Southwest Bottlenose Dolphin Conference Output Report 2016

Aim: To collate existing evidence and co-ordinate bottlenose dolphin research in Southwest England.

Bottlenose dolphins in the coastal waters of SW England are under threat and likely in decline. Despite this, these animals have no specific protected area or special protection measures other than via general statutory protection of wildlife and cetaceans in UK waters. In order to ensure the best protection for these vulnerable animals we need to present the best scientific evidence to support and promote conservation action.

There is a wealth of data on bottlenose dolphins out there. Cornwall Wildlife Trust has been collecting sightings and acoustic data on cetaceans for over 20 years, and there are numerous boat operators, research groups and a whole host of others who have also been collecting photographic data on our resident bottlenose dolphins for several years. However, this data is not currently collated or analysed as a whole, meaning we do not have a full scientific picture on the population and use of the area by these bottlenose dolphins. This lack of co-ordinated and validated ecological data is something we hope to rectify through the work of the emerging SW Bottlenose Dolphin Consortium.

The aim of the Southwest Bottlenose Dolphin Forum, held on 29th October 2016 was to enable initial discussions to take place and gather everyone's thoughts and input to this proposed work and development of the consortium.

Ruth Williams, Cornwall Wildlife Trust

Overview of conference presentations – key themes

Ruth Williams, Marine Conservation Manager for Cornwall Wildlife Trust opened the conference, welcoming delegates and giving an introduction to the task ahead, what we know and what we need to know to help better protect our local bottlenose dolphins.

Nick Tregenza, Visiting Researcher, University of Exeter, gave an historic overview of the Cornish bottlenose dolphins and their story from past to present, including how they have been impacted by accidental capture in fishing nets, pollution including organochlorine run-off from daffodil farms, the appearance of the resident group of bottlenose in the early 1990's and the lack of information we have on how our regional waters are used by the inshore and offshore groups of bottlenose dolphins.

Paul Jepson, Senior Research Tutor, Institute of Zoology continued the theme with a brief presentation on the known and persistent threats of pollutants such as PCBs and the serious population level impacts these are having on bottlenose dolphins.

Angela Ziltener, Research Associate at the University of Zurich, president of Dolphin Watch Alliance and one of the initiators of Dolphin Watch Natural Underwater Science, gave us a personal insight into her work across Europe and particularly in Egypt where she studies the local group of bottlenose dolphins. The clarity of water enables the use of divers to observe the animals underwater which has allowed new behaviors to be identified and studied. Angela also talked about some of the key threats these animals face, particularly from the high levels of tourism in the area, and how her organization has tried to address some of these.

Simon Ingram, University of Plymouth, has many years' experience in researching bottlenose dolphins around the UK and abroad, including Ireland and Scotland. His talk focused on methods of study to establish abundance including sightings recording, photo identification techniques and biopsy, which could be an essential tool to differentiate between offshore and inshore groups of animals.

Duncan Jones, owner of wildlife watching business Marine Discovery, and co-founder of Cornwall Marine Life Boat Operators group, showcased some of the photographic evidence on Cornish bottlenose dolphins that members of the group and other local researchers have collected over recent years. This forms a good basis for an assessment of the local animals, but further collaboration and analysis is required to build a more definitive picture of our local bottlenose. Duncan also highlighted the economic and social benefits that seeing dolphins brings to the area, but with this also brings the responsibility that we must ensure the animals do not suffer from disturbance.

Barbara Cheeney, Research Fellow at Aberdeen University has been involved in the Lighthouse Marine Field Station on the East coast of Scotland for many years and presented on the value of long term studies to learn about the biology and ecology of bottlenose dolphins. Using photo identification techniques, they have been able to follow individuals over time and are now seeing fourth generation calves being born from known ancestry. Barbara also highlighted some valuable lessons that have been learnt through the 27 year study as well as new areas of research being trialed.

Tom Stringell, Senior Marine Mammal Ecologist for Natural Resources Wales finished the formal presentations by giving an overview of the status of the Cardigan Bay bottlenose dolphins and explaining some of the pressures these animals are facing in Welsh waters, including pollution, noise and disturbance, and how they are protecting against them.

The conference was summed up eloquently by **Brendan Godley**, Director of Centre for Ecology and Conservation, and Professor of Conservation Science at University of Exeter. There is obviously a lot of interest in this subject, borne out by the attendance at the conference, and there appears to be potential to progress this work regionally. We learnt a lot from other areas of the country and global research, particularly on the impacts of organic contaminants, tourism, and how this species are culturally diverse among different populations. Historic records are incredibly valuable and long term data sets show the value and power of specific monitoring techniques. With regard to management, there is a wide diversity of issues we need to consider, but what should we focus on locally? We know that knowledge gaps need to be filled, and hopefully we can progress this following this

conference. The key is collaborative, long term, and multi-disciplinary research and analysis. However, it's not all about research; we can promote and enhance people's understanding of these amazing animals, and encourage collaboration – a key element of what the conference has been all about.

Workshop outputs:

Two parallel workshops were held following the main conference:

Workshop 1: Threats, Policy and Conservation Action – what can be done to better protect bottlenose dolphins in the SW?

Aim: To discuss what the key threats to bottlenose dolphins are within the SW, identify what action can realistically be taken, and what evidence is required for effective protection.

Main conclusions:

- The bottlenose dolphin population around Cornwall and the southwest is small and vulnerable. Bycatch and disturbance were thought to be the major short term threats to this population.
- Long term impacts of PCBs have probably suppressed the population size, but PCBs is not something we can easily influence locally.
- With regards to solutions, there was considerable support for a code of conduct to minimise disturbance, like the one in Scotland, and some good ideas for funding and promoting this were discussed.
- Also with regards to solutions and Marine Protected Areas (MPAs), the need to come together to gather/collate data and to provide the data in the right format for MPA designation was discussed, with much support for collaborative working on this.

Workshop 2: Evidence and data collection in the southwest - what do we know already and what do need to know?

Aim: To discuss how to collate existing evidence and co-ordinate bottlenose dolphin research in Cornwall and Southwest England.

Main conclusions:

<u>What data do we have?</u>

- Many data sets (historical, photo ID, effort and non-effort based data, at sea point transects, small boat surveys) but these are not stored collectively.
- Key sources of photo ID data include: Marine Discovery, Colin Speedie, Cornwall Seal Group Research Trust, MARINE life, Newquay Seafaris, Cornwall Wildlife Trust (Seaquest and Marine strandings database), ERCCIS (historic, effort based and public), SCANS (UK wide) surveys, Charm, SNCB data.
- It was agreed that we should focus on collating and analysing historic and current datasets, before thinking about collecting new evidence such as biopsy and stable isotope work.

How do we best analyse all this data?

- Data needs to be spatially referenced and in the same format so it is compatible and able to be analysed.
- It should be centralised and collaborative. People or organisations who would be willing to share their data bases should contact the CWT as independent brokers.
- It is essential to widen the geographical range to the whole SW, extending upwards towards Wales and eastwards to include Devon and Dorset.
- These points would help to answer key questions such as how many dolphins are there and what habitats are they using?

What is the framework for collaboration?

- Resources are required to ensure legacy of any data base. The use of funded University students (MRes) or volunteers for analytical work was discussed.
- Need to capture the large databases to include larger geographical area.
- A central hub is required where data can be requested but also contributed too by collaborators. Quality assurance is essential.
- A formal Steering Group should be formed to help drive and promote the initiative. The beginnings of such a Steering Group has already been formed with CWT being the independent co-ordinator.
- A sightings/recordings template to explain exactly what data is needed from contributors and in which format e.g. photo ID, GPS location etc.
- An agreed protocol should be used, in conjunction with other organisations, to ensure a standard format for data
- Funding would help for analytical work (hire someone or fund student) but potentially not essential.
- Potential to use self-funded students and/or volunteer placements although there is a risk of losing continuity and quality control with more than one person involved in assessment.

Conclusions and next steps:

There was a great deal of support for a collaborative project on bottlenose dolphins in the south west to collate data already collected by various people and organisations within the region, and to encourage new data and research to be progressed.

The workshop sessions provided an excellent 'scoping' exercise for this collaborative project, the documentation needed, and proposed action. The documentation will provide a consistent framework that enables the project and work to be taken forward. This will include a Terms of Reference document and Data Sharing Agreement.

There was general support for the SW Bottlenose Dolphin Consortium to be established. It was agreed that this Consortium will be a partnership of various stakeholders throughout the southwest of England sharing a common interest in developing an understanding and conservation of the region's bottlenose dolphins.

A Steering Group will co-ordinate the Consortium and will produce the Terms of Reference, and formal Data Sharing Agreement for all collaborators. The Steering Group will also look for potential funding and resource to progress the work proposed.

The central contact for the SW Bottlenose Dolphin Consortium Steering Group will be Cornwall Wildlife Trust as an independent broker. Contact: Ruth Williams, Marine Conservation Manager, Cornwall Wildlife Trust. ruth.williams@cornwallwildlifetrust.org.uk