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# An extension to the known home range of Shannon Estuary Bottlenose Dolphins (*Tursiops truncatus* (Montagu, 1821))

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## Mammals

### An extension to the known range of Shannon Estuary Bottlenose Dolphins (*Tursiops truncatus* (Montagu, 1821))

On 22 June 2009 while carrying out a survey of  
basking sharks (*Cetorhinus maximus* (Gunnerus,  
1765)) from a 6 m rigid-hulled inflatable boat, a  
group of Bottlenose Dolphins was encountered  
1.5 km west of Brandon Point, Co. Kerry  
(N52°17.2', W10° 8.1'). The group size was at  
least 30, including three calves. Three hours later  
the dolphins had moved 6.5 km west to Sauce  
Creek (N52° 16.9', W10° 13.8').

Photographs of individual dolphins were  
taken for photo-identification (for methods see  
Berrow *et al.* 2012). Images were compared to  
those kept in the Shannon Dolphin and Wildlife  
Foundation (SDWF) and the Irish Coastal  
Bottlenose Dolphin Catalogue (O'Brien *et al.*  
2009). Of the 30 dolphins recorded, 12 had  
previously been photographed in the Lower  
River Shannon Special Area of Conservation  
that was established for these dolphins. Three of  
these animals were recorded in the estuary during  
most years since 1993, six were recorded during  
four or more years and three were recorded



there once (SDWF Unpublished data). Two of these individuals were photographed ten days previously by CR in the Lower River Shannon and one was also photographed there 18 days later.

This incidental sighting increases the known range of the Shannon dolphins to a place 25 km outside of the Lower River Shannon SAC and highlights the need for surveys of Bottlenose Dolphins beyond the SAC in order to establish their wider range.

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### Stranded Pregnant Killer Whale (*Orcinus orca* (L.)) in Co. Mayo, Ireland.

On 4 October 2010 a dead Killer Whale (*Orcinus orca* (Linnaeus, 1758)) was reported stranded at Kinvrovar, Doohoma, Co. Mayo (F712149). The authors visited the stranding on 10 October and although the carcass was not in an advanced state of decomposition, it was discoloured and most of the skin had flayed off. Species identification was confirmed by the presence of large rounded pectoral fins, the position of the dorsal fin halfway along the back, and large teeth that were rounded in cross-section. The total body length was measured as 5.12 m. The rostrum and lower jaws had been cut with an electric saw before the authors' visit, so an absolute tooth count was not possible. However, there were c.20 teeth or tooth

sockets in the upper jaw and the largest tooth remaining measured 27 mm in diameter which is typical for Killer Whales and is diagnostic. Significant apical tooth-wear indicated that the animal was old and probably a 'type 1' ecotype which are believed to be generalist predators (Foote *et al.* 2009). Determination of gender was impossible by external examination because the genitals were heavily scavenged and the dorsal fin was badly decomposed.

A gross post mortem examination was carried out to look for signs of any obvious traumas that may have contributed to, or caused the animal's death, and to determine the gender. Only the left side of the carcass could be examined, but it exhibited no visible external traumas and no haemorrhaging was found in the blubber, indicating that live-stranding was unlikely. The lack of obvious blunt trauma made a ship-strike as an improbable cause of death, and nothing was found to indicate fisheries bycatch.

When an incision was made on the left flank from above the pectoral fin to the anus a 2.09 m foetus was found in an amniotic sac. The presence of two mammary slits indicated that the foetus was female. It was also almost fully developed because length at birth for this species is between 2.08 m and 2.20 m in the North Atlantic (Perrin and Reilly 1984). In addition, 19 hollow teeth or tooth sockets in the upper and 22 in the lower jaws indicate an advanced degree of development. The eyes appeared to be decomposed and the skull was unfused in several places. The flexible dorsal fin and tail fluke were both folded to the left. An unusual observation was that the foetus was in cranial presentation in utero, which is extremely rare in odontocetes (Slijper 1949). Caudal presentation of the foetus in cetaceans is important for successful delivery, as it prevents a calf from drowning during protracted deliveries (given that the breathing stimulus is believed to be the coldness of the water) (Slijper 1956). This indicates that survival of this calf during delivery would have been compromised. It is possible that the atypical orientation of the foetus may have been a factor in the cause of death of the mother.

Records of stranded killer whales are rare but evenly distributed along the Irish coast (Berrow and Rogan 1997). This record brings to 15 the number of stranded killer whales, and of the seven records since 1983, three have been of neonates and one a pregnant female. Moreover, no calves have been observed alive in Irish waters in recent times (IWDG, unpublished data). Pregnancy abnormalities will have an adverse effect on the reproductive viability a species. In Irish waters the reproductive and recruitment rates of killer whales is low (Evans 1988). We suggest that the prevalence of such reproductive abnormalities