

MUSSEL DETECTION



MATT REDDING, co-founder of AIS Solutions, began working with his team a year ago on a pilot study program that uses a tracking device to prove whether a boat presented a risk of carrying invasive mussels. (Mary Cloud Taylor photos/Daily Inter Lake)

Local company creates device to expedite boat inspections

By MARY CLOUD TAYLOR
Daily Inter Lake

The summer season draws thousands of boaters to the numerous lakes across Montana each day, and as the state walks the line between promoting

eral public will not tolerate those requirements when cars are backed up waiting to get through.

Redding, who worked as an inspection agent for the National Parks Service for several years, said all inspectors are trained to



A6 | Thursday, July 19, 2018

FROM PAGE ONE

Daily Inter Lake

DEVICE

from A1

a state that relies on tourism, but so far, the inspection stations have acted as the front line of defense in the fight against aquatic invaders.

About a year ago, Redding and his team, company president Rod Shaw and tech officer J.D. Seiler, began working on a pilot study of a boat monitoring device they hope will provide a speed pass option for boaters who can prove their vessels present little to no risk of carrying mussels.

The device, currently in its prototype phase, is about the size of a cellphone and can be attached to boats with a heavy duty zip tie.

Using geo-fencing technology, or geographic sensing, the device uses Google maps to monitor whether a vessel has crossed an invisible perimeter set up around known infested waters, indicating potential contamination or lack thereof.

The device logs any detected breaches of those boundaries, information that can be accessed through a mobile app, providing users with a quick and accurate way to prove whether their vessels are clean.

Because AIS Solutions is a private company, Redding said that the device only collects data on whether a vessel has entered infested waters, giving inspectors a red



CARS BACK up waiting to have their vessels inspected. (Photo provided)

boating history of where a vessel has been and when.

If a boat has entered infested waters, then that agency will gain access to addition information in order to determine what decontamination action should be taken.

He compared the program to a cellphone company. Though they have the ability to track a user via their cellphone's GPS, none of that information gets reviewed or shared with outside sources, including government agencies.

"We're not Big Brother. We're not watching your every move," Redding said.

Mussels can live out of water for around 30 days, Redding said, but just to be safe, the device keeps a record of the past 90 days.

accurate data, Redding said the current question-and-answer method of inspection regarding each vessel's boating history, cleanliness and risk will become obsolete.

Rather than having to rely on answers given by boat owners anxious to launch, inspection agents can quickly lookup the device's ID number in an app and decide from there based on whether it shows a red or green light whether further inspection is necessary.

Those who opt to participate in the program, Redding said, will not only potentially be able to breeze through inspection stations in around 20 seconds or less, but they will also gain access to waters when inspection stations are closed or unmanned.

He hopes to integrate a gate system into the

getting the program up and running at the level he hopes will cost around \$500,000.

Redding is currently funding most of the project out of his own pocket with help from donations by friends and family. He said that cost pales in comparison to the \$300 million the U.S. Fish and Wildlife Service estimate a mussel invasion of the Columbia River would cost each year.

An avid boater, fisherman and resident of the Flathead Valley, Redding said he has a vested personal interest in protecting the waters he calls home.

"If these mussels continue to infest the West, especially Montana, they're going to start closing down our waters," he said. "It's going to affect the way of life."

Redding said his team's long-term goal for the project is to be able to

provide accurate information to lawmakers, whom they hope will use the data gathered to inform future decisions about how to best protect the region's waters.

Yellowstone National Park announced last summer that should mussels be detected in any of its water bodies, the park would ban all boating in the park.

Redding hopes the implementation of a program that can provide reliable, accurate data on the number of infested vessels trying to enter the state will prevent a similar situation from occurring in Montana and keep the waters clean and open for future generations.

For more information visit www.aissolutions.org.

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codes that would open a gate and enter the water without an inspection agent present.

The convenience of the device, however, comes at a cost to the boater.

Current versions of the tracker cost around \$250 each, but Redding and his team are working on a smaller, cheaper version which they hope to have finished by August. The new version he said will be around the size of a silver dollar and cost around \$30-\$40 each.

Redding hopes to have at least 30 total devices implemented by the end of the summer to start collecting data on the pilot study's success.

Once they prove the program works, Redding and his team plan to seek funding and support to make the devices more widely available as a via-