

Quagga Mussel Threats Increasing

Boats that have been on Lake Powell for only a short period of time are now coming off the water with invasive quagga mussels inside their systems and attached to their hulls. Mussels are also attaching to equipment that's been in the water, especially anchors and anchor ropes.

So far this summer, Utah's aquatic invasive species (AIS) personnel have **stopped more than 120 mussel-infested boats** — most of which had visited Lake Powell — from launching at other Utah waterbodies. Most of the boat owners didn't realize they had mussels onboard and were attempting to launch at Jordanelle and Deer Creek reservoirs in north-central Utah. These two reservoirs deliver drinking water to much of Salt Lake and Utah counties.



Why is this happening?

Despite increased efforts to inspect and decontaminate boats as they leave Lake Powell, mussels that are not eliminated through the inspection or decontamination process are jostling loose inside boats as the boats travel down the road.

What's changed?

The quagga mussel population at Lake Powell is growing at a rapid rate, and mussels can now be found lakewide. The expanding mussel population and the lake's lower water levels are likely why the number of contaminated boats has spiked dramatically this year:

- Some mussels are floating in the water, making it easy for a boat's water-intake (cooling) system to suck them into the boat. Quagga mussels are also pulled into ballast tanks and live wells as water from the lake enters these systems.
- The bottom of the reservoir is covered with mussels. Any anchors and anchor ropes retrieved from the water will likely have mussels on them.
- Boaters who stop on the mussel-encrusted beaches are getting mussels on their feet and any items they bring onto the beach. They then track these mussels back onto their boats.



What has Utah done to meet the increased threat?

Utah has stepped up its inspection, decontamination, training, enforcement and monitoring efforts to address this growing problem. Some of those efforts are concentrated at Lake Powell, while others are happening throughout the state.

Increased inspections and decontaminations

Utah's inspection and decontamination efforts will surpass historic efforts this year. As of July 30, AIS technicians and personnel had inspected more than 144,000 watercraft statewide. Of those, 4,700 required decontamination. For reference, Utah performed 130,000 inspections and 4,400 decontaminations during the same period last year.

So far in 2018, Utah's AIS technicians have worked closely with employees of the National Park Service to educate boaters about the changing situation at Lake Powell and to inspect more than 47,000 boats that were exiting the lake. More than 3,100 of those boats were decontaminated at the lake. In all of 2017, approximately 51,000 boats were inspected at Lake Powell, and roughly 2,500 were decontaminated.

Boats that visit Lake Powell — and subsequently visit another body of water — are inspected again at the second location. As of Aug. 20, AIS inspection personnel have found 121 boats with mussels at other Utah lakes and reservoirs. Those boats were either decontaminated or quarantined. This is a significant increase compared to recent years.

More training

AIS Inspection personnel were surprised to find adult mussels in the sea strainers of boats that had been on Lake Powell. (Sea strainers are usually found in larger, more complex boats. The strainers filter water before the water circulates through the cooling system.) As soon as inspection personnel noticed the change, they trained other staffers at Lake Powell and across the state to:

- Locate and remove sea strainers
- Back flush lines after the sea strainers were removed
- Re-inspect lines and strainers after decontamination

The number of boats encountered around the state with mussels found in their sea strainers has decreased dramatically since Utah's AIS technicians received the additional training.

Additional enforcement measures

Criminal charges for mussel-related offenses range from an infraction to a Class A misdemeanor. Also, contaminated boats can be seized and placed in quarantine. So far in 2018, more than 100 mussel-infested boats have been quarantined. That compares to fewer than 10 boats quarantined in all of 2017.

Ongoing monitoring at other Utah waterbodies

Utah has been vigilant in monitoring for quagga mussels at other lakes and reservoirs. AIS personnel routinely sample 45 of the state's highest-priority lakes and reservoirs every month from April to October. (Testing does not typically occur from November through March because the water is too cold for mussels to reproduce.) A second group of waterbodies is tested once or twice per year. As of July 2018, all of Utah's other waterbodies had tested negative for quagga mussels.

Additional resources

- STD of the Sea website — <http://stdofthesea.utah.gov>
- FAQ about Lake Powell and what's changed — http://stdofthesea.utah.gov/lake_powell_faq.php
- Map of Utah's decontamination stations — http://bit.ly/decon_map

— Published August 21, 2018