

# Reports 99-00

## Breaking News

### South Coast

During 1999-2000, COASST volunteers hit the beaches. In December, 12 volunteers gathered for training in Ocean Shores and started surveys from Klipsan Beach on the Long Beach Peninsula north to Copalis Rocks. At present, we have five beach segments, covering ten kilometers of shoreline along the South Outer Coast, and two beach segments (totaling eight kilometers) at Damon Point in Grays Harbor. Altogether, the South Coast COASSTers have spent almost 240 hours walking the sand and waves.

Although we require data collection at least once per month to be included in the COASST program, many of our volunteers are out on their beaches twice a month. And they have been rewarded for their efforts!

South Coast volunteers have found and tagged a total of 119 marine birds.

### San Juan Islands

Interest in COASST has been so high, we've expanded into the San Juan Islands. After our first training session in July at Friday Harbor, 12 volunteers from 5 islands signed up as the first wave of island COASSTers. Although seabird deposition rates are lower in the protected inshore waters of the San Juans and Gulf Islands, COASST volunteers have chosen a range of beaches most likely to receive carcasses. Dr. Terrie Klinger from the University of Washington's Friday Harbor Laboratory has been advising COASST on deposition rates based on her recent drift card study. Thanks Terrie!

In the coming year, look for COASST training sessions along the North Coast, the

*Q: Can you i.d. this bird?*



Strait of Juan de Fuca, and Puget Sound. We also plan additional South Coast and San Juans sessions. Finally, we're moving into

Oregon! COASST's first Oregon site is

*A: American Coast, with the big feet with ruffled lobes on the toes*

likely to be Newport where we've been testing our unique carcass identification and marking techniques.

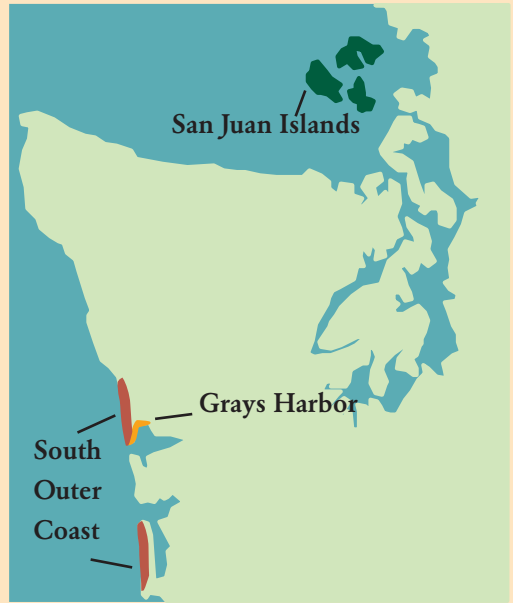
## Field Guide

After a long-awaited arrival, *Beached Birds: A COASST Field Guide* is just about to hit the presses. Many thanks to our first year volunteers who have persisted with mini-guides—it won't be long now! Volunteer copies should arrive in October.

Written by Todd Hass (COASST program and science coordinator) and Julia K. Parrish (COASST executive director) and designed by Sleeping Dog Design, *Beached Birds* is a revolutionary approach to field identification. If you can tell it's a bird and it's dead, *Beached Birds* can get you to species.

*Beached Birds* starts with the feet (we've noticed that they are almost always present). Turns out that marine birds can be classified into 16 "Foot Type Families" (FTF) as a first identification step. From there, *Beached Birds* uses simple features, such as bill shape, body size, and major plumage characteristics, to narrow the field of choices to only a few potential species. Because we devote two full pages to each species, choosing the correct one is virtually guaranteed.

## COASST Beaches 2000



Covering the 50 most common carcasses likely to wash up on Washington and Oregon beaches, *Beached Birds* features color photographs taken by Beach Watch and COASST volunteers. Many thanks to Jan Roletto at Gulf of the Farallons National Marine Sanctuary for allowing COASST access to Beach Watch photos!

*Beached Birds: A COASST Field Guide* will be available directly from us, as well as from Flora and Fauna Books at 121 First Ave. South in Seattle; (206) 623-4727; [ffbooks@blarg.net](mailto:ffbooks@blarg.net).

NAME	PRIMARY BEACH	HOURS
Diane Beers	Damon Point	46
John Beers	Damon Point	45
Toni Niemann	South Taurus	7
Winona Schuver	Klipsan	16
Rudy Schuver	Klipsan	16
Betty Smith	South Butter Clam	13
Wolter van Doorninck	Copalis Rocks	14
Anneka van Doorninck	Copalis Rocks	14
Elone Weed	South Taurus	8
Walter Weed	South Taurus	8
Kathleen Wolgemuth	North Jetty, South Butter Clam	33
Bruce Wolgemuth	North Jetty	18

## Website

Want to know more about COASST? Where to get *Beached Birds*? When the next training session is? How many hours you've logged on your beach? Check out the COASST website at <http://depts.washington.edu/coasst/>. Designed by Brian Altman and Todd Hass, the COASST website has something for everyone. In addition to the basic facts about

COASST and what we do, the COASST website features an interactive page where visitors can test their knowledge of beached bird identification (COASST Challenge). COASST volunteers also have the opportunity to enter their data directly on the Data Sheet page.

**Common Murre (Adult)**  
*Uria aalge*

PLUMAGE VARIATION: J-A, B-NB, M-F

**1 WING**  
white trailing edge on 2<sup>o</sup>s

**2 WING**  
white underwing linings

**3 HEAD**  
dark face, throat and neck

**4 HEAD**  
throat and side of head mostly white

**ALL 1**

3 webbed toes, 4th absent; football-shaped body; short neck and tail

white-tipped 2<sup>o</sup>s and white underwing and wings

throat and neck completely dark

throat and face bisected by thin, dark line with eye toward nape

with smaller bill (see outlines on Murre-Juvenile page)

20-23 cm tarsus 35-42 mm

at gonyx > 1/3 culmen [1 < 1/3]

white lower cheek [white face, dark eyeline]

larger; flat tarsi, minute 4th toe [round, absent]; dark 2<sup>o</sup>s [white-tipped]

dark underwing [white wing linings]; mottled white upperwing patch [dark]; feet and mouth bright red [dark]

**DID YOU...?**

- Determine foot type?
- Check Common Murre (Juvenile) page?
- Note color of underwing linings and trailing edge of 2<sup>o</sup>s?
- Compare bill length to depth?
- Note color pattern of head and throat?

TABLE: BIRD CARCASS ABUNDANCE

TON	A	M	J	J	A	S	O	N	D

“I really like the feet approach. It was so easy to figure them out into the proper groups, then narrow it down from there. ...So, you're onto a fine thing here, I think.”

—Kathleen Wolgemuth, *Ocean Shores*



## What's Washed In?

The heart of the COASST program is its high quality data. From December through July, COASST volunteers identified a total of 110 carcasses (or 92% of all carcasses found) of 19 different species and 11 Foot Type Families. Our smallest carcass—a red phalarope—identified by Rudy and Winona Schuver on Klipsan Beach. Our largest—a double-crested cormorant—also identified by Rudy and Winona on Klipsan Beach. Rudy and Winona get diversity points!

The most common species was the rhinoceros auklet, found on 71% of COASST beaches. Remember, the Glaucous-winged/Western Gull complex is actually two species. Of course, these patterns of abundance will change next year, when we report an entire year's worth of data.

Because beaches are different lengths, we divide the number of carcasses found by the beach length, to get carcasses per kilometer. This allows us to compare the rate of carcass deposition among all monitored beaches. COASST combines all data from a single beach into an average monthly value, and all monthly values from close beaches into a single regional value—one each month.

On the South Coast, we have two regions—South Outer Coast and Grays Harbor. If you want site-specific information, check the COASST website or contact us at [coasst@u.washington.edu](mailto:coasst@u.washington.edu).

Our graphs show the regional monthly averages as bars. Variation in the averages due to differences among beaches and differences from day to day within a month (known as the Standard Error) are displayed as a shaded range above and below each bar. Do you want to know whether December is different from March? To “read” COASST graphs, look to see whether the shaded area from one month falls inside (not really different) or outside (significantly different) of the shaded range from any other month.

From December until July, the monthly average beaching rate along the South Outer Coast exceeded the rate in Grays Harbor. Of course, that's not too surprising, considering Grays Harbor is an estuary protected from ocean waves. Extra points for the Grays Harbor COASSTers for persevering despite low carcass returns. Zeros are *important* data points, because they allow us to calculate more accurate beaching rates.

The second major pattern is the seasonal change in carcass deposition. During the winter months (December and January), the beaching rate was as high as 4 carcasses per kilometer along the South Outer Coast. As the days got longer and the winter storms passed, the number of carcasses per month dropped significantly. Notice that the beaching rate

SPECIES	NUMBER
Glaucous-winged/ Western Gull complex	36
Rhinoceros Auklet	23
Common Murre	12
Western Grebe	10
Northern Fulmar	9
Fork-tailed Storm-petrel	3
Sooty Shearwater	3
Pelagic Cormorant	1
Double-crested Cormorant	1
Cormorant Spp.	2
Surf Scoter	1
Pintail	1
Bufflehead	1
Mallard	1
Coot	1
Red Phalarope	1
Common Loon	1
Pacific Loon	1
Loon Spp.	1
Songbird Spp.	1
Unidentified	9

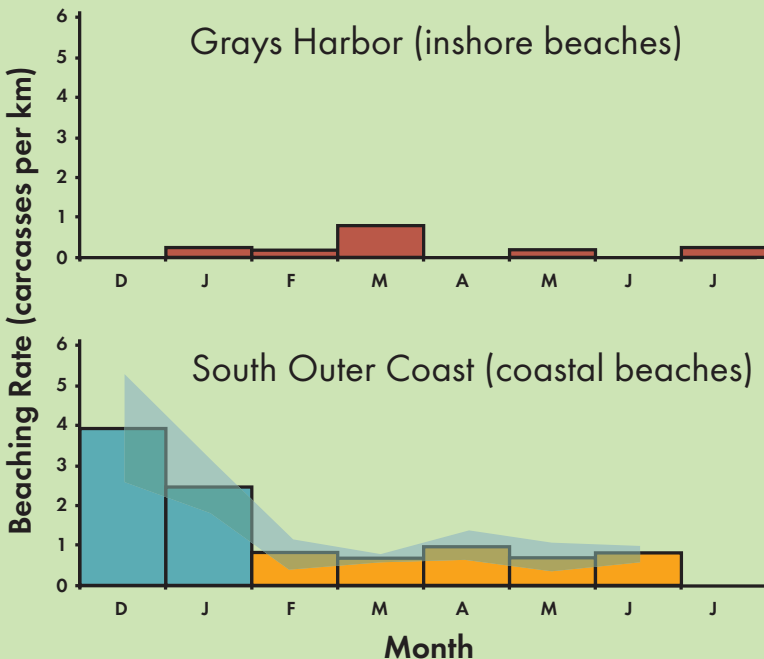
REGION	BEACH SURVEYED	TOTAL KM SURVEYED	CARCASSES FOUND
Grays Harbor	Damon Point East	39	3
Grays Harbor	Damon Point West	12	4
South Outer Coast	South Butter Clam	12	25
South Outer Coast	South Taurus	6	8
South Outer Coast	North Jetty	30	33
South Outer Coast	Klipsan	24	29
South Outer Coast	Copalís	21	17

from February on is not that different from month to month *or* from region to region. With the coming of Fall, COASST volunteers are getting set for a wave of fledglings and juvenile birds of coastal breeding species. The COASST website will be providing updated carcass deposition rate information, if you can't wait until next year's report.

COASST volunteers don't only identify

carcasses; each carcass is tagged with a unique set of colored plastic cable ties. This gives COASST the ability to track persistence rates and scavenging—two essential ingredients in many mathematical models of the effects of oil spills. Look for an analysis of these data in next year's report—when we will have an 18 month stretch of data.

### BEACHING RATES FOR GRAYS HARBOR AND SOUTH OUTER COAST



## COASST People

COASST relies entirely on a network of committed individuals willing to work hard to collect baseline data and make a difference. At the center of all COASST initiatives is **Todd Hass**, the COASST program coordinator. Todd joined COASST in August 1998, and has been working ever since to make the program a reality. In the last year, Todd has been responsible for the completion of *Beached Birds: A COASST Field Guide*, helping with the design and implementation of the COASST website, and running 4 volunteer training sessions. Always on the go, Todd can be found at [thass@u.washington.edu](mailto:thass@u.washington.edu) if you have a question about COASST.

Assisting Todd in volunteer training and community outreach are our two extremely capable volunteer coordinators—**Mary Sue Brancato** on the Olympic Peninsula, and **Valerie Sloane** in the San Juan Islands. Mary Sue joined the COASST program at its inception in July 1998. When not helping out with the COASSTers, Mary Sue has her hands in a countless number of interesting marine science and conservation projects as an employee of the Olympic Coast National Marine Sanctuary, including the marine mammal stranding network.

You can contact

Mary Sue at [mary.sue.brancato@noaa.gov](mailto:mary.sue.brancato@noaa.gov).

Valerie is our most recent addition,

joining COASST in June 2000 and single-handedly setting up the first San Juans training session. Valerie is just as busy as the rest of us, volunteering for marine biology field projects during the summer and teaching middle school during the school year. An accomplished artist, she even found the time to draw the Foot Type diagrams for *Beached Birds!* Valerie can be found at [vsloane@rockisland.com](mailto:vsloane@rockisland.com).

Based at the University of Washington, COASST has enjoyed the enthusiasm and hard work of many undergraduate students. **Brian Altman** deserves special mention as the designer of the COASST website. Although Brian has since moved into the workaday world, he still volunteers his time to update the site with the latest and greatest in web-based interaction. **James Kim** has also been

a great help to COASST. While a student at UW, James has been our front line of information access, sleuthing out measurements on many hard-to-find species. After spending many hours of pouring over volunteer datasheets, James is now a handwriting expert. When he moves on in the Fall, we'll miss him!

Of course, the people who really make COASST run are our capable and intrepid volunteers



*Diane Beers, COASST Volunteer*

the COASSTers! Week after week, month after

month, COASST volunteers are out there—rain or shine—collecting the data that *is* the program. The geographic diversity and frequency of COASST data would not be possible if COASST was staffed by university or agency personnel. We salute the COASSTers!

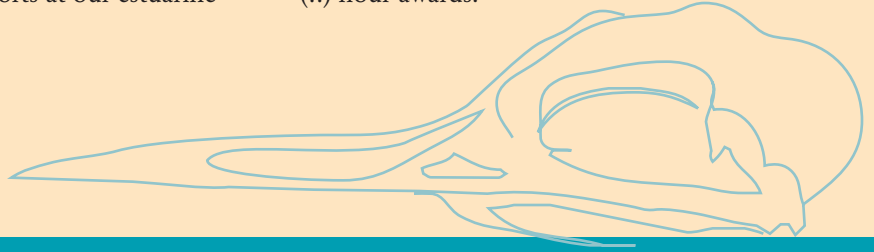
In our first half-year, **Diane Beers** in particular, contributed 46 hours to data collection for COASST, narrowly edging out her husband John at 45 hours. Round trip, Diane has walked 115 kilometers of beach in seven months! Diane has concentrated her COASST efforts at our estuarine



*Todd Hass, COASST Coordinator*

sites in Grays Harbor—Damon Point East and West. In addition, she has surveyed North Jetty and South Taurus, both in Ocean Shores. Long before COASST started, Diane was a committed beach walker and bird identifier. We can tell because her COASST data sheets are full of interesting comments about what’s dead on the beach. Birds, jellyfish, crabs, marine mammals—Diane reports it all. She even spotted 6 endangered snowy plovers (alive this time) during her latest July survey. In next year’s report, look for the 50, 100, and 150 (!!)

hour awards.



## COASST Sponsors

Several organizations, agencies, and companies helped make COASST possible this year. Gene Woodwick and the Ocean Shores Environmental Interpretive Center, hosted our first training event, and has acted as a base camp for South Coast COASSTers. The Polaroid Foundation donated two Polaroid cameras and 20 film packs for verification pictures. The J. L. Darling Corporation donated Rite-in-the-Rain paper for 400 datasheets. Cable Markers Co., Inc.

of California donated 10,000 color cable ties so that COASST volunteers can individually mark each carcass found. The Washington Department of Fish and Wildlife contributed substantially to the costs of printing *Beached Birds: A COASST Field Guide*. COASST is underwritten by a generous contribution from the Packard Foundation, and in-kind support from the Olympic Coast National Marine Sanctuary and the University of Washington.

## COASST Mission

The Coastal Observation And Seabird Survey Team (COASST) is a citizen science project dedicated to involving volunteers in the collection of high quality data on the status and trends of coastal resources—mainly seabirds—for the tripartite purposes of science, informed management and conservation, and proactive citizen involvement and action. COASST believes that coastal residents know and care about their local resources. With a target of 35 monitored beaches in Washington State, COASST volunteers will provide long-term baseline data on seabird beaching, and become an active voice in coastal marine conservation.

COASST Program Coordinator	Todd Hass
Writer & Editor	Julia K. Parrish
Graphic Designer	Cathy Schwartz
Bird Feet Illustrator	Valerie Sloane

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Coastal Observation and Seabird Survey Team  
School of Aquatic and Fishery Sciences  
Box 355020  
University of Washington  
Seattle, WA 98195-5020