

Humpback Whale Sightings for Kenya, Tanzania and Mozambique

2011 Summary

Prepared by Matt Richmond - Samaki Consultants Ltd. P.O. Box 77143 Dar es Salaam

This is the fourth annual update of an initiative aimed at promoting others to report on humpback whales seen in the seas of Tanzania, Kenya and Mozambique. Using a standard 11-point log sheet to record sightings, the 'network' has grown to some 20 regular whale watching locations from where individuals (or groups) provide sighting details each year of humpback whales seen. To date the network has records of over 3,200 humpbacks. Following from the 2010 season, noted for the general scarcity of humpback whales off the coasts of Tanzania and Kenya (but more off southern Mozambique), 2011 witnessed the greatest numbers so far seen by the network. The 2011 sightings total was **1,989 whales**, between June and December. Off Tanzania, 572 whales were seen; 69 off Kenya, both recorded by an informal network of over twenty observers; while 1,300 or so whales were seen from two southern Mozambique locations, split between two dedicated whale-watching projects, one with boat and shore monitoring. Possible reasons for what was seen are given. Usually we try to get this *Newsletter* finished and out before the season commences again, but this year we're late! The first humpbacks for 2012 have already been sighted off southern Mozambique. They're on their way! Let's see what this season will bring...

BACKGROUND

Humpback whales (*Megaptera novaeangliae*) are sighted along the coast of eastern Africa, mostly heading south, within the June to December season. As reported in previous *Whales ahoy! Newsletters* (seasons 2008, 2009 and 2010), usually between 400 and 600 humpbacks are seen each year.



There she blows! Mother and calf off Fungu Zasin near Dar es Salaam, Tanzania, 8 August (Dorothee Strachwitz).

These eastern African humpback whales are from the SW Indian Ocean sub-population of an estimated 35,000 whales that live in the Southern Hemisphere, known as "Breeding Stock C", a genetically fairly distinct group [1]. Estimates of the size of this sub-population are probably among the thousands, with at least 1,700 recorded migrating north off South Africa's east coast in 1998 [2]. Dr Per Berggren's research team, based out of Kizimkazi (SW Unguja Island, Zanzibar) have intensively monitored humpbacks for several months each season, from 2006 through 2010, and have catalogued 372 individuals. They recently concluded that the southern waters off Unguja Island represents part of a large breeding ground for humpback off East Africa [3]. Some whales are permanent inhabitants of the Arabian Sea, off Oman, to the north of our region, possibly visiting northern Kenya. The information gathered by the many whale watchers in the eastern Africa region is making a positive contribution to better understanding these routes, the numbers of whales, their behaviour and the threats to their survival.

Humpback whales reach 15 m in length, 40 tonnes (about six times an elephant) and watching them in their natural environment, breaching and blowing, and if lucky, rocket out of the water, in pairs, is unforgettable. After their passage through east African waters, the whales move beyond the Mozambique Channel southwards, swimming over 2,500 miles (4,000 km) to the cold, nutrient-rich waters of Antarctica to feed on the abundant summer stocks of krill and schooling fish.

In eastern Africa the seasonal visit of humpback whales is important to fishermen, preferring **not** to catch them in tuna gill-nets (thus incurring financial loss), and the inevitable slow death of the whales; offshore oil and gas exploration companies using intensive acoustic seismic instruments that are known to affect whales 25 km away (though new research indicates that changes in vocalization due to noise disturbance is felt 200 km away [4]); and the tourism industry that benefits from whale-watching activities (that also serve so importantly to increase general awareness of these majestic creatures).

HOW IT WAS DONE

The original 11-point whale sighting form is circulated by email and hard copies to interested parties who live or work along the coasts of eastern Africa. This year's summary reflects data gathered from **four seasons**. Thanks to YOU!

THE FINDINGS

The 2011 Season - 1,989 humpback whales were reported for the 178-day season, from June to December. Recorded from 33 locations, the first records came in from southern Mozambique in early June, provided by All Out Africa Whale Shark Conservation Project & Marine Megafauna Foundation at Tofu and by the Dolphin Care Africa group at Ponta do Ouro. The latter group also came across a juvenile **Cape Fur seal**. Soon after, sightings were coming in from Tanzania, with humpbacks seen off Maziwe Island, Pemba Channel, by the Friends of Maziwe project; from Mnazi Bay by marine park staff and collaborating fishermen; also from around Kilwa, Fanjove Island, Dar es Salaam and Zanzibar. In Kenya, first sightings were from Vipingo in central Kenya and Kisite in southern Kenya in late July. August and September were very busy months, especially at Tofu and at Ponta do Ouro in southern Mozambique. In general, it was a good season all round.



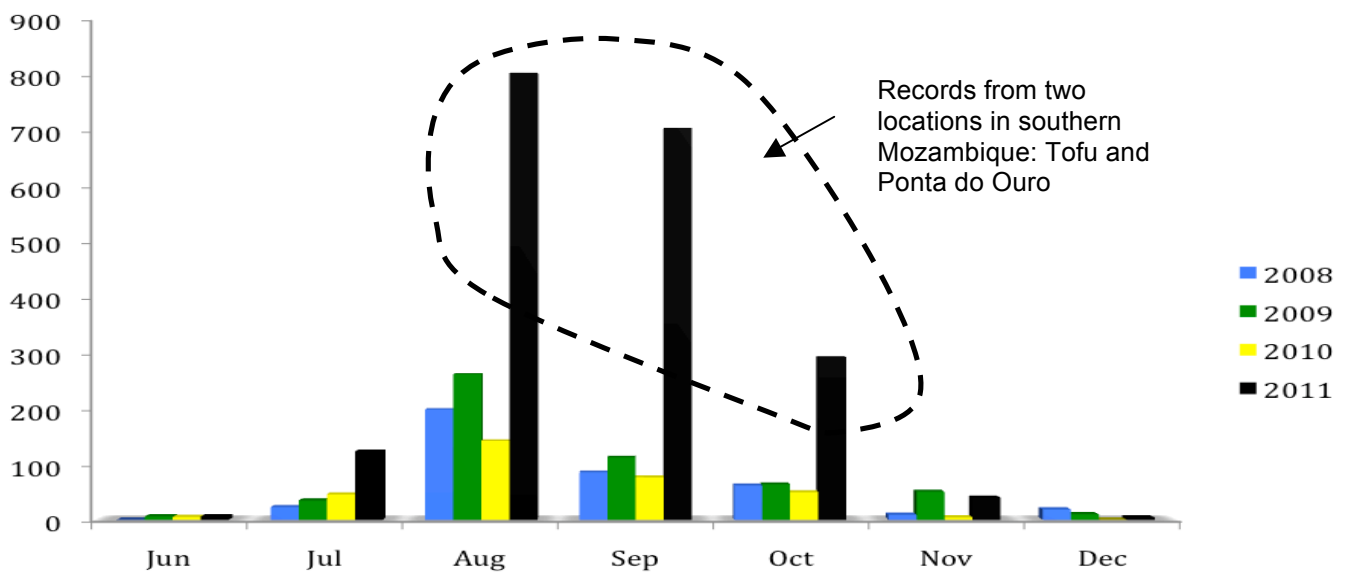
Participating locations ▼ 2011



Great tail fluke photos! Off Fungu Zasin Reef, Dar es Salaam, Tanzania, 8 August (Dorothee Strachwitz); off Ponta do Ouro, southern Mozambique 11 September (Dolphin Care Volunteers).

As the monthly sightings chart shows, August and September were again the busy months for humpback whales in eastern Africa waters in 2011, with 810 and 710 whales sighted, respectively. These were mainly split between Tanzania and Mozambique, with the two southern Mozambique dedicated marine mammal projects (at Ponta do Ouro and Tofu) reporting about 60-70% of these. Clearly the Tofu and Ponta do Ouro volunteer projects made a special effort during 2011 to monitor the oceans, and it paid off! These two locations recorded unprecedented numbers, especially early in the mornings, before 8:30 am. Good work! In Kenya, low but steady numbers were seen from the end of July to September.

In summary, 2011 revealed good numbers of whales in eastern Africa. The little ones were also seen, often with mother and one other adult 'escort'. Since breeding and suckling young is the main reason to visit the warm Indian Ocean waters, seeing calves is a good sign.



Monthly sightings summary of Humpback Whale off Eastern Africa (Kenya, Tanzania and Mozambique)

Highlights	2008	2009	2010	2011
First sighting	2 July	25 Jun: Inhambane, S Moz; 3 Jul: Kisite, S Ken; 10 Jul: N Unguja, Tan.	12 Jun: Ponta do Ouro, S Moz; 17 Jun: Mafia Channel, Tan; 5 Aug: Watamu, N Ken.	10 Jun: Moz; 6 Jul: Maziwe, Tan; 21 Jul: GVI Ken.
Total no. whales seen	399	543	325	1,989
Last sighting:		23 Nov: Kiwayu Is. Ken; 28 Nov: Ponta do Ouro, S Moz; 30 Nov: Ras Dege, Tan.	18 Nov: Ponta do Ouro, S Moz; 31 Oct: Vipingo, Ken; 15 Oct: ZNZ Channel, Tan.	11 Nov Ras Dege, Tan; 5 Dec Ponta do Ouro, Moz; 19 Sep Vipingo, Ken.
Duration of season (days)	145	151	159	178
Most whales on one day	40 (25 Aug)	72 (16 Aug: Ken. 2; Tan. 41; Moz. 29)	31 (17 Aug: Moz. 27; Tan. 4)	130 SWWD (17 Sep: Tan 53, Moz 68, Ken 3)
Most sighted locations	Ras Dege (39) Tan.	Ras Dege (48), Mikindani Bay (16) and Mnemba (15) from Tan; Kisite (9) Ken; Ponta do Ouro (8) Moz.	Ponta do Ouro (53); Ras Dege, Tan. (12); Tofu, Moz. (10); Vipingo, Ken. (8); ZNZ Chan. (18).	Tofu (1,978 – shore + boat), Ponta do Ouro (270 - boat), Ras Dege (266 - shore), Mnazi Bay (143 - boat).
No. locations	16	34 (incl. 15 on SV Amarula)	24	20

Annual sightings data summary of Humpback Whales seen off Eastern Africa

SWWD 2011 (Saturday, 17 September) - The **ten participating locations** and an estimated 50 participants (an all time record!) spotted 134 humpback whales, with Ras Dege, a headland south of Dar es Salaam, topping the day's record with 50 seen. Down at Ponta do Ouro, the DCA volunteers counted 26 humpbacks plus a big bonus, **two southern right whales!** Just north of them, at Tofu, the Africa Whale Shark Conservation Project and Marine Megafauna Foundation volunteers counted 48 humpbacks! At two locations (Chumbe and Fanjove – both lighthouses) no whales were seen and at several locations (Vipingo, Kisite-Mpunguti, Maziwe, Mnazi Bay) between 1 and 6 humpbacks were sighted.

Of September's sightings, about 20% of the whales seen were recorded on a single day, the SWWD, confirming just how important a full day's dedicated whale watching can be. At the local scale such observations help to better understand inshore movements and timings, while on the regional scale the data contributes to understanding overall numbers and geographic dynamics.

Some of the comments and other observations from the SWWD-2011:

"Just the one.. heading north" Kisite-Mpunguti: GVI Team

"We and the fisherman did not spot any whales on the 17th... but we still had a great day out on the Ocean. Amazing how quickly even Ngalawas look like whales!" Maziwe Is., Pemba Channel: Ushongo village group

"we had a windy day.. but managed to hear some humpback whales singing (during a couple of hydrophone drops)" Kizimkazi, S Zanzibar: Humpback Whale Project

"For an hour we had one group of 20 that filled the horizon with jumps and blows and tail and flipper slapping, and juveniles obviously having alot of fun with their mums. Also spotted 3 European Oystercatchers" Ras Dege, DSM: Korongo & Associates

"..positive results - three whales showed up and other three have been reported by returning fishers.." Mnazi Bay-Ruvuma Estuary: Marine Park

"Our first sighting found us excitingly locate a southern right whale and her offspring:-) exciting news for us as it seem that these whales are slowly returning to Mozambique waters." Ponta Do Ouro, S Mozambique: Dolphin Care-Africa volunteers

***** Attention SWWD 2012 is on Saturday, 4 August *****

A note on data - We should remember that the data are from a large length of coastline, some 3,000 km. At the southern end, we would expect the first sightings and the last, but it all depends on who is out there watching and recording. Inevitably, observation 'effort', meaning the skill, equipment and number of hours of watching the ocean, are variable over time and location, from single, opportunistic observations, to those based on more regular, daily checks (e.g. SWWD, or dedicated boat teams). Thus some of the 1,989 whales may have been counted twice. Conversely, the records compiled here always include conservative totals of whales seen whenever there is a doubt or reports are estimates giving a range. We also know that more whales than we have on record were seen during 2011. Recorders who forgot to take notes, or lost details, or fishers and others who are not sharing sightings data mean that our figures represent only lower estimates of total numbers, but they do provide very valuable geographic and date records. Last but not least, any errors in data entry, verification, standardization etc. are entirely our own, and any mistaken references are apologized for in advance!

Expanding observations - Recently a new NGO has been established in Mozambique, the Association of Coastal Conservation of Mozambique (ACCM), aimed at compiling Mozambique records, images of whales and study Zavora Bay, about 80 km south of Inhambane, in partnership with the Universidade Eduardo Mondlane (see www.mozwhales.org). We wish them luck and look forward to learning of their findings. Together with the Tofu and Ponta do Ouro projects, the Zanzibar Humpback Whale Project (led by Dr Berggren from Newcastle University, in partnership with the Institute of Marine Sciences), the Friends of Maziwe Island and the GVI project in southern Kenya means we now have six dedicated whale-watching initiatives in the three countries. These initiatives have different objectives, duration and monitoring methods, but will without doubt contribute to generating public awareness and interest in addition to detailed sighting data, photos and sound recordings.

THREATS TO WHALES

Humpbacks in eastern African waters are threatened by five activities: **Net fishing** - This year there was one report of a calf entanglement off Maziwe (south of Tanga, Tanzania) in early October (see picture opposite), that was mostly un-entangled by volunteers. Then there followed a report of an adult washed up dead (perhaps the mother) off nearby Pemba Island, possibly also entangled. We're not sure what happened to the calf. Gill-nets will always be a problem until their use is reduced or coordinated away from peak whale routes or seasons. As always, a word of caution when about entangled (or dead) whales. Saving entangled animals is a commendable but potentially dangerous activity and requires experience. It was previously achieved by a team of divers in Kenya in 2008, a team in Zanzibar in 2009. Respectful caution is applicable at all times. **Tourism** - Whale and dolphin watching trips have led to harassment of whales and dolphins in Tanzania and Mozambique, with proven negative affects. Regulation and guidelines are now out and should be followed. **Shipping and Oil spills** - Inshore shipping to support oil and gas exploration will certainly increase the volume of shipping traffic in 2012 as plenty of offshore exploration and drilling activity is expected. (d) **Noise** - Use of explosives continues to be widespread in Tanzania and was considered a possible reason for keeping whales away from these shores during 2010, but that cannot apply for 2011 which was a good year for Tanzania despite on-going, illegal, blasting. Noise from shipping is now shown to be very disturbing to whales [4]. Oil and gas exploration is increasing in waters of all three countries. The inclusion of an MMO (marine mammal observer) is mandatory on survey vessels operating during the migration season and hopefully will provide additional data this year.



Humpback calf, partially entangled in fish net, off Maziwe Island, Pemba Channel, Tanzania (early October). Freed of net by Friends of Maziwe Project. Photo: Friends of Maziwe.

Beachings - At the end of August a dwarf (or pygmy) sperm whale washed up dead in Mnazi Bay, while in October off Pemba Island a large humpback washed up, thought to be the mother of the same day sighting and un-entangling of a 6 m calf near Maziwe Island (see above). Off South Africa, more whales also means, inevitably, more dead whales (usually from shipping accidents or entanglement in fishing gears). In their waters, dead whales act as shark attractants, especially to great whites and tigers. They also occasionally drift inshore where sharks may then threaten swimmers. For this year (2012) the first dead whales arrived in April, which is unusually early. In 2011, the Global Vision International observers also recorded two dead humpbacks being eaten by tiger sharks off southern Kenya on 9 October. Drifting dead whales should be approached with caution.

On the Brighter Side of Life - The Management Plan for the Ponta Partial Marine Reserve in southern Mozambique, was approved on 23 November 2011, and now protects (by law) marine mammals and turtles from jet skis and swimmers.

THE FUTURE – 2012 eyes on the ocean, from June to December!

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In addition to continuing to collate sightings data from all of you during 2012, via email to **samaki-info@hotmail.com**, the following are planned: a) continued dissemination of the Swahili whale recording form to ferry and shipping operators and coastal communities (in Tanzania and Kenya); b) organise at least one SWWD – scheduled for **Saturday 4 August**; and c) continued efforts to involve oil and gas exploration companies engaged in offshore operations.

Even with several hundred animals visiting each year, compared to Tanzania's large terrestrial mammals, humpbacks are about as rare as the Black Rhino. National and regional efforts are needed to maintain their numbers and we hope with this small attempt to record seasonal movements and abundance of humpbacks in eastern African waters we continue to spark awareness and interest in their livelihood and into finding ways to reduce conflict and encourage amicable co-existence.

Over to YOU! From your side, sharp eyes on the ocean, usable pictures of tail flukes, video footage, careful observation on any feeding behaviour and **fully completed** eleven-point sighting forms!



What a blast! Fun off Ponta do Ouro, southern Mozambique, 11 September 2011 (Dolphin Care Volunteers).

THE EAST AFRICA WHALE SPOTTERS

The following provided the contributions that form the basis of this newsletter. We thank you all. For the many listed this is the third year of reported sighting details. Great! In no particular order, 2011 involved: Ali Saidi (Pemba); Kerstin Eler and volunteers (Friends of Maziwe); Pete Burtonshaw (visiting Mafia Channel); Per Breggren and Kristin Ohman (Kizimkazi); the Ras Dege Team (Fatuma, Skola, Saidi, Jay, Sala, and Jeffrey); Omari Nyange, Lina Nordlund and Ulrike Kloiber (Chumbe Island Coral Park); Dale Andrews (Kipepeo); Bimbi (Manda Bay); John and Lyria van der Loon (Ras Kiroko); Dorothée Strachwitz; Lana and Ras Kutani; Jaha Ysusufu Ibrachim, Selemani Hamisi (Buja), Prosper and Malcolm (Fanjove Island, Coastal); Gary Hubacj; Baraka Kuguru (TAFIRI); Karlyn Langjahr (Pemba Island); Andrew Hayes, Claire Lee, Ruitter Suter; Jan Kapp and Gerry Hallam (Fishing Zanzibar); David von Helldorff, Travis Trull, Bogo, Mike Kelly (Mnemba Island), Isobel Pring (ECO2 Divers at Mikindani); Hatibu Hamadi, Abasi, Davis Osorio and Mohammed Mgaume (Mnazi Bay-Ruvuma Estuary MP); Tammy Holter (ScubaDo, Mnemba), Angie Gullan and all at Dolphin Care Volunteers; Mike Kelly (Mnemba), Kirsty Morley and volunteers (Global Vision International, Kisite-Mpunguti); Nikki F-J (Ras Kiroko), Paul Smithson (Ras Kanzi), Katie Reeve-Arnold of All Out Africa Whale Shark Conservation Project and their volunteers; Marine Megafauna Foundation at Tofu and their volunteers; Nicola Clarke and family in Vipingo. To others who showed interest or help to enlarge the watcher network, we thank in particular Sarah Markes, Prof. Kim Howell (UDSM), Helen Peeks (SIT), Narriman Jiddawi (IMS, UDSM, Zanzibar), Tim Davenport, Jairos Mahenge, Sibylle Riedmiller, Maura and Moeze (Butiama). A special thanks to the two southern Mozambique marine mammal project for sharing their data. And thanks for all the photos! Keep it up!

Asanteni sana - tutaongea tena mwaka 2012 & Obrigado a todos, até 20112!

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1. Rosenbaum, H.C., Pomilla, S., Mendez, H., Leslie, M.S., Best, P.B. *et al.* 2009. Population structure of Humpback whales from their breeding grounds in the south Atlantic and Indian Oceans. *PLoS ONE* **4** (10): e7318. Open Access
 2. Best, P.B., Findlay, K.P., Sekiguchi, K., Peddemors, V.M., Rakotonirina, B., Rossouw, A. & Gove, D. 1998. Winter distribution and possible migration routes of Humpback whales *Megaptera novaeangliae* in the southwest Indian Ocean. *Mar. Ecol. Prog. Ser.* **162**
 3. Öhman, K., Christiansen, F., Jiddawi, N., Amir, O., Levenson, J., Smith, J. & Berggren, P. 2012. Seasonal occurrence, group structure and behaviour identifies breeding area of humpback whales (*Megaptera novaeangliae*) off Zanzibar, East Africa. Society for Marine Mammology Special Conference presentation.
 4. Rolland, R.M. *et al.* 2012. Evidence that ship noise increases stress in right whales. *Proceedings of the Royal Society B* [doi: 10.1098/rspb.2011.2429]. Open Access
 5. Risch, D. *et al.* 2012. Changes in humpback whale song occurrence in response to an acoustic source 200 km away. *PLoS ONE* **7**(1): e29741. Open Access