

SPLASH 2004: NOAA Ship McArthur Weekly Science Report

23 September, 2004

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SCIENCE SUMMARY: 16 - 22 September 2004

“From rags to riches” – but unfortunately, this week we’ve gone from riches to rags. Only on SPLASH can one be seen to say with a smile “The wind is only blowing 20 knots!” (and we wish we could have said this more during the past seven days.)

We began our week touching the high seas, slightly more than 200 nm to the south of Unimak Pass. Since then, we’ve worked along the slope and shelf of the southern coast of the Alaskan Peninsula, from just east of the Shumagin Islands, to the southeast edge of Shelikof Strait. The weather has bounced between extremes. We’ve seen clear skies, heavy fog limiting visibility to less than half a mile, and rain; we’ve experienced smooth seas with nary a whitecap, steady winds of 30 knots with gusts into the 40 knot range, and everything in between. The vexing problem is that these weather swings can happen in half a day, and they don’t necessarily pay attention to the forecast – as I write this we are running for Chirikof Island in frothy 16-foot seas with the wind-time trace showing 38 knots during the past two hours; at close of effort last night we were merrily working whales alongside the RHIB in flat Beaufort 2 conditions (and braving the forecast for winds of 25 knots). Our weather guru, ENS Steven Barry, knows well how to interpret these forecasts, but has yet to attend classes on how to *change* the weather. “That’s why they don’t call these ‘trade winds’ ” my roommate told me this morning.

This is a tough team though and not deterred by anything under a Beaufort 7. We’ve worked these waters from RHIB, flying bridge, and bridge, and covered a fair bit of ground on most days (see report below). On this project, a high number of trackline miles corresponds to a low number of sightings, and that’s what we’ve seen – little in the way of whales. Remember though, negative data are valuable data.

Well ... onto the positive. This week features a new species – fin whale. They top the sightings list at 18. Despite the fact that they are not our target species, one afternoon found us in so many that we could not continue to ignore them (besides, the small boat team was desperate for work, Juan Carlos recently having chloroxed the entire wet lab in a fit of boredom). So, we spent a couple of hours amidst an estimated 35 – 50 whales scattered over several miles, coming back with 12 biopsy samples. Why so many fin whales and so few humpbacks? Makes you believe in niche partitioning. And then there have been the killer whales, winning the photo-identification contest this week with 27 individuals identified. These have included residents, transients (one group sampled some 200 nm to the south of the peninsula – a valuable biopsy sample indeed), and probable offshores. Oh yes, we’ve seen humpbacks too, though our goal of 5-10 photos per day has turned into our weekly total. So desperate have we been for these data points, one by slow one, that Tuesday’s sunset team worked on into the evening by the

light of the moon and the computer screen (“Hey, this thing puts out a lot of light!” RAR), Amanda clicking away, ignoring Mark’s suggestion to turn on the flash, and succeeding with a fluke shot with enough contrast to make the catalog (Holly?).

P.S. King crab for Friday night’s dinner!

Sightings and Effort Summary for Marine Mammals

Date	Start/Stop Time	Position	Total Distance	Avg. Beaufort
091604	0740 1957	N51:57.49 W163:03.56 N50:47.73 W161:35.09	84.8 nmi	2.3
091704	0741 1654	N51:09.25 W160:41.84 N52:40.60 W160:02.46	66.1 nmi	4.3
091804	0731 1935	N53:47.46 W159:23.86 N55:10.97 W158:49.36	75.6 nmi	4.9
091904	0738 1840	N55:27.82 W159:18.41 N56:18.87 W157:38.55	85.2 nmi	5.1
092004	0724 1206	N56:24.07 W157:39.58 N56:37.14 W156:48.90	31.9 nmi	5.9
092104	0724 1901	N56:41.35 W157:00.95 N56:39.66 W155:25.38	57.1 nmi	3.7
092204	0937 1917	N55:34.28 W155:25.54 N56:26.02 W155:32.74	47.0 nmi	3.9

CODE	SPECIES	TOT#
037	Orcinus orca	5
046	Physeter macrocephalus	4
070	Balaenoptera sp.	6
074	Balaenoptera physalus	18
076	Megaptera novaeangliae	10
079	unid. large whale	8
	TOTAL	51

Note: Dall’s & harbor porpoises and pinnipeds are not included.

Biopsies (Juan Carlos Salinas)

Species	Weekly	Cumulative
Humpback whale	6	395
Fin whale	12	56
Northern Right Whale	0	22
Blue whale	0	4
Sperm whale	0	6
Killer whale	3	35
Baird's beaked whale	0	3
Dall's porpoise	1	2
Cuvier's beaked whale*	0	1
Grand Total	22	524

*dead when sampled

Photo-Project (Holly Fearnbach)

Species	Weekly #	Cumulative #
Humpback whale		
Catalog-quality flukes	7	659
Fin whale dorsal IDs	18	92
N Right Whale head IDs	0	23
Sperm whale fluke IDs	0	13
Blue whale dorsal IDs	0	5
Minke whale dorsal IDs	0	1
Killer whale dorsal IDs	27	210
Baird's beaked whales	0	15
Northern right whale dolphins*	0	1
Pacific white-sided dolphins*	0	3
Cuvier's beaked whale (dead)	0	1
Steller sea lion	0	1

*number of groups photographed

HUMPBACK PHOTO MATCHES NEWS FLASH

- An animal photographed in the Shumagin Islands on 6 and 7 August was re-sighted on 13 Sept, having traveled 169 km to the west
- An animal photographed on 7 July in SE Alaska had come from Maui – it was photographed there on 26 January of this year

Oceanographic Operations (Steven Barry)

Date	Number CTDs
9/16	1
9/17	1
9/18	1
9/19	0 – cancelled due to weather
9/20	0 – cancelled due to weather
9/21	1
9/22	1

Acoustics Squeakly Report (Shannon Rankin and Lisa Munger)

A few offshore jaunts have provided us with more of our favorite sperm whales. Many of these detections are not sighted by the visual team, especially in inclement weather, and our total non-sighted detections are now up to 128. We've also been busy with morning sonobuoys for blue whales (no luck) and occasional sonobuoys on Orca sightings (again, little or no luck). Our supply of DAT tapes for sonobuoy recordings is dismally low, as is our supply of stamina. Regarding the array, we have encountered a sea monster local to these areas, and it has taken to nibbling on our long black tail. Rumor has it that it is the mysterious "sea monkey" described by the German naturalist Stellar in these waters (and never seen again). Despite the scratches and scrapes, the array is holding up surprisingly well.