



Lakelse Watershed Stewards Society

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Introduction

Lakelse Lake, located 20 km south of Terrace BC, is home to a number of salmon stocks associated with the Skeena River. The Lakelse River drainage eventually joins the Skeena River 18km southwest of Terrace. Schulbuckhand (Scully) Creek offers one of the spawning habitats for coho in the area. In an effort to monitor the number of coho using Scully Creek during spawning, a camera was installed near the mouth of the tributary to determine the number of fish returning to spawn in the creek. The camera was initially installed in 2011 to monitor sockeye, and has also been monitoring coho since 2017. The camera helps to provide an accurate count of salmonids and reduces human-grizzly bear encounters, as this was frequent when the creek was walked in previous years.



Figure 1. Map of Schulbuckhand (Scully Creek) and location of underwater camera.

Methods

The fence was set up to guide salmon past a motion-detecting underwater camera as they migrated upstream from the lake (Figure 2). Snow fencing was installed above the fence to deter fish from spawning in front of the camera (Figure 3). On October 1st, prior to the start of the coho run, water damage inside of the camera caused technical difficulties, resulting in no footage for a total of 13 days. Although the camera inactivity occurred for almost 2 weeks, it only affected the period in-between the sockeye and coho runs, thus minimizing the impact on fish counts. Coho monitoring initiated on October 18th, after the sockeye run had completed and a new camera had been received. The fence was cleaned and maintained a few times per week as the water levels fluctuated and debris collected

on the fence. The camera and fence were removed on November 22nd, 2021. The footage was reviewed by technicians, and the species and sex of the fish captured on video were identified. The data collected and the report generated was provided to DFO stock assessment.



Figure 2. Fence installation by Westland Resources Ltd.'s Tyler (left) and Tianna (right).



Figure 3. Upstream snow fencing (left) and completed fence with camera installed (right).

Results

The coho run was determined to have started October 19th and to have been completed on November 20th (Table 1). The camera experienced difficulties due to water entry and was inactive from October 2nd-18th, thus the coho run may have initiated prior to October 19th. Total counts were taken for male and female coho traveling upstream past the camera’s view (Figure 4). An unknown column was added for when the footage was not clear enough to properly determine the sex. The peak of the run occurred around November 1st (Figure 5). The number of coho counted was 95 males, 67 females, and 45 unknowns, resulting in a total of 207 coho (Appendix I).

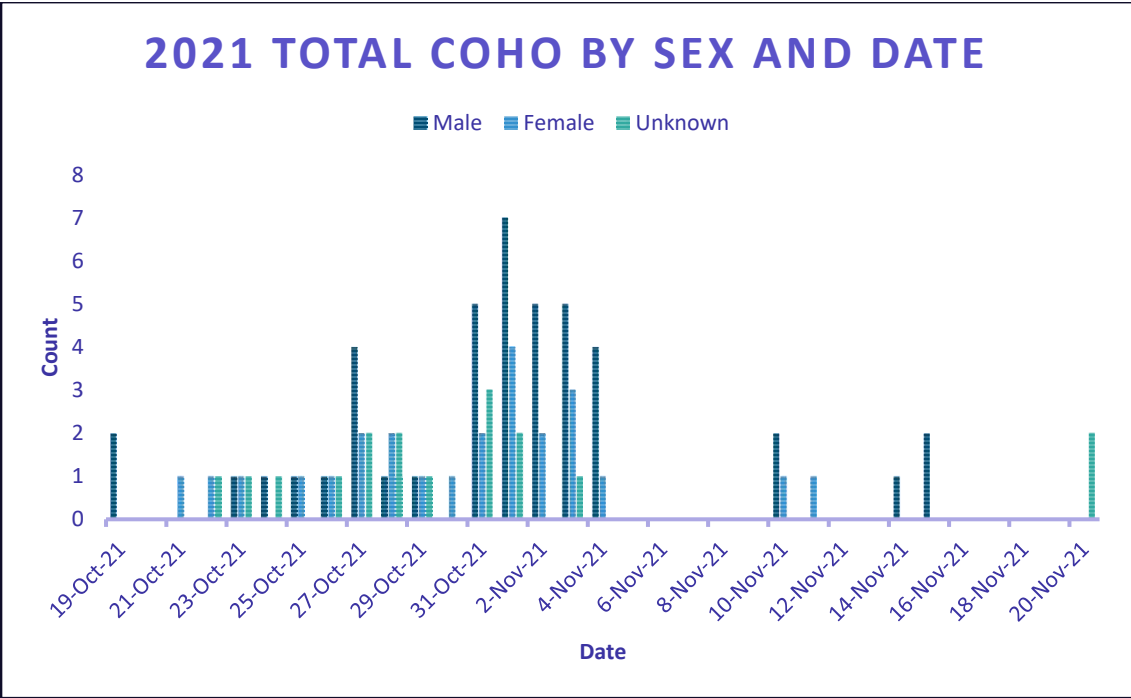


Figure 4. Total Male, Female, Unknown coho counts by date in 2021.

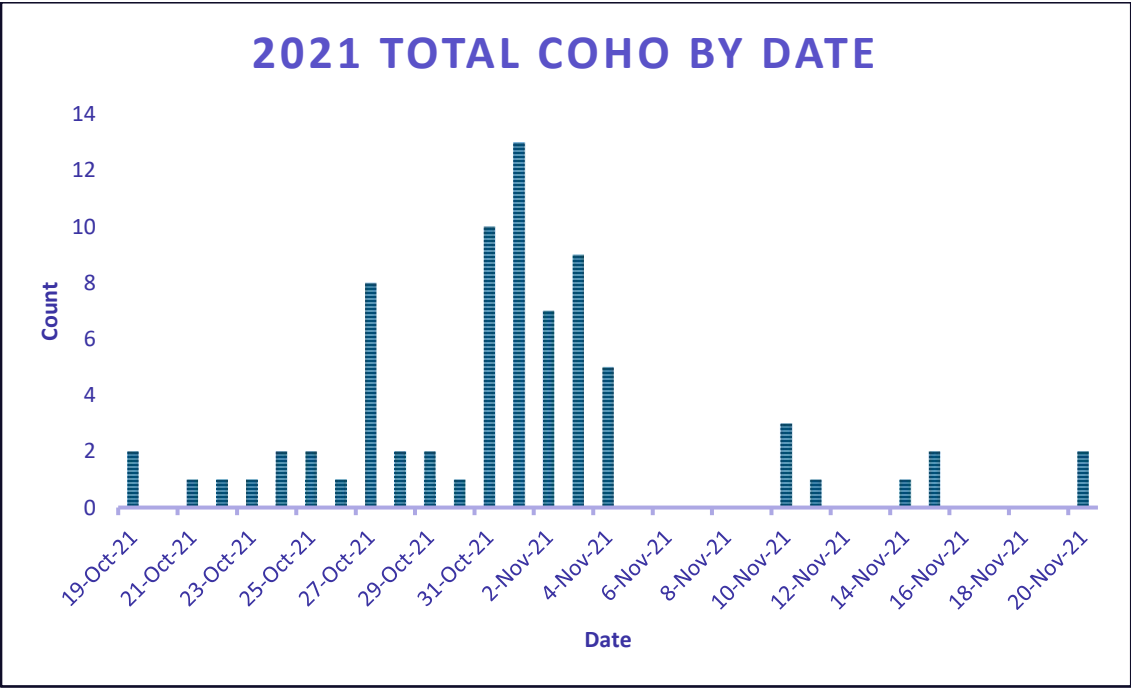


Figure 5. Coho totals by date in 2021.

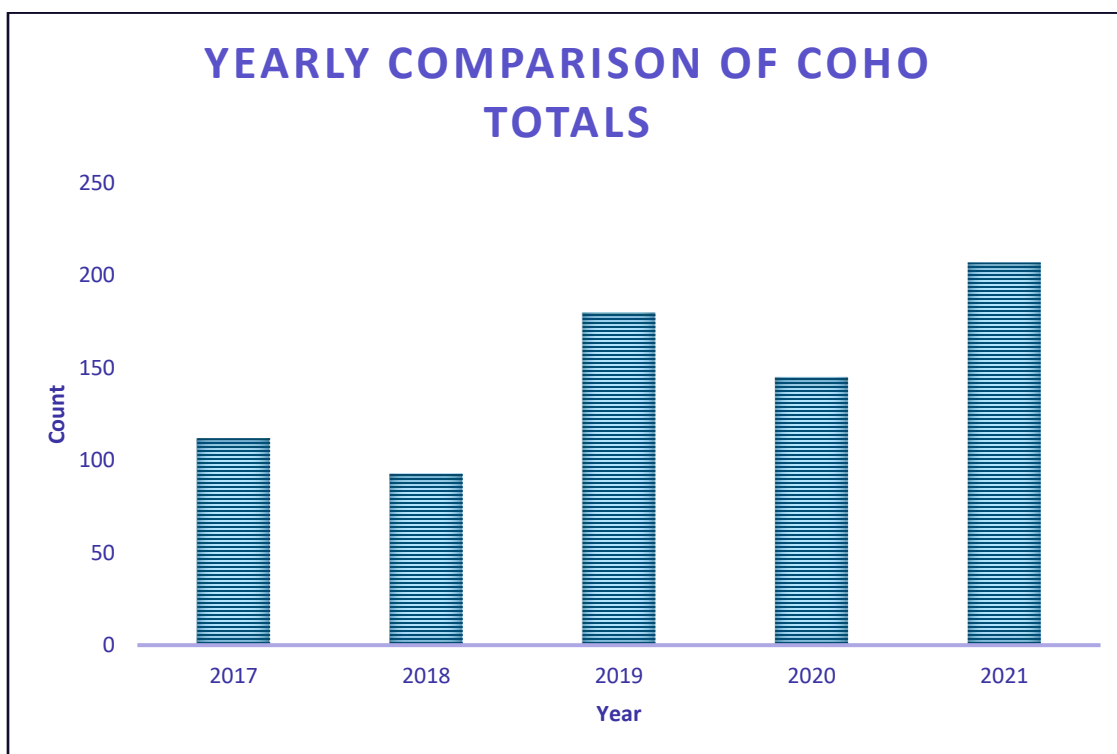


Figure 6. Total coho counts from 2017 to 2021.

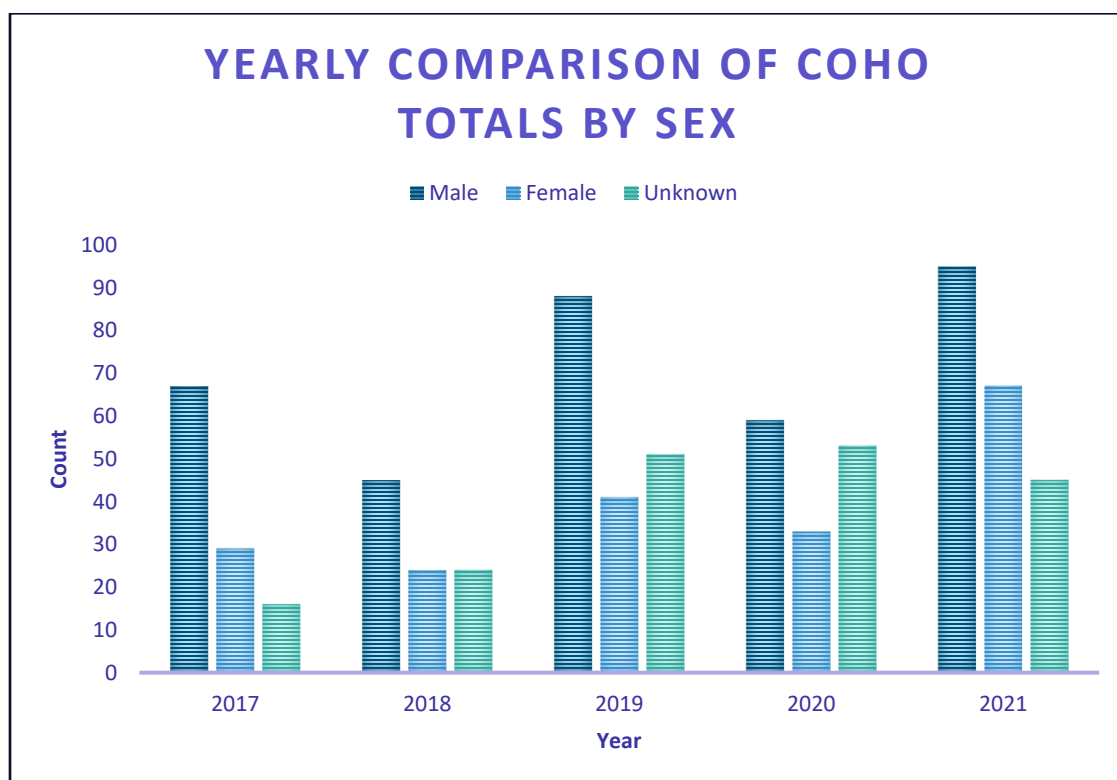


Figure 7. Total Male, Female, Unknown counts from 2017 to 2021.

Table 1. Yearly comparisons of coho totals.

Year	1 st Coho	Highest Run Day	Last Coho	Total
2017	October 12	November 1	November 2	112
2018	October 22	November 20	November 27	93
2019	October 19	October 23	November 27	180
2020	October 14	October 22	November 17	178
2021	October 19	November 1	November 20	207



Figure 8. Two male coho observed in the footage.

Conclusion

A total of 207 coho were counted during the monitoring period of October-November 2021, the highest number of coho observed since 2017 (*Figure 6*). 95 individuals were identified as male, 67 as female, and 45 as unknown. We have consistently observed a higher ratio of males to females in the past 4 years of the program, this year seeing similar results (*Figures 4 & 7*). The beginning and end dates of the coho run have remained relatively consistent (aside from 2017), although the dates for the peak of the run have varied slightly over the years (*Table 1*).

According to the consistently high coho counts observed each year, it is clear that Scully Creek provides a significant contribution to the Coho numbers of the Lakelse Watershed.

Should you require any further information or have any questions, please feel free to contact:

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Appendix I – Coho Count Data

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