



Encyclopedia of Life

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## Chinook Salmon Podcast and Scientist Interview

*Oncorhynchus tshawytscha*

Can painted wooden fish on a schoolyard fence change human behavior and help clean up the ocean for the real salmon? Stream of Dreams in British Columbia thinks so, and a lot of wooden fish and some 100,000 school kids later, they have some intriguing results to show for their effort.

### Transcript

**Ari:** This is the One Species at a Time, the story of Earth's biodiversity, one organism at a time. I'm Ari Daniel Shapiro.

**Towell:** This is the good news for you guys, you guys get really big fish.

**Kids:** Yesssssss...

**Towell:** Normally you get fish that are a little bit smaller, but this is all I got, so you get these ones.

**Student:** We get humongous fish.

**Student:** I want a big fish.

**Student:** I want a big fish.

**Student:** Big fish, thank you.

**Student:** So we color the white part?

**Ari:** Maybe you've guessed: these aren't real fish. They're called "dreamfish". Thin pieces of wood, each cut into the shape of a swimming salmon. And these 6th graders at Willoughby Elementary School in Langley, Canada near Vancouver get to paint them.

**Towell:** And today is lucky, cause you get to paint whatever you like. You can put hearts or stars or rainbows. You can put polka dots. You can make it look like a real fish. You can put a big eye with faaahbulous eyelashes. You can put a little mouth with very sharp angry teeth with blood coming out of it. <kids groan> Whatever you like...

**Ari:** That's Louise Towell. She's one of the co-founders of a group called Stream of Dreams. They visit schools all over British Columbia – that's western Canada – and teach about salmon. Joan Carne is the other co-founder.

**Carne:** Our main goal with our program is to get people to understand what they do in their own homes, in their own yards is going to affect the water that salmon live in. And the water that drains off their homes and their streets goes directly into salmon-bearing waters here. And one of the big issues for salmon is water quality: both streams, rivers and out in the ocean.

**Ari:** Clean water is vital for each of the 6 different types of salmon living in the waters near Willoughby Elementary School. One of those types of salmon is the Chinook.

**Riddell:** Well, the first thing about a Chinook salmon is they're typically big. You have some populations that can frequently have animals returning at 80 and 90 pounds.

**Ari:** Brian Riddell is the director of the Pacific Salmon Foundation in Vancouver.

**Riddell:** You notice them because they are a glistening silver in the ocean, and that they're deep bodied. Very, very powerful tails. And they have black speckles across them. They really look like power to me. A big Chinook salmon is really a remarkable animal when you see 'em in the wild.

**Ari:** Chinook salmon emerge from their eggs in the gravelly beds of streams and rivers all over British Columbia. Eventually they swim into the ocean where they grow bigger and fatter. And after anywhere between 3 and 7 years, they swim back to the same gravelly bed in the same stream or river where they were born in order to lay their own eggs. These salmon really touch and depend on all kinds of water. Here's Joan Carne in the classroom.

**Carne:** The reason I like the salmon for Stream of Dreams is they need clean water in streams, they need clean water in the river, and they need clean water out in the ocean. So if we think salmon, if we take care of water for salmon, we're looking after all the creatures that need clean water wherever they live.

**Ari:** Carne thinks of Chinook salmon like silvery threads.

**Carne:** They're a thread, I like that. They connect the ocean to the forest. They connect communities up and down these huge rivers to each other. I sometimes think of our rivers as

highways. And we think of highways running two ways, though most people think of rivers running one way: the water goes downhill. But when you have salmon, the rivers run backwards because the salmon take nutrients out of the ocean and deliver them way upstream up into our communities, feeding the forests and all the other creatures. So there's that thread as well. They're, they're, they pass through us in many different ways.

**Ari:** The Stream of Dreams team weaves together these threads when they visit a school like Willoughby. The students first learn that the water they rinse down the sink, flush down the toilet, wash off their cars – in fact, that passes through any drain – flows to the places where salmon like the Chinook live. Everything's connected, so it's important to keep that water clean and safe. Then, the kids paint dreamfish, which are attached to a chain-link fence around the school.

**Carne:** They take a boring barrier of a chain link fence and transform it into a children's art gallery. You have to imagine little wooden shapes of fish painted in all the colors of the rainbow. These are children's artworks. And then when we arrange them, we make a stream out of these dreamfish. And the stream has bends and curves and meanders and waterfalls. And they're joyful, they're colorful, and they're there to celebrate the salmon as well as remind people that we share our neighborhoods with these beautiful fish.

**Ari:** The kids at Willoughby came up with lotsa great ideas for painting their fish to share with their neighborhood.

**Student:** My fish is bright orange, and it's gonna have, like, stripes and stuff.

**Student:** I'm painting a fish with red eye and mustache, probably a weird fish.

**Student:** I'm painting a rainbow fish.

**Student:** I mix some of the colors like orange, red, blue and pink to make a sunset.

**Student:** It's kind of like a motherboard of a computer. It has kinda wires going through the fish.

**Student:** I'm just randomly doing blue and green colors with a gray face and I'm just mixing a whole bunch of colors for fun, cause I have no ideas. So I'm just gonna do something till I get it, till I get what I want.

**Ari:** Along the fences of schools across 3 Canadian provinces and Washington State (USA), the dreamfish dance. And now the dreamfish are traveling along the actual highways of Canada. Brian Riddell took me outside to show me the back of his Jeep where a dozen dreamfish decals – deckles if you're Canadian – were arranged. One nibbled on the left edge of his rear license

plate. Some swam along the bumper. This mural on the back of his Jeep gets a lot of attention.

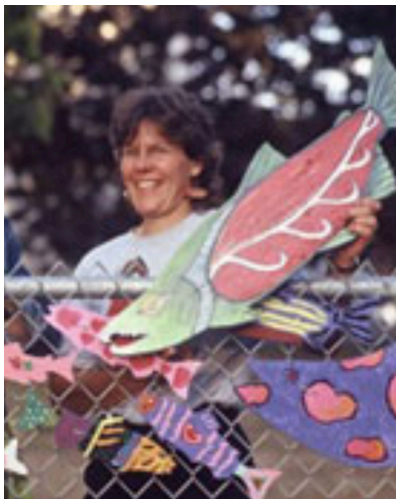
**Riddell:** The kids love it because they see me driving around with what they know are the Stream of Dreams deckles.

**Ari:** With each dreamfish painted and then mounted or magnetized, another young person learns how important a Chinook salmon is. And how connected these fish are to the water on our planet. To clean streams. To pristine rivers. To a healthy ocean. One by one, the students are spreading the message.

**Carne:** Here we are, ten years later, nearly 100,000 young people have participated. I think 100,000 young people can change the world. You have more power than you know: in your choices when you buy, in the people you speak to, in the behaviors that you model, you have an incredible power for change.

## Meet the Scientist

Meet Joan Carne, who you heard featured in the Chinook Salmon podcast:



### ***Where do you work?***

Stream of Dreams: Eco-education through community art. We are located in Burnaby, British Columbia, Canada and run programs in Canada and the Pacific Northwest United States.

### ***What do you do?***

Eco-education with a focus on clean water in streams, rivers, lakes, groundwater and the ocean for salmon, other water creatures and people.

### ***What are three titles you would give yourself?***

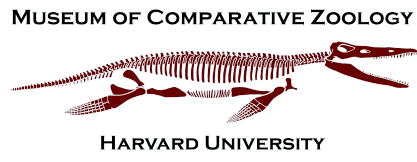
Mom, streamkeeper, violinist, geologist. (oops one too many!)

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

Walk the dog to visit Byrne Creek, work on house renovations, play violin in a community orchestra.

***What do you like most about science?***

The opportunity to work with thousands of young people and their teachers and watching the light bulb go on when they understand how they are connected to fish habitat and their drinking water.



The One Species at a Time podcast series is supported by the Harvard Museum of Comparative Zoology.