Ocean Gazing: Episode 29
A 60-ton wake up call
The Podcast of Life

<begin music>

Ari: This is Ocean Gazing, the podcast where we hitch a ride on the backs of creatures roaming the deep blue sea. I'm Ari Daniel Shapiro. <fade down music> This time, I want to play for you the first episode of another podcast that I host and co-produce called the Podcast of Life. It's for a group called the Encyclopedia of Life, an online, evolving encyclopedia of every species on the planet. Each episode of the podcast features a different marine organism, and you can find out more online at eol.org/podcast. Our sonic stumper from last time starts the episode right off. It's music composed by Georg Brandl Egloff.

<cue up intro music>

Ari: It's the Podcast of Life, the story of one organism at a time. I'm Ari Daniel Shapiro.

For a week just before I started my senior year of college, I went up to Lubec, Maine.

It's about as far east as you can go in the US. Actually, it *is* as far east as you can go... And it's the summer home for researchers studying northern right whales.

I went up there to help Susan Parks.

Parks: Hi, Ari.

Ari: That's Susan. She's a research associate at Penn State now. But at the time, she was 23 and in grad school.

The first morning I went out on the Bay of Fundy with Susan was my first time doing fieldwork at sea. The water was glassy.

On our 15-foot boat, I felt like I was inside a bubble, kinda going out, almost in a blind. And kind of invincible. I felt safe. And excited.

Parks: You know, you're working with these 50-ton animals that are unpredictable.

Ari: Susan was studying how right whales communicate. Testing whether female calls could lure males in from a distance and have them form a social group at the surface. They're called surface active groups and seem to be important for mating. Can be as small as 2 or 3 whales or as big as 30 to 40.

Parks: So I really wanted to figure out how the whales were finding each other in these groups.

Ari: When *we* found whales in the distance that morning, we stopped the boat and set up shop. We had to play the female calls into the water. So we gently lowered a speaker the size of a car engine over the size of the boat.

Parks: Yeah, really the most stressful thing of doing those playbacks was getting the speaker in the water.

Ari: After monitoring the whales for a bit, Susan pushed play on her CD player.

<cue up right whale recording>

Ari: This is what we played. And boy, did it have an effect.

Parks: Whales came in from all directions and formed a surface active group about 5 or 600 meters away from the zodiac.

<cross fade underwater recording of a surface active group>

Ari: That's not very far. It's 5 or 6 football fields. There were 10 or 15 whales in the group we were watching, and lots to keep track of.

Parks: There's a lot of white water and splashing. And you'll see various body parts: flippers and tails.

<fade down surface active group recording>

Ari: We looked on for a while, and then…

Parks: There was a young animal. It looked like a juvenile that seemed to decide to leave the group. And it's not atypical for this to happen but the whale started breaching as it was leaving.

Ari: That is, coming up out of the water almost entirely and splashing back down again.

Parks: And I was definitely concerned because it was heading straight for us.

There was the second breach that came about a minute later. <cue music> And then I know we were very concerned about what was going on. And this was really the first time that I ever remember being scared for my life. This weird calm came over me, this sort of acceptance that, ok, so if this whale keeps breaching and keeps going the direction that it is, there's a really high possibility that it would land on the boat.

Ari: 'Cause I was sitting in the captain's chair, I think, listening to the whales. Even as the animal came up – I think even the second time – I'm like, oh, wow, this is amazing!

Parks: I think we had the engine started by the second breach and on the third breach we were starting to move.

Ari: But it came down right where we were.

Parks: Yep, in my notes it says the fifth breach landed exactly where we had been.

Ari: Oh my God.

Parks: And I don't in any way, looking back or even at the time, I never felt the breaching was directed towards us. We just happened to be in the wrong place.

Kraus: I would agree with that.

Ari: Scott Kraus was on one of the other research boats that day and watched the whole thing happen. He's VP of research at the New England Aquarium.

Kraus: I think that the thing about breaching is they're not paying as much attention as they normally do.

Ari: Kraus admits we attracted those whales to us in the first place.

Kraus: Whales are curious, especially boys are curious about girls. And if you make a sound like a girl, you're gonna get males.

Ari: But Kraus says that as long as we had that motor running, the whale would've probably heard us and avoided us. We would've been fine even if we hadn't moved outta the way.

Ari: So we weren't necessarily doomed.

Kraus: You weren't doomed.

Ari: Regardless, it's not something we're gonna forget anytime soon.

Parks: And the thing I remember on the last breach – the whale was pretty close on the last breach – but they have this large lip that goes from the lower jaw up to the roof of the mouth. And I had always thought of this as a really solid piece of whale. And when this whale was breaching, that lower jaw – that lip – was wiggling. We were close enough to see the shaking of the body parts from the force of coming out of the water. Like that's the part that really stuck with me: that I never want to be close enough to see the lips of a right whale wiggle.

Ari: But it was because Susan did those playbacks and did get close a bunch of other times that allowed her to say something important about these whales.

Kraus: The work that she did was really the confirmation that these females were calling to initiate reproduction.

Ari: Susan's work's even more important considering that northern right whales are endangered. Understanding how they reproduce is crucial to ensure their survival.

<fade up closing music>

Ari: That's our podcast. If you go to our website – www.eol.org/podcast – you can find pictures of right whales. We've even got photos of the babies, which are the size of a Volkswagen. Also, did you know that a right whale testicle weighs a ton? Really, a ton. You can hear Susan and Scott share more about their encounters with right whales on the website. Until next time, send us email to let us know what species you'd like to hear featured. You got millions to choose from.

<sustain closing music>

Ari: Alright, here's our new sonic stumper.

<fade up sonic stumper; cross-fade to outro music>

Ari: Send us your guesses for the stumper and come check out a couple of right whale photos by visiting our website: oceangazing.org.

Thanks to Viki Merrick, Jay Allison, and Atlantic Public Media, the co-producers of the Podcast of Life. The Ocean Gazing podcast is a product of COSEE, and we're supported by the National Science Foundation.

<fade up outro music and sustain until it ends>