

Ocean Gazing: Episode 43

Thunnus thynnus

<intro music>

Ari: This is Ocean Gazing. It's the podcast where we ride along on the creatures and waves surging beneath the surface of the sea. I'm Ari Daniel Shapiro. This time I'm playing an episode from another podcast I host and produce for the Encyclopedia of Life. The series is called One Species at a Time, and each story is a tribute to a different creature that swims, scampers, flutters, wriggles, burrows, or blossoms. You can find more episodes at eol.org. Stay tuned.

<spooling line & boat ambient>

Cummings: Keep that rod tip steady, man, you don't have to do that with that bait.

Ari: Andrew Cummings has been tuna fishing for 11 years off Cape Cod in Massachusetts. And specifically, Atlantic bluefin tuna. They're streamlined, like torpedoes. They're purple and azure, and they weigh up to a thousand pounds each. Over the years, Cummings has really gotten to know these fish, though he usually works with smaller, 200 pounders.

Cummings: It's all about having contact with a truly, really, really wild animal that has seen more and done more than any human could ever imagine. I think it's intimate, it's a very intimate experience. And I have tremendous amount of respect for these animals.

Ari: Five years ago, Cummings realized that these tuna were being overfished: that people were taking way too many from the water. So these days Cummings isn't catching and selling tuna for food. Instead, he's catching and releasing them for science. <fade out boat ambi> Lemme explain.

Cummings works with a handful of scientists –

Lutcavage: I'm Molly Lutcavage.

Ari: – including Molly Lutcavage at the University of New Hampshire. They're attaching tags to wild Atlantic bluefin tuna.

Lutcavage: The tag itself looks like a cigar, which is basically a computer, a very small computer that we can attach to the outside of the fish.

Ari: Each tag gathers information about the migration path of a single fish.

Lutcavage: Pretty much shows us the – let's call it the daily life of a giant bluefin tuna.

Ari: If all goes well, the tag pops up to the surface a few months later and beams all its data back to Lutcavage. And these tags, they're revealing secrets about the Atlantic bluefin tuna.

Lutcavage: There's no way on Earth you would've guessed that these giant bluefin could be dispersing to 4 or 5 different parts of the Atlantic. Some fish go to, say, Spain or Ireland, some fish go to the Gulf of Mexico. But what's interesting is: you tag them in one place, they look the same, they're the same size, but they have different patterns for where they go to feed.

Ari: And feeding, <fade up boat ambi> says fisherman Andrew Cummings, is what these fish do best.

Cummings: It's just they're the perfect animal: they're the perfect feeding machine. I mean, they live for one thing only, and that's eating.

Ari: <fade out boat ambi> Well, of course, there *is* a second thing, which is reproducing. In fish, it's called spawning: that is, fish spraying their eggs and sperm into the water. And Lutcavage's tags show the tuna aren't all going to the same place to spawn.

These results have both scientists and fishermen excited. Knowing basic facts about these fish like where they go to eat and where they go to make bluefin tuna babies is revealing how many there are and how to fish for them responsibly.

So that's *why* the tagging is important but what about the *how*? How do you actually tag a wild tuna?

Lutcavage: Tagging bluefin tuna has gotta be one of the most exciting things you could ever do. We started tagging by working with what we could call very elite fishermen that developed ways of getting, say, an 800-pound giant bluefin tuna, which is like getting a Volkswagen on a fishing line, alongside the boat while we the taggers lean over the side of the boat and plant the dart of this satellite tag into the back of that fish. I have to say that being eyeball to eyeball with a 1000-pound bluefin that's swimming in the sea next to your boat is probably the height of an experience. And then actually removing the hook from the animal, and we have this extreme pleasure of watching this giant, beautiful animal swim away.

Ari: So tagging is how to follow tuna around the ocean for months at a time. Some of our student listeners had other ideas.

Kid 1: Go on a submarine.

Kid 2: Make a camouflage underwater dome.

Ari: So you'd kinda be in an underwater igloo almost?

Kid 3: Put on a snorkel, go underwater, and follow it.

<fade up boat sound>

Cummings: Right now you're into that second-guessing mode where you never wanna leave fish to find fish.

Ari: Now, not every trip out onto the water means catching and tagging a fish, but Andrew Cummings couldn't image doing anything else.

Cummings: People say, "Well, why you doin' it at all?" And I think it's: either you get it or you don't. I love being out here with 'em. I love seeing them. To me is...it's just awesome.

Ari: Lutcavage is just as inspired. She told me a story about these tuna and one of the smaller types of fish they eat called sand lance.

Lutcavage: A school of giant bluefin came up on each side of our boat, and they were actually in the air chasing sand lance. So we were completely surrounded by an airborne school of giant bluefin chasing an airborne school of sand lance. It was over very quickly, but it was like being in a herd of buffalo chasing their food. But what's amazing to me is the Latin name of bluefin tuna is *Thunnus thynnus*. And I'm not a Latin expert, but I'm told that that means 'rush,' 'rushing' and all I can think of is the name was absolutely apt for the sound that they made when they're in the air chasing their food.

<fade up 'whooshing' music and sustain music beneath last track>

Ari: One Species at a Time is produced for the Encyclopedia of Life by Atlantic Public Media in Woods Hole, Massachusetts. You can hear more about bluefin tuna and see an assortment of tuna tagging photos by visiting our website: oceangazing.org.

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<fade up music and sustain>