermined section of beach to walk during the three weeks of CoastWalk and collect data on observations

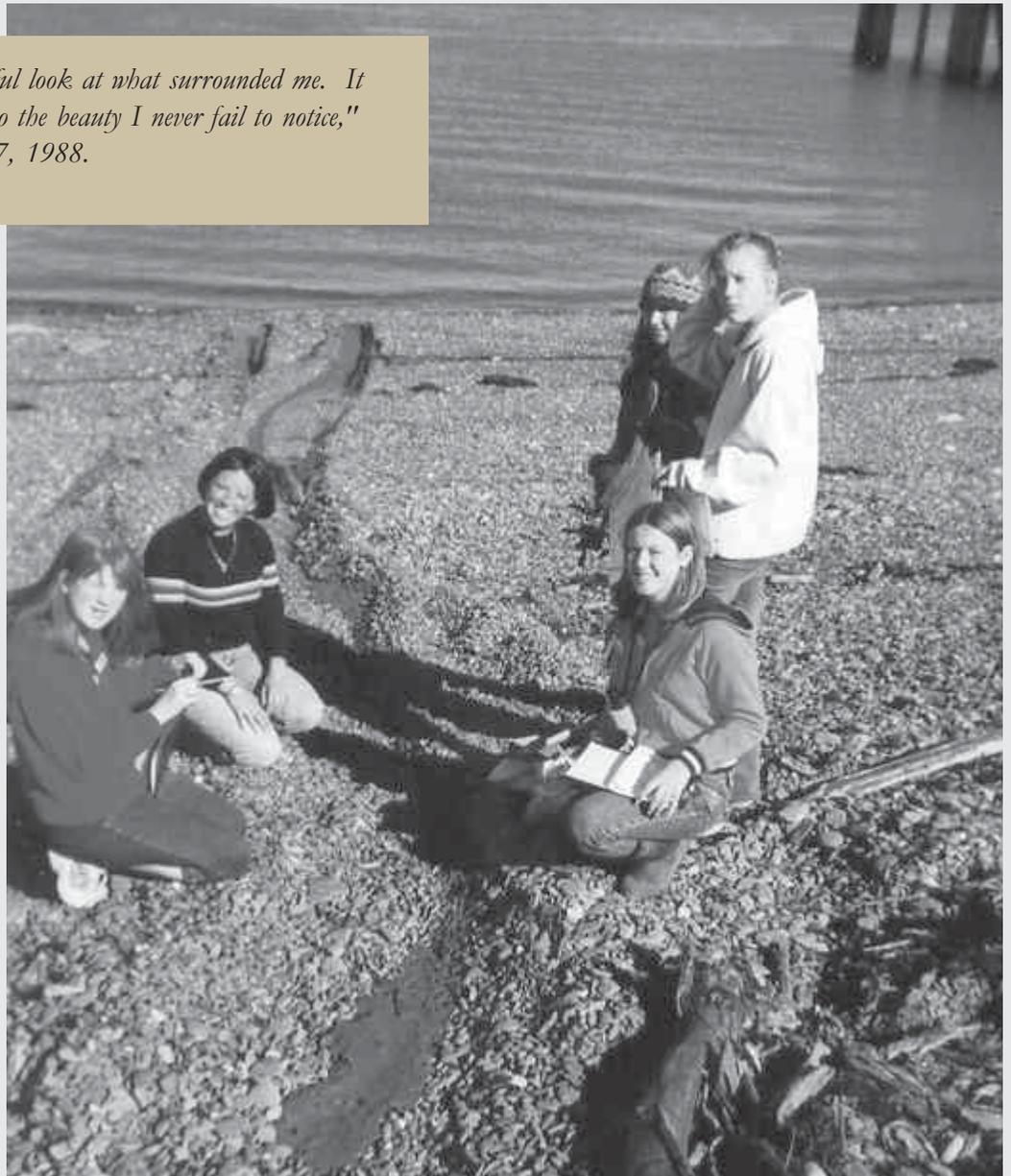
CoastWalk is a unique community science and stewardship program with a three part mission to build community awareness of the importance of our local marine habitats, to gather data to detect long term trends in biodiversity, and to observe the effects of human impacts on our shore.

"I loved taking a more careful look at what surrounded me. It somehow brought me closer to the beauty I never fail to notice,"
- Roberta Highland, Zone 7, 1988.

of marine, bird and mammal life, signs of human use and impacts and any noticeable changes to their stretch of beach. This year CoastWalk volunteers will be piloting a ground-truthing assessment for help with a cooperative shoreline mapping project in coordination with Cook Inlet Regional Citizen Advisory Commission (CIRCAC).

2004 marks the 20th Kachemak Bay CoastWalk. In 2004, Toby Tyler and members of the McBride family will again walk and contemplate the changes occurring to "their" Kachemak Bay beaches since 1984 when they participated in the first CoastWalk. They will be joined by a host of community organizations and residents, including owners of residents of recreational cabins and lodges along its shoreline have participated repeatedly in this community event. Please join us!

CACS
P.O. Box 2225
Homer, AK 99603
Phone 235-6667
Fax 235-6668
www.akcoastalstudies.org



"Erosion over winter cut beach another 2', taking with it some of the last traces of prehistoric middens in Neptune Bay. Two or three have vanished in the last 10 years,"
- Anne Wieland, Zone 23, 1989

Positive Trends:

☺ No more abandonment of vehicles and derelict boats! – Zones 4,5,10, and 13

☺ Giant Clam digger, first noted in 1987 and every year thereafter, finally removed in 2002!

☺ Relatively little litter and debris found on most south shore beaches; decreasing trend in Zones 21,22,24,26

☺ Fishing gear debris decreasing in Zones 2, 3, 6, 8, 13,14,15

☺ No more beach garbage dumps!

Negative Trends:

☹ Litter increasing around access points in Zone 1,7,12 (plus camping/human waste problems)

☹ Evidence of camping and fire rings increasing

☹ Evidence of vehicle use in most City of Homer beach zones, including closed areas; one new ATV trail bulldozed to beach.

Trends of Dubious Distinction

☺ Shift in marine debris types in several zones from fishing and boating to litter from recreational use of beach (glass debris and bottles, aluminum cans, plastics).

☺ Addition of structures or fill or debris to control bluff erosion (Zones 6,7,8,10,12) + the sea wall (Zone 4)

Unusual Events/Observations

Severe erosion process in Zone 12, 1988-92. Estimated movement of 40,000 cubic feet of clay onto the beach in one month.

20 Years of CoastWalks - 21 Years of Changing Shores

The time was fall of 1984.

Peterson Bay Field Station and the Center for Alaskan Coastal Studies had just hosted its first school group and summer tours. Only a few spruce bark beetle larvae were crunching away beneath the bark of trees in Kachemak Bay forests. The Bay's single kayak tour company had stored their boats and the two across-the-bay lodges in China Poot and Tutka Bay had completed their seasons. Well-fed Alaskans had harvested King, Dungeness, and Tanner crab and almost 9,000 gallons of cockles and Butter and Pacific Littleneck clams in Kachemak Bay and Lower Cook Inlet. Oil flowed steadily and uneventfully through the Trans-Alaska Pipeline system and onto tankers that navigated successfully through the ice bergs and rocks of the Gulf of Alaska.



A small group of people hatched the idea of the annual Kachemak Bay CoastWalk - a walk along stretches of the Kachemak Bay shoreline once a year to observe how it changed from year to year. They were interested in the natural cycles of change in beaches subject to a 27+ foot tidal range and connected to a "superhighway" of nutrients and marine life brought to the Bay by the ocean currents. They also were concerned that as more and more people were attracted to live, work and recreate on the awe-inspiring beaches of this beautiful Bay, their activities would become a large factor in the changes that would occur. But the other thing they had in common was their sheer enjoyment of a walk on a familiar beach whose cycles, patterns, and complexities were part of their extended sense of "home."

Now, in 2004, we can look back at the changes that have occurred.

A warmer climate has rippled through the forests in the form of the spruce bark beetles that have eaten their way through thousands of acres of trees in the Bay's watersheds. Shrimp, the base of an oceanic food web, have all but vanished. The sport harvest of 62 king crab in 1984

"I love this stretch of beach in spite of unpleasant memories from post - Exxon days," Toby Tyler, Zone 1, 1996 & 2001

proved to be the last before the season was closed and the shellfish harvest of 1984 was never equaled. Several wildlife species that use the Bay that were abundant in 1984 are now species with conservation concerns in some part or all of their range: beluga whales, Steller's sea lions, harbor seals, sea otters, sea ducks, and Kittlitz's murrelet. And, in a single event in 1989, eleven million gallons of crude oil were spilled into the Gulf of Alaska marine ecosystem, of which the Bay is a part.

Use of our shoreline and beaches have increased dramatically. The shoreline has gradually become lined in a number of areas with homes, businesses, and recreational cabins, and spotted in others with private and public docks and moorings, trailheads, kayak landing spots, and beach parks. A half-mile of seawall has been built in an attempt to protect coastal properties from the process of beach

erosion. The Homer Spit has become a seasonal suburb of Homer, with acreage created for storing logs and chips and spaces for RVs with cable TV connections. Sixteen businesses offer water taxi and marine tours, eleven provide kayak tours or rental kayaks, and eleven lodges provide overnight stays on the south side of the bay.

But appreciation and stewardship of our beaches have increased dramatically during the same period. Kachemak Bay State Park and its shoreline has been expanded considerably and the entire bay has been designated a National Estuarine Research Reserve. An annual Shorebird Festival attracts thousands whose enjoyment depends on the integrity of coastal wetland habitats. The City of Homer has a Beach Policy Committee charged with heading off conflicts and



negative changes to beach habitats. In addition to CACS, the Islands and Ocean Visitor Center and Pratt Museum orient thousands of community members and visitors to the natural and cultural history of the bay and opportunities to learn more, experience more, and sustain its diversity and productivity.

CoastWalk Education

From the mouth to the head of the bay, the schools along the shores of Kachemak Bay have played an active role in CoastWalk. Teachers quickly discovered that by having their students participate in this event, their students received an exciting hands-



on science experience, in addition to assisting with the documentation of the coastal changes of their community's shorelines.

Teachers use the CoastWalk program to support topics that they are teaching in their classrooms, like the scientific process, marine ecology, ocean pollution, climate change and stewardship. In addition, teachers have found it helpful that CACS has been able to provide a naturalist to both come into their class to prepare the students for their CoastWalk and to assist them on the day of the shoreline monitoring and beach clean-up event.

Ray Vining, a science teacher at Port Graham School, summed up nicely why he thought the program was beneficial to students and the larger community, "The students learned about stewardship of the intertidal zone and gained a deeper appreciation of the biodiversity of our beaches. Students felt that they were a part of an important scientific enterprise. The



community expressed satisfaction with the students learning through hands-on activities using the outdoors as a classroom."

"Considerably more oil was found in the Kachemak State Park beach directly to the west of Neptune Bay. Approximately 1/2 gallon of mousse globs up to 6 inches in length and oiled debris was collected on the west facing beach that faces Sixty-foot Rock," -Anne Wieland, Zone 23, 1989

Unusual Occurrences

With a network of over 150 volunteers, a strength of the program is being able to send walkers out to detect any unusual occurrences along the shores of Kachemak bay. These volunteers, while doing their annual CoastWalk, can "keep an eye out" for specific marine debris or abnormal wildlife observations.

For example, in 2001 CoastWalkers looked for Kachemak Bay Research Reserve's drift cards that were used for the Reserve's surface current study in Kachemak Bay and Lower Cook Inlet. CoastWalkers also looked for the presence of the Flat-Bottomed Sea Star, which showed up in very high numbers that year.

This same year the CoastWalk Coordinator also learned about a container spill in the Western North Pacific. The container was filled with shoes. Walkers were asked to record brand names, types, size and serial numbers for any shoes found. The data that were collected were turned into the federal agency monitoring ocean currents.

Other efforts have focused on surveying beaches following the Exxon Valdez oil spill and, in 2004, documenting dead or fatigued common murrelets found on local beaches.

The CoastWalk program has proved to be helpful not only in providing the annual observations used by CACS, but also in creating a pool of resources for the community to observe and record unusual occurrences along the Kachemak Bay coastline.

"I have walked the beach over the last 30 years. Most surprising was a large number of crab molts (Helmet crab) and thousands of Asturias amurensis (Flat-bottomed star) washed-up, half-alive, although there was no high wave surge or storm."

- Michael McBride, Zone 21, 2003

Participating Schools:

Chapman School
 Magpie Academy
 Odyssey Academy
 Otter Beach Educational Center
 Kachemak-Selo
 Susan B. English School (Seldovia)
 Port Graham School
 Nanwalek School
 Homer Flex School
 Smokey Bay School

Participating Youth Groups:

Homer Boy's and Girl's Club
 Choices for Teens
 Boy Scouts
 Cub Scouts
 Homer United Methodist Church



Top Ten Marine Debris Items Collected

2002-2003

Beverage Cans	617
Fast Food Containers	581
Beverage Bottles (plastic)	523
Construction Materials	335
Caps, Lids	303
Beverage Bottles (glass)	246
Bags/Wrappers	202
Rope	177
Cup, Plates, Forks, Knives, Spoons	147
Cigarettes/Filters	128

Top Ten Marine Debris Items Collected

1984-2001

Beverage Cans	238
Beverage Bottles (plastic)	108
Car Parts	76
Buoys/floats	73
Rope	72
Beverage Bottles (glass)	49
Construction Materials	41
Fish Nets	40
Clothing, Cloth	37
Bags/Wrappers	36
Caps, Lids	36

"There was far less trash than in past years, but so many cast-away water bottles of all shapes and sizes, one even with a message inside," Toby Tyler, Zone 1, 2001

Source of Debris Comparison



Partnerships & Financial Support

CoastWalk could not be accomplished without the support of many business partners and financial supporters

Grantors:

Alaska Conservation Society, Alaska Sea Grant, Exxon Corporation (1989 intensive surveys), Exxon Valdez Oil Spill Trustee Council, National Fish and Wildlife Foundation, Oracle Corporation, U.S. EPA, U.S. Fish and Wildlife Service Alaska Coastal Program, West Marine through Cook Inlet Keeper

2003 Zone Sponsors:

Homer Brewery, Tutka Bay Lodge, Emerald Air Service, Lands End Resort, Homer Real Estate

Donations of water taxi trips & kayak use for the south side zones: Bay Excursions, Mako's Water Taxi, Otter Cove Resort

Center for Alaskan Coastal Studies, Inc.

P. O. Box 2225

Homer, AK 99603

Non-Profit

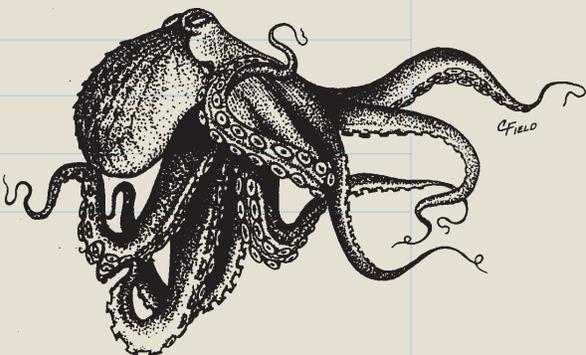
Organization

U.S. Postage

PAID

Permit #40

Homer, Ak 99603



2004 CoastWalk

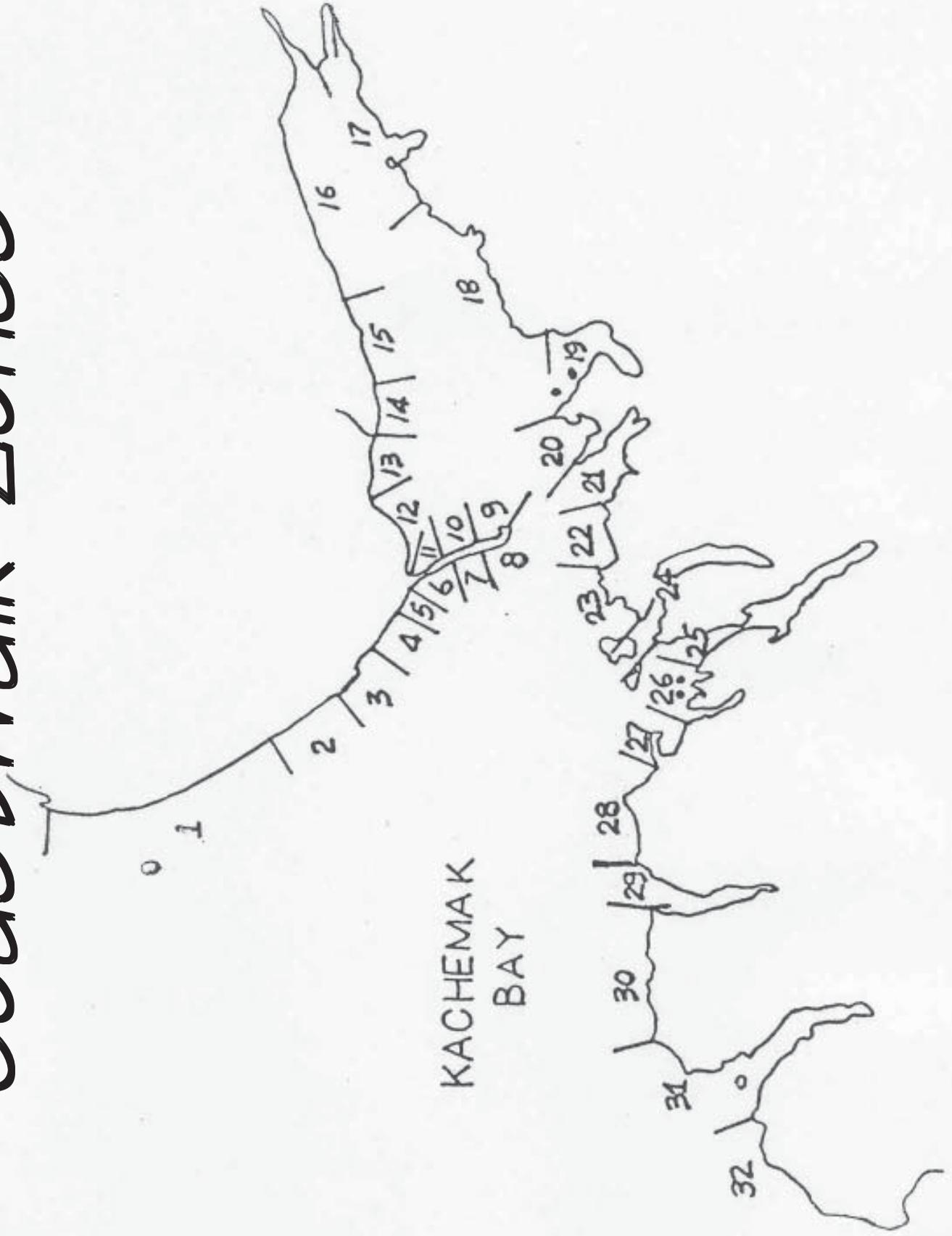
Information and sign-up:

Center for AK Coastal Studies

235-6667

Zones available, Sept. 9-26

CoastWalk Zones



Volunteer Appreciation!

We salute the following people and groups who have “adopted” a zone in recent years:

Zone 1	Gordon Terpening* & Toby Tyler*
Zone 2	Alaska Maritime National Wildlife Refuge staff
Zone 4	Smokey Bay School* & Jane Tollefsrud
Zone 5	Conrad & Carmen Field*
Zone 8	Cub Scout Troop, Kucera family
Zone 11	Joyce Robinette*
Zone 12	Anne Wieland*
Zone 13	Susan Aramovich & Rick Foster
Zones 15 & 16	Steve Hackett*
Zone 18	Susan Clardy*
Zone 20	Center for Alaskan Coastal Studies staff
Zone 21	Diane, Mike, & Barbara McBride
Zones 22 & 23	Anne Wieland*
Zone 24	Kachemak Bay Research Reserve staff
Zone 25	Nelda Osgood*
Zone 26	Carla and Wayne Stanley*
Zone 29	Seldovia Susan B. English School* & Janet Shepard*
Zone 31	Port Graham School

Multiple Zones:

Homer Flex School/Jeff Szarzi* Zone 2,3,6,7

* CoastWalk Hero Awardees for 5 years of surveys

Special Recognition

Anne Wieland, the CoastWalk Data Tamer Award, Homer City Council for leadership in establishing the Homer Beach Policy Task Force, Members of the Homer Beach Policy Task Force for their stewardship efforts, Michael Armstrong, for creativity and inspiration to recycle beach litter into art, Snomads, for 2003 spring beach clean-up, Nancy Hillstrand, for commitment to sea duck conservation, Randy Hagenstein, The Nature Conservancy of Alaska, for coastal conservation efforts in Kachemak Bay

**Total CoastWalk Volunteer
Hours - 1984-2003**

4,385