

Agenda Item 5.4

Implementation of the ASCOBANS Triennial  
Work Plan (2007-2009)

Review of New Information on Population  
Distribution, Sizes and Structures

Document 34

## **Favourable Conservation Status of Bottlenose Dolphins**

**Action Requested**

- Take note of the information submitted
- Comment

Submitted by

Chelonia Limited



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



# Favourable Conservation Status of Bottlenose Dolphins

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## Bottlenose Dolphins – how did the EU arrive at its ‘favourable’ assessment?

Tursiops: The UK and Irish reports are stated to be the main drivers for the EU assessment of this species ‘favourable’ status in the Atlantic region, which effectively conceals extensive changes in ancient coastal sub-populations of real conservation significance. In Ireland the picture does appear correct, but in the UK it ignores available evidence of extensive coastal declines.

This arises from:

- Imposing a ‘one species, one assessment’ structure on reporting without entering strong statements on how inappropriate it is in the case of Tursiops, and without giving the appropriate assessment of coastal groups. So the UK species assessment is dominated by an estimated 8000 animals that are almost entirely non-coastal and are assessed as ‘favourable’ despite contrary evidence from coastal sub-populations. All three items listed as legal requirements in the UK’s draft cetacean surveillance plan appear to require distinct reporting of these groups.
- Taking a short view, typically SCANS1 to SCANS2 and ignoring older, less formal data. ‘Restarting the clock’ is a widespread problem in conservation biology with scientists taking the view that they are the first to be accurate!.
- Taking a transnational view. We would all agree that there is, for example, clearly no ‘Belgian population of porpoises’, but it is appropriate for national reports to include assessments of their own waters, as these do provide a form of coarse grained occupancy measure, and help to avoid the risk of all nations feeling conservation responsibility for a species is located somewhere else. The UK’s assessment is that only the Moray Firth Tursiops can be considered wholly a UK responsibility, because the Welsh group shows some continuing apparent discovery of new individuals on photo ID (but re-identification rates and distribution of sampling effort are not evaluated) while the very small number of extant south coast animals are suspected of interacting with those on the French coast. This approach of ‘they’re not ours unless demonstrably exclusively ours’ is unsatisfactory.

## *Atlantic coastal Tursiops*

Tursiops had known coastal zones of high sightings rates, that must mostly represent resident inshore groups, that have disappeared. We can infer that these groups were inshore resident groups because following their disappearance sightings rates become and remain very low.

Netherlands	Complete loss from the coast where they were regularly seen and documented.
Belgium	Complete loss from the coast where they were regularly seen.
UK	<ul style="list-style-type: none"> <li>• 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.</li> <li>• South coast: a small group studied in Dorset for around 15 years has probably gone in the last 5. A group seen regularly in the Tamar estuary, and around Cornwall disappeared in the 1970s.</li> <li>• Morecambe Bay, northwest coast. Sightings and strandings are at a very low level having formerly been much higher.</li> <li>• The coastal group on the west coast of Wales are still present as are those of the Moray Firth in Scotland.</li> </ul> <p>The loss of coastal groups has been so extensive that dolphins have long disappeared from images advertising UK coastal holidays and the name 'common bottlenose dolphin' has become anachronistic.</p>
France	<p>Several small groups have been lost from the west coast including Arcachon – this well studied group finally disappeared in 2005, having been composed of females only for several years.</p> <p>Noirmoutier – not seen for 20 years?</p> <p>Quiberon – not seen for 20 years?</p> <p>The last two may have been part of one coastal group, and there may be other losses of coastal Tursiops as this list is not exhaustive</p>
Portugal	<p>Tagus - local group lost.</p> <p>Sado – group in decline.</p>
Spain	?

Were these coastal animals or visiting offshore animals?

The fall from locally high to near-zero rates in all but one of the locations of the 'lost' coastal groups is evidence that these were groups distinct from the larger offshore population (unless that had declined greatly). The SW of England is the only known location to have replacement of a lost group and that new group appears to be slowly declining.

What is the cause of these declines?

The most economical explanation is that they are driven by organochlorine pollution. The Arcachon group was well studied, and that finally had females only, which is a likely demographic signature of organochlorine toxicity due to the established mechanism of offloading of lipid soluble pollutants during lactation.

The overall pattern in Europe may be one of declines off coastlines with extensive arable farming, and survival of groups living off predominantly pastoral hinterlands (e.g. Shannon ) and around offshore islands. ( Isles de Sein, Molene, Channel Islands ).

A further note - Orcas feeding on marine mammals are at highest risk, and a talk at the La Rochelle conference gave evidence of reproductive failure in Orcas far from any agricultural coastline. This is consistent with their high trophic level.

## **Assessments**

The actual EC assessment:

*'The species favourable status in Ireland and the UK largely contributes to this species' overall favourable conservation status given the species large distribution in these two countries. The species has been declared extinct in the Belgian waters and is reported as occasional in the Netherlands. Wandering migratory individuals are nevertheless reported by Belgium and the unfavourable-bad status given by Belgium is so small not to influence the overall assessment in a negative way'.*

A more accurate assessment:

*The presence of this species in coastal waters shows apparently complete losses of locally well known coastal groups around several countries. Intensive studies in the US indicate that this species has distinct coastal groups, defined by genetic and other parameters, that may nevertheless overlap seasonally or otherwise. Overall the status of offshore Tursiops is presumed to be favourable or is unknown, as nothing is yet known of any trends in numbers, while for the coastal groups the conservation status is unfavourable.*

Does it matter?

Organochlorine pollution, both by PCBs and pesticides, is generally improving, and most relevant action has been taken ( a great credit to all agencies involved ) but will take some decades to reduce to insignificant levels in marine mammals. Meanwhile the potential growth rates of polluted populations are likely to be low and their vulnerability to bycatch and other impacts high. These coastal groups of Tursiops are equivalent to various local groups of elephants in Africa that had local 'cultures' – patterns of migration that took them across deserts or stretches of sea and it is clear that when such groups are lost those behaviours rarely, if ever, reappear. In the case of Tursiops a pattern of apparently herding mackerel into Hooe Lake on the lower Tamar was lost and has not re-appeared although a small group of Tursiops has re-colonised the south-west. As a personal note: on the ferry home from the La Rochelle conference I met a resident of the Hooe area, aged 71, and he clearly remembers seeing both the dolphins and the fish as a boy.

## **Harbour porpoise *Phocoena phocoena***

This name, like 'common bottlenose dolphin, is also anachronistic, the species having largely disappeared from harbours and estuaries. It was formerly hunted or persecuted in the Severn Estuary, Fal Estuary, Thames Estuary, Rivers Fowey and Tamar, etc. where it is now effectively absent. Those changes probably date from the middle of the 1900s and are at the same time as the development of an area of very low density in the Channel and less markedly in the southern North Sea, and the marked decline of porpoises in the Inner Baltic, that went from being commonly hunted to rarely seen within living memory. These are all consistent with organochlorine impacts plus subsequent gill net by-catch, and the CSIP has demonstrated the effect of organochlorines.

OCs are declining but the attribution of 'favourable' to the habitat quality is surprisingly optimistic.

## ***Conclusions***

There is a body of evidence of declines of inshore bottlenose dolphins. Biologically and culturally these are very valuable stocks. The case for distinguishing inshore from offshore bottlenose dolphins as a conservation management unit is very strong and the present mechanism of reporting, as followed by the UK, urgently needs to be made more flexible, to prevent the continuation of the present very misleading conservation status assessments.

I am not sufficiently conversant with the processes of ASCOBANS and the EU in these matters to suggest the best way forwards, but it might include funding a review of inshore bottlenose histories in the ASCOBANS area or addressing the issue of how far member states are compelled to report on Tursiops as a single stock.