

**OMAN PROGRESS REPORT ON CETACEAN RESEARCH,
MARCH 2001-MARCH 2002.**

Submitting organisations: Ministry of Agriculture and Fisheries, Sultanate of Oman¹
Oman Whale and Dolphin Research Group²

1. Species and stocks studied

Common name	Scientific name	Area/stock(s)	Items referred to
Bryde's whale	<i>Balaenoptera edeni</i>	Arabian Sea and Gulf of Oman	4.1, 4.3
Humpback whale	<i>Megaptera novaeangliae</i>	Arabian Sea and Gulf of Oman	2.2, 3.1.1, 4.1
Sperm whale	<i>Physeter macrocephalus</i>	Arabian Sea and Gulf of Oman	4.3, 6
Dwarf sperm whale	<i>Kogia simus</i>	Arabian Sea and Gulf of Oman	4.3
False killer whale	<i>Pseudorca crassidens</i>	Arabian Sea and Gulf of Oman	4.3
Indo-Pacific hump-back dolphin	<i>Sousa plumbea</i>	Arabian Sea and Gulf of Oman	2.2, 4.3, 7
Rough-toothed dolphin	<i>Steno bredanensis</i>	Arabian Sea and Gulf of Oman	4.3, 7
Risso's dolphin	<i>Grampus griseus</i>	Arabian Sea and Gulf of Oman	4.3
Bottlenose dolphin	<i>Tursiops sp.</i>	Arabian Sea and Gulf of Oman	2.2, 4.3, 7
Spinner dolphin	<i>Stenella longirostris</i>	Arabian Sea and Gulf of Oman	2.2, 4.3, 7
Common dolphin	<i>Delphinus capensis</i>	Arabian Sea and Gulf of Oman	2.2, 4.3, 7

2. Sightings data

2.1 Field work

2.1.1 Systematic fieldwork

Dates	Survey area	Survey type	Reports/references
29 Mar-2 Apr 2001	Ras al Hadd/Sur	Small-boat and beach	SC/54/04, SC/54/H3
24-26 May 2001	Gulf of Masirah coastline	Beach	SC/54/04, SC/54/SM6
8-13 June 2001	Madrakah and Duqm	Beach and shore-based observation	SC/54/04, SC/54/H3, SC/54/SM6
26 Sep – 4 Nov 2001	Gulf of Masirah and surrounding coastline	Small-boat and beach	Oman Whale and Dolphin Research Group (2002), SC/54/04, SC/54/H3, SC/54/H4, SC/54/SM6
10 Feb- 2 Mar 2002	Dhofar region	Small-boat	SC/54/H3, SC/54/H4, SC/54/SM6

2.1.2. Opportunistic fieldwork

Small boat surveys were carried out opportunistically (sometimes in conjunction with commercial dolphin watching tours) in the Muscat area throughout the year, and beach surveys were conducted in response to mass mortality of turtles in November and December 2001. Researchers also responded to two stranding reports, involving a sperm whale and a mixed group of 32 bottlenose and rough-toothed dolphins. Data was also collected opportunistically during fieldwork/surveys focusing on other taxa or issues.

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2.2 Analysis/development of techniques

Species	Date(s)	Number of specimens	Type of sample/specimen	Type of analysis
<i>Megaptera novaeangliae</i>	March 2002	29	Sloughed skin, biopsies, and tissue from beach-cast specimens	Genetic, see SC/54/H3 and H4
<i>Balaenoptera sp.</i>	March 2002	1	Tissue from dead specimen at sea	Genetic, see SC/54/O4
<i>Sousa plumbea</i>	March 2002	30	Tissue from beach cast specimens	Genetic, see SC/54/SM34
<i>S. plumbea</i>	May 2001	28	Skulls	Morphometric, see SC/54/SM6
<i>Tursiops sp.</i>	May 2001	25	Skulls	Morphometric, unpublished
<i>Stenella longirostris</i>	May 2001	20	Skulls	Morphometric, unpublished
<i>Delphinus capensis</i>	May 2001	27	Skulls	Morphometric, unpublished

3. Marking data

3.1 Field work

3.1.1 Natural marking data

Species	Feature	Area/Stock	Calendar year photographed	Catalogued	Catalogue total	Contact person/organisation
<i>Megaptera novaeangliae</i>	Fluke	Arabian Sea/Gulf of Oman	2000-2002	Y	21	Oman Whale and Dolphin Research Group
<i>Megaptera novaeangliae</i>	Right dorsal fin	Arabian Sea/Gulf of Oman	2000	Y	26	Oman Whale and Dolphin Research Group
<i>Megaptera novaeangliae</i>	Left dorsal fin	Arabian Sea/Gulf of Oman	2000	Y	18	Oman Whale and Dolphin Research Group

3.1.2 Artificial marking data

No artificial marking has been undertaken.

3.1.3. Telemetry data

No telemetry data has been undertaken.

3.2 Analyses

A preliminary filter of images obtained across all surveys has yielded at least one photograph (fluke, right dorsal fin or left dorsal fin) suitable for the identification of 36 individual whales. Of these known individuals, two have been re-sighted across surveys. The first, nicknamed “Flatfin,” was sighted for the first time in the Gulf of Masirah on October 15th 2000 and was seen twice in the vicinity of the Hallaniyat Islands between February 23rd-24th 2002. The second animal is nicknamed “Chomp”, photographed in the Muscat area on December 8th, 2000, near Mirbat (1000km South) on February 13th, 2001, near Masirah Island on October 5th, 2001, and again near Hadbin on February 28th, 2002. Re-sights within surveys were not recorded until the February 2002 survey, during which 3 individuals were each sighted twice. For more details see SC/54/H3. Plans are underway to compare these photos with those obtained in Mayotte, Mozambique and Madagascar.

4. Tissue/biological samples collected

4.1 Biopsy samples

Species	Area/Stock	Year	Biopsy/ Sloughed skin	No. analysed	Total holdings	Contact person/name
<i>Megaptera novaeangliae</i>	Arabian Sea/Gulf of Oman	2000-2002	Biopsy	18	18	OWDRG*
<i>Megaptera novaeangliae</i>	Arabian Sea/Gulf of Oman	200-202	Sloughed skin	9	9	OWDRG*
<i>Balaenoptera edeni</i>	Arabian Sea/Gulf of Oman	200-2002	Sloughed skin	0	2	OWDRG

*See SC/54/H3 and SC/54/H4 for discussion of results.

4.2 Samples from directed catches or bycatches

Although entanglement in fishing gear has been implicated as the cause of mortality in some of the beach-cast specimens examined, there is no by-catch monitoring programme in place in Oman. Samples taken from all beach-cast specimens are summarised in the table in section 4.3.

4.3 Samples from stranded/beach-cast animals

Species	Area/Stock	Calendar year	Tissue types	Analyse d?	Contact organisation
<i>Balaenoptera sp.</i>	Arabian Sea/ Gulf of Oman	2001-2002	Skin, muscle, stomach contents	N	OWDRG/ ONHM*
<i>Megaptera novaeangliae</i>	Arabian Sea/ Gulf of Oman	2001	Skin, blubber	Y	WCS/OWDRG/ ONHM
<i>Physeter macrocephalus</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle, stomach contents	N	OWDRG/ ONHM
<i>Kogia simus</i>	Arabian Sea/ Gulf of Oman	2001	Connective tissue	N	OWDRG/ ONHM
<i>Pseudorca crassidens</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle, stomach contents	N	OWDRG/ ONHM
<i>Sousa plumbea</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle, stomach contents	Y	WCS/OWDRG/ ONHM
<i>Steno bredanensis</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle, liver, kidney, blood, stomach contents	N	OWDRG/ ONHM
<i>Grampus griseus</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle	N	OWDRG/ ONHM
<i>Tursiops sp.</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle, liver, kidney, blood, stomach contents	N	OWDRG/ ONHM
<i>Stenella longirostris</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle, stomach contents	N	OWDRG/ ONHM
<i>Delphinus capensis</i>	Arabian Sea/ Gulf of Oman	2001	Skin, muscle, stomach contents	N	OWDRG/ ONHM

*ONHM = Oman Natural History Museum

5. Pollution studies

None

6. Statistics for large cetaceans

6.1 Direct catches

There have been no documented direct catches of large cetaceans in Omani waters between March 2001 and March 2002.

6.2 Other non-natural mortality from March 2001- March 2002.

Species	Area	Cause of mortality	Evidence
<i>Balaenoptera</i> sp.	Arabian Sea	Entanglement in gill nets	Photographs of floating whale wrapped from head to tail stock in gill net
<i>Balaenoptera</i> sp.	Arabian Sea	Unknown	Photographed in Salalah Port wrapped around bow of commercial container ship
<i>Physeter macrocephalus</i>	Gulf of Oman	Unknown	Large ball (10cm x 10cm) of fishing twine found in stomach

6.3 Earlier years' statistics

Eight documented cases of live entanglement of humpback whales have been documented, between 1990 and February 2000. In all cases, whales were entangled in anchored gill nets, and in most cases the whales were released. Some beach cast specimens have shown evidence of interaction with fisheries (i.e. ropes around tailstocks or flippers, net scars etc.)

7. Statistics for small cetaceans

7.1 Directed catch and by-catch from March 2001-2002

Photographic evidence suggests that there is some directed catch of small cetaceans in Oman for use as shark bait. The extent of this practice is unknown.

A proportion of beach-cast small-cetacean specimens show evidence of mortality caused by fisheries interactions (net and rope scars, or nets still wrapped around carcasses). There is no reporting system for by-catch, and the extent is unknown (see SC/54/O4).

8. Strandings

At present, there is no organisation officially equipped to deal with live strandings or rehabilitation of stranded or injured cetaceans. In the few documented cases of live strandings, representatives of the Ministry of Agriculture and Fisheries, rangers, fishermen, and members of the OWDRG volunteer research organisation have responded to strandings by attempting to re-float and/or disentangle live animals, and to conduct necropsies or collect samples when these attempts have been unsuccessful.

9. Other studies and analyses

In total 33 stomach samples have been collected from *Balaenoptera* sp.(1), *Physeter macrocephalus* (1), *Pseudorca crassidens*(1), *Sousa plumbea* (8), *Steno bredanensis*(1), *Tursiops* sp (15), *Stenella longirostris*(2) and *Delphinus capensis* (4). These are held by the OWDRG and await formal analysis by OWDRG members with support from Sultan Qaboos University.

In the past three years Oman has experienced rapid growth in commercial dolphin-watching ventures in the capital area. No dedicated whale-watching has yet been developed.

10. Literature cited

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11. Publications

11.1 Published or "in Press" papers:

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11.2 Unpublished Literature

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