

STAR 2000: DAVID STARR JORDAN WEEKLY REPORT

16 November 2000

Lisa T. Ballance

SCIENCE SUMMARY: 9 - 16 November

The last week of Leg 5 began with us still in heavy weather - sailing through countercurrent waters and feeling 20+ knots of trade winds. Here, near 10 degrees N and 110 degrees W, animals were moderately abundant: spotted and spinner dolphins accompanied by flocks of Juan Fernandez Petrels and Wedge-tailed Shearwaters with tuna not infrequently seen catapulting out of the water after fleeing prey, scattered schools of striped dolphins, Leach's Storm Petrels flitting about. Quintessential ETP. Those familiar with the area will recognize the above coordinates as one of the magic spots in all the world - Clipperton Island. We stopped there on 10 November. Despite high winds, we were able to easily land a shore party on the lee side for a walk around the atoll. This allowed us to assess the stage of breeding of the Masked and Brown boobies, and to search for vagrant species, of which there are always a few. The helicopter completed two successful flights, blanketing the island with photos which will allow us to precisely count the breeding boobies - continuing a census we have been conducting since 1987. (Sneak preview: the Masked Booby colony looks healthy; adults incubating eggs; Brown Boobies were fewer than expected....) Clipperton is one of the very few occasions on which the crew gets a chance to relax while the scientists work; wahoo, tuna, rainbow runners all made their way on deck while others dove above the atoll's reefs. That day was made complete by the capture of a rare pink-winged flyingfish at the evening station (netted not by our veteran dippers, but by our young female up and coming dip star), and by successful acoustic recordings of bottlenose dolphins swimming around the ship.

On our way once more, headed northeast and toward the distant coast of Mexico, we unbelievably encountered the ITCZ yet again. After seemingly leaving it behind, it leapfrogged ahead of us and drenched the ship in torrential rain for the better part of two hours, after which we popped out into thinning clouds with a hint of blue sky above. Could we finally be out of it? The answer was yes - we left the countercurrent, the trades, and the rain behind and for the remainder of the week, sailed in lovely to spectacular conditions: low winds, clear skies and glassy seas. The helicopter, small boat, and respective crews moved out of hibernation and into a frenzy of activity. Highlights: killer whales with biopsy, aerial and lateral photos; a surprise blue whale one day away from the coast complete with aerial and lateral photos, biopsy, and acoustic recordings from yet another functional sonobuoy (Kathy works her magic on these); abundant olive ridley turtles with everything from salad-plate-sized juveniles to full-grown adult females and males; stunning encounter with false-killer whales which cavort around the ship,** riding the bow** (!), looking up at us looking down, and giving us "... the best looks I have ever had at this species!" (RAR); close views of a Peregrine falcon swooping down on an unsuspecting phalarope, killing and eating it right over the water. On the morning of 16 November, we docked at the pier in Manzanillo harbor, gave Boudreaux his last meal of

tuna, and set him free to roam the fields of Mexico with the other Cattle Egrets of his kind. One more leg to go.

SIGHTINGS AND EFFORT SUMMARY FOR MARINE MAMMALS:

Date Start/Stop Time Lat Long Total NM Av. Beaufort

110900 0722 N08:33.43 W112:01.69 57.2 nmi 5.2
1843 N09:30.93 W110:36.99

111000 0712 N10:00.36 W109:37.88 24.8 nmi 5.8
1033 N10:17.59 W109:16.93

111100 0713 N11:04.28 W108:10.17 105.9 nmi 4.0
1833 N12:15.98 W106:39.76

111200 0702 N13:10.40 W105:27.64 84.2 nmi 3.2
1725 N14:06.65 W104:19.79

111300 0657 N14:49.38 W103:18.55 90.4 nmi 2.8
1700 N15:45.58 W102:00.17

111400 0650 N16:24.25 W100:31.32 75.7 nmi 2.1
1733 N17:21.33 W101:35.39

111500 0656 N17:40.94 W102:14.32 69.2 nmi 3.2
1810 N18:09.84 W103:34.60

CODE	SPECIES	TOT#
002	Stenella attenuata (offshore)	8
006	Stenella attenuata graffmani	1
010	Stenella longirostris orientalis	6
011	Stenella longirostris (whitebelly)	1
013	Stenella coeruleoalba	1
015	Steno bredanensis	6
017	Delphinus delphis	2
018	Tursiops truncatus	7
033	Pseudorca crassidens	3
037	Orcinus orca	1
048	Kogia sima	1
049	ziphiid whale	3
061	Ziphius cavirostris	2

070	Balaenoptera sp.	2
072	Balaenoptera edeni	3
075	Balaenoptera musculus	1
077	unid. dolphin	7
090	Stenella attenuata (unid. subsp.)	1
096	unid. cetacean	1
TOTAL		57

COMMON DOLPHINS 2
 SPOTTED/SPINNER 17
 BLUE/HUMPBACK WH. 1
 OTHER DELPHINIDS 25
 OTHER CETACEANS 12

AERIAL PHOTOGRAMMETRY SUMMARY:

Total flight hours = 15.0

Species	Photographed	Calibrated
Stenella attenuata/S. longirostris	1 school	--
Delphinus delphis	1 school	0.5 school
Grampus griseus	1 school	--
Balaenoptera musculus	1 indiv.	--
Pseudorca crassidens	1 school	--
Mesoplodon sp. A	3 indivs.	--
Orcinus orca	1 school	--

Bonus: Clipperton island photographed for Masked and Brown booby census!

BIOPSY SUMMARY:

Species	This Week	Cruise Total
Balaenoptera musculus	1	17
Balaenoptera edeni	-	3
Megaptera novaeangliae	-	2
Berardius bairdii	-	2
Orcinus orca	1	12
Pseudorca crassidens	15	18

Globicephala macrorhynchus	-	37
Feresa attenuata	-	6
Delphinus capensis	-	3
Delphinus delphis	1	8
Lagenorhynchus obliquidens	-	4
Stenella attenuata	8	96
Stenella attenuata graffmani	-	70
Stenella attenuata subsp.	-	64
Stenella coeruleoalba	-	6
S. longirostris orientalis	8	79
Steno bredanensis	4	11
Tursiops truncatus	8	85
Rhincodon typus (whale shark)	-	(1)
Totals	46	523

35 mm PHOTO SUMMARY:

Species	No. Schools/Individuals
Orcinus orca	1 school
Pseudorca crassidens	1 school
Balaenoptera musculus	1 individual

TURTLE CAPTURES:

Species	This Week	Total
Loggerhead (Caretta caretta)	-	9
Olive Ridley (Lepidochelys olivacea)	16	201
Green (Chelonia mydas)	-	6
Totals	16	216