Preliminary Report A Description of Cetaceans Observations during the Delivery Voyage of Whale Song from Malta to Fremantle. Novemebr 2009 to February 2010.

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1. Summary

This preliminary report presents cetacean sightings data that were collected during the delivery voyage of the Whale Song from Malta to Fremantle between November 2010 and February, 2011. In approximately 624 hours of survey effort a total of 112 cetacean sightings, totalling 1843 animals, were recorded. Passing mode line transects were conducted, weather permitting, for most of the journey (total 23,706 km), however, closing mode surveys were conducted opportunistically to obtain photo identification images and biopsy samples of large whales. Sea bird surveys and sea surface temperature data were collected systematically throughout the voyage.

This report describes total numbers of whales and dolphins sighted by search area, and highlights the efforts made to find, photo-identify and biopsy sample Bryde's whales.

2. Materials and Methods

A 28 m Ice Class vessel, *Whale Song*, being delivered from Malta in the Mediterranean Sea to Fremantle, Western Australia, for use in future Antarctic studies, was used to conduct cetacean and sea bird line transect surveys and as a platform for opportunistic photoidentification and biopsy sampling surveys. A Larson gun was purchased by the International Whaling Commission for the *Whale Song* to be used to obtain Bryde's whale biopsy samples as per the 2010 proposal by Best.

3. Results

The delivery of Whale Song from Malta to Fremantle, Western Australia, took place over the months November, December, January and February. For summary purposes the voyage is divided in to six legs (Table 1).

Table 1. List of survey legs between Malta and Fremantle.

Leg Number	Area
1	Mediterranean
2	Gibraltar to Cape Verde
3	Cape Verde to Walvis Bay
4	Walvis Bay to Great Fish Point
5	Great Fish Point to Mauritius
6	Mauritius to Fremantle

A total of nineteen different cetacean species were observed during the voyage, of which two were Mysticete species (Table 2).

Table 2. Number of each	cetacean species	sighted between	Malta and Fremantle	by surve	v leg
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Species	Number of Animals						Total
Leg	1	2	3	4	5	6	
Balaenoptera edeni	0	0	0	31	3	2	36
Balaenoptera borealis	0	5	0	0	0	0	5
Physeter macrocephalus	0	1	59	8	0	0	68
Unidentified whale	0	6	17	1	1	0	25
Delphinus delphis	27	0	0	0	0	0	27
Delphinus capensis	85	14	200	0	50	0	349
Dolphin spp.	0	0	0	1	0	0	1
Globicephala macrorhynchus	0	0	60	0	0	0	60
Globicephala melas	0	0	300	0	0	0	300
Grampus griseus	33	0	0	0	0	0	33
Mesoplodon grayi	0	0	0	0	4	0	4
Stenella clymene	0	0	25	0	0	0	25
Stenella coeruleoalba	35	245	0	0	0	0	280
Stenella frontalis	0	233	0	0	0	0	233
Stenella longirostris	0	0	33	0	0	0	33
Tursiops truncatus	10	0	0	0	0	0	10
Unidentified dolphin	21	7	312	1	0	0	341
Ziphius cavirostris	0	11	0	0	2	0	13

The area with the highest species diversity was from Gibraltar to Walvis Bay (Legs 2 and 3), with a total of twelve different cetacean species recorded and 1533 individuals.

Areas in the north and south-eastern Atlantic where Bryde's whales were harvested during previous whaling efforts were targeted by the survey track. Two Bryde's whales were sighted and photoidentified on December 15, 2010, approximately 470 km west of Guinea Bissau (Latitude N12°) in over 4000 m water depth, with one being biopsied. No Bryde's whales were sighted between Walvis Bay and Cape Town despite the vessel encountering several temperature fronts and seemingly abundant prey (as evidenced by diving seabirds and fur seals).

Bryde's whales were encountered in relatively high density (28 whales in 70 linear km of search effort) WNW of Cape Agulhas on January 15, 2011. The whales were actively feeding on, and

chasing, large shoals of bait fish, swimming quickly and diving after "one-breath" intervals. A total of 28 whales were photo-identified from this group and no biopsy samples collected (although three whales were struck and the sample not retained in the tip). A single Bryde's whale was sighted the next day (January 16, 2011) although weather conditions prevented both photo-identification and biopsy sampling.

Bryde's whales (n=2) were next sighted east of the Madagascar Plateau (S28.4° E48.2°) where two whales were photo-identified and one biopsy sampled. No further Bryde's whales were sighted until the vessel reached Western Australia. One individual was photo-identified (but not sampled due to sea state) at S 32.9° E 112.2° on February 24, 2011, on the northern side of the Naturaliste Plateau. A second Bryde's whale was sighted but not photographed, nor biopsy sampled, approximately 80 km to the ENE of the first sighting the same day.

Of interest is the complete lack of cetacean sightings between Mauritius and the Western Australian coast at latitudes expected to lie within the summer ranges of some species.

4. Acknowledgements

The authors gratefully acknowledge the funding support of the International Whaling Commission through purchase of the Larson gun. Fiochi Italy generously supplied the blank ammunition rounds. Peter Best and Ken Findlay smoothed logistics and permits enroute and Gwen Penry provided able spotting and data entry skills with good humour from Malta to Cape Town.

Figure 1. Positions of Cetaceans sighted from Malta to Great Fish Point during November to December 2010.



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Figure 2. Positions of cetacean sightings between Great Fish Point and Fremantle Western Australia during Januaty and February 2011.