Report on Bullfrog Survey of Chickadee Lake, Denman Island, B. C. - May 30, 2022

By: Stan A. Orchard, BullfrogControl.com Inc., 69A Burnside Road West, Victoria, B.C., V8R 4V7 (bullfrogcontrol@shaw.ca; 250-858-3764)

Report Prepared: June 16, 2022

On the evening of May 30, 2022 Joe Gysel and I surveyed the perimeter of Chickadee Lake, Denman Island, B.C. The survey was prompted by a report of a recent road-killed bullfrog on Denman Island.

After dark, while on the water, and working from an inflatable boat and with the aid of spotlights we surveyed the entire perimeter of Chickadee Lake. Ultimately, we travelled 3.1 km but this included manoeuvring around downfallen logs and other obstructions such as cattail beds that added to the overall distance. Surface water temperatures were just above 17° Celsius. The biophysical characteristics of the lake margin are very good for surveying for bullfrogs. For example, there is little obstructive vegetation to act as effective cover for bullfrogs or to impede our ability to quickly approach any that we might have seen. The water was not turbid so our spotlights worked well as far as illuminating the bottom to search for bullfrog tadpoles. The weather was clear and calm. Thus, the survey proceeded very efficiently and comprehensively.

Results

No bullfrogs of any size-class or life stage were observed. No bullfrog vocalizations were heard. An intense mating chorus of Pacific Treefrogs was noted.

Conclusion

1. We found no evidence of alien, invasive American bullfrogs in Chickadee Lake.

Recommendations

- 1. When anyone finds what they believe to be a road-killed bullfrog, or a live bullfrog, or bullfrog tadpole please encourage them to take the best digital photo they can of it and send it to an amphibian specialist to verify the identification;
- 2. If anyone hears the call of an American bullfrog please encourage them to try to record it. Most cellphones have voice recording apps that have relatively high-fidelity. Send the recording to an amphibian specialist to verify the identification;
- 3. American bullfrog males do not generally call until surface water temperatures rise to around 20° Celsius or more. This is due to the fact that they are cold-blooded and their metabolic rate and physical energy are determined by their body temperature and their body temperature is determined by ambient temperature. Consequently, bullfrog call

- surveys are best conducted in late spring to mid-summer when water temperatures are rising.
- 4. When bullfrogs reproduce mid-summer each adult female will deposit tens of thousands of eggs. Each egg is tiny, black and will hatch in three to five days. They then grow rapidly and spread out within the lake or pond. There are so many of them and they become so large so fast that they are very conspicuous in daylight and will crowd into the warmest water. Daylight bullfrog tadpole summer surveys are easily conducted by anyone and their large size distinguishes them from native species. Chickadee Lake seems to be a destination for anglers so it would be worthwhile to alert anglers to report any sightings or bullfrog vocalizations, and to encourage them to digitally record what they hear or see.
- 5. Taking quick action when you detect, or believe you have detected, an alien, invasive American bullfrog is very important because it only takes two bullfrogs to establish a population and once they have reproduced the numbers jump into the tens of thousands and the job of removing them has become much harder.

