





THE BOTTLENOSE DOLPHINS OF THE MORAY FIRTH ARE A MAJOR DRAW FOR VISITORS AND LOCALS ALIKE, BUT HOW DO THEY LIVE THEIR LIVES WHEN NOT ENTERTAINING THE CROWDS? **SARAH DOLMAN** FROM THE WHALE AND DOLPHIN CONSERVATION SOCIETY PROVIDES A GLIMPSE INTO THEIR WORLD ▶

BREAKING COVER

PHOTOGRAPHY: WDCC/CHARLIE PHILLIPS; ECOVENTURES

WATCHING AND IDENTIFYING whales and dolphins along our coasts requires patience and often plenty of warm layers, but can be incredibly rewarding. Most people would agree that, whether viewed from a boat or blustery headland, the sight of a family of dolphins surfacing close by can be truly breathtaking.

In Scotland, we are lucky enough to have the opportunity to enjoy this experience on our door step. The Moray Firth provides some of the best land-based dolphin watching in the world thanks to a very special population of bottlenose dolphins resident year-round.

Those who have spent time in the area may have seen them jumping and leaping clear of the water as they hunt and frolic, but of equal interest is how these intelligent animals interact, out of sight of the tourist boats and dolphin-watching sites.

Rarely seen alone, the dolphins are more commonly spotted in groups of more than 10 and up to 50 animals. Calves are seen all year round, although calving itself may occur more in the summer months. The relationship a mother has with her calf is an important bond and the pair remains together for several years.

In fact, many associations between individual dolphins remain strong throughout their lives. The animals communicate with one another and find prey using a complex system of distinguishable whistles and echo-location clicks and can recognise individuals within their group using particular calls. As well as being sociable and communicative, they have a long life span of around 45 to 50 years.

Historically, bottlenose dolphins lived around the coasts of the British Isles in considerable numbers and there is evidence of their presence in Scotland dating back to the Iron Age. Records indicate that they had a more continuous distribution throughout European waters in centuries past, with their numbers spread more evenly around our coasts.

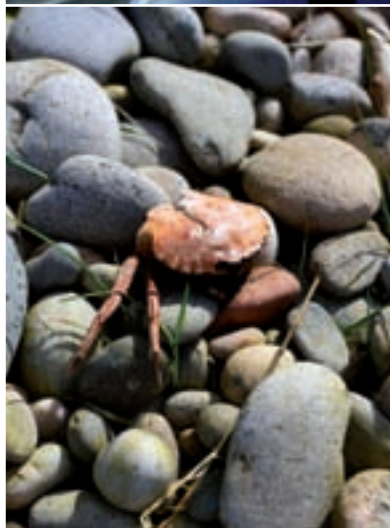
In recent times, their ranges – the places they inhabit and visit – have contracted to smaller ‘pockets’, probably as a result of population declines and shifts, although we are never likely to know for sure. Today, as well as off the northeast of Scotland, populations of bottlenose dolphins remain in western Ireland, Cardigan Bay in Wales and off the south coast of England, while another small group of around 40 bottlenose dolphins lives around Barra and the Hebrides.

Working with academics and other local organisations, the Tobermory-based Hebridean Whale and Dolphin Trust has discovered what appear to be two distinct groups of bottlenose dolphins in Hebridean waters. One is found in and around the Sound of Barra and comprises around 15 individuals, while another group of around 35 animals range from Skye down to the Kintyre peninsula.

Further south, the dolphins that live in Welsh waters seem to range widely and mix with other populations in the wider Atlantic, but the population in the northeast of Scotland appears to be more isolated (although a recent discovery included individuals from the west



Patience rewarded: dolphin-watching from the water (above, below); a successful catch (far right); the author making notes from the shore at Spey Bay (right)



Dolphin days

A variety of boat operators offer dolphin-watching trips in and around the Moray Firth. However, the whole experience is much better for visitors and dolphins alike if trips are booked with operators accredited to the Dolphin Space Programme (DSP) – a best practice code of conduct drawn up to minimise disturbance to these vulnerable animals.

The DSP is an important tool for ensuring that dolphin-watching is operated not just in a sustainable way but also provides a high-quality and educational experience for dolphin-watchers. Many DSP operators have also participated in the WiSe (Wildlife Safe) scheme (www.wisescheme.org) that provides additional training on how to approach a variety of marine life, not just dolphins.

For more information on the DSP programme and accredited boats, visit www.dolphinspace.org

coast in the Moray Firth) making the group particularly vulnerable. This already small population – roughly 130 animals – may also be declining in numbers.

When studies to better understand the Moray Firth dolphins began, the animals were first thought to live almost exclusively within the inner Moray Firth. In recent decades, however, the home range of this population appears to have changed and expanded further south along the coastal waters of northeast Scotland. The dolphins are often observed in the Tay Estuary, the Firth of Forth and even as far south as the waters off Newcastle. This pattern may change again in future but understanding why such movements occur can only be speculated upon.

What we do know is that the animals show a marked preference for certain areas such as river estuaries, bays and headlands – favoured spots that are no doubt linked to successful feeding. Hotspots for sighting them include Chanorny Point on the Black Isle, as well as near the two wildlife centres operated by WDCS at Spey Bay and North Kessock.

The dolphins spend their entire lives along our coasts in the northeast – often visible from the shore. It seems

“BOTTLENOSE DOLPHINS HAVE A LONG LIFE SPAN OF AROUND 45 TO 50 YEARS”

that they are rarely seen in offshore waters, although our effort to track their movements has focused along the coasts in summer months.

Of course, studying a species that spends its entire life at sea is an incredible challenge, even though the Moray Firth dolphins are often active at the surface, breaching, tail slapping and playing with one another. Repeatedly photographing the animals is the best way to understand their movements, with patterns in sightings along the coast emerging as researchers, conservation groups and members of the public work together to understand their comings and goings over time. Photo-identification studies also inform us about their social habits and how the population is faring.

The bottlenose dolphins in northeast Scotland have been studied by scientists working in the region for decades, and WDCS has supported research conducted by Aberdeen University for the last 15 years. This information is vital for the dolphins' conservation. However, more information about the health of the population is critical if we are to ensure measures are in place to protect them and their habitat.

GLOBAL SPREAD

Found throughout the world's oceans, bottlenose dolphins often live in industrialised coastal waters, with significant populations in areas such as Port River in Adelaide and along the Texas coast in the Gulf of Mexico, adjacent to the world's largest oil refineries. Here in Scotland, they are often seen around Kessock and other parts of the inner Moray Firth, as well as Aberdeen harbour – Europe's largest centre for support of the oil and gas industry in the North Sea.





“WHAT ALL OF THESE POPULATIONS HAVE IN COMMON IS SHARING AN INCREASINGLY BUSY AND NOISY HOME WITH HUMANS”



Helping hand: WDCS supporter and BBC TV presenter Miranda Krestovnikoff takes part in a beach clean at Spey Bay (above); spectacular leaps are a common sight along the northeast coast (top)

What all of these populations have in common is sharing an increasingly busy and noisy home with humans. Development of our coastal waters is happening at an ever increasing rate. Maintenance and expansion of ports and harbours, with its associated dredging and pile driving; shipping and boating, including for research and dolphin watching; commercial fishing activities; naval exercises; oil and gas exploration; as well as marine renewable energy developments all demand space in the dolphins' habitat.

And boat traffic has been shown to affect the dolphins' behaviour in the Moray Firth and elsewhere. Studies by Aberdeen University have shown that foraging behaviour of dolphins in Aberdeen harbour is influenced by the presence of harbour traffic, while in the inner Moray Firth it has been found that pods containing calves surface to breathe together more when there is boat traffic around. The longer term implications of such influences on behaviour are unknown, but could be significant for a species that appears to spend its entire life in busy coastal waters.

It is certainly easy to imagine how all of this activity makes for a less than tranquil environment in which to bring up a calf. We already know that life is hard when your home is the ocean. In Australia, where shark predation occurs, bottlenose dolphin calf mortality is 44%

Essentials

WHEN TO GO

Bottlenose dolphins are active year-round but most boat operators offer trips between March and October when the seas are usually calmer.

WHERE TO GO

Dolphins (and other marine life) can be spotted from a variety of points along the Moray Firth. Visit the Dolphin Space Programme website for more details (see p61).

WHALE AND DOLPHIN CONSERVATION SOCIETY

The WDCS operates wildlife centres at Spey Bay and North Kessock. Both are excellent sources of information on sightings and events, including beach cleans.

www.wdcs.org/wildlifecentres

DISCOVERY DAYS

New eco-tourism company Wild at Heart offers dolphin discovery days in partnership with WDCS-endorsed travel operator Out of the Blue. The in-depth day includes a boat trip with a marine biologist onboard a DSP-accredited operator, a visit to a WDCS wildlife centre, plus land-based watching from some of the best coastal sites.

www.wildatheart-ecoholidays.com

HEBRIDEAN WHALE AND DOLPHIN TRUST

It's not all about the Moray Firth. The HWDT is an excellent source of information for those looking to explore the rich diversity of marine life found in Hebridean waters. www.hwdt.org

by the age of three. Such data is not yet available for the Moray Firth dolphins, but while shark predation is not a threat to calves, preliminary investigations show that mortality rates are still high, especially in the first born.

Meanwhile, worrying amounts of chemical pollutants in the Moray Firth, along with evidence that the population is declining, means the future really is uncertain for these animals.

In recognition of their vulnerability, the Moray Firth dolphins are provided strong protection at a European level with the only protected area – a Special Area of Conservation in the inner Moray Firth – for any whale or dolphin species in Scottish waters and one of only two in the whole of the UK. The hope is that this poor level of protection will change and that more areas of habitat for whales, dolphins and porpoises, as well as other marine species, will be identified and protected with the imminent introduction of the Marine (Scotland) Act. Currently making its way through Holyrood, it is hoped that the Act will be in place by spring 2010.

Questions and challenges remain if we are to further the conservation of this important population, but one thing is certain: the coastal waters of the northeast of Scotland provide shelter, food and a place for these dolphins to socialise and raise their young. It is their home and we must do our bit to protect it. ■