

A LANDOWNER'S GUIDE TO AMERICAN BULLFROG MANAGEMENT

Introduction

The American Bullfrog (*Lithobates catesbeianus*) is native to Eastern Canada and the USA. It was brought to the west coast in the 1940s and has become well established throughout the South Coast of BC. These frogs are an invasive species, meaning they spread rapidly and cause significant ecological harm outside their native range. Bullfrogs will eat anything that fits in their mouths, including native amphibians. The similar looking Green Frog is also an introduced species, but is considered less threatening to native amphibians.

Large-scale Bullfrog control requires a huge investment of resources and are not always successful. Small-scale control projects, such as ponds and wetlands on private property, can be undertaken. However, they will only be successful with constant vigilance and persistence.

Identification

Adults

Invasive frogs have ear drums as big as or larger than their eyes!

Bullfrog

- Smooth back with no ridges
- Call sounds like a deep “ba-rumm, ba-rumm”

Green frog

- Ridges down either side of back
- Call sounds like banjo twangs



Bullfrog: large ear drum and smooth back



Green Frog with ridges down back

Egg Masses

Invasive frogs call and breed in the summer, while native frogs breed in the spring!

Bullfrog and Green Frog egg masses look very similar, but differ in size.

- Large jelly sheet floating on the surface of the water with up to 20,000 eggs inside
- Green Frog < 30cm, Bullfrog > 30cm diameter

Tadpoles and Juveniles

Tadpole and juvenile invasive frogs are more difficult to tell apart from native frogs, and are therefore not part of our control program.



Large, slimy jelly (like raw egg whites) on surface of water with thousands of little black eggs inside

Management

Managing an invasive species takes time and persistence. The easiest life stage to control is the egg mass. Follow these steps to reduce Bullfrog population numbers and assist native species' recovery.

Step 1) Identify the Invader

Use this guide, as well as other amphibian identification guides, to ensure you are targeting the right species at the right time of year. Green Frogs, considered a neutral non-native do not require active management – proceed to Step 4. For Bullfrog control, continue to Step 2.

Step 2) Seek the Source

Where are the Bullfrogs coming from? If you have a permanent pond far from other watercourses you likely have an independent population. Your goal is to reduce the number of Bullfrogs in your pond; continue to Step 3.

If your pond is near another water body that also has Bullfrogs, it is likely that more frogs will continue to migrate into your pond. Consider installing temporary isolation fencing around your pond during summer and fall, and continue to Step 3.

Step 3) Eliminate Egg Masses

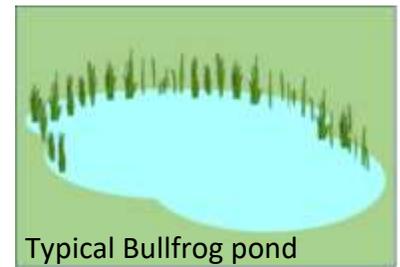
Bullfrogs breed late May – early August. Do NOT remove egg masses in the spring as you will injure native populations!

Monitor the wetland every 2-3 days to spot when the eggs appear. Using a fine net or bilge pump, remove as much of the egg masses as possible and place them on the shore to dry out. In warm weather eggs can develop into tadpoles in less than 5 days. Tadpole control is not recommended.

One missed egg mass is 20,000 Bullfrogs in your pond!

Step 4) Help the Habitat

- Manage water levels: Invasive frogs' tadpoles require deep, permanent water year-round, while native species do not. Consider allowing the water level in your pond to drop in late summer.
- Leave large pieces of wood in the water and plant shade-creating trees and shrubs along the shore.
- Encourage native species: Plant native vegetation and control invasive plants like Himalayan blackberry, reed canarygrass and yellow flag iris.



Typical Bullfrog pond



Healthy habitat

Step 5) Optional – Adult Control

Adult Bullfrogs can be controlled during the breeding season when they are calling at the surface of the water. On a warm night listen for Bullfrog calls. Using a bright flashlight, shine the beam on the surface of the water, looking for the bright eye-shine of the frog. Keeping the beam steady on the eyes of the frog will stun it; slowly approach it and attempt capture by hand or net.

Euthanize Bullfrogs humanely using Benzocaine (Orajel) solution rubbed directly onto their belly.

**Never move or release Bullfrogs.
Stop the Spread of Invasive Species!**