

SPLASH 2004: NOAA Ship McArthur Weekly Science Report

21 October, 2004

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SCIENCE SUMMARY: 14 - 20 October 2004

At the start of this leg, our expectation was that the last month of SPLASH would be relatively slow, as the humpback whales started heading south, the days became shorter, and winter started sending more and more storms our way. But this week, we exceeded all sampling expectations, not only for the week, but possibly for the entire leg! Last week's report ended saying you'd have to wait to find out how Thursday went – we had good weather and whales all around, just south of the Fairweather Grounds. Well..... we had great success that day, and our luck has continued all week! We obtained a total of 116 fluke photos from humpbacks -- the highest weekly total for the project to date! Our humpback biopsy total was 'only' the second highest (57 samples, vs. 70 the first week of July), but on a per daylight hour basis we actually broke that record, too (we're down to about 10 hrs of daylight now, compared to 15 at the beginning of the cruise). So we had an amazingly successful week! Our best single day yielded over 50 fluke photos, and 16 photo-matched biopsies.

The whales have been scattered reliably all along the 100 fathom curve south of the Fairweather Grounds, causing us to have very little 'on effort' trackline as we divert for whale after whale after whale. But along the 100fm isobath, we've effectively covered the entire area between Icy Strait and Whale Bay (just south of Sitka Sound), encountering hundreds of whales in a matter of a few days. Offshore of the 100fm isobath, we have seen and/or heard a few deep-water species (sperm whales, Berardius), and inshore there are mostly Dall's porpoise and a few scattered humpbacks. Killer whales have remained elusive, although the RHIB encountered one group and got a biopsy and some photos. Our week has also included two brief stops in Sitka – one on Monday evening to drop off departing crew member Pat Patana (we will miss you, Pat! Thanks for everything!), pick up supplies and mail, obtain medical attention for two shipmates, and, of course, sample the local supply of alcoholic beverages. Following two good weather days offshore, we're back in a sheltered anchorage near Sitka today (Thursday), while a powerful storm moves through the area the next few days. We plan to hide here until we can venture out onto the open seas again and continue our southbound trek.

Re-sight of the week: Last Friday we encountered and photographed a single sperm whale along the shelf break. The next day, about 25 miles farther south in an area of longline activity, we encountered a longline vessel being followed closely by three sperm whales that were presumably stealing fish. The RHIB went over to get biopsies and photos, and the sperm whale turned out to be the same one seen the day before, 25 miles to our north! Check out our photo of the sperm whale with the fishing vessel on the SPLASH 'Scenes from the Cruise' web site!

Bird quiz of the week: What happens when the cruise leader sees the comment “OFF EFFORT FOR SNOWY OWL ON TREE HOUSE” entered into the data record by the flying bridge team? Well, she grabs her camera and heads out to take a look, of course! A juvenile snowy owl foolishly tried to perch on the ‘tree house’ (the ship’s elevated aft control room) during 35-40 knots of wind on Monday. It had a rough time holding on and eventually flew (blew?) off again, but we got nice pictures of this beautiful bird.

Sightings and Effort Summary for Marine Mammals

Date	Start/Stop Time	Position	Total Distance	Avg. Beaufort
101404	0651 1020	N58:22.03 W139:00.33 N58:12.46 W138:11.96	23.2 nmi	2.9
101504	0744 1422	N58:02.26 W138:19.73 N58:00.61 W138:05.97	1.0 nmi	4.3
101604	0652 1545	N57:58.78 W137:30.57 N57:51.35 W137:14.01	15.7 nmi	2.4
101704	0641 1423	N57:55.92 W136:50.46 N57:42.60 W136:44.77	1.6 nmi	6.0
101804	0750 1046	N57:26.62 W136:24.94 N57:09.29 W136:00.95	26.5 nmi	6.2
101904	0904 1222	N57:00.85 W135:24.72 N56:53.60 W135:49.60	11.2 nmi	2.7
102004	0943 1226	N56:50.77 W136:08.49 N56:40.19 W135:45.34	16.9 nmi	1.8

CODE	SPECIES	TOT#
046	Physeter macrocephalus	2
063	Berardius bairdii	1
070	Balaenoptera sp.	2
071	Balaenoptera acutorostrata	1
074	Balaenoptera physalus	1
076	Megaptera novaeangliae	31
079	unid. large whale	6
096	unid. cetacean	1
098	unid. whale	2
	TOTAL	47

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

Biopsies (Juan Carlos Salinas)

Species	Weekly	Cumulative
Humpback whale	57	484
Fin whale	0	64
Northern Right Whale	0	22
Blue whale	0	4
Sperm whale	2	8
Killer whale	1	38
Baird's beaked whale	3	6
Dall's porpoise	0	2
Cuvier's beaked whale*	0	1
Grand Total	63	629

*dead when sampled

Photo-Project (Holly Fearnbach)

Species	Weekly #	Cumulative #
Humpback whale		
Catalog-quality flukes	116	841
Fin whale dorsal IDs	0	106
N Right Whale head IDs	0	23
Sperm whale fluke IDs	3	16
Blue whale dorsal IDs	0	5
Minke whale dorsal IDs	0	1
Killer whale dorsal IDs	4	222
Baird's beaked whales	6	21
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

PHOTO MATCHING NEWFLASH We have found matches for several animals that were previously seen together elsewhere during this cruise, mostly when we found large aggregations. Several whales seen in Chatham Strait during July were resighted south of the Fairweather Ground this past week, and some animals seen together in the Shumagins during early August were relocated during off Kodiak in early October. This

suggests that aggregations of animals are moving around together throughout the summer, over distances of 10s to 100s of km.

Oceanographic Operations (Lacey O’Neal)

Date	Number CTDs
10/14	1
10/15	1
10/16	1
10/17	1
10/18	1
10/19	1
10/20	1

Acoustics Squeakly Report (Shannon Rankin and Julie Oswald)

Despite few hours on effort, we heard suprisingly few sperm whales this week on the slope. Our one sperm whale detection was of actively clicking sperm whales actively feeding behind a long-line fishing boat. The mid-week was a sleeper for acoustics, as we assisted on the flying bridge and worked on catching up on data analysis. We ended the week running between covering shifts on the flying bridge and listening to a few Berardius vocalizations and a group of non-sighted killer whales. We were quite happy to be busy for a change, and quite happy to be free of data for a day. Next week: we listen in on the sounds of Sitka.