

**SAVING THE OCEAN  
SWORDFISH! PART 2 TRANSCRIPT**

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TEASE

**Carl Safina (narration)**

On this edition of Saving the Ocean, we're going out with some of the last swordfish harpooners.

**Derek "Hoss" Atwood**

Swordfish!

**Carl Safina (narration)**

We'll experience the thrill of the hunt...

**Derek "Hoss" Atwood**

There you go!

**Carl Safina (narration)**

and the satisfaction of landing the prize.

We'll also see why this is the most sustainable fishery around...

**Fish grader**

A plus. Going in the big vat.

**Carl Safina (narration)**

and how swordfish are the world's best large fish comeback story.

**Carl Safina**

I'm Carl Safina. Join me now for Swordfish!

## FUNDER CREDITS

### **Announcer**

Major funding for Saving the Ocean is provided by:

The Kendeda Fund -- furthering the values that contribute to a healthy planet.

And by Okeanos -- foundation for the sea.

## INTRO

### **Carl Safina**

Hi, I'm Carl Safina. No matter where I travel I always return here, to walk, feel the seasons change... I've been coming here since I was a kid.

Now I'm a marine biologist and I write books about the ocean -- that magic, majestic, two thirds of the planet that starts right there in the surf.

In my travels I see pollution, overfishing, coral reefs in trouble. But I also meet inspiring people, working to solve problems.

In this series, we visit people with solutions, and places getting better. So I hope you'll join me on these journeys. It's all about Saving the Ocean.

## **SWORDFISH! Part 2**

### **Carl Safina (narration)**

Previously on Swordfish!, we steamed south overnight from Nova Scotia, to reach the swordfish grounds 100 miles offshore.

We've come to see swordfish harpooning. It's the most sustainable way to catch these fish.

### **Derek "Hoss" Atwood**

There you go!

On our first day we hauled in two fish, but lost one when the harpoon was blocked by the fish's backbone.

On our second day we harpooned two more fish, but one of those was a backbone hit too, so we're anxious to see if it's still on the line.

Shawn brings in the high flyer, as it's called, joined by Larry the skipper.

The concern they all have is voiced by Hoss.

### **Derek "Hoss" Atwood**

It would be nice to get him up alongside the boat. That way once you get him up alongside the boat we know we got him then. I mean he's on there you can tell.

### **Larry Sears**

He's on there, yeah.

### **Carl Safina**

You gotta be gentle because you don't want to yank the dart out on a swell so when the swell rocks the boat up, you have to give a little, when it rocks the boat down you have to try to gain some rope. Not that I'm an expert at this, this is the first time I've ever tried it. If it's alive, I'm gonna be stepping back. Here it is, here it is.

### **Derek "Hoss" Atwood**

Here he comes.

**Carl Safina**

That is one awesome creature, an incredible incredible animal.

**Carl Safina (narration)**

It's a terrific fish, about 200 pounds. Harpoon boats only get a few fish a day, so every one counts.

**Carl Safina**

I'm thinking really what an unbelievable animal this is and we know almost nothing about it except how to kill it. That's what we know most.

**Carl Safina (narration)**

I'm not against fishing – I'm a fisherman myself. But I do have mixed feelings.

**Carl Safina**

Swordfish do most of their feeding really deep. They're really deep water animals and they have an enormous eye that helps them to gather light, obviously, in the dim deep water where there isn't much light.

One thing you can't see by looking at them is they have a very special muscle in their head. It doesn't move like all other muscles do but it metabolizes so it just creates heat. And the heat warms up the brain and the eyes of the fish so it can be mentally really alert and visually very acute. And that gives it a tremendous advantage when it's hunting over the purely cold-blooded animals like squid and other fish that it's hunting for.

**Carl Safina (narration)**

Now we're hauling the fish we harpooned first thing this morning.

**Carl Safina**

So this is a bigger fish right?

**Larry Sears**

I think it's a bigger fish yeah. Seems to be, looked like it was. But I'd say it's close to a 200-pound fish.

**Carl Safina**

Yeah. In any kind of fishing, it's always exciting to see what's at the end of the line.

**Larry Sears**

Oh yeah. Wait and see game isn't it? Yeah

**Carl Safina**

That is a big fish.

**Larry Sears**

He's a nice one yeah, right here.

**Carl Safina (narration)**

This one's more like 250 pounds, and could be worth about \$1,000 at the dock – more than half the boat's income today, so far anyway.

**Derek "Hoss" Atwood**

OK. As good as you gonna get old boy.

**Carl Safina**

Seven in the evening, we're still looking for fish. Up above, Hoss and Shawn spot something.

**Derek "Hoss" Atwood**

Shawn you see him?

**Shawn**

OK Hoss

**Carl Safina (narration)**

But it's an old joke. A wooden swordfish launched from one of the other boats.

**Derek "Hoss" Atwood**

Oh well. It's a piss off but what can you say about it, isn't it? They had it rug up pretty real, where it looked pretty good from a distance. Oh well, now the next one be the real one we hope.

**Carl Safina (narration)**

But there was no next one that day.

**Derek "Hoss" Atwood**

Good morning. Now it's time to get some breakfast cooking I guess.

**Carl Safina (narration)**

Overnight bad weather has moved in, and now our small boat's bouncing around.

**Carl Safina**

Alright. This is, ooh, it's a little bit different than zero gravity here. Not quite the same as being on planet Earth.

**Derek "Hoss" Atwood**

You're not sitting very still all the time. Here we go.

**Carl Safina (narration)**

It's not going to be an easy day for harpooning.

**Derek "Hoss" Atwood**

Do you want a couple eggs?

**Carl Safina (narration)**

Larry the skipper is going to be out at the front of the boat in what they call the bucket, aiming at a fish on the surface. Assuming there are any on the surface of course.

**Carl Safina**

So with a chop like this, will the fish stay up? It looks like it makes things harder right?

**Larry Sears**

We've hit fish in worse than this.

**Carl Safina**

Worse than this?

**Larry Sears**

Oh yeah, worse than this sometimes.

**Carl Safina**

Well, that's good to know.

**Carl Safina (narration)**

We'll be cruising along the edge of Georges Bank. That's where swordfish like to hunt in the deep, chilly water, then come to the surface to warm up.

**Larry Sears**

It's gonna be a interesting day. I have stuck fish in this kind of weather, probably a little worse than this. I've been out in that bucket sometimes and the bucket's gone under so I've been up to my waist in water, trying to get a fish.

**Carl Safina (narration)**

In spite of heavy fishing over the years, Georges Bank is still filled with life. Including a rare right whale that we were lucky to spot.

**Carl Safina**

Oh boy! The fact that the whale is here is just another example of why everything is here really. It's just a very productive place. Everything concentrates. Right from the beginning, the plankton at the base of the food chain, all the small fish, the squid. These right whales eat little, tiny things called copepods and there are trillions of them here and they draw the whales, they draw the small fish that eat them, squid that eat the small fish, the larger fish that eat those: the tuna, the swordfish, the dolphins, the sharks, everything is here.

**Carl Safina (narration)**

The harpoon boats are used mainly for lobstering closer to shore. But in the short summer when the swordfish are up here from the Gulf of Mexico and the Caribbean, the lobstermen come offshore to find them.

It takes great skill to handle a harpoon on a lurching lobster boat.

**Derek "Hoss" Atwood**

Swordfish! Swordfish, Larry, right here. See him, Larry? Look, right off here.

**Larry Sears**

Take your time, Hoss, take your time.

**Derek “Hoss” Atwood**

11 o'clock, Larry. See him right out here look about 50, 60 yards. I should be able to go down on him now. I should be good.

**Larry Sears**

Just get outside of him.

**Derek “Hoss” Atwood**

Yeah, that's what I gotta do. OK?

**Larry Sears**

Take your time now. Just swing her in slow. Swing her in now.

**Derek “Hoss” Atwood**

Yeah, I am.

**Carl Safina (narration)**

That silver box on Larry's harpoon is our HarpoonCam.

**Derek “Hoss” Atwood**

I am, Larry, just give me time. OK Larry? Go down on him?

**Larry Sears**

Go ahead of him. Stay ahead of him.

**Derek “Hoss” Atwood**

Go ahead of him a little bit? OK.

**Carl Safina (narration)**

There's just a few inches of fin above the surface. We can barely see it from this position.

**Derek “Hoss” Atwood**

There you go! Yeah, that's the way.

**Larry Sears**

Caught the camera agh! Caught the camera.

**Derek “Hoss” Atwood**

There you go! Yeah, that's the way.

**Carl Safina (narration)**

Larry placed the harpoon perfectly, but with everything flapping around in the choppy seas, the harpoon line gets looped over our camera.

**Larry Sears**

Back up.

**Derek “Hoss” Atwood**

Back her up?

**Larry Sears**

Hurry. I ain't gonna make it, no.

**Derek “Hoss” Atwood**

Cut your pole, Larry.

**Carl Safina (narration)**

The harpoon head could just pull out, and they'll lose a valuable fish.

**Larry Sears**

Can you unhook it? OK, OK.

**Carl Safina(narration)**

With the fish still swimming, we manage to untangle the line.

**Derek “Hoss” Atwood**

Is he still on it, Shawn?

**Carl Safina (narration)**

They won't pull it in right away. They want the fish to keep swimming, dragging the line and some floats, until it's exhausted.

**Larry Sears**

No, he's still on there, he's still on it.

**Carl Safina**

When that fish got struck, it didn't seem very alarmed. It didn't seem to understand something really bad had just happened to it and so, instead of a violent thrash and an attempt to really escape, it just sort of continued to swim and went down as though, “Oh what's all of this? Let me get out of

here.” But it wasn’t really alarmed and it didn’t really make a very violent move. And that’s, I think, why they had the time to get the line away from that tangle.

**Carl Safina (narration)**

Shawn tosses in the floats, all attached to the fish. We’ll come back for it later.

The harpoon boats keep fishing. The weather’s not quite bad enough to send them in.

**Derek “Hoss” Atwood**

Right here look Larry, right here. I can go right on him once you get ready.

There you go!

**Larry Sears**

Same old ball game.

**Derek “Hoss” Atwood**

Huh?

**Larry Sears**

Same friggin’ ball game. Caught...

**Derek “Hoss” Atwood**

In the backbone?

**Larry Sears**

Caught up again.

**Derek “Hoss” Atwood**

Around that camera again.

**Carl Safina (narration)**

Again it’s a perfect shot, but again a loop of the line wraps around the camera.

Pulling hard on the harpoon line like this is exactly what you’re not supposed to do. The harpoon head is only meant to hold the gentle drag of the line and floats.

Once again we try to unhook the line, but the fish is pulling too hard.

**Larry Sears**

It's not going to hold it. Come back, get back.

**Derek "Hoss" Atwood**

Is he still on there?

**Larry Sears**

No he's gone. Ripped the dart out.

**Derek "Hoss" Atwood**

Wow! Pulled the dart out of him.

**Carl Safina (narration)**

Well we lost that fish, and soon after when we see our third fish, you'll notice that our camera has been hastily removed.

**Derek "Hoss" Atwood**

Where is he at Larry?

**Larry Sears**

He's at ten o'clock right ahead.

**Carl Safina (narration)**

It was no problem in good weather, but now we know it's too risky in these conditions.

**Derek "Hoss" Atwood**

How do you want me go on him?

**Larry Sears**

Just stay out here and go in. Stay out here a little bit.

**Derek "Hoss" Atwood**

OK. Yeah. Where did he go?

**Larry Sears**

Right here in front of us.

**Derek "Hoss" Atwood**

I see him. He's hard to stay on, Larry.

Here he is out in front of you, Larry.

**Larry Sears**

I see him there. Get over here. Get over here.

**Derek “Hoss” Atwood**

This ain’t going to be a very good shot but ain’t nothing I can do about it.

**Carl Safina (narration)**

The boat's moving too much for Hoss to line up Larry’s shot.

**Larry Sears**

Can’t do nothing about it.

**Carl Safina (narration)**

Larry’s wild throw misses.

**Derek “Hoss” Atwood**

Oh well, I’m allowed one mistake. I didn’t give him a very good shot. Can’t blame him on that one.

**Carl Safina (narration)**

Yesterday, the President of the Nova Scotia swordfish harpooners paid us a visit. To my mind, swordfish harpooning is the ideal fishery. One reason is the way the harpooners are now running it.

**Dale Richardson**

For years we’ve had a competitive fishery completely. And a few of us sat down and said it was going nowhere, that we all went at once and we were landing - because fish were becoming abundant - we were landing them in 10, 12 days and the price was low.

**Carl Safina**

In other words, you would fill your quota in 10 or 12 days and then everybody was done. The price would go down because everybody was bringing all the fish in at the same time.

**Dale Richardson**

Right. So we said that it would be a lot better if we had quotas, that we could operate in individual times, each person would have an individual quota.

**Carl Safina**

So you get a certain amount, this boat gets a certain amount and this boat can catch its amount, your boat can catch its amount whenever you want. You're not really in a race together.

**Dale Richardson**

That's right. The quota's put into the group for the group to manage and the group being the fishermen.

**Carl Safina (narration)**

It's called a catch share system, and they're getting to be a big deal for a lot of commercial fishermen.

The harpooners get a share of Canada's national swordfish catch quota, then each individual boat gets a share of that. In Larry's case it works out to about forty average size fish.

This is the fish that we managed to untangle from the camera. It's actually above average – about 300 pounds.

So now we've caught five fish on this trip. Larry can keep fishing, or decide to go in. The rest of his share will still be here, and no one else will catch it. He's not competing against the other boats.

**Dale Richardson**

By spreading this out we don't all land our fish at once. We don't have as many boats concentrated in areas on the ground. We don't have to fight the weather and we're in hopes in the market place it'll show a difference.

**Carl Safina**

So that's the other real benefit is that you can pick the days, you can go out when the weather is good. You don't have to come out and beat yourself up in bad weather or expose yourself to danger.

**Dale Richardson**

That's one of the big selling points of this, yes.

**Carl Safina (narration)**

In fact that's exactly what Larry decides. The weather was bad, the forecast was bad. It's risky, and it's harder to catch fish anyway, so

we went in. A year ago, before they started catch shares, he might have stayed out.

Only ten hours to go before we get back.

It's 5 am. Two more hours to run. Larry has to play his part in the process which has helped make swordfish such a success story.

**Radio**

Daily Catch.

**Larry Sears**

Yes, this is the Four Ladies want to hail in, harpooned swordfish.

**Radio**

OK Four Ladies?

**Larry Sears**

Four Ladies, yeah. 2003

**Carl Safina (narration)**

Larry has to hail in his catch before he lands.

**Radio**

OK. And what time will you be landing?

**Larry Sears**

At about 6.30.

**Radio**

About 6.30. And where will you be landing at?

**Larry Sears**

Woods Harbour.

**Carl Safina (narration)**

All the details are so observers on the dock can be ready to check his catch.

**Radio**

How many do you have?

**Larry Sears**

Five fish.

**Radio**

Five fish. Yeah.

**Larry Sears**

880 pound.

**Radio**

880.

**Larry Sears**

Yeah

**Radio**

OK. Your number is 0507...

**Carl Safina (narration)**

Like all swordfishing countries, Canada has to stick to its national catch quota. So the government requires a lot of record keeping and verification. But as long as the harpooners stick to their group's overall quota, they can run the fishery however they want.

**Larry Sears**

OK. Thank you.

**Radio**

OK. Thank you. Bye

**Dale Richardson**

Our system is not run by the government so it's up to the fishermen to decide the rules of how they can transfer.

**Carl Safina**

I see. So you've set up sort of like a cooperative in a sense. You took the whole quota and you voluntarily divided it up amongst yourselves?

**Dale Richardson**

That's right and in this case we're dividing it up on your catch history within the group. But we can dictate the rules, the fishermen from year to year, is how the group is set up.

**Carl Safina**

And can people sell their quota back and forth or do you just get that quota and that's it for right now?

**Dale Richardson**

Right now, we can trade and barter or sell to anybody in the group.

**Carl Safina (narration)**

We're back to a normal foggy Nova Scotia morning, and the familiar channels.

In the 1990s, swordfish were heavily overfished, but since then catch quotas have been successfully introduced. The fish also grow fast and reproduce young. So numbers have bounced back. It's a great success story – there's no other large fish recovery like it in the world.

**Derek "Hoss" Atwood**

Now she's tied up, we're on land.

**Carl Safina**

We're back. We had a great trip. Every day we saw a number of these magnificent swordfish. A few years ago that probably wouldn't have been the case because there are more swordfish now than there were then. The management has been improving, the swordfish have been recovering and that's the hope that we have for the whole region of New England and the Northeast where depleted fisheries can come back.

**Carl Safina (narration)**

On early summer mornings, when the harpoon boats come in, the small harbors of southern Nova Scotia are bustling places.

Canada exports 90% of its swordfish catch to the US, so these fish will be in markets in Boston and New York by tomorrow evening.

All the skippers, Larry included, are pretty happy with the way things are going.

**Carl Safina**

As far as how many fish are around, you can really see a difference now compared to 10-20 years ago?

**Larry Sears**

In the last 3 or 4 years there's been a lot of difference. Big change in the fishery here.

**Carl Safina**

Big increase in numbers?

**Larry Sears**

Big increase.

**Carl Safina**

How about the size?

**Larry Sears**

Size has been real good. Yeah. This summer really there's been a larger size fish this summer than there was last summer.

**Carl Safina (narration)**

Bigger fish – that's a sign of a healthy swordfish population.

Unloading time is the moment of truth for Larry and his crew.

Because the harpoon boats stay out only a few days, their fish are much fresher than the longline boats which go hundreds of miles and may be out for two weeks.

Recently, the harpoon association did an exclusive deal with a US supermarket chain. They get top prices, but the buyer wants top quality.

**Carl Safina**

Do you ever reject a fish because the harpoon does too much damage?

**Dan Rand**

Yup, we will. If the harpoon comes right through and ruins this core section, we'll let it go.

You look at the fat. The thickness of the nape shows that the fish are fairly fatty. You're looking at these blood lines here that're all red. If the fish were inferior, they'd start turning brown to black. They'd appear black. Everything looks good. There's no build-up of yellow bacteria at all inside here.

**Carl Safina**

Good.

**Dan Rand**

Beautiful head cut, no bacteria. Nice red, red blood rolling out of it.

**Carl Safina**

I often tell people fish don't smell fishy, bacteria smells fishy.

**Dan Rand**

Exactly. That's right. When you smell fish it's because it's usually old.

**Carl Safina**

Right

**Carl Safina (narration)**

Every fish gets an exhaustive inspection.

**Dan Rand**

Look how clean that is, right. The definitive line between the blood and the meat, nice clear, clear fat line. Nice bright red. I would say an A plus all day long.

**Fish grader**

217. A plus. Going in the big vat.

**Carl Safina (narration)**

Most harpooned fish get the top grade – great for the crews, who get up to 20% above the auction price.

Larry's five fish all make the grade

**Dan Rand**

Did a very good job. You could tell this guy is a veteran. Every stick mark was in the same place on every fish. This tells you he knows what he's doing. Obviously been doing it for years so pretty good success.

**Carl Safina**

Were you happy with the results as far as how many of the fish Whole Foods took?

**Larry Sears**

I am. I'm really happy with it and the grading is really good. I've had real good results with it.

**Carl Safina**

That's great.

**Larry Sears**

Yeah. I'm really satisfied yeah.

**Carl Safina**

So what do you think the future holds? It's gone through a period of real scarcity. It's been a competitive fishery, pretty much a hard time for a lot of guys. Now it's getting better. You've got the fishing sorted out a little bit better. Are you optimistic, looking for a bright future? Is it a thing young guys could get into?

**Dale Richardson**

Well, I think that we'll see a period of stability, I certainly hope, with our new method of fishing. We've also got an enviro-label, MSC, that we pursued and have received.

**Carl Safina**

That's the Marine Stewardship Council. And it means that according to them the fishery is sustainable, right?

**Dale Richardson**

We went through a period of having to prove that it's sustainable and not a detriment to other species. So we received that and we're marketing to new markets and we hope it opens up a lot more.

**Carl Safina**

You getting a premium price?

**Dale Richardson**

So far, it's been a bit above the ordinary price. They receive the sticker when they go in the stores that people can tell that they are at least sustainable.

**Larry Sears**

I'm really satisfied with what's happening and the way that the fishery is being run right now. It's really a big help to a lot of the fishermen.

**Carl Safina**

Yeah. That's great.

**Carl Safina (narration)**

To my mind the only thing wrong with the Canadian swordfish harpoon fishery is that there's too little of it. They are basically the last swordfish harpooners in North America, but only 10% of Canada's swordfish quota goes to them.

It's OK now to catch swordfish, because their numbers are healthy. But it's especially OK to catch swordfish with a harpoon, because it's the cleanest fishery around. Other swordfishing is done with nets, or 25-mile longlines with 1,000 baited hooks. Those methods kill and throw away large numbers of seaturtles, sharks, whales, dolphins and seabirds.

For every swordfish caught on a longline, two sharks are killed. For every swordfish harpooned, nothing else is killed – zero. Long may the swordfish harpooners of Nova Scotia prosper.

For Saving the Ocean, I'm Carl Safina.

**Larry Sears**

Like to have seen a few more fish but...

**Carl Safina**

Yeah well that's fishing, right?

**Larry Sears**

That's fishing, yeah.

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### **Announcer**

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