



Encyclopedia of Life

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Killer Whales Podcast and Scientist Interview

Orcinus orca

Imagine yourself immersed in a chilly, blue, three-dimensional world, one where vision isn't much use but sound travels far. That's the leap of the imagination demanded of scientists like Volker Deecke who study killer whales. Deecke and his colleagues must sort myth from science to learn the secrets of these consummate predators. Ari Daniel Shapiro reports from the Shetland Islands.

Transcript

Ari: From the Encyclopedia of Life, this is One Species at a Time. I'm Ari Daniel Shapiro. Before becoming a radio producer, I used to be a killer whale biologist. And I still have a few friends who study killer whales. Like Volker Deecke.

Deecke: Killer whales are great animals. They fascinate me a lot.

Ari: He's a biologist at the University of Cumbria in England.

Deecke: I love the challenge of having to think like a killer whale. You know, having to strip your biases as a terrestrial, visually based mammal, and now have to try and understand what life might be like for an animal that lives in a 3-dimensional world where vision is not very useful, where sound travels for large distances.

Ari: Whales are both real and mythic at once.

Deecke: The one thing that I always notice about whales is people use them as a canvas, you know? The white whale, people just color them in and project whatever they want onto them. And the less you know about an animal, the more you can do that.

Ari: So before we go any further, let's color in the killer whale – scientific name *Orcinus orca*. They're found all over the world, but each population feeds on something different. In Norway, they eat fish, mostly herring. In Alaska, one population eats marine mammals, including seals and porpoises. But it's not just the diets that distinguish the two groups. These are the

Norwegian fish eaters. Their calls are loud. They echolocate, using sound like an acoustic strobe light to scan their surroundings and find fish. Now, here's a recording of the Alaskan mammal eaters, in pursuit.

They're silent. The seals and porpoises they eat have excellent hearing, and a vocal killer whale would tip them off and help them escape. But hearing in fish tends to be poor. So it's okay for those killer whales to be vocal.

Both types of orcas spend a lot of time in pursuit, waiting for and following their prey. And it's not unlike how killer whale researchers wait for the whales to show up – chatting with one another, scanning the water from a windy bluff.

Deecke: I mean, you're just looking for little irregularities in the water. Anything vertical really sticks out on this horizontal landscape.

Ari: Volker Deecke is speaking from Fitful Head, a lookout in the south of the Shetland Islands, which are about 80 miles to the north of Scotland. He and his field team want to know whether the Shetland whales eat fish or mammals. But to get close enough, they first have to find the animals by spotting them from land. And that takes a lot of waiting. Andy Foote is a member of the field team.

Foote: I think when you first get into working with whales, you almost jump at every wave or marker buoy. And as you get a little bit more experienced, you wait for it to come up a second time and make sure, and you're like, ha, OK. Just that sense of excitement, where all of a sudden your – the hairs on the back of your neck stand up a little bit, and then you've got your whale.

Ari: Day after day, while we stood there looking for whales and not seeing any, there were often tourists and locals observing us, trying to make out why we watched the waters around us so hopefully. Some folks understood what brought us here...like Gordon.

Gordon: When I was a kid, a teenager, we used to go bus spotting.

Ari: Oh, yeah.

Gordon: And we had special books with all the buses in them and all the different types of buses. And we used to go in different garages and sit behind the wheel and vroom, vroom, vroom, you know?

Ari: That was your thing.

Gordon: That was my thing.

Ari: So you can understand how you could get really interested in something?

Gordon: I can understand how a person could be interested in a worm or a killer whale or a bird or whatever.

Ari: But others weren't quite so convinced, like Tom.

Tom: Could I do it? Not really.

Ari: How long would you wait up here?

Tom: Well, if I thought I was going to see one, I'd probably stay a half-hour or an hour.

Ari: Would you stay here for three months?

Tom: Oh, no, no, no. No, thank you.

Ari: In three months, Volker Deecke's team only managed to follow killer whales in Shetland 12 times. But it's a start. They saw the orcas targeting marine mammals, namely harbor seals, as prey. But they can't rule out the possibility that they feed on fish too. That just means more research, and Deecke's looking forward to it.

Deecke: Having the time to immerse yourself into the place and just go beyond the first impression, I think is a real privilege in itself, whales or no whales. So, that's certainly what keeps me going.

Rocco: With killer whales, it's incredible.

Ari: That's field assistant Alice Rocco.

Rocco: Like the first time we saw them, to me the male was extremely sensual - you know, like he had these sexy movements going on. Looked like he was a dancer or something - a really good dancer.

Ari: And it's not just the biologists that get infatuated. Local Shetlander Derrick Herning watches killer whales from shore.

Herning: You get a thrill from seeing a killer whale. I mean, I know they're cruel, that they play around with the seals. They toss them up in the air and all the rest of it. But it's still a marvel of nature, this - it's a beautiful whale, the killer whale. So I take my hat off to it. I don't wear a hat, but never mind.

Ari: Killer whales capture the imagination. And maybe that's because of their very elusiveness, the way they disappear beneath the water's surface into their own world, leaving us behind on the shore, wishing we could see them just once more. A love like that can sustain you for a lifetime.

I made a video of my time studying killer whales in Norway. Have a look at eol.org.

Our series, *One Species at a Time*, is produced by Atlantic Public Media in Woods Hole, Massachusetts. I'm Ari Daniel Shapiro.

Meet the Scientist

Meet Dr. Volker Deecke, the scientist featured in our Killer Whales podcast:



Where do you work?

I work at the Centre for Wildlife Conservation, University of Cumbria, UK.

What do you study?

Using animal behaviour research as a conservation tool.

What are three titles you would give yourself?

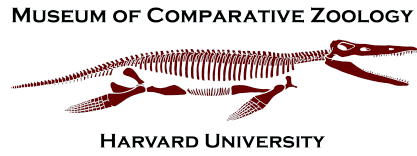
Field biologist, science geek, nature lover.

What do you like to do when you are not working?

I love kayaking and spending time outdoors. Interested in all sorts of wildlife from insects to whales.

What do you like most about science?

I love the challenge of trying to understand animals who live in an environment so utterly different from our own.



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