[MUSIC PLAYING]

JENNA MERTZ: Hey, Bonnie.

BONNIE WILLISON: Hey, Jenna.

JENNA MERTZ: Welcome back to Introduced, where Great Lakes stories meet invasive species science. Introduced is brought to you by Wisconsin Sea Grant and the Great Lakes Commission.

BONNIE WILLISON: Yes, so good to be back. When I started this podcast in 2020 with Sydney Widell, I never really thought we would still be making episodes in 2024. So it's really cool.

We haven't run out of aquatic invasive species stories. There's always new research coming out, there's new introductions of species, there's new stories that have never really been documented before that we're able to share. So I'm just excited to get into all of this in season three. And, Jenna, you're relatively new to Introduced. So how does it feel to be on the pod?

JENNA MERTZ: Yeah. I'm really new. So I came to Wisconsin Sea Grant about a year ago. And I'm really excited. It's a really surreal experience too. So I listened to the podcast when it first came out, I was in a different job, and being on the podcast now is just like meeting someone that you've admired from afar, finally in person.

So I'm really excited to be here. I love audio storytelling. And this topic is, in particular, like very fascinating to me. Like we have people, we have animals, and you can't have aquatic invasive species without people. People are the ones who bring these species to new places. And so there's a lot of drama and conflict. And I think there's a lot of learning too, that can happen with these stories.

BONNIE WILLISON: Yeah. Well, I'm super excited to have you on the team. And you're a science writer at Sea Grant. So this is what you do. I love your storytelling skills. And so I'm excited to hear your stories like the one that we're going to be talking about today.

JENNA MERTZ: Yeah. So today I want to talk about the names that we use for invasive species, or really any species for that matter. So Introduced is an invasive species-themed podcast. But to get to the bottom of invasive species names, we have to look a little bit broader first. So how do species in general get their names? And what are the real life consequences that these names can bring?

And I find this topic, particularly interesting because it's about words. And as a writer, words are all I think about. And I care a lot about words. And I think names are this particularly special kind of word that we give to things that we care about, and like the important things in our lives. So, for example, Bonnie, have you ever named something before?

BONNIE WILLISON: I don't think I really have, which is interesting. No, kids. I have never named a kid. I've always had pets growing up, but it was like a collective family we're going to name this pet. I do tend to give people nicknames a lot. I like to shorten names and stuff. So I have a lot of nicknames for people, but actually like figuring out a name and bestowing that name, I haven't. I don't have much experience. What about you?

JENNA MERTZ: Well, I was to ask you if you had any pet rocks because I had a pet rock as a kid. I thought it was this big blackish blue rock I found by my grandparents' house, and it was really smooth. And inexplicably, I called it Steve. And it was Steve, the pet rock. And I think I still have Steve in a drawer somewhere. Yeah. So I have a cat that I named Ladybug, and when I adopted Ladybug, her name was Lady, and that name was just far too elegant for her.

Lady is just a very regal name. And while Ladybug is an adorable, beautiful, perfect creature, she's not very regal. So I changed her name to Ladybug. So you've given nicknames. I've named cats. I've named rocks. Bonnie, have you ever named a species before?

BONNIE WILLISON: I have never had the pleasure of naming a species. I wouldn't even know how to go about that. It sounds like had a lot of pressure, but really fun.

JENNA MERTZ: Yeah. So I talked to someone who recently named two new species of fish.

TYLER MULLER: I had an iguana when I was a kid. And I named that after one of the members from Pink Floyd. But that was about it.

JENNA MERTZ: That's Tyler Muller. He's a PhD student at North Carolina State University, where he studies how fish have evolved over time. Bonnie, have you ever heard of the pirate perch before?

BONNIE WILLISON: I actually haven't heard of the pirate perch before. Are they invasive?

JENNA MERTZ: Yeah, that's a good question. So pirate perch are non invasive, but we'll talk more specifically about invasive species a little bit later in the episode. So about the pirate perch. Tyler describes them as a unique looking fish.

TYLER MULLER: So they have-- they're like a stout fish. They're small. They live in swampy areas. They're mostly brown, black, sometimes like a purple sheen. They have a black teardrop marking beneath their eye.

JENNA MERTZ: It's a pretty intense facial tattoo for a fish.

BONNIE WILLISON: Yeah. I love that. That's a look.

JENNA MERTZ: Another thing that Tyler mentioned about this fish is that what makes it unique is that its cloaca, which is basically the fish's butthole. It does other things too, like eggs also come through this opening. This cloaca migrates on the fish. So when it's young, it's near its anal fin. So at the end of the fish. And then when it gets older, it migrates up towards the throat.

BONNIE WILLISON: What? That is wild. I've never heard of something like that before. I don't know any other fish with their butthole near their mouth, that it moves during their life.

JENNA MERTZ: I mean, you think it doesn't seem very sanitary or useful, but Tyler did mention that what it does is it spits its eggs out. It helps spit its eggs out to like under these root wads in these creeks where it lives. So there is a good reason why it's there, but it definitely isn't what you'd expect.

BONNIE WILLISON: Yeah. What a unique fish.

JENNA MERTZ: So pirate perch live throughout North America, from Wisconsin to the foothills of the Appalachian Mountains to the marshes of Florida. But they look slightly different based on where they're from. So this has made scientists question if they're not one species of pirate perch, but several? And this is where Tyler comes in. While getting his master's degree at the University of Minnesota, Tyler's big project was figuring out, how many species of pirate perch there actually are?

BONNIE WILLISON: OK, How does he go about that?

JENNA MERTZ: So in order to study speciation, you have to do this very careful genetic analysis. And Tyler's job was to collect pirate perch from around the country, and do that genetic analysis required to see if there was more than one species of pirate perch.

BONNIE WILLISON: OK. Wow, what a road trip going around and collecting fish from across the country?

JENNA MERTZ: Yeah. It was pretty cool fieldwork. He collected samples of fish from different locations. So Eastern United States, he was in Minnesota, down to Florida, and then up the East Coast to New York. And it was, from what I've heard, a lot of car camping, long, hot days of work during the peak of summer. Tyler also mentioned that there were some other occupational hazards as well.

TYLER MULLER: Yeah. I did see alligators and stuff in the trip as well. And that was another reason why you're better sampling in the daytime because the alligators get a little bit more aggressive at night or more likely to feed at night, and it'd be harder for me to see them as well.

JENNA MERTZ: Tyler says, he was safe. He did not sustain any alligator injuries, thankfully. And after two summers of this fieldwork and processing and analyzing the genetic data of the fish he collected, Tyler discovered, drumroll please, that there were in fact five species, five of pirate perch.

BONNIE WILLISON: Oh, that's exciting. Is this where the naming comes in? So does Tyler get to name some of these fish?

JENNA MERTZ: He does. So two of the species were entirely new. And, yeah, Tyler got to name them. He wasn't exactly jazzed, though, at the prospect of naming the fish.

TYLER MULLER: I'm not really a very creative individual. And that presented a bit of a dilemma in thinking of these names.

JENNA MERTZ: Tyler even tried to pawn off the task on his graduate school advisor.

TYLER MULLER: I asked my advisor if he wanted to name one at the time. I didn't really want to think of the names for these fish. He's like, oh, maybe, you know, but he never did. I think he wanted to leave it for me just to be nice. But I was I also really don't want to have to think of a name for this.

BONNIE WILLISON: It's so funny. I'm so excited for Tyler for the possibility of naming a fish, and he doesn't want to do it. Like, I would be like pirate perch. So Jack Sparrow, Captain Hook.

JENNA MERTZ: Yeah. And I think, and the graduate advisor didn't want to do it either. I think it's just a really big responsibility. And Tyler said that the permanence of the name was just particularly daunting. This is a name that's going to stick around for a very long time.

TYLER MULLER: Well, once you name it, it's there forever. So it's like pressure to have something good.

JENNA MERTZ: And you're not just naming an individual, like you would a pet, like I did with my cat, Ladybug. You're choosing a permanent name that will be used to identify all members of that species.

BONNIE WILLISON: Yeah. So when you put it that way, I guess, I can see how it would be stressful. But it does make me think, for Tyler, how does he choose a good name? Like, there must be some guidance for this. What is a good name?

JENNA MERTZ: And that's a question that science in general is dealing with right now, not just Tyler. There are many examples of plants and animals named after controversial historical figures, or bear names that use offensive or outdated language. So, for example, in November of 2023, the American Ornithological Society decided to rename all North American birds currently named after people. And that's a lot of species. That's 152 species that will need new names.

BONNIE WILLISON: Yeah. I see why Tyler and his advisor played hot potato with naming these two species. I guess it's not as easy as dubbing it like Tyler's perch.

JENNA MERTZ: Yeah. The Tyler perch, The Tyler fish might be out, but I do think that the Pink Floyd pirate perch could still be on the table.

BONNIE WILLISON: Oh, that fish would rock.

[LAUGHTER]

JENNA MERTZ: That's a good pun.

BONNIE WILLISON: But, yeah, it makes me curious. I mean, pirate perch is a strong choice, naming this fish after pirates. How did this pirate perch get its name in the first place?

JENNA MERTZ: So Tyler said, this is really interesting, that the perch got its name because it was thought to be vicious.

TYLER MULLER: The name pirate perch comes from a naturalist in the 1800s who had kept them in an aquarium. And he noticed that they eat all of his fish. And these things are small, so he didn't expect it. But I don't think they'd actually be mean. I would say they're very shy. They're nocturnal. They only come out at night. In the daytime, they wedge themselves up under root wads and undercut banks and streams and such. They just want to hide.

BONNIE WILLISON: Oh, the pirate perch doesn't really sound that piratey at all. He just sounds hungry and doesn't like social interaction.

JENNA MERTZ: Yeah. And I mean, that's something I can definitely relate to. But seriously, though, the name pirate perch is a good example of how names shape our understanding of and relationship to a plant, an animal or a person. The pirate perch has a very vicious sounding name, even though it isn't. And so names often give us that first impression even before we know anything about that thing. For example, Bonnie, what would you think if you heard of a bird called the sheep-eating eagle?

BONNIE WILLISON: I'm scared already. I want to like gather my herds on the mountaintop and seek shelter.

JENNA MERTZ: Yeah. I mean, an eagle that can eat a sheep, like a sheep is pretty big, it can probably go after a small dog or a child. Who says that thing can't come after us?

BONNIE WILLISON: I do not want to mess with that.

JENNA MERTZ: Yeah. Yeah. But good news. Good news. The sheep eating eagle isn't real. It was made up for this 2012 study to test how names impact our interest in protecting different species. So what these researchers did is they made up a negative sounding name, sheep eating eagle, and a more positive sounding name. So the one they chose is Patriot Falcon. Which one would you want to see protected?

BONNIE WILLISON: I can see where you're going here. This feels like a trick question because I feel so personally victimized by this sheep eating eagle, which isn't even real. It hasn't even done anything to hurt me or my children, which I don't even have children or sheep. So what were the results of the study, though? What did people say?

JENNA MERTZ: So they found that animals with positive sounding names got the most support for conservation, in this case, the Patriot Falcon, not the sheep eating eagle.

BONNIE WILLISON: Yeah. That makes sense. Wow, names actually are a really big deal.

EL LOWER: Well, at the end of the day, words have power. The language that you use absolutely shapes how you think about things.

JENNA MERTZ: That's El Lower, a communications specialist with the Great Lakes Nonindigenous Species Information System, otherwise known as GLANSIS.

EL LOWER: Science should be for everyone. And the more people into science, the better, especially from diverse backgrounds who can bring new perspectives. However, when the language we use is inherently exclusionary, in some cases, it can really leave a bad taste in people's mouths. And even though it might seem minor, it can really drive marginalized people away from feeling like they're safe and welcome and able to participate in these fields.

JENNA MERTZ: El has written and led workshops about the importance of using inclusive language in the field of invasion biology. And before diving in too far here, I want to say that we'll be focusing on common names today. So, Bonnie, name an animal for me?

BONNIE WILLISON: Oh, this is a good game. Groundhog.

JENNA MERTZ: Yes. OK. Groundhog is a common name. And I call the Groundhog, for example, a woodchuck. Some people also call it a whistle pig. I've never heard of whistle. Usually it's on the side of a road like eating grass and then running under a shed. It's usually how I see them. But those are some common names for the Groundhog. And as you can see, there can be a lot of common names for a species. Species also have those fancy sounding Latin names, and those are called the scientific names.

The groundhogs scientific name is Marmota monax, which I, of course, just pulled out of my back pocket here. And those scientific names often have nothing to do with the common name. So today we'll be focusing on those common names. And El talked about three big problems, we run into with common names. The first, names that aren't politically correct, or even names that are just plain insensitive.

EL LOWER: So as far as culturally insensitive names go, I've got a couple of examples here. For example, the term Oriental. Typically that refers to species from East Asia, and it is generally considered very déclassé to refer to human beings or other living things as Oriental. That's simply an outdated term that people of East Asian descent, generally prefer not to be used for them and their culture. And so Oriental bittersweet, an invasive plant, is currently undergoing a renaming process accordingly.

JENNA MERTZ: Another example that El mentioned may be more familiar to people in the Midwest. So it's the spongy moth. And the spongy moth used to have a name that was a derogatory term for the Romani people. Its scientific name is Lymantria dispar. And here El explains that change.

EL LOWER: The name spongy moth was selected because that's actually got some great identifying characteristics there. Spongy moth describes those weird, spongy, foamy looking egg cases. And that's actually an identification guide so that you can turn to people and say, hey, this bug is really unhelpful, keep an eye out for these egg cases that look spongy, report them, and then scrape them off the trees if you can, and help stop the spread. So by changing this name it actually added value for science communicators and took away the harm that previous name was doing.

JENNA MERTZ: So that's culturally insensitive names. The second big issue we run into is species named after historical figures or celebrities.

BONNIE WILLISON: Oh, interesting, like what?

JENNA MERTZ: Well, scientists did name a tiny crustacean found in the Florida Keys after singer songwriter Jimmy Buffett. And this is very on topic today. Believe it or not, there's a shrimp named after Pink Floyd.

BONNIE WILLISON: Oh, so Tyler was scooped with the Pink Floyd. Wasn't he going to name a lizard that?

JENNA MERTZ: Yeah. He had an iguana. Yeah. And he named after Pink Floyd. So I think iguana shrimp named after Pink Floyd. I guess those are two creatures that it's fitting for.

BONNIE WILLISON: Wait, why?

JENNA MERTZ: I think iguanas are just-- they seem like a rock and roll animal and so do shrimp. They're both weird looking, and for whatever reason, I associate them with being like, just Punk, Punk shrimp. Punk iguana.

BONNIE WILLISON: I can see it.

JENNA MERTZ: So the problem with naming a new species after a person is, as we all know, people are complicated.

EL LOWER: So it's an understandable instinct to want to honor somebody who you believe deserves recognition by naming a newly discovered species after them. However, that doesn't always age so well as we find out more about what people have done over the course of their lives. Celebrities are one thing, but other historical figures such as military leaders, politicians, individuals like that have very, very complicated legacies.

JENNA MERTZ: Also, these names just aren't very useful either. So names that honor people usually don't give us any clues that help us identify that creature, like what it looks like, what it does, where it lives. For example, what do you think that Jimmy Buffett isopod thing looks like?

BONNIE WILLISON: Well, honestly, I don't know what an isopod looks like, but I'm imagining whatever it is if it has arms, it's drinking a margarita, and it's like laying on a beach somewhere.

JENNA MERTZ: Close. Close. It's 3 millimeters long. It's very nondescript. It's tan. And most interestingly, it's a parasite. So you said margaritas, but it's not really drinking margaritas. It's basically the blood of fish that it's drinking.

BONNIE WILLISON: More like a Bloody Mary.

JENNA MERTZ: Ha-ha, yeah. Definitely, Bloody Mary.

BONNIE WILLISON: Yeah. So I guess if I was Jimmy Buffett, I wouldn't really want this parasite of a tiny shrimp named after me.

JENNA MERTZ: Yeah. And Jimmy Buffett, may he rest in peace, has no say in the matter. And so, last but not least, the third name that El talked about are place-based names. And these can also cause some trouble.

BONNIE WILLISON: Oh, yeah, place-based names. I feel like I have heard a lot of those, like Chinese mystery snail or Asian carp.

JENNA MERTZ: Yeah. Exactly. That's what we're talking about.

EL LOWER: So place-based names are one of those things that can seem really innocuous. And in some cases, it is. If you're naming a species based on one particular location, that it was found like a crayfish found in a particular river, or the Devils Hole pupfish, for instance, is a species found in one very small area. It's a crazy conservation story. The problem is the shades and interpretations that people apply to this neutral concept of place, not because of geography, but because of racist concepts that get applied to these places in the world.

So to learn more about the unintended consequences of these place-based names that El mentioned, I spoke with Sam Chan, a professor at Oregon State University and outreach specialist at Oregon Sea Grant.

SAMUEL CHAN: The Asian giant hornet. The Chinese mitten crab. The European Green crab. The Japanese beetle. We've redirected people into thinking about invasive species are associated with people.

JENNA MERTZ: Sam started thinking more about the impacts of common names during the COVID 19 pandemic. There was a lot of racist rhetoric about Asian outsiders bringing sickness to the United States during this time, and during this time as well, the number of anti-Asian hate crimes spiked in the country. And it was against this backdrop that a hornet from Asia was discovered in Washington and Oregon.

SAMUEL CHAN: Here in the Northwest, we actually discovered there was a hornet, a large hornet. It's now called the Northern giant hornet, and at that time, it was called the Asian giant hornet, but it was described in a way using militaristic terms, attacking and "murdering" honey bees, native bees. So the name evolved from Asian giant hornet to Asian murder hornet.

JENNA MERTZ: Bonnie, do you remember hearing about the Northern giant hornet at all?

BONNIE WILLISON: There was a lot going on at this time in 2020, but I do remember that, like just all of a sudden, everything online, on social media was about this giant hornet. And it was pretty scary. I was like, what is going on? Like this can't be real.

JENNA MERTZ: Yeah. I remember hearing about it too. There was a lot of alarm. I remember this was like during lockdown, and it was often couched in this message of like, well, here's another thing that can kill us. Here's this other scary thing. And I think the concern at the time was that the name Asian murder hornet would fan the flames of this anti-Asian rhetoric and wrongly connect Asian people with this wasp from Asia.

BONNIE WILLISON: I feel like it's also concerning going the other way too. Like well, maybe society was like glomming on to Asian murder hornet, just because there was so much racist rhetoric in our country at that time.

JENNA MERTZ: Yeah. I think that's a really good point. And additionally, Sam also just said that this name, Asian murder hornet, wasn't doing its job, which is to communicate like what this thing is to other people.

SAMUEL CHAN: It seems that some of the names that we have has deviated from what their intent was, which is actually communicating about an invasive species, and what it looks like, what it does from the expert who are in this field to people who are not experts, but who would benefit from knowing about invasive species.

BONNIE WILLISON: So I feel like what I'm hearing is that another problem with place-based common names is that they don't help people identify anything about the plant or the animal. Like we've been saying, they just tell us where a species came from.

JENNA MERTZ: Yeah. And even that can be misleading. So take what we call the Chinese mitten crab. It lives in the San Francisco Bay. It's an invasive species. But that particular population of crabs, that particular problem there didn't come from China.

SAMUEL CHAN: San Francisco got its mitten crabs, the Chinese mitten crabs, from German trade, German shipping ballast water. And there are several good studies doing DNA analysis that actually discovered that.

JENNA MERTZ: So Sam wanted to find out just how common place-based names are. He searched several aquatic invasive species databases, and he found that about 15% depending on the database, between 15% and 20% of common names are associated with place, ethnicity, religion, or lifestyle.

BONNIE WILLISON: OK. So 15% that's a little lower than I was expecting. So I think that gives me hope that we can fix this problem. OK. So let me just see if I'm getting this right. So there are three main things to avoid when naming a species-- don't use culturally insensitive terms, don't name anything after a person, and don't name anything after a place, ethnicity, or religion.

But I haven't forgotten about Tyler from the beginning of this episode. He has to name two species. And so with all these rules, I'm a little overwhelmed for him. So now I'm wondering what does make a good name? What advice could we give to him to create a good name for these fish?

JENNA MERTZ: Yeah. Let's help Tyler out. It is a really big task, and I'm feeling for him too. So when talking with both El and Sam, they had some good advice for how to choose a name.

EL LOWER: I love descriptive names. Try to pack as much information as you can, both visually and behaviorally, about a species into a two or three word phrase.

BONNIE WILLISON: OK. I've got it. The perfect name. The pirate perch new species has to be the butthole fish.

JENNA MERTZ: [LAUGHS] Yeah. I mean, I think that would certainly elicit a lot of attention from the normal person. And it would help us identify the fish. I'm trying to think of a reason why we shouldn't name it, but maybe we'll think of one as we go along.

[LAUGHTER]

BONNIE WILLISON: I think it would have to be maybe cloaca just so that we're not like making headlines with this fish and maybe putting it in danger of something.

JENNA MERTZ: And that's the official terminology, would be the cloaca. So we'd be on point with that.

BONNIE WILLISON: Yeah. OK, so a good name is useful in that it gives you helpful information about the species. That makes sense.

JENNA MERTZ: Yeah. And one good example of this is a name that many of us are familiar with, which is the Emerald ash borer. It is a beautiful bright green beetle. It goes after ash trees and it bores into them. That is a three-part-- basically, you've summed up what it looks like, what it attacks, and what it does. It is a really well-thought out common name, I believe. And so I would love to see new species that are discovered, or species whose names might be in need of an update updated accordingly.

So in this case, from the name Emerald ash borer, we know what that insect does. And that's important because it can give us a clue about how we might control or manage that species. And for invasive species, knowing how to control that species is really important.

SAMUEL CHAN: And so if the broader public can identify in general, and also see what the potential impacts of an invasive species is, it raises that level of interest in preventing that organism from spreading. And then they also look within their own activities as how to prevent that.

JENNA MERTZ: So after the break, how do you change bad names to good names? And what does Tyler choose to name his fish?

[MUSIC PLAYING]

BONNIE WILLISON: OK. So, Jenna, I know we just talked about what makes a good name. Something that's descriptive is best, but I can't help but think about all of the bad or not ideal names that are out there already, especially with aquatic invasive species. We've been saying Asian carp for a long time, and I know that it's not a good name. It's not descriptive because there's actually four species of fish that fit under Asian carp that all have their own like names, species, and behaviors.

I know now that we shouldn't use place-based names like Asian necessarily to identify this fish, but I find it hard to stop saying this term. Because I know that other people understand this term, and so when I'm speaking to the everyday person, I know, this is probably what they've heard of, and I want to make sure that I'm reaching them with the right information.

JENNA MERTZ: Yeah. Absolutely. Every time I see an invasive carp or talk about it, I always have to catch myself. Like you probably heard me do that right there where it's like my brain goes to Asian carp, but then I have to reroute it to invasive carp, because Asian carp was the first term that I heard. And I think with a lot of these names or name changes, that's something that we all keep in mind too, is that it takes time and practice to use these new names too.

BONNIE WILLISON: Yeah. So I guess this brings me to a question. How do you change a species name? Like is that easy to do?

JENNA MERTZ: So it depends on what kind of name you're talking about. We mentioned that scientific name earlier, which is the fancy Latin one. We also talked about that Jimmy Buffett crustacean, so its scientific name is Gnathia jimmybuffetti. And to be honest, it would be hard to change that scientific name. It's not impossible. And it's hard because these scientific names are regulated by this really big book of rules for how to name new species. It's called the *International Code* of *Zoological Nomenclature,* and it's very serious, very buttoned up publication.

Each animal species has only one scientific name, and those names generally aren't changed unless that species gets reclassified in some way. So if we discover that what we thought was one fish is actually five fish, like what Tyler is dealing with, that sort of thing would constitute a name change. But common names, those are a little different. If you remember, common names are those colloquial names that we call other species.

BONNIE WILLISON: Yeah. Groundhog. What was the weird name for groundhog? Whistlepig.

JENNA MERTZ: Yeah. And these names aren't governed by a big book of rules. It's basically a free for all, and sometimes professional societies with a lot of influence, like the Entomological Society of America do put effort into changing those common names. Or if you're like Megan Weber and her team in Minnesota, you just start using better names.

MEGAN WEBER: We thought exactly that. We were like, I don't even, can we do this? And the more we talked about it, we're just like, I don't see any reason why we can't. And I don't think we even realized the level of influence we would have.

JENNA MERTZ: Megan is an aquatic invasive species educator at the University of Minnesota Extension. So she started thinking about names when a colleague approached her about creating some new educational materials for an invasive plant that's new to Minnesota. And this plant is like a climbing vine. It has yellow flowers, and it produces this hairy red fruit.

MEGAN WEBER: One of the names that it goes by is Manchu tuber gourd. So that was a potential name to appear on there. And it's what had us thinking about, OK, so what are we going to put on here, and how are we going to make the decision of which of these common names to use, especially for species that's not that common?

BONNIE WILLISON: All right, I know this one. Manchu that is a place-based name, right?

JENNA MERTZ: Ding ding ding. Yeah. Yeah. It is a place-based name. Megan said that they wanted to choose a different name because as you said, Manchu is place-based and it references a region and community of people in Northeast China. Megan also explained that the state of Minnesota has a history for enacting this kind of change. In 2014, it passed legislation that required state agencies to use the term invasive carp instead of Asian carp in their work.

BONNIE WILLISON: Yeah. I heard about this, and I always thought it was so cool they were able to do that. It's just one state, but they really made the choice and went through a really long process to say, we're not going to use the term Asian carp because it's not great. It's not accurate. We want to be better.

JENNA MERTZ: Yeah. And I think too, if that's the name that's appearing on all of your fact sheets and on your websites, you're getting people more used to the idea of using a new name, which I think that type of exposure, that type of seeing that name everywhere is very important for that change to happen. And so while the state of Minnesota showed that legislating invasive species names is possible as one Avenue, that was not the route that Megan Weber and her colleagues wanted to pursue.

MEGAN WEBER: So we started thinking about it in a broader context and thinking about what's a way that we can address this? And how can we make these decisions?

JENNA MERTZ: Megan and her colleagues created a decision making tool to help guide their choice of names.

MEGAN WEBER: So we worked to create this framework. We call them the guiding principles. It's our way of working through a process to think about, which names we're going to use on our educational materials?

JENNA MERTZ: So for renaming that invasive vine, the first step was to find all of the common names.

MEGAN WEBER: So we go through a number of different databases, like Edmaps and iNaturalist, grants.gov, USGS databases, APHIS, USDA wherever we can find names that might be in use for particular species, we'd go through, if it's a species and trade, we might look at what it's called in nurseries or in pet stores or wherever it might have some other name for it, and create this list of like, these are all the other common names, that are already in use for this species.

JENNA MERTZ: The next step is then to narrow down all of those options.

MEGAN WEBER: We have a list of things that we try to avoid. So we cross names out of that list as we're going through. So the things that we would avoid would be place-based names or names that have their geographic reference. Names that have derogatory words in them. Common names that can easily be confused with another species or cultivar. So three things that we're starting to avoid.

JENNA MERTZ: And then step 3 is to identify desirable names.

MEGAN WEBER: So we try to encourage the use of common names that like give helpful information about that species that can maybe help someone identify it if they were to see it in particular. So there might be something about invasive features. So something that you can tell, like if it's vining or makes lots of babies or something that helps identify it in that way.

JENNA MERTZ: And if that process doesn't provide usable names, the guidelines recommend creating a new name. So I'm going to show you, Bonnie, a picture of this plant right now. Like what's sticking out to you? What does it look like?

BONNIE WILLISON: Yeah. I mean, I noticed the yellow flowers first of all, they're pretty. It seems to just cover other plants and structures from what I'm seeing. The fruit, it's red. It's like an interesting red color.

JENNA MERTZ: Yeah. The fruit is like this really bright, pretty color. It almost looks like an oblong pomegranate to me. And those flowers, they look like yellow squash flowers. Megan said that the team initially settled on Golden creeper, which is an existing common name that refers to the vines yellow flowers. But they quickly realize that there are other plants that use this name, and that might create confusion.

So one of the things you mentioned, Bonnie, in addition to the flowers and that it seems to take over, maybe a space or an area is those red pods. And that's what the team actually focused on. So they focused on those small red, hairy pods, the fruit of the plant.

MEGAN WEBER: So this red hailstone name was this really great descriptive name. And that's where we landed. And that's the name that's, I think pretty well stuck for that species now.

BONNIE WILLISON: Red hailstone. That's creative I like that.

JENNA MERTZ: When I first heard the name, it almost sounds like it's from a fantasy book or something like, or like someone's Dungeons & Dragons character or something like the Red hailstone.

BONNIE WILLISON: I think it sounds like a rock star.

JENNA MERTZ: Yeah.

BONNIE WILLISON: Going back to Pink Floyd.

JENNA MERTZ: Rock and roll is a theme of this episode. So while Megan and her colleagues were initially unsure if this whole process and using different common names was within their power, she told me that she's glad that they did it. It set an example of that this is possible.

MEGAN WEBER: We're changing our own stuff, so we're not requiring anyone else to use our names. It's just a choice on what names we're going to use on our materials, and then hoping other people might also want to use this name on their materials.

JENNA MERTZ: And other organizations have used this name on their materials. Megan said that databases like Edmapd and iNaturalist, as well as the website Minnesota Wildflowers, have used their recommended common name.

BONNIE WILLISON: That's really cool to see that it's catching on. We can just decide to use a better name and get other people to use it too. And slowly, I feel culture starts to shift.

JENNA MERTZ: Yeah. It's like a very grassroots effort.

MEGAN WEBER: I would say go for it. I think you will also be surprised about the impact that you might have too and how far it can go. And I think there's two ways to go about it. We can wait for big national groups to decide that they're ready or we as like local groups can say, this is important for me. It's important for the people that I work with or the people that I'm communicating with, and make the decision ourselves to work towards something better until there is a more national effort and buy-in to.

JENNA MERTZ: I think that's really encouraging advice from Megan, to just go for it and see what happens. And while her team was really successful in changing this already established name, I know someone else who also has an opportunity to choose a new name, Tyler. Of course, our Tyler. We introduced at the beginning of the episode. He has the opportunity to choose a good name right from the beginning.

BONNIE WILLISON: Yes. And I'm on the edge of my seat wondering what happened with that? Like what did Tyler decide?

JENNA MERTZ: OK. Well, stay on the edge of your seat for just a little bit longer. I can report he didn't name the fish after himself or Pink Floyd.

BONNIE WILLISON: So Captain Hook.

JENNA MERTZ: Unfortunately, we weren't there to recommend that name to him.

BONNIE WILLISON: He didn't listen to the pod?

JENNA MERTZ: Not yet. Not yet. This happened before it came out. But he did want to choose a descriptive name. And he wanted to choose that type of name so it would help people distinguish this new species of pirate perch from each other. And so here's Tyler explaining his name for fish number one.

TYLER MULLER: One fish is named Aphredoderus ornatus, and this fish is the pirate perch in the Southern Atlantic. I call this Aphredoderus ornatus because I think of it as more of an ornate fish. For the common name, I suggested Black stripe pirate perch. It's the only species with a black stripe on the caudal peduncle, which is where the tail fin comes off of or the caudal fin comes off of.

BONNIE WILLISON: Clear enough. Black stripe.

JENNA MERTZ: Black stripe. Yeah. I don't know what else to say about that? [LAUGHS]

BONNIE WILLISON: That's good. Probably, right?

JENNA MERTZ: Yeah. Yeah. It's very straightforward. Black stripe.

BONNIE WILLISON: No other connotations. No other--

JENNA MERTZ: Exactly. All I'm seeing in my head right now is a black stripe on a fish. So that's exactly what Tyler wanted. Excellent. So that was fish number one. And here's Tyler talking about fish number two.

TYLER MULLER: The second species that I got to name was Aphredoderus retrodorsalis. And I think the most notable characteristic on this fish was that the dorsal fin was set back a little further than the species that looks closest to. It looks it has a receding hairline.

BONNIE WILLISON: So what's the common name like a balding pirate perch?

JENNA MERTZ: He did not choose that one. But Tyler opted for Lowland pirate perch.

TYLER MULLER: Eventually, the Lowland pirate perch, I had decided to keep that name because I felt that it was very true to its ecology that out of these three species that were commonly found together, this one really did not get as far up in the river systems as the other two usually.

JENNA MERTZ: So some more exciting news for you, Bonnie, Tyler's research got published in the journal Zootaxa in February 2024. So that makes these names official.

BONNIE WILLISON: Yeah. That's so nice. I feel like Tyler was really thoughtful with his naming process, even if he was a little hesitant to do so at first. And he gave the fish names that will really help us.

JENNA MERTZ: Yeah. And I think he's satisfied with those names too. It was a difficult process. I know he didn't want to do it from the beginning, but I think you're right. He did choose names that will stick around for a while, and tell us about important features of those fish. And those names also put the focus right on the fish, which is right where it belongs.

TYLER MULLER: These fish names are going to last a lot longer than everybody who's working on them. So it's nice to think about, maybe 200 years from now, nobody is really going to care about this researcher as much. Maybe we should just keep it focused on the actual fish at hand.

BONNIE WILLISON: This season of Introduced is written and produced by Bonnie Willison, Jenna Mertz, Tim Campbell, and Nicole Angell. Please subscribe, rate, review, and share this podcast with a friend. This podcast is a production of Wisconsin Sea Grant with support from the Great Lakes Commission. Thanks for listening and see you next time.

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