Announcer (00:00:03)

The Missouri State Journal, a weekly program keeping you in touch with Missouri State University.

Adair Seifert (00:00:09)

What happens under the water is a mystery to most. Invasive species like bighead carp have created problems and mysteries in lake systems for years. Their behavior affects wildlife in the states of Mississippi, Ohio, Illinois, Kansas, Oklahoma and aquatic life in the Missouri River.

But what is being done to eradicate populations of bighead carp?

I'm Adair Seifert and today, Dr. Quentin Phelps, assistant professor of biology at Missouri State University, and Hae Kim, biology research assistant, explain how they are using conservation outreach and research to save the Grand Lake.

Hae Kim (00:00:47)

Invasive species usually have a very unique life history characteristic. They look different or they look scary, or they're super invasive. I think such was the case with bighead carp. Bighead carp are collectively grouping 2 big species of bighead carp. The silver and the bighead carp. These two fish occupy a similar area. What I mean is that they're both plankton feeding fish.

Silver carp and as it relates to filter feeding, it seems like there is a a difference in the kind of plankton that these two will eat. Broadly speaking, bighead carp seem to eat bigger planktonand the silver carp eat smaller plankton. When people think of bighead carp and these invasive species, you automatically think there are thousands of millions of fish just jumping out of the water and smacking you in the head.

 Generally, when we follow a lot of these invasive species, we see that a lot of times it seems they are very more nomadic. There's a lot of them on the lower where it connects to the Mississippi River because that would be a source and they filter up and as you keep going upstream, the silver carp seemed to go down in abundance and you start seeing more bighead carp now, which is super unique about this Grand River, Neosho River, Spring River and Grand Lake system.

Adair Seifert (00:02:27)

Hea Kim explains the damage the bighead carp is causing to many lake systems.

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Spoonbill or paddle fish is hard to quantify the economic, social and cultural values that this fish possesses for the people in that area. The bighead carp is a direct competitor of the spoonbill or the paddlefish.

A bigger problem is that they’re filter feeders. A lot of these fish are consuming plankton. We always say carp possess the characteristics of a successful invader. They can grow fast, make a lot of babies and they're just able to adapt and survive in whatever you throw at them.

Adair Seifert (00:03:04)

Phelps explains how they are working with local anglers and using innovative data collection methods to restore the Grand Lake system.

00:03:13 Speaker 4

There are multiple projects that are associated with what we're completing on the grand Neosho system. One component of that is to evaluate the current fish community native species. With that being the predominant focus, and then also evaluating the relative abundance and location of the invasive carp.

At least on the second part of that is that we have to capture these invasive carp and that's where we're working with guides, particularly Brian Baker, to capture these fish, because we, as fishery scientists, haven’t been very inefficient at capturing those species.

Brian has caught numerous big-head carp. He's developed a super innovative method using live imaging sonar to be able to locate these fish and then capture individual fish. He's made one unique capture. He caught a female bighead carp that was 118 pounds and has ten million eggs. The coolest part it that according to everything that we've been able to uncover, this is the world record for a bighead carp.

Adair Seifert (00:04:43)

Their project also includes conservation, education and outreach.

00:04:47 Speaker 4

These conservation education meetings provide a platform for the general person to develop a more comprehensive understanding of why conservation should be important to everyone. If we have healthy land, healthy water and healthy ecosystems, we will have healthy people. That's the all-encompassing reason that we do conservation, education and outreach.

Adair Seifert (00:05:18)

They hope to continue their work and help make a positive impact on the Grand Lake system.

I'm Adair Seifert for the Missouri State Journal.

Announcer (00:05:25)

For more information, contact the Office of Strategic Communication at 417-836-6397.

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