Transcript: Whose Sustainability Is It Anyway?

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Dane Whicker
It's November, and the holidays are fast approaching. I've just sat down at a local farm to table restaurant in my hometown, nestled in the foothills of the Rocky Mountains. It's freezing outside, but the atmosphere of the restaurant and amazing company bring a warm smile to my face. As I take the first few sips of wine and peruse the menu, the salmon crudo catches my eye. I'm starving. And as an appetizer, it looks delicious. Our server arrives and I cannot help but to inquire. Hey, where do you source your salmon from? It's just a few minutes before she returns with an answer. It's a Canadian salmon, she says Surely. Canadian. A year earlier and I was sitting with my partner in a high end restaurant, a city away on a fancy date night. We were both astounded that the restaurant not only offered free bread, but a full on free bread tasting service. She and I felt on top of the world sitting there more than 1000 miles from the ocean. I saw octopus sitting on the menu plain as can be. Investigating further, I noticed small fine print at the bottom of the menu stating that the restaurant was ranked as one of 100 in the country to achieve a James Beard smart catch leader status, committed to seafood sustainability and protecting the global seafood supply. Does that mean that ordering octopus is sustainable another time, another place. I'm indulging in my all time favorite hobby of scuba diving, exploring the wondrous waters of the Caribbean. My partner and I had just earned our spear fishing licenses, and I had forgotten my usual photography equipment in favor of a slim spear. I had just found my quarry, a magnificent red and white striped lionfish adorned with long venomous spines that spread from its body like wings. The creature was beautiful. I set a brief Thank you leveled my shot, breathe slowly and fired. Later that week, my fellow divers and I enjoyed lionfish, the VJ and fried lionfish nuggets, reveling in the unique flavor. And we felt good that through our actions we actually helped the reef heal. These three situations are among many in my life that have shaped my own personal relationship with seafood. Over the course of my life, this particular cuisine has meant a lot to me from exquisite restaurant experiences to the creativity and fun of using seafood in my own home kitchen, miso glazed sablefish salmon and garlic potatoes, shrimp po boys and a holiday tradition of bouillabaisse just saying the word seafood is enough to set my mouth watering. But as a scuba diver, Ocean Explorer and a bit of a bleeding heart, I've always wondered in the back of my mind, are my choices particularly good for the ocean that I love so much. It's often said that seafood is one of the last sources of wild protein on Earth, so is removing these animals to eat them only contributing to the demise of my favorite ecosystem. Certain documentaries and media pieces seem to think so, claiming that the only solution is to stop eating seafood altogether. Meanwhile, restaurants and grocers are eager to show off claims and labels of sustainability, saying that they work hard to make sure their fish is environmentally sound. Where's the truth to further complicate my own internal dialogue. My choices in the kitchen and when dining out are one of the few ways as an Inlander I can feel connected to the sea. I want to eat fish. Not only is it packed with amazing nutritional benefits, it's also tasty and helps me learn more about the ocean with every new dish that appears on my plate. So sorting through this requires sorting through one very very confusing word sustainable. I have seen firsthand the destruction potential that fishing holds sharks being killed for their fins and discarded in great number.

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Beautiful swordfish killed for nothing but sport, massive nets abandoned to drift and untangle all sea life that crosses its path. I've seen human lives being abused to crew large ships as they rake the sea for protein and deplete any chance it has to recover. But I've also seen the value that fishing brings. It helps feed people that I care about. It gives purpose and joy to those who love doing it. It's shaped cultures and relationships throughout history graced our plates and palettes and helped people learn about and feel You're connected to the waterways and seas of our own planet. Over time, this profession has transformed from its roots and traditions, sustenance and culture to one of the most complex, nuanced, and, dare I say it existentially important topics of the modern world. So that's why seafood is today's topic on peak and plunge, the podcast about connecting the heart of the land to the fish in the sea. Join us as we reflect on our own relationships with seafood and ponder, can I really have my fish and eat it too? Let's plunge right in.

[Splash]

Today on peak and plunge, who's sustainability is It Anyway? The podcast where the word is made up and your fish choices matter!

Cory Nash
Absolutely everyone should care about sustainability and seafood. Because it affects you. If you're at a mountaintop… okay, waybe well, you know, even at a mountaintop, it affects you. All right? There are… so no matter where you live, the ocean plays an enormous role in your life. It drives weather and climate, it produces oxygen, acts as a carbon sink… the very same ocean that's threatened by climate change, plastic pollution, overfishing, all kinds of stuff.

Dane Whicker
This is the voice of Corbett Nash or Cory for short.

Cory Nash
My name is Corbett Nash. I'm currently the Outreach Manager for the Seafood Watch Program at the Monterey Bay Aquarium.

Dane Whicker
If you've heard of just one name in the seafood sustainability game, smart money would be on it being the Monterey Bay Aquarium Seafood Watch program. They're one of the biggest and if I can share a little personal bias here, most fun programs looking at this issue.

Cory Nash
So the Monterey Bay Aquarium Seafood Watch program started 24 and three-quarters years ago, basically, it's almost 25 years old. We turn 25 Next year, I think in October, if I'm not mistaken. And so we're getting excited to tell those stories about what we've been able to accomplish in the last 25 years. But the way it started… is we had a we had an exhibit at the Monterey Bay Aquarium about sustainable seafood. And it was called fishing for solutions. And this exhibit was popular - people's interests were piqued, we noticed how many people were engaging. Shortly after that, we put little little sort of table tents on on tables in the cafe and other areas that had some sustained sustainable seafood

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suggestions. These were going missing, they were actually literally being taken from the aquarium and finding their way into people's pockets and other places. And so we realized that there might be there might be something to that, and maybe we should start making a consumer guide of some sort. And so from there, we, you know, we started our process of assembling our science team, which is sort of the, fundamental offering the fundamental component, really, of who we are and what we do. But we started making these little guides - the Seafood Watch Pocket Guide became popular that we started working with zoos and aquariums across the country, asking them if they wanted to talk about sustainable seafood based on our science and distribute our pocket guides. We worked with others were celebrity chefs and things like that. And it grew and grew and grew to the point where we were making millions and distributing millions of these pocket guides. It was a concept that came out of an exhibit from the aquarium and it just sort of blew up because people really did have a desire to know know what, what they were eating as far as seafood is concerned and its environmental footprint.

Dane Whicker
On today's show, I'm going to ask you to reflect on one very important question. What is your relationship with seafood? When it comes to the invisible ties that link our world's oceans and those of us who live inland eating and using seafood is perhaps the most tangible.

Cory Nash
Seafood, you know, I do have a relationship with it. We all - well, most of us anyway do have some sort of relationship to seafood. And for me, I mean it started off as a kid when I was when my dad introduced me to fishing. You know, I love them. And we'd go on fishing trips and you know, go out to rivers and lakes. I grew up in the Midwest, take fishing trips, whole vacations in the summer. And so I really got interested in fishing the freshwater species of of Canada and the US central areas that went with me to Hawaii where I would get in a kayak and go out fishing that went with me and and Switzerland where I grew up in mountains and fish trout. And although I haven't caught a nice trout yet in California and looking forward to doing that here pretty soon, but the seafood side of it is you know it's it's an ever present protein in many of our diets, including mine, and I love a good fish and chips. And so I wanted to learn more about it and why? You know what are the responsible choices, what are the issues facing sustainable seafood? And that's those are some of the reasons that some of the things that sort of drove me to, to wanting to work in it.

Dane Whicker
Your relationship is going to look different from many others. Nine out ordering octopus from a restaurant and inland Colorado is different than buying a whole fish directly off the boat of a fisherman at a coastal dockside market. And different still from catching trout yourself in an inland stream.

Cory Nash
Actions that you do inland affect the ocean, the ocean affects you. It's absolutely tied. And I know that sort of a sort of a tenant of your whole program here, I would imagine, but it is absolutely tied. No matter where you live.

Dane Whicker

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How do we determine if our own relationship with seafood is sustainable? If you enjoy the delicious breadth of dishes that this cuisine brings, no doubt you've seen that word sustainable, plastered on packaging, grocery store walls and restaurant menus. But what does it even mean to begin with? Does where you buy your fish matter? Does where it comes from in the first place matter? Is one fish better than another fish? is red fish better than blue fish? Is there really a difference between farmed and wild caught?

Cory Nash
Well, I mean, it is it is a question that, you know, it's difficult to have one solid answer that everyone would agree to. When we say sustainable seafood comes from Fisheries and Aquaculture operations that minimize harmful environmental impacts, assure good and fair working conditions and support the livelihoods and economic benefits throughout the entire supply chain. Our recommendations of course, focus on environmental impacts, doesn't necessarily focus on carbon impacts, doesn't necessarily focus on other other impacts like social human rights and things like that, although we do some work in that area. But it focused on the environmental impacts of seafood production to help ensure that it is fished and farmed in ways that promote long term well being of wildlife in the environment. In a nutshell.

Dane Whicker
In the introduction to this episode, I shared three stories from my personal life: a Canadian salmon, octopus from a quote “sustainable” restaurant, and hand spearing my own lionfish dinner. Seafood Watch strives to take these three scenarios and let me know if each one is a good choice.

Cory Nash
Okay, well, in a nutshell, we use science to assess the environmental sustainability of seafood on the US market, and then use those findings to to try to transform how seafood is fished and farmed across the US and in other places the world, the ratings program, and we put these, we put these fisheries and aquaculture aquaculture operations sort of against our science based standards for environmental sustainability. And then we use those ratings to create recommendations for wild caught and farmed seafood. That's the backbone of our work.

Dane Whicker
This is really difficult because the question isn't black and white. And there's a lot of factors to consider.

Cory Nash
Yeah, well, that's a good start. But there's a lot more, we have a big team of scientists and analysts. Well, off the top of my head, I'd have I'm not sure exactly how many we have, but it's over 20. Just doing our assessments. We have a team on the aquaculture side. And we have a team on the wild cod fishery side for the Wildcat fisheries, they look at four criteria. They look at how the populations of fish is doing. So is it is it being overfished? Is there is there enough for natural regeneration of populations and natural sustainability of the populations. So that's one. The second thing we look at is basically bycatch. If you want to sum it up, that's what it is. It's a little bit more complicated than that. The third is management. And then finally, we look at impacts on habitat and other wildlife, basically, so those are the four criteria for wild wild fisheries. For aquaculture, it gets a lot more complicated. And we have, we actually have 10 criteria that we look at, to give you a few of them, limiting habitat damage, looking at

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disease, chemical use, so antibiotics, things of that nature, are their escapes of the farmed fish. What are they using for feed? You know, there's just there's just a bunch of criteria that go into our aquaculture assessments.

Dane Whicker
Each one of those standards has an absolute ton of data partnerships and know how contained within.

Cory Nash
For all of our assessments we reach out to government we reach out to the to the regulating bodies, whatever they are national, in some cases international or regional, and state and we we ask them to you know, give us all the information all the updates, all the research, everything they can so that our assessments are the most robust possible.

Dane Whicker
Once that absolutely massive amount of data is crunched and the reports are written. The end result is a small little pocket A guide that I can either put in my wallet or access on my phone that will help me classify my seafood choices with an easy to understand stoplight system:

Cory Nash
…stoplight red is, is avoid or don't buy or take a pass on these for now, because there are severe environmental concerns. Yellow means this is a good alternative. You know, we recommend that you do buy this source. But know that there are some issues that need to be addressed. And we're not 100% standing behind it. But while we're still working in the right direction, these are these are good ones to buy. So that's a yellow kind of a yield. Give it some thought kind of thing. Do you go forward? Or do you stop your choice. And then the green, of course, is a best choice. And those are the ones that sort of pass our bar for environmental sustainability.

Dane Whicker
Here's what it looks like in practice. There was one day I was out from lunch at a restaurant and I was like, man, seafood sounds incredible. So on the menu, there was coconut shrimp seared ahi, tuna, cedar plank, Atlantic salmon, and fish tacos made with flaky cod. All of it sounded amazing. But just looking at the menu, I had no idea is ordering the shrimp worse for the ocean than the cod. The salmon says it's farmed. Does that mean it's the best choice. I didn't see any kind of sustainability commitment on their menu. But luckily, I was carrying my central US consumer guide. So I asked a few questions to my server. And after I was equipped with the answers did some quick cross checking. I saw that the salmon was farmed in Norway and avoid Okay, not what I expected. They were unable to tell me any information about where they got the shrimp and shrimp could be green, yellow or red depending on where it's from. Better safe than sorry there. So I better avoid that for now. ahi tuna landed squarely in the yellow column with some interesting considerations. So maybe, but I did confirm that the cod was wild caught in Alaska a best choice fish tacos, it is a choice I could feel good about. And all it cost me was a few minutes of my time, and a pleasant conversation with the restaurant staff. Oh, and the tacos were delicious. By the way. What's great about this silly little story of simply deciding what to eat for lunch is that that choice that I made and the conversation that I had, even if it felt small, it made a difference.

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Cory Nash
Over half of us consumers say that buying sustainable seafood is personally important. And they may be willing to pay a premium. Not necessarily, but sometimes. And that demand encourages businesses both big and small to commit to sourcing and selling sustainable seafood. Those businesses are on the coast as well as in the Rocky Mountains as well as in the Midwest. The one strong positive action that that nearly everybody can take right now for a healthier ocean is to responsibly choose what you eat and where it comes from.

Dane Whicker
I've since been back to that restaurant that I ordered the fish tacos at and talking more with the waitstaff about not seeing a sustainability commitment on the menu. I found out that this restaurant was actually in the process of examining its own seafood sourcing. And we're currently in between different salmon vendors in an effort to find something more sustainable consumer choice and having these conversations matters. And it may matter inland way more than might be logical. My home States Capitol of Denver, Colorado has often been touted as one of the best places in the country for fresh seafood. Let that sink in. Are you surprised? I'm surprised? It's so far from a coast. But the demand there is huge and from personal experience, many chefs their work some absolute magic with flash freezing technology and the same infrastructure that brings you one day online Amazon shipping, it's now possible to get fish that were literally caught in the ocean yesterday in Denver Restaurants today. That's wild. A 2020 study aimed at investigating seafood consumption in the United States looked at the geography of where seafood was being bought and consumed across the country. And while it is true that on average inland counties consumed less seafood than coastal areas, the study found that that average was only five grams less per day. On top of that, the study concluded that living in an urban center you know, a large city was more of an indicator of high seafood consumption than proximity to a coastline. So while this is only one study and data is perhaps lacking in this sphere, it's not out of the question to think that places that don't even touch saltwater like Denver, Houston, Phoenix, Chicago and more have just as much of a driving influence in the seafood market than a coastal city like San Diego or Boston. So this is all really great in a feel good about myself and tell my friends on Instagram kind of way which I absolutely do. But you know what's better than just saying I make sustainable seafood choices, knowing exactly what problems those choices are helping to solve.

Cory Nash
So over 3 million people worldwide depend on seafood in one way or another for nutrition or livelihoods. That's a lot of people. And of course, that's a really rough figure, but if left unchecked, just to go and everybody eats as much as they want, and there's no regulation or maybe there is regulation, but but it's not really enforced. Destructive fishing and aquaculture practices can harm the ocean and harm the environment. If we let these things slide and don't take any action at all and and have no regard for the health of our ecosystems, I mean, we all know that that leads to a down a dark path.

Dane Whicker
The problems that we need to tackle to avoid this dark path..

Cory Nash

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Overfishing…
Bycatch is an issue…
Enforcement, especially globally…
Different factors that lead to…
Traceability…
Human rights abuses and slavery…
Turtles, of course need to breathe air…
I'm the fisherman pulls up that crab trap…
…there'll be a dead turtle in it.

Dane Whicker
All of these problems can be both depressing and overwhelming. So let's break them down into smaller chunks. The first and some would argue biggest problem in all of seafood is overfishing. And to start that discussion, I'm going to step away from science for a minute and actually delve into the realm of anthropology exploring some human arts and culture in ancient Greece. There's this play. Well, it's a true of plays really. It's a trilogy of tragedies called the Oresteia penned by Greek playwright escolas it is a rot tale of murder and fate. But there's this one specific line were quite a maestra, the queen of my CD and half sister to Helen of Troy wonders aloud, there is the sea who shall exhaust the sea. The sea, which unceasingly renews the Crimson die, as valuable as silver in exhaustible. In this she directly compares the wealth of her house to the wealth of resources from the sea, and uses that same comparison to hint at similarities between the unending renewal of bloodshed suffused throughout this whole tale to the unending replenishment of the oceans themselves. That's right, the sheer amount of resources in the ocean was so widely understood to be infinite, that it was used as a metaphor by a Greek playwright in something a little more contemporary and less dramatic in nature. The English biologist and anthropologist Thomas Huxley once stated that quote, I believe, then that the cod fishery, and probably all the great sea fisheries are inexhaustible. That is to say nothing we do seriously affects the number of fish and quote, this was a scientist and in 1883, only 141 years ago, still using that same word, inexhaustible. I bring up Greek playwrights in 1800s. naturalists to point to this one key thing, a widespread and very interesting belief that taking too much from the ocean was actually literally impossible. That word inexhaustible. Now, this wasn't true for all cultures throughout human history. For example, indigenous nations were much more forward thinking. But this line of thought that we can just take whatever we want, with no consequence, was historically persistent. This was perhaps most crucial around the time of the Industrial Revolution, when rapid fire advancements in fishing technologies, freezing technologies, larger scale vessels, and greater demand for fish products made a different word overfishing, way more present in our lexicon.

Cory Nash
Oh, boy. Okay, those are those are big questions. Yeah. Overfishing it's not a it's not a new problem. I mean, you can look through the history books and see collapse of fisheries from I'm, I imagine if you scour from ancient times to, to modern times, I mean, the cod fishery in in the US northeast, the sardine fishery right in Monterey, that collapsed. It was probably a various different factors that led to the collapse of that. But one of them, of course, was overfishing.

Dane Whicker

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So when you put this belief that you literally cannot over fish right up against massively expanded fishing capacity? Well, it's not super hard to do the math here and arrive at the fact that we can have outsized effects on fish populations. In fact, we've demonstrated our ability to do so time and time again. In the 1800s, whaling caused the near extinction of several species of whales that we still haven't recovered from. After 50 years of fishing pressure that helped supply two world wars, populations of sardines off the coast of Monterey, California. crashed in the 1950s. Later that same decade in the far east of Russia, yields of salmon in the Kamchatka Peninsula sharply declined. In the 60s, it was herring off the coast of Norway in the early 70s. And to Veta, or anchovies off the coast of Peru. These stories go on and on up until and even through today, with major closures happening almost every decade. Who shall exhaust the sea? Well, we just might. This increased fishing pressure doesn't just affect the species that we eat either. There's also the next issue of what happens when we catch other animals that we had not intended to catch in the first place: bycatch.

Cory Nash
Bycatch is an issue. That's, you know, that's, you could say it's plagued or it's an issue along with fisheries since probably first started fishing. And bycatch is that when you catch a non targeted species, so you're fishing for, oh, I don't know, let's say you have a trap out for a crab species that sits on the bottom of the ocean, a, an endangered turtle will crawl into that trap and can't escape. Well, turtles, of course, need to breathe air. And so if that's an issue, and you don't have something that will exclude that turtle, that turtle can't get up and take a breath, and by the time the fisherman pulls up that crab trap, there'll be a dead turtle in it. And so it's important to make your gear fit the environment and take these kinds of bycatch considerations into mind when you're setting it.

Dane Whicker
Bycatch adds additional pressure on the ecosystem through mortalities in these non-target species, sharks, turtles, seabirds, dolphins, and even whales can be victims. Sometimes they're kept and sold, sometimes the repurposed intubate, and in some cases, these caught and killed animals are simply discarded.

Cory Nash
Of course, bycatch sometimes is unavoidable, you put out long lines of, of bait, you know, maybe it's a mile long, and you got hooks, every, every whatever distance on that line. And, you know, maybe you're trying to catch cod and you grab a shark or maybe you know, you're trying to catch tuna and you grab something else, we look at, you know, sort of the the methods that people are fishing. bycatch is unavoidable. In many cases, it is avoidable in some cases, and that's great. But in the cases where it's not avoidable, it's about getting that realizing that you have a non targeted species on your line, or in your net, whatever it is you might be doing, and being able to release it in a timely manner, with minimal to no harm, so that it's not impacted as a species.

Dane Whicker
We have a lot of power to shape fishing pressure with our own choices. But with the scale of this grant, a big part of preventing overfishing and bycatch lies in making good individual choices and working together with regulation and policy.

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Cory Nash
So fisheries have to have some sort of management level so that they can maintain their stock status, so that so that there's still fish in the sea, next year, and in 10 years and, and 20 years. And so there are usually some sort of set quotas for a particular fishery. And if there's these rules in place, be it in the United States or in China or globally through a regional fisheries management organization. If the rules are in place, and the rules are enforced, then the fishery can typically survive. All else being equal, of course, you know, climate, climate factors, change fisheries and populations and how things move and, and migrate and things like that. But all else being equal, when the policy is in place, and enforcement regulations are in place, a fishery should be able to survive in a medium or long term. That's difficult.

Dane Whicker
And it's not just difficult because the math and science behind managing a fishery is really complicated. These environmental considerations are still just small pieces of a larger puzzle that gets way more complicated once you start adding in considerations like climate impacts, market and economic impacts, and even human rights.

Cory Nash
Environmental readings are our backbone, our bread and butter. But we can't and we don't want to ignore the social side of the picture as well. So we have we have a social advisory group that sort of advises us and in how we can go forward and be a little bit more responsible in what we talk about and how we talk about, you know, things like human rights abuses, forced labor, human trafficking, higher risk, hazardous child labor, things like that.

Dane Whicker
Unless you've seen reporting to this effect, it's hard to imagine that the seafood industry is linked with horrible things like high risk child labor and modern day slavery. But all of these things Cory mentioned absolutely do exist. It's something that Seafood Watch is beginning to consider when it comes to their recommendations.

Cory Nash
We have an advisory group that we put together of sort of international experts that help us with our social side of things. Now this is this is separate from our environmental ratings, we the way we approach it is we try to work with our business partners, to help them recognize the importance of learning more about socially responsible seafood production and identifying areas where human rights abuses might be occurring in their supply chains. And so we're actually, we actually have a small group of animals now working on something we call the seafood social risk tool.

Dane Whicker
International fishing and the social risk side of seafood is an incredibly complicated topic that deserves so much more reporting, than we have time to really correctly cover and give justice to today. And that's because these stories can range drastically from vessels simply not reporting the number of fish that they catch, to flying the flags of different countries to evade the law, all the way up to deckhands that are malnourished, overworked, abused and not allowed to leave vessels for years at a time,

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Cory Nash
We'll look at certain fisheries and we look at them on a country by country basis. And so you know, we'll look at tuna from country A, and these are your risk factors that we're aware of. And tuna from country A. And so we'll we'll work with businesses to say okay, look, we're not saying that the tune that you're sourcing is bad. But look, this is these are the risk factors that you should take into consideration when you're sourcing your tuner from country A or country B or country C.

Dane Whicker
By international law established by the United Nations. Anything beyond a country's 200 nautical mile exclusive economic zone constitutes the high seas, it's something that no one country owns. And though these same international laws govern how resources like fish in the high seas should be caught and used, there's a severe lack of ability to uphold that governance. Because of this, the High Seas has often been given the moniker the wild west of the oceans. It's this place where law exists but is rarely enforced. This has in part allowed for the proliferation of these issues from illegal unreported and unregulated fishing to the forced labor, child labor and human trafficking that Corey was talking about.

Cory Nash
[It's a] stark reminder of the need to address kind of the deep rooted social and human rights issues that are intertwined with existing environmental issues and seafood production.

Dane Whicker
It's heartbreaking it's enraging, but it's absolutely worth knowing about, because it showcases that it's not just ocean animals in harm's way in the seafood industry. There are real crimes, real human suffering and even avoidable human death, fueling some of the world's most eaten dishes. So when we return to that central question, what is my relationship with seafood? I hope that it's clear that it is absolutely vital to examine these things that fish shrimp shellfish on your plate carries with a lot of potential, it could very well have supported these human rights abuses rampant environmental damage through destruction and disease, lost food security, species extinction or major economic losses. But it could also bolster the right things. That plate also carries the potential to support the lives of those who make a living, fishing, preserve and protect animal populations without irreparable ecosystem damage. It could tell stories and help preserve and uphold indigenous and traditional culture, fight against slavery on the high seas, and even protect and restore the health of the oceans overall. And this is no hyperbole, this wide variety of potential is reflected in every dish of seafood that we consume. So your relationship with seafood matters.

Cory Nash
Actions that you do inland, affect the ocean, the ocean affects you.

Dane Whicker
All of this has really caused me to reexamine all these little stories that make up my own relationship with seafood. And let me clearly see that my choices ripple out from my inland toe, the cod tacos. Well, they supported a well managed and sustainable fishery in Alaska, spearing the lionfish, it helped rid a reef from a non native invader that was upsetting the balance. The quote, sustainable octopus and the Canadian salmon. Well, I probably should have done some more research. Without some key details. I

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may have inadvertently supported something that was actively damaging the environment. It's absolutely tied. By learning and growing day by day. I can make better Better and better choices to really make a difference all over the world. So, okay, I know that you might be thinking, Dane, I just want to go out and enjoy my birthday sushi. I don't want to have to be awkwardly forcing a depressing conversation about fish with the waitstaff. It's my birthday. Is that too much to ask? Listen, I get it. I've been there, too. I mean, I barely want to pick up the phone and talk with another human being to order a pizza, let alone ask complicated seafood questions to someone just trying to make it to the end of their shift. Listen, I care very deeply about sustainability and seafood. If that's not obvious by now. And even I have sometimes justified not asking thinking that it really wouldn't make a difference. This whole discussion is complicated. It's a headache. And you know, you deserve a nice birthday. You're a great person, you work hard.

Cory Nash
Well, you know, saying that your choices are so small, they won't matter is is defeatist. You know, you know, I know this is kind of a cliche, but when we all when we work collectively and make decisions collectively for the better. That's when actual change can happen. That along, of course, with with regulation and agreeing, as a society that you want X, Y or Z to make it a better world. So absolutely individual choices matter.

Dane Whicker
There is hope in solving these absolutely overwhelming problems, but finding the path to a truly sustainable future. It's not easy. The answer obviously isn't to just give up and let over exploitation happen. But neither is it to condemn all seafood forever. Instead, we all have to be a part of weaving a complex narrative for what we hope the future is going to look like. You know that future where you can just enjoy your birthday sushi and peace. But in order to weave anything, let alone a future together, you're going to need a loom. That is you need to be equipped with the right tools and vernacular to be able to help address these problems in real life. So with a goal of being informed enough to understand where your choices fit in the overall grand scheme of things, our next section is going to dive a little bit deeper into the various pieces of information that you need to reflect on your own seafood choices. If you go online to the Seafood Watch tool, or most other sustainability guides for that matter. The biggest pieces of information you need to know broadly are one, what species of animal you're eating, to the origin of that animal, and three, the capture or farming method. across the wide variety of nations on Earth, the even wider array of companies independent fishermen, aquaculturists, etc. This geographic and contextual information matters a lot. So it's worth tackling each one of those pieces of information individually. Again, the species the origin and the method, talking about why they matter. examining some of the issues within each and examining just how incredibly difficult it can be to even identify them correctly in the first place. Let's start with that first piece, the species, even something that should be simple knowing exactly what's on your plate, oftentimes can be ridiculously complex. Take two of the most commonly eaten fish in the United States, salmon and tuna. See there are actually six species of salmon that could be from the United States, Atlantic Chinook, coho, chum, sockeye and pink and two more species found in Asia. On the tuna side, there are 15 unique species, each one carrying a unique situation for what is sustainable and what is not. But it gets trickier of these fish. Some even carry alternate names. Chinook salmon could also be called king salmon. Chum could be called kita Sockeye could be called Red ahi tuna could actually either mean the big eye tuna or the yellowfin tuna. There

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really is no standardization for these names. So what you often see on menus might require decoding like you're some kind of seafood espionage agent.

Cory Nash
It's… and that's that's a very common situation. That's why we try with our ratings to to hit these things sort of broad stroke and regionally

Dane Whicker
Correct identification matters. Because failing to identify if that Ahi is yellowfin, or bigeye is the literal difference between a good alternative yellow choice and an outright avoid red choice in some cases, but both are called ahi. Are you confused yet? This is something Corey highlights with a different globally important fish.

Cory Nash
And so we're saying that I'm just gonna throw one out there *Pangasius.* It's Suchi catfish, Basa swai Tra… called all those things. *Pangasius* is what I like to call it. Delicious white meat, farmed.

Dane Whicker
One fish, five names. Confusing. But let's say that you correctly identify your fish and are ready to move on to the next bit. The fish is origin origin is really important place has a lot to do with management. The regulations that the fish is harvested under help set the stage for what gear can be used for wild captures what effect that has on other species environmental safeguards, the quotas of fish being taken each season, what chemicals can be used in an aquaculture setup, allowed levels of pollution, so on and so on. Back to *Pangasius:*

Cory Nash
According to our ratings. It's red rated when it's from China. So if you see Pangasius from China, we recommend you don't buy from Vietnam, there are a lot of issues as well. However, we will defer to aquaculture Stewardship Council ratings, and other and other certification bodies actually for farmed gaseous in Vietnam. And so if you can see if your pan gaseous is from China, or Vietnam, where the vast majority is from the US from the Far East, and imported to the US and Europe and other markets, but if you can see it's from China, avoid it. If you can see that it's from Vietnam check for a certification. And if you don't see one, you know, we recommend you wouldn't buy that either.

Dane Whicker
A lot of the concerns with the red rated pan gaseous is over the fact that the farms pollute the surrounding ecosystem with their discharge plus concerns that the antibiotic and chemical use is suspected to be high enough to be dangerous even to humans. But a few operations do go the extra mile to farm this fish more sustainably and with less pollution, and those are the ones that earn the certifications Cory was talking about. So you can buy it, if it's from the right operation in the right part of the world. Super easy, right? To be fair, it would be if that information was readily available, which you guessed it, oftentimes it is not. Just like figuring out the species there are factors at play that can obfuscate the origin of the fish. Depending on the supply chain. That is the route the fish takes from being harvested to your plate. This information can very easily be lost.

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Cory Nash
General traceability is is a problem that the entire industry is trying to, to figure out, especially with wildlife fisheries.

Dane Whicker
Consider that anywhere between 65 and 90% of the United States, seafood is from imports, making it one of the largest importers of seafood in the world. And remember, inland markets make up not a small portion of that. Yet, when I ask a restaurant server about where a fish comes from, undeniably the most common answer I get is it came from a box. Even though that information could be the difference between supporting a fisherman under sustainable regulation and over exploitation fueled by literal crime. They have no idea. Now, I want to be extremely clear that that's not usually the server's fault. And this doesn't hold true for all restaurants. But it does highlight the importance of traceability and some interesting factors around the state of regulations in the US. There are

Cory Nash
you know, you've probably heard of you've probably heard of SIMP which is a program that US government runs for traceability on seafood on imports. There are other programs, it seems like every every NGO and government program or international program is trying to figure out the best way to help with traceability.

Dane Whicker
The program that Corey is referring to. The seafood import Monitoring Program, or SIMP, is the United States federal program implemented as part of the biggest federal law that manages wild capture fisheries nationally, the Magnuson Stevens Fishery Conservation and Management Act, or MSA because that's a mouthful. It's this big law that regulates fisheries in federal waters. But the CIP program specifically looks at the import side of the equation. Sips mission is to combat the illegal unreported and unregulated fishing and seafood from problems that we talked about earlier and exist within a global market. Chiefly, it requires that key chain of custody information, the complete story of where the seafood is from and how it came to be in the States, be made available and collected upon import to the United States. The program is large it covers over 1100 unique species across 13 important groups abalone Atlantic cod, Atlantic blue crab, Dolphin fish, grouper, red king crab, Pacific Cod, red snapper, sea cucumber, sharks, shrimp, swordfish, and tuna. Obviously, this does not cover all the species that are imported, but it is a great step in the right direction, requiring traceability and even rejecting some shipments identifying bad actors for further enforcement. But then you might be wondering, if this information is collected, why is it still so hard to come by? See the information collected through simpe is not consumer facing. So we as citizens don't really have access to the nitty gritty of at all so much for my fantasy world of having every fifth just labeled with this exact pedigree, I can dream. But if you have some keen powers of observation, you might notice that as a generalization grocers in the US actually do a somewhat better job of telling you broad strokes information than restaurants do. That fish counter at your local Safeway, Vons, Kroger, Whole Foods or whatever might actually state sockeye salmon, Alaska, wild caught, and the restaurant right next door, might just say, salmon. What gifts? Well, this is largely due to another interesting bit of policy, a federal law that I like to call the rule of cool. Pew pew, pew, pew, pew. To be clear, that is ce o l, or country of origin labeling.

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This legislation is part of various farm bills and acts of Congress, but it relates to seafood in the fact that it requires retailers that sell it to notify their customers of the country of origin. If you have your Seafood Watch pocket guide or phone in your hand, just having the country of origin and general fish type goes a long way towards being able to find a sustainable choice. Crucially, though, is how the cool legislation defines retailer, restaurants and other food service operations, small fish markets and small grocers that do not sell over a certain threshold of product are exempt from this requirement. So not being required by law to do it. It's up to restaurants in small markets themselves to want to list this information. But if businesses get a real sense that their customer base requires this sort of information,

Cory Nash
Right now, as a consumer, I think the best thing to do is just ask, just keep on asking that fishmonger that that server at a restaurant, that poor server at a restaurant that probably has no idea. But when that server as their manager, their manager asked their boss, you know, then then things start to change a little bit. And that's that's one of our theories of change.

Dane Whicker
That just leaves us with the third piece of information, the method and there's several steps to this, but hopefully the first step here should actually be the simplest, determining if a fish is wild, caught or produced by aquaculture, you know farmed fish, like the country of origin retailers, for which the cool legislation applies must also list if the seafood is farm raised or wild caught. Some restaurants even make it a point of pride to serve one or the other, vying for a consumers perception of what's fresh. Unfortunately, just knowing wild capture or farm raised doesn't really tell you much on its own. Because just like everything else related to seafood, there's so much nuance within each category, that you can't say that one is blanket more sustainable than the other. Thankfully, we're not scared of a little nuance here are we? On the wild capture side of things, it's true that the already discussed country of origin matters a lot. But there's a piece of the puzzle still missing. The actual fishing gear and technique used to catch the fish. From handcrafted lines, rods and harpoons to mile long drifting netting and huge squid boats that flood the nighttime ocean with light. There is an incredible diversity of fishing gear, and honestly a great array of ingenuity behind each. But all fishing methods are most certainly not made equal. When it comes to environmental sustainability. Every method has trade offs that need to be carefully examined. Now, I'm not going to review every single method of fishing here. There are probably hundreds of methods worldwide and throughout history, but it's good to know the general technique and impacts of some of the more industrially common ones. For instance, handline method that can easily release non target species may have lower environmental impact, but it's lower yields may not be enough to make a living or supply those who need it with food. On the other side, dragging huge weighted bottom trawl nets across the seabed might help increase the catch, but those heavy weights will do lasting damage to the ecosystem. There are large midwater trawl nets per Sainz, drift gill nets, traps and miles long lines decorated with 1000s of hooks. Each one of these methods comes with their own benefits and environmental issues. What's great though is as a consumer, you don't necessarily have to know specifics. Seafood Watch and many other sustainability initiatives do the looking into these environmental impacts of each method for you. If you browse the Seafood Watch website for any wild caught fish, you'll see that fishing gear is one of the pieces of information listed to help you make a choice. Again, though, it just becomes a matter of finding that information. Because although Symp requires reporting of the types of fishing gear used, the consumer facing laws like cool

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don't require such things to be like instead. So that's wild capture fisheries. Aquaculture is an entirely different beast and one that has unique relevance to inlanders.

Cory Nash
For example, where you know, we're talking about two inland folks here. Over half of the US farmed trout is this farm right in Idaho right next to you guys. We it's a beautiful fish: very healthy, and quite sustainable overall. And there are other other examples of that all throughout the US both both offshore and onshore. You know, aquaculture kind of aquaculture sort of commercial aquaculture has gotten a bit of bad press, especially 2030 years ago. And some of that is merited. There's no doubt. But there are ways to do it that are more environmentally sustainable. And, and that's what we look at when we apply our ratings.

Dane Whicker
Aquaculture can take a lot of forms from onshore inland tanks and aquaponics operations to lines of rope growing kelp, and large pens offshore that grow finfish. The

Cory Nash
US… US aquaculture operations on a global scale are still are still fairly small. But we do have some some great operations in the US. And typically if you're getting us farmed fish or shellfish or what have you, it's probably going to be fairly sustainable. Are our ratings really very favorable for us? Aquaculture? Wouldn't say 100%. But but really good.

Dane Whicker
And aquaculture is not a new thing. Just like wild cod fisheries. Aquaculture has been around for a long time. Okay,

Cory Nash
Well, when you said “Is it a new thing” that sparked something in me thinking about my time in Hawaii and looking at some of these early Hawaiian cultural sites that that are still maintained, and they still have fish ponds in them from hundreds if not longer years ago, to to store their catch or to raise fish for consumption for whomever. And then why is not the only ones that did that. Of course, you know, even in ancient times, there were there was aquaculture. In many places in the world of different kinds. Aquaculture is hugely important. There are over over half, I think it's like 55% or so of the fish and seafood that we eat is actually from aquaculture. And the vast majority of our imports is aquaculture.

Dane Whicker
It's hard to pin down the exact date of the aquaculture singularity. But according to the United Nations Food and Agriculture Organization, as of somewhere in the early 2010s, global aquaculture production surpassed wild capture, and has remained the slight majority ever since. More than likely, you've probably even eaten your fair share of farmed fish. Most

Cory Nash

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of them most of the salmon that a lot of people eat is farmed. Most of it, most of the shrimp that Americans eat is farmed. And so it's an integral part of the of the seafood production system. If we want to feed all the people we want to feed.

Dane Whicker
Fun fact! There is no such thing as wild captured Atlantic salmon. If it says Atlantic, you can be sure that that fish is farmed till that little factoid at your next party and you'll be a hit guaranteed. Everyone loves a fish nerd.

Cory Nash
If you want to get into sort of the specifics of where our aquaculture imports come from, it really depends on the species. A lot of people probably don't realize that you know, we import most of our a huge amount of our shrimp we do produce some in the US. We also harvest some from wild fisheries in the US, of course, but to for the amount of shrimp that Americans eat for example, we have to supplement that heavily with with foreign shrimp. And our biggest importer is from our biggest supply from abroad is actually from India. We're very aware of the Indian aquaculture sector for shrimp mostly what White Lake trim, but they have couple other varieties as well. And we do actually work with them specifically in India to help improve kind of their their ratings. We have a we have a global global arm as well, where we we work with the producers and the buyers in some of these places around the world to help improve the industry on the ground, at least environmentally speaking, so that when those imports hit the US market, they can be appreciated for for their measures that they go to to improve their fisheries environmentally speaking. Chile for example, is where we get is our number one import of salmon. It's all mostly mostly Atlantic salmon although they have some other species today they produce as well. So we work with in Chile, with actually most of the of the salmon producing industries. Work with us I have to help them prove some of the practices they have in their industry. So that one salmon arise in the US, hopefully, is what we're working toward, it'll have a better environmental impact. climate impacts aside, of course. So aquaculture is huge. And it is part of the system, whether whether we, whether we want it as a society or not, it's here, and it's not going anywhere. So we might as well try to make it as best and as environmentally sound as we can.

Dane Whicker
No small task, given the number of issues, aquaculture could have, environmentally.

Cory Nash
Big considerations. And again, I'm just speaking very broadly here, but big considerations are the chemicals that go into any sort of aquaculture operation, some don't use any, which is great, because they're in a, in an environment where they don't need to, or very minimal, but and then some over medicate. And what happens when they over medicate is unclear. But we do know that that that medication ends up in, you know, in water columns, in, in, in watersheds, things like that. When I say over medicate, I'm talking about antibacterials, anti parasite medications, things like that. So we look at chemical use, we look at escapes, are they jumping over net pens? Are they are they jumping through when there's a you know, a climate event that breaks a levee? Are they are they getting out into the river, whatever it might be, or getting out into the ocean, wherever these, whatever these escapes are? And what sort of mitigation efforts an organization would have to prevent those escapes. Because when

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those escapes happen, there runs the risk of changing a native ecosystem through interbreeding through what have you through predation and things like that. So escapes effluent is the next one. And that is, you know, waste your farm waste. You have a lot of fish or a lot of shrimp and they're producing a lot of feces. And where's that feces going? Is that going into your waterways or going into the ocean? How is that being handled, and it's not just waste, it's, it's the chemical residues and, and things like that as well.

Dane Whicker
That's a fun little mental connection. While aquaculture does mean that the farmed fish aren't being taken from wild stocks, it's usually not entirely divorced from impacting the natural ecosystem either. Still, if overfishing and this insane amount of pressure we put on wild stocks is one of the biggest problems facing the ocean today. Shouldn't aquaculture getting rid of that pressure be universally a good thing? That's another rhetorical question. And another question with an answer of it depends. Because guess what? Sometimes aquaculture doesn't even take that pressure away, it might just shift it around a little.

Cory Nash
We look at the feed as well. What's the feed composition? You know, how much of it is fish meal from wild stocks? Or is the fish meal that they're using for wild stocks? Red rated, you know, because that's an issue, or is it from a sustainable wild stock.

Dane Whicker
Oftentimes, predatory fish like salmon and tuna are fed fish meal and fish oil products that are made from wild fish. Oftentimes, they come from oily fish like sardines and anchovies, and ground up into a powdery fish meal that is to be fed to these fish that are kept in the pens. So one pound of salmon that took 10 pounds of wild fish to produce is at a quite different level of sustainability than a pound of salmon that only used one pound of wild fish to produce because sourcing and replenishment rates of wild feedstocks. And these fish in fish out ratios are wildly different from farm to farm. Questions about sustainability can get as granular as each individual fish farm growing our food

Cory Nash
We look at where they source their juveniles. You know, because a lot of these fish farms will source their juveniles from a wild population. Or is it from another farm that just has a hatchery?

Dane Whicker
Freshwater eel, sometimes called Unagi, is a particularly intriguing example of this, where the juveniles are caught from rivers in the wild and then raised in captivity. I mean, is that aquaculture? Is that wild capture? Where is the line here?

Cory Nash
We look at a whole bunch of different things like that. I obviously haven't hit all 10 here, but I think I think it painted a pretty good picture of what it is.

Dane Whicker

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Because there are so many factors like this to consider, discourse around whether or not aquaculture is sustainable can really fire up some heated discussions. For example, some people really take issue with the fact that we use fish meal to farm salmon and tuna and argue that we should just be eating those smaller fish directly instead, which like sardines are delicious, but Well,

Cory Nash
I'm not going to argue against it. But the reality is, is that the those fish that you're talking about may not be the ones that people want to have on their menu or on their plate. And so, you know, you could also argue that we should all be eating lentils did not have any meat. But is that a realistic argument? No, because we all have our tastes and our and our things that we want. This

Dane Whicker
part here your own tastes and preferences is an equally valid and important part of reflecting on that central question. Our great challenge here is balancing the delicious things that we want to have on our plates and the value and culture that comes with certain meals with the overall goal of having enough fish to feed us in the future. It's a lot to balance and think about so at this point in the podcast, that one simple question What is your relationship with seafood? has probably become so many more questions where's my fish from? Can I pinpoint the species Am I okay with the fishing or Farming Method human rights abuses involved in who caught the fish farm escaped causes species invasion, I'm hungry as the farm waste make it into my drinking water supply in a class. What do I do if this information isn't available trophic level of the and I even eat this fish so expensive. Now, I admit this has been a long discussion with a lot of heavy sustainability and science talk here. It is enough to make your head spin. But just like Seafood Watch is great at distilling things down into green, yellow, or red. Corey is here with some great and concrete tips to actually apply in your life. Let's theoretical more. Let's go get this done. So consider this your fishy call to action. In fact,

Cory Nash
I have let me tell you, I want to tell you the four things people can do four things anyone can do regarding sort of sustainable seafood, and your commitment to wanting to get environmentally sustainable seafood into your life. Well, number one, shop and dine at places that you trust, or that it made a commitment to sustainable seafood. Check out your grocery store, check out the little little asterix at the bottom of a menu at the restaurant you go to when you know that restaurant X or grocery store, why has a commitment to sustainable seafood, then you can probably Rest assured, or at least feel more comfortable that you're making good choices by shopping or patronizing those places. That's one. Number two, have a few go twos. I like flaky white fish because I said before I love like fish and chips. Well fortunately, the majority of flaky white fish that we get in fish sticks and things like that is actually probably sustainable. It's most likely that that's certified, or or sustainable, because a lot of that is Alaskan Pollock or Pacific Pollock. Some of its pacific cod, those are all good sources. So if you if you know what you like, or maybe you like scholarships, or scallops, depending on where you're from, it's always, that's always a sustainable choice. Scallops are great, you know, you like scallops, it's kind of a treat, they're a little bit expensive, there may be out of reach for some people. So if there's other things like mussels, or a catfish, US farmed catfish, great choice all the time, don't have to think about it by us farm catfish. And most of the most of the catfish and get in the US market is farmed. So have a few go twos. Number three, use our tools, come to seafood watch.org. Use our tools, our pocket guides

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get on our website, we have the species guides now on our website where you can go and look at everything salmon, or everything cod. And we have like a quick bullet of do this, maybe don't do this kind of thing. Use our tools. And for your audience. We have a central, a pocket guide for sort of central part of America, which includes the Rockies and things like that. And so we have very specific recommendations as a pocket guide you can find on our website where you can probably find them in a lot of your museums and zoos in your area. Grab one of those pocket guides, give us a call. We'll send you some. And then finally, it's what we kind of were getting at before ask questions. Go up to the go up to the server and say, Hey, is this I don't know, is this shrimp sustainable? What were the shrimp come from? And and those questions have have a trickle down effect. Or maybe I should say a trickle up effect. Because it can go to the person who actually purchases and then when that person who purchases as their their distributor, where did this trip come from? Well, the distributor has to find that out. And then then maybe they'll take the next step and maybe they'll take the next step. And then And then by your simple question, perhaps you've just improved the supply chain. Those are my four bits of advice.

Dane Whicker
As you act and explore and grow in this realm, know that there are also more and more sustainability focused options for the consumer cropping up almost every day. These days you can even order us wild caught fish and have it shipped to you almost anywhere inland in a frozen Community Supported Fishery box. It like having a dockside market right in the Rocky Mountains,

Cory Nash
kind of blanket coverage. Of course, it's not everybody and everything. But for the most part, we do a pretty good job in this country. And so if you're buying local seafood and getting it in a box, you got a good chance that it's that it's environmentally sustainable. But you don't have 100% guarantee. Yeah,

Dane Whicker
even some of the popular meal kits are making sustainability commitments worth examining, too.

Cory Nash
Now there are some food companies that we actually work with like Blue Apron and HelloFresh. They both are partners of ours as well. And so they've committed to following Seafood Watch standards. You can always work you can always go to like I said, people I'm thinking of places in the Rocky Mountains in Colorado, I'm thinking of that already have sustainable seafood. on their menus. For example, if you want to eat out, you know, Jax fish house is a good one or Cheesecake Factory. They do they do great work in the sphere. I know. Right? They're one of our partners, they do great work in this sphere. There's many others, if you want to go shopping course Whole Foods is always is always a great choice for that. PCC markets for those people that are a little bit closer to the Pacific Northwest in your audience. There's there's all kinds of kinds on the East Coast, there's there's stores and restaurants across the country that partner with us, or have other sustainability commitments. And if they don't ask him for pressure on him? We're not?

Dane Whicker

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Sure. So what's your relationship with seafood? Do you have a favorite memory of seafood family get togethers or recipes growing up? Have you had happy hours with friends and co workers at oyster bars? Do you own the oyster bar? Have you grilled fish with found family created in your own home kitchen, bonded with a partner over a plate, or even hunted and eaten your own meal from the sea? As these experiences have shaped your life, relationships and maybe even beliefs? Have you reflected on how in turn, you have shaped the waterways, the oceans, the planet? There's no one answer to this that is correct. No single condemning action, no picture of sustainability that is 100% Complete. But honestly, that's kind of part of what makes this subject so fulfilling, exciting and fascinating to reflect on. It is a monumental challenge and journey of continuous growth that we all have a role in. It's something we can feel good about making small improvements. Something we can talk about debate and bond over. Practically no matter where you're from on earth.

Cory Nash
No matter where you live, even if you're very far from an ocean. The choices that you make are important and affect the ocean affect the waterways waterways affect your life

Dane Whicker
by reflecting on your connections with food by embracing learning over apathy. And by choosing to spend a few extra minutes to ask questions, look for labels, and use tools like Seafood Watch. Well, you're not only making the environment a better place, you're enriching the flavors and experiences of your own food. Plus, you're assuring that it can be there for you and your families long into the future.

Cory Nash
Don't take that for granted. You are powerful, and you have the agency to make change. Please do that.

Dane Whicker
That's gonna do it for today's episode of peak and plunge. Thank you for listening. Special thanks to Cory Nash for his time and expertise on this very complicated topic. And thanks to the inland ocean Coalition for helping to support this series. Both of y'all made this episode possible. Thanks for plunging in with us. We'll see you next time.

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