

# How to Speak Whale: Tom Mustill [C1]

Sappiamo ancora molto poco sulla vita delle balene, ma la scienza si sta avvicinando sempre di più a decifrare il sofisticato sistema di comunicazione di questi maestosi mammiferi. Siamo pronti a capire cosa hanno da dirci?

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If you could talk to your pet, what would you say? Beyond instructions or expressions of affection, what would you honestly want to tell him or her? What would you like to know about your pet's life? Or, if you could talk to your favourite animal, be it a penguin or a lion, what kind of conversation would you want to have with it? Would you ask about its feelings or its fears? Are you ready to hear what animals have to say?

## A VIRAL ENCOUNTER

Tom Mustill asked himself many of these [questions](#) after a thirty-tonne [humpback whale](#) nearly killed him in 2015. Born in London in 1983, Tom is a biologist and filmmaker with over twenty years' experience making wildlife documentaries for the BBC and National Geographic. He has worked alongside public figures like David Attenborough and Greta Thunberg. On a cold September morning, he was kayaking off the coast of Monterey, California, with a group of [fellow](#) whale watchers, when a majestic [humpback whale breached](#) the surface and [landed](#) on top of him and Charlotte, his companion in the small [fibreglass vessel](#). The incident was caught on video and went viral. To find out more, we spoke to Mustill. We began by asking him about the incident. **Tom Mustill (English accent):** When the whale jumped onto me, my father had just died, and we were very, very close. So when these kind of major things happen, you do reevaluate your life and what you'd like to contribute to. I think I was mostly very happy to be alive afterwards. It felt more like a second chance, because I was so sure that we were both going to die. It was like being underneath a [rock slide](#) on a mountain road or something. You think "I'm never gonna get out of this." And so I felt very [joyful](#). And I was also very [inquisitive](#) because the sensation of the experience was so totally different from anything else

I've ever seen or felt. And then, I think, I was very disorientated by becoming a viral video. In a way I didn't really follow the story, it kept following me. People kept getting in touch with me, scientists would say "Oh, we can tell you who that whale is."

## A PERSONAL JOURNEY

That near-death experience inspired Tom to learn everything he could about the incredibly complex communication system of whales and cetaceans in general. Perhaps one day he could communicate with that very whale, which was later identified by a scientist as a [bull](#) (a male) and [tagged](#) with a GPS tracker. Tom's journey took him around the world, from the coasts of Dominica and Cornwall to the forests of Hawaii, as well as to the Bioacoustics and Comparative Linguistics departments of various universities. This [quest](#) ultimately led to the creation of his book *How to Speak Whale*.

## WHALE CULTURES

After interviewing scientists from many disciplines, Tom concluded that we actually know very little about these marine [mammals](#), the largest animals on Earth. However, one thing we do know is that different whale populations in distant parts of the world develop their own distinctive cultures and even dialects. A [striking](#) example of this cultural development is the case of orcas that have been [sinking](#) yachts in the Strait of Gibraltar. Scientists believe that the killer whales are not attacking the ships, but are instead playing with their [rudders](#), treating them as toys. This type of behaviour seems to be spreading across different orca populations, as Mustill explains. **Tom Mustill:** What's interesting about that example is that the world is full of [fads](#). The world is probably full of animal [trends](#). They have very different cultures in different places. So the [question](#) that biologists ask is, "Where do these cultures come from? How do you begin a new culture?" You can begin doing something for one reason, like in England at Christmas, we take a tree inside a house and we decorate it. Now, maybe at the beginning there was a function to this behaviour, but now it's just our culture. It's what helps us as a group feel together. Sometimes they could be useful, sometimes not useful.

You know, we made fire, we have experimented and noticed which kind of [berries](#) we can eat and which ones we cannot eat. You know, if you're an animal trying to survive, playing is actually a sort of research and development part of survival. All of these different behaviours, they could easily have started in playing, in a fad. Because if you're a big [predator](#) and you live in the sea and there are many different opportunities, you must always explore and play and innovate.

## BACK TO THE WATER

As they are [mammals](#), cetaceans have warm blood and breathe through their lungs, like we do. They give birth to their [calves](#) and [nurse](#) them with milk. According to paleontologists, the ancestors of the whale — also [distant relatives](#) of ours — once lived on land. About fifty million years ago, somewhere near modern-day Pakistan, they returned to the water. In the depths of the seas, they developed a highly sophisticated communication system that allowed them to work together and [thrive](#) in this new environment. **Tom Mustill:** Cetaceans have been communicating with their voices and controlling their voices for maybe tens of millions of years more than humans on land. So it's thought that maybe we have only had a couple of million years that we could really communicate with our voices. There are ninety, maybe [\[ninety-\] plus](#) different species of cetaceans, and some are more solitary and some are more social. But if you are a social animal, your big challenge is cooperation. There are social animals all over the world, even if they're elephants or bees... Social species occur in all different kinds of animals. So culture is something that happens across many different kinds of animals because of evolution, because it is so useful. Because whales and dolphins live in many different seas and rivers all over the world, they cannot have the same culture in a different place, the same way of behaving. And that culture means is a behaviour that you must learn from somebody else and must be taught. For instance, [sperm whales](#), they hunt in very different ways and they talk in very different ways, and that is because of their cultures.

## WHALE SONGS

Whale calls are highly complex. Much like birds, their vocalisations are called 'songs' because they follow repeating patterns that can last up to twenty minutes, with a range of [pitches](#), from [high squeaks](#) to [deep, mournful moans](#), that can reach up to 230 decibels, louder than a [jet engine](#), says Mustill. **Tom Mustill:** I spent a lot of time with whales singing and [I was struck](#) by how much effort it is. The males, they swim across a whole ocean. They do not eat for months. They stay in the same place, they're singing, they're listening, changing their song, performing it day after day after day. [American zoologist] Katy Payne, she thinks it's just a demonstration for the females. It's sexual, but it's a way for demonstrating their attractiveness. A bit like the [tail](#) of the [peacock](#); it's unnecessarily complicated, but it is exactly the right level of complexity for the female [peacock](#). It gets more complicated when you can hear little bits from the songs when the females are hunting and talking to each other. And the coolest thing is we're only just accepting that other animals can have songs and cultures and personalities. But to define what songs mean, what kinds of personalities, what are the cultures, is really still a mystery.

## KILLING WHALES PLAYING

For centuries (and still today), whales were hunted and turned into commodities such as dog food, fertiliser, lubricant, margarine and even [chewing gum](#). Nevertheless, there has always been a mutual curiosity between whales and humans, as Mustill explains. **Tom Mustill:** The thing that surprised me most with my interest in where humans and animals meet is that whenever I've gone in the sea or been on a boat is how interested in humans whales can be. If you go to Baja [Mexico] [gray whale](#) mothers will bring their [calves](#) over to people in boats and let them [rub](#) them and touch their tongues, and they push their babies towards the boat. These are the same animals that maybe we were hunting. Most people don't realise that they're next to whales and that they could probably see them easily. In the UK we have [blue whales](#), [pilot whales](#)... I was surfing in Cornwall, where I live, a month ago and a [minke whale](#) came up to me in the water. And it just sat there, like as far as that wall is there.

## IMPLICATIONS

Mustill's book is filled with fascinating [insights](#) that have [far-reaching](#) implications for subjects like the nature of language and the definition of consciousness. More importantly, it introduces new arguments in the debate about humanity's role in nature and the increasingly plausible possibility of interspecies communication. According to him, the meeting of AI and nature holds incredible potential — either beneficial or [harmful](#), depending on how we choose to use these tools. He wrote this book, he says, to encourage people to take this idea seriously. **Tom Mustill:** We are already using AI to control animals in agriculture. So many millions of animal lives are already being manipulated using AI. And we have this acceptance that AI is a powerful tool and it can be bad. The story of conservation biology is full of good intentions with bad [outcomes](#). And we're having these discussions in our society about how to speak to whales: How do you do it the right way? Are there places where humans and animals can interact and it's good for both of them? Because we have a view of ourselves that we are bad and that the best thing for nature is that we are separate. I think that that kind of self-hatred is quite dangerous. And I think this is maybe [tied together](#) with this idea of progress. But if you study nature, it's hard to think of progress. You know, what is improvement? What is progress? There's just many different kinds of life existing and coexisting and interacting. And actually the story of nature is collaboration, survival through cooperation. And yeah, there is competition, but we are a social animal, not a solitary animal. We have survived not because of our [claws](#) or our teeth, but because of our social nature.

## WHAT TO SAY

After this [enlightening](#) journey, has Tom decided what he would say to the [bull](#) that jumped on top of him — if he could speak whale? **Tom Mustill:** Well, I guess I'm more interested now in listening than saying hello. I think at the beginning of the story I was very [self-centred](#). I wanted to know 'Why did you do that to me?' But now, I don't think that's the most interesting [quest](#)ion. I guess I would love to say "Tell me what is exciting or interesting or

important for you." I guess the best conversations just begin with saying hello and then you see where it goes. [www.tommustill.com](http://www.tommustill.com)

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# Glossary

- **landed** = atterrare
- **rock slide** = frana di roccia
- **calves** = balenotteri (plurale di calf)
- **tail** = coda
- **chewing gum** = gomma da masticare
- **far-reaching** = di ampia portata
- **inquisitive** = curioso
- **mammals** = mammiferi
- **high squeaks** = alti squittii
- **deep** = profondi
- **harmful** = dannoso
- **outcomes** = risultati
- **self-centred** = egoista, egocentrico
- **fellow** = compagni, colleghi
- **joyful** = gioioso
- **bull** = balena maschio
- **striking** = eclatante
- **berries** = bacche
- **predator** = predatore
- **distant relatives** = parenti lontani
- **[ninety-] plus** = più di novanta
- **moans** = gemiti
- **tied together** = mettere insieme
- **claws** = artigli
- **tagged** = etichettare
- **fads** = mode
- **mournful** = afflitti
- **jet engine** = motore a reazione
- **insights** = conoscenze
- **quest** = ricerca
- **sperm whales** = capodogli
- **pitches** = toni
- **I was struck** = impressionare

- **breached** = emergere
- **sinking** = affondare
- **rudders** = timoni
- **nurse** = allattare
- **gray whale** = balena grigia
- **blue whales** = balene azzurre
- **humpback whale** = megattera
- **fibreglass vessel** = imbarcazione in fibra di vetro
- **trends** = tendenze
- **peacock** = pavone
- **enlightening** = illustrativo
- **thrive** = prosperare
- **rub** = accarezzare
- **pilot whales** = balene pilota
- **minke whale** = balenottere minore