

Invisible Invaders heading to Okanagan





By Kelowna Capital News

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It's a challenge to get people concerned about a problem no one can see.

Yet, this problem would affect everyone if it's not prevented, from boaters to sun-bathers and swimmers; from water utilities to industry; and everyone else who uses the lakes in any way.

In the Okanagan, it's estimated that an invasion of alien zebra or quagga mussels would cost at least \$42 million a year for at least the first few years, just to try and manage it—and in lost revenue.

Once established, they're impossible to eradicate.

In today's close-up, Capital News reporter Judie Steeves looks at how a microscopic non-native species could turn our lives upside down.

"It would harm tourism irreparably," comments Okanagan aquatic biologist Heather Larratt, who has just completed a year of research into potential impacts of the two non-native mussel species in the Okanagan, along with a number of other aquatic invasive species.

In their larval stage they're called veligers and they're so small they're invisible to the naked eye, which means they can be transported from lake to lake without the carrier being aware of their presence—in nothing more aquatic than the damp environment of a bilge or the bit of carpet on the trailer under the boat, she explained.

One can grow to one million in a single growing season, trillions in three years, until beaches are covered in razor-sharp shells, and water intakes, boats and other structures are all clogged by thick layers of them. They forever alter the water body's food web and cause bird and fish kills, she reports.

Colonies grow on dead and decaying mussels and can become as deep as two feet.

Not only are they prolific and destructive, they also foul the environment with their wastes and they can carry bacteria such as E. coli or Clostridium botulinum, noted Larratt.

In an effort to try and control such ecosystem-destroying alien introductions, the provincial government passed new legislation last December amending the Controlled Alien Species Regulation to prevent shipping or transport of a single mussel—alive or dead.

Offenders face a penalty of \$100,000 or a year in prison, or both.

Matthias Herborg is the Aquatic Invasive Species specialist for the environment ministry, and he says the mussels will have a "very real and significant ecological and economical impact on the food web. They will turn it upside down. It would be very bad news for B.C. to have them here."

The new, strong legislation allows authorities in B.C. to stop boats if they suspect they may have been in areas where the mussels have already taken hold, such as Lake Mead in Nevada or the Great Lakes in Eastern Canada and the U.S.

Boat-owners and other water users are responsible for ensuring they Clean, Drain and Dry their craft or equipment before moving it from one water to another, and there are specific protocols for ensuring no live mussels or veligers are present on boats or equipment such as paddleboards, waders, lifejackets, skis, fishing rods and float planes.

For details, go to: www.100thmeridian.org

A collaborative effort by all western states and provinces has been underway for the past few years to try and prevent the mussels from gaining a toehold in any new water bodies and in some states, a cleaning certificate is required before a boat can enter the water.

Herborg says the provincial government is training enforcement staff and external agencies and working on public outreach to educate people about the importance of not planting the mussels in B.C. waters—even unintentionally.

Already Idaho and Montana boats are well-inspected, but boat owners here are just learning about the dangers of this new threat to B.C. waters.

He's concerned that people who buy a boat in the U.S. may bring it home and launch it in local waters, not realizing it could be carrying dangerous cargo.

Snowbirds who have wintered in such southern hotspots as Lake Mead, Lake Pleasant, Lake Havasu, Lake Matthews and Lake Miramar and who return and put their boat in local lakes without satisfactory cleaning are also a concern, he said.

Larratt concurs, saying that big boats are one of the biggest culprits in the spread of zebra and quagga mussels.

While voluntary compliance is good, Larratt believes it's so important to prevent these mussels from getting into B.C. water bodies that the provincial government should introduce a boat licensing system to help fund an AIS prevention program such as boat checks and washes.

At the federal level, she says similar legislation prohibiting movement is required, particularly so that Canadian Border Services agents could act at international border points.

At present, she said even if border officials spotted a boat covered in the invasive mussels, they couldn't even stop the boat from entering Canada because there's no legislation covering that.

Resources must also be assigned to prevent mussels from entering Canada, particularly Western Canada, she believes.

At the municipal level, efforts should focus on lake amenities and vulnerabilities, carrying out public information campaigns and raising awareness about the potential invasion, she stated in her report.

Coordination of efforts at all levels should also be part of the effort, she emphasized.

In this valley, the Okanagan Basin Water Board, which funded the work of Larratt Aquatic, also intends to continue its public education campaign, and the Invasive Species Council of B.C. plans to staff a public outreach effort here this summer.

Anna Warwick Sears, executive-director of the OBWB, said it is working with Larratt to make presentations to local government in the valley to inform councillors and directors of the issue, as well as conducting an overall campaign to inform people.

She noted that not only will large utilities face huge costs if the mussels get into our waters, but lakeshore property-owners will feel significant impacts, particularly those who have small water intakes which will be rendered useless by this mussel.

Gail Wallin, executive-director of the invasive species council, said they will be focussing on marina and boat owners as well as lake stewardship groups and the B.C. Wildlife Federation with the Clean, Drain and Dry message.

There will be a public aquatic information workshop at the Grand in Kelowna April 30 to talk about invasives and protocols to deal with them.

For details, go to: www.bcinvasives.ca

Other aquatic invasive species of current concern include Didymo or rock snot; New Zealand Mud Snails and Spiny Water Flea.

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