

4.7 Whales and Dolphins

While occasional vagrant species of seals may be found off the KZN coast, and dugongs have historically been recorded as far south as Umhlali,¹ it is the 36 species of cetaceans (whales and dolphins) that comprise the true marine mammal fauna of the region.

These cetaceans are best categorised into two groups: the baleen whales (of which nine species are found in KZN waters) and the toothed whales and dolphins (27 species found in KZN waters).^{2;3;4} The baleen whales are highly migratory, swimming to or through KZN waters during the winter months (June to October),⁵ see Section 5.6. The toothed whales and dolphins may be migratory or resident, with water depths and temperatures playing an important role in defining residency patterns.²

Much of what is known of seven species of baleen whale (i.e. blue, fin, sei, southern minke, Bryde's, humpback and

southern right whales) arises from whaling activities off the KZN and Mozambique coasts.^{4;6;7;8} The migration patterns of dwarf minke whales remain unknown, although they too were caught by the whaling industry. One further baleen whale species, the pygmy right whale, has been recorded from KZN waters as a stranding only.⁵ Catches of southern right whales by pelagic open-boat whalers in Delagoa Bay (Maputo Bay) in the late 1700s probably eliminated the KZN population, which has shown little signs of recent recovery and only occasional sightings are made in shallow coastal waters.⁹

Whaling in KZN

Modern whaling started out of Durban in 1908 and continued until 1975, during which time coastal whaling (in conjunction with pelagic whaling on the Antarctic feeding grounds, after

Breaching humpback whale.



Photo: Lloyd Edwards



the mid-1920s) decimated humpback, blue, fin and sei whale populations in a series of consecutive declines.⁸ There are almost no data on contemporary population sizes of baleen whales off the KZN coast. Only the humpback whale has shown strong recovery in the last thirty years.

Despite catches of some 2900 blue whales in the Durban whaling grounds between 1908 and 1966¹⁰ no blue whales have been recorded off the KZN coast since five aerial sightings were made by whaling industry spotters between 1972 and 1973.⁵ Similarly, very few contemporary records of fin or sei whales are available for the KZN coast. While this may be suggestive of very low population levels of these species, it should be noted that there has been little offshore research effort, where these species would be expected.

However, recent estimates of humpback whales suggest that the KZN coastal migratory population (which generally migrates through the shallow water habitat) is recovering at approximately 11% per annum¹¹ and is at approximately 70% of its pre-exploitation level.¹² The distribution of catches of the southern minke and dwarf minke whales show that the former occurs seasonally offshore, while the latter occurs as a probable resident in more coastal waters.

Although catch records of Bryde's whales do not exist from the Durban whaling grounds, three populations were identified off the coast of southern Africa,¹³ and the taxonomic identities of the whaling records remain confused.

Catches of sperm whales in the deep waters off Durban became increasingly important for the whaling industry in later years. These catch records show age and sex class migration patterns; males having a largely winter seasonality and females being more abundant in summer.¹⁴ Females and immature whales are generally found in warmer waters, while males become increasingly migratory with age, migrating to the Antarctic in summer (*Section 5.6*).

Resident whales and dolphins

The distribution of the resident species in KZN is strongly influenced by the southward flowing warm Agulhas Current, which extends the range of more tropical and sub-tropical resident species southward into KZN waters.

The beaked whales are a group of little-known deep water animals, of which five species are recorded off the KZN coast,

including Cuvier's beaked whale, Longman's beaked whale, Blaineville's beaked whale, Layard's beaked whale and the southern bottlenose whale.

A further three species, Gray's, True's and Arnoux's beaked whales are also anticipated to occur in the region, based on strandings outside of the KZN region and distributions elsewhere in the world. Apart from southern bottlenose whales, which appear to show some early and late summer seasonality,¹⁵ data are generally too sparse to define any migration patterns of these beaked whale species, and they are assumed to be resident in offshore waters.

The inshore resident dolphin fauna is dominated by two warm water species, the indo-pacific humpback dolphin and the Indo-Pacific bottlenose dolphin both of which occur in coastal waters, often within the surf zone.¹⁶ Both long-beaked and short-beaked common dolphins are found in KZN waters, with parasite and stomach content data suggesting that long-beaked common dolphins occur more inshore than the short-beaked animals.⁴ Although records exist for both summer and winter sightings, common dolphins (assumedly long-beaked) move into KZN waters from the south each winter as they follow the annual sardine run (*Section 5.2*).^{16;17}

A number of whales and dolphins have a deep-water resident distribution in KZN waters, including false killer whales, pygmy killer whales, short finned pilot whales, Fraser's dolphin, Risso's dolphin, dwarf sperm whales and pygmy sperm whales.^{2;16}

Spinner dolphins occur in both shallow and deep waters and have been recorded off the northern KZN coast, which is probably the southern limit of their tropical Indian Ocean distribution. Pan-tropical spotted dolphins range further south, where they have been recorded the length of the KZN coast in waters of 200 m and deeper. Striped dolphins range throughout the deep waters, even further south than spotted or spinner dolphins, and appear to be associated with the Agulhas Current, off the east coast of South Africa.² The killer whale is a cosmopolitan species found in KZN waters, with an increase in abundance being evident in the late winter months when migrating baleen whales (and their calves) are at peak abundance in the former Durban whaling grounds.²

Although the rough-toothed dolphin and melon-headed whale have only been recorded from South Africa as (probably vagrant) strandings,² it is possible that the range of these two pelagic tropical species may be extended

Copyright:

This publication may be reproduced in whole or in part for educational or non-profit purposes without special permission from the copyright holder, provided that acknowledgement of the source is made. No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior written permission from the KwaZulu-Natal Department of Agriculture and Environmental Affairs and the Oceanographic Research Institute.

southwards into the deep waters off the northern KZN coast by the warm Agulhas Current.

Few population estimates of resident species on the KZN coast are available, apart from those for the Indo-Pacific humpback dolphin (~160 individuals),¹⁸ the Indo-Pacific bottlenose dolphin (~520 individuals),^{19;20} and common dolphins. A population of common dolphins on the southeast coast of South Africa (Port Elizabeth to Richards Bay) was estimated to be between 15 000 and 20 000 individuals in the late 1980s.¹⁷ The lack of population abundance estimates mean that the majority of resident species are listed by the IUCN as Data Deficient.

Strandings

Strandings of cetaceans on beaches can be categorised by the type of stranding event. Single animals can strand, either alive or dead, as a result of age or ill health; as would be expected in any mammal. Groups of animals may strand due to ill health or disease; or groups of animals may strand in mass stranding events, where a whole group may strand together in one locality.

Generally it is the deep-water odontocete species that strand en masse, and often, mass strandings occur repeatedly at particular sites (for example, at St Helena Bay or Kommetjie

in South Africa). Mass stranding events may happen for a number of reasons, including local topography and disorientation in shallow water (where echolocation may be compromised), geomagnetic anomalies causing navigational errors (sites of multiple mass strandings often have magnetic contours orientated perpendicular to the coast) or social or herd factors (where members of a group follow a dominant individual ashore). Recently, certain strandings (particularly in Europe) have been shown to be associated with the use of high-energy military sonars.

Not only do live stranded animals require qualified and specialist assistance, but strandings may also provide important information on cetaceans. Any whale or dolphin found alive or dead on the beaches of KZN should be reported to Ezemvelo KZN Wildlife. In the case of live animals, cover the skin with wet towels (ensuring that the blowhole remains unobstructed) and keep noise and crowding to a minimum until specialist assistance arrives.

Whales and dolphins are prevalent along the KZN coast, depending on time of year and environmental conditions. While whale species have declined as a result of historical whaling activity, some species have shown recovery and further conservation of the species and their habitat will ensure populations return to sustainable levels. ■

Common dolphin.



Photo: Lloyd Edwards

