COASST

COASTAL OBSERVATION AND SEABIRD SURVEY TEAM

Reports 06–07

DECEMBER 2007

Breaking News

In the quest for personal best, COASST topped nearly all of last year's records. In the words of Bert Johnstone, more than 450 surveyors "strategically strolled and scrupulously scrutinized sun-seared sands, surf-swept swaths, and straggle-strewn strands, scruffily scrounging and skillfully scanning stricken strays, surfeited surfers and squandered squab." But even after all that scrounging and scrutinizing, we actually found fewer total birds than last year.

Bering Sea

Our northernmost sites started adding new species to the COASST master list right off the bat. In July, the first Benson Beach team of Casey Brewer, Aaron Mieus, Scott Irons and COASST executive director Julia Parrish found five birds, including COASST's first Crested Auklet. In the following month, Phil Zavadil, Casey Brewer and Erika Lekanof tacked on another COASST first, a Thick-billed Murre.

Before "the ice came in" and covered the beach in a slushy slurry, Ram Papish and Karin Holser snuck in another new species for COASST, a Sandhill Crane, found on Staraya Artil on St. George Island. Northern populations of Sandhill Cranes (those nesting in Alaska, Canada and Russia) typically head south to winter in California, Texas, New Mexico and Mexico. Found more than 250 miles from breeding populations on the mainland, this SACR ended up pretty far from its intended destination.

"Ready for surveying, pack included!" Tonsina Beach, along with 43 others in Alaska, joined the COASST ranks this year.

Aleutian Islands

Seasonal staff at the Alaska Maritime National Wildlife Refuge are the backbone of COASST in the Aleutian Islands. Getting there can be pretty harrowing at times, but once on the islands, accessing the beach isn't such a hard task; the Oystercatcher beach directions form notes "from the cabin, take a leisurely stroll down to the beach; less than a minute." And no shortage of birds–the Aiktak Island crew of Joel Helm and Tyra Zeman found two Tufted Puffins within days of each other, brought in by strong northerly winds and "seas of more than 8-10 feet that pushed the wrack way up."

Years and years of harsh North Pacific storms also take their toll on the islands themselves, occasionally bringing down large slabs of volcanic rock, and with them, a few hapless victims. A bit farther west down the chain on Buldir Island, Rachael Orben, Corey VanStratt and Stephan Lorenz found a couple of birds, including a Black-legged Kittiwake and a murre, which they suspected were "killed by rockfall–found at the base of the colony cliff."

D. Trobaugh

Gulf of Alaska

At times, folks in the lower 48 would rather be hit by falling rocks than measure another Common Murre chick, but in Alaska, they're not quite so common, at least on the beach. The chick Joyce Robinette and Bree Murphy found at Mariner Park in September was still sporting its egg tooth!

We weren't sure what to think when Bette Seaman and Chris Szymoniak reported "what appeared to be a joint" on Bishop's Beach East in November. Luckily, the photos showed the remains of some large mammal, not illegal contraband.

After the snow and ice melted off Kristine Sowl's beach in Cold Bay, all sorts of cool scavengers started appearing, including "a red fox eating barnacles clutched to holdfasts of beached bull kelp."

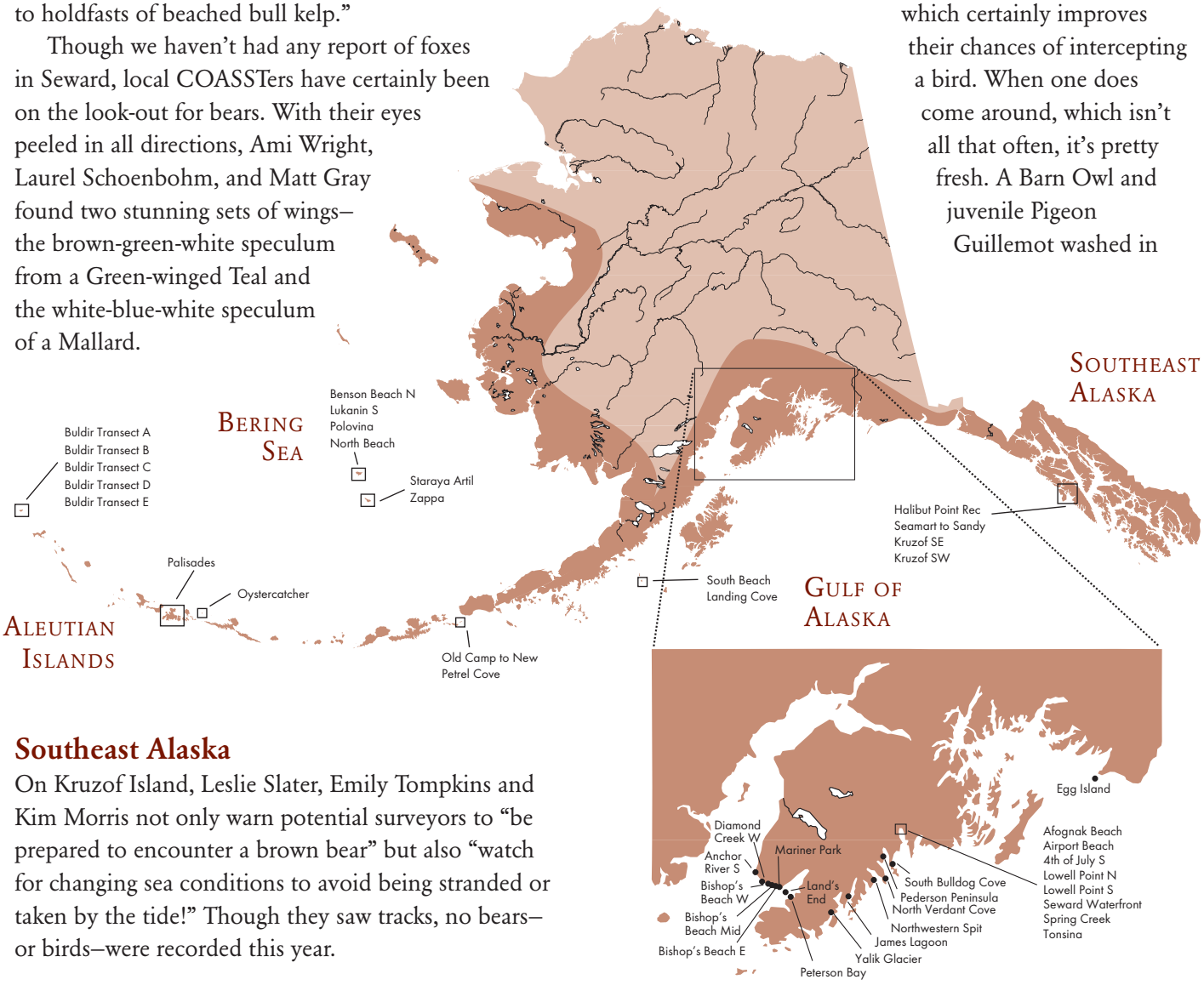
Though we haven't had any report of foxes in Seward, local COASSTers have certainly been on the look-out for bears. With their eyes peeled in all directions, Ami Wright, Laurel Schoenbohm, and Matt Gray found two stunning sets of wings–the brown-green-white speculum from a Green-winged Teal and the white-blue-white speculum of a Mallard.

No birds washed ashore at Halibut Point Recreation Area either, but Peggy Reeve and Steve Ash did find two deer hides on the beach. Luckily, the hunter who abandoned them did not turn up on the beach while they were there.

Slim pickins' at Sea Mart to Sandy Beach as well, both for COASST volunteers like Floyd Tomkins and for the resident eagles–so hungry, "one local eagle started killing other eagles." If a bird carcass floated anywhere near shore, they'd be waiting, "and if the eagles didn't pick it up, then the minks would be waiting."

Puget Sound

Admiralty Inlet's tag team of Jim Todd and Carolyn Watts walk the beach a lot, which certainly improves their chances of intercepting a bird. When one does come around, which isn't all that often, it's pretty fresh. A Barn Owl and juvenile Pigeon Guillemot washed in



Southeast Alaska

On Kruzof Island, Leslie Slater, Emily Tompkins and Kim Morris not only warn potential surveyors to "be prepared to encounter a brown bear" but also "watch for changing sea conditions to avoid being stranded or taken by the tide!" Though they saw tracks, no bears–or birds–were recorded this year.

early this year, both perfectly intact, and the PIGU was so fresh, they had the chance to see its "vivid red/orange feet and mouth."

Another Barn Owl in perfect condition, found by Carolyn Murphy on Hastie Lake Road South, caught the attention of the local Audubon members, who came to retrieve it. Carolyn and others suspect it could have been one from the "pair counted during the Christmas Audubon bird count in a barn about a half mile from the beach."

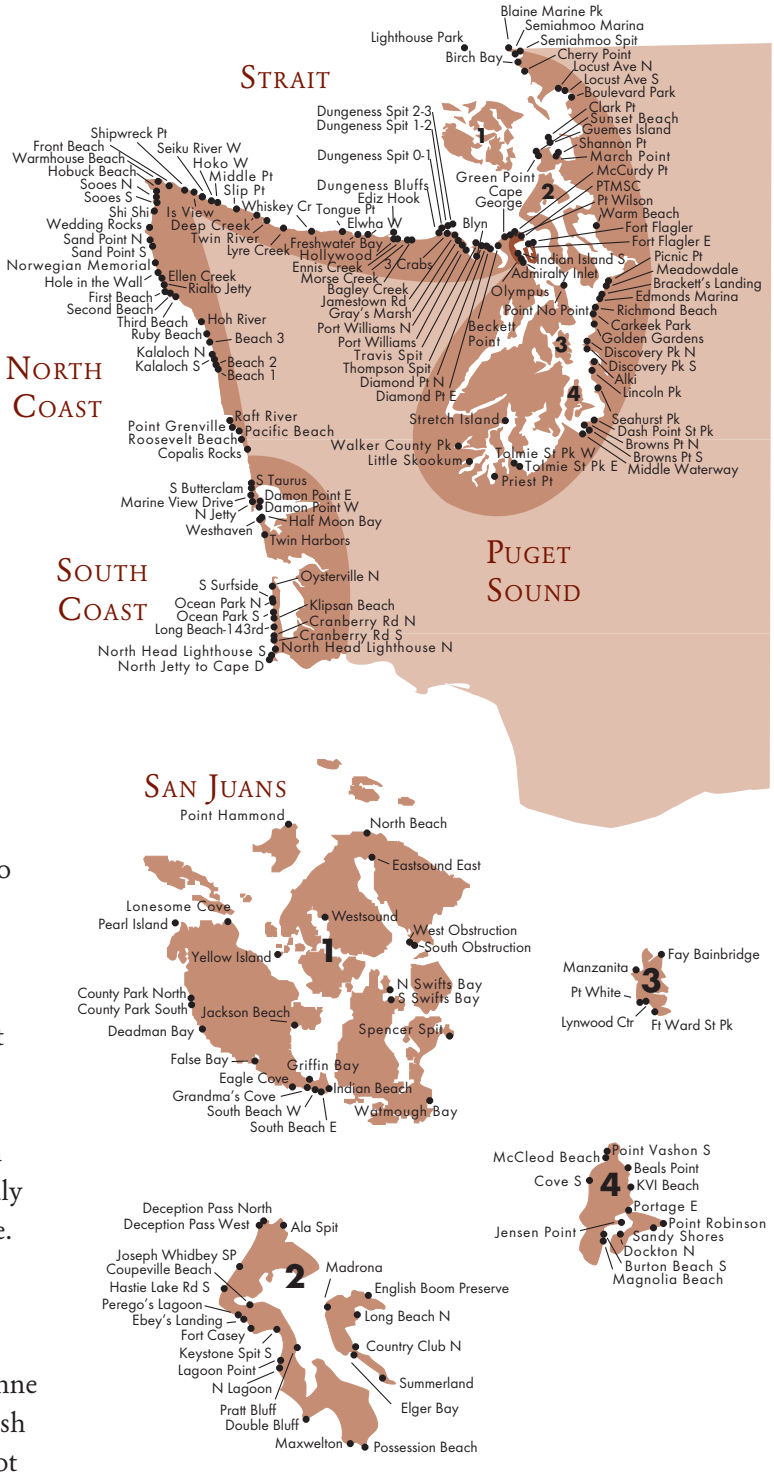
Though it wasn't snowy yet in Washington, by October, Snow Geese had already started to appear in Skagit County. Jean and Bob Poulin spotted three of these white wonders at Country Club North, and Beth Horton found one more, just across Port Susan Bay four months later. Like fulmars, the Snow Geese have two morphs–light, or white, and dark, or "blue" (though it's actually more like black). As with many dimorphic species, the light and dark forms appear so different from one another, that they were once considered two separate species.

San Juan Islands

San Juans volunteers can commiserate with Southeast Alaskans and Puget Sounders–after 229 surveys, only three with birds, it's the featherless finds that win the bragging rights. A juvenile harbor porpoise, found on South Beach West by Mike Kaill, washed ashore in July with what looked to be rake marks from a killer whale. Transient killer whales, unlike resident whales, are quite the marine mammal–and very occasionally seabird–connoisseurs.

Just across the water on Lopez Island, Jim and Jeanne Budlong ran across another rare find, a juvenile Ragfish common to deep (pelagic) waters. Not only does it not have feathers, this fish doesn't even have scales–just a smooth skin with a thin line of spines down the middle. Measuring in at about a meter and a half, this juvenile was only ¾ adult size!

Described as having a "springtime display of floral profusion and biodiversity greater than that of any other similar-sized area in the San Juan archipelago,"



Yellow Island is Phil Green's special spot. It's his COASST survey site–yep, the whole thing!–and his home as naturalist and island steward for The Nature Conservancy. While he has yet to add a single species to the COASST list, he can, off the top of his head,

B. & J. Poulin

Snow geese signaled winter's arrival at Country Club North this year.

name all the species of birds that nest on the island, right outside of his hand-made driftwood "hobbit home."

Strait of Juan de Fuca

Everyone knows COASSTers take their work seriously, and they know what to count–any dead bird with a wing, foot or bill–but, what if it's in a tree? Thompson Spit's team of Hank and Raedell Warren and Roger and Susan Contor faced a bit of a conundrum when they spotted the final bird of their survey, an immature gull, hanging from a branch over the beach. A present from the local Bald Eagles? Unable to snag the specimen, they did the best they could, at a distance, noting, "we weren't able to tag it or do measurements."

October surveys at Dungeness Spit brought dead seabird specialists Ann Elliott, Jon Wendt, and John and Mary Marsh up close and personal with a bird that specializes in dead things, the Turkey Vulture. One glimpse of that red head–balder than a Bald Eagle–and they knew it was a TUVU.

How does an octopus go to war? Well armed. But the octopus Beth Winslow and Tina Lipman found at Freshwater Bay in June wasn't going anywhere, except, perhaps, into the stomachs of a few hungry gulls. Beth and Tina "always notice something, even if it's not a bird."

North Coast, Washington

In September at Beach 3, Tom and Deb Cox came across something that "was either a gull or a petrel, but just didn't fit"–that's because the Sabine's Gull is exceedingly rare–one of only three ever found by COASST. In Washington waters, it's seen feeding just off the beach amongst the breaking waves, where it grabs a little "fast food" on its way from the arctic to the tropics (in the fall) or vice versa (in the spring). Dead bird abundance mimics this migratory pattern, as Bill Ritchie found another on Third Beach in May, at the peak of the northward spring migration.

When COASSTers think about large birds, albatross and pelicans usually come to mind, but if you ask Burton Foote, he might just mention swans, like the Trumpeter Swan he found on Kalaloch North in November. With a total length (tip of bill to tip of tail) of about 1.5 meters, this species is the largest native waterfowl in North America, so large, in fact, "it had to be tagged on the right foot because the ties were too small to fit on the wing."

South Coast, Washington

The Short-eared Owl found on South Taurus by Don and Dalene Edgar probably made more of a "splat" than a "splash" when it hit the beach. Owls have a truly

T. & D. Cox

Just a few weeks after fledging from a nest in Yukon-Kuskowim Delta (Alaska), this Sabine's Gull washed up in northern Washington on Beach 3 in September.

impressive foot structure that allows them to switch one toe from front to back to help stabilize them while perching. Specialized feathers on the head, known as bristles, are sturdier than traditional feathers, and may aid in hearing.

Just a lone Brandt's Cormorant showed up on North Jetty to Cape Disappointment beach in May, but Bea and Jim Harrison spotted quite a number of live bird visitors–about 150 Caspian Terns parked on their beach just outside the Columbia River–the Harrisons agree, "Washington's 'most wanted' bird should be careful loafing in such large packs."

With two beaches on the South Coast (and daily surveys, too!) Latresha and Sumer Starling don't do much loafing, but they did come across some pretty interesting finds–a large section of whale blubber


S. Swanson

With a wingspan of six to seven feet (193–216 cm), this Black-footed Albatross had Max beat hands outstretched!

washed ashore near Cranberry Road within days of a similar portion of killer whale found at Twin Harbors State Park.

Oregon North

How long is your wingchord? Max Smith made a little comparison with the Black-footed Albatross he and Sarah Swanson found at Bob Straub State Park in October, and the albatross won. (Check out the Black-foot's feature on page 16).

Another black-legged species made a big appearance in northern Oregon this year–Black-legged Kittiwakes. Wade Newbegin and Paul Raffensperger of Oregon Mile 241 best described their stylish winter plumage as complete with a "black neck boa." Kittiwakes stay warm in style!

John Haxton and Pete Owston spotted another small, stylish, but rarer member of the Larid family on Oregon Mile 255–a Bonaparte's Gull–distinguished from its kittiwake cousin by black tips on all the primaries, and a splash of white on the outer part of the upperwing: one of two to hit the beaches this year.

Sandwiched between the murres that flooded Oregon Mile 196 early in the year and the puffins that piled up later on, Bert Johnstone spotted a Marbled Murrelet, in non-breeding plumage, correctly identifying it from its more common Alcid cousins that don't sport white scapulars.

Oregon South

If "collect 'em all" were a slogan one could shamelessly use with dead Alcids, Oregon Mile 175ers, Mary Lou Letsom, Val Knox, Cindy Burns, and Dave and Diane Bilderback would have won the contest for March, after finding both puffin species (Tufted and Horned), and a Rhinoceros Auklet (the third "true" puffin), as well as a Common Murre and a Cassin's Auklet, all on the same survey!

Finding a Western Grebe in November isn't anything particularly unusual, but finding a bright green one is. Barb Holler and Jim and Charlotte Maloney spotted this pre-marked specimen from quite a distance, "noting the green coloration on the underside of the wing." Then in the spring, they came across another pre-marked specimen, a longnose lancetfish, flagged by its bright blue dorsal fin.

A lone foot caught the eye of Peter Witschi and Dave and Diane Bilderback on Oregon Mile 96–that's all that remained of a TWBI (that's the four-letter abbreviation for Tweety Bird, in case you were wondering). But if you're a COASSTer, every foot counts, right?

Humboldt, California

In COASST's most southern locale, established this September, we never expected COASSTers Max Blair and Joan Christy to report an "iced" Rhinoceros Auklet, completely frozen into Garth Beach on a cold day in March.

Common to golf courses nationwide, the Canada Goose is actually quite a rare find on the beach for most years–only one showed up last year. This year, we found 11–one plump (and plucked!) representative from this year's gaggle was spotted by Debbie Marshall near the mouth of the Little River.

If it's true what Thoreau said, "perhaps what the ocean takes from one part of the cape it gives to another" then the chassis from a car that Vanessa Metz and Maggy Herbelin spotted at Samoa Power Poles North may soon be washing ashore near you–but more importantly–will it count as a vehicle?

April's numbers topped the charts for Eileen Cooper and Sky Lloyd, with lots of Rhinoceros Auklets and grebes ready and waiting for their COASST tags. In the comments section, Sky remarked that "one bonus Western Grebe was found a day later in the middle of Crescent City, on Front Street, because sometimes the birds mistake wet pavement for water." ■

M. Blair

It was a bit tricky for Max Blair and Joan Christy to get all of this Brown Pelican (300 mm bill + body) in the same photo.

What's Washed In?

New Species and Major Species

With the expansion into Alaska, COASST added a few more northern species to our "life list," among them Crested Auklet, Red-faced Cormorant, Thick-billed Murre, Yellow-billed Loon and Sandhill Crane. A smattering of waterfowl–Trumpeter Swan, Eurasian Wigeon, Gadwall; predatory birds–Barn Owl, Short-eared Owl, Turkey Vulture and Common Raven; and a lone Belted Kingfisher filled out the remainder of the new species. Altogether, 79 species were found, topping last year's high of 76. Largely because of the northern additions, the COASST species list is now well above 100.

Despite the higher diversity, abundance was down from last year by almost a third–only 1921 identified finds washed up on COASST beaches. Common Murres, Northern Fulmars, and large immature gulls were–not surprisingly–once again in the top species group. Rhinoceros Auklets also made the majors (over 5% of total finds) for the second year in a row and Cassin's Auklet nudged in at just below major status (4.7%). Unusually, both Glaucous-winged and Western Gulls were relatively abundant. Because COASST separates juvenile gulls of the large-bodied species into LIGUs, this means that *adults* (and immatures that Jane Dolliver can conclusively identify) washed in at two to three times the normal rate.

Conservation Concerns

Twenty-five species of conservation concern were found by COASSTers this year, up from last year's count of 20, and amounting to about half of all birds found. Note that we've also added California species of concern to our list, including Rhinoceros Auklets. Are conditions along the coast getting worse for sensitive species? Probably not; instead, this jump reflects our geographic expansion, both north and south. For instance, if we stick to the most restrictive categories–threatened and endangered federally and/or at the state level–only 14 beachings of two species (Marbled Murrelet and Brown Pelican) were reported. Nevertheless, it pays to watch the patterns for those species listed as sensitive, candidate, or species of concern, as well as those on the Audubon WatchList.

Entanglement and Oiling

Victims of entanglement were all of the usual suspects–murres, gulls and cormorants. One Black-footed Albatross (this year's

Species of Concern

SPECIES	AK	WA	OR	CA
Rhinoceros Auklet [11]	1	69	158	24
Common Murre [12]	3	65	269	38
Cassin's Auklet [3, 12]		48	43	
Western Grebe [12]		31	29	6
Brandt's Cormorant [12]		22	29	6
California Gull [11]		17	4	1
Fork-tailed Storm-Petrel [10, 11]	4	16	8	
Tufted Puffin [3, 11, 12]	5	7	6	1
Marbled Murrelet [2, 6, 7, 8, 13]		6	1	
Black-footed Albatross [13]		5	4	
Common Loon [9, 11]		5		
Double-Crested Cormorant [11]	1	5	1	2
Brown Pelican [1, 4, 5, 6]		3	2	2
Heermann's Gull [13]		3	3	
Bufflehead [10]		2		
Horned Grebe [10]		2		
Band-tailed Pigeon [13]		1		
Brant [13]		1		
Red-legged Kittiwake [13]		1		
Red-necked Grebe [10]		1		
Short-eared Owl [13]		1	1	
Black Oystercatcher [13]			1	
Emperor Goose [13]			1	
Red-faced Cormorant [13]	1			
Yellow-billed Loon [13]	1			

[1] Federally Endangered, [2] Federally Threatened, [3] Federal Species of Concern, [4] WA State Endangered, [5] OR State Endangered, [6] CA State Endangered, [7] WA State Threatened [8] OR State Threatened, [9] WA State Sensitive, [10] OR State Sensitive, [11] CA Species of Concern, [12] WA State Candidate, [13] Audubon WatchList

–continued on page 10

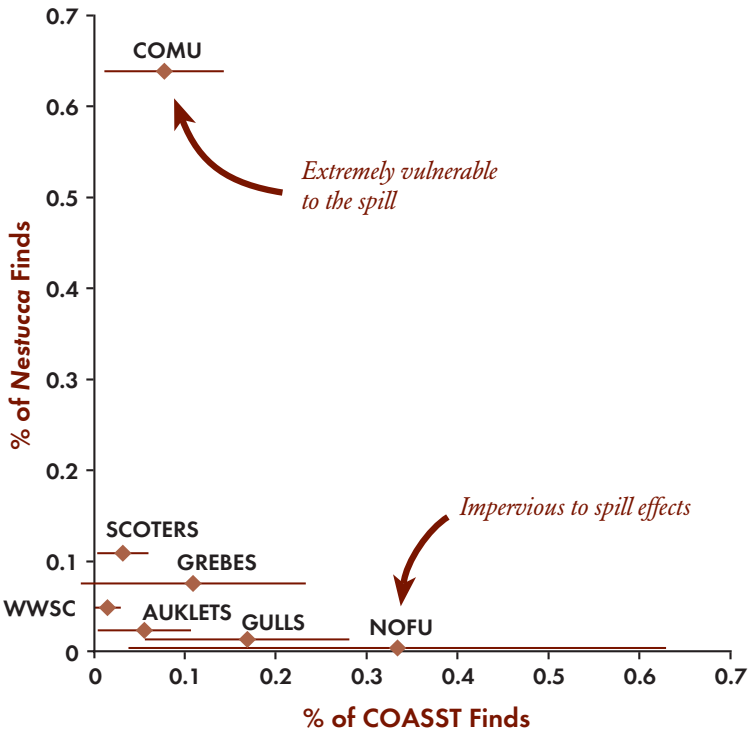
Beached Birds Identified to Species

SPECIES	YR 8 #	YR 8 %	YR 7 %	YR 6 %	YR 5 %	YR 4 %	YR 3 %	YR 2 %	YR 1 %	TOTAL #	TOTAL %
Common Murre	**375**	**19.5**	**28.8**	**47.0**	**17.8**	**23.9**	**23.0**	**15.7**	**8.8**	**3185**	**26.9**
Rhinoceros Auklet	**252**	**13.1**	**10.3**	**1.5**	**1.0**	**1.4**	**1.8**	**1.7**	**19.3**	**649**	**5.5**
Large Immature Gull	**205**	**10.7**	**10.6**	**13.3**	**7.7**	**10.6**	**19.6**	**8.3**	**8.8**	**1279**	**10.8**
Northern Fulmar	**182**	**9.5**	**12.4**	**8.0**	**57.1**	**23.9**	**7.9**	**39.7**	**10.5**	**2724**	**23.0**
Glaucous-winged Gull	**119**	**6.2**	**2.3**	**3.8**	**2.0**	**3.3**	**3.6**	**5.0**	**14.0**	**403**	**3.4**
Western Gull	**101**	**5.3**	**1.7**	**3.3**	**0.9**	**1.8**	**2.2**	**0.8**	**1.8**	**283**	**2.4**
Cassin's Auklet	**91**	**4.7**	**5.9**	**2.0**	**1.0**	**1.4**	**2.2**			**363**	**3.1**
Western Grebe	**66**	**3.4**	**6.5**	**0.8**	**0.9**	**2.7**	**8.1**	**2.5**	**12.3**	**390**	**3.3**
Brandt's Cormorant	57	3.0	3.8	3.3	1.2	1.9	2.3	0.8		311	2.6
Horned Puffin	49	2.6	0.1	0.3						60	0.5
Pelagic Cormorant	41	2.1	1.7	2.7	1.3	2.5	1.4	0.8		229	1.9
Black-legged Kittiwake	37	1.9	0.2	0.2	0.2	0.4	2.2	3.3		76	0.6
Fork-tailed Storm-Petrel	**28**	**1.5**	**0.6**	**0.2**	**0.3**	**0.1**	**0.4**		**5.3**	**63**	**0.5**
White-winged Scoter	25	1.3	1.1	1.0	0.5	0.8	1.1			111	0.9
California Gull	22	1.1	1.2	0.7	0.5	1.4	2.2	1.7		120	1.0
Surf Scoter	21	1.1	0.9	1.1	0.7	1.5	0.5	0.8	1.8	116	1.0
Pigeon Guillemot	20	1.0	0.9	1.0	0.5	0.9	0.2		1.8	96	0.8
Tufted Puffin	19	1.0		0.1	0.1		0.2			26	0.2
Sooty Shearwater	**18**	**0.9**	**1.2**	**2.0**	**0.9**	**2.2**	**7.2**	**5.8**	**1.8**	**200**	**1.7**
Short-tailed Shearwater	14	0.7	0.8	0.9	0.1	0.4	1.4	0.8		76	0.6
Canada Goose	11	0.6	0.03	0.3	0.1	0.5	0.4			33	0.3
Mallard	10	0.5	0.1	0.1	0.3	0.1	0.4	0.8		27	0.2
Black-footed Albatross	9	0.5	0.5	0.7	0.2	0.2	1.4	2.5	1.8	58	0.5
Double-crested Cormorant	9	0.5	0.7	0.5	0.6	0.6	0.4	1.7	1.8	70	0.6
Pacific Loon	9	0.5	0.4	0.3	0.1	0.8	0.5			44	0.4
American Coot	8	0.4	0.03		0.04			1.7	1.8	13	0.1
Ancient Murrelet	8	0.4	0.2	0.1	0.1	0.3	0.5			27	0.2
Brown Pelican	7	0.4	0.1	0.4	0.1	0.3		0.8		27	0.2
Marbled Murrelet	7	0.4	0.2	0.1	0.04	0.2	0.7			24	0.2
Heermann's Gull	6	0.3	0.2	0.3	0.2	0.4	0.4			33	0.3
American Crow	5	0.3	0.5	0.4	0.3	0.2	0.9			42	0.4
Caspian Tern	5	0.3	0.3	0.8	0.4	0.7	0.5			56	0.5
Common Loon	5	0.3	0.8	0.4	0.4	0.3	0.5		3.5	56	0.5
Green-winged Teal	5	0.3	0.1	0.1	0.04	0.2			1.8	17	0.1
Snow Goose	5	0.3	0.03							6	0.1
Clark's Grebe	4	0.2	0.2				0.2			10	0.1
Ring-billed Gull	4	0.2			0.04	0.1	0.2			8	0.1
Greater Scaup	3	0.2	0.1	0.05	0.1	0.2	0.2			15	0.1
Mew Gull	3	0.2	0.2		0.04	0.2	0.9			19	0.2
Northern Pintail	3	0.2	0.2	0.1	0.2	0.2	0.4	0.8	1.8	24	0.2
Parakeet Auklet	3	0.2	0.1							6	0.1
Barn Owl	2	0.1								2	0.02
Bonaparte's Gull	2	0.1	0.1		0.04	0.1				7	0.1

SPECIES	YR 8 #	YR 8 %	YR 7 %	YR 6 %	YR 5 %	YR 4 %	YR 3 %	YR 2 %	YR 1 %	TOTAL #	TOTAL %
Bufflehead	2	0.1	0.1	0.3	0.1		0.4	0.8	1.8	18	0.2
Crested Auklet	2	0.1								2	0.02
Glaucous Gull	2	0.1	0.1		0.04		0.2			7	0.1
Horned Grebe	2	0.1			0.1		0.2			5	0.04
Leach's Storm-Petrel	2	0.1	0.1	0.1	0.1		0.7			15	0.1
Red-throated Loon	2	0.1	0.2	0.1	0.04	0.2	0.4			16	0.1
Sabine's Gull	2	0.1	0.03							3	0.03
Short-eared Owl	2	0.1								2	0.02
Varied Thrush	2	0.1	0.1	0.3	0.04					11	0.1
Bald Eagle	1	0.05		0.1	0.1	0.1	0.4			9	0.1
Band-tailed Pigeon	1	0.05			0.04					2	0.02
Belted Kingfisher	1	0.05								1	0.01
Black Oystercatcher	1	0.05			0.04		0.2			3	0.03
Black Scoter	1	0.05	0.1		0.04	0.1	0.2			6	0.1
Brant	1	0.05	0.1			0.1	0.2			5	0.04
Common Merganser	1	0.05		0.05		0.1				3	0.03
Common Raven	1	0.05								1	0.01
Dunlin	1	0.05	0.1	0.05		0.1				5	0.04
Emperor Goose	1	0.05	0.03							2	0.02
Eurasian Wigeon	1	0.05								1	0.01
Gadwall	1	0.05								1	0.01
Great Blue Heron	1	0.05	0.1	0.1	0.04	0.1				10	0.1
Herring Gull	1	0.05	0.1	0.1	0.1	0.3	0.4			16	0.1
Mottled Petrel	1	0.05	0.1					0.8		4	0.03
Northern Saw-whet Owl	1	0.05	0.03							2	0.02
Northern Shoveler	1	0.05	0.1							3	0.03
Red Phalarope	**1**	**0.05**	**1.6**	**0.05**	**0.4**	**10.8**	**0.4**	**0.8**		**221**	**1.9**
Red-breasted Merganser	1	0.05	0.03		0.1					4	0.03
Red-faced Cormorant	1	0.05								1	0.01
Red-legged Kittiwake	1	0.05	0.03							2	0.02
Red-necked Grebe	1	0.05	0.1		0.2		0.2			9	0.1
Ring-necked Pheasant	1	0.05	0.03	0.05				0.8		4	0.03
Sandhill Crane	1	0.05								1	0.01
Thick-billed Murre	1	0.05								1	0.01
Trumpeter Swan	1	0.05								1	0.01
Turkey Vulture	1	0.05								1	0.01
Yellow-billed Loon	1	0.05								1	0.01
TOTAL FINDS	**1921**		**2884**	**2100**	**2745**	**1467**	**557**	**121**	**57**	**11852**	
TOTAL SPECIES	**79**		**76**	**56**	**60**	**56**	**50**	**24**	**17**	**110**	

*Species totals, excluding unknowns and refinds. Note that major species—accounting for greater than 5% in any COASST year—are in **bold** type. Only species found in COASST Year 8 are listed. Cumulative totals for each species are listed in the right-hand darker-shaded columns.*

What's Washed In? –continued from page 7



Finds of select species or species groups after the Nestucca oil spill vs. in the same place during the COASST years–shows which species are especially at risk.

Mortality Related to Human Activities

SPECIES	TOTAL	BEACH
ENTANGLED BIRDS		
Common Murre	3	Hobuck Beach [2]
		Hobuck Beach [2]
		OR Mile 327 [2]
Large Immature Gull	1	South Surfside [1, 2]
Black-footed Albatross	1	OR Mile 327 [2]
Double-crested Cormorant	1	Cranberry Rd. South [2]
Pelagic Cormorant	1	North Head Lighthouse S [2]
Western Gull	1	Mad River Park N [2]
OILED BIRDS		
Cassin's Auklet	1	OR Mile 175
Northern Fulmar	1	Ocean Park North

[1] Hook, [2] Line

Species of Concern Profile, see page 16) gave us some cause for concern, as the bird, found by Jann Luesse on Oregon Mile 327, was entangled in heavy fishing line.

As in most years, well under 1% of the birds found were oiled. No oil spill scares either. Given our increasingly large sample of non-oil spill years, we wondered how different things are during a spill. Of course many more birds wash ashore, but what about species diversity? For instance, if a spill happened in the late summer along the outer coast of Oregon or Washington, would most of the carcasses be murres and gulls? How about in the winter–would fulmars, or grebes, or Rhinos top the list? Three major oil spills have occurred in the COASST region along the outer coast of the lower 48–the *Nestucca* (winter) and the *Tenyo Maru* (summer) in Washington, and the *New Carissa* (winter) in Oregon. We've compared the percent of total finds each species represents (just like our annual *Beached Birds Identified to Species* table percentages–see pages 8–9) following an oil spill versus during the same time of year and location as the spill over the COASST years. And there are some interesting patterns.

The graph at the top left of this page shows this relationship. Each diamond is a species (like White-winged Scoters, WWSC), or species group (like scoters–including all three species in this case). On the Y axis is the *Nestucca* spill, which happened in December and covered an area from Vancouver Island to northern Oregon. Notice that Common Murres (COMU) represented a stunning 64% of all carcasses found oiled in the days following the spill. How does that compare to "normal?" Well, if you trace the position of the COMU point down to the X axis, it becomes clear that they are a relatively small proportion of total finds in winters when no oil graces the Washington outer coast beaches. In fact, more than eight times less than during this spill.

Are all species so vulnerable to oiling? Thankfully not. Look at the points that are relatively

high on the X axis (the COASST data), but lower on the Y axis (the *Nestucca* spill). Northern Fulmars (NOFU) and gulls are relatively frequent encounters during the winter on the Washington outer coast, but almost totally lacking from the *Nestucca* spill body count. These species appear to be relatively impervious to the effects of an oil spill, even if winter conditions occasionally create huge wrecks of them on the beach. Take home message? Not all species are equally vulnerable, and vulnerability doesn't necessarily correlate with abundance. Stay tuned for the splash when these results make their debut in the scientific literature!

Deposition–Right Species, Right Time

COASST beaches now span so much geography, we've broken them into three major oceanographic regions: Bering Sea and Aleutian Islands; Gulf of Alaska and Southeast Alaska; and the California Current (including Washington, Oregon and northern California). Our data from Alaska is scant, as COASST has only just started there, but the California Current regions tell a more complete story.

And basically, the story is that the major species showed up when they were "supposed to" albeit in lower numbers than on average. For regions where we've built up years of data, we could create an annual average encounter rate–the thick line running across the months in Oregon North and the Washington regions (see page 13).

Inside waters, including the San Juans and Puget Sound, saw fewer birds than in most years. The "peak" in the San Juans in November was actually a single large immature gull on a very short beach (0.32 km), which made the average artificially high (3 bds/km!). Normally, one small beach doesn't overly influence our data, but this November, the number of beaches reporting from the San Juans dropped from the teens down to eight, and this combination lead to a bit of inflation. In fact, all of the birds reported from the San Juans this year (three, in total) were from this single short "catcher" site–Jackson Beach–surveyed by Judy Chovan.

Along the outer coast, where deposition is highest, the values for this year fell below the average line, at least for late summer through mid-winter. Everyone

K. Morrison

Hundreds of Rhinoceros Auklets circle Triangle Island, BC– 73% of Rhinos in North America breed in British Columbia.

from Hobuck Beach to Samoa Bay Street North had a respite from the usual onslaught of post-breeding mortality followed by winterkill. However, there were no surprises in terms of species. August and September found murres and gulls washing in. The October peak in northern California–a new region for COASST–was also predominantly murres, leading us to wonder whether the beaching rate in August and September would have been even higher had we started our sampling in this region earlier in the year. We'll know next year! November and December were the months for Northern Fulmars, Western Grebes, and Rhinoceros Auklets throughout outer Washington and Oregon. Note the seasonal shift from north–peaking in November in northern Washington–to south–peaking in December-January in southern Oregon.

The spring "peak" that we've experienced of late was again apparent this year, and actually crested the annual average monthly values, at least by a little bit. This is

J. Smith

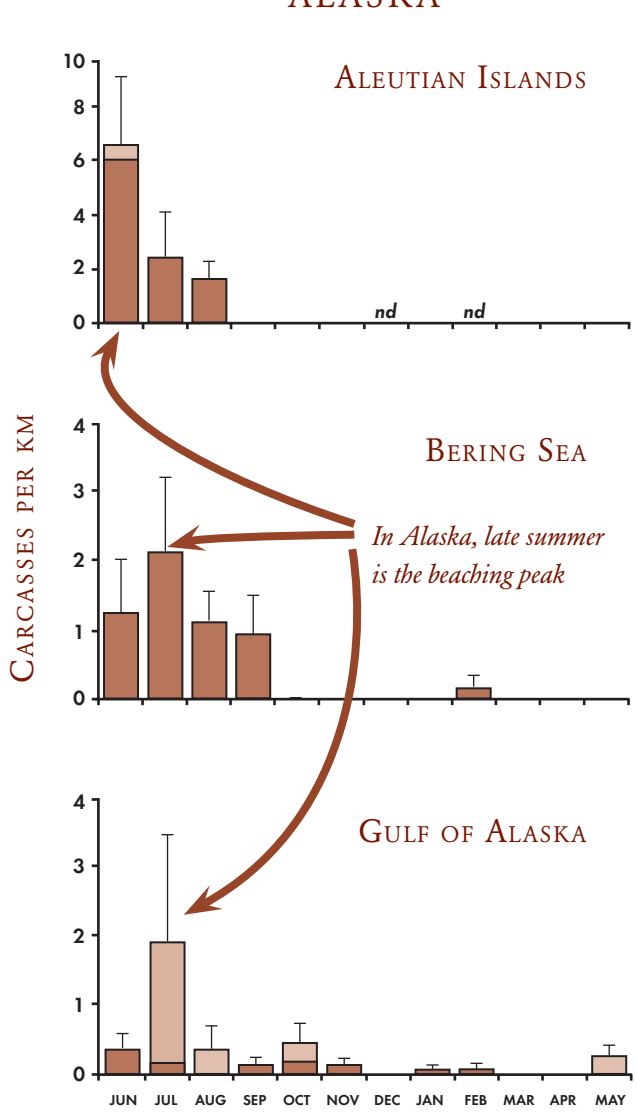
Home sweet home! These rugged, wind-swept cliffs on Triangle Island, BC, are home to thousands of Cassin's Auklets.

particularly apparent in the South Coast of Washington in March and April. In fact, this third March–April die-off has only developed in the last few years; it is the Rhinoceros Auklet and Cassin's Auklet onslaught that we wrote about last year. Interestingly, we also got a brief wave of Horned Puffins–another Alaskan visitor–in April. This is the third year in a row COASST has recorded this species.

Putting all of this information together leads us to the following story: in the California Current system, life is good in the summer *and* in the winter, especially relative to the cold and stormy waters of Alaska. Therefore, Washington through California receive "snowbirds" during fall and winter. Why stay in the Gulf of Alaska, or even in British Columbia, when you can fly south? Within these lower 48 waters, however, there is a lot of rearrangement, as local species seek areas that are relatively sheltered. Coastal Oregon? Stormy, windy, and no great shelter. Monterey Bay in California, the mouth of the Columbia River, the Strait of Juan de Fuca, Puget Sound, and the Strait of Georgia–now *those* are sheltered locations to spend the winter months hunkered down and hopefully fattening up come late winter to early spring.

Here's how all of that adds up: after breeding, Common Murres disperse from colonies centered in Oregon and secondarily in central and northern California. Some head south out of our COASST reach, but many

Monthly Deposition Index by Region



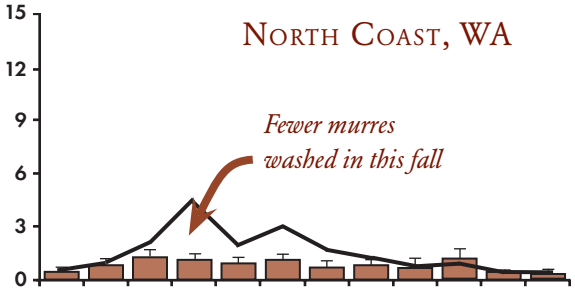
head north. Coastal gulls, mainly Glaucous-winged and Westerns, also disperse during this period. The murre-gull signal is even apparent in the Strait of Juan de Fuca, displaced to September and October.

As the murres and gulls are settling in for the winter, Northern Fulmars begin arriving from Alaska and showing up on our beaches. We see lots of dark phase birds, indicative of the Gulf of Alaska colonies. Light phase birds predominate in the Bering Sea–a much farther flight. At the same time, Rhinoceros Auklets and

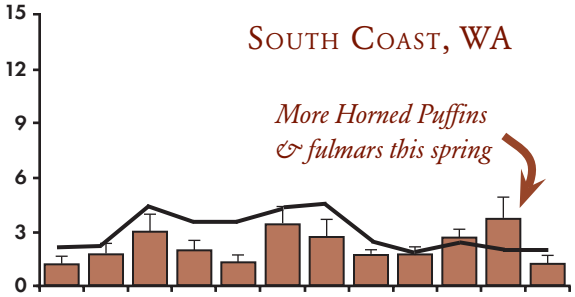
–continued on page 14

OUTER COAST

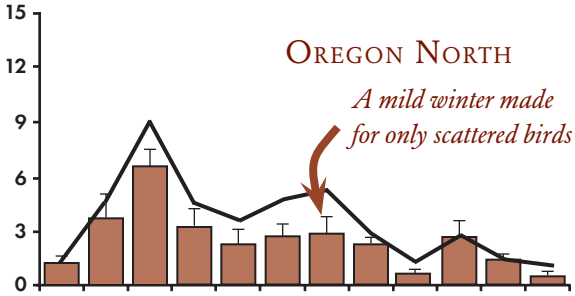
North Coast, WA



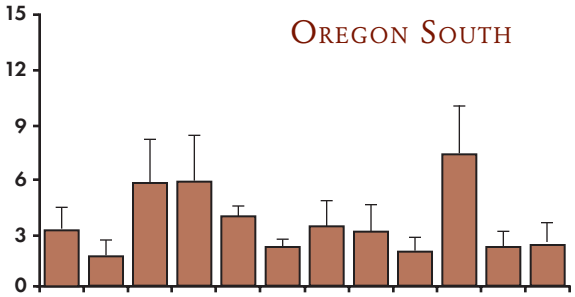
South Coast, WA



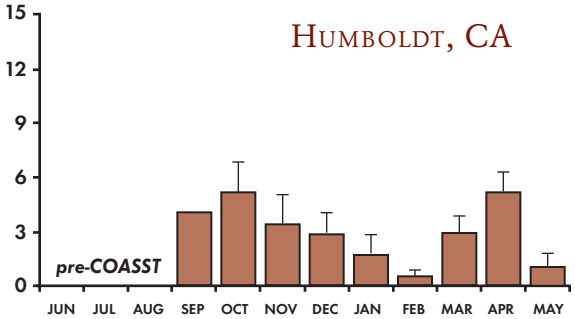
Oregon North



Oregon South



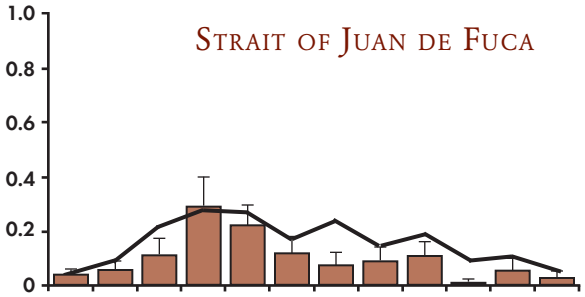
Humboldt, CA



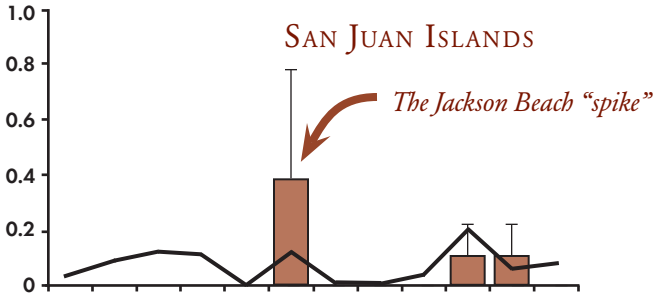
CARCASSES PER KM

INSIDE WATERS

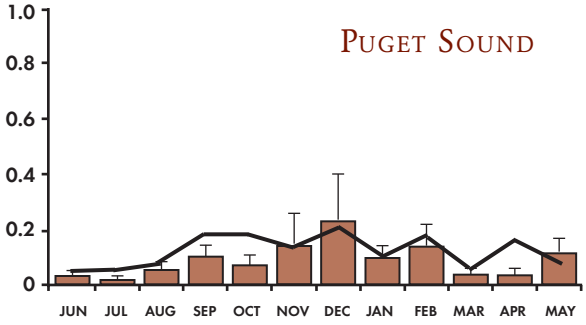
Strait of Juan de Fuca



San Juan Islands



Puget Sound

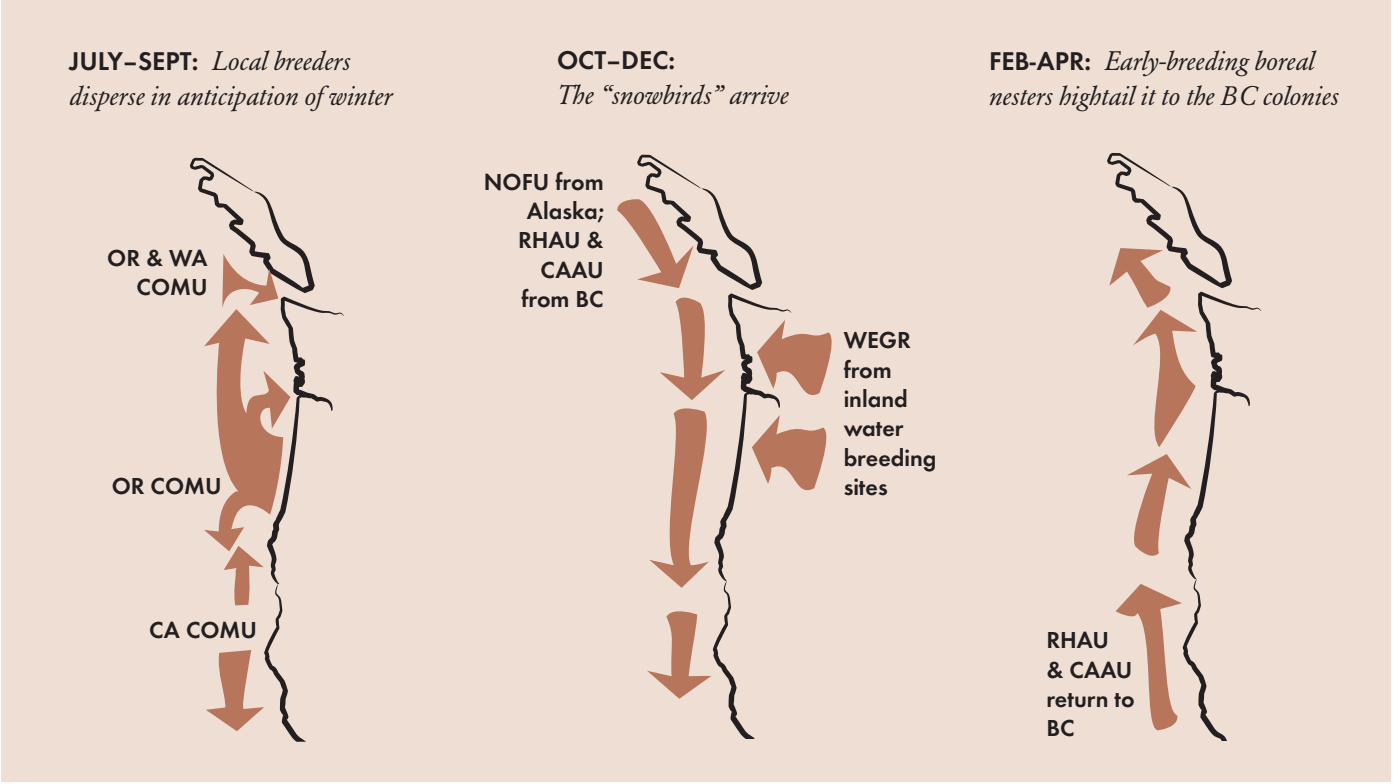


Bars represent the average monthly encounter rate on all COASST beaches. (Error bars = standard error)

For Washington and northern Oregon, long-term averages are indicated by the dark line. The difference between the bars and the dark line show that this year was quiet, especially in fall and winter.

Light bars in Alaska regions show average monthly deposition when all beaches are included; darker bars represent deposition when short beaches (<0.5 km) are excluded. A few small beaches had a lot of birds, which spiked the average, especially in the Gulf of Alaska. There were no birds found in Southeast Alaska.

What's Washed In? –continued from page 12



Cassin's Auklets are making the trek south from British Columbia. Triangle Island, at the northwest tip of Vancouver Island, sports the largest Cassin's Auklet colony in the world! So even though these species do breed in the California Current region, they are also migrants to our system. The last winter "migrant" is the Western Grebe, coming from inland breeding sites.

After a scant few months, the migrants pack it in for the trip north. This is the late winter/early spring signal we've been picking up recently. Composed mostly of Rhinoceros Auklets, this third wave is also flavored by Cassin's Auklets in some years. A smattering of Northern Fulmars, and a hint of the rarer (to the lower 48, at any rate) Aleutian Island breeders, including Horned Puffins and Parakeet Auklets, show up in the February portion of this peak.

What's the deal with this third peak? It certainly wasn't apparent in our first few years of sampling, and didn't appear in the 30-year record of bird beaching kept by Bob Loeffel in Newport. We're suspecting that these movement patterns have been constant. What has changed is the distance from shore these species are migrating. What brings them closer to the beach? A change in currents? A change in the distribution of food? A shift in the oceanography brought on by the flip-flop of the Pacific Decadal Oscillation? Subtle alterations in the system as a consequence of global warming?

These are questions for the atmospheric scientists and physical oceanographers to chew on. In fact, many science teams are already putting special monitoring devices out on the coastal shelf to measure many aspects of the ocean. COASST has recently spearheaded an analysis of beached bird data–including data from Hannah Nevins' BeachCOMBERS project in Monterey Bay, and Bob Loeffel's amazing dataset in Newport, Oregon–fitted to both oceanographic and atmospheric data. Our first publication on these patterns, in the journal *Marine Ecology Progress Series*, will be out later this month.

What's up to the north? In Alaska, our first year indicates there may be something very different going on. Even on the islands with massive seabird colonies–

like St. Paul and St. George in the Pribilof Islands, Bering Sea–the number of beached birds was substantially lower than what COASSTers on outer coast lower 48 beaches found. Most of the finds were local breeders–migrant species were largely absent in this first year. Southeast Alaskan beaches were completely birdless!

For those beaches with birds, the peak happened during the summer–that is, the breeding season for Alaska's seabirds. Which month is a bit problematic, as several extremely small (a 0.08 km and a 0.13 km beach on Chowiet Island, for example) seasonal beaches captured carcasses and skewed our sample. If all small beaches (defined as less than .5 km) are removed from the Alaskan data, the Gulf of Alaska "peak" in July goes away, but the relatively higher carcass encounter rate during the summer months remains. Nevertheless, come September, the number of carcasses clearly fell off across the state's coastlines. Of course, beach numbers dropped as well, as roughly half of the COASST beaches in Alaska are seasonal–manned (and womanned) by biologists stationed on seabird colonies and national park sites (see the Volunteer Spotlight on page 24).

One interpretation of the lack of a fall or winter peak is that Alaskan birds just get "out of Dodge" once their chicks have fledged. We see evidence for this theory in the wave of fulmars hitting the Pacific Northwest beaches in the fall and winter. Another interpretation is more effort-based: as the weather deteriorates, day length becomes shorter, and snow or ice begins to cover the beaches, it is just more difficult to survey, and participants who do get out there may not be able to see birds, even if they did wash up. Finally, we have speculated that hungry predators and scavengers step up their efforts in the fall, once easy sources of food have disappeared. Bird carcasses delivered to the beaches may be spirited away before stalwart COASSTers can detect them. To distinguish between these, we are asking COASST Alaskan participants to record the amount of snow or ice covering their beaches this winter season. We're also designing a persistence study–hopefully to be conducted sometime next year. ■

The COASST Quiz

A

B. Johnstone

vital stats
found 12/02/2006
Oregon Mile 196
(Oregon North)
Bill: 20 mm
Wing: 12.5 cm
Tarsus: 27 mm

B

D. Thorington

vital stats
found 10/13/2006
Land's End
(Gulf of Alaska)
Bill: 16 mm
Wing: 15.5 cm
Tarsus: 27 mm

C

B. Foote

vital stats
found 03/14/2007
Kalaloch North
(North Coast, WA)
Bill: 46 mm

Species of Concern Profile: Black-footed Albatross

Imagine driving from Seattle to Maine to get lobster take-out for dinner. That's about the distance that a Black-footed Albatross parent travels from its nesting grounds in Hawaii to the West Coast of the US to get a meal. It seems incredible that any animal would travel that far to look for food, but it must pay off because Black-footed Albatross regularly show up in the productive, upwelling waters from California to Washington in search of fish eggs, squid and small surface crustaceans.

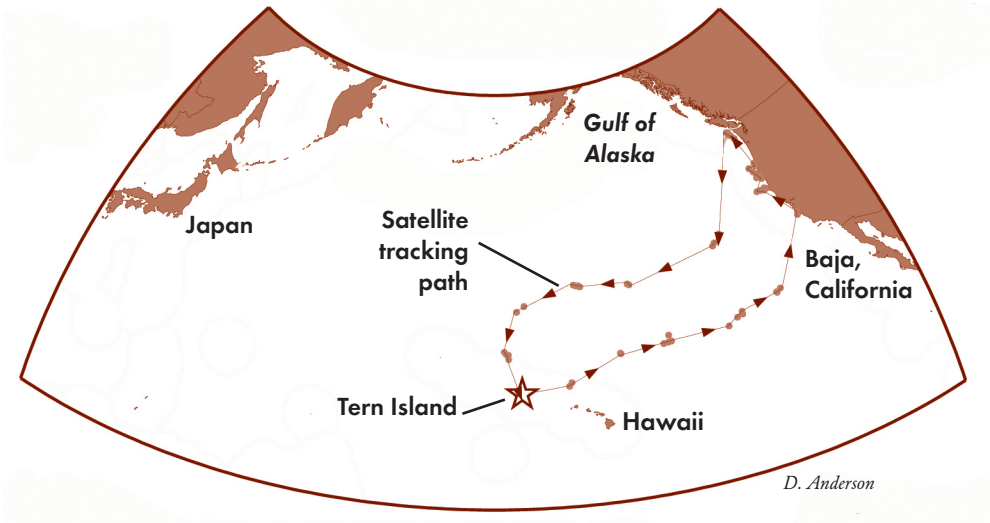
With a wing span of more than two meters (!) Black-footed Albatross are masters of long distance travel. Long, narrow wings give albatross the benefit of a high aspect ratio–think airplane gliders–allowing them to literally surf the wind. Instead of flapping constantly, like a murre or a duck, albatross soar "dynamically" by coming in low over the ocean's surface and banking into the wind. The flight pattern resembles a swooping, stretched-out slinky, and costs almost no energy. Albatross even have a special elbow notch, allowing them to lock their wings outstretched and give their muscles a break. These guys really are the "hybrids" of the bird world.

Returning to colonies in the northwest Hawaiian Islands in mid-October, Black-foots spend days getting reacquainted. Dancing, prancing, sky pointing, shy sideways looks and bill clapping are all part of the annual ritual. Females lay one egg a year, in November. Both parents incubate and attend the chick, but growth is a long process for such big birds; it takes until early summer for the young albatross to fledge.

C. Badwini

For a brief moment, both Black-footed Albatross parents attend a chick on Tern Island.

One of three albatross species in the North Pacific –Laysan and Short-tailed are the other two–Black-foots regularly wash up on COASST beaches along the West Coast, mainly in June and July, when parents are finally freed from the long months of tending to the chick. Our counts for Black-foots were highest in 2004 and 2005 (13 and 16), but our highest "capture" rate (BFAL per outer coast survey) occurred in 2001, when one in 20 surveys yielded a Black-foot find.



How do we know where they go? This female Black-footed Albatross, satellite tagged on Tern Island, traveled a total of 12,000 km in 23 days in April 2007.

Like humans, albatross live for many decades; the oldest known Black-foots are more than 40. Young birds won't return to land for three years, and even then, they don't attempt mating until their fifth year, preferring to watch and learn instead. When they do find a mate, it's for life. All of these life history traits–long life, late maturity, monogamy, and extremely low chick production–make albatross populations susceptible to decline if adult mortality rises by even a little bit.

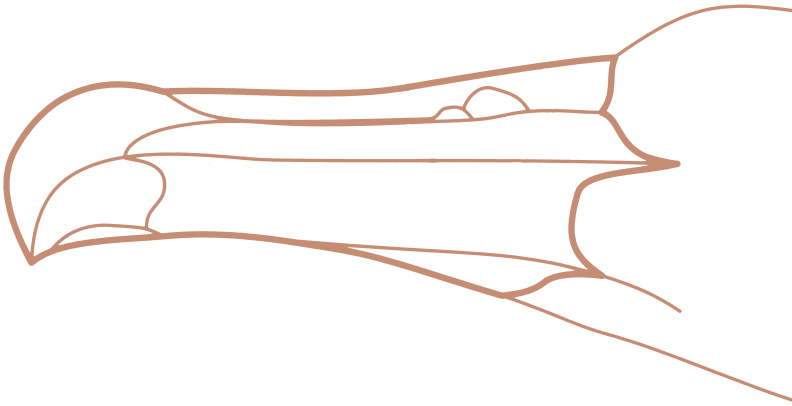
And all is not well with these ocean travelers. Black-foots have been designated as endangered by the World Conservation Union (IUCN) and, as of October 9, 2007, they are under consideration for listing under the U.S. Endangered Species Act. Why?

One reason is that they are suckers for an easy meal. Attracted to the smell of fish, albatross attempt to seize bait from long-line fishing gear as it is paid off the vessel. Some individuals get hooked in the feeding frenzy, a one-way ticket to the bottom of the ocean. Many commercial fishing operations have devised clever ways to discourage the birds from grabbing the bait while it's at the surface, but these practices are not yet universal, and the result is that many albatross are killed annually.

Not all albatross are boat-followers, but this actually isn't cause for relief. Even when foraging in the open ocean, albatross are apt to run afoul of human activities, in this case floating refuse. Sticky fish eggs glom onto floating plastic, and both are ingested by hungry birds.

On the colonies, albatross eggs and chicks are susceptible to invasive predators, like rats and cats, and breeding sites can be limited by invasive plants that turn open, sandy beach habitats into dense, scrubby woods. Climate change may be the worst offender as rising sea level drowns low-lying nesting habitat. With only a few large colonies of Black-footed Albatross in the world, these islands are particularly precious.

Does the Black-foots' appearance on the list on page 10 (entangled birds) suggest increased bycatch? Are changes in food availability making foraging more difficult for young birds? Efforts are already underway to bring fishery agencies, fishers, and bird scientists along the West Coast together to discuss these issues and agree on priority actions. ■



Answers to the Quiz

A. The ruler tells us this is a small guy–could almost be a shorebird (except its bill and tarsus are too beefy), or a juvenile Common Murre (but check out that funny pale spot at the base of its bill). Nope, that spot isn't dried-on leftovers of its last meal, it's a diagnostic characteristic for this Alcid, the Cassin's Auklet.

B. Another tiny one! Pale plumage, three black, webbed toes and a minute toe behind (just take our word for it). OK, that rules out Alcids and shorebirds, and nothing else is quite that small except for a couple of Tubenoses, and the pale markings of this one point to a Fork-tailed Storm-Petrel.

C. There's no mistaking that bill–it's a puffin. But careful–it's too small for a Tufted Puffin. A juvenile then, perhaps? No, actually, it's a Horned Puffin. The lower mandible has a much steeper angle, and just a tad of the white breast shows at the lower right.

COASST People

Volunteers

As COASST swept into Alaska and Northern California, our numbers soared to an all-time high of 458 volunteers. Who are the newbies? Cindy Moyer joined COASST last September along with seven other trainees in Humboldt County to "be involved in an interesting program that collects lots of useful data, and besides, it's good exercise."

Alaska volunteers Timmy and Courtney Lebling celebrated New Year's Eve with a little COASST surveying on Tonsina Beach, in the Gulf of Alaska. They didn't find any birds then (or at all this year), but brought plenty of enthusiasm: "Full moon today! Yeah!"

New COASSTers and seasoned veterans combined forces to cover 3,023 km of coastline, and log in 5,226 hours. Adding in travel time (for some folks like Ruth Jenkins and John Warrick who travel from Port Angeles to Sand Point on the North Coast [WA], that amounts to more than 40 hours a year), COASST volunteers have spent a total of 8,249 hours in their COASST endeavors–that's almost four full time people walking beaches 40 hours every week for a year. Congratulations to you all!

Did all those hours pay off? How did COASSTers score on the accuracy test? Amazingly well! COASST-wide volunteers identified finds to the family level 98% of the time, and to species level 80% of the time. That's an incredible accomplishment, considering that a majority of COASST specimens are missing at least one body part before they're tagged.

We usually use this section to highlight the over-achievers in benchmark categories–number of surveys, distance covered, hours spent–and we're always amazed and impressed by the work COASSTers put into our program. But this year, we thought that rather than point out those who consistently excel in COASST (you know who you are!), we would spotlight some of the "near top" folks in each category.

Vic Nelson and Paul Blake may not have walked as far as some, but they definitely covered plenty of territory. Vic walks Point No Point Beach many times monthly, which accounts for his almost 60 km of surveys. When not surveying beaches, Vic is on his deck counting live marine birds. Paul wracked up just over 40 km, by walking Sekiu River West Beach just outside his lovely seaside home. You can also find him growing early season tomatoes in his hothouse during the summer.

Tallying up all those volunteer punch cards, Oregon Mile 196er Peggy Speer came in at over 40 survey hours, no doubt spending most of it on her knees measuring the next Rhino (bird, that is) and trying to avoid the windy conditions. Sarah Swanson, who surveys with Max Smith, also nudged in over 40 hours. This dynamic duo not only survey two beaches –Bob Straub State Park and Oregon Mile 266–rumor has it they also got married on their COASST beach!!

Way up in St. Paul, on the Pribilof Islands, Casey Brewer did yeoman's service this year, amassing 31 total surveys despite the bitter winter weather and need to avoid thousands of breeding fur seals in the summer. Laurel Mayall, and her partner Rick Spaulding, survey three beaches on Bainbridge Island, so it's no wonder she wound up with 30 surveys. Far more than birds, this year!

Staff

Kate Litle, Jane Dolliver, and Executive Director Julia Parrish were crazy busy this year in the COASST main office trying to keep the home fires burning while simultaneously shepherding our Alaska and California expansions. Mary Sue Brancato and Barbara Blackie, in the OCNMS COASST office, were similarly busy. It seemed like there wasn't a week where someone wasn't out doing a training, attending a conference, or on-site setting up new beaches with COASST partners.

Rebecca Gamboa, research coordinator, breaks for a photo while visiting the Perito Moreno Glacier in Argentina.

Courtesy of R. Gamboa

Highlights included: Julia's first trip to St. Paul–one of the Pribilof Islands in the middle of the Bering Sea–where she not only celebrated her birthday and watched the greased pole climb competition on the Fourth of July (five hours long!), but also walked COASST's first St. Paul beaches with ECO office partners. In California, Julia and COASST organizer Pete Nelson braved a sand storm to survey Humboldt County beaches, and feasted on incredible homemade cheeses at the home of one of California's first COASSTers–Maggy Herbelin.

Kate continued her Master's work, exploring COASST data to predict what would have been on the beach before the *Nestucca, Tenyo Maru,* and *New Carissa* oil spills. In May, she held a training in Everett, Washington, and won a spot on KHSU, Humboldt State University public radio to chat with Maggy Herbelin about COASST's expansion into Northern California.

Jane was bleary-eyed after working diligently to verify all the bird data coming in. We actually did let her out of the office. In fact, Jane *flew* to California, with dead birds safely stowed in her carry-on, to help Pete Nelson conduct two trainings down south.

Once again, Mary Sue and Barbara get prizes for not only conducting 15 training sessions and hosting a great COASST social for North Coast and Strait participants, but also staffing the Hobuck beach site, where they found 81 new carcasses.

Our newest COASST office addition is Rebecca Gamboa, who came to us from The Nature Conservancy. Rebecca is heading up our Columbia River daily survey project (see sidebar at right), has taken charge of our ever cheerful UW undergraduate student interns, and will be sharing many of the day-to-day challenges and opportunities that come through our door. A native of California with a penchant for wildlife and wild places, Rebecca has spent time working with penguins in Argentina and forest birds in Panama, so she came ready to go!

Interns and Office Help

And speaking of interns, Katie Fulkerson, Emily Haug, Amanda Moran, Claire Levy, Will Lampe, Aaron Default, and Kevin Swager, collectively gave us over 500 hours of time this year. Doing what? Entering data, cataloging photos and archiving datasheets, assembling COASST packs, mailing out anything and everything, and calling all of our participants to check in. Christen Foehring, a former student intern now in graduate school at Harvard University, spent the spring and summer with us working on *COASSTLine* stories.

J. and M. Ziady

Olli Ollikainen's Oregon Mile 286 daily survey team leads the pack with 10 consecutive survey days per month since August.

Going the Extra Mile!

This spring COASST initiated a special National Fish and Wildlife Foundation funded project to perform daily surveys on select beaches within 100 km of the Columbia River. Six teams of dedicated COASSTers coordinate their schedules in an attempt to cover 7–10 consecutive days on their beaches each month. Self organization, timely communication and assistance from our newest COASST staff member, Rebecca Gamboa, are all helping teams coordinate. Kudos to all involved!

These data are invaluable in our effort to understand how wind, currents and bird migration patterns (see diagram on page 14) affect deposition. And we're not only creating cool science results; we're also laying the groundwork for a much better estimate of total annual deposition across the entire lower 48 outer coast region–a number resource managers and environmental watch dogs will use to assess everything from oil spills to climate change.

If you want to be part of the action, several teams could use additional members to realize their monthly goals. Email COASST or give Rebecca a call.

VOLUNTEER*	SURVEY HRS	TRAVEL HRS	KM
Connie Alderfer	4.8	0.7	5.1
Ron Alderfer	4.8	0.7	5.1
Kelly Ames	13.9	1.5	5.1
Rob Ames	13.9	1.5	5.1
Janet Anderson	2.0	0.1	1.6
Rick Anderson	2.0	0.1	1.6
Stephen Anderson	3.9	2.9	3.6
Melissa Apgar	5.2	0.4	3.0
Elizabeth Arch	7.8	4.0	8.5
Steve Arch	7.8	4.0	8.5
Ken Arzarian	14.3		34.0
Steve Ash	3.8	0.3	3.0
Arthur Ayres	9.3	2.3	15.2
Kathie Balcom	4.3		6.2
Celia Bartram	9.0	12.0	24.0
Jim Bartram	8.5	11.0	22.0
Tracy Beals	9.5	24.0	11.7
Bryan Bell	4.7	12.0	5.9
Carol Bernthal	6.5	1.3	20.5
Linda Bierma	20.8	4.7	21.7
Jim Biermann	0.8		0.7
Shauna Biermann	3.5	3.8	3.7
Dave Bilderback	59.8	21.0	37.1
Diane Bilderback	71.8	23.5	42.3
Perry Black	2.9	0.3	3.0
Barbara Blackie	24.8	24.0	11.5
Max Blair	12.3	1.7	8.0
Wendy Blair	0.2	0.2	0.5
Paul Blake	37.5	4.0	42.2
Alice Blandin	27.5	3.8	19.5
Bill Blandin	27.5	3.8	19.5
Bent Blichfeldt	18.5	5.5	5.5
Heath Bohlmann	2.2	0.7	1.5
Louise Bollman	2.2	0.3	1.5
Sherry Bottoms	5.3	2.3	3.5
Lee Bowen	20.3	1.9	40.4
Ed Bowlby	12.1	16.8	10.5
Jane Boyden	19.1	5.3	12.9
Mary Bozza	5.9	1.3	5.6
Mary Sue Brancato	38.9	4.2	21.5
Kim Bredensteiner	1.9		6.0
Mel Breitsprecher	1.5	1.0	1.5
Casey Brewer	17.0	29.3	31.0
Martha Briscoe	4.4	3.0	4.8
Stephen Brown	14.8	3.0	9.0
Janet Bruening	32.2	29.3	29.3
Jeanne Budlong	16.5		25.0
Jim Budlong	16.5		25.0
Keith Bunney	1.0		1.8
Cindy Burns	29.6	5.0	16.6
Sarah Burns	2.3		1.7
Sean Burns	2.3		1.7
Emily Burton	2.8	0.5	1.6
John Burton	5.0	1.0	3.2
Ken Burton	1.5	2.5	2.0
Kathy Bush	28.2	3.7	16.5
Rick Bush	28.2	3.7	16.5
Carol Butz	3.5	2.5	2.0
Cathy Byars	0.0		
Coleman Byrnes	55.7	7.5	54.7
Barbara Campbell	18.3	5.0	21.8
Anne Caples	32.0	5.5	18.3
Ann Carlson	2.2	6.0	1.6

VOLUNTEER*	SURVEY HRS	TRAVEL HRS	KM
Betsy Carlson	4.0		4.0
Ricki Carlson	6.3	0.4	10.0
Chris Cassidy	6.5	5.3	4.0
Kathleen Chase	2.8	0.3	2.4
Scott Chase	2.8	0.3	2.4
Lee Chavez	1.3	1.8	1.4
Liz Chenoweth	3.2	2.7	4.3
Anne Chiller	20.2	3.3	22.0
Judy Chovan	18.2	19.4	10.2
Joan Christy	8.8	1.3	6.0
Susan Clardy	3.0	1.0	1.0
Darrel Clark	9.6	5.0	13.2
Elizabeth Clark	4.5	17.3	6.2
Joan Clark	8.0	3.5	8.2
Joyce Clark	2.0	2.0	1.6
Susan Clark	39.0	9.3	41.7
Debra Clausen	14.8	1.7	32.0
Laura Clemmer	2.8	2.0	1.6
Li Clinton	1.7	5.0	1.6
Margie Cochrane	1.8	0.7	3.2
Mikey Cofer	2.1	0.7	1.4
Jane Comerford	3.5	0.5	4.8
Kathleen Confer	23.3	11.7	16.1
Steve Confer	23.3	11.7	16.1
Roger Contor	19.3	15.0	19.5
Susan Contor	19.3	15.0	19.5
Eileen Cooper	23.9	1.9	17.5
Deb Cox	23.0	38.0	16.5
Tom Cox	16.4	28.0	11.7
Cass Dahlstrom	4.4	3.3	4.1
Judy D'Amore	2.5	0.7	4.5
Joseph Deegan	2.1	2.3	3.8
Lucinda Diann	3.3	5.3	4.0
Pam Dick	7.6	3.3	6.5
Lee Diemer	4.6	18.0	5.3
Tasha DiMarzio	0.8	0.2	0.9
Paul Dinnel	14.9	8.0	26.4
Jane Dolliver	24.0	12.0	26.4
Robin Donnelly	16.3	8.0	9.6
Tom Donnelly	1.5	1.0	1.2
Bree Drummond	3.5	0.5	1.5
Sandy Dubpernell	28.2	24.0	54.7
Dalene Edgar	22.9	2.7	8.4
Don Edgar	22.9	2.7	8.4
Ann Elliott	49.8	83.8	61.4
Nick Elliott	11.9	26.2	16.8
Monajo Ellsworth	4.7	1.5	4.8
Martha Ellul	24.5	21.7	31.6
John Epler	6.9		29.9
Aleta Erickson	3.8	13.0	3.5
Lucretia Fairchild	3.7	5.4	1.9
Monica Farmer	1.0	1.8	2.0
Jonathan Feakins	1.0	1.5	1.2
Craig Feinstein	6.6	4.6	5.2
Marilyn Ferguson	5.5	1.0	1.9
Dyan Ferren	0.5		0.5
Melissa Fielding	12.5	1.2	8.4
Mike Fielding	15.0	1.3	9.6
Sheila Fiepke	6.6	2.0	10.0
Kathleen Foley	1.3	0.5	1.0
Burton Foote	19.8	4.0	17.5
Rose Forbes	26.8	7.7	29.5
David Freed	1.3	1.0	2.2

VOLUNTEER*	SURVEY HRS	TRAVEL HRS	KM
Mark Freed	7.0	7.0	10.5
Ellie Friars	9.0	0.9	18.0
John Friars	11.6	1.1	22.0
Ron Frisch	21.8	0.2	30.1
Katie Fulkerson	1.0		1.0
Sue Gabriel	20.8	1.5	14.5
Varian Gacek	12.4	5.5	13.6
River Gates	2.1	2.0	8.0
Katie Gavenus	2.1	1.5	2.0
Sharon Gearhart	27.5	35.0	23.0
Joan Gerteis	1.8	0.5	2.0
Frank Geyer	2.9		3.0
Sue Gilleland	18.8	1.9	37.6
Margo Glenn	6.8	0.3	4.8
Tom Golding	14.9	13.3	15.0
Matt Gray	12.6	37.8	13.5
Phil Green	8.8	1.0	9.0
Rhoda Green	15.6	15.0	22.5
Scott Gremel	1.9	6.0	2.1
Carol Griswold	6.6	2.8	5.8
Amy Groesbeck	0.7		1.6
Dick Groesbeck	8.2	8.9	14.0
Nona Groesbeck	5.2	5.7	8.0
Jan Gross	3.8	0.5	6.0
Pete Gross	1.0	0.2	2.0
Mike Grue	1.6	0.3	1.7
Guest	85.9		74.7
Troy Guy	6.6	14.0	5.6
Peg Hackenbruck	4.0		3.2
Pete Hackenbruck	1.5		1.6
Meg Hahr	11.7	13.5	19.7
Shelley Hall	6.0	15.2	7.3
Kati Halmos	31.6	0.8	55.2
Mary Ann Hanson	3.9	5.0	10.0
Wayne Hanson	3.9	5.0	10.0
Patti Happe	1.9	6.0	2.1
Lisa Harkins	1.0		1.3
Sandy Harold	0.3	0.7	0.8
Bea Harrison	7.6	3.0	6.0
Jim Harrison	11.9	3.8	7.5
Jon Harwood	1.5	0.8	2.0
Janice Havrilak	33.8	4.9	25.7
John Haxton	13.3		16.1
Clarence Hein	15.1	6.5	16.3
Jill Hein	48.0	29.5	61.8
Joel Helm	13.5	15.3	23.1
Maggy Herbelin	7.0	1.7	4.0
Nancy Hertzel	2.0	2.7	12.0
Connie Herzig	31.2	75.0	26.3
Tom Herzig	31.2	75.0	26.3
Clem Hoerner	6.9		29.9
Mary Holbert	1.5	0.2	1.6
Jennifer Holland	11.2	8.9	14.0
Barb Holler	8.0		6.7
Karin Holser	14.9	16.3	14.7
Rayna Holtz	31.1	1.7	15.0
Beth Horton	16.0		9.0
Pattie Hutchins	18.8	5.0	10.0
Jeanne Iverson	13.4	9.3	13.1
JoAnn Jackson	12.4	5.5	13.6
Ellen Jenkins	14.0	2.3	15.4
Ruth Jenkins	18.4	45.0	18.5
Courtney Johnson	1.0	0.3	1.0

VOLUNTEER*	SURVEY HRS	TRAVEL HRS	KM
Dick Johnson	12.2	1.7	20.0
Frank Johnson	8.0	0.3	6.4
Gary Johnson	2.7	0.5	12.0
Mark Johnson	1.5	0.3	6.0
Mary Johnson	10.1	2.3	18.0
Bert Johnstone	50.1	8.3	40.3
Dustin Jones	4.2	1.8	12.0
Ryan Kahlo	11.6	11.3	20.0
Mike Kaill	22.5	22.0	17.9
Marilyn Kastien	0.8	0.8	0.6
Sue Keilman	4.6	4.0	1.9
Christina Kessel	1.1		1.0
Phyllis Kind	25.5	5.5	22.0
Barb King	23.2	5.3	12.8
John King	23.2	5.3	12.8
Norma Klein	5.2	11.5	8.1
Valerie Knox	35.6	6.0	19.9
Gary Korb	15.1	3.0	4.8
Brad Krall	20.7	24.0	14.6
Tamara Krall	10.8	12.0	7.3
David Krichbaum	5.5	0.8	9.4
Diane Krichbaum	5.5	0.8	9.4
Christina Kriedeman	0.5	0.5	0.3
Yvonne Kuperberg	12.2	0.8	7.5
Jean-Francois Lamarre	2.0	2.0	8.0
Linda LaMay	10.7	0.8	22.0
Mac LaMay	10.7	0.8	22.0
Barbara Landi	1.6	0.5	2.0
Ryan Langley	4.0		3.4
Don Leak	6.0	1.8	2.8
Joyce Leak	6.6	2.0	3.0
Timmy Lebling	4.0	3.3	0.7
Mary Lou Letsom	30.6	5.0	16.6
Bev Leyman	5.4	23.5	3.7
Larry Leyman	6.4	27.0	4.9
JoAnn Lincoln	2.9	4.0	2.0
Dennis Linden	3.8	2.5	2.7
Peter Linton	1.8	1.7	1.5
Rodney Lipman	2.7	1.5	2.7
Tina Lipman	21.6	16.0	14.6
Sky Lloyd	27.2	2.1	20.0
Stephan Lorenz	6.3		6.3
Camilla Loyd	5.0	0.7	4.0
David Loyd	8.8	1.3	8.0
Julia Loyd	51.5	7.0	42.0
Anna Lucero	5.7	6.3	12.0
Jann Luesse	51.7	5.5	35.4
Pat MacRobbie	18.3	33.0	14.0
Stuart MacRobbie	30.2	5.0	23.2
Charlotte Maloney	11.3	18.0	10.0
Jim Maloney	12.9	21.0	11.7
Vicki Mansfield	19.5	4.7	32.2
Dave Manson	5.2	1.0	4.0
John Markham	7.7	0.2	8.1
Jerry Marsh	10.1	3.3	10.0
John Marsh	2.0	0.5	1.6
Mary Marsh	13.7	4.0	12.9
Debbie Marshall	11.2	5.6	2.5
Laura Martin	1.5	0.2	2.6
Robert Mauri	1.3	1.5	2.5
Laurel Mayhall	16.5	12.0	27.6
Lee Mayhan	5.2	1.0	2.6
Ivert Mayhugh	6.8	4.3	6.8

VOLUNTEER*	SURVEY HRS	TRAVEL HRS	KM
Jeanette Mayhugh	6.8	4.3	6.8
Mo McClintock	3.5	0.5	1.5
Greg McCormack	5.1		1.9
Kenny McCoy	19.3	4.2	18.3
Judith McDougall	14.5	1.3	9.6
Gary McDowell	11.9	1.5	18.0
Mary McDowell	9.9	1.2	14.0
Anita McMillan	6.0		4.4
Vicki McNeil	14.9	8.0	26.4
Jim Medlen	5.9	12.0	8.8
Tyler Melovidov	1.4	1.8	2.0
Jean Mendel	4.8	0.7	8.6
Carole Merrill	3.0	1.6	0.5
Sharon Metcalf	3.9	1.8	7.7
Vanessa Metz	9.6	2.8	5.0
Marilyn Miller	2.7	4.5	1.2
Claudia Mischler	12.8	19.5	2.4
Joe Montagne	2.3	3.0	2.1
Gary Montesano	3.3	0.7	2.0
Dianna Moore	7.8	0.8	7.3
Harry Moore	6.2	6.0	4.0
Anne Morgan	7.5	1.0	4.0
Deborah Moriarty	15.6	24.0	8.0
Kim Morris	1.3	1.3	1.1
Rica Motoyoshi	2.0	0.3	4.0
Cindy Moyer	15.0	12.7	20.0
Patricia Muchmore	3.4	4.7	2.0
Laura Mujica	1.7	0.5	0.6
Bree Murphy	18.3	14.5	17.1
Carolyn Murphy	7.2	4.0	12.0
Frank Murphy	3.7	2.0	6.0
Susan Murphy	11.4	2.3	9.8
Lorre Myers	9.1	24.0	8.0
Sue Nattinger	106.7	123.0	110.5
Pete Nelson	6.6	0.4	3.0
Sharon Nelson	28.5		42.0
Vic Nelson	39.3		58.5
Steve Ness	5.0	5.0	4.0
Norbert Neumann	5.2	1.0	2.6
Wade Newbegin	16.8	18.3	17.7
Jess Newman	12.0	0.8	9.6
Nancy Newman	25.5	21.0	20.9
Darlene Nichols	3.1	12.0	0.8
Gavin Nickerson	5.3	0.7	4.0
Griffin Nickerson	1.5		1.0
Kathleen Nickerson	9.0	1.0	6.0
Kern Nuttall	8.6	27.0	14.4
Brian Paul O'Donnell	2.1	2.0	8.0
Janet Oja	31.2	32.3	30.8
Kelley Oliver	6.3	16.0	2.8
Carolyn Ollikainen	24.8	4.3	20.9
Robert Ollikainen	29.4	5.3	25.8
Jon Olsen	1.6	0.5	2.0
Rachael Orben	5.4		6.7
Oregon Coast Aquarium	2.3	0.2	1.6
Eli Owens	1.0	1.0	1.3
Margaret Owens	1.0	1.0	1.3
Connie Owston	6.8		8.1
Pete Owston	13.1		14.5
Andy Palmer	7.3	0.5	12.3
Autumn Palumbo	5.0	13.5	7.8
Ric Palumbo	1.8	4.5	2.6

VOLUNTEER*	SURVEY HRS	TRAVEL HRS	KM
Ram Papish	6.8	1.3	4.3
Aaron Parker	2.2		1.7
Paul Parker	2.0	0.4	0.9
Sally Parker	8.0	4.4	2.8
Julia Parrish	4.3	1.0	3.0
Mike Patterson	2.8		3.2
Barbara Patton	13.2		9.6
Mike Patton	13.1		9.6
Barbra Paul	2.3	1.0	3.2
Joelle Pebbles	3.0	0.7	0.7
Sheila Pera	15.7	3.0	12.6
Toby Petersen	1.4	1.0	2.3
Kris Phillips	1.5		0.7
Mackenzie Pickert	4.4	7.0	4.9
John Poetzel	2.1	0.7	1.4
Bill Poppe	16.8	13.0	20.8
Jolene Poppe	6.5	4.0	6.4
Austin Poulin	1.3	1.0	2.8
Bob Poulin	13.2	8.0	22.4
Jean Poulin	9.9	6.0	16.8
George Power	11.3	3.7	14.7
Rose Power	11.3	3.7	14.7
Jaci Pumphrey	6.3	1.5	5.4
Jeanne Pumphrey	5.6	3.0	7.2
Sally Pytel	1.9	2.3	3.8
Drew Raffensperger	2.0	1.7	1.6
Paul Raffensperger	9.3	8.3	8.1
Michelle Ramsden	4.7	2.0	3.0
Brent Ramsey	2.9	0.3	3.0
Peggy Reeve	7.3	0.5	6.0
Renee Rensmeyer	10.1	2.5	8.1
Patrick Reynolds	18.5	33.0	17.7
Ken Richardson	0.4		1.3
Ginger Ridgway	14.0	14.0	4.3
William Ritchie	25.2	4.0	16.0
Jim Roberts	29.6	26.8	10.7
Jo Ann Roberts	29.6	26.8	10.7
John Roberts	5.5		1.9
Joyce Robinette	2.1	1.0	2.1
Holly Robinson	8.7	0.7	25.6
Moria Robinson	7.6	0.6	22.4
Emma Ruggiero	0.6	0.5	2.4
Mark Russell	13.8	22.5	18.0
Mary Russell	9.8	15.0	12.0
Ginny Ryder	1.4	2.0	2.0
Anji Scalf	4.1	3.0	2.1
Cheri Scalf	13.4	6.0	4.2
Lisa Scharf	9.4	9.0	20.7
Laurel Schoenbohm	9.9	4.3	14.3
Bette Seaman	7.5	5.0	8.0
Elia Seely	5.8	1.3	6.4
Nichelle Seely	2.0		1.6
Lisa Sheffield	5.0	1.0	4.0
Sasha Sicks	7.7	1.0	11.0
Marilyn Sigman	1.1	0.5	1.3
Nan Simpson	6.5	5.3	4.0
Lori Sinnen	18.5	33.0	17.7
Dana Sitzler	1.0	0.2	0.9
Leslie Slater	1.6	0.8	1.1
Betty Smith	1.3		0.4
Jill Smith	3.6	2.5	3.2
Max Smith	38.9	28.3	35.3

VOLUNTEER*	SURVEY HRS	TRAVEL HRS	KM
Randy Smith	5.4	2.5	11.0
Richard Smith	26.2	8.8	39.1
Trina Smith	4.6		3.3
Jim Somers	1.0	1.3	2.0
Linda Songer	6.4	6.0	6.0
Kristine Sowl	5.3	2.2	6.4
Rick Spaulding	14.4	1.0	25.9
Peggy Speer	40.4	13.3	32.2
Caroline Spehar	4.8	2.5	2.0
Gayla Spratt-Nuffer	12.5	2.5	10.8
Ron Spring	5.3	3.0	4.8
St Paul ECO	11.3	8.8	11.0
Cindy Stafford	10.3	33.0	17.6
Al Standish	14.3	11.0	20.7
Ann Stark	3.6	0.5	3.6
Doug Stark	4.4	0.7	4.8
Latresha Starling	37.5	0.9	20.8
Sumer Starling	37.5	0.9	20.8
Arlene Stebbins	13.1	7.5	16.0
Pete Steen	2.2	0.5	1.6
Jesse Stewart	12.1	1.7	20.0
Iris Stober	11.8	2.3	14.5
Shaylon Stolk	0.2	0.2	0.5
Bob Stowes	0.4		0.3
Linda Streitfeld	2.2	3.0	2.4
Eftin Strong	11.3	24.0	11.7
Ingrid Strong	9.3	2.0	9.8
Kim Sundberg	6.8	0.7	12.8
Sarah Swanson	40.2	31.2	36.9
Chris Szymoniak	7.5	5.0	8.0
Paul Tate	0.5		0.5
April Thompson	1.9	0.3	3.8
Lianne Thompson	1.3		0.8
Greg Thomson	1.0	1.8	2.0
Dan Thorington	15.1	1.0	15.6
Louis Tibbs	2.5	2.3	3.0
Nuzhat Tibbs	2.5	2.3	3.0
Bob Toby	19.6	3.0	19.2
Marcia Toby	18.1	2.8	17.6
Jim Todd	26.4	39.3	95.2
Floyd Tomkins	5.8	3.0	6.0
Emily Tompkins	2.9	1.7	2.3
Jim Towell	8.8		6.4
Ben Travis	0.3	0.3	1.0
Judy Trieber	5.6	2.8	4.4
Darin Trobaugh	4.8	2.6	3.3
Beth Trowbridge	1.1	0.5	1.3
Kelley Turner	2.2	0.7	1.5
Lars Turner	2.5	4.5	4.2
Anneka van Doorninck	16.8		24.0
Wolter van Doorninck	57.5		81.6
Corey VanStratt	6.8		7.7
Carol Volk	15.1	3.0	4.8
Frank Vondersaar	9.3	2.7	10.4
Neil Wagner	6.2	1.7	6.5
Darlene Wahl	14.3		34.0
Hank Warren	23.3	18.0	23.4
Raedell Warren	23.3	18.0	23.4
John Warrick	16.2	68.0	15.6
Elizabeth Wasserman	15.6	0.6	7.0
Ben Watson	6.9	7.3	5.6
Flora Watson	6.9	7.3	5.6
Carolyn Watts	63.3	9.3	116.5
Anne Weisbrod	0.6	1.5	0.8
Dick Weisbrod	2.4	5.0	2.4
Iris Welsch	2.0		1.0
Manfred Welsch	2.0		1.0
Jon Wendt	8.0	13.0	9.7
Don Wester	1.7	8.0	3.4
Linda Wester	0.5	4.0	1.7
Don Wilkin	13.0	13.3	16.0
Beth Winslow	12.6	4.5	9.8
Pam Winstanley	7.6	1.7	10.0
Madigan Winters	5.1	4.0	1.9
Peter Witschi	17.5	16.5	13.2
Beth Wolgemuth	3.0	0.4	1.9
Kathleen Wolgemuth	39.5	5.5	24.4
Bruce Wood	1.0		1.0
Patty Wood	1.0		1.0
Melissa Woolley	0.6		1.2
Carrie Wooten	22.0	19.3	17.6
Ami Wright	23.3	39.9	22.4
Randy York	9.4	1.5	18.0
Pat Young	9.8	12.0	4.0
Axel Yount	13.3	18.0	24.5
Sophia Zacharof	1.4	1.8	2.0
Phil Zavadil	3.1	2.4	5.0
Tyra Zeman	8.7	7.8	15.9
Rosie Zwanziger	4.8	0.2	6.3
TOTALS	**5226**	**3023**	**5394**

* Volunteer effort June 2006–May 2007

A. Caples

Mary Lou Letsom takes notes while fellow COASSTers Dave and Diane Bilderback, Val Knox, and Cindy Burns dive in. (Anne Caples is taking the photo!)

Help for the Homerians: Bree Murphy

B. Murphy

Bree Murphy helps keep COASST organized in Homer, Alaska.

Of the 44 COASST sites in Alaska this year, eight are based around Homer, Alaska. Who helps keep the Homerians happy? Bree Murphy, Program Coordinator at the Center for Alaskan Coastal Studies (CACS). In the spring of 2006, when Julia gave COASST's first training in Alaska, Bree was right there, getting her hands dirty, "At first, I wondered how a partially decomposed bird could tell a meaningful story, but left impressed and in awe of how beach-cast birds can be loud indicators for ocean health and change. I look forward to what COASST data will say about Kachemak Bay in 15 years!"

Not only does Bree serve as the COASST supply depot in Homer, keeping folks well stocked with plenty of extra cable ties and data sheets–she'll also take them out on their first COASST survey. Bree even fits COASST in when she travels to CACS's Peterson Bay Field Station, a short boat ride across Kachemak Bay from Homer. "I feel incredibly lucky to walk Peterson Bay–Gull Island is just off shore, so in the summer months there is a constant soundtrack of seabird chatter." and it was the only site to find a Bald Eagle this year. Thankfully Bree is sticking around, so she can continue to spearhead our efforts in Kachemak Bay and Lower Cook Inlet. Thanks so much for all your help Bree!

Volunteer Spotlight

Ami Wright–Gulf of Alaska

Alaska, "the last frontier" is home to many free spirits, and Ami is no exception. When accompanying Ami to North Verdant Cove (one of six beaches she surveys), forget about a drive–you'll be boarding a little 14-foot inflatable and heading straight into open water. Phew! Good thing she only does this in the summer, you say? And then you read the site characteristics form, "careful–swell and heavy surf"–hmm–what exactly does that mean? "Well, the Gulf of Alaska is notorious for bad weather, including gales, even in the summer. It can be a nice sunny day, but a storm at sea the day before, or stiff wind can render getting to the beach without losing the boat (and everyone in it) impossible."

All of this is pretty much just another day in the life of Ami as Avian Influenza technician at Kenai Fjords National Park. "I first heard about COASST

Ami Wright (right) prepared for the Alaskan outdoors, come rain, snow, or shine.

M. Gray

through my supervisor, Shelley Hall, who had been involved with COASST when she worked at Olympic National Park in Washington." Ami and Shelley saw COASST as a great opportunity to get some baseline bird mortality data within the park, while monitoring for oil and marine debris at the same time. "Just generally having eyes on the beaches is a really important thing," adds Ami. Ami's eyes have certainly spotted some pretty interesting stuff on the beach–skeletons from skates to sea otters, a huge sea lion tooth, and occasionally a black bear grazing amongst the beach grass.

If you're getting the impression that Ami may be the type of person to show up to a party in hiking boots, you're probably right. What does she do in her spare time during the winter months, when wind-chill and frozen seas necessitate a short break from COASST? "Wish it was spring! But seriously, I ice skate, cross-country ski, and travel some." Obviously nothing can keep Ami away from the outdoors–not the weather or the bears, or the thought of stumbling upon a really ripe carcass–she's exactly the type of volunteer we like to keep around.

Sandy Dubpernell and Jill Hein–Puget Sound

Together, Sandy and Jill pack a pretty impressive resume –name a project that involves wildlife around Whidbey Island, and they've headed it, or at least participated: Marine Mammal Stranding Network, Whidbey Island BeachWatchers, COASST, Sound Waters, The Orca Network, Island County Marine Resources Committee. Though Jill is from Australia and Sandy from New Jersey, both call Puget Sound home, and they are more than willing to share it with "southern resident orca, gray whales, and some beautiful waterfowl–it's a beautiful area with abundant life–that needs protection and clean-up," remarks Jill.

Given their wealth of naturalist activities, the COASST program inevitably made its way onto Jill and Sandy's radar–Sandy remembers, "a bit more than two years ago, Dot Irvin (BeachWatchers Coordinator at the time) and I noticed a reference someplace to COASST, so we looked into things, and scheduled the first class on Whidbey Island." Jill, out of the country then, sent

Courtesy of J. Hein

Sandy Dubpernell (left) and Jill Hein fill out a COASST datasheet on Fort Casey Beach.

her husband to attend in her place, and so the circle of folks roped into COASST grew. "Just last weekend," recounts Sandy, "I was doing an art show at the Greenbank Farm. A young girl came in all upset because she had found a dead bird on the edge of the pond. Three people told her, "go see the lady over there, she knows about dead things." Immediately, I had an audience of eight people, and now the little girl thinks she'd like to become a biologist."

On their beach–Fort Casey State Park–there's never a dull moment: "About a year ago, Jill and I found the grill work, a quarter panel, and tires from a car. Too bad we couldn't identify the model or we could have sold some spare parts!" Besides the Short-tailed Shearwater–COASST's first tubenose find in Puget Sound–Jill laughs that there have been "enough things to set up house: brooms, bags, dustpans, sheets, a coffee pot, bowls, saucepans, spoons and sometimes the food to go with it: oranges, squash, broccoli." Jill and Sandy aren't quite ready to set up shop on the beach, but they do plan to visit twice monthly for their normal COASST surveys because "COASST data are important in monitoring marine birds–recognizing widespread factors affecting seabirds is the first step in identifying and mitigating potential problems."

Partner Profile: North Pacific Research Board

In 1999, our executive director Julia Parrish was just starting COASST in Ocean Shores, Washington. During the *Tenyo Maru* oil spill, Julia had seen first hand the effects of pollution on coastal wildlife and realized that citizen science might be a great way to monitor beaches and create a baseline.

By the time COASST began collecting data, the North Pacific Research Board (NPRB) had been operational for two years. NPRB was created by Congress in 1997 in response to a nearly 20 year negotiation between the state of Alaska and the federal government over the stewardship of Alaska's Arctic Coast.

On the other side of North America, Francis Wiese was initiating his graduate studies at Memorial University in Newfoundland, Canada, monitoring the impacts of chronic oil pollution on seabirds. Francis' unique focus on using scientific data–in this case on the percentage of all beached birds found oiled–and the combination of industry and government agency partnerships resulted in positive changes in the Canadian environmental legislation pertaining to chronic oiling.

Courtesy of F. Wiese

Francis Wiese–Science Director of the North Pacific Research Board–soaks up a little sun out on the ski slopes.

It was only a matter of time until these three paths converged. After graduating, Francis headed west to work with Julia as a postdoctoral fellow, researching the interactions between seabirds, salmon and hydroelectric dams on the Columbia River. Francis explains that their approach of working in conjunction with multiple stakeholders and using "solid science applied to a real world problem" was particularly appealing to him.

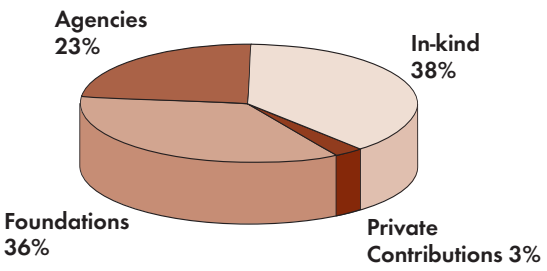
In 2005, Francis left the University of Washington to become a Program Manager at NPRB, quickly advancing to Science Director this year. Helping steer science and resource management in the largest state in the Union is a huge challenge. Francis describes the Alaskan environment as "vast, complex, and mostly out of reach," where the only realistic option is focusing on "things we can measure." This is where COASST re-enters the story.

NPRB sponsorship of COASST expansion into Alaska is now in its second year, with our Alaskan COASSTers surveying beaches from Sitka to the Pribilof Islands. "Nothing is more powerful in achieving the goal of ocean literacy than actually involving people directly in the research. Education and citizen science as promoted and implemented by COASST is a powerful means to achieve this."

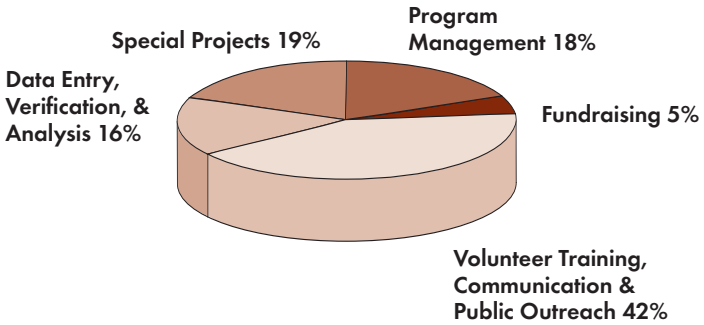
"In the long-term, such a process builds the insurance that peoples' interests are properly represented in the natural resource management arena." Francis acknowledges the "strength and success" of COASST lies in "merging solid science and citizen-based" data collection by coastal community residents from all walks of life. Because of NPRB support, our Alaskan participants are now an integral part of the more than 450 tenacious individuals from northern California to the Bering Sea who collectively set the gold standard for citizen scientists worldwide. And maybe we'll even get Francis out on a beach!

COASST, June 2006–May 2007

Funding Sources



Expenses



COASST Funding

COASST continued to grow, adding two new states–Alaska and California, and with them a list of expenditures. In fact, our annual budget now approaches $200,000. And that doesn't include volunteer time ($155,000 according to the Independent Sector valuation).

Who kept us afloat this year? As always, agency contributions formed a mainstay of COASST support. Many agencies don't have the funding to bankroll COASST in a big way, but we are grateful for the $5,000–15,000 contributions coming to us on a continuing basis.

To that we add a huge boost from the in-kind donations of personnel time–for instance our executive director's salary, not to mention the time Mary Sue Brancato, Barbara Blackie, and a host of partners in Alaska gave us.

Foundations and granting organizations powered our geographic expansion, led by a generous grant from the NPRB. World Wildlife Fund also helped with our Alaska expansion. We're especially interested in how to translate these initial dollars into long-term support.

Finally, a small amount of funding came in from private donors. We're looking to expand our COASST family to include not only data collectors, but those who believe in our efforts and can support us financially. Please consider making a donation to COASST this year, or contacting us with suggestions about likely donors. We can definitely use the helping hand.

Sponsors

COASST would like to thank the following sponsors, who provided operating funds, support for special projects, and in-kind donations during 2006–2007.

Operational Support

California Sea Grant
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Special Projects

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World Wildlife Fund

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COASST Mission

The Coastal Observation and Seabird Survey Team (COASST) is a citizen science project focused on the coastal areas of the North Pacific. COASST believes citizens of coastal communities are essential scientific partners in monitoring marine ecosystem health. By collaborating with citizens, natural resource management agencies and environmental organizations, COASST works to translate long-term monitoring into effective marine conservation solutions.

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