



Mark Carwardine's **AT A GLANCE...**

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WHALE STRANDINGS

WHAT ARE STRANDINGS?

Every year, thousands of whales, dolphins and porpoises strand on coastlines all over the world. They may be alive or dead, alone or in groups, and healthy or unwell. Strandings of dead animals are relatively easy to explain – they simply die at sea and are washed ashore. Live animals may strand because they are sick or injured, confused by strong currents or high tides, or because they get lost while chasing prey or evading predators. But mass strandings of otherwise healthy animals are still one of the great unsolved mysteries of the animal kingdom.

WHAT DO WE KNOW ABOUT MASS STRANDINGS?

Mass strandings can be natural – there is evidence of them in the fossil record – or caused by human activities. Many weird and wonderful theories have been proposed, ranging from underwater volcanic eruptions and parasites (quite possible) to mass suicide bids (highly unlikely). But don't believe the many news stories claiming that we've finally cracked it – because we haven't.

WHAT ARE THE MOST LIKELY EXPLANATIONS?

In reality, there are likely to be different explanations for different strandings. One possibility is that cetaceans use the earth's magnetic field for navigation and their internal compasses can be disrupted by magnetic disturbances – caused by solar

storms, for example. This may have been why 29 sperm whales stranded on beaches in the North Sea early in 2016. Coastal topography is another likely cause: New Zealand has a particular hotspot called Farewell Spit – a thin 5km arc of sand at the top of South Island – where strandings occur on a regular basis. There are also more sinister reasons: deafeningly loud noises from military sonar and oil and gas exploration, as well as pile driving to build wind farms, are all believed to cause mass strandings. Collisions with boats and entanglement in fishing gear are likely to be the cause of many individual strandings.

DO SOME SPECIES MASS STRAND MORE THAN OTHERS?

Yes. Individuals of most species have stranded at one time or another, but most mass strandings tend to be of toothed whales, species that form tightly knit groups, and those more commonly found in deep water. There are many exceptions, though. An astonishing 343 baleen whales (mostly sei whales) stranded in Chile in 2015, for example, in the biggest stranding of baleen whales ever known. In terms of sheer numbers, pilot whales suffer the most. The largest stranding on record was of 1,000 long-finned pilot whales in the Chatham Islands in the South Pacific in 1918, and exactly a century later more than 150 short-finned pilot



Volunteers guide pilot whales back out to sea after a mass stranding at Farewell Spit.

whales stranded south of Perth in Western Australia.

WHAT CAN BE LEARNED FROM STRANDINGS?

Much of our knowledge of many species – especially elusive beaked whales – comes from dead animals washed ashore. Even a rotting carcass can yield invaluable data on everything from anatomy and genetics to feeding ecology and pollutants. Mass strandings provide further information on sex ratios, age structure, relatedness within a group, and so on.

WHAT SHOULD YOU DO IF YOU FIND A STRANDED WHALE OR DOLPHIN?

Attempting to rescue stranded cetaceans can be dangerous and, in many countries, is illegal. Expert help is essential to return them to the sea, euthanise them, or transport them to a care facility for rehabilitation. In New Zealand, for example, Project Jonah has more than 3,500 trained volunteers on permanent standby, and deals with mass strandings like a military operation. In the UK, British Divers Marine Life Rescue runs one-day Marine Mammal Medic Training Courses – a great way to become qualified to attend rescues anywhere in the country. 🐋

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MARK CARWARDINE is a frustrated and frank conservationist.

Every month he demystifies some of the most important issues affecting the world's wildlife and assesses the organisations that protect it.

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<http://uk.whales.org/issues/strandings-and-rescue>