

SUMMARY

Much progress has been made in both training and surveying in this first six months of the three year project. The members of the CCP have worked together successfully as a team.



Humpback dolphin and fishers in a creek habitat

LIAISON WITH

GOVERNMENT AND NGOS

The CCP team are working with staff from key government departments involved in Pakistan's biodiversity. The Navy have been very supportive and helpful in surveying the Balochistan coast. The team are also working with IUCN-Pakistan, an important conservation organisation. Initial discussion with the National Institute of Oceanography has also been encouraging.

Project Advisory Panel	Organisation
WWF-Pakistan	Conservation NGO
IUCN-Pakistan	Conservation NGO
UMBSM	University
CEMB	University
MRCRC	University
Zoology Dept.	University
Marine Fisheries Dept.	Government
Zoological Survey Dept.	Government
Sindh Wildlife Dept.	Government
Balochistan Forestry Dept.	Government
Pakistan Navy	Defence

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PHOTO CREDITS

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Map: WWF-Pakistan



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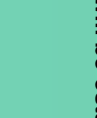
AIMS

Recent evidence indicates that significant, previously unstudied populations of over 20 species of whale and dolphin occur within the Pakistani EEZ (NE Indian Ocean). The project is undertaking surveys urgently needed to determine their abundance, diversity and seasonal habitat use, assess the status of their pelagic environment and document threats to their populations.



Bottlenose dolphins

In collaboration with the University Marine Biological Station Millport, Scotland, WWF-Pakistan and the CEMB, Karachi University, the Darwin project is developing management options and recommendations, helping to fulfil the 'Pakistan National Conservation Strategy'. It emphasises, through Karachi University, capacity building and training of Pakistani students, academics and fisheries officers. With WWF-Pakistan, an active national cetacean conservation group and whale watching tourism will be established to provide sustainability.

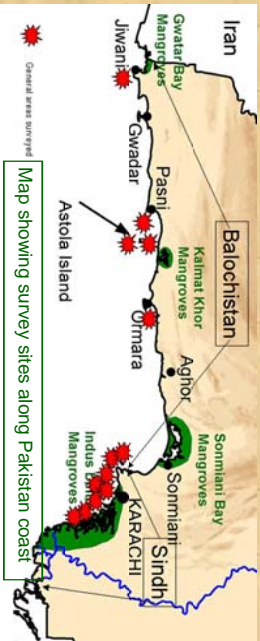


INTRODUCTION

Work in the first six months of the project has focused on training and development, on survey work related to marine biodiversity and sustainable livelihoods, and on raising awareness of cetacean conservation. Surveys of the long shallow shelf off of Sindh and the short deeper shelf and much longer coastline off of Balochistan are being compared. The coast of Balochistan was surveyed in February 2006 and Sindh largely between November to December 2005 by the Cetacean Conservation Pakistan (CCP) Team.

TRAINING

UK based: Four Pakistani colleagues attended the Marine Mammal Module in July 2005. This is a year ahead of schedule and has given these colleagues a head start in working with the project. The course includes both lectures and fieldwork and it is planned to bring the course at Karachi University in the coming year.



Map showing survey sites along Pakistan coast.

Pakistan based: Intense training was carried out in the first two months of the project, and has continued in the field. Seven staff were trained, including two Research and three Project Officers, two WWF-Pakistan project managers, an MRCRC staff member and one from the Zoological Survey Dept.



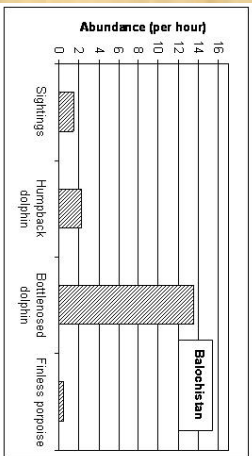
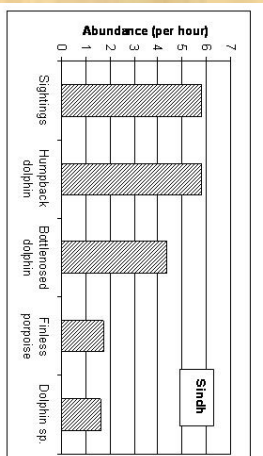
Sampling by Cetacean Conservation Team during a boat survey

Lectures by UMBSM staff Dr. Mauvis Gore, Dr. Rupert Ormond and Ross Culloch covered an overview of the project, methodology, seabird identification, basic taxonomy and identification of marine cetaceans in Pakistan. They also covered cetacean strandings and rescue, and an introduction to photo-identification and mark-recapture techniques for cetaceans using computer software, and navigation.

Fieldwork involved surveying beaches, line transect methods on boat-based surveys, observation techniques and team work, species identification, navigation, and management of stranded cetaceans.

RESULTS

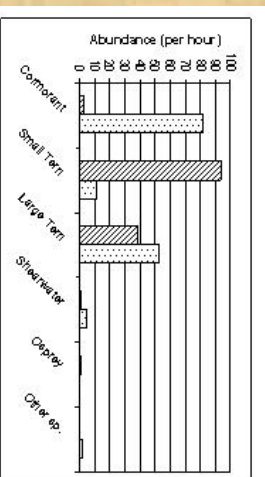
Similar cetacean and seabird species were recorded from the two coastlines, but the numbers seen differed, as noted in the graphs adjacent. Bottlenose dolphins dominated in Balochistan. Greater numbers of cormorants and large terns were found in Balochistan but more small terns in Sindh. 104 zooplankton and 27 phytoplankton samples have been collected from 27 stations and are being analysed.



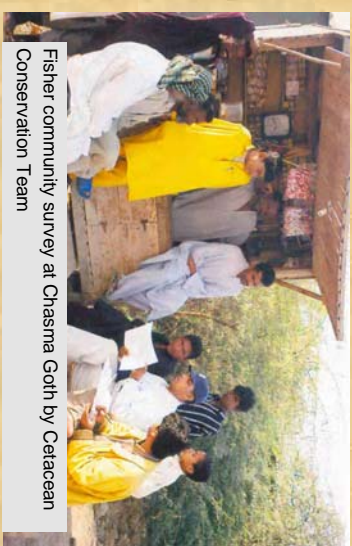
The average number of cetacean sightings and number of species per time spent surveying coastal inshore Sindh and Balochistan



Beach survey near Pasni by Cetacean Conservation Team



Seabirds counted during the inshore coast surveys. Key: striped area= Sindh, dotted area= Balochistan



Fisher community survey at Chasma Gothi by Cetacean Conservation Team

Beach surveys have been carried out from Mubarak Goth to Beluji in Sindh, and near Hud village and Pasni in Balochistan.

A number of remains of dolphins and whales have been found, most notably a sperm whale skeleton, reported in our first scientific publication (Gore et al. JMBA 2006). Samples have been taken for future DNA analysis and pollution levels, should funding become available.

Fisher community surveys thus far have been focused largely in Sindh, with 25 fishers from five communities, and seven fishers in two communities in Balochistan.



Cetacean Conservation Team setting out on Balochistan expedition