**Pam Ferris-Olson** (00:00): Today on the Women Mind the Water podcast, I'm speaking with Elle Wibisono. Elle is an artist and fisheries researcher. She is interested in exploring the intersection of research and [inaudible 00:00:13]. She also explores effective ways to communicate science use and comic art. To that end, Elle has created Fishstory, a comic that speaks to fishery science and conservation. The Women Mind the Water Activist Series engages artists in conversation about their work and explores their connection with the ocean.

**Pam Ferris-Olson** (00:35): Through their stories, Women Mind the Water hopes to inspire and encourage action to protect the ocean and [inaudible 00:00:42]. I am pleased to welcome Elle Wibisonoto the Women Mind the Water Activist Series podcast. Elle was born and raised in Indonesia. She admits she is a fishery nerd. She earned her doctoral degree at the University of Rhode Island, studying deep water snappers in Indonesia.

**Pam Ferris-Olson** (01:03): She is currently a Knauss Marine Policy Fellow working in the US Senate. Ella is also an artist who creates a comic called Fishstory. As if she weren't busy enough, she is currently working on a children's book based on her dissertation. Welcome Elle. Thank you for joining me on the Women Mind the Water podcast. Let's begin by having you tell us a little about Indonesia. I admit I know very little about the country and I feel certain that many of my listeners would like to know more. What was your childhood like, and how did you get interested in fish?

**Elle Wibisono** (01:40): Hi, Pam. Yeah, thank you so much for having me here. Really happy to be able to talk to you and share a little bit about myself and my experiences to you and your listeners. So Indonesia, geographically, it's located between Australia, and Singapore, and Malaysia. Indonesia's also the world's largest archipelago. So there are give or take about 17,500 islands.

**Pam Ferris-Olson** (02:06): Just 17,500? [crosstalk 00:02:09].

**Elle Wibisono** (02:09): Yes. Not all of them have people living on it, but yes, it is a lot of island and a very long coastline because of that. My childhood, I grew up in Jakarta. It's the capital city of Indonesia, and it is one of the most densely populated city. Think Manhattan. It's very metropolitan. It's all buildings everywhere. We don't really have access to the beach from Jakarta because the bay right by Jakarta is high polluted.

**Elle Wibisono** (02:44): I mean, it's all just ports and large ships and harbors and stuff like that. However, when I was quite young, my parents decided to take me to Bali and we went on a snorkeling trip. So I like to think about this trip as the random incident number one on how I got into fish. Because my parents, they did some snorkeling trips in some remote area in Indonesia as part of their honeymoon and they decided, "Okay, we need to take the kids and let them enjoy snorkeling too."

**Elle Wibisono** (03:18): And as a kid, I didn't really care much about snorkeling. But I thought as a city girl, telling my friends that I went snorkeling would make me seem really cool, and adventurous, and really badass. I was like, "Yeah, let's go snorkeling. That sounds like a good idea." And I have to admit, that experience was just a little bit underwhelming. I expected the scene to be something like, I don't know, National Geographic where it's just colors everywhere, fish everywhere. I see like 10 sharks or something.

**Elle Wibisono** (03:46): But it was just a very low-key snorkeling experience. And then fast forward, several years later when I was about, I don't know, 12 maybe or 11, I really got into this novel series called Alex Rider series. It's about a teenage British spy, nothing to do with fish. But one of the things that he was very good at was scuba diving. So being the very big fan of that book that I was, I was like, okay, I'm halfway there. I know how to snorkel. I enjoyed it. I was very comfortable in the water. I'm going to get my scuba diving certification.

**Elle Wibisono** (04:20): And so, I did. And on the first dive, I went down under the water, and there wasn't even that many things going on, but I saw a fish swim right in front of me. And at that moment, I knew that that was what I wanted to do for the rest of my life. It's just something that really clicked and I know it's correct. I don't know any other way to describe it, except for just that feeling where you know something's really right. Like this is it.

**Elle Wibisono** (04:51): And so, I resurfaced from the dive, I was 12 years old, and I told everybody I'm going to be a marine biologist. This is what I'm going to do for the rest of my life. So that's what I would like to think as random incident number two. And that basically set me off on this path to become a fishery scientist. It's just from seemingly unrelated things that I did when I was young.

**Pam Ferris-Olson** (05:16): Okay. So how did you become interested in what you call deep water fisheries? And maybe you should begin by explaining what you mean by deep water fisheries.

**Elle Wibisono** (05:27): Yes. And I'm really glad that you asked that question because even in scientific literature, there is different definitions of what deep water fisheries is. And the one that I specialize in is snappers and groupers that live between 50 to 500 meters. So it's a very specific range of the depth. And I got into the deep water fisheries through my first job at the Nature Conservancy in Indonesia.

**Elle Wibisono** (05:50): So one of the projects that they do is trying to see how sustainable the deep water fisheries is in Indonesia, and it's that particular snapper grouper fishery. And at that time, I knew that I really wanted to do something in marine conservation, but I was still a little bit soul searching, I guess. I wasn't sure how I can make a difference in marine conservation.

**Elle Wibisono** (06:12): And when I learned about the program and I learned about the deep water fishery, as it turns out, Indonesia is the second largest snapper exporter in the world. US is actually one of the largest importers of those snappers from Indonesia. And it just made sense to me to work in a field where you can almost directly touch people's decisions. Most people, when they interact with the ocean, they interact through eating seafood. Not everybody has the chance to go to the beach, or to go scuba diving, or to go snorkeling. But the touch point between almost everybody and the water is through fish.

**Elle Wibisono** (06:48): And so, being in the field where Indonesia is like a big player by being one of the largest snapper exporter in the world, I thought I could make a meaningful difference that way in marine conservation.

**Pam Ferris-Olson** (07:02): So when you talk about snappers, I can't really think of the fish so much. But when you say grouper, aren't those really big fish?

**Elle Wibisono** (07:13): Yeah. Some of the groupers are bigger than me, basically. And they're also older than me when they get to that size. Sometimes I see a really big fish and I'm like, wow, you're a grandpa fish. Some of them live really, really old, like to 60 years old or even more.

**Pam Ferris-Olson** (07:31): So what brought you the US?

**Elle Wibisono** (07:33): Graduate school brought me to the US. I got accepted to do my PhD at the University of Rhode Island. I packed my bags, left Bali and ended up in Rhode Island.

**Pam Ferris-Olson** (07:44): Now you're a Knauss Marine Policy Fellow. So what do you do as a Fellow?

**Elle Wibisono** (07:51): So as a fellow, I am placed on the legislative branch of the government. So I work for the US Senate and I'm a part of the committee within the US Senate. And basically we deal with any bills or any policy that relates to fish or climate change or the ocean. So I write reports and memos, and read bills that's related to all of those topics. And it's been really, really fascinating. I had to do a very big pivot from learning about tropical fisheries, to learning about all the other fisheries that are here and are really important in the United States.

**Pam Ferris-Olson** (08:28): Since you're an artist, I'd like to know, how often are visuals actually used to assist in the policy decision making aspect of the Senate?

**Elle Wibisono** (08:40): At least in the fishery world, surprisingly frequent. I mean, I think figures, diagrams like images just convey some concepts a lot better than trying to describe it through words. So yeah, visuals, I think are really important. Clean, concise, and clear visuals I think is really good. When I see a really well made figure or graph, I get very excited. I'm like, yes, that's great communication.

**Pam Ferris-Olson** (09:14): So how long have you been creating comics?

**Elle Wibisono** (09:17): For almost a year now. I started Fishstory this year in January, 2021. But I have been casually, I guess, on my own time drawing comics and learning how to make comics since, I don't know, for the past like 10, 15 years, basically. I even took comic lessons when I was in middle school. At some point, I thought I was going to be a comic book artist along that circuitous path.

**Pam Ferris-Olson** (09:43): What's the inspiration for Fishstory.

**Elle Wibisono** (09:48): I guess it's more of a void than an inspiration. As a scientist, we write all of this peer review articles, we write reports, and for the most part, at least in the fishery world, everybody's just trying to make a difference. Like how do we turn to science and make it meaningful to fishery management or make it meaningful to policy makers, one way or another. And I think science communication has gained traction in the last several years.

**Elle Wibisono** (10:15): Scientists are really active on Twitter, on social media and trying to make science more cool. But by and large, I feel like scientists, we are still talking to other scientists. Like we see other researchers work and we're like, "Oh yeah, that's cool. Go you, you're so cool." We're really not expanding that circle. Your general public who don't care about science, who don't care about fish, for the most part, is still not caring about it.

**Elle Wibisono** (10:43): Especially in this very digital age, we are all competing for other people's time and other people's attention. I guess us, the nerdy crowd, we're competing for people to look at our research, or our topic, or our information when there are thousands, millions of cute puppy photos on the internet. How do you compete with that? So to fill in that gap, I guess, to fill in that void, I created Fishstory. I'm hopeful that I can make it work better and I can make it be even more wide-reaching in terms of audience. But yeah, it's a work in progress.

**Pam Ferris-Olson** (11:26): Why don't you describe for the audience one of the images that you created?

**Elle Wibisono** (11:31): It is a scene of different shades of red-colored snappers in different shapes and patterns, just traveling left and right, all across the page. Some of them are carrying coffee cups or bags. It's just a very busy scene. And basically what I wanted to convey is the diversity within that red-colored snappers. One of the problem in the snapper fishery is that everything that's colored red is just called red snapper when they're all very unique. They're all very different, and they all have different ways to be managed.

**Pam Ferris-Olson** (12:08): Well, I'm glad you told me that they were doing coffee cups and bags, because I wonder what's on some of their fins there. And I see there's a little sign that says Mid Ocean Depot?

**Elle Wibisono** (12:22): Oh, the Crustacean Depot, yeah. So a lot of them-

**Pam Ferris-Olson** (12:25): Oh, Crustacean, okay.

**Elle Wibisono** (12:26): Yeah. A lot of them eat crustacean, so I thought it'll be cute to set up like a little stall where they can get their crustacean, I guess. I don't know, I'm trying to convey like a really busy marketplace scene where-

**Pam Ferris-Olson** (12:39): It looks kind of like Grand Central Station, except with the fish swimming here and there.

**Elle Wibisono** (12:46): Yes. That's a good way to put it. That's a great description. I love that.

**Pam Ferris-Olson** (12:51): Tell me about 21st Century Kartini, which is how you and I first met. What is it and how did you get involved?

**Elle Wibisono** (12:59): Yeah, so 21st Century Kartini is a mentorship program that was set by Dinda and [Pinta 00:13:05] in Indonesia. And it basically matches up some mentors with some female mentees who are in the ocean and marine science space. They're mainly fresh graduates. And I was part of the mentor in that program, and we actually got connected through my Fishstory platform. Dinda, I guess must have seen some of the fish comics, and then she reached out to me if I wanted to be part of their mentorship program.

**Elle Wibisono** (13:34): And I think it's really, really great because one of the biggest struggle that I had growing up in Indonesia and wanting to be in this field was the lack of mentorship. So when I heard of that idea that was pitched to me, I was like, yes, I am so in. Whatever you need, whatever the time commitment is, I will be a mentor. I'll do everything. This is such a great thing.

**Pam Ferris-Olson** (13:56): What is your role with 21st century Kartini?

**Elle Wibisono** (14:00): Sometimes we're just talking about things like being female and doing field work. Doing data collection in the field in rural Indonesia can be especially challenging for younger females. And there has not been a space where people can freely talk about it. For instance, just things like you are in the middle of nowhere and there's no running water and you are on your period, what do you do? Just talking about very real problems like that that has never been given the time or attention by, frankly, other people.

**Pam Ferris-Olson** (14:38): Do you think that the average Indonesian knows more about fisheries than Americans?

**Elle Wibisono** (14:44): That is a very interesting question. And I thought long and hard about this particular question, because my guess is, maybe no. And here's a reason why. Because Indonesia's population is very, I guess, centered in the metropolitan areas like cities like Jakarta or Surabaya. Almost everybody lives in Java Island. And while people who live in fishing villages and the coastal communities probably know more about the ocean and more about fish than your average American.

**Elle Wibisono** (15:17): I mean, heck, they probably know more about fish than I do since that's their life and blood. [crosstalk 00:15:22], yeah. They're the masters of it. But really compared to the overall total population of Indonesia, there's not that much of them. Most people are city people like me when I was growing up who know nothing about the ocean. And I think that's one of the thing that is quite troubling to me, and it's quite sad. Because our history, our cultural legacy is seafarers, yet we are so disconnected with that.

**Pam Ferris-Olson** (15:51): If you were to create one comic that spoke to the most critical issue facing the ocean, let's say in Indonesia, what would the comic look like?

**Elle Wibisono** (16:00): It's hard to pinpoint just one largest issue because everything is so interconnected. But thinking about where I grew up, like Indonesia, the issue of just marine pollution and marine debris, everything that's going into the ocean from the big cities, it's a very large problem. And yes, it is going to be a pretty depressing comic, all the pictures will be quite sad. But at the same time, hopefully given the trajectory of how things are going right now, it could end on a somewhat optimistic note. Change is coming.

**Pam Ferris-Olson** (16:32): Before we close, I'd like to ask if you'd offer some key things that people can do to make a positive difference for the ocean.

**Elle Wibisono** (16:41): As a fishery scientist, I'm going to go from the fish and seafood angle.

**Pam Ferris-Olson** (16:45): All right.

**Elle Wibisono** (16:46): So know what you're eating. Like, know where it's coming from, what kind of fish you're eating and just do a quick Google search. Like this particular fish that I'm about to buy or eat, is it sustainable? And is it a sustainable resource?

**Pam Ferris-Olson** (17:00): Well, Elle, I am sincerely grateful to you for making the time to be on the Women Mind the Water podcast. It has been great to talk with you. You're someone who has great insight into the ocean.

**Elle Wibisono** (17:12): So appreciative of being here.

**Pam Ferris-Olson** (17:14): I'd like to remind listeners that I've been speaking with Ella Wibisono for the Women Mind the Water podcast series. This series can be viewed on womenmindthewater.com. An audio version of this podcast is available on the Women Mind the Water website, on iTunes, and also on Spotify, Stitcher, and Google podcast. Women Mind the Water is grateful to J Rice for the song "Women of Water." All rights for the Women Mind the Water name and logo belong to Pam Ferris-Olson. This is Pam Ferris-Olson.