

March 10, 2021



Dear Educators,

Earlier this month staff at the Washington State Department of Fish & Wildlife and the Washington Invasive Species Council were alerted to the fact that invasive and highly destructive [zebra mussels](#) were found hitching a ride inside “Betta Buddy” brand moss balls designed for aquarium use.

Zebra mussels are an invasive species that can devastate local aquatic ecosystems and infrastructure. These mussels are not currently found in any of our lakes, streams, and rivers in Washington and we need your help to keep them out of Washington waters.

The risk comes from aquarium owners dumping the water and/or contents of their aquarium into a local waterbody where they spread. Once zebra mussels or other invasive species are established it is incredibly costly and difficult to remove them—they reproduce and colonize rapidly.

For your reference and use, we have put together a list of the most commonly asked questions, as well as links to resources that may be helpful to you. Please, don’t hesitate to reach out to us with questions, and please spread the word about this unfortunate discovery. It takes all of us doing our part to prevent invasive species from spreading!

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## **What you need to know about aquarium moss balls and zebra mussels:**

### **What is an Aquarium Moss Ball?**

Aquarium moss balls are not moss but a green filamentous algae (*Aegagropila linnaei*) that looks like moss. They are soft and spongy when filled with water in aquariums, and provide habitat for fish, shrimp, and other species. Moss balls are hearty and easy to maintain and are an active commodity in the aquarium trade. Moss balls can be purchased in every state through national retail chains, small independent retailers, and online marketplaces.

The species is mainly found in the areas of Northern Europe and in several places in Japan. It has been found in North America, but it is rare. We have not found any reports that this species of moss ball demonstrates a history of invasiveness itself.

### **Which brand of moss balls are of most concern?**

Imaginarium “Betta Buddy” Marimo moss balls.

### **Where are contaminated moss balls coming from?**

They are coming from eastern Europe where Zebra mussels are native.



March 10, 2021

It is unknown whether contamination is occurring within the supply, distribution, or retail chains. Additional assessments will be needed to understand the origins and magnitude of the problem.

**What are zebra mussels and why are they a problem?**

[Zebra mussels](#) are one of the most devastating invasive species in North America. When they become established in an environment, they alter food webs and change water chemistry, harming native fish, plants, and other aquatic life. They clog pipelines used for water filtration, render beaches unusable, and damage boats. These filter feeders outcompete other native species in infested rivers and lakes. The waste they produce accumulates and degrades the environment, using up oxygen, making the water acidic and producing toxic byproducts.

**Where have zebra mussels on moss balls been found?**

Zebra mussels found on moss balls have been reported in Alaska, Arizona, Arkansas, Colorado, California, Florida, Georgia, Idaho, Indiana, Iowa, Louisiana, Maryland, Montana, Nevada, Nebraska, New York, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Virginia, Vermont, Wisconsin, Wyoming, and Washington.

**What stores or products were contaminated?**

At this time, we do not know the full extent of stores or products containing zebra mussels. If you have recently purchased Imaginarium “Betta Buddy” Marimo moss balls from any retailer, we recommend they be destroyed following our Destroy, Dispose, Drain instructions.

**What should I do if I recently purchased Imaginarium or Marimo moss ball?**

We are recommending that recently purchased Imaginarium or Marimo moss balls be destroyed, the water decontaminated, and tanks cleaned according to the instructions on our [website](#).

**Can I just quarantine my moss ball for a few months rather than destroy it?**

No on Imaginarium or Betta Buddy Marimo moss balls – those should be destroyed, the water decontaminated, and your tank cleaned according to the instructions on our website. Zebra mussels can damage your tank's filtration system. Zebra mussel larva can live in the water, in the aquarium substrate, on decorative elements, and in the filter systems.

Yes on other moss ball products. Until we know the extent of the moss ball contamination problem in the United States, we are recommending that any other moss ball brands be monitored for several months for the presence of zebra mussels. You can also work with your local aquarium store to find commonly available products that can kill mollusks without harming your fish or plants.

**I found a zebra mussel in my moss balls, do I need to report it?**

Yes. WDFW and the Washington Invasive Species Council recommends that anyone who thinks their aquarium may be carrying invasive mussels to utilize the online reporting options to include the Washington Invasives app or online reporting form. It is as easy as taking a photo and submitting for an expert to review. <https://invasivespecies.wa.gov/report-a-sighting/>

**Is there a summary or news release available?**

The Washington Department of Fish and Wildlife published a press release on March 4<sup>th</sup>, 2021. It can be found here: [State asks public to inspect aquarium moss and prevent movement of invasive mussels | Washington Department of Fish & Wildlife](#)

March 10, 2021

Additionally, the Washington Department of Fish and Wildlife, and the Washington Invasive Species Council partnered to host a press conference where they discussed the timeline of events, next steps, recommended actions, and answered questions. The recording of that conference can be found here: [watch – TVW, Washington States' Public Affairs Network](#)

**Additional Resources:**

- Washington Department of Fish and Wildlife: <https://wdfw.wa.gov/news/state-asks-public-inspect-aquarium-moss-and-prevent-movement-invasive-mussels>
- Washington Invasive Species Council – Priority Species Page: <https://invasivespecies.wa.gov/priorityspecies/zebra-and-quagga-mussels/>
- Invasive Species Reporting Form: <https://invasivespecies.wa.gov/report-a-sighting/>
- Don't Let It Loose Messaging & Resources: <https://invasivespecies.wa.gov/campaigns/dont-let-it-loose/>
- U.S. Fish & Wildlife Service: Destroy! Don't Dump! Resources: <https://www.fws.gov/fisheries/ANS/zebra-mussel-disposal.html>
- WDFW Zebra & Quagga Mussel Profile: <https://wdfw.wa.gov/species-habitats/invasive/greatest-concern/zebra-quagga#help>
- WDFW Zebra mussel updated news and response page: <https://wdfw.wa.gov/species-habitats/invasive/dreissena-polymorpha/moss>