



# A Salmon Showman



One way or another, Ben Meyer spends a lot of time working with kids.

Meyer, a M.S student in Fisheries at UAF, studies the potential effects of climate change on juvenile salmon. And when he's not focused on young fish, one of his hobbies is entertaining crowds of children.

“My main occupation at the moment is being a graduate student,” Meyer said. “And another sort of alter ego side business that I do is called Ben the Balloon Guy, where I get to go to parties and events and grand openings and make balloon art for people.”

Meyer studies king and silver salmon in the Kenai River watershed, which spend their formative years in fresh water before migrating to the ocean. Meyer said this period of development can have major effects on salmon populations.

“There is a fairly well-developed consensus that if you are a juvenile salmon who grows well and is successful and gets bigger before you migrate out to the ocean, there's a better chance that you'll be able to return later on as an adult and reproduce,” he said.

Meyer is working to better understand how these young salmon could be impacted by rising air temperatures. Specifically, he's studying salmon size, age, and diet in the Kenai River and in three of its tributaries – Beaver Creek, the Russian River and Ptarmigan Creek – that cover a range from slow lowland rivers to glacier-fed whitewater. The idea, he explained, is to pinpoint the “Goldilocks zone” across these waterways, in which salmon have ample food and exhibit robust growth rates.

“We're trying to observe where on that growth spectrum we observe them in nature, and measuring those parameters, temperature and food,” he said. “By measuring those two things, we can understand, could their growth rates change in the future if water temperature in particular changes?”

Over two summers, Meyer and a lab technician made regular visits to three sites in each waterway plus two on the Kenai River itself. At each site they measured water temperature and captured juvenile fish with a series of traps. They measured and weighed the fish, and in some cases collected scale samples which can be used for determin-



ing the age of the fish. But the most intricate process was determining diet – done by anesthetizing the fish, slipping a tube down their throats and flushing out their stomach contents.

Meyer believes his research will ultimately show that rising air temperatures will have a variety of impacts on the waterways and the salmon, both positive and negative. “This kind of research will likely confirm a growing idea that low elevation, low-gradient habitats like Beaver Creek are more likely to be sensitive to the effects of climate change in terms of salmon habitat,” he said, “and that in terms of where we want to prioritize our conservation efforts, we should really consider these kinds of places – especially since, in the Kenai at least, this is where people like to live.”

While Ben Meyer hones his conclusions in the lab, “Ben the Balloon Guy” has also worked salmon into his routine. Meyer uses balloons to depict the salmon life cycle: from egg, to alevin, to smolt, to adult, to spawner.

“When I started hanging out more with people who study salmon, I thought, I need to make a cool salmon hat for people to wear, and I could not find a good example of one

out there, so I figured out how to make one,” he said. “And I thought, this is a really cool adult salmon but really that's just one part of their life. And so I've been trying to figure out how to depict the rest of their life cycle.”

Meyer has worked up an informal presentation about salmon that he delivers while crafting the balloons, which he has deployed for EPSCoR at multiple events across the state. He said the lessons he's teaching seem to be sticking.

“It's my hope that making a big colorful cartoony image of something will help burn what that looks like into someone's memory,” he said. “After I did a few of these presentations I was curious, and so I was chatting with a few kids and I asked them if they remembered anything from it, and they were tossing out terms like parr and alevin and spawner that might not normally be in their vocabulary.”

