



IDENTIFICATION GUIDE: Whales and dolphins of the UK

Karen van der Zijden/Alamy

There's nothing more exciting than a dolphin riding your bow-wave, or a whale breaching... but how can you identify the species? Sailor, photographer and wildlife surveyor Genevieve Leaper tells us more

One spring day when I was a teenager, we were sailing across Poole Bay as we had many times before. All of a sudden, an unremarkable day turned into a special one as three dolphins came rushing towards us to play around the bow. I abandoned the tiller to my father and rushed forward to lie on the foredeck, leaning over as far as I dared and laughing with sheer delight to watch them bow-riding.

They were bottlenose dolphins, though I didn't know it then. We'd never seen any before and I didn't know much about dolphins. And I certainly never imagined it was possible to see whales in British waters.

Since then, in many years of sailing and marine surveys around the UK, I have seen hundreds of dolphins and porpoises and more than a few whales. Even so, my tally of 13 species of cetaceans, as they are collectively known, is only around half the total number to have been recorded.

But I still remember those first dolphins

and I never get tired of watching them.

Whales and dolphins can seem impossible to identify at first but it becomes easier once you know what features to look for.

The first challenge is to see them in the first place, after all these are animals that spend most of their time underwater and often show little when they do surface.

A cetacean surfacing may appear as a dark or shiny object depending on the light. Other cues are splashes or a wave going the 'wrong' way. The first thing I

ABOVE Bottlenose dolphins surfacing in Moray Firth

RIGHT More dolphins, this time in the Sound of Barra, Hebrides

noticed on the Bay was a splash there should be a splash. Feeding flocks are checking – a large whale attract larger whales away and in a detected minke hearing a blow you've seen splash. If it wasn't just surface again.

BELOW A bottlenose dolphin rides the bow wave of the Small Isles ferry off Mallaig



Genevieve Leaper



ABOVE Bottlenose dolphins surface in the Moray Firth

RIGHT More bottlenose dolphins, this time in the Sound of Barra, Outer Hebrides



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noticed on that early encounter in Poole Bay was a small breaking wave where there shouldn't have been one.

Feeding flocks of birds are always worth checking – a concentration of fish may attract larger predators too. The blows of the large whales can be visible over a mile away and in calm weather I've often detected minke whales and porpoises by hearing a blow behind me. If you think you've seen something – keep watching! If it wasn't just a wave it will probably surface again.

Fin spotting

Often you won't see much more than the dorsal fin and part of the animal's back as it surfaces so the first step in identification is to look at the shape, size and position of the fin. Many dolphins have similar fins and there is a lot of variation even within a species, but it's easy to distinguish a porpoise from a dolphin by the fin alone.

The minke whale's fin is similar to a dolphin's in shape and size, but much smaller relative to body size and positioned further back.

Overall size can be difficult to judge but will help to decide whether you are looking at a whale, dolphin or porpoise.

The harbour porpoise, our smallest cetacean is half the length of a bottlenose dolphin. Fin whales are bigger than most yachts while a minke rarely reaches 30ft.

Most cetaceans are grey so any suggestion of colour is worth noting. The blue whale really does look blue and some beaked whales show a brownish hue. Only pilot whales and killer whales are really black, though many others look very dark in poor light. Several dolphins have distinctive patterns on their flanks from which they are readily identified – if you get a good view.


Look for the shape of the head when the

'Fin whales are bigger than most yachts while a minke rarely reaches 30ft'

animal surfaces – some dolphins have much longer beaks than others. Risso's dolphin and pilot whale have a bulbous rounded forehead with no beak.

All cetaceans exhale from the blowhole when they surface but the blow is generally only visible in the large whales. The tall, columnar blows of fin, sei and blue whales are conspicuous while sperm and humpback whales have a lower, bushy, blow.

Behaviour and group size can also be useful clues. A large group, bow-riding or leaping out of the water will certainly be dolphins not porpoises. Of the large whales only a few raise their tail flukes when diving deep, including humpback, sperm and blue, but not fin whale.

Don't assume that once you've identified one animal, the next will be the same. On one amazing occasion crossing the Minch on the Hebridean Whale and Dolphin Trust's ketch *Silurian*, we saw three species of dolphins, not to mention a couple of minke whales in one day. I've only seen white-sided dolphins a few times, and mostly they were hiding among groups of white-beaked dolphins. 

Where to look

Northern and western waters are the richest for marine wildlife, but cetaceans can be seen all around the British Isles. Headlands concentrate prey and are always good places to look. Bottlenose and common dolphins are the species most likely to be seen in the English Channel, but I have seen minke and fin whales off Cornwall.

The bottlenose dolphin, although much less abundant than common and white-beaked dolphins, is probably the most familiar to many yachtsmen. There are resident populations in coastal waters of the Moray Firth, Cardigan Bay, south-west England and the Shannon Estuary in Ireland and these are acrobatic animals which draw attention to themselves with their exuberant behaviour and often approach boats.

The most numerous species in coastal waters is the harbour porpoise but, being small and shy of boats, it is often overlooked.

White-beaked dolphins predominate in the North Sea, in fact a large part of the world population is found here. The west coast of Scotland is the best place to see minke whales, while Shetland is good for killer whales. The humpback whale was once common on migration between feeding and breeding grounds but

Further reading

Whales, Dolphins and Porpoises, Mark Carwardine, Dorling Kindersley
Sea Mammals of the World, R Reeves, B Stewart, P Clapham & J Powell, A&C Black
Whales & Dolphins of the European Atlantic, Graeme Cresswell & Dylan Walker, WILDGuides

Recording sightings & more information

Sea Watch: www.seawatchfoundation.org.uk
Hebridean Whale and Dolphin Trust: www.hwdt.org
Irish Whale & Dolphin Group: www.iwdg.ie
Local Wildlife Trusts

became rare after centuries of whaling. Populations are now recovering and there have been more sightings in recent years, even one off Norfolk. Although numbers are still small, humpbacks are conspicuous when they are around, often staying in the same area for weeks and feeding close inshore. The south coast of Ireland is the best bet

for fin whale, but you need to venture further offshore for any realistic chance to see the deep divers such as sperm whale and the mysterious beaked whales.

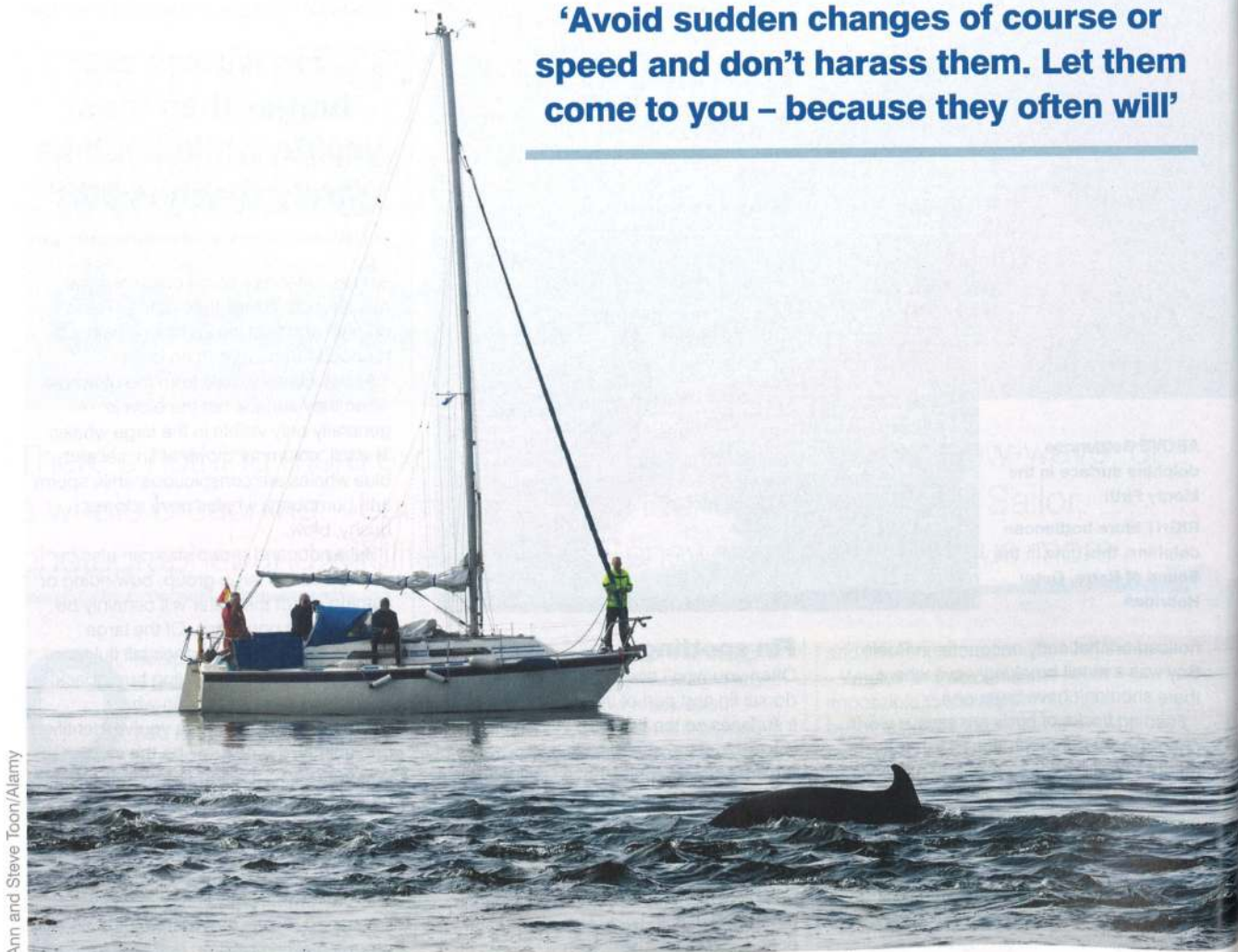
For those setting out on an ocean passage, keep a good lookout when passing over the edge of the continental shelf into deep water. As well as the larger whales, here you might encounter pilot whales and oceanic dolphins in groups of hundreds or thousands.

However, anything can turn up anywhere as shown by a beluga, the white whale of the Arctic, that spent several months in the Thames last winter.

How can we help?

Sadly, although cetaceans are so popular and whaling is a thing of the past in the UK, they are still at risk from many human activities. They are among the many animals that ingest plastic, sometimes with fatal results. Other pollution is less visible. Animals at the top of the food chain can accumulate high levels of toxic chemicals. The Hebridean pod of killer whales have had no calves in the 25 years they've been studied. One of the females, Lulu, was found dead in 2016. She had one of the highest levels of PCBs (chemicals known to cause infertility) ever found in a marine mammal.

'Avoid sudden changes of course or speed and don't harass them. Let them come to you – because they often will'



Ann and Steve Toon/Alamy

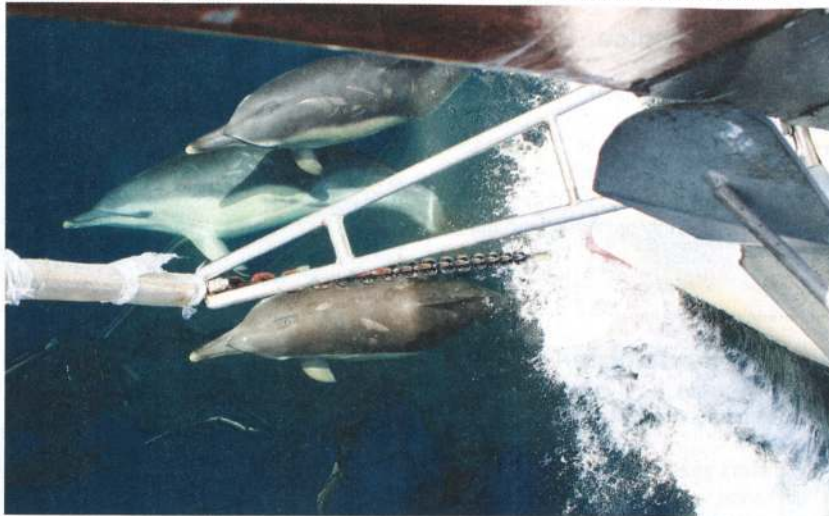
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Sound is important for both communication and echo-location, so it's bad news that the underwater world is getting noisier. The main source of boat noise is from the propeller. A fouled or damaged prop is more noisy, so keeping it clean and in good condition will help to reduce noise as well as saving fuel.

It's no coincidence that our echosounders work on the same frequencies that porpoises and dolphins use to detect prey and find their way around. We can all help just by turning the echosounder off when it's not needed.

Many porpoises drown every year in fishing nets and even large whales can become entangled in fishing gear and die. Entanglement in creel (lobster pot) lines, appears to be a real threat to humpback whale population recovery. In Scotland, conservation organisations and the inshore fishing industry have collaborated with a new initiative, Scottish Entanglement Alliance, aiming to raise awareness of the issue and reduce the problem. So it is definitely worth reporting fishing gear set

BELOW Common dolphins bow riding the Hebridean Whale & Dolphin Trust's *Silurian*



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with excessively long lines.

And sometimes people love dolphins just a bit too much and cause stress and disturbance or even injury by trying to get too close. Codes of conduct have been developed to help enjoy watching whales and dolphins in a responsible way.

Don't approach cetaceans from directly in front or behind or cut through and break up a group. It's especially important to maintain a respectful distance if there are calves present. Avoid sudden changes of course or speed and don't harass them. Let them come to you – because they often will. Dolphins are well known for the habit of bow-riding any vessel

from a small sailing boats to a supertanker. It saves energy – but it's hard not to believe that they also do it for fun. One of my most memorable encounters occurred while dinghy sailing in Stonehaven Bay. We were flying along on a fast reach and I was flat out on the trapeze when a white-beaked dolphin came to check us out. It swam alongside, maintaining position effortlessly beneath me as it turned on its side to look up and make eye contact.

If you spot a cetacean...

If you are lucky enough to spot a cetacean, various organisations would be interested in your sightings (see panel, opposite). Scientific surveys are essential to monitor distribution and population sizes but casual records from other ships and boats are also valuable. The essential information to make a note of is date and time, location, species and number of animals. Photos are very helpful to confirm identification. Photos can also be used to identify individual animals, using various features such as marks on the dorsal fin or tail and scars on the body. Photo identification has been used in studies of bottlenose and Risso's dolphin, minke, killer and humpback whales.

One of the male killer whales from the




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Montage of images showing the surfacing sequence of the minke whale

Hebridean pod has been seen as far afield as Ireland and in the Moray Firth while a humpback whale feeding in Irish waters was matched to one seen in the breeding grounds off Cape Verde.

The bottlenose dolphins of the Moray Firth are a very well studied group, subjects of long-term research by Aberdeen University. I sent in some photos taken near Stonehaven, and was interested to hear that one of the dolphins had never previously been recorded outside the Moray Firth. Photo identification provides information on many aspects of cetaceans' lives, for example how long they live, social groupings as well as home ranges and migration routes.

So, wherever you are sailing this summer, keep your eyes open and binoculars to hand – you never know what you might see. 

ABOUT THE AUTHOR

Genevieve Leaper has been sailing all her life and interested in marine wildlife from an early age. She worked for the Nature Conservancy Council (now JNCC) for several years, carrying out seabird and cetacean surveys all around the UK. She has also sailed with the Hebridean Whale & Dolphin Trust as relief mate.



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ABOVE Common dolphins off Skye

LEFT Bottlenose dolphins in the Moray Firth

Harbour porpoise

Phocoena phocoena

- Smaller than any dolphin
- Small triangular fin
- No beak
- Generally avoids boats and doesn't jump
- Usually seen singly or in small groups



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Bottlenose dolphin

Tursiops truncatus

- Large and heavily built with a fairly tall dorsal fin
- No distinct patterning
- Fairly short, stubby beak
- Like most dolphins, frequently bow-rides and jumps



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Common dolphin

Delphinus delphis

- Smaller and more slender than bottlenose or white-beaked dolphins
- Distinctive hour glass pattern (creamy yellow/pale grey) on sides
- Long thin beak
- Usually in groups which can be very large offshore



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White-beaked dolphin

Lagenorhynchus albirostris

- Large and heavily built with a fairly tall dorsal (similar to bottlenose dolphin)
- White saddle behind dorsal fin is diagnostic and is usually visible
- Beak is very short but not always white



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Atlantic white-sided dolphin

Lagenorhynchus acutus

- One of the smaller dolphins
- Distinctive white and yellow stripe on flank is diagnostic but often difficult to see
- Short beak
- Doesn't usually approach boats
- Groups may number hundreds offshore. Sometimes seen with white-beaked dolphins



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Risso's dolphin

Grampus griseus

- A large dolphin with a tall dorsal fin
- Blunt forehead with no beak
- Often pale with conspicuous scarring
- Usually in small groups



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Killer whale or orca

Orcinus orca

- Actually a very large dolphin
- Adult male is unmistakable with very tall, upright dorsal fin
- Less prominent fins on females and immatures can be confused with Risso's dolphin
- Black with oval white patch behind eye and pale saddle



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Long-finned pilot whale

Globicephala melas

- Larger than most dolphins but smaller than killer whale
- Dorsal fin, well forward on body, broad at the base, rounded and swept back
- Bulbous forehead usually shows on surfacing and blow may be visible
- Body colour fairly uniform black
- Pods usually number tens of animals



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Minke whale

Balaenoptera acutorostrata

- The smallest baleen whale
- Dorsal fin is similar to dolphins but smaller relative to body size and further back
- The blow is rarely visible
- White patches on flippers are only visible close up in clear water
- Usually solitary



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Fin whale

Balaenoptera physalus

- Very large, second in size only to the blue whale, and fast moving
- Tall, conspicuous, columnar blow
- Asymmetric colouring of lower jaw diagnostic (white on right side, black on left)



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Sperm whale

Physeter macrocephalus

- Large and slow moving at surface with huge, square head
- Low hump instead of dorsal fin
- Blows frequently and regularly
- Bushy blow angled forward and left
- Flukes up (raises tail) to dive deep



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Humpback whale

Megaptera novaeangliae

- Large (similar in size to sperm whale) with small dorsal fin and knobby head
- Very long, white flippers
- Bushy blow
- May feed close to shore and can be very active – lunging with open mouth, breaching, tail and flipper slapping



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