Hey to all you fish enthusiasts out there. Whether you're an avid angler or just curious about fish, we'd like to welcome you to fish of the week. It's Monday, May 3 2021. And we're excited to talk about all the fish. I'm Katrina Liebich, with the US Fish and Wildlife Service in Alaska.

And I'm Guy Eroh, just a dude trying to catch all the fish.

The fish of the week is the Eulachon. They're in the smelt family. And when I think about spring in Alaska, it's really synonymous with these little fish returning to spawn. We've got two guests today, we've got Meredith Pochardt, a fisheries consultant in Alaska, and Ted Hart, who's a fisheries specialist at the Chilkoot Indian Association. Both Ted and Meredith are based in Haines, Alaska. Thank you two for joining us today.

Yeah, thank you,

thank you.

Would one of you be able to describe what these fish look like?

So they're tiny fish, but they have this huge presence. They're very shiny. When they're in the ocean, they kind of turned a little, a little bit when the freshwater I guess they kind of their color gets a little more adult. And they, they fast, pretty much the whole time when they're when they're approaching the freshwater. So the males, their stomachs get really, really skinny. And the females, you know, kind of bold with eggs.

What I've noticed when I catch them is that, you know, some like the males are really bumpy their whole body. I don't know if it's the same down in se and the females are like really smooth and kind of soft.

Yeah. And they kind of get this like bluish tint to certain different rivers, they'll kind of have a different hue to them. Like they might be a little bluer and one river and then look a little greener and another River. Oh, cool.

Yeah, one of our elders, Sally Buratin, she could look at, we're pretty fortunate we get two runs. Here, we get a run on the Chilkat and the Chilkoot. So Auntie Sally, she could look at, you know, a hooligan from either the Chikat side or the Chilkoot side. And she can distinguish just by just by looking at him.

Oh whoa!

I'm not that good.

Is it a size issue?

Yeah, I think the size and the color a little bit.

Okay. Hmm. And these guys range all the way down into California. Correct?

Yeah, up and down the coast. There are similar trails like that, that would go in, up inland, you know, starting from the coast, or all that wealth was gathered.

So another thing we like to do is dig into the name a little bit. And we mentioned you look on. And that's actually what the American Fisheries Society has settled on. But we know there's another like another view at least common names for these fish. Can you guys mention some of those names? I know, there's probably some local ones, too.

Yeah, the local one I hear a lot is will "ooligan." It's like o-o-I-i-g-a-n, and you "yoolicon," many people say hooligan, and the traditional name for them are saak, s-a-a-k. That's the Tlingit name.

And candlefish

Salvation fish.

Yeah. Yeah. We'll talk more about that. Because they have a really cool history.

Yeah, so their, their timing is really important in the springtime, so you can picture if you're surviving off the land, you know, 1000s of years ago, pretty much all your winter food would be depleted by about now. And then all of a sudden, you get this huge wave of nutrient rich fish, one spoonful, it's enough for an elder for the day. That's how much nutrient are is in it.

As Ted said, like, there is the salvation fish to the natives, but, but also all the other wildlife. They're kind of what bring the seals and sea lions back and the whales. It's this huge kind of fanfare, and yeah, definitely all the seabirds and there's been a study done sea lions and that they kind of will follow this migration of hooligan. The spawning migration will kind of have dubbed that the "grease wave" like this like wave that the marine mammals follow as the spawning progresses northward. And for the stellar sea lions, this like huge nutrient rich, potent meal is is really key timing for them, because then they'll go and give birth to their pups. And they won't the females won't eat for I think it's a couple a month, maybe a couple months, while they're lactating. And so this is their last like big source of energy right before they give birth, which is also a really key timing window.

So why are these fish so important to indigenous cultures, both here in Alaska, and as you go further down south,

A long time ago, people would start to gather again, and where they would be gathering would be centered around catching hooligans And it was said that people need to put their old squabbles or whatever any hard feelings they had, they had to resolve that time of year but it's it gets really windy on the Chilkat when the hooligans come. And they start getting these big gusts of silt that blow around. And there's a story of all the people they gathered around, and they title their blankets together. And they all work with each other to shelter each other.

Yeah, yeah, it seems like fish do a really good job of bringing people together.

Yeah. And yet, one of their most valuable offerings, were the hooligan oil. So they can be rendered down in great numbers, and essentially boil them in canoes, old canoes, and then you can just skim all of that oil, just right off the top of the water. And you can just get huge amounts of oil. Because of that oil. There were huge trade networks that were from coast all the way into the interior. And, you know, that's, that's basically a currency, you know, a long time ago. Gold, you know, didn't have a whole lot of uses around here. I heard people using them for the tips of bullets. It's kind of soft, but um, that that hooligan oil, you know, it's truly liquid gold.

Yeah. And that's kind of also how they get that the candle fish name. They can dry them, and then just lay them on fire.

We actually tried that for my husband's birthday, a few years back, we were drying a bunch of them and you know, we lit one up and it was it worked fine.

That's awesome. Yeah, there's stories of when there's a big, a big Potlatch, and lots of visitors coming, the people with lots of wealth, they would pour hooligan oil on their fires. And then they wouldn't see all that black smoke coming out of their out of their houses. And that would that was like a sign other wealth.

So you mentioned that the these trade networks kind of went from the coast to the interior. But you also hear about some of these salmon migrations, where they go really far inland. How far do these hooligan, or eulachon or candle fish migrate into the interior for their spawning runs?

It's not that far, really, you know, like salmon will go miles and miles upstream. But these guys are kind of more in the tidal sections of rivers. The push up a little bit beyond what the tide does, but yeah, most of them just spawn in that intertidal zone

cool. Yeah, they don't look like really strong swimmers really, though, looks like they're really fighting hard in the current sometimes. And then, you know, you can almost just, you can just grab them by hand, you know, they're just, they're just pretty docile.

is that the primary method of capture then by hand or by net, or something just kind of close to shore?

Yeah, mostly by net, dip net, you can, you know, put your out there and then just use the, they're usually in the river, you can just use the current of the river to dip down. And you're supposed to go "poo-o-o-o-o-". And that's kind of, like a sign of respect for the hooligans, is there, they're said to be a happy fish. So yeah, you know, you know, you get to show your respect, and you know, that you're happy that they're there.

That's interesting.

They could be a little skittish. So, you know, it's this smooth motion in the in the water. We don't want to you want to make a bunch of noise. And a lot of people will use throw nets. And that's, that's a really good method. But t's said to be it said to kind of startle little bit, most of the Chilkat is very turbid, you can't. Most of the time, you can't even see that they're in there. You can just you can just kind of go by all the clues.

So I got to ask what are the clues,

Oh the 1000s of birds that are around (laughs)

And lions feels all the commotion going on?

Yeah.

Hey out there everyone. One thing that we always want you to keep in mind regardless of what it is that you're fishing for is safety. Every week, we're going to give you a tip or two that you can use to stay safe while you're fishing. If you're like me, you may enjoy using small watercraft like canoes and kayaks to access harder to reach sections of lakes and rivers. These little boats are convenient to haul and launch but they also require the operator to consider different precautions from those needed on larger vessels. Small boats, especially those designed to be paddled quickly through water tend to be a bit tippy. Make sure that when loading gear into the vessel, you're conscientious of weight distribution. Additionally, if you need to shift yourself around the land of fish, access more here or possibly unhook a snagged line, move slowly and methodically to keep yourself upright. A general bit of advice is to keep your body as low as possible. This will keep the kayak or canoe center of gravity closer to the water surface and make you less likely to tip yourself over.

When I first came out to Alaska, one thing that I saw that I was really surprised I was driving out of Anchorage, along the Cook Inlet there, and they got these mud flats. And I hadn't seen too many bald eagles before in my life and I expected to see these majestic birds flying or up in the trees. I saw him just stomping around in the muck. I asked someone about and they said that Oh, well maybe the hooligan are running. Do you think that that might have been well that is could have been?

I that's one of the signs we look for up here so we fish 20 mile in mid May and all the eagles will line kind of the shoreline and that mud where the mouth of the river is so you'll see eagles, you'll see the beluga whales that time of year. Yeah, lots of seagulls are lots of I should say lots of gulls, so don't get dinged by the bird people. But yeah, it's turbid river up here as well. 20 mile and also the Susitna. People fish them out of boats which is a slightly different method then what you mentioned Ted, but similar, maybe water color wise.

So the southern distinct population segment it has been listed as threatened under the ESA, how is the northern distinct population segment doing?

Yeah, that's a good question. That's I mean, that question there is the reason we started doing the mark recapture and the eDNA environmental DNA population monitoring, is to get an idea of how

healthy that population is. And we've seen some crazy fluctuations, we started this mark recapture in 2010. And we've seen many really, really good years, we have seen a couple really small returns.

So I assume that within state waters, ADF&G Alaska Department of Fish and Game is in charge management. But is there any co management with any tribal authorities?

It's kind of just just kind of like an understood thing a little bit. It's kind of just pretty much just for the subsistence users. And they just they just take what they need for that season, you know? Share with others.

Yeah, I would say the same as well. I mean, it's, uh, you know, on Fish and Game's website. And it's always good to check specifically for the regulations. But you do need to have your fishing license. But in terms of limits, at least here on 20 mile, I think it's fairly unlimited. And that was kind of something I wanted to mention. We always like to think about, like how much we're going to eat for the year and how many, you know how many meals we want. We eat about eight hooligan per meal, and maybe every couple of weeks. So I mean, looking at like 100, a 200 hooligan, which I think converts to maybe four gallons or something. And you can get that pretty quickly. And yeah, I guess just go with that in mind. Because it's very easy to over harvest them. And then you're like, man, what do I do with all these hooligan and you just you don't want to end up with a bunch of hooligan leftover in May when the new run is starting. So that's just a tip over the years that I've kind of figured out.

Yeah, it's interesting, like on big years, you know, there's obviously like a ton of excitement when they first show up, and everyone wants to get down to the river and fish. But if they've run last 10 or so days, on a big year, like by the end of it might still be a ton of fish in the river, but everyone's had their fill.

Yeah. And also, it's really good to give them a day or so when they first start going up, they see the scouts or go up first. And then if you let them get established, then you'll you're guaranteed a nice, big long run. So you can you know, it's easy, you know, it's easy to get excited. There's fish everywhere, they're easy to catch. And it's just it's good to take step back, when they're first showing up. Let them get established really well. And then it's just going to be a nice, a nice, long, consistent run.

For someone who hasn't eaten a lot of hooligan, what do these fish actually tastes like?

Basically, similar to a trout maybe? it's like, not quite as firm, I guess the meat. But yeah, it's kind of they're kind of hard to explain. They're, they've kind of have their own unique flavor a little bit.

Yeah, you definitely can taste that they have a super high oil content. But they're, yeah, I wouldn't even necessarily say that they are that fishy? Yeah, they're just kind of a taste of their own. They're delicious. I really love pickled hooligan. I just love pickles. Anything but pickled fish in general.

What do you pickle them with?

I'm just going to use a typical pickling brine. It's the same brine that I use for pickled salmon. Which is like, yeah, you know, vinegar, salt. Dill. Okay. Garlic. Yeah.

That sounds good. We've smoked them, and I think the way we eat them the most probably is fried. So dip them into the egg and then some panko breadcrumbs and then deep fry them. Yeah. And once they're fried, the little spine just pops right out and the kids really like that.

And yeah, he just like, dust them and flower and put them in a really hot oven. And just like, turn them once they get super crispy,

My cousins used to call them "crispy fish."

Do we know why they're so oily, like just biology wise?

I don't know, like what benefit they personally get out of it. But obviously, like everything that eats them gets a huge benefit from that. But I think these like these forage fish are just typically really high in fat content. So they're feeder fish.

It's a very high quality oil, it's like fish, it's like olive oil. I really like the texture of it.

is the oil still used commonly today, or are people just transitioning to just eating the fish regular? Not regular, but whole?

It's a little bit of an acquired taste. There's different grades. Some, the old timers used to make it really strong. But they say the stronger it is, the more the more medicines in there, the more the more potent it is. And some of my friends make it and it's just really light, really, really mild flavor.

I'm curious how you make it, I can ask that after you finish. But I would like to know how to make it.

Basically, you gather enough to fill a great big pit. It's like a eight by 10' pit or something like that. And it just many, many gallons of hooligan, and you put them in there, line it with grass in organic material. And then you let them let them ripen for say four to 10 days. And they say once their eyes, you can see their eyes, they like turn a little red, then they're ready. And then when they're ready, you transfer them into a giant boiling pot. And then you cook them. It takes a long time. You kind of break them. Use an old paddle. And you kind of like stir it up. And then they kind of break apart. And then you start pouring, like some cold water in there on top. Then all these, these bubbles of oil just start coming to the surface. And I think people in one cook, they can get like five gallons of oil. Wow. And then sometimes it's takes a few cooks. I think it can get more than the more the more you ripen it, the more oil you get also.

All right. Thank you too for joining us. This has been a really, really neat discussion and learning about the cultural aspects down in se has been Yeah, very, very interesting. And we really thank you for sharing that. Thank you both.

Thank you guys.

Yeah. Thank you guys.

So get out there and enjoy all the fish.

Thanks for listening to fish of the week. My name is Katrina Liebich. And my co host is Guy Eroh. Our production partner for the series is Citizen Racecar. The show is produced by David Hoffman. Coproduced and story edited by Charlotte Moore. Post production by Garrett Tiedemann. This other week is a production of the US Fish and Wildlife Service, Alaska Region Office of External Affairs. As the Service reflects on 150 years of fisheries conservation, we honor things and celebrate the whole community, individuals, tribes, the State of Alaska, our sister agencies, fish enthusiasts, scientists and others who've elevate our understanding and love as people and professionals of all the fish.