

The Sea Grant Files: Career in Fisheries
Fresh News About Fresh Water

Ideas for Building a Career in Fisheries

For November 22, 2016

JESSE: Hi I'm Jesse Schomberg and you're listening to the Sea Grant Files. L.J Rogers, an undergraduate at the University of Minnesota Duluth is here with me in the studio. L.J is the president of the American Fisheries subunit at University of Minnesota Duluth. We have asked him to talk about careers in fisheries, the American Fisheries Society, and his favorite subject, fish. Thanks for being a part of the Sea Grant Files L.J

L.J: Thank you very much for having me.

JESSE: So first of all I wanted to ask you a couple of questions about your studies at University of Minnesota Duluth. When do you expect to graduate and did you come in as a freshman knowing you wanted to do?

L.J: Well I'll be graduating with my degree in biology this May and I came into freshman year thinking I knew what I wanted to do, but since then those plans have changed. I kinda came in thinking I wanted to go the medical route through school and then during my sophomore year I ended up changing to more of a career in fisheries.

JESSE: So what lead you to some of those changes?

L.J: The professors that I had for my classes really made an impact on me as well as the graduate students that I had as Ta's for different labs as well I went on a course trip out to Washington and worked at the marine biological facility at the University of Washington and on the Friday Harbor labs. That was a great experience with lots of exposure.

JESSE: That sounds really cool. So that was kinda some extracurricular stuff that you did. Was there more you wanted to say about that?

L.J : Yea well for extracurriculars, my class work has kinda given me that basic skills that I needed. But really I gained all of my skills through the research lab that I work in. I work in Dr. Allan Leshner's research lab he is a biology professor here at UMD. Since starting in his lab I have conducted research looking at visual sensitivities of multiple different species of freshwater fish. Conducting micro CT scanning on fish in order to look at different morphological differences in them as well as lake trout foraging behavior and lateral lines electrophysiology recordings.

JESSE: Okay so back up. Lateral lines electrophysiology recording, that might need a little bit of explanation.

L.J: So on fish they have this lateral line which has mechanosensory organelles and those organelles are used to interpret the environment around them so like predator and prey interactions as well as maybe orientation for the surface and detecting sound. So what we do is we impact electrodes in the fish and then we can test the sensitivity of their lateral line or how sensitive they are to external cues.

JESSE: Okay so you can essentially tell what the fish is sensing in its lateral line. Pretty interesting stuff. Can you tell us a little bit more about the American Fisheries Society? Like when it started, what it does?

L.J: Well the American Fisheries Society was established in 1870 and its is the world's oldest and largest organization with over 8000 members worldwide. Members are dedicated to strengthening fisheries professions. Advancing fisheries science and conserving fisheries resources. In North America there are 48 chapters with 2 binational chapters as well as 1 national chapter located in Mexico.

JESSE: So the student chapter that you are the president of who belongs to it? What sort of careers are those folks interested in?

L.J: So our group is made up of undergraduate and graduate students, alumni, post doc, as well as different professors. The purpose of the group is to encourage all of these people who are interested in or involved in fisheries or general fish biology to collaborate on research and community involvement. So currently our subunit is composed of 19 undergraduates, 7 graduate students, a post doc fellow and we also have our advisor Dr. Tom Rovik who has been around Minnesota AFS for quite some time. He has participated in a numerous amount of different committees for Minnesota AFS as well as serving as president for a period of time.

JESSE: So is this just for folks at the University of Minnesota Duluth

L.J: No we are actually open to a broad array of people. The greater Duluth area has a really great research community so we work with people at other agencies as well so we are really open to anybody if they were high schoolers that wanted to come and hear people talk or people from UWS or from St.Scholastica if they wanted to come by and kinda take part of the group and get this exposure we are open to it all.

JESSE: So here's your opportunity to give kind of a pitch. Why should an undergraduate interested in a professional career related to fish join the American Fisheries Society at University of Minnesota Duluth?

L.J: Well like I said earlier, Duluth has a really great research community and UMD AFS really tries to take advantage of all that. We have multiple speakers who are coming in this year from

UMD, Large Lakes Observatory, the EPA, the Lake Superior DNR as well as Sea Grant to come in and talk to our group. Having these researchers come in and talk to our members is an opportunity to make connections with some of our professor as well as people who are interested in fisheries or related professions or who already have careers in fisheries related professions within Duluth. We also pride ourselves in our community outreach which is mainly done with everybody over at Sea Grant. Sea Grant's focus is environmental literacy and work for stabiliment. So partnering with Sea Grant as much as we can allows our members the opportunity to work with other researchers in the area. Which may be beneficial when looking for jobs in fisheries related fields after graduation or maybe just for general research purposes for the graduate students or undergraduates who are conducting research here on campus. We kind of also like to have a little bit of fun besides having different researchers in to give us different talks and so our group does participate in our yearly smelt fry. So when the smelt are running we go out in the lake and we catch smelt and then bring them back. We have a party at the end of the year to kind of celebrate everything that we have accomplished throughout the year and kind of relax before we head into finals weeks

JESSE: You'll have to invite me next time to your smelt fry, it sounds great. I know Minnesota Sea Grant has appreciated the way American Fisheries Society subunit has volunteered time and effort to support Minnesota's coastal ecosystems and communities. Can you tell us about other chapters and what they are doing, aspired to do with their degrees

L.J: So our secretary Julia Narow she is a senior here and she will be graduating from UMD this May. She spent last summer working out west at Washington State with NOAA doing some whale research and so she plans on taking a year off of school and going back out west to Washington State to continue her work with NOAA before going into graduate school. Also our former president Trevor Kyler, he will be finishing his PhD here in the spring of 2018 and once finishing his degree he will be applying for post doc fellowships and eventually will be looking to try and obtain a position teaching at a small private college or university. Alana Malkovich she is a sophomore who's a part of the group. She still has some time left to plan out what she wants to do but she is very interested in conducting research about sea turtles

JESSE: Sounds like some really cool things. So what are some takeaways you have gained as a member of the American Fisheries Society?

L.J: The biggest takeaway that I have gained since being a member of AFS would be that communication opens up new doors. The great research community here in Duluth, we can definitely take advantage of being able to work with different directors of agencies as well as other researchers and they can come in and talk to our groups. That really pays off for all of us in making those new connections. As well there are so many opportunities for undergraduates on campus even. I was able to get a job as an undergraduate working in a research lab and so if other undergraduates are interested in conducting research, that opportunity is available to them on campus. Since there's not really a fisheries related major for undergraduates, and it's kind of hidden away from students who don't know the opportunity is there. This is something that they can definitely take advantage of.

JESSE: So kind of a final burning question and one of them is kind of based on the shirt that you are wearing. What is your favorite fish first off, and secondly how many shirts with fish on them do you own?

L.J: My favorite fish would have to be the oyster toadfish. It is the model species that I choose to conduct research on in the summer time out at the marine biological laboratory. For the number of fish shirts that I own is 19 so just a little over 2 weeks worth.

Jesse: You have actually counted them.

L.J: Yea

JESSE: Well it's been great talking to you, thanks for coming on the Sea Grant Files L.J.

L.J: Thank you very much.

JESSE: This episode of the Sea Grant Files was produced by Annika Whitcomb, Summer Harris, Mariah Schumacher, Majja Jenson, KUMD, and me Jesse Schomberg. To listen to more episodes of The Sea Grant Files and to subscribe to our podcast, visit the Minnesota Sea Grant website at www.seagrants.umn.edu. You can also follow Minnesota Sea Grant on Facebook, Twitter, and Instagram. Thanks for listening.