# **RACING EXTINCTION**

9/2/15 Picture Conformed Script

Timecode	Video/GFX	Audio/Narration
[00:00:23.16]	GFX: OKEANOS- FOUNDATION FOR THE SEA	
	GFX: and DISCOVERY present	
	GFX: an OCEANIC PRESERVATION SOCIETY film	
[00:00:34.04]	NATS: Dead bird in jar. "Dusky "Orange" - Last One Died 16 Jun 87"	
[00:00:58.21]	NATS: Louie in his library  LOUIE PSIHOYOS  Co-Founder, Oceanic Preservation Society	LOUIE: I was reading the Financial Times and it was a little tiny, two paragraph story that said mankind may be causing a mass extinction event.  LOUIE: It was like buried on page 6 or 7 and I thought this is how humanity is dealing with the issue. They're not dealing with it.
[00:01:14.21]	GFX: In Association with VULCAN PRODUCTIONS  NATS: Louie enters messy workshop in night vision.	LOUIE: Check your cell phone. You get anywhere near this place and he scrambles the signal.
[00:01:19.11]		MITCH: Louie, man, how are ya?
[00:01:21.17]		LOUIE: Just curious, how many cameras do you have on you right now?
[00:01:23.21]		MITCH: You mean like on my table or –
[00:01:25.02]		LOUIE: No, no. On your body. [chuckles]
[00:01:26.06]		MITCH: On my body?
[00:01:28.05]	NATS: Seven different camera POVs revealed.	MITCH: Less than seven but probably more than two.
[00:01:34.03]	GFX: In Association With LI KA SHING FOUNDATION	LOUIE: Okay, so we're doing it in order here. One hat cam, two buttonhole cameras

	GFX: In Association With EARTH DAY TEXAS	
[00:01:37.17]		LOUIE: Sports bra, 1 bottle cam, 5.11 tac shirt, with the vibration
[00:01:44.00]	NATS: Hump parking lot at night	CHARLES: It's on right now, so you're rolling right now. So you can get the entrance and make sure of course the straps gone.
[00:01:50.21]		HEATHER: Ok
[00:01:53.08]		CHARLES: And you're reservation is in ten minutes.
[00:01:54.21]	NATS: Special agent badge	
[00:02:02.05]	NATS: Interior of Hump restaurant. Purse cam POV on table. Restaurant sounds	
[00:02:05.01]	GFX: Heather: We're seated.	
[00:02:08.01]	GFX: Louie: Are you recording?	
[00:02:11.06]	GFX: Heather: Yep.	
	NATS: Restaurant sounds and activity.	
[00:02:14.10]		WAITER: Sweet shrimp.
	In Association With JP'S PEACE, LOVE, & HAPPINESS FOUNDATION	
[00:02:20.18]		WAITER: So how do you guys know so much about sushi?
[00:02:24.03]		HEATHER: I just, we just know.
[00:02:24.14]		OTHER WOMAN: She brought me here last year.
[00:02:26.04]		WAITER: You both have very exotic tastes

	Extinction ractare book 3/2/10	
[00:02:30.09]	NATS: Louie and Charles in the car in night vision.	HEATHER: We try to be adventurous.
[00:02:34.05]	GFX: Louie: order the whale when you're ready.	
[00:02:38.12]	GFX: Heather: almost therejust one minute.	OTHER WOMAN: I've been having sashimi since I was little with my grandpa
[00:02:41.13]		WAITER: Oh, is that so?
	GFX: In Association With DIAMOND DOCS	
	GFX: and INSURGENT DOCS	
[00:02:50.10]	NATS: Waiter places two plates on table.	WAITER: And here's the whale
[00:02:52.06]		HEATHER: Thank you.
[00:02:59.23]	NATS: Charles smiling, taking off headphones.	LOUIE: Three pieces. We got it.
[00:03:03.01]		LOUIE: It's a bingo.
[00:03:07.09]		DIANE SAWYER: [news clip] "The owners and chefs of one of America's trendiest restaurants are facing federal charges tonight all because of what they put on a customer's plate – an endangered species. And behind the undercover sting some movie makers who went right back to work.
[00:03:25.04]	GFX: Gobi Desert, Mongolia 1995. NATS: Cars driving through desert	LOUIE: We're making our own road here.
[00:03:42.00]	NATS: Cover of National Geographic magazine	LOUIE: I did four stories about extinction for National Geographic magazine.
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[00:03:45.13]	NATS: That's the eroded rubble of parts of a big dinosaur-	
[00:03:46.07]		LOUIE: You go to these beautiful landscapes. There's dinosaurs from horizon to horizon.
[00:03:54.21]	NATS: Four skeletons right here.	
[00:03:58.20]	GFX: Mother Oviraptor protecting her eggs	LOUIE: And you think, that was so far back then, but what if it's going on right now and everybody's missing it?
[00:04:07.14]	NATS: Man walking into museum in front of wall of animals GFX: Dr. Stuart Pimm, Conservation Ecologist, Duke University	PIMM: Each year, about one in a million species should expire naturally. In the next few decades, we will be driving species to extinction a thousand times faster than they should be.
[00:04:26.22]	GFX: Dr. Michael Novacek, Curator, American Museum of Natural History.	NOVACEK: It's difficult to estimate precisely how many species we're going to lose, in 100 years or so, we could lose up to 50% of all the species on earth.
[00:04:39.21]	NATS: Whale sounds	
	NATS: Full scale whale hanging from ceiling of museum.	LOUIE: I remember thinking, this is the biggest story in the world. It's like we're living in the age of dinosaurs, but we can do something about it.
[00:04:52.23]	GFX: RACING EXTINCTION	
[00:05:02.15]	NATS: Dolphins jumping in front of boat. Aerial shot of dolphins. Shot from plane. NATS: Aerial shot of blue whale	
[00:05:15.19]		OFF CAMERA: Roger.

[00:05:21.10]	NATS: Men toying with GoPro rigs.	LOUIE: The blue whale's the biggest creature that ever lived on the planet, bigger than any dinosaur ever.
[00:05:24.11]		LOUIE: Just like dinosaurs, they are going extinct.
[00:05:29.08]	NATS: Coming in hot! There he is! Blue whale surfaces. Ooo, ooo look at him!	
[00:05:32.22]		LOUIE: Back in the days of whaling, they were hunted to near extinction down to about 2% of their population. Now they are getting decimated by shipping traffic.
[00:05:44.05]	NATS: "Go for it". Man jumps off boat into water with GoPro.	
[00:05:49.02]	NATS: Free divers swimming in open blue. Blue whale appears and divers swim next to it.	LOUIE: My hope is that if you can show people the beauty of these animals there's a chance to save these things.
[00:06:14.20]		LOUIE: One of the cool things about a blue whale is that it has the loudest song in the animal kingdom, but you can't hear it, because it's below our threshold for hearing. We look out at the world through these eyes and these ears and think, oh that's it. That's everything that there is to see. But there's this hidden world on almost every level. What I want to do is get people to see it.
[00:06:49.03]	NATS: CU of Blue Whale, music in full swing. Whale tail as girl free diver glides into frame. Tail gives one big flap and disappears into the blue. Free divers surface, screaming with delight.	

[00:07:17.12]	NATS: Beach at dusk, beeping buoy on shore. NATS: Aerial shot of Chris Clark walking into Cornell Lab. NATS: Aerial shot of whales, whale sound NATS: Chris Clark wheeling in a buoy on cart.	LOUIE: We get off the boat, and this fisherman comes up to our interpreter and says can they give me \$500, I found this buoy, it's a \$500 reward, and it needs to be returned up to America.  LOUIE: And I said just a minute let me take a look at this buoy and I look at it and it says return to Chris Clark, Cornell Bioacoustical laboratory. I thought, I know this guy!  LOUIE: Chris had been pioneering new ways of recording whales for 30 years. He basically proved that these animals could hear themselves across oceans, so to me finding that buoy was like finding a message in a bottle.
[00:08:08.00]	GFX: Dr. Christopher W. Clark, Johnson Senior Scientist, Cornell Bioacoustics Research Program.  NATS: Chris and Grad student in room full of buoy parts. Hits play on recording device.	CLARK: We built these recording systems, we dropped them in the ocean, and they record continuously. Whales and dolphins and anything that's out there we try and record. CLARK: So the first time I knew there was a Blue Whale singing nearby, I could see it on the display, but I couldn't hear it. So what do you have to do? You have to speed it up.
[00:08:37.18]	NATS: Blue Whale singing. Sound waves on display.	
[00:08:53.07]	NATS: Shot of buoy at bottom of the ocean as more animal sounds join the whale song. Buoy releases from anchor and floats to surface.	CLARK: And stillthe hair goes up on the back of my neck and it's like damn, that's fabulous. CLARK: As we listen more and more around different parts of the planet, whether it's frozen Arctic Ocean, or the deepest jungles of central Africa, the whole world is singing.
[00:09:10.19]	NATS: Sounds of various animal sounds.	
[00:09:12.13]	NATS: Chris in sound library moving shelves, wheels rotating.	CLARK: Clicking and grinding and whistling and thumping, but we've stopped listening.
[00:09:26.04]		LOUIE: The Cornell Bioacoustical Laboratory has

		the largest repository of animal sounds on the planet. They have been collecting them since the 1930s.
[00:09:43.01]		CLARK: You can think of it as a museum, just like it can be bird skins or beetles tacked up on a wall. So there is this range of sounds from the largest animal to ever live on this planet, to the tiniest little insects.
[00:09:53.03]	NATS: Chris pushes button, O'o song plays.	
[00:10:01.11]	NATS: Grainy shot of O'o in Kauai	CLARK: This is a song recording of a male O'o singing on Kauai. CLARK: These birds mate for life, so he would be singing a duet with his mate where he sings then she sings back and forth. Here comes the male song, there is no response. Here is the male song again, that's the last male of a species singing for a female who will never come. He is totally alone. And now his voice is gone. CLARK: In the brief lifetime of this collection, 70 years or so, many of the species that were recorded are now extinct. So the repository is a living example of the massive rate of extinction that's happening.
[00:11:08.00]	NATS: Animation of ancient earth. Louie narrates as earth rotates through 5 major extinctions. NATS: Earth transitions to time wheel. NATS: Fast slideshow of still images of	LOUIE: There's been five major extinctions in the history of the planet. There's the Ordovician, The Devonian, The Permian, there's the Triassic/Jurassic, then the KT Extinction, the one that killed the dinosaurs. It's very difficult to comprehend deep time. You know, 4.6 billion years of earth's history?  LOUIE: But if you take, say the history of the Earth and try to squeeze it into a 24 hour clock, where does man fit on that clock? A few seconds before midnight. That's it. We're the new kid on the block.

[00:12:00.19]	GFX: Dr. Kirk Johnson, Director, Smithsonian National Museum of Natural History  NATS: Aerial shot of man- made islands.  NATS: Animation of asteroid striking the earth.  NATS: Fire from asteroid turns to forest fire.	JOHNSON: What we're seeing now is called the Anthropocene, the new epoch. JOHNSON: Anthropocene means the time of humans. It's when the impact of humans is leaving itself as a mark in the fossil record of the future. JOHNSON: 65 million years ago, there was an asteroid that struck and caused the dinosaurs to go extinct.
[00:12:27.18]	NATS: Aerial over highway neighboring polluted slum.	NOVACEK: When it comes to the 6th extinction event, we have no problem identifying the cause: humanity has become the asteroid.
[00:12:44.10]		LOUIE: We're at that tipping point now where it's either too late, or just the beginning of a movement.
[00:12:48.20]	NATS: Hump Bust footage - "So there is two pieces of whale and one piece of horse"	
[00:13:01.17]	NATS: Whale hunters  GFX: March 12, 2010, 4 days after The Hump Bust.	LOUIE: At the Hump restaurant, we knew that they were selling whale meat, but there's also something bigger going on. LOUIE: We heard that the Obama administration was in closed door negotiations with the Japanese to go do commercial whaling again. And I thought, well, if we could prove that endangered whales are being served right here on the shores of America, we would stop that conversation. LOUIE: The animal rights community took it up, but the restaurant didn't close down. LOUIE: There's this one guy I had never heard of

	NATS: Shots of Ady Gil setting up screen and projector. NATS: Ady Gil in front of Hump with screen.	before, his name's Ady Gil. He took some gear and put it out in front of the Hump restaurant as people are going in. LOUIE: What are you doing?
[00:13:44.07]		ADY GIL: I'm protesting. Yesterday, there were like 200 people here protesting and I thought you know, somebody needs to keep the pressure on.
[00:13:54.07]		LOUIE: If you look at the Academy Awards and the Golden Globes, those are his screens and that's all his projections, and so he parks his Ferrari right next to the van, and the owner comes out and tells Ady, he says, uh, how long are you going to be doing this?
[00:14:08.01]		ADY GIL: And he thought I was some hippie you know, going to be here for a day or two, I said listen man, I can be here for a month or two or a year or whatever. How long can you survive while I'm here?
[00:14:25.12]	NATS: Activists risking lives, direct action, violence. NATS: Sea turtle being released at night	LOUIE: Ten days later the restaurant closes down. To me it was a beautiful moment. Everybody had gone home and this one guy, with his big bright light and keeps the light shining on this subject. LOUIE: There are thousands of people all over the world willing and able and changing their careers to save species and they go to some of the darkest, grimmest, most unsafe places on the planet.  LOUIE: Over 800 environmental activists have been killed in just the last decade. So these guys are doing the tough work, and we never hear about them, they're not household names.

	NATS: TEDx Boulder sign NATS: Shawn swimming with whale shark NATS: Shawn driving by sign that read Isla Mujeres.	LOUIE: Shawn Heinrichs, I mean I live in Boulder Colorado, you can't get any more landlocked than Colorado, and I find out there is this incredible ocean activist living right down the street who quit his job as a CFO for a tech company so he could help save endangered species.  LOUIE: Shawn is doing some of the best and most groundbreaking work that I've seen anywhere in the world.
[00:15:39.15]	GFX: Shawn Heinrichs, Marine Conservationist	SHAWN: Isla Mujeres was the largest shark- fishing island on the east coast of Mexico. At least 20, if not more, long liners were targeting sharks each and every single day.
[00:15:52.06]	NATS: Shots of the booming shark watching industry	LOUIE: Shawn helped turn this hunting ground into one of the top places in the world where you can actually go and watch sharks.
[00:16:01.14]	NATS: Shawn and Paul Hilton at airport, Shawn taking selfie. NATS: Paul standing on ledge holding camera	SHAWN: Now you have this community of ex shark fisherman who are making much more money taking tourists out to swim with whale sharks than killing sharks on long lines. It's just simple economics.  LOUIE: Shawn often works with his buddy, Paul Hilton, an investigative photojournalist. They can't help but to get themselves into dangerous situations.  SHAWN: Paul is a photo-journalist, like me, focused on endangered species - He is brilliant at what he does.

[00:16:31.18]		LOUIE: Paul and Shawn try to bust ring-selling endangered species.
[00:16:37.04]		SHAWN: We're gonna blow the lid off this place right?
[00:16:44.03]	NATS: Paul in car.	PAUL: Shawn is pretty full-on, I love his enthusiasm, he talks far too much when we're on assignments, so there is always that issue of me having a go at him saying mate, wind it up, I think it's the American in him.
[00:16:49.11]		SHAWN: I'm rolling. I can distract.
[00:16:53.05]		PAUL: And a lot of the situations that we go into its nice to go in as teams because you get into situations where you get caught up in the moment with the camera and you're actually photographing, and, there is no one watching your back.
[00:17:03.08]	NATS: Shawn and Paul enter factory. "Ask for the toilet, where's the toilet?"	
[00:17:05.05]		LOUIE: Paul and Shawn have this technique of, they have a camera sitting around their neck and most people think you have to put it up to your eye to look through it to shoot, and it's actually a video camera that's rolling the whole time.
[00:17:17.15]		SHAWN: So many! And this is the, um, jaws?
[00:17:21.00]		PAUL: Do da, Do da.
[00:17:21.12]		SHAWN: The movie Jaws? Do da, Do da.

[00:17:24.03]		PAUL: Don't push it too much Shawny-boy.
[00:17:25.15]		SHAWN: Okay, cool! Very cool! I don't know about you but that's the most fins I've ever seen.
[00:17:27.11]	NATS: Thousands of shark fins laying on racks to dry in sun.	
[00:17:29.14]		LOUIE: How did you find out about this?
[00:17:30.14]	NATS: Paul pointing at computer screen with pictures taken of shark fins.	PAUL: Facebook basically, and then colleagues, mates, we just walked straight in basically.
[00:17:36.09]		LOUIE: Wow. How long were you there?
[00:17:38.15]		PAUL: 1010-15 minutes.
[00:17:41.00]		LOUIE: You did all of this in 10-15 minutes?
[00:17:41.14]		PAUL: Oh yeah mate.
[00:17:47.11]	GFX: Hong Kong, China - driving through streets.	SHAWN: Are we almost there Paul?
[00:17:50.14]	NATS: Louie in back of car holding camera with Shawn. NATS: Hawksbill Sea Turtles, Elephant Tusk Carvings.	LOUIE: I didn't think that the illegal wildlife trade would be so overt. You can go down streets and every other shop will be full of endangered creatures. It's not just shark fins, it's about everything endangered in the world is for sale there.
	NATS: Man dumping shark fins onto street while Paul takes photos.	
[00:18:12.18]	NATS: Shark Fin Soup being served.  NATS: Shark swimming through ocean	SHAWN: With the explosion of demand in China for shark fin soup, it was estimated that 250,000 sharks are caught for the fin trade every single day.
[00:18:23.13]		LOUIE: Probably no other species illustrates what's going on in the oceans right now better

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		than sharks. Sharks pre-date dinosaurs. They survived four mass extinction events. And in just this one-generation that I have been alive, we have cut down their ranks about 90%.
[00:18:46.05]	NATS: Shawn on boat with camera NATS: Finless shark sinking NATS: Finless shark resting on coral, breathing. CU.	SHAWN: I was following a group of shark finners in Indonesia and they were moving around camp to camp and then one morning I saw something reflecting off of the coral reef in the shallow water. And what I discovered was just horrific. SHAWN: It was this beautiful tawny nurse shark, but it had all its fins cut off and it was trying to swim but it couldn't swim. It was heart breaking because it was like this is what the reality is, this is the thing that nobody gets.
[00:19:30.10]	NATS: Back in the car in Hong Kong	REBECCA: The biggest shark fin processing plant which is behind us, about 200 meters, I was on the phone with this guy.
[00:19:36.01]		PAUL: But are we gonna be able to get in there?
[00:19:38.21]		REBECCA: I have a key contact here.
[00:19:40.16]		SHAWN: Ok
[00:19:42.13]		LOUIE: Shawn has an interpreter. I don't want to say her name but she's been doing undercover work in China for several decades. The first place that she took us was a place that they couldn't ever get into before. Basically the Walmart of the endangered species trade in Hong Kong.
[00:20:04.21]		SHAWN: Over the years, I have actually worked really hard to get into this facility, so has Paul, and so has his friends. And we have managed to maybe step in the door for thirty seconds -
[00:20:14.23]	NATS: Shots of getting kicked out of shops, people yelling at camera.	
[00:20:20.14]		PAUL: His staff would come out and push us

		away, threaten to call the police,
[00:20:25.05]	NATS: Struggles on camera. Team looking at map of Hong Kong on lpad.	SHAWN: Hands, machete, kicked out the door don't ever come back.
[00:20:33.06]	NATS: Paul and Shawn in the car with their cameras	LOUIE: Here's what we do. Ee have a car waiting with all the stuff in it or leave it back here -
[00:20:37.16]	GFX: Dr. Heather Rally GFX: Charles Hambleton	LOUIE: I brought along a couple colleagues from The Hump Bust. Heather Rally, who does undercover work for us, and Charles Hambleton, who's sort of my director of covert operations.
[00:20:48.05]	NATS: Sawyer Culinary Adventures	LOUIE: We invented a cover. We pretended like we were on a culinary tour and we were looking for exotic product.
[00:20:55.13]		SHAWN: I say we stick to plan - We're going in as culinary tourists, she introduces Mr. Sawyer and we're all here learning and taking pictures of culinary.
[00:21:00.19]		LOUIE: You can get into about as much trouble as you can possibly get into with a buttonhole camera in China.
[00:21:06.03]	NATS: Car driving	SHAWN: If for some reason we run into people with badges and uniforms, strip off all the shit.  Just rip it out from under your shirt and throw it over a wall.
		SHAWN: Go right in. Go in! Go in!
[00:21:16.07]	NATS: Team enters shop. Buttonhole camera shots of Mr. Eddy and the team.	
[00:21:31.00]		EDDY: What is the business you are doing with marine product?

[00:21:37.01]		LOUIE: We are starting a business where we want to sell seafood.
[00:21:40.03]		EDDY: Like what?
[00:21:42.02]		LOUIE: We have a seafood shop. Well, back where we do it, it's mainly tuna and marlin and swordfish. They want to see something more exciting.
[00:21:52.08]	NATS: Mr. Eddy takes a long look at business card.	SHAWN: Cuz the Chinese traveler and the Asian traveler has become big business now. It's more than 50%.
[00:21:56.17]		CHARLES: We should probably go.
[00:22:01.16]	NATS: team follows Eddy to new door with shark statue. Eddy types in code.	EDDY: No no its okay, come, comeI'll show you around here.
[00:22:06.22]		SHAWN: This is nice.
	NATS: Door opens.	SHAWN: I need to go bathroom bad.
[00:22:14.19]		EDDY: There's the bathroom.
[00:22:16.06]		SHAWN: Thank you, thank you.
[00:22:27.05]	NATS: Shawn in bathroom prepping camera, grunting.  NATS: Shawn chuckles.	EDDY: It is hard to catch a shark, you know? If you get the shark, every part of the shark can be sold as money. So we are not going to throw any meat of the shark, you know? Actually, a lot of the greenies people, they are misunderstanding our industry. They think that we take the fin and then let the live shark go down into the sea and die struggling like this you know, very bad. But that is not the truth. That video is made by the greenies themselves.  EDDY: Look, this is a worm.

[00:22:58.08]		CHARLES: Are these expensive also?
[00:23:00.09]		EDDY: Yeah, very expensive. 44,800 US dollar per kilo. 44,800 US dollar per kilo. It is a wholesale price.
[00:23:11.08]	NATS: Charles flabbergasted.	CHARLES: No Way!!
[00:23:14.05]		EDDY: And they believe, that's why I say believe, it can cure the cancer. The Chinese have a lot of beliefs. [laughing]
[00:23:22.06]		LOUIE: We ended up going down the road to another warehouse on the Hong Kong waterfront.
[00:23:25.19]		SHAWN: Louie, look at this.
[00:23:27.23]		PAUL: There must have been 10-20,000 fins in one location. This was one of the biggest facilities on the planet.
[00:23:35.21]		LOUIE: The scale was just out of control. I have never seen anything like that before in my life.
[00:23:41.00]	NATS: Heather kneeling on rooftop, looking at fins. "Jesus".	Heather: Jesus!
[00:23:52.06]	NATS: Panning shot of rooftop.	LOUIE: I feel like this world is absolutely insane.
	NATS: Aerial shots of the ocean, dolphin sounds. 2 dolphins swimming with each other. Divers photographing.  NATS: Photo of diver and Whale Shark in scale of one another.  NATS: Blue whale swimming to surface	LOUIE: I remember once diving the northernmost islands of the Galapagos - Darwin Island and Wolf Island, islands that Darwin actually had never been to before. It's the land before time, I mean it's like land before humans got there. And I remember this giant Whale Shark came by, and then a pod of dolphins came by, you know this is back when you shot film, and the whole frame was just filled with wildlife. And this dolphin came swimming from behind the front of the whale shark, and it grabbed this tuna, and it brought it and looked right at me and shook it, and it

	Extinction Fictore Lock 3/2/10	swallowed it tail first down it's throat. And I thought this is when you want 37 pictures on a 36 roll of film. It was just magical, absolutely magical.
[00:25:35.22]	NATS: Stills of various oceanic creatures, Louie looking at negatives of film  GFX: DAVID DOUBILET, National Geographic Photographer.	DAVID DOUBILET: As underwater photographers, photojournalists really, we are documenting a time and a place, that in the future may not be there. And the clock is moving.
[00:25:53.08]	GFX: JERRY GREENBERG, Underwater Photographer NATS: Underwater photographer comparing 1960 photo to current reef.	GREENBERG: The first photographs I shot on an assignment for National Geographic 1960, I took a total of 7 or 8 frames on 2 and a quarter square film, on ectochrome film, and butted them together. It was the first underwater color panorama ever done on the reefs. And this when I came back in 1989 - the beautiful barrier reef forest went to hell.
[00:26:27.00]		LOUIE: Now I'm looking around and saying well - what happened here? It's not so far off from what happened 65 million years ago.
[00:26:37.21]	GFX: Sewer Pipe, Ft. Lauderdale Beach, Florida.	JOHNSON: Extinction is often being driven by direct human activity - things like habitat destruction, or over- fishing, and then there is global climate change which is happening in a different way. So we have this sort of dual thing. The direct hand of man, and the indirect hand of man and the change of climate.
[00:27:00.19]	GFX: DR. J.E.N. "CHARLIE" VERON, Former Chief Scientist, Australian Institute of Marine Science NATS: Volcanos erupting NATS: Factories polluting, emitting	CHARLIE VERON: Climate is controlled by the ocean. The oceans are the big guy; they're in control. And the oceans now are slowly changing, and that is the danger we face today. A mass extinction is driven by a change in the environment, and we are changing the environment precisely along the lines that can trigger off one of these great catastrophes. There's been 5 mass extinctions, and they've had different causes, but there's been one common factor in all: a massive increase in carbon dioxide. And we've never had a carbon dioxide spike like

	carbon dioxide	it's happening now.
[00:27:54.20]	GFX: ELIZABETH KOLBERT, Author, "The Sixth Extinction"	ELIZABETH KOLBERT: We are burning through fossil fuels laid down over hundreds of millions of years. Really reversing geological history, basically, and we are doing it really, really fast.
[00:28:12.12]	NATS: Burning oil spill in the ocean GFX: SYNTE PEACOCK Scientist, National Center for Atmospheric Research NATS: Shots of gulf oil spill	SYNTE PEACOCK: In the Gulf Oil Spill about 4.9 million barrels of oil was spilled. That represents about a quarter of what we use every single day in the U.S.
[00:28:21.11]	NATS: Louie photographing spill outside plane	LOUIE: You look at an event like the gulf oil spill, you think this is the biggest environmental catastrophe in America ever. But that spill is nothing compared to the damage caused by us doing everyday things we don't even think about, and I'm more guilty than anyone. I mean the worst thing you can do to the environment is make a film about it.
	NATS: shots of Louie/crew travelling the world, making his carbon footprint  NATS: Rush hour traffic	LOUIE: We did a carbon assessment of the first 2 years of production, and I was horrified at how much energy it takes to do what I do. We're at the point where we're making our lives a lot better for us, but we're doing it at the expense of everything going forward. We have many ways to fix this problem. The question is, are we gonna do it fast enough?
[00:29:18.13]	GFX: DR. JASON HALL-SPENCER, Marine Biologist, Plymouth University  NATS: refinery emissions pan upward to ocean surface from below.	DR. HALL- SPENCER: What we know at the moment is we're driving this out of control and the ocean's chemistry is changing really rapidly. Scarily fast. When we put carbon dioxide into the atmosphere, it doesn't all stay there, between a third and a half gets absorbed by the oceans.

[00:29:38.05]	NATS: Bubbling coral reef.	PEACOCK: The CO2 reacts with water to form something called carbonic acid, and each year, the ocean becomes more and more acidic.
[00:29:52.09]	GFX: DR. STUART PIMM Conservation Ecologist, Duke University  NATS: Time lapse of various shells	PIMM: If you want to know what that does, Get a seashell and drop it in, a glass of vinegar. A whole variety of creatures will simply dissolve into the acid ocean that we have created.
	in vinegar tank, dissolving.	
[00:30:08.18]	GFX: PACIFIC NORTHWEST	
	NATS: Louie and Oyster guy walking past giant oyster sculpture, in front of large "Taylor Shellfish Farms" building.	
[00:30:13.18]		VERON: This massive death in the oceans, it's already started. Oh, It hasn't started; it's well on the way.
[00:30:23.01]		LOUIE: Those are larvae?
[00:30:24.16]		OYSTER GUY: Yeah see the little -
[00:30:25.20]		LOUIE: The brown smudge.
[00:30:29.05]	GFX: ALAN BARTON Production Manager, Whiskey Creek Shellfish Hatchery	BARTON: Each year we harvest 7-10 billion oyster larvae that we send out to growers throughout the Pacific Northwest. I still remember the day all of the larvae essentially in our entire hatchery were on the bottom of the tanks. So 6 billion larvae all died in a single day.
[00:30:52.18]	NATS: B roll of hatchery, tanks, etc  GFX: BILL DEWEY Public Affairs Manager, Taylor Shellfish Farms.	DEWEY: When that deep ocean water off the coast of Washington and Oregon comes into the hatchery intakes they can't grow their shells. It's dissolving faster than they can grow it.
[00:31:05.01]	NATS: Oyster cage comes up	BARTON: It seemed outlandish to think that the
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	empty.	ocean could be acidified enough to cause us these kinds of problems. It just seemed like something for the distant future and nothing we have had to pay attention to.
[00:31:18.03]		DEWEY: The rate of change that we are seeing in the ocean, and the change that it's going to create in our food chain – it's going to be dramatic and it's going to be in our lifetimes. The things that we are used to eating may not be available anymore and we may need to transition to, you know, eating jellyfish, or something like that. Start a new trend.
[00:31:39.01]	NATS: Livestock mooing, beef on a grill transition to massive livestock farm	
[00:31:44.16]		VERON: It sounds a bit silly, change your diet and save the planet, but if humans could become vegetarians now, you would make a massive difference.
[00:31:59.09]		DR. KIRK JOHNSON: By far and away, the biggest factor in terms of this mass extinction is destroying natural habitat or converting natural habitat into land for food.
[00:32:09.04]	GFX: LESTER BROWN Founder, Earth Policy Institute	BROWN: The more dependent we are on meat, milk, and eggs, the greater the CO2 and methane emissions. Cattle and ruminants of all kind produce methane as a byproduct of breaking down grass and other things that they feed on.
[00:32:34.16]	NATS: Zoom into window of cows stomach	
[00:32:38.10]		HEATHER: So the contractions are pushing this gas out from the stomach and going through here in the one-way valve, and into the bag?
[00:32:40.22]		MAN: Yes, and after this we collect inside the bag.

[00:32:44.00]		HEATHER: So how long has that bag been collecting gas?
[00:32:46.03]		MAN: Only 2 hours.
[00:32:50.15]	NATS: Man lights methane from bag on fire, it combusts	BROWN: Methane is something like 22 times more potent as a climate changing gas than is CO2, so it doesn't take very much methane to make a difference.
[00:32:58.08]	NATS: Cows eating, filling up bags with methane  NATS: Aerial shot of massive livestock farm	LOUIE: A cow can basically fill up a 55 gallon garbage bag full of methane every day. One cow is not a problem, but now we have 1.5 billion of them, and it's an incredibly inefficient way of producing food. Three quarters of agricultural land is used just to feed livestock. When you factor in everything, the clearing of the land for grazing, the feeding and transporting, livestock causes more greenhouse gases than all the direct emissions from the entire transportation sector.
[00:33:35.20]		HALL-SPENCER: I don't think it's a competition between these problems, I don't think one can be put above the other, it's like saying well is global warming worse than ocean acidification, or is fishing all the big fish in the sea worse than polluting it? And I think it would be foolish to try and single out any one of them to say this is how were going to fix the planet's problems, we need to fight them on all fronts.
[00:33:56.08]	GFX: Illegal Wildlife Food Market, GUANGZHOU, CHINA  NATS: various animals on display for sale: ducks, rodents, cats, horned sheep. Man tosses near dead sheep into wheelbarrow violently. Team reacts to what they are seeing. "A lot of rodents"  "House cats." "look at this one it's	

	still alive", "A lot of doors closing, lights going off" "That's scary man. Yeah were definitely not welcome here".	
[00:34:29.11]		PAUL: In 2002, the government clamped down on the wildlife markets across southern China, so things start to go underground and start operating in the early hours of the morning. It's horrific.
[00:34:41.00]		HEATHER: They are shutting down.
[00:34:44.14]		SHAWN: That's craziness, huh?

[00:34:45.22]		LOUIE: They are hiding it now.
[00:34:50.06]	NATS: Man shoos away the camera as we peer into a dimly lit room full of large clamshells.	SHAWN: Ohh my gosh!
[00:34:53.15]		LOUIE: This is a market that had to switch places twice that year.
[00:34:58.16]		SHAWN: Oh what are they doing?!
[00:34:59.21]		LOUIE: I mean they know that they aren't supposed to be doing what they are doing.
[00:35:01.08]		SHAWN: What is that?
[00:35:02.23]	NATS: Man squeezing snakes to empty bile.	SHAWN: That's hardcore.
[00:35:09.15]	NATS: team goes upstairs, blood on wall.	LOUIE: The more endangered it is, the more illegal it is, the more you have to go to the back rooms.
[00:35:19.15]		SHAWN: So Louie, I want to show you something right here. You are looking at a dozen manta rays sitting right in these bags right here. When you consider that each of these animals has one pup

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		every couple of years, you are looking at literally an entire generation wiped out just in these bags.
[00:35:43.01]	NATS: Dead manta rays on street	SHAWN: A few years ago I started noticing species of Manta and Mobula ray lined up in the streets in areas that used to be predominantly shark ports. And it was really confusing to me because I understand that you can't use their wings for shark fin soup, and the meat from these rays is very pungent. It's not worth the time of bringing in these huge, heavy animals.
[00:36:05.07]		PAUL: I couldn't believe that when I walked in there were just giant oceanic mantas all lined up in a row, and I just wanted to know what was going on and then I started watching them cutting out the gills -
[00:36:17.02]	NATS: Paul, "the gills are missing, where did they put them? Where did they take the gills?"	
[00:36:21.16]		SHAWN: And it came down to this. There was an old cultural remedy in a very small coastal town in southern China and that was over 50 years ago. And that had largely disappeared, but I think it was just following the SARS outbreak, somebody got it in their mind that hey, we're running out of sharks, what other products can we move into the pipeline?
	GFX: DR. ZHANG MAO JI, Traditional Chinese Medicine Physician	PROFESSOR ZHANG: [In Chinese] Years ago [the government] published a book called "Animals Used in Chinese Medicine" which documented how manta ray gills can be used to treat illnesses.
[00:36:55.13]		PAUL: The gills of manta rays would end up in all the traditional Chinese medicine stores and the dry seafood stores.
[00:37:03.19]		ZHANG: People believed that manta ray gills could increase blood circulation, treat bruises and injuries, and can cure cancer But it started as

		folklore.
[00:37:18.16]	NATS: Manta flies over top of camera. Various beauty shots of mantas swimming.	
[00:37:28.19]		PAUL: I remember my first encounter with a manta in the water, it's something I'll never forget. I'm sitting in the water and then just out of the blue, this manta ray does this huge flyby right past. And then goes back into the blue. And then I'm just left breathless, waiting.
[00:37:57.11]	NATS: Footage of manta ray not moving underneath boat.  NATS: Manta twitches as Shawn snips line.  NATS: Shawn holding hook in front of camera  NATS: Manta twirls in gratitude a.	SHAWN: Just recently, we were in Bali. At the end of the last dive, everyone was out of the water, and I looked down and this one manta comes right underneath me and then just stops and it hovers about 15 feet down and it just – it's not moving - and I'm like, well that's interesting.  I look and there is fishing line tailing off the top of its body. And the first thing I do is I swam down and I snip the line right off the top of its head, right just above the hook.  And I swam up. She didn't swim away - she was just hovering right underneath me.  So I swim back down to her one more time and I put my hand gently right on the front of her head, and I put my hand on the hook, and I slowly work that hook right out of its top jaw.  And I thought that's it. You know, she's gonna swim off now, she's been saved. I look down and she's circling right under my feet. So I swim back down to her one more time, and I put my hand right next to where the injury, as if sort of rubbing it saying hey you're going to be okay. And I put my head right next to her eye and I just remember her eye moving back and forth between my mask looking at both of my eyes, and realized that she knew I was trying to help her.
[00:39:49.18]	NATS: WildAid Shark Fin PSA.	SHAWN: Often people say, how can one person make a difference.

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[00:39:58.10]		PSA NARRATOR: What if you could see how shark fin soup is made. If you could see how each year, up to 70 million sharks are killed to end up in soup, could you still eat it?
		SHAWN: I shared the footage of the live finned shark in Indonesia with WildAid, an organization that has been working in shark conservation in China. The film went to over a billion people in Asia. 80% who were surveyed who saw it said they were either going to quit eating shark fin soup, or drastically reduce their consumption of it.
[00:40:25.09]	NATS: Shawn surfacing with camera	YAO MING: Remember, when the buying stops, the killing can too.
[00:40:34.00]	NATS: Louie behind FLIR camera	LOUIE: As a still photographer, I could see the power of an image.
		LOUIE: It was transformative. I think it's in our DNA to take care of future generations. And If you can find that, that way in, you can reach people really quickly and change them.
[00:41:01.01]	GFX: DR. AUSTIN RICHARDS Senior Research Scientist, FLIR Systems.  NATS: Louie blowing air into the FLIR camera  NATS: Shot of car with FLIR camera on top	AUSTIN RICHARDS: The human eye is so limited. We see only a tiny little sliver of the electromagnetic spectrum. It's like if you owned a grand piano in your house but you could only hear one note on it. Normally carbon dioxide gas is invisible to the human eye. But certain wavelengths of infrared will be absorbed by gases like CO2 or methane, so that's what's going on here, this camera has a very particular color filter on it enabling us to visualize the CO2 gas that's coming out of our noses and mouths.
[00:41:34.06]		LOUIE: We had two cameras. One camera that sees what your eye sees, and the other what the fossil fuel companies don't want the rest of the world to seethe carbon dioxide world.  LOUIE: Let's do this one coming at us.
[00:41:50.00]	NATS: Plane takes off, emissions revealed through FLIR camera	PETR: Ready? Everybody steady? In three, two, one

		PETR: I mean it's disgusting, but it's beautiful.
[00:42:03.12]		LOUIE: Go left here. Go slow, yeah.
[00:42:06.05]		PETR: These guys are gonna be good, slowly, slowly, slowly.
[00:42:09.13]	NATS: Bus driving, gas fire outside restaurant, semi-truck emitting carbon	LOUIE: Slow, slow, slowWow.
[00:42:24.08]	NATS: Traffic	LOUIE: Just about everything that we do emits carbon dioxidefrom the way we heat and air condition our houses. The way we do our transportation system, whether it's planes trains or automobiles. Just about everything pumps out vast amounts of carbon dioxide, but you can't see it. LOUIE: To be able to see this hidden world was like you were let in on this magic trick, but the magic trick is actually killing the planet. It just looks like a big parade of crap doesn't it?
[00:43:03.00]		PETR: Filth
[00:43:07.22]	NATS: Police siren	
[00:43:12.04]		POLICE OFFICER: So what are you working on buddy?
[00:43:13.22]		PETR: Come on in, I will show you.
[00:43:15.03]		POLICE OFFICER: Is this your flux capacitor?
[00:43:16.18]		LOUIE: Its close, it's uh
[00:43:18.21]		PETR: Right here, I can spin this. You see this?
[00:43:20.02]		LOUIE: It shoots carbon dioxide.
[00:43:22.08]		POLICE OFFICER: What, is the government hiring

		you? Are you just doing your own thing?
[00:43:24.19]		LOUIE & PETR: Yeah
		LOUIE: It's like a science project.
[00:43:27.08]	NATS: Officers talking	PETR: Science project.
[00:43:32.15]	NATS: Couple on beach with off shore oil rigs in distance NATS: Oil rigs	DR. KIRK JOHNSON: In many ways, our generation is the one with the last hand on the throttle that just pushes that throttle down. We're putting so much carbon dioxide, and so much methane into the atmosphere. It's quite possible if you think about it that the baby boom generation itself is the single most impactful generation of mammals this planet has ever seen.
[00:44:06.04]	GFX: Methane Leakage  GFX: DR. BORIS WORM, Marine Research Ecologist, Dalhousie University  NATS: Microscope images of plankton	DR. BORIS WORM: In the Anthropocene, we're changing every parameter, we're changing the geology of the planet, we're changing the chemistry of the ocean. The Anthropocene means that what happens to this planet is now in our own hands.  WORM: When you take any drop out of the ocean anywhere and you look under a microscope, there is so much beauty there on this tiny scale. This miniature architecture that I never tire of looking at.
[00:44:39.00]	NATS: Establishing shot of conference.  NATS: Dr. Worm comes to podium	Announcer: "Our first speaker is Boris Worm, and he's published a number of important and controversial papers in recent years on the decline of phytoplankton."
[00:44:49.23]	NATS: More microscope images of plankton  NATS: Satellite shot of Norway	DR. BORIS WORM: When I give a talk on plankton, say first of all let's take a breath and let's take a second breath, and then contemplate the fact that that second breath came from the ocean, because it was produced ultimately by phytoplankton, which produce half of the oxygen we breath. We're aware that we are changing the ocean at a global scale. There's multiple human impacts

		ranging from fishing to climate change and acidification, implying that no part of the ocean is free from human impact.
[00:45:17.22]		LOUIE: Using satellite imagery and other data, Dr. Worm determined that we may have lost 40% of plankton production in just the last fifty years.
[00:45:27.14]	NATS: Beauty shot of ocean at sunset transitions to montage of plankton	WORM: It's happening primarily as a consequence of climate change and there is a lot of controversy because it's a big question. If this plankton decline pans out to be as dramatic as we think it is, then that would be a big deal.
[00:45:45.05]		VERON: Your life depends on the oceans breathing, and in fact animals could only exist on land after plankton in the oceans had produced enough oxygen for them to live by.
[00:46:06.17]	NATS: Montage of plankton  GFX: Hierarchy of life scrolling by and dissolving	LOUIE: We have this illusion that it's the big things in the environment that count. But, if you lose the small things, everything else fails.  LOUIE: It's like this incredible web where we're all connected, and if you take out one little thing let's say like say plankton? Everything, the whole web collapses.
[00:47:05.08]	NATS: Whale noises mixed with bird songs	
[00:47:27.10]	GFX: PU QI, CHINA	CLARK: It's like having a symphony, and one by one you can just pluck each of the instruments out of the orchestra, until your last voice is there, and then it's gone.
[00:47:34.19]	NATS: Charles buttoning shirt by hotel window, overlooking Asian city.	PAUL: It's out of order. When globally, most of the world is fighting to protect these species, he's taking 600, possibly even more every year. That's the processing plant.

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		LOUIE: Paul found this guy, Mr. Li, one of the biggest smugglers of endangered sharks in the world. They had three protected species of sharks, Basking sharks, Great Whites and whale sharks. PAUL: Like I said, I've had a possible business opportunity to buy Omega 3 oils from him.
[00:48:00.18]		LOUIE: What do I need to know about fish oil?
[00:48:02.10]		PAUL: Say look, we need 100% confirmation that it's a good product, and then yeah ask for samples.
[00:48:07.14]		LOUIE: I'm just going to play it a little bit angry, defensive, you're trying to pacify me. Where am I operating out of the U.S.? I'm going to say Brooklyn.
[00:48:15.15]	NATS: Team driving to meet Mr. Li	PAUL: Whatever. That's your call.
[00:48:19.05]		PAUL: Shark oil is being used for omega 3, but these sharks he's trading are endangered and protected in China and internationally.
[00:48:29.22]	NATS: B-Roll of CITES conventions, delegates shaking hands	LOUIE: The only law that we really have to protect endangered species really is CITES. CITES is the convention for international trade of endangered species, and there's only a few hundred animals that are actually on that list, and part of the reason is because the people that control CITES are actually in the trade of selling them.
[00:48:51.12]		NEWS ANCHOR WOMAN: Ahead of this CITES conference, a new decision making mechanism to set up a centralized system for the resumption of the international trade in elephant ivory.
[00:49:16.18]	NATS: indistinguishable conversation. Team walking to meet with Mr. Li. Team sits down with Li, shot from buttonhole camera.	PAUL: The economy has been down. It's taken a while to get people interested, obviously. Mr. Sawyer is very interested.

[00:49:31.04]		LI: Speaking Chinese
[00:49:35.02]		TRANSLATOR WOMAN: The best quality is basking shark oil.
[00:49:38.16]		LOUIE: Can we take a very small sample back of
[00:49:42.21]		PAUL: Just to let you know last time, he did give
[00:40:42:21]		me some.
[00:49:45.06]		LOUIE: I didn't test it though. We need to have my people test it. I don't know who your lab is. Sorry, it needs to be my lab.
[00:49:52.22]	NATS: people talking, Charles motions to Louie to meet him outside	PAUL: [Laughing] Sure.
[00:49:59.16]		CHARLES: You gotta do up your top button because you can totally see your microphone and tape, right there.
[00:50:09.02]		LOUIE: Jesus Christ. Do you think he saw it?
[00:50:11.16]		CHARLES: Maybe, but I don't know.
[00:50:26.04]		LOUIE: I just want to make sure that five years from now we don't have problems with people saying we've fished out all the whale sharks.
[00:50:35.22]		LI: This business will have a future. I mean to tell you. Now we sell ten tons to Italy each year.
[00:50:42.06]		TRANSLATOR WOMAN: Sell what?
[00:50:43.08]		LI: Shark meat.

[00:50:45.15]		TRANSLATOR WOMAN: Then how do you export your whale shark meat?
[00:50:48.08]	NATS: Indistinguishable talking, team walks outside	LI: The whale shark- we are smuggling it out. LI: You can see over here
[00:51:00.22]		TRANSLATOR WOMAN: 100%100% whale shark.
[00:51:06.16]	GFX: Press Releases	PAUL: We walked up the steps and looked into the processing grounds, and there were whale sharks chopped in bits all over the floor, so we just walked in and started photographing.  PAUL: Then, we sent out a press release to the world's media. It went viral. It hit National Geographic, Times Magazine, the BBC, it just went everywhere. The Chinese government are doing a lot at the moment for endangered species. They're burning ivory, they've banned shark fin soup at government banquets, and things are really moving in the right direction.
	NATS: Dropping shark fin onto cart	PAUL: So, I just hope that they can be proactive with Mr. Li.
[00:52:02.13]	NATS: Team dining at restaurant	PAUL: We can get down about it but maybe there is light at the end of the tunnel.
[00:52:07.09]		TRANSLATOR WOMAN: You can see that people are changing. So we are on our way to stop being so depressed. If in our lifetime everything can change a little bit, that's already worth it.
[00:52:21.18]	NATS: Time lapse of various cities	SHAWN: It's really easy for us to look east and say you know, look what China is doing. They're destroying the planet. They're polluting everything. They're wiping out species, but the west is already doing an incredible job of massively depleting and damaging the environment and taking out a lot of threatened species. What's happening in China now is they're going through the same growing pains that we did, but when we went through our

		growing pains there were only a billion people on the planet. With China going through its growing pains there's over 1.3 billion people in China alone. We've already pushed so many vulnerable species and the environment to the brink, we can't afford to keep making the same mistakes because there will be nothing left.
[00:53:19.23]	NATS: Establishing shot of the "frogPOD"  NATS: Various amphibians being staged for photographs  GFX: Joel Sartore, Photographer  NATS: Man pulling frog out of terrarium  NATS: Montage of photographs of endangered species	SARTORE: Some of the world's rarest amphibians are inside that trailer. I've heard that up to half of all frog species could be gone in the next 20 years. There are 7,000 species of amphibian, and they're all endangered. PhotoArk's my 20 year attempt to photograph every captive species on earth.  One guy's desperate attempt to get people to care. That's it.  There he is. The very last Rabb's Fringed Limb Tree Frog, the very last one. Chytrid fungus wiped them all out in Panama, so he's the last one. That's it.  When he's gone they'll be extinct. Can we lift his chin up a little bit for me please?perfect. You know this is his big moment.  A lot of times these pictures I do are the only national coverage these animals will ever get before they go extinct. This is it. This is their one chance. I really hope the Photoark isn't just some sort of an archive of the things we lost, but instead it's a chance to get people interested and look these animals in the eye, and fall in love with them.
[00:54:37.05]	NATS: Room full of captive turtles  GFX: ERIC GOODE Founder/President, Turtle Conservancy  NATS: Turtle scampers off screen  NATS: Hummingbird fluttering	ERIC GOODE: There's only 330, 340 species of turtles and half of them are under threat. If the temperature rises on the planet just a few degrees, they're very susceptible to extinction. So this is really the last line of defense, keeping animals that are extinct in the wild, in a captive situation. I think you could compare something like this or nature in general to the finest works of art on the planet, in my opinion more than the best Picasso, Matisse, Warhol.

[00:55:23.08]	GFX: LOUIE SCHWARTZBERG, Filmmaker	LOUIE SCHWARTZBERG: Life wants to flourish.  DNA wants to go forward. We need to be part of that. Why would we want to do anything to disrupt something that took billions of years to evolve?
[00:55:44.15]	NATS: Aerial Shot of Arctic Ocean, Snowmobiles speeding between chunks of ice GFX: FAIRBANKS, ALASKA NATS: Pulling sled	
[00:55:51.09]		KATEY WALTER ANTHONY: See how the trees are all falling into the lake. And they are doing that because the permafrost in the ground is melting.
[00:55:57.15]		LOUIE: In the arctic, in these cold regions around the planet, underneath the lakes, underneath the oceans, there's vast, vast quantities of frozen methane that's been in there for millions of years.
[00:56:11.14]		KATEY: This lake has a lot of methane bubbling out of it. In fact, we can light those methane bubbles on fire.
[00:56:22.10]	NATS: Back to 1995 Gobi Desert  NATS: Montage of Permian fossil stills  NATS: Shoveling away at frozen arctic lake	LOUIE: School kids know about the extinction event that killed all the big dinosaurs, but paleontologists, you know, the connoisseurs of this they look back at the Permian extinction. And that's the biggest extinction in the history of the planet, almost all life on the planet disappeared. It's called the great dying. You know, the KT is pretty obvious, it was caused by a meteor, but what the hell killed all the animals on land and sea back in at the Permian. And now they're coming around to thinking it's probably methane.
[00:57:00.11]	NATS: Chipping ice	JASON HALL-SPENCER: So the arctic is getting gradually warmer, and the methane that's been

	Latinction Ficture Lock 9/2/10	locked away for millions of years is starting to come out.
[00:57:19.19]	NATS: Methane comes out of lake and has big reaction with flame over it	VERON: When all this gets going, we will have what we call a runaway effect. That's runaway climate change, and it's unstoppable.
[00:57:27.03]	NATS: Flame rising	SPENCER: The only way to tackle the methane problem is to reduce CO2 emissions because that's what's warming the arctic, and letting this methane bubble up.
[00:57:43.23]	NATS: Satellite image of ice cap	LOUIE: You know, the great irony is that the oil companies they see the melting ice as an opportunity to go up there and drill more holes for oil. And what we don't realize is that underneath that, that's what people have to worry about
[00:57:52.01]		JOHNSON: We do know from the fossil record that even pre-human climate changes could happen fast. I'm not talking millions of years. I'm talking three years or four years. Way less than a mortgage less time than it takes your kid to go through collegeand what if the world's temperature goes up six degrees in three years?
[00:58:13.00]	NATS: Dead coral reef transitions to group of mantas swimming with each other.	VERON: It will lead to massive death in the oceans. When the oceans start dying like that, the planet cannot function as it used to function, and when that happens, life everywhere fails. That is a mass extinction.
[00:58:35.20]	NATS: Mantas swimming	SHAWN: There is this remote island in Indonesia. It's right at the tip where the sea comes crashing into this channel, and through this corridor are whales and dolphins and all kinds of animals. And at the tip of this island is this village called Lamakera. There is no place on earth that we know of, where more manta rays are being killed than in that single village.

[00:59:51.17]	GFX: LAMAKERA, INDONESIA.  NATS: Aerial shot of village	SHAWN: We realized that if we were going to deal with the Manta issue, we had to go to ground zero.
[00:59:58.01]	NATS: Paul and Shawn photographing manta rings on ground of village	SHAWN: These are manta rings. They make like sets of twenty or forty, and they're about twenty dollars a set and you get a couple sets off a manta at maximum and then you get about five to six hundred dollars for the gills.
[01:00:11.21]		PAUL: Those are gills. You can see the end of it. All the cartilage will be sent to china to be crushed down into pills for glucosamine sulfate for the sore joints and stuff.
[01:00:28.15]		SHAWN: We sat down to meet with the Kepala Desa, who's the chief.
[01:00:33.02]	NATS: Paul and Shawn at big table with chief and other members of village	DESA: The fisherman here think that you have come to tell them to stop hunting mantas. If your purpose here in Lamakera is to conduct a conservation mission, the community hopes you can provide alternative solutions. Hunting mantas is our main source of income and it pays for our children's education. We don't have any agriculture, we can't grow any plants. We don't have another choice.
[01:01:07.22]		PAUL: Initially they weren't very welcoming. They didn't want us to stay.
[01:01:13.03]		SHAWN: But ultimately we managed to talk our way onto one of the fishing vessels.
[01:01:20.06]	NATS: Paul and Shawn on hunting boat moving deeper into ocean, go by fellow boat with dead manta	SHAWN: Ask him how they caught it.
[01:01:36.01]	NATS: Indistinguishable talking, boat engine running	SHAWN: Do you see it?
[01:01:39.14]		PAUL: A couple of hours into the fishing trip, I saw this black figure on the surface just cruising.
[01:01:48.22]	NATS: Hunter with spear dives on top of black figure. Hunters work to pull speared manta onto boat. Singing, yelling.	PAUL: Blood starts to color the water.
[01:02:13.15]	NATS: Splashing, singing, frenetic talking	SHAWN: Over the course of an hour this thing struggles for its life.

	It's big.
	I'm looking at this thinking God, I can't do this. He just sticks it in the brain of this animal and it just freaks out. I actually watched its soul just disappear in front of me, and then it went limp.
NATS: Men pull dead manta on board, camera pans down into empty ocean, hunter in water stabbing at the gills. Shawn, "Paul hurry. No don't panic, don't panic."	
NATS: several hunting boats pass by  NATS: Hunting boat pulls to shore with chopped up manta in tow. Kids laughing, cheering as boat comes in  NATS: Women of village working to dry out gills	SHAWN: As we're going towards the village an armada of boats starts streaming past us. And they're all triangulating on this group of manta rays that have come into their waters.  SHAWN: The first thing they do is start hacking into the gills. With the advent of traders providing Diesel powered engines and a supply train all the way out to China, they transitioned very quickly to a full on commercial outfit.
	SHAWN: And it's only a few years before the manta rays will be wiped out.
	PAUL: They realize their numbers are dropping. Even if we weren't here, they realize that something has to change. What are their children going to be doing? They're going to have nothing left.
NATS: Kids helping to butcher what's left of manta.	
	PAUL: You're just losing a bit of magic you know? The world without that species to me it's it's empty you know?
NATS: Villagers working to carry dead manta out of water	
GFX: JANE GOODALL, PhD, DBE, Founder, the Jane Goodall Institute, UN Messenger of Peace  NATS: Dozens of dead sharks lined up on street  NATS: Footage of Jane with	JANE GOODALL: In two hundred years, people will look back on this particular period and say to themselves, how did those people at that time just allow all these amazing creatures to vanish? But it would be very little use in me or anybody else exerting all this energy to save the wild places if people are not being educated into being better stewards than we've been.
	board, camera pans down into empty ocean, hunter in water stabbing at the gills. Shawn, "Paul hurry. No don't panic, don't panic."  NATS: several hunting boats pass by  NATS: Hunting boat pulls to shore with chopped up manta in tow. Kids laughing, cheering as boat comes in  NATS: Women of village working to dry out gills  NATS: Kids helping to butcher what's left of manta.  NATS: Villagers working to carry dead manta out of water  GFX: JANE GOODALL, PhD, DBE, Founder, the Jane Goodall Institute, UN Messenger of Peace  NATS: Dozens of dead sharks lined

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		GOODALL: If we all lose hope, there is no hope. Without hope, people fall into apathy. There's still a lot left that's worth fighting for.
[01:06:27.14]	NATS: Grainy footage of dolphin  NATS: Blue Whale sound, Blue whale in ocean	LOUIE: About 2 decades ago, the Baiji dolphin was extremely vulnerable. There was hundreds of them left. I mean, I thought well there's enough out there, somebody's gonna do something to save this animal. This animal, it wasn't just the last of its species, it was the last of an entire family of cetaceans. So I thought, humans, somebody, somewhere has got to go out and save these animals. They have to because they're dying off. They're all gone now. They went extinct. In my lifetime, they went extinct. So  LOUIE: We always think that there's going to be somebody else around to save these animals.
[01:07:19.19]	NATS: Man walking through field, birds chirping.  GFX: Kissimmee Prairie Preserve, FLORIDA	SARTORE: This field is one of the last places on earth where you can see a Florida Grasshopper Sparrow. And there are fewer males singing every year.
[01:07:31.22]		PRESERVE RANGER: We're at roughly around 20 sparrows a year
[01:07:35.11]	NATS: Ranger nods yes.	SARTORE: From 150 to 20. So it's getting harder every year to find the bird, huh?
[01:07:42.06]		SARTORE: You hear something?
[01:07:43.17]		RANGER: That's a Grasshopper Sparrow!
[01:07:48.06]	NATS: Ranger, "There he is! Got 'em Got 'em" Sparrow on his hand. Sartore begins photographing it.  NATS: Grasshopper sparrow on cover of Audubon magazine  NATS: Sparrow shoots out of portable photography studio, transitions to chameleon in another studio	SARTORE: Phase out is a term you sometimes hear by zookeepers. When a species is no longer viable in captivity, they think about phasing it out just kind of slip off into extinction.  SARTORE: you'll never phase out an elephant or a panda or a rhino, but you know if it's a small brown bird, how are you ever going to get people excited about that?  SARTORE: My pictures of the sparrow ended up on the cover of Audubon and when US Fish & Wildlife Service saw that they went from allocating \$30,000 a year towards the grasshopper sparrow to about 1.3 million dollars this year to try to study it

		and turn things around for this bird.
[01:08:51.13]	NATS: Photographing various endangered species.	LOUIE: To me, photography isn't just about showing somebody how beautiful something is. It's a weapon.
		Remember what Ady Gill was able to do with that little projector in the front of The Hump what he was able to achieve. I thought well, how can we scale this up?
[01:09:33.10]	NATS: Obscura studio  GFX: TRAVIS THRELKEL Founder, Obscura Digital  GFX: Grand Mosque, United Arab Emirates.  GFX: Sydney Opera House.	TRAVIS THRELKEL: When we dream, we don't dream inside of a box. We dream inside of worlds. Early photographs were circular. Even early TVs were circular, but to make more out of the medium there was a decision made to crop it into a box, and the box has a lot to do with the way we think. My way has always been blowing up the medium into a million pieces, and letting it become something else.
[01:10:12.00]	NATS: Louie and Travis on top of the Empire State Building GFX: United Nations Headquarters	LOUIE: Travis has done projections on iconic buildings all over the world. My fantasy would be to take the work of my photographer friends and National Geographic, and amplify their message by orders of magnitude.
		We could just have a whale going by, then it jumps off on some other building.
[01:10:30.22]		TRAVIS: It'd be beautiful. I still love the idea of sharks on Wall Street.
[01:10:36.22]	NATS: Louie and Travis scoping out NYC locations, look at Empire St Building, Louie, "What do you think." Tyler, "Yeah, no problem." Louie laughs.	
[01:10:40.15]		LOUIE: 80% of the greenhouse gases that are caused by cities are caused by commercial buildings. Tony Malkin, the guy that owns the Empire State Building, probably the most iconic building in the world, and he's greened it.
[01:10:53.19]	NATS: In Tony Malkin's office	MALKIN: Everyone had written off the Empire State Building as outmoded and obsolete. We retrofitted 6,500 windows, replaced all the lights with LEDs,

		redid the heating and cooling systems, and from that, we actually saved \$4.4 million a year. The best way to move the needle when people are talking about the environment is the bottom line.
[01:11:18.02]	NATS: Louie and Travis outside ESB	TRAVIS: I like to project into the woods.
[01:11:22.02]		LOUIE: You try to do the whole building?
[01:11:23.12]		TRAVIS: Ya we'd do the whole building. And we can also, like kind of the mobile idea where we can mount projectors onto trucks and just drive with them.
[01:11:29.19]		LOUIE: That would be cool.
		Travis had drawn up an illustration of a mobile projection vehicle. Just looking at the plans had opened up a whole new world of possibility.
		LEILANI: It can't just be the environmental activists that care about getting off of fossil fuels. Everybody has to become a part of it.
		LOUIE: I heard that there's this racecar driver that was an environmentalist in a sport that traditionally doesn't care about the environment, so like a living contradiction.
[01:12:04.07]	GFX: LEILANI MUNTER, Professional Race Car Driver/Environmental Activist	LEILANI: When I go to the sports marketing companies and I say "can you help me find sponsors?" I give them the list of people I won't work with. No fossil fuels, no oil, no coal, no meat. No people who test on animals. No fur. No leather. They just look at me like "Ugh I don't know how you want us to help you."
	NATS: Radio Announcer, "Leilani Munter just passed five cars in the last lap and a half, and she"	
[01:12:29.02]		LEILANI: Sometimes I have an environmentalist say "well if you were really an environmentalist you know, you'd be racing a bike", and the problem with that is then I wouldn't have 75,000,000 people paying attention to my sport.
[01:12:44.05]	NATS: Night shot of Tesla racing around Tesla motors track	

[01:12:51.23]	GFX: Tesla Factory, FREMONT, CA GFX: ELON MUSK, Founder and CEO, Tesla Motors.  NATS: "Ladies and gentleman, Elon Musk!"	LOUIE: You look at a guy like Elon Musk. He built his own reusable rocket ships to supply the space station, and is the biggest installer of solar in America, and he built the best-rated car ever made, and it's electric.
[01:13:03.05]		LOUIE: Leilani knew Elon Musk.
[01:13:05.11]		ELON: I think we are currently doing something very, very dumb, which is to run this experiment on how much CO2 the ocean's and atmosphere can hold. In order to have a future that does not result in environmental catastrophe followed by economic collapse, which is what would occur if we didn't get off oil, that's why we have to have electric cars.
[01:13:28.02]		LEILANI: I think we want to put in an order for a car today.
[01:13:30.11]		ELON: Excellent. We'll take one.
[01:13:33.18]	NATS: Machinists working in Obscura shop GFX: Obscura Workshop, OAKLAND, CA	
[01:13:45.19]		TECHNICIAN: It's pretty quick.
[01:13:46.22]		LOUIE: Is it going to go that fast with a hundred and five pounds on it?
[01:13:49.23]		TECHNICIAN: Yeah.
[01:13:55.00]		LOUIE: Oh, yeah.
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[01:13:56.03]		TECHNICIAN: I mean the focal length on it is crazy.
		You'll be able to shoot really far with it.
[01:14:00.05]		TRAVIS: We can zoom hundreds of feet from something or like one thousand feet and scale it.
[01:14:04.04]		LEILANI: Great.
[01:14:05.10]		LOUIE: One thousand feet with this?
[01:14:06.04]		TRAVIS: Uh yeah.
[01:14:11.11]		LOUIE: How far will these project?
[01:14:13.22]		SOUND TECH: A mile. Now I'm building one for you guys that's three times louder than this.
[01:14:23.10]	NATS: Sound projector projecting dolphin sounds off of pier.	CLARK: Woah, suddenly there's just this amazing sound! You can't hear that?
[01:14:33.06]		TRAVIS: We take an inspiration from ocean creatures, like plankton, cuttle fish, that use the light as a communication device or a camouflage. And added an electroluminescent paint job.
[01:14:45.15]	NATS: Laughs, Tesla flashes luminescent stripes	LOUIE: With the mobile projections, we can go anywhere we want with it. We can take it to the highways, we can take it to big buildings, and we can take it to the streets.
[01:14:53.14]		TRAVIS: We'll be able to project CO2 emissions in real time out of the projector in the back of the vehicle while Leilani's driving.
[01:15:01.04]		TECHNICIAN: So that's legal.

[01:15:02.18]		LEILANI: That's legal?
[01:15:04.08]	NATS: Laughing	TECHNICIAN:until you push that.
		LEILANI: That's legal!
		TECHNICIAN: Ok, it's ready to go boss.
[01:15:12.17]		LOUIE: My feeling is that by bringing nature to the city, we're hopefully able to inspire people to actually help save these creatures.
[01:15:26.09]	GFX: BANGKOK, THAILAND  NATS: Train screeches to a stop	SHAWN: There's a lot of species that need protection.  Most species that are deserving never get listed. After a four year campaign, we finally managed to get mantas
	NATS: Shawn presenting at CITES meeting, "So what I want to show you here is a video that shows what we're doing."	on the docket at the 2013 CITES meeting.
[01:15:51.22]		SHAWN: Most people say that you can't beat money. You can't beat politics. You can't beat those things with just hope and inspiration.
	NATS: Shawn presenting, "We have to make it socially unacceptable to consume these animals."	
[01:16:02.08]	NATS: Paul looking at newspaper	PAUL: I think we live in a very visual world. Imagery is very powerful. You can walk into a room where they might speak fifteen different languages but you show them a photograph, people get it. They understand.
		Supping on Conservation Soup. There we go. There's the Hong Kong rooftop.
[01:16:22.21]		SPEAKER WOMAN: I will ask us to move quickly to the next proposal The inclusion of Manta species on Appendix II.
[01:16:31.04]		REPRESENTATIVE: On behalf of the European Union and its member states in Croatia, we support the proposal to include manta rays.
[01:16:37.00]		REPRESENTATIVE: South Africa as a member state shares the same support.

[01:16:40.03]		REPRESENTATIVE: China is does not support this proposal. Thank you, Madam Chair.
[01:16:47.15]	NATS: Garage door opening	RADIO: Copy that.
	NATS: Tesla car driving	LEILANI: Got your seat belt on?
		TRAVIS: Yup.
[01:16:59.03]		RADIO: Faster. Take a right. Keep that going. Keep that going.
	NATS: "Let's move, let's move, let's move." Projector onto Shell oil logo	
[01:17:17.03]	NATS: Police siren	POLICE OFFICER: So what are you filming on the vehicle?
[01:17:21.00]		GINA: Oh, it's a light on top of the vehicle.
[01:17:22.12]		POLICE OFFICER: So what are you documenting?
[01:17:23.01]		GINA: We're getting shots in industrial areas.
[01:17:26.14]		POLICE OFFICER: Why industrial areas?
[01:17:28.21]		GINA: The reflections on the car looks prettier.
[01:17:31.15]		POLICE OFFICER: You might want to do it somewhere else.
[01:17:33.00]		LOUIE: What if we photograph your smoke?
[01:17:35.10]		POLICE OFFICER: That's not smoke.
[01:17:36.23]		LOUIE: What is it?
[01:17:38.09]		POLICE OFFICER: That's steam.
[01:17:38.22]		LOUIE: So we can film your steam? Is that OK?

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[01:17:40.18]		POLICE OFFICER: No.
	NATS: Projecting CO2 emissions on factory emissions	
[01:17:43.11]		LOUIE: I want people to understand, that we're the only generation left that can save these animals. There's no other future generation that we can count on to save us. It's us!
[01:17:58.03]		SPEAKER WOMAN: We do not have a consensus. Technicians, please display the results.
	GFX: [yes-91 no-39]  NATS: Manta vote passes.  Clapping, cheering	
[01:18:22.13]	NATS: Driving through Lamakera.  NATS: Motorcycle, drives by. Pick up full of gear being emptied	SHAWN: The only way you're going to affect change in a remote community like Lamakera is to present an alternative. With the CITES victory, we succeeded in getting manta rays listed for protection which lead to a national ban on all fisheries for manta rays throughout all of Indonesia. In fact, it's illegal to even harm one, and it can result in up to a year in prison. That law, it creates new possibilities.  Yeah, that's our theater. Yeah. Projector and where is the um the um electric?  And in the world of conservation those small opportunities and those small doorways that you open often lead to those breakthrough moments.  Now whether it works, that's the next step.
[01:19:19.11]	NATS: Close up on child's eyes as manta movie and display is set up.	
		FISHERMAN: I'm a fisherman. If we continue to hunt mantas this way, I am pessimistic that there will still be mantas left, and they may even go extinct. We don't want that to happen. We should reduce the number of mantas being hunted so the next generation will know what they look like.
[01:20:26.06]	NATS: Projector projecting movie on big screen	SHAWN: There's our village.

	NATS: Children cheering	
[01:20:54.14]		SHAWN: We want them to get an entirely new view that the stuff they go out in the water and see every day and they stick a spear in is worth far more alive than dead. The concept of converting this hunting culture into a tourism culture on the surface seems pretty daunting, but we show them the success stories that we've had in these other areas places of the world that had very little and now are thriving.
[01:21:34.12]		PAUL: These kids are going to be really influenced by this, and they're going to be the guides of the future. We're just bringing a message. It's really up to them.
	NATS: Transition from projector in Lamakera to Tesla projector in NYC. TESLA driving and projecting throughout city. People stopping to watch, take pictures. Workers setting up bigger projection.  Projection: Welcome to the Anthropocene"The Age of Man"	
[01:22:28.11]	NATS: Whale sounds, projection on UN begins, booming animal sounds. Crowds of people of all ages stopping to watch, take pictures.	GOODALL: We can make this happen, as we face more and more animal extinctions, we need more and more of these indomitable spirits, and we need more people to understand it's worth doing. The small choices we make each day can lead to the kind of world that we all want for the future.
[01:23:12.23]	GFK: United Nations Headquarters NEW YORK, NY  NATS: Projections.  PROJECTION: THE WHOLE WORLD IS SINGINGBUT WE'VE STOPPED LISTENING.	
[01:24:31.12]		SHAWN: There was a reverend in Japan. He had a statement which really struck me. And it was "better to light one candle than curse the darkness". There's so many people who sit back and say "we're screwed" or you know "why bother"but you know what? That candle - that candle means something because with

	Admiction Ficture Edek 9/2/10	that one candle maybe someone else with a candle will find you, and I think that's where movements are started.
[01:25:17.21]	PROJECTION: Kauai O'o 0 Left	
	PROJECTION: SOLUTIONS EXIST	LOUIE: I know it sounds overwhelming. If each of us starts with just one thing we can start a movement.
	PROJECTION: IN THE NEXT 100 YEARS WE COULD LOSE 50% OF ALL SPECIES ON EARTH	, G
	NATS: MORE NY PROJECTIONS	
		If we stop buying endangered animal products, sellers will stop supplying them.
		Since WildAid's anti-shark fin campaign was released in China, demand for shark fins has dropped by 70%.
[01:26:05.22]	PROJECTION: BAN ENDANGERED WILDLIFE PRODUCTS IN THE US AND ABROAD	
	PROJECTION: GOT METHANE?	
	PROJECTION: LIVESTOCK PRODUCES MORE GREENHOUSE GASES THAN THE ENTIRE TRANSPORTATION SECTOR.	
		If every American skipped meat and cheese just one day a week for a year, it would be like taking 7,600,000 cars off the road.
[01:26:33.08]	PROJECTION: EAT MORE PLANTS!	
	PROJECTION: WE HAVE NEVER HAD A CARBON DIOXIDE SPIKE LIKE IS HAPPENING NOW.	
	NOW	
	THERE HAVE BEEN 5 MASS EXTINCTIONS IN THE EARTH'S HISTORY. ALL 5 EXTINCTIONS HAPPENED WHEN THERE WERE	

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