

Supplementary Material:

A note on humpback whales (*Megaptera novaeangliae*) in the central Indian Ocean

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Table S1

Published reports of humpback whales from the central Indian Ocean not included in this study.

Source	Location	
Brown (1957)	Central Indian Ocean	Fig. 4: five sightings of humpback whales from merchant ship observers in the area immediately north of Maldives.
Slijper <i>et al.</i> (1964)	0–10°N, 70–80°E	Fig. 15: one individual sighted September 1953.
	0–10°N, 70–80°E	Fig. 19: one calf, presumably with mother, January.
	10°S–20°N, 70–90°E	Chart 5: sightings in eight months of the year; text suggests animals seen in northern winter migrate to and from the North Pacific.
Mörzer Bruyns (1971)	West coast of India	Chart 15: presence of both northern and southern populations; chart and text suggest migration to North Pacific via Indonesia.
Wray and Martin (1980)	West coast Sri Lanka	Page 228: one humpback reported in 1846 whaling logbook, probably from the northern winter.
Reeves <i>et al.</i> (1991)	Mullaitivu, Sri Lanka	'Frequent sightings by fishermen' in the 1950s and 1960s reported to authors by G.H.P. DeBruin in 1985.
Debelius (1999)	Trincomalee, Sri Lanka	Photographs of humpback whales, labelled from Trincomalee, but location and other details cannot now be confirmed (Helmut Debelius, pers. comm. to RCA, email 11 Feb 2021).
Anderson <i>et al.</i> (2012)	SW of Maldives	One acoustic recording made during voyage of <i>Odyssey</i> from Seychelles to Maldives in December 2002, but details subsequently lost.
Sutaria (2018, 2019)	Kanyakumari, Tamil Nadu, India	Singing whales reported by fishermen (interview surveys).

Table S2
Records of humpback whales in the central Indian Ocean.

Date	N	Location	Notes and sources
1	23 Jan. 43	INDIA Angengo coast, nr Quilon, Kerala ca 8°29'N, 76°55'E	Bycatch. 15.0m Mathew (1948)
2	15 and 20 Jan. 88	Nilesaram, Kasaragod, Kerala ca 12°20'N, 75°04'E	Stranding. 14.3m. Female. Photos Muthiah <i>et al.</i> (1988); Lal Mohan (1992)
3	18 Jan. 01	Kanyakumari, Tamil Nadu 7°50'N, 77°54'E	Stranding. 15m. Photos Sathasivum (2001); Sutarra <i>et al.</i> (2015, 2017)
4	18 May 08	Thaliulam, Thrissur, Kerala 10°27'N, 76°09'E	Stranding. 9.8m. Photos Baby (2009)
5	Mid-Jan. to mid-Mar. 2011	Off S Kerala 9°59'N, 76°20'E	Acoustic recording Mahanty <i>et al.</i> (2015)
6	20 Mar. 17	Grande Island, Goa 15°21'N, 73°47'E	Sighting and acoustic recording Ajey Patil, pers. comm. to Sutarra <i>et al.</i> (2017); Madhusudhana <i>et al.</i> (2018)
7	Dec. 17 to Mar. 18	SW coast	Satellite track Willson <i>et al.</i> (2018); Sutarra (2018); arabianseawhalenetwork.org/2017/12/27/humpback-whale-tagged-off-the-coast-of-oman-crosses-arabian-sea-to-india , accessed 15 March 2021
8	28 Jan. 19	Netrani Island, Karnataka 14°02'N, 74°20'E	Sighting and acoustic recording. Photos marinemammals.in , accessed 10 January 2021
9	01 Dec. 19	Netrani Island, Karnataka 14°02'N 74°20'E	Acoustic recording Paritosh Agrawal on marinemammals.in , accessed 10 January 2021
10	21 Dec. 19	Netrani Island, Karnataka 14°02'N, 74°20'E	Sighting and acoustic recording. Video Seemant Saxena (Absolute Scuba) pers. comm. to DNS, verbally and email dated 21 Dec 2019; arabianseawhalenetwork.org/2020/01/16/new-evidence-for-movement-of-arabian-sea-humpback-whales-between-oman-and-india , accessed 15 March 2021
11	Feb. 47	SRI LANKA Bambalapitiya, Colombo 6°54'N, 79°51'E	Sighting. M&C Rodney Jonklass, pers. comm. to Reeves <i>et al.</i> (1991)
12	22 Feb. 49	Colombo Harbour 6°55'N, 79°51'E	Sighting. M&C. Photos Deraniyagala (1960, 1965)
13	Jul. 76	Gulf of Mannar 7°45'N, 79°44'E	Sighting Rex de Silva, pers. comm. to Whitehead (1985); De Silva (2000)
14	22 Jan. 81	Chilaw 7°34'N, 79°48'E	Stranding. 12m. Photos. Specimen on display at NARA HQ De Silva (1983); Whitehead (1985); Reeves <i>et al.</i> (1991); Ilangakoon (2002). Listed by Leatherwood and Reeves (1989) as March 1981.
15	19 Feb. to 10 Mar. 82	Gulf of Mannar 7°10'N, 79°40'E	Acoustic recording Whitehead (1985)
16	21 Apr. 90	Paliyawatte, Hendala, Colombo 6°59'N, 79°52'E	Stranding. 8.5m Ilangakoon (2002); marinemammals.in , accessed 10 January 2021

Date	N	Location	Notes and sources
17	2	Mirissa ca 5°53'N, 80°27'E	Sighting. Photos Wijeyeratne <i>et al.</i> (2020)
18	1	Mirissa ca 5°53'N, 80°28'E	Sighting. Photos Wijeyeratne <i>et al.</i> (2020)
19	1	Mirissa 5°53'N, 80°28'E	Sighting. Photos Wijeyeratne <i>et al.</i> (2020)
20	1	Mirissa 5°51'N, 80°32'E	Sighting. Photos Wijeyeratne <i>et al.</i> (2020)
21	2	Mirissa 5°47'N, 80°20'E	Sighting. M&C. Photos Wijeyeratne <i>et al.</i> (2020)
MALDIVES			
22	2	Banana Reef, North Malé Atoll (in) 4°14'N, 73°32'E	Sighting. M&C. 11–12m Anderson (2005)
23	1	Bodu Hithi, North Malé Atoll (out) 4°26'N, 73°21'E	Sighting Moosa Fulhu (dive instructor, K. Lohifushi resort) pers comm. to RCA, verbally 14 June 2007
24	1	Kalhahandhi, South Ari Atoll (ch) 3°48'N, 72°43'E	Sighting Mohamed Hassan (dive instructor, A.A. Ellaidhoo resort) pers. comm. to RCA, verbally 14 June 2002
25	2	Hulhudhoo, Addu Atoll (in) 0°37'S, 73°12'E	Sighting. M&C. Photos Anderson (2005); RCA pers. obs.
26	2	Gulhi, South Malé Atoll (in) 4°00'N, 73°29'E	Sighting. Photos Joerg Aebi (liveboard dive operator) pers. comm. to RCA, verbally December 2006
27	1	Hithadhoo, Addu Atoll (in) 0°38'S, 73°07'E	Sighting. 15m S. Hithadhoo Island Office, report to Marine Research Centre, October 2002
28	2	West of Faafu Atoll (out) 03°20'N, 72°45'E	Sighting. M&C. Photos and video. Bowrode under yacht <i>Odyssey</i> www.pbs.org/odyssey/odyssey/20021230_log_transcript.html www.pbs.org/odyssey/odyssey/20021230_location.html , accessed 5 Apr 2021
29	1	Guraidhoo, South Malé Atoll (out) 3°52'N, 73°28'E	Sighting. Photos Pedroletti and Spina (2005: 247). Claudia Pedroletti, pers. comm. to RCA, emails 31 May 2007 and 1 June 2007
30	2	Angaga, South Ari Atoll (in) 3°38'N, 72°50'E	Sighting. M&C. Photos Jochen Gommers (dive base manager, A.Dh. Angaga resort) pers. comm. to RCA, email 16 June 2007
31	2	Dhigali Haa, Baa Atoll (in) 5°08'N, 73°03'E	Sighting. M&C >10m and <5m. Photos Guy Stevens (marine biologist, B. Landaa Giravaru resort), Susy Q (Reethi Beach, photo emailed 25 Sept 2006) and Joerg Aebi (dive instructor, Sonevafushi resort) pers. comms to RCA
32	3	Mathiveri, North Ari Atoll (out) 4°15'N, 72°40'E	Sighting Hussein Shaheem (fisherman, A.A. Mathiveri) pers. comm. to RCA, verbally 8 June 2007
33	1	Gan, Laamu Atoll (in) 1°55'N, 73°30'E	Sighting. Photo by Jonny Dekhegel, Rory Moore and Guy Stevens (marine biologists; B. Landaa Giravaru resort) pers. comms. to RCA, emails, 18 and 24 October 2007 and 1 and 6 Nov 2007
34	1	Guraidhoo, South Malé Atoll (out) 3°53'N, 73°28'E	Sighting. Photos by Simon Worrall Rob Bryning (liveboard dive operator) pers. comm. to RCA, email 13 Sept 2007

Date	N	Location	Notes and sources
35	2	Bodu Hithi, North Malé Atoll (in) 4°26'N, 73°22'E	Sighting. Photos by Rie Kunishi Ulrike Kloiber (marine biologist, K. Huvaenfushi resort) pers. comm. to RCA, email 23 Feb 2009
36	3	Landaa Giravaru, Baa Atoll (out) 5°18'N, 73°07'E	Sighting. Photos by Tim Davies Guy Stevens (marine biologist, B. Landaa Giravaru resort) pers. comm. to RCA, email 22 August 2008
37	2	Eydhafushi, Baa Atoll (ch) 5°06'N, 73°04'E	Sighting. M&C. Photos Soneva Divers (website, accessed October 2009, not available 15 Feb 2021). Guy Stevens (marine biologist, B. Landaa Giravaru resort) pers. comm. to RCA, emails 25 October 2009 and 23 August 2011
38	1	Vakarufalhi, South Ari Atoll (in) 3°34'N, 72°54'E	Sighting. Photos prodivers.com/humpback-whale-ari-atoll/#more-1324 , accessed 4 Sept 2010 and 15 Feb 2021
39	1	Dhidhoo, Lhaviyani Atoll (in) 5°23'N, 73°24'E	Sighting. 10m. Photos prodivers.com/humpback-whale-maldives , accessed 4 Sept 2010 and 15 Feb 2021
40	1	Lankanfinolhu, N. Malé Atoll (out) 4°17'N, 73°37'E	Sighting. 15m Marion Magail (marine biologist, K. Baros resort) pers. comm. to RCA, email 5 Aug 2011
41	1	Bathala, Baa Atoll (in) 5°21'N, 73°03'E	Sighting. Video youtube.com/watch?v=llaE24U9StQ , accessed 15 Aug 2011 and 15 Feb 2021. Guy Stevens (marine biologist, B. Landaa Giravaru resort) pers. comm. to RCA, email 18 Aug 2011
42	1	Fonimagoodhoo, Baa Atoll (out) 5°16'N, 73°12'E	Sighting Niv Froman (marine biologist, B. Landaa Giravaru resort) pers. comm. to RCA, email 29 Aug 2013
43	2	Kihavah Huruvalhi, Baa Atoll (in) 5°19'N, 73°03'E	Sighting Niv Froman (marine biologist, B. Landaa Giravaru resort) pers. comm. to RCA, email 2 Oct 2013
44	3	Rasdho Atoll (in) 4°18'N, 73°00'E	Sighting. M&C. Video and underwater photos by Shafraz Naeem youtube.com/watch?v=Hsz6iqnJuw , accessed 9 Oct 2014 and 15 Feb 2021. Angela Jensen (marine biologist, A.A. Kuramathi resort) pers. comm. to RCA, email 9 October 2014
45	1	Kuda Huraa, North Malé Atoll (in) 4°20'N, 73°35'E	Sighting. 5.5m. Photos marinesavers.com/2015/07/above-and-below-the-waves , accessed 30 Aug 2015 and 15 Feb 2021
46	3	Bodufinolhu, South Ari Atoll (out) 3°28'N, 72°45'E	Sighting. Photos Mario Passoni (marine biologist, A.Dh. Thundhufushi resort) pers. comm. to RCA, emails 30 August 2015 and 15 Sept 2015
47	1	Thulusdhoo, North Malé Atoll (ch) 4°23'N, 73°39'E	Sighting. Photos by Hupa Ibrahim. Entangled Shafraz Naeem (Maldivian diver) pers comm. to ADV, emails 19 Aug 2016 and 5 Oct 2016
48	2	Dhiggiri, Vaavu Atoll (in) 3°39'N, 73°29'E	Sighting. M&C. Video Gilberto D'Amato (dive operator, V. Alimatha resort) pers. comm. to RCA, email 6 Feb 2019
49	2	Fulidhoo, Vaavu Atoll (in) 3°40'N, 73°26'E	Sighting. M&C. Photos polarsteps.com/MichaelvanDoorn/276084-gone-fishing/2277034-fulidhoo , accessed 10 July 2018 and 15 Feb 2021
50	1	Fenfushi, South Ari Atoll (out) 3°29'N, 72°46'E	Sighting. Photos. Entangled Richard Rees (Maldives Whale Shark Research Project) pers. comm. to RCA, email 10 July 2018
51	1	Dhigurah, South Ari Atoll (out) 3°32'N, 72°57'E	Sighting. Video web.facebook.com/OceanholicDivers/?_rdc=1&_rdp , accessed 22 July 2018 and 15 Feb 2021. Clara Canovas Perez (Maldives Whale Shark Research Project) pers. comm. to RCA, email 22 July 2018
52	1	Felidhoo, Vaavu Atoll (in) 3°28'N, 73°31'E	Sighting. Video. 6m facebook.com/FaanaMasverin , accessed 23 July 2018 and 15 Feb 2021. Zaha Waheed (Marine Research Centre) pers. comm. to RCA, email 23 July 2018

Date	N	Location	Notes and sources
53	1	Orivaru, Noonu Atoll (in) 5°48'N, 73°18'E	Sighting. Photo web.facebook.com/deepandbreezenoonu , accessed 26 July 2018 and 15 Feb 2021
54	1	Thulusdhoo, North Malé Atoll (out) 4°22'N, 73°40'E	Sighting. Video by Sea Retreats Dive Centre, Thulusdhoo Clara Canovas Perez (Maldives Whale Shark Research Project) pers. comm. to RCA, email 3 August 2018
55	2	Kolamaafushi, Gaafu Alifu Atoll (in) 0°50'N, 73°13'E	Sighting. Video facebook.com/hamru , accessed 27 Sept 2018; not available 15 Feb 2021
56	1	Mushimasgali, North Ari Atoll (in) 3°58'N, 72°55'E	Sighting. Video facebook.com/pages/category/Scuba-Diving-Center/Joy-Dive-Maldives-490771217643573 and facebook.com/watch/?v=2176781139259253 , accessed Sept 2018 and 15 Feb 2021
57	2	Fuvahmulaku (out) 0°17'S 73°26'E	Sighting. M&C. Photos Tatiana Ivanova (Fuvahmulaku Diving) pers. comm. to RCA, email 27 Sept 2018
58	2	Maamingili, Alifu Dhaalu Atoll (ch) 3°28'N, 72°51'E	Sighting. M&C. Video (at/divoceanus 26 August 2018, accessed 1 September 2018 and 15 Feb 2021. Guy Stevens (Manta Trust) pers. comm. to RCA, email 22 Sept 2018
59	1	Maafaru, Noonu Atoll (out) 5°50'N, 73°30'E	Sighting Eleanor Butler (marine biologist, N. Medhufaru Soneva Jani resort) pers. comm. to RCA, email 5 Sept 2018
60	2	Fuvahmulaku (out) 0°18'S, 73°25'E	Sighting. M&C. Photos Tatiana Ivanova (Fuvahmulaku Diving) pers. comm. to RCA, email 27 September 2018
61	2	Kuredu, Lhaviyani Atoll (in) 5°32'N, 73°28'E	Sighting. M&C. Video Ray van Edden and Robert Anderson (Kuredu Divers) pers. comm. to RCA, emails 3 and 7 October 2018
62	2	Fuvahmulaku (out) 0°18'S, 73°27'E	Sighting. M&C. Video Tatiana Ivanova (Fuvahmulaku Diving) pers. comm. to RCA, email 27 Sept 2018
63	1+	Fuvahmulaku (out) 0°17'S, 73°27'E	Sighting Tatiana Ivanova (Fuvahmulaku Diving) pers. comm. to RCA, email 17 October 2018
64	1	Malé, North Malé Atoll (ch) 4°10'N, 73°30'E	Sighting. M&C. Video by Mohamed Eshaan mobile.facebook.com/eshan.eshan.7 , accessed 22 Oct 2018 and 15 Feb 2021
65	1	Keyodhoo, Vaavu Atoll (in) 3°27'N, 73°32'E	Sighting. Video facebook.com/Maldives-Transformation-324702078467633 , accessed 5 August 2019 and 15 Feb 2021
CHAGOS			
66	1	Diego Garcia lagoon (in) 7°19'S, 72°26'E	Sighting. Photos Spalding (2019). Mark Spalding, pers. comm. to RCA, email 10 Sept 2018
67	2	Danger Island (out) 6°17'S, 71°08'E	Sighting. M&C. Photos Spalding (2019). Tom Letessier, pers. comm. to RCA, email 24 Jan 2019

Notes: For Maldives and Chagos, position in relation to atoll noted (i.e., inside, outside or in channel). M&C = mother-calf pair.

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