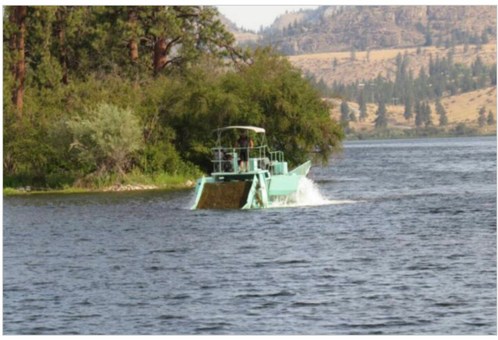

UBC Okanagan study to investigate where Eurasian watermilfoil occurs in lakes

Milfoil was introduced into the Okanagan Valley lake system some 40 years ago

BARRY GERDING / Dec. 3, 2022 8:00 a.m. / NEWS

A UBC Okanagan pilot project is seeking to better pinpoint and map where the beginnings of Eurasian watermilfoil (EWM) infestation occurs in the large lakes within the Okanagan Valley watershed.

If this pilot project proves successful, it could become a blueprint for other jurisdictions to follow in their own battles with this aquatic plant or other invasive aquatic species, says UBCO assistant professor Mathieu Bourbonnais.

Bourbonnais, with the Irving K. Barber Faculty of Science, is overseeing the project with the assistance of masters graduate student Mackenzie Clarke.

The data modelling prototype is using the technology of topobathymetric lidar, the science of simultaneously measuring and recording three distinct surfaces – land, water and submerged land up to 20 metres below the water surface – using airborne laser-based infrared imagery sensors.

Bourbonnais says being able to better identify potential or small milfoil patches will give better control management tools for the Okanagan Basin Water Board's Euroasian watermilfoil harvest program, which currently is about an $800,000 a year initiative to try and control the growth and limit the damage of the invasive water plant.

It could also potentially target specific watermilfoil growth sites before they grow out of control near valley lake areas deemed sensitive by Environment Canada for the preservation of the Rocky Mountain Ridge Mussels.

He said EWM has been a formidable invasive aquatic plant species to control since it was introduced into the Okanagan Valley lake system some 40 years ago.

It has also illustrated to the water board the need to be stringent when trying to avoid the Zebra and Quagga mussels from being introduced into the lake system.

Like watermilfoil, there is no solution for removing the mussels once they are introduced into a lake system. It is a rooted submerged plant inhabiting the shallows waters of lakes across North America.

EWM originated from Asia, Europe and Northern Africa and has spread rapidly, introduced in North America from the ballast water of ships or aquarium activities.

Bourbonnais said a lake choked with watermilfoil growth impacts the biodiversity and food webs reliant on the lake habitat, alter the water temperature and impacts its recreational use for swimmers and boaters.

"The impact of invasive species on our lake aquatic systems costs billions of dollars to deal with across the country. It definitely has an impact both ecologically and economically," he said.

The pilot project fieldwork will be done by early spring, he said, with the hope it provides data upon which to target areas for harvesting leading up to the permit application process next year.

"The goal is the Okanagan Basin Water Board can take the data generated from this research model and liaise with the province and federal government on how to go forward," he said.

"We hope it can help the management strategy of where to send the lake rototillers to pull up the plants."