Site Specific

- Removal of goldfish will differ per site

Millar’s Pond

- Amphibians present
- Pond is isolated from other waterbodies—presence of other fish species absent
- Perimeter of pond not accessible in some locations
- Benthic layer unstable
  - could not support the weight of a human
  - contact caused turbidity
- Shoreline drops quickly, deep center
Multifaceted Approach

- Dip Netting
- Fishing Line and Rod
- Minnow / Soft G Trapping
- Considered Netting
- Electrofishing
  - Standard process
  - Creative process
Dip Netting

- Fish grouped in a school & scurried with movement
- 0 results

Fishing Line & Rod

- Fish not interested in baited line
- 0 results
Minnow & Soft G Trapping—least invasive

- Various sized traps
- Various placement
- 0 results

- Thoughts: abundance of amphibians, goldfish well fed and not interested in food in minnow traps?
- Attempted trapping in summer and winter to see if seasonal food changes would alter success
Seine Netting Consideration

- Site conditions made netting impossible
  - Unstable benthic layer
  - Unsolid perimeter
Electrofishing

Challenges

- Managing amphibians—amphibian salvage
- Unstable benthic layer
- Unsolid perimeter
- Deep water
- Goldfish reactions
Solution

Not Perfect But Worked...
- Team effort... Stillness, Scare and Electrofish

Results
- 16 invasive goldfish eradicated
- Estimate 5 left—plan to remove in 2018
American Bullfrog

Presented by: Laurie Carr, Executive Assistant
Who is CKISS?

The Central Kootenay Invasive Species Society is a network of partners who facilitate the prevention, reduction and management of invasive species through collaboration, engagement and education.
Agenda

• Where and who is the American Bullfrog
• Why are we concerned
• Bullfrog program overview
• Questions
American bullfrog - *Lithobates catesbeiana* (Rana catesbeiana)

https://youtu.be/mtAdhpTKmgg
Natural Range
Expanded Range

This map is based upon Michael Lannoo’s 1995 report on the worldwide spread of bullfrogs, compiled for the IUCN/SSC Invasive Species and Declining Amphibian Populations Task Forces.
History of introduction

- Introduced to B.C. and the U.S.A in early 1930’s.
- Established populations in lower mainland, southern Vancouver Island, Washington and Idaho.
- New infestations in the south Okanagan and the central Kootenays.
Spread in the Kootenays
First sightings......

- 2014: no bullfrogs detected.
- 2015: Bullfrogs confirmed in Nelway.
- 2016: Bullfrogs confirmed in Creston.
- 2017: Bullfrogs confirmed to have dispersed in Creston.
Habitat

• Bullfrogs are very aquatic frogs, they prefer shallow, warm ponds and lakes with lots of vegetation.
• Can be seen in slow streams but prefer standing water.
• They will travel overland (5km/year) to find a new pond to call home.
What does a Bullfrog look like?

• Females may reach 20 cm in length (not including legs!) & 750 grams in weight. Males tend to be smaller.

• Are green to brown in colour with large golden eyes. Males throat turn yellow during mating season.
Bullfrog identification tips

• They have a skin fold following the shape of the large ear membrane.
• No dorsal folds (skin folds running down the back).
Bullfrog calls

• Male mating call is a distinctive loud rasping honk.
• Can be heard in the spring...up to 1 km away!
How to spot a Bullfrog tadpole

• Tadpoles are large - up to 15 cm long!
• Very dark green – almost black with arrowhead-shaped body.
Invasive qualities

• Multiply rapidly: up to 20,000 eggs/female
• Lack larger predators
• Prey on their predators
• Disperse long distances
American bullfrog impacts

• Spread diseases that threaten native amphibians.
• Outcompete native species for food & habitat.
• Voracious predators that reduce biodiversity & alter ecosystem dynamics.
Bullfrogs are a concern to BC!

• They have large appetites and will eat ANYTHING that fits into their mouth including BC native frogs!

Northern leopard frog (endangered)  Pacific chorus frogs  Columbia spotted frogs

L. Averill Murray USFWS  P. Pearsall USFWS  K. Lohr USFWS
Confirmed bullfrog population

Bullfrogs in the Pend D’Oreille in WA

Bullfrog sightings

Bullfrogs in the Kootenay River, Idaho
Who is the CVWMA?

• 7,000 hectare area of crown land.
• Focus is conservation and natural species diversity through active habitat and wildlife management, research and education.
• Designated a RAMSAR site, a nationally important Amphibian & Reptile Area, and a nationally important Bird Area.
• Home to over 40 listed species.
Species at Risk in the Creston Valley

- American bittern
- Western painted turtle
- Coeur d’Alene salamanders
- Western grebes

G. Stolz USFWS
G. Nafis
T. McCabe USFWS
Krazytea
American Bullfrog Action Team (ABAT)

• Creston Valley Wildlife Management Area
• Northern Leopard Frog Recovery Team
• Ministry of Forests, Lands, Natural Resources and Rural Development
• Ministry of Environment and Climate Change Strategy
• Idaho Department of Fish and Game
• Washington Forest Service
• Central Kootenay Invasive Species Society
• Ktunaxa Nation Council
American Bullfrog Action Team 2016

- Surveillance activities expanded to include eDNA.
- Eradication activities expanded to include fyke netting and electro-frogging.
- First sightings of American bullfrog adjacent to border in Creston Valley confirmed, eradication efforts conducted.
- Eradication efforts continued near Nelway.

CKISS staff collecting an eDNA sample
American Bullfrog Action Team 2017

- Surveillance and eradication activities continued in the Nelway area.
- Surveillance and eradication activities expanded in Creston.
- Bullfrogs confirmed in Creston.

CKISS staff conduct night survey in Creston
American Bullfrog Action Team 2018

- Surveillance and eradication activities continued in the Nelway area.
- Surveillance downstream of Nelway @ Rosebud Lake.
- Surveillance and eradication activities expanded in Creston.
How can you help?

• NEVER transport tadpoles or frogs.
• ILLEGAL under the Wildlife Act to capture, transport, keep or sell.
• Report sightings of American bullfrog.
How to report a sighting

“BULLFROG ACTION TEAM”
EMAIL: kootenaybullfrogs@gov.bc.ca
PHONE: 250-354-6333

**Include location & date and if possible take a photo***
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