

Agenda Item 5.1

Implementation of the Triennium Work Plan
(2010-2012)
Review of New Information on Population
Size, Distribution, Structure and Causes of
Any Changes

Document 5-06

**Bottlenose Dolphins in the Southwest
of England**

Action Requested

- Take note
- Comment

Submitted by

WDCCS



NOTE:
IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING THEIR
OWN COPIES OF DOCUMENTS TO THE MEETING

Bottlenose Dolphins in the Southwest of England: 2010



Bottlenose dolphins were seen regularly inshore around Cornwall until about 40 years ago, and a distinctive local feeding strategy using a shallow tidal lake on the lower River Tamar was known for so long that Admiralty Charts showed the location as 'Dolphin Pond'.

Their disappearance was most likely due to organochlorine pollution, mainly by agricultural pesticides, that decimated populations of otters, some birds, and probably porpoises, at around the same time. The main toxic component of the organochlorine burden in cetaceans has shifted from those derived from pesticides to PCBs that are both more persistent and more toxic. Levels of OCs in bottlenose dolphins around the whole of the British Isles still far exceed estimated thresholds for toxic impacts.

The group of bottlenose dolphins now seen around the SW of England arrived on the north coast of Cornwall on September 19th 1991. The numbers reported in the group declined over several years thereafter from an average of around 15 to 8, with reports of groups larger than 12 now being unusual, in contrast to upper figures of 25 at the start.

We do not know where our present group of inshore bottlenose dolphins came from. The nearest large group is in Cardigan Bay, Wales, which has over 100 animals. Those animals are exposed to lower levels of gillnet use.

There is also a much larger offshore population seen along the edge of the continental shelf of the UK, but there is no doubt that ***the animals seen here are not, and were not, a small subset of that larger stock as:***

- For 20+ years there were very few sightings.
- The sudden transition to regular sightings occurred some time after establishment of a regular sea watch and a sightings reporting scheme, so we saw the transition, and there has been no significant break in the presence of the animals since.
- A distinctive individual, now lost, was seen very frequently in the group, showing that this was the same small group being re-sighted.

- The groups has remained for whole seasons in some locations such as Torbay, or around the Land's End peninsula, and during such periods there are few, if any, sightings elsewhere.
- The local feeding strategy known in the past is typical of resident inshore animals.
- Other inshore groups in Europe that have been extinguished have not shown occasional re-colonisation from the offshore stock, but have remained as 'empty' areas for long periods.

These other European losses include

France

- Arcachon – this well studied group finally disappeared in 2005, having been composed of females only for several years. That is a characteristic of
- Noirmoutier – not seen for 20 years?
- Quiberon – not seen for 20 years?

Portugal

- Tagus - local group lost.
- Sado – group in decline.

UK

- East coast of England now has no coastal population. There were early losses of groups regularly seen on the Humber and in the Thames estuary.
- South coast: a small group studied in Dorset for around 15 years has probably gone in the last 5.
- The group seen regularly in the Tamar estuary, and around Cornwall disappeared in the 1970s.
- Morecambe Bay, northwest coast. Sightings and strandings are at a very low level having formerly been much higher.

Netherlands: evidence of past residency.

In summary:

- Bottlenose dolphins still carry very high toxic burdens or persistent OCs, sufficient to depress reproductive success and cause loss of males, which has been observed.
- Groups have disappeared all round Europe and this process continues.
- The SW England groups is and was sufficiently distinct that it's loss might not be replaced for many decades, if ever.
- The re-colonisation of SW England is the only example we know of a restoration of an inshore resident group, but it is not going well, and an initial decline in numbers shows no sign of turning into an increase.

What can be done:

- Recognise that the EU's single overall assessment of Tursiops as having a 'favourable conservation status' in Europe is unsatisfactory and misleading.
- Recognise that such perilously threatened groups require strenuous efforts to reduce mortalities from all non-pollution causes.
- Note that the encephalisation quotient of Tursiops is the highest for any European animal apart from ourselves, and that in the lean-body-mass form is very close to ours. i.e. these are very exceptional animals that merit intensive conservation efforts.

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