



**DON'T LET IT LOOSE**

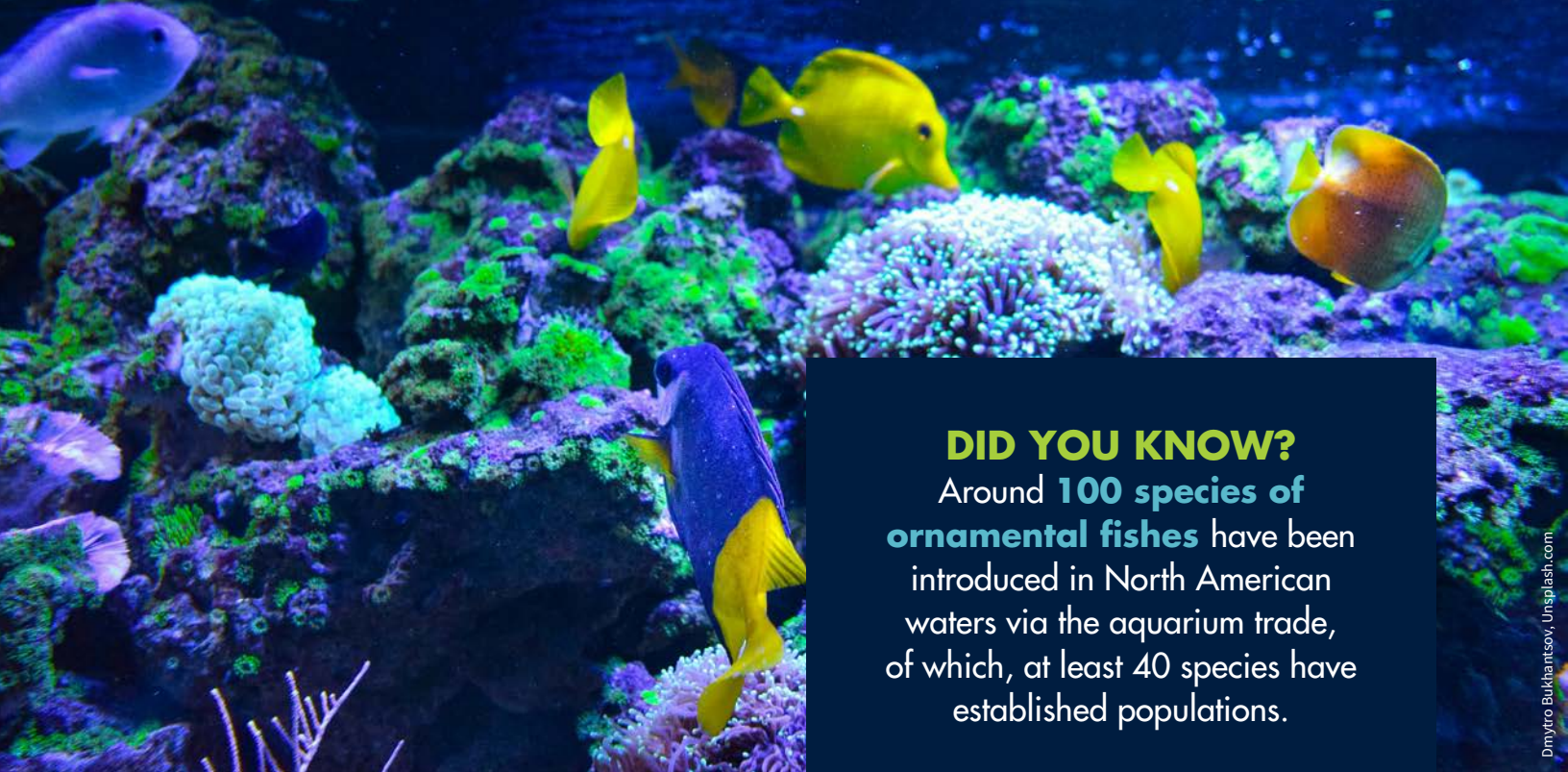
# Leaders in Protecting Nature and the Aquarium and Water Garden Industries from Aquatic Invasive Species

Tips for Aquarium and  
Water Garden Retailers



[BCINVASIVES.CA](http://BCINVASIVES.CA)

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Dmytro Bukhantsov, Unsplash.com

### **DID YOU KNOW?**

Around **100 species of ornamental fishes** have been introduced in North American waters via the aquarium trade, of which, at least 40 species have established populations.

## **Attention Aquarium and Water Garden Retailers!**

Did you know that your work in the aquarium and water garden industries can conserve native wildlife and natural habitats? From ordering livestock and unpacking shipments to interacting with customers, every stage in your work is an opportunity to protect lands, waters, and our communities from harmful invasive species.

When it comes to invasive species, the stakes are high not only for the environment, but also for your business. A shipment error or accidental release carries financial risk, can damage your store's reputation, and may trigger costly, industry-wide restrictions that limit what you can sell.

By following these guidelines you aren't just an aquarium hobbyist or vendor, you are a steward protecting the industry's future and the health of our waters.

### **DID YOU KNOW?**

**Extinction is forever.** Two rare sticklebacks found only on the south coast of B.C. went extinct due to the introduction of brown bullhead and signal crayfish.

## **Best Practices Checklist for Aquarium and Water Garden Retailers in British Columbia**

- ✓ Check scientific names before ordering
- ✓ Cross-check with prohibited and invasive species lists
- ✓ Identify shipments and inspect for hitchhikers
- ✓ Properly dispose of shipping water and any organisms
- ✓ Label livestock with scientific names
- ✓ Educate staff and customers on invasive species
- ✓ Report prohibited and other invasive species immediately

## What's The Issue?

**Invasive species** are plants, animals or other organisms not native to B.C. whose introduction and spread harms the environment, economy and human health.

Non-native pets and plants harm native ecosystems and displace native species if released or disposed of improperly. Many species that are released into the wild can survive, reproduce and spread to new waterbodies. This can cause significant problems, such as reducing water quality, outcompeting or eating native species, introducing diseases to local wildlife, closures of swimming, angling, or boating areas, and increasing mosquito breeding habitat. Plants and animals introduced from the aquarium and water garden industries pose high threats to species at risk in B.C., including numerous species of freshwater fish and some populations of salmon. Invasive species also directly impact the aquarium and water garden industries through costly prohibitions and regulations.



## Some species from the aquarium and water garden industries that are invasive in British Columbia



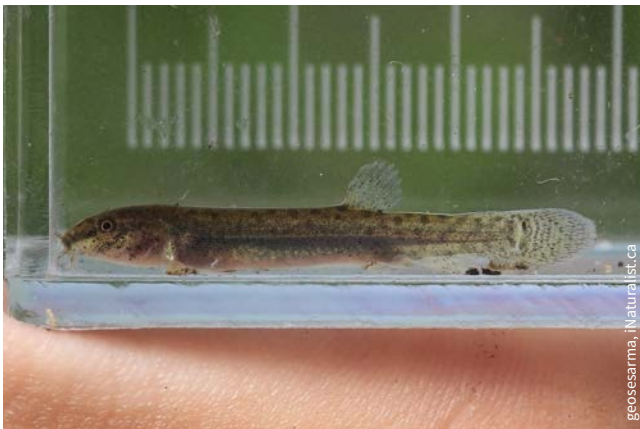
**Brazilian elodea**, also called anacharis, Brazilian waterweed, leafy elodea, water thyme, dense elodea (*Egeria densa*) — A common aquarium plant that has invaded several waterbodies in the greater Victoria and Vancouver regions in B.C., most likely due to improper disposal of aquarium material. When introduced in the wild, Brazilian elodea forms thick mats that displace native species, including fish and wildlife. It can grow so densely that it restricts water flow, reduces water quality, and inhibits access for recreational activities.



**Goldfish** (*Carassius auratus*) — Goldfish are one of the most widespread invasive fish in B.C. Once released from fishbowls, they can grow football-sized and become harmful invaders. Even just one fish introduced into the wild can rapidly lead to an infestation because females can clone themselves. Goldfish can grow much larger in size than they would in a tank or pond and outcompete native species for food and habitat. They can harm native ecosystems by disturbing sediment while feeding, which increases water turbidity and may harm native aquatic plants. Invasive goldfish threaten at-risk species, including a unique population of lake chub in Atlin Warm Springs in Northern B.C.



**Rosy red minnow**, also called fathead minnow (*Pimephales promelas*) — These fish are an orange variety of the fathead minnow, which is not native to B.C. Rosy red minnows are popular in aquariums as a feeder fish and because they are easy to rear. Populations have established in B.C. through illegal releases as live bait or from aquariums. Rosy red minnows can survive a wide range of water temperatures, pH levels, and water clarity, allowing them to thrive in lakes, streams, and ponds where they may outcompete native species for food and habitat.



**Oriental weatherfish**, also called pond loach, oriental weatherloach, dojo, gold dojo (*Misgurnus anguillicaudatus*) — These freshwater eel-like fish can survive and thrive in tough conditions. They tolerate water temperatures between 2–30°C, breathe air when in low-oxygen waters, endure drought by burying themselves in mud, and can go without feeding for up to three months! Native to Asia, oriental weatherfish are now invasive in North America due to their introduction from the aquarium trade and as live bait. They have invaded B.C.'s Lower Fraser Valley, including Little Campbell River, home to the threatened native Salish sucker.



**White cloud mountain minnow**, also called white cloud, Canton fish, cardinal fish (*Tanichthys albonubes*) — This popular pet and feeder fish is prohibited in B.C. due to its potential to become invasive. They can survive water temperatures as low as 5°C and could impact native food chains or spread diseases to native fish if released.



**Yellow floating heart**, also called water fringe, fringed water lily, entire marshwort (*Nymphoides peltata*) — This popular water garden plant is on the B.C. Provincial Priority Invasive Species List due to its potential to cause major environmental and economic harm. Yellow floating heart forms dense mats that impede water flow and disturb sensitive aquatic habitats. It has been confirmed in golf courses, in private and municipal ponds, and in open waterways in B.C. Once introduced, it spreads by seed and vegetatively, making it extremely difficult to control.

## Your Actions Make a Difference!

This document provides best practices and operational guidance to support our shared responsibilities and compliance with existing provincial and federal regulations. By preventing the release of invasive species from the aquarium and water garden industries, your business safeguards the reputation of the hobby and the future of the industry while stewarding the environment.



**DON'T LET IT LOOSE**

## Tips for Aquarium Retailers to Prevent the Introduction and Spread of Invasive Species

*Click on a title to learn more about each of these stages*

### 1 Ordering

#### Supplier Review

Only order from reputable suppliers that adhere to provincial, national, and international laws and provide proper documentation.

#### Don't Order Invasive Species

Cross-check your order list by scientific name with the most up-to-date list of prohibited and other invasive species in B.C.

### 2 Identifying and Unpacking Shipments

#### Inspect and Identify Shipments

Check for unwanted hitchhikers and identify species received.

**Filter livestock and properly dispose** of shipped water.

### 3 Reporting Invasive Species and Preventing Contamination

Your efforts make a difference to nature and your community.

#### Report mussels to the B.C.

Conservation Officer Service at 1-877-952-7277 (RAPP) or #7277 on the Telus Mobility Network. **Report all other invasive species** through the [Province of B.C.'s invasive species reporting platform: gov.bc.ca/invasive-species](https://www.gov.bc.ca/invasive-species).

**Properly Dispose** of dead or unwanted living organisms, including aquatic invasive species. Decontaminate equipment, following recommended protocols.

### 4 Staff and Customer Education

**Accurately label** livestock in tanks, including scientific names.

#### Stock verification

Ensure that your stock is invasive-free by regularly cross-checking your inventory against provincial invasive species lists.

**Keep learning! Educate staff and customers** about invasive species in the aquarium and water garden industries and best practices to prevent their spread.

# TIPS FOR ORDERING

## Order from Reputable and Ethical Suppliers

Invasive species prevention is a shared responsibility across the supply chain. By sourcing from reputable suppliers, you uphold the highest standards for animal welfare and environmental stewardship while protecting the reputation of the aquarium and water garden industries. Professional suppliers ensure compliance with provincial and international laws, which minimizes the risk of receiving invasive species or misidentified stock. Supporting ethical trade promotes sustainable breeding and protects global habitats, ensuring that shipments arrive healthy and legally compliant.

Retailers can support strong industry standards and a culture of care by requesting suppliers provide accurate scientific identification and clear documentation confirming compliance.

### Order from suppliers who provide:

- ✓ Both scientific and common names
- ✓ Wild or captive bred
- ✓ If wild-caught, the country of origin

### Does your supplier comply with these regulations?

- ✓ The Convention on International Trade in Endangered Species of Wild Fauna and Flora ([CITES](https://www.cites.org/eng))  
[cites.org/eng](https://www.cites.org/eng)
- ✓ [Controlled Alien Species Regulations in British Columbia](https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/cas/list-of-species):  
[www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/cas/list-of-species](https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/cas/list-of-species)

### DID YOU KNOW?

Watch out for these red flags when ordering plants for your aquarium or water garden!

- "easy to grow"
- "ideal for beginners"
- "fast growing"
- "low maintenance"

Plants with these traits may be invasive if introduced to B.C. waterbodies.

## Do Not Order Invasive Species

### TIP:

Always check scientific names. Do not rely only on common names because they may refer to more than one species, including invasive species.

### Regulations and shared responsibilities

Although they may seem harmless in a fish tank or water garden, it only takes one release, whether intentional or accidental, for an aquarium species to change ecosystems, harm native species, or cause economic harm.

In this age of globalization and e-commerce, it can be confusing to know what species to avoid.

Some species are legally prohibited, while others are identified as higher risk or priority for early detection. These categories have different regulatory implications. Retailers should be mindful of this distinction when reviewing stock and orders.

## How Can I Determine Which Invasive Species are Prohibited or Priority in B.C.?

Check the following lists to make sure that you don't order, stock, or sell prohibited or other priority invasive species.

### 1. B.C. Controlled Alien Species Regulation

[https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/94\\_2009](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/94_2009)

Under the *Wildlife Act*, the Government of B.C. regulates the possession of exotic animals that pose the greatest threat to health and safety. It is prohibited to possess, release, ship, or breed the fish in Schedule 3 and mussels in Schedule 4.

#### Visual Guide and More Information on Prohibited Species:

An Identification Guide to Prohibited Aquatic Invasive Species in British Columbia <https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/controlled-alien-species/invasive-fish-guide-press.pdf>

### 2. Priority Invasive Species in B.C.

[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/provincial\\_priority\\_is\\_list.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/provincial_priority_is_list.pdf)

The B.C. Inter-Ministry Invasive Species Working Group uses a science-based risk assessment process to identify priority invasive species for B.C. The invasive species on this list are classified into five management categories based on risk of introduction, risk of spread, and potential impacts. The list of priority invasive species includes those that are prohibited as well as other high risk species. Retailers can be leaders in the industry and protect wildlife and aquatic habitats by not ordering any species on this list.

Email [Invasive.Fauna@gov.bc.ca](mailto:Invasive.Fauna@gov.bc.ca) to request an Excel file of the Priority Invasive Species List so that you can sort and cross-check against your ordering list.

#### Visual Guides and More Information on Prohibited Species:

Field Guide to Aquatic Invasive Species for British Columbia <https://bcinvasives.ca/wp-content/uploads/2023/06/AIS-Field-Guide-BC-WEB.pdf>

Priority Invasive Fish for B.C. <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species/fish>

Priority Invasive Invertebrates other than Insects or Spiders for B.C. <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species/invertebrates>

Priority Invasive Plants for B.C. <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species/priority-plants>

### 3. And there's more!

See Appendix 1, *Invasive Species Regulations in British Columbia*, for more information on additional laws relevant to the aquarium and water garden industry, including:

- B.C. Freshwater Fish Regulation — *Wildlife Act*
- Aquatic Invasive Species Regulation — *Fisheries Act Canada*
- Pacific Fishery Regulations — *Fisheries Act Canada*
- Fishery (General) Regulations — *Fisheries Act Canada*











**NOTE:** Some regulations prohibit not just the species but also its close relatives. Always confirm whether the regulation applies to a single species or the entire genus.

Likewise, even for those species that are *not* prohibited but are considered an invasive species, the best practice is to avoid ordering any species in that genus due to their relatedness and invasive potential.

## Order Me Instead!

Here are some popular species in the aquarium trade that are invasive and should be avoided, with some suggested alternatives. Click on the invasive species names to learn more about these invasive fish or invertebrate species.

For alternatives to invasive plants, visit [Grow Me Instead](https://bcinvasives.ca/play-your-part/plantwise/grow-me-instead): <https://bcinvasives.ca/play-your-part/plantwise/grow-me-instead>

INVASIVE	ORDER ME INSTEAD
<p><b>White cloud mountain minnow</b> white cloud, Canton fish, cardinal fish (<i>Tanichthys albonubes</i>)</p> 	 <p><b>Guppies, mollies</b> (livebearing, <i>Poecilia</i> species) or <b>platys</b> (<i>Xiphophorus</i> spp.)</p>
<p><b>Rosy red minnow</b> fathead minnow, feeder minnow (<i>Pimephales promelas</i>)</p> 	 <p>Use <b>convict cichlid fry</b> (<i>Amatitlania nigrofasciata</i>) as feeder fish.</p>
<p><b>Western mosquitofish</b> Top minnow, plague minnow (<i>Gambusia affinis</i>)</p> 	 <p><b>Guppies, mollies</b> (livebearing, <i>Poecilia</i> species) or <b>platys</b> (<i>Xiphophorus</i> spp.)</p>
<p><b>Snakeheads</b> All snakeheads including northern, blotched, rainbow, giant, and chevron (<i>Channa</i> spp.)</p> 	 <p><b>Bichir</b> (<i>Polypterus</i> spp.)</p>
<p><b>Crayfish</b> Sometimes called lobsters. Avoid all crayfish because of risk; several are priority invasive species in B.C., including the <b>Red swamp crayfish</b> (<i>Procambarus clarkia</i>)</p> 	 <p><b>True lobsters</b> (such as <i>Enoplometopus</i> spp.)</p>

Zen Jay, iNaturalist.ca; Nick Wong, iNaturalist.ca; Charlie Mellor, iNaturalist.ca; Petr Knorek, iNaturalist.ca; Ben Cantrell, iNaturalist.ca; Damien Wallace, iNaturalist.ca; Gina Walsh, iNaturalist.ca; David R., iNaturalist.ca

# TIPS FOR IDENTIFYING AND UNPACKING SHIPMENTS

## Species Identification and Minimizing Contamination

When you unpack shipments you are on the front line of preventing the introduction and spread of invasive species. Proper disposal of the shipping water is important for the health of the fish and other living organisms and to keep habitats healthy. Pathogens and unwanted microscopic hitchhikers could be in the water, which you don't want in your tanks or in the environment.

**Don't pick up hitchhikers!** More than 35 hitchhiker species have been detected in aquarium plant shipments to Canada, including non-native bivalves, snails, waterfleas, and other invertebrates.

**When to ID Shipments.** Identify fish and other shipments upon arrival. Confirm ID again once they have acclimated some days later.

Fish and other living organisms will be stressed from shipping. They may look quite different upon arrival compared to several days later. Proper identification is important to ensure that you've received the correct species and no invasive species.

## How to ID Shipments

Digital tools and field guides can be helpful as supplementary resources but should not replace supplier documentation and standard identification practices.

**iNaturalist:** Make a free account and take photos of your shipment. The built-in AI will suggest the most likely species or you can type the species name that you expect it to be. Ensure that you select "Yes" for "Captive/Cultivated?". The species ID will then be double-checked and verified by other iNaturalist users.

## Learn how to identify aquatic invasive species in British Columbia

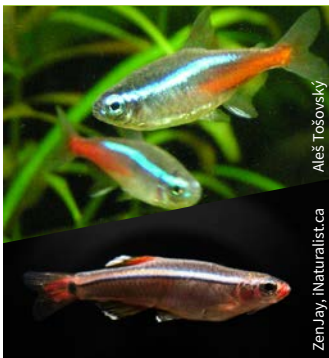
- [Field Guide to Aquatic Invasive Species for British Columbia](#)
- [Identify Invasive Species](#)
- [Priority Invasive Fish for B.C.](#)
- [Priority Invasive Invertebrates other than Insects and Spiders for B.C.](#)
- [Zebra, Quagga, and Golden Mussel Facts and Lookalikes](#)

## How to unload shipments and dispose of shipping water

Keep fish and other living specimens in sealed shipping bags while they acclimate to the temperature and pH of the tanks to which they will be transplanted.

Once acclimated, transfer organisms from their shipping bag into their tank using this recommended procedure:

- Put a net over a 19 litre (5 gallon) bucket.
- Gently pour the contents of the shipping bag over the net and bucket.
- Transfer living organisms from the net into tank.
- Release water on dry land and away from household drains, sewers or other bodies of water.



### TIP: Watch out for lookalikes!

Is that a neon tetra or a **prohibited** white cloud mountain minnow?

Some fish may look like other species of fish at certain stages of their life cycle or when they are stressed. Double check your IDs over time and when in doubt, ask for help!

# TIPS FOR REPORTING INVASIVE SPECIES AND PREVENTING CONTAMINATION

## I Think I Have an Invasive Species! What Do I Do Now?

Is the organism a Prohibited Species (fish or mussel) listed in the Controlled Alien Species Regulation (Schedule 3 and 4)?

### YES

1. Keep the organism secure and isolated from other organisms. Do not sell.
2. Take photographs of the organism(s).
- 3. Report immediately.** Is the organism an invasive mussel?

### NO

Is the species on the B.C. Invasive Species Priority List in the Prevent, Provincial EDRR, or Provincial Containment category?

### I'M NOT SURE

1. Check field guides to help verify species identification.
2. Email photos and descriptions to [Invasive.Fauna@gov.bc.ca](mailto:Invasive.Fauna@gov.bc.ca) or [Invasive.Plants@gov.bc.ca](mailto:Invasive.Plants@gov.bc.ca) for verification.
3. Keep organisms secure and isolated. Do not sell until identification is confirmed.

### YES

These are high risk invasive species. Do not order or sell. Take photographs and report to the province using reporting tools available on their [website](http://www.gov.bc.ca/invasive-species). [gov.bc.ca/invasive-species](http://www.gov.bc.ca/invasive-species)

### NO

Is the species on the B.C. Invasive Species Priority List under the Regional Containment/Control or Management category?

### YES

Consider not selling this species due to its high risk of harm if let loose. Educate customers on responsible ownership and proper disposal.

### NO

The species is not considered invasive in B.C. at this time. Let's keep it that way! Always educate customers to not release organisms into the wild.

### YES

**Report** prohibited mussel species to the B.C. Conservation Officer Service: 1-877-952-7277 (RAPP) or #7277 on the Telus Mobility Network.

### NO

**Report** all invasive fish and other organisms (except mussels) with photographs to the province using reporting tools available on their [website](http://www.gov.bc.ca/invasive-species). [gov.bc.ca/invasive-species](http://www.gov.bc.ca/invasive-species)

### NOTE:

Even if you are confident of the species identification, photographs are required as part of the reporting process.

## What Happens After a Report is Made?

If you have called the B.C. Conservation Officer Service to report invasive mussels, a Conservation Officer will contact you to assess the situation and provide direction. If you have reported via the B.C. provincial invasive species platforms, the report will be reviewed by invasive species experts who will follow up with next steps.

### **WARNING!** Zebra Mussels Found in Moss Balls



Moss balls, often sold as “marimo moss balls”, are green algae typically used to improve water quality in aquariums. Zebra mussels have been found in some moss balls in B.C.

Zebra mussels pose a significant threat to B.C.’s and Canada’s economy and freshwater ecosystems. If you think you have zebra mussels, report immediately to the B.C. Conservation Officer Service: 1-877-952-7277 (RAPP). For information on how to dispose of moss balls and decontaminate your aquarium: <https://www2.gov.bc.ca/gov/content/invasive-mussels/moss-balls-disposal>

WA Dept of Fish and Wildlife

## Don't Let it Loose!

Never release unwanted aquarium pets, water garden plants, live food (e.g., fish, crabs, shellfish, snails) or live bait into the wild. Many species that are released into the wild can survive, reproduce and spread to new waterbodies.

## How Do I Dispose of Unwanted Plants?

Dry and freeze non-native plants in tightly sealed bags before throwing them into the trash (do not compost them).

## How Do I Dispose of Unwanted, Sick, or Dead Animals?

Unwanted, diseased, or sick fish or other animals should never be dumped or flushed into waterways where they may spread disease or survive and become invasive. Instead, humanely euthanize and dispose of them in a sanitary landfill.

### **TIP:**

A recommended resource on how to humanely euthanize aquarium fish is provided by the Royal Society for the Prevention of Cruelty to Animals: <https://kb.rspca.org.au/categories/companion-animals/fish/what-is-the-most-humane-way-to-euthanase-aquarium-fish>

**Do not** dispose of any aquarium or water garden contents (fish, invertebrates, substrate, plants, etc.) by:

- Flushing down the toilet
- Putting down the drain, or
- Putting in a compost



## STAFF AND CUSTOMER EDUCATION

Congratulations! As aquarium and water garden retailers you are safeguarding the environment and the industry reputation by doing due diligence in ordering, inspecting, and unpacking shipments. You are a leader in the industry to prevent the spread of invasive species.

**Keep learning and sharing your knowledge with staff and customers** about invasive species in the aquarium and water garden industries and how we can all play our part.

Here are some suggestions for next steps.

- **Accurately label livestock.** Put common and scientific names on your tanks. Ensure that you have an invasive-free stock by regularly cross-checking your inventory against provincial invasive species lists.
- **Promote responsible ownership.** Share the message of [Don't Let it Loose](#) and alternatives to releasing pets and dumping aquariums or water garden debris into rivers, streams, lakes or storm sewers.
- **Support fish return programs.** If your shop doesn't have one, consider sharing information on the [fish rescue program](#) of the Canadian Association of Aquarium Clubs or other alternatives, such as the humane society or local museums and aquariums. <https://www.caoac.ca/fish-rescue>
- Take an **eLearning Course.** [Don't Let it Loose](#) (ISCBC) <https://tinyurl.com/eLearningDLL>
- **Learn more.** See the [Resources](#) section in Appendix 2.

*Thank you for your commitment to protect nature and the economy  
in B.C. today and for future generations.*



Pablo, Unsplash.com  
Thomas Park, Unsplash.com



Diane Cantin, Unsplash.com

## Acknowledgements

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Canada

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# APPENDIX 1

## Invasive Species Regulations in British Columbia

It is important to make sound decisions when dealing in live fish. The following summary is a guide to assist businesses and individuals. This is only a summary of key highlights and does not list all legal requirements and prohibitions within each regulation.

### **B.C. Controlled Alien Species Regulation**

- Prohibited to possess, release, ship, and breed species listed in Schedule 3.
- [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/94\\_2009#Schedule3](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/94_2009#Schedule3)

### **B.C. Freshwater Fish Regulation**

- Prohibits the possession, trafficking, and transport of live fish in British Columbia, except ornamental tropical fish and goldfish, unless authorized by a permit.
- [https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/261\\_83](https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/261_83)

### **Aquatic Invasive Species Regulation – Fisheries Act Canada**

- Prohibited to import, possess, transport and release species in part 2 of the schedule.
- In B.C. — 6 species: Zebra mussel, quagga mussel, bighead carp, silver carp, black carp, and grass carp.
- Prohibited to introduce an aquatic species into a fish habitat where it is not indigenous.
- <https://laws-lois.justice.gc.ca/eng/regulations/sor-2015-121/FullText.html>

### **Pacific Fishery Regulation – Fisheries Act Canada**

- Section 5 prohibits the import of live fish listed in Schedule VIII.
- About 1,200 species (some are listed by genus).
- <https://laws-lois.justice.gc.ca/eng/regulations/SOR-93-54/page-12.html#h-956694>

### **Fishery General Regulation – Fisheries Act Canada**

- It is unlawful to release live fish into any fish habitat unless returning it to the waters where it was immediately caught, Section 55(1).
- <https://www.laws-lois.justice.gc.ca/eng/regulations/SOR-93-53/page-1.html>

These regulations are updated periodically so it is critical to review these regulations regularly.

There may be additional requirements for some species under Canada Border Services Agency, Canada Food Inspection Agency, and Environment and Climate Change Canada regulations. Additionally, there are legal requirements for aquaculture that would need to be reviewed by the B.C.-DFO Introductions and Transfers Committee, or the applicable aquaculture authority.

For further questions please contact the Aquatic Invasive Species program at DFO in the Pacific Region at 1-888-356-7525 or by email at [DFO.AISPacific-EAEPacifique.MPO@df-mpo.gc.ca](mailto:DFO.AISPacific-EAEPacifique.MPO@df-mpo.gc.ca).

# APPENDIX 2

## Resources

### Best Practices

- **Aquarium and Water Gardens Factsheet (ISCBC)**  
[https://bcinvasives.ca/wp-content/uploads/2021/01/Aquariums-Watergardens\\_Factsheet\\_10\\_24\\_2019.pdf](https://bcinvasives.ca/wp-content/uploads/2021/01/Aquariums-Watergardens_Factsheet_10_24_2019.pdf)
- **Aquatic Invasive Species Fact Sheet (ISCBC)**  
<https://bcinvasives.ca/wp-content/uploads/2022/09/Aquatic-Invasive-Species-CDD-FS-web.pdf>
- **Don't Let it Loose (ISCBC)**  
<https://bcinvasives.ca/play-your-part/dont-let-it-loose/>
- **Don't Let it Loose Fact Sheet (ISCBC)**  
[https://bcinvasives.ca/wp-content/uploads/2022/04/DLIL-Factsheet\\_2021.pdf](https://bcinvasives.ca/wp-content/uploads/2022/04/DLIL-Factsheet_2021.pdf)
- **Don't Let it Loose (Fisheries and Oceans Canada)**  
<https://www.dfo-mpo.gc.ca/species-especes/ais-eae/prevention/dlil-nlrp-eng.html>
- **Fish Rescue Program (Canadian Association of Aquarium Clubs)**  
<https://www.caaoc.ca/fish-rescue>
- **Grow Me Instead (ISCBC)**  
<https://bcinvasives.ca/play-your-part/plantwise/grow-me-instead/>
- **Humane Euthanasia for Aquarium Fish (RSPCA)**  
<https://kb.rspca.org.au/categories/companion-animals/fish/what-is-the-most-humane-way-to-euthanase-aquarium-fish>
- **Moss Ball Disposal and Aquarium Decontamination (Government of B.C.)**  
<https://www2.gov.bc.ca/gov/content/invasive-mussels/moss-balls-disposal>
- **Report Invasive Species (ISCBC)**  
<https://bcinvasives.ca/take-action/report/>
- **Report Invasive Species (Government of B.C.)**  
[gov.bc.ca/invasive-species](http://gov.bc.ca/invasive-species)

### Invasive Fish and Invertebrates

- **Goldfish (ISCBC)**  
<https://bcinvasives.ca/wp-content/uploads/2021/11/DLIL-Goldfish-FS-inreview.pdf>
- **Priority Invasive Fish for B.C. (Government of B.C.)**  
<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species/fish>
- **Priority Invasive Invertebrates for B.C. (Government of B.C.)** — Not insects or spiders  
<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/priority-species/invertebrates>
- **Rosy Red Minnow (ISCBC)**  
[https://bcinvasives.ca/wp-content/uploads/2024/09/Rosy\\_Red\\_Minnow-CDD\\_Factsheet\\_2020.pdf](https://bcinvasives.ca/wp-content/uploads/2024/09/Rosy_Red_Minnow-CDD_Factsheet_2020.pdf)
- **Zebra, Quagga, and Golden Mussel Facts (Government of B.C.)**  
<https://www2.gov.bc.ca/gov/content/invasive-mussels/zebra-and-quagga-mussel-facts>

### Invasive Aquatic Plants

- **Brazilian Elodea Alert (Government of B.C.)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/brazilian\\_elodea\\_alert.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/brazilian_elodea_alert.pdf)
- **Eurasian Watermilfoil (ISCBC)**  
[https://bcinvasives.ca/wp-content/uploads/2021/01/Eurasian-Watermilfoil-Factsheet\\_29\\_03\\_2019.pdf](https://bcinvasives.ca/wp-content/uploads/2021/01/Eurasian-Watermilfoil-Factsheet_29_03_2019.pdf)

- **Eurasian Watermilfoil Alert (Government of B.C.)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/eurasian\\_water\\_milfoil\\_alert\\_feb2020.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/eurasian_water_milfoil_alert_feb2020.pdf)
- **Flowering Rush Alert (Government of B.C.)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/flowering\\_rush\\_alert\\_2019\\_dec\\_17.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/flowering_rush_alert_2019_dec_17.pdf)
- **Giant Salvinia Alert (Government of B.C.)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/giant\\_salvinia\\_alert.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/giant_salvinia_alert.pdf)
- **Hydrilla Alert (Government of B.C.)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/hydrilla\\_alert.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/hydrilla_alert.pdf)
- **Japanese Butterbur Alert (Government of B.C.)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/alertsheet\\_japanesebutterbur.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/alertsheet_japanesebutterbur.pdf)
- **Yellow Floating Heart Alert (Government of B.C.)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/yellowfloatingheart\\_alertsheet.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/yellowfloatingheart_alertsheet.pdf)

### Invasive Species Lists and Guides for B.C.

- **B.C. Provincial Priority Invasive Species List (B.C. Inter-Ministry Invasive Species Working Group)**  
[https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/provincial\\_priority\\_is\\_list.pdf](https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/publications/provincial_priority_is_list.pdf)
- **Field Guide to Aquatic Invasive Species for British Columbia (ISCBC)**  
<https://bcinvasives.ca/wp-content/uploads/2023/06/AIS-Field-Guide-BC-WEB.pdf>
- **Field Guide to Noxious Weeds and other Selected Invasive Plants of British Columbia (B.C. Inter-Ministry Invasive Species Working Group and ISCBC)**  
<https://bcinvasives.ca/wp-content/uploads/2023/05/Field-Guide-to-Noxious-Weeds-12th-WEB.pdf>
- **Identify Invasive Species (ISCBC)**  
<https://bcinvasives.ca/take-action/identify/>

### Training and Webinars

- **eLearning: Don't Let it Loose (ISCBC)** — Free training for pet, aquarium, and water garden owners and retailers.  
<https://tinyurl.com/elearningDLIL>
- **Webinar: Don't Let it Loose: Preventing Introduction and Spread of Aquatic Invasive Species (ISCBC and Martina Beck)**  
<https://www.youtube.com/watch?v=DRNGsLc25FI>
- **Webinar: The Pet Trade and Aquatic Invasive Species in Canada (Invasive Species Centre and Kate Frederiks).**  
<https://www.youtube.com/watch?v=iAasjrWuNg&t=1s>

### Species at Risk and Aquatic Invasive Species

- **A Systematic Assessment of Invasive Species Impacts to Species at Risk in B.C. (ISCBC and ESSA, June 30, 2021)**  
<https://bcinvasives.ca/wp-content/uploads/2021/11/A-Systematic-Assessment-of-Invasive-Species-Impacts-to-Species-at-Risk-in-BC-2021.pdf>



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