

ENGLISH LEARNING FOR CURIOUS MINDS



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Episode #088

The Amazing Life of Whales

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[00:00:00] Hello, hello, hello and welcome to English Learning for Curious Minds by Leonardo English.

[00:00:11] The show where you can listen to fascinating stories, and learn weird and wonderful things about the world at the same time as improving your English.

[00:00:22] I'm Alastair Budge and today we are going to be talking about the amazing life of whales.

[00:00:30] They are the biggest animals on the planet, [glide¹](#) gracefully through the oceans, and have a lot more in common with humans than most people think.

[00:00:41] We haven't yet done many episodes on the natural world, but what better way to start than this amazing group of animals, and their amazing lives.

¹ move easily, with little effort

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[00:00:51] Before we get right into that though, let me just remind you that you can get all of the bonus episodes, plus subtitles, transcripts, and key vocabulary, over on the website, which is leonardoenglish.com.

[00:01:05] This is also where you can check out becoming a member of Leonardo English, and joining a community of curious minds from all over the world, doing meetups, exchanging ideas, and generally, improving their English in a more interesting way.

[00:01:21] So if that is of interest, and I certainly hope it is, then the place to go to is leonardoenglish.com.

[00:01:30] OK then, let's talk about the amazing life of whales.

[00:01:35] Now, let's start with some definitions, because 'whale' as a term has come to include different things.

[00:01:44] Some people use 'whale' as a [synonym](#)², as another word, for Cetacean, which is the group of aquatic [mammals](#)³ that include whales, dolphins and [porpoises](#)⁴.

[00:01:59] In fact, Cetaceans are made up of lots of different species, 89 to be precise, and these are broadly split into two groups - the toothed whales, which include for

² a word that has the same meaning as another

³ warm-blooded animals where the female feeds the young with her own milk

⁴ a sea animal similar to a dolphin

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instance dolphins and [orca](#)⁵, and the [baleen](#)⁶ whales, the ones that don't have teeth but have a kind of [grill](#)⁷ in their mouth, like the blue whale.

[00:02:25] We'll come onto this in more detail in a minute.

[00:02:29] So, in today's episode we'll be talking about whales in the general sense, because it would be a shame not to mention dolphins, [porpoises](#) and [orca](#).

[00:02:41] OK then, now we've got that out of the way, let's get on to where they actually came from, where they live, and talk about the amazing lives that these creatures lead.

[00:02:54] Firstly, one common [misconception](#)⁸ about whales is that they are fish. They are not.

[00:03:00] They are [mammals](#), and their closest land-relative is the hippopotamus, although genetically they went different ways about 40 million years ago.

[00:03:12] Whales come in a huge range of shapes and sizes, from the Maui dolphin, which is around 1 metre long and weighs 50kg, through to the blue whale, which can be

⁵ a black and white whale

⁶ the grill feeding system used by baleen whales

⁷ a frame with bars

⁸ an idea that is wrong because people don't understand the subject properly

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30 metres long and weigh 173 tonnes, or the weight of 25 elephants, not only making it the largest animal in the world today, but also the largest animal that has ever lived.

[00:03:44] Not only can whales be absolutely massive, but they can also live for a very long time. [Killer whales⁹](#), or [orca](#), can live for more than 100 years, and it's believed that a type of whale called a bowhead whale, which is normally found in the Arctic, can live for more than 200 years, which makes this type of whale the world's longest living animal.

[00:04:14] As I said at the start of the episode, whales are divided into two broad groups, based on what they have in their mouth - teeth, or a kind of [grill](#) to catch [plankton¹⁰](#), little shrimps or fish.

[00:04:30] The ones with teeth are generally smaller and quicker, and the ones with the [grill](#) in their mouth are generally bigger and slower.

[00:04:42] The word for this [grill](#) thing is [baleen](#), which I imagine won't be a word you will need in general conversation. Anyway, there you go. [Baleen](#) is the [grill](#) that they have in their mouth, and these kinds of whales essentially just [glide](#) through the water with their mouths open, [hoovering up¹¹](#) all the little fish and [plankton](#) they can find.

⁹ black and white whales

¹⁰ very small plants and animals that float on the surface of the sea

¹¹ eating in a manner similar to a vacuum cleaner

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[00:05:07] You might have known this already, but what you probably didn't know is what this is actually made out of. **Baleen** is actually made out of keratin, which is the same substance that we have on our fingernails and in our hair, so one way to think about the **baleen** of a whale is that it is just hair and fingernail **matter**¹² that's hanging from the top of a whale's mouth. Which makes it sound quite **gross**¹³, but it is an incredibly effective way of feeding.

[00:05:42] Blue whales, which have **baleen**, eat up to 3,600 kg of shrimp every day, which is about the weight of a medium sized elephant. Quite something, right?

[00:05:58] They tend to prefer colder water, and so are typically found in the Northern or Southern hemispheres, not so close to the Equator, but they will **migrate**¹⁴ great distances to find food or to mate, to reproduce.

[00:06:13] Like with many facts about whales, the real numbers here are amazing.

[00:06:20] Several species, including the humpback and blue whales, can travel for over a thousand miles without feeding, and the gray whale, which is a relatively small whale, but still weighs 27 tonnes, it **migrates** a total of 16,000 kilometres every year, going between its feeding and its breeding grounds.

¹² material

¹³ disgusting

¹⁴ travels to a different place

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[00:06:46] Again, to put that in perspective, it's the distance between London and Sydney.

[00:06:53] But whales don't make these [lengthy](#)¹⁵ journeys on their own. They are highly social animals, and travel in groups.

[00:07:02] Although we do know quite a lot about how whales [interact](#)¹⁶, there is still a huge amount that isn't understood properly, and it seems that the more we find out, the more we realise that we don't know.

[00:07:18] But what we do know is pretty amazing.

[00:07:22] Bottlenose dolphins, which are thought to be the most intelligent type of dolphin, and have a brain that's a similar size to a human's, they communicate with each other through [clicks](#)¹⁷ and [whistles](#)¹⁸.

[00:07:35] [Orca](#), or [killer whales](#), have also learned to talk like dolphins. There was a study of [orca](#) where they found that they could [imitate](#)¹⁹ the noises of dolphins. This was an amazing discovery, as there are very few animals that are able to actually 'learn'

¹⁵ very long

¹⁶ communicate (in a group)

¹⁷ short, hard sounds

¹⁸ high sounds created by forcing air through a small hole

¹⁹ behave in a similar way to

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sounds - when something like a dog or a cat makes a sound, they just have an [innate](#)²⁰ knowledge about how to make that sound, they haven't actually learned it.

[00:08:07] There are in fact only six groups of animals that are known to be able to do this.

[00:08:14] Parrots, songbirds, hummingbirds, bats, cetaceans - or whales, and can you guess the last one?

[00:08:24] It's us, humans.

[00:08:26] Because whales can 'learn' sounds, it's believed that they pass down knowledge of these sounds through generations.

[00:08:36] Young whales listen to the sounds that their mothers, and the members of the group, make, and they learn them, so that they can teach their children, they can teach their young.

[00:08:50] Because these are learned, they aren't [innate](#), different whales have different accents, so a blue whale that lives in the North Pacific might make a very different sound to a whale from the South Atlantic, even if they're exactly the same species.

[00:09:10] And it's worth spending a little bit of time talking about, and then listening, to the actual kinds of sounds that whales make, because they don't just make random sounds.

²⁰ something you were born with, not learned

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[00:09:22] They sing.

[00:09:24] These songs can be long and complicated - humpback whales, for example, have songs that last up to 30 minutes, and can be heard from miles away. During the breeding season, humpback whales will sing for hours at a time.

[00:09:43] I'll play a clip of one in a minute, because it is pretty cool, but listen to the range that it goes. They can make sounds that go 7 [octaves²¹](#), which is almost the entire range of a piano.

[00:09:59] OK, so here we go, this isn't going to teach you any English, but it's pretty cool.

[00:10:05] Here's a little clip of a whale song. Amazing, right?

[00:10:43] Although we know that whales sing, and different whales sing in different ways, scientists don't really know exactly why they do it.

[00:10:55] On the subject of communication and intelligence, scientists also observed something pretty cool with a group of dolphins, which was that when one dolphin, one member of the group, was away, the other members were able to [imitate](#) the exact noise that the dolphin would make, so the scientists [hypothesised²²](#) that the members

²¹ an octave is the distance between 8 musical notes

²² provided an explanation

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could even be [gossiping](#)²³ about that dolphin, talking about it behind its back, or at least while it wasn't there.

[00:11:31] So, whales live a pretty amazing life, and they truly are majestic animals.

[00:11:38] It is, in many ways, a miracle that they are still with us, as there was a time not so long ago that they were almost [wiped off](#)²⁴ the face of the planet by humans.

[00:11:53] Whales had been hunted for centuries, but it wasn't until the late 19th century, with the invention of the steam ship and the explosive [harpoon](#)²⁵ that it became clear that humans were about to drive whales to [extinction](#)²⁶.

[00:12:10] Indeed, the 20th century saw almost 60 years of intensive whaling, whale hunting, where an estimated 2 million whales were killed, and multiple whale species were hunted to [within an inch of](#)²⁷ [extinction](#).

[00:12:29] The topic of whaling definitely deserves its own episode, so we won't go into it in great detail here, but the process includes hunting, killing, then using different parts of the whale for everything from soap, perfume, oil for machines, board games, clothing, umbrellas, explosives, food, and hundreds of other things.

²³ having a conversation about someone's life, normally without their knowledge

²⁴ destroyed

²⁵ a long, heavy spear, attached to a rope

²⁶ when a particular kind of animal no longer exists

²⁷ almost

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[00:12:55] In 1927, the League of Nations held a conference on whaling, and gradually [quotas](#)²⁸ were introduced, and from the 1960s the number of whales killed every year has been decreasing.

[00:13:12] Still, whales are hunted by 9 different countries, [albeit](#)²⁹ now for ‘cultural’ or ‘scientific’ purposes, commercial whaling, the hunting of whales to sell for a profit, has been [banned](#)³⁰ since 1986.

[00:13:30] And while whales might now not have to be fearful of large, commercial ships coming to launch large [harpoons](#) into them and turn them into soap, life as a whale isn’t completely without its threats.

[00:13:47] They are often caught in fishing nets, and it’s estimated that, over the course of a lifetime, 80% of whales in the North Atlantic are caught in a fishing net at least once.

[00:14:01] Loud noises, from the noises of ship engines, to the noises of underwater drills are very [disconcerting](#)³¹ for whales, and can damage their hearing.

²⁸ a fixed amount of something

²⁹ although

³⁰ forbidden

³¹ making you feel confused or worried

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[00:14:13] And whales are killed in large numbers every year just by being hit by ships.

Remember, although they can dive great distances, they need to come to the surface to breathe, and the seas and oceans are full of fast-moving, very heavy ships.

[00:14:34] Indeed, for some of the more **endangered**³² whale species, being hit by a ship is the main cause of death, the most dangerous threat for them.

[00:14:45] Luckily, for most whales, their life ends at sea, dying of natural causes.

[00:14:52] And as in life, so in death, what happens to a whale when it dies is pretty amazing.

[00:15:00] When a whale dies, it often floats on the surface for a while before **drifting**³³ down all the way to the seabed.

[00:15:09] When the whale's body has settled - and here's another bit of very specific, quite **pointless**³⁴ vocabulary for you - a settled whale's body is called a 'whale fall'.

[00:15:21] Now, whales can be absolutely huge, as we have already learned, and entire ecosystems can live off the whale fall for decades, tens of years.

[00:15:35] There was research from the University of Hawaii that discovered over 12,000 organisms from 43 different species that were living off one single whale fall, and they

³² to be in danger of extinction

³³ moving slowly

³⁴ having no purpose

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even discovered two new types of worm, and a total of 16 completely new species have been discovered at whale falls, species that probably wouldn't even exist without whales

[00:16:05] So even in death, I think we can all agree that whales are pretty amazing.

[00:16:15] OK then, that is it for the Amazing Life of Whales. They truly are majestic creatures, and I hope that this has given you a little insight into the amazing life they lead.

[00:16:28] The internet is, of course, full of amazing clips of whales doing amazing things. I'll leave some links in the show notes, so you should definitely give a few of those a watch.

[00:16:39] As always, I would love to know what you thought of the episode.

[00:16:43] Later on this month, we are going to have a fancy new forum on the website to allow you to discuss episodes. but in the meantime, please feel free to email me directly.

[00:16:53] You can email hi@leonardoenglish.com

[00:16:57] And as a final reminder, if you are looking to improve your English in a more interesting way, to join a community of curious minds from all over the world, and to unlock the transcripts, subtitles, and key vocabulary, then the place to go to is leonardoenglish.com

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[00:17:16] You've been listening to English Learning for Curious Minds, by Leonardo
English

[00:17:22] I'm Alastair Budge, you stay safe and I'll catch you in the next episode.

[END OF PODCAST]

Key vocabulary

Word	Definition
Glide	move easily, with little effort
Synonym	a word that has the same meaning as another
Mammals	warm-blooded animals where the female feeds the young with her own milk
Porpoises	a sea animal similar to a dolphin
Orca	a black and white whale
Baleen	the grill feeding system used by baleen whales
Grill	a frame with bars
Misconception	an idea that is wrong because people don't understand the subject properly
Killer whales	black and white whales
Plankton	very small plants and animals that float on the surface of the sea
Hoovering up	eating in a manner similar to a vacuum cleaner
Matter	material

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Gross	disgusting
Migrate	travels to a different place
Lengthy	very long
Interact	communicate (in a group)
Clicks	short, hard sounds
Whistles	high sounds created by forcing air through a small hole
Imitate	behave in a similar way to
Innate	something you were born with, not learned
Octaves	an octave is the distance between 8 musical notes
Hypothesised	provided an explanation
Gossiping	having a conversation about someone's life, normally without their knowledge
Wiped off	destroyed
Harpoon	a long, heavy spear, attached to a rope
Extinction	when a particular kind of animal no longer exists
Within an inch of	almost

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Quotas	a fixed amount of something
Albeit	although
Banned	forbidden
Disconcerting	making you feel confused or worried
Endangered	to be in danger of extinction
Drifting	moving slowly
Pointless	having no purpose

We'd love to get your feedback on this podcast.

What did you like? What could we do better?

What did you struggle to understand?

You can email us at hi@leonardoenglish.com.