

Atlantic humpback dolphins, Angola, West Africa

Caroline Weir looks at Atlantic humpback dolphins off Namibe Province, Angola, their habitat use, behaviour and implications for conservation.

Location: - Angola, West Africa
Target species: - Atlantic humpback dolphin
Researcher(s): - Caroline Weir (Ketos Ecology)

Introduction:

The Atlantic humpback dolphin *Sousa teuszii* (Kükenthal, 1892) is a relatively small (c. 2.5 m) species endemic to the west coast of Africa in the eastern Atlantic Ocean. The distribution and status of Atlantic humpback dolphins is very poorly known, and it is currently confirmed to occur in the coastal waters of nine range states comprising Morocco, Mauritania, Senegal, Gambia, Guinea-Bissau, Guinea-Conakry, Cameroon, Gabon and Angola. There is no data available regarding population size in any of the known range states, though estimates from the best-studied areas vary from as few as 28 animals in Dahkla Bay (Senegal) to perhaps several hundred animals in Canal do Gêba-Bijagos (Guinea-Bissau) (Van Waerebeek et al., 2004). Since this endemic species is both restricted in geographic distribution and appears to be uncommon throughout most of its existing range, the total worldwide population is likely to be low. However, limited evidence suggests that by-catch in fishing nets and deliberate hunting for meat are significant causes of mortality, and may have caused local extinction in some areas (Van Waerebeek et al., 2004).

The International Union for Conservation of Nature and Natural Resources (IUCN) currently classifies Atlantic humpback dolphins as Data Deficient (though this classification is likely to change to threatened).



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Atlantic humpback dolphins are found exclusively on the west coast of Africa. Until recently, very few studies had been conducted on these animals.

Atlantic humpback dolphins are included on the Convention on Migratory Species (CMS)'s Appendix II (unfavourable conservation status), and the

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Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) Appendix I (threatened). All of these organisations have

emphasised the requirement for further research and conservation effort to be focussed on this species, with the IUCN Cetacean Specialist Group identifying it as a priority species in light of its restricted range and the paucity of available information.

Due to the general absence of cetacean research in the West African region little is known of the behaviour, biology and ecology of Atlantic humpback dolphins, although they are generally assumed to have similar habits to the closely-related and comparatively well-studied Indo-Pacific humpback dolphin (*S. chinensis*) which occurs in the Indian Ocean, south-east Asia and northern Australia. This species inhabits tropical and subtropical waters close to shore (usually <25 m water depth), particularly within bays and estuaries and in association with rocky reefs. Humpback dolphins are usually observed on open coasts found along most of Angola's coastline, just seaward of the surf line. Limited stomach content data indicate that Atlantic humpback dolphins have a piscivorous diet, taking fish such as mullet (*Mugil* spp.) (Van Waerebeek et al., 2004).

Background to the project:

Until recently, there were no records of Atlantic humpback dolphins from Angola. However photographs and notes collected by an amateur naturalist during a kayak trip along the Angolan coast in early 2004 confirmed their presence off Namibe Province in southern Angola (Alex Vogel, pers. comm.). Sightings from a local tour operator also testify to the regular presence of humpback dolphins in Namibe Province, with at least four groups thought to



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Atlantic humpback dolphins are an inshore species that prefer shallow coastal and estuarine waters.



Prior to Caroline's project, very little was known about these animals. This survey is the first dedicated study of these animals, and so is vital to our understanding of the species.

be 'resident' in the area (Bruce Bennett, pers. comm.). Sightings are usually located in shallow water (<5 m) over, or in close proximity to, rocky reefs. These sightings suggest that humpback dolphins may occur predictably in some locations and potentially exhibit site-fidelity. However, there has been almost no coastal survey effort in Angolan waters and the exact range and ecology of the species in Angola remains unknown.

An 'Angolan management stock' of Atlantic humpback dolphins has been proposed (Van

"...there has been almost no coastal survey effort in Angolan waters..."

Waerebeek et al., 2004), and the limited sightings (of very small groups) off Angola to date suggest that this stock is at low abundance. Van Waerebeek et al. (2004) concluded that 'baseline abundance data need to be obtained' for Atlantic humpback dolphins throughout their range.

Project Objectives

The overall aim of this project is to collect information on the distribution, habitat preferences, behaviour and ecology of Atlantic humpback dolphins off Namibe Province. This information will be used to assess the status of humpback dolphins in this region, and make recommendations for their long-term conservation and management.

Specific objectives are to:

1. Determine the minimum number of humpback dolphins within the study area
2. Investigate the habitat preferences of humpback dolphins in Namibe Province

3. Collect behavioural data on humpback dolphins
4. Carry out a photo-identification feasibility study on humpback dolphins
5. Assess the likely anthropogenic impacts upon the species in Angola

Methodology

- The study will be carried out along an 80 km stretch of coastline between Namibe and Tombwa in southern Angola.
- The survey work will comprise a combination of boat surveys and shore-based watches.

- During boat surveys standardised effort, environmental and cetacean sighting data will be collected.
- During humpback dolphin encounters focal follow studies will occur, and photo-identification of individual animals will be attempted based on markings on the dorsal fin including nicks and notches, bends, overall dorsal hump and fin shape, and patterns of scarring.
- Whenever possible a hydrophone will be deployed during dolphin encounters to attempt to make acoustic recordings of this species.
- Shore-based surveys will be conducted to examine the feasibility of studying humpback dolphins from shore which would reduce acoustic disturbance from boats and result in better recording of natural, undisturbed behaviour.
- During shore-based watches all sightings of humpback dolphins will be recorded, and where possible dolphins will be followed from shore to determine their undisturbed swim speeds, dive times and behaviour.
- The data will be analysed using Geographic Information System (GIS) software to examine the distribution and behaviour of Atlantic humpback dolphins in relation to habitat parameters.



These dolphins have a conspicuous, elongated hump in the middle of their backs with a relatively small dorsal fin on top.