

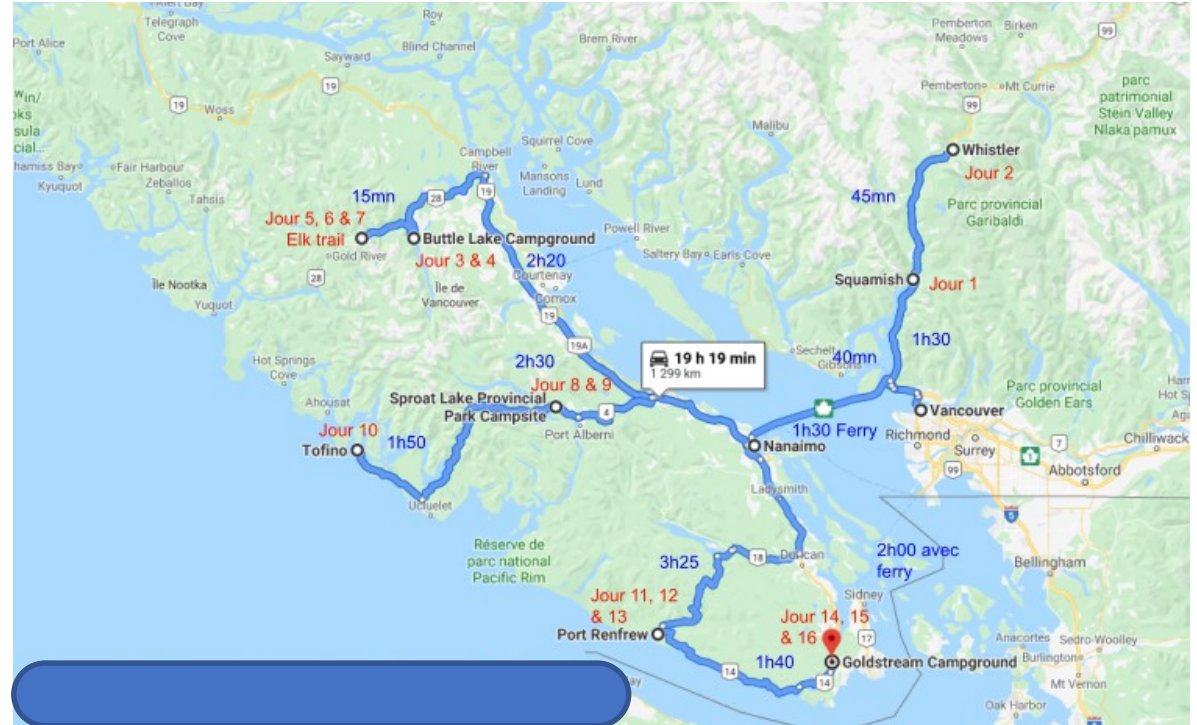
Into the canadian wilderness



August 2022

Introduction to our study

- Water Watch program
 - Plastic pollution
 - Chemical pollution
- Mostly on Vancouver island





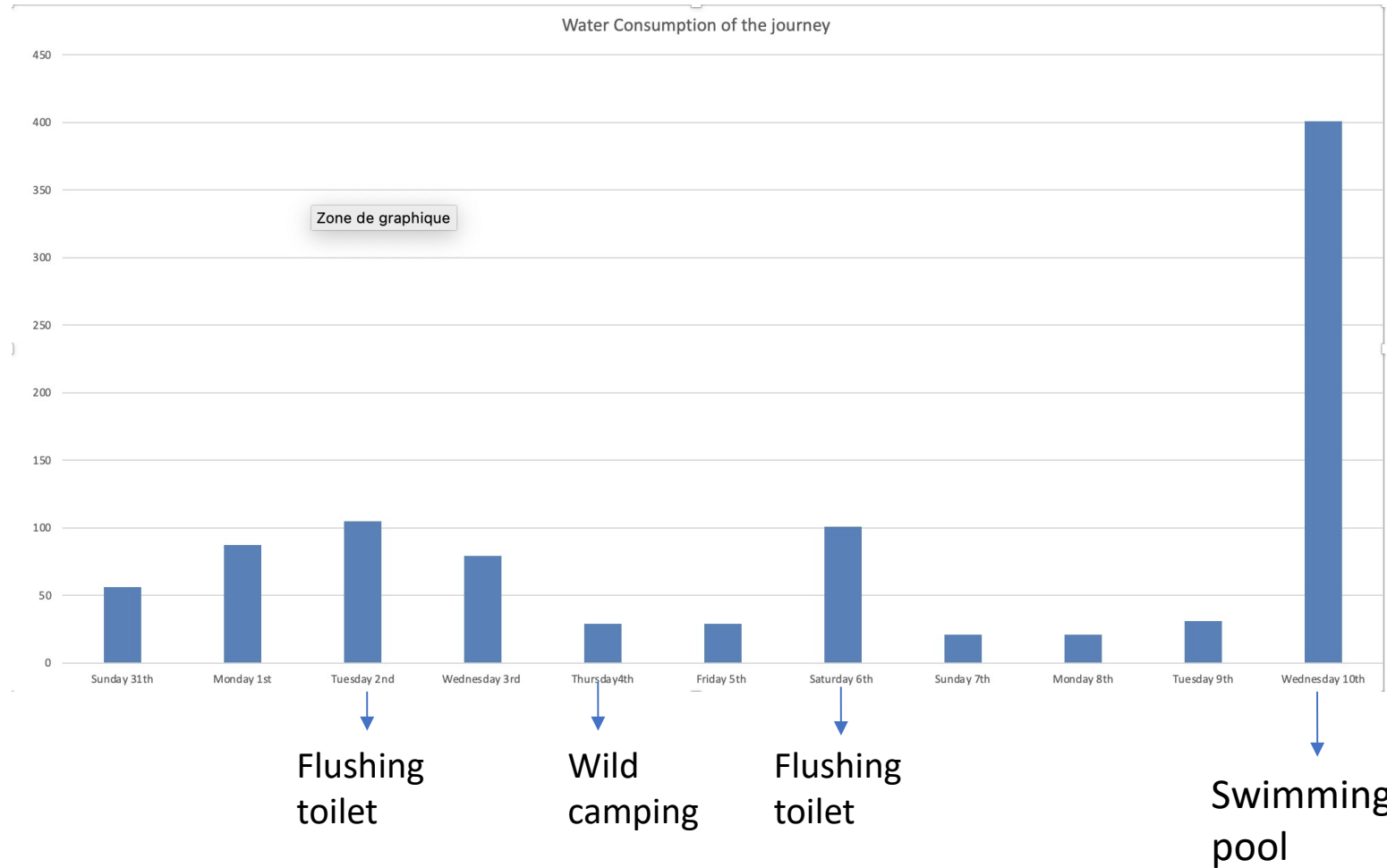
Vancouver Island

West Canada

Not the same as the city Vancouver



Our water consumption



Average water consumption

- Total: 900L
- 82L per day
- 10L per person per day

Flushing toilets use a lot of water !!

Water quality

- Chemicals experiences
- Humans impact
- Ecosystem development



Insects observation

- Microscopic observation
- Pollution intolerance
- Classification



Microplastics

- Capture with diy filter
- Observation and determination using magnifying glasses
- Concentration of microplastics in rivers

	Remote elk river	Elk river campsite	Stamp river
Flow rate (m3/s)	0,0735	0,132	45,752
Number of microplastics	1	0	0
Microplastics concentration (n/m3)	0,222	0	0




Sample of microplastic we found upstream of elk river

Beach clean up

- Tofino, Long Beach
- Presentation of Surf rider foundation and data card



Beach Cleanup Data Card



Name of Volunteer(s) / Leader(s): Mike, Rose, Inez

Date of Cleanup: 08/08/22

Data Card Type (Circle One):
Volunteer | Summary

Circle One:
Chapter Cleanup | Solo Cleanup

Summary Card

Chapter / Club: <u>OSI</u>	Name of Beach or Shoreline: <u>Long beach</u>	Cleanup Duration (Hours): <u>20 min</u>
Total Number of Volunteers: <u>3</u>	Length of Shoreline (Miles) if applicable: <u>100 m</u>	Type of Cleanup (Circle One): <u>Land</u> Water
Total Weight (Trash / Recycling): <u>250 g</u>	Location (Latitude / Longitude)* <u>49° 00' 53.23" N</u> <u>125° 40' 28.76" W</u>	

*Lat./long. coordinates of locations only needed if it is not already in the database. For help, visit cleanups.surfrider.org/help

Instructions:

1. Add the total number of items collected.
Please note that quantities expressed in weight, volume, or by a percentage will not be included in the database.
2. For the **Summary** card, add up the totals from the **Volunteer** data cards collected at your cleanup.
3. Input data to Surfrider's Beach Cleanup Data Tool at cleanups.surfrider.org

Common + Priority Items	Total #
Cigarette Butts	<u>1</u>
Plastic Bottles (beverage)	<u>1</u>
Plastic Bags (shopping / grocery)	<u>1</u>
Plastic Straws	<u>1</u>
Plastic Forks, Knives, Spoons	<u>1</u>
Plastic Cups	<u>1</u>
Foam Cups	<u>1</u>
Foam Take-Out Food Containers	<u>1</u>
Plastic Lids (yogurt lids, coffee lids, etc.)	<u>1</u>
Plastic Food Wrappers (candy, chip bags, etc.)	<u>1</u>
Balloons	<u>1</u>

Common + Priority Items (Fragments)	Total #
Foam Fragments (larger than a dime)	<u>1</u>
Foam Fragments (smaller than a dime)	<u>65</u>
Plastic Fragments (larger than a dime)	<u>3</u>
Plastic Fragments (smaller than a dime)	<u>13</u>
Nurdles (small pre-production plastic pellets)	<u>1</u>

Common + Priority Items (Consumables)	Total #
Disinfectant Wipes	<u>1</u>
Latex Gloves	<u>1</u>
Single-Use Mask with Filter	<u>1</u>
Reusable Cloth Mask	<u>1</u>
Reusable Gloves	<u>1</u>
Single-Use Surgical Mask	<u>1</u>

The American life

Consumption society : how to reduce our impact

- > Limit our plastic use ?
 - > Recycling and composting
 - > reusable plastic
 - > limit packaging
 - > prefer biodegradable packing



Waste water treatment



Treatment plant

- > nitrates and phosphates
- > release filtered water
- > burial of the waste

Micro plastics in the water cycle



-> micro plastics found in
remote water points

-> micro plastics on the water cycle ?

Conclusion

- Looking at microplastics and chemical pollution, Vancouver island's water is of very good quality
- Efforts could be done to raise awareness about water conservation around campsites
- The presence of micro plastics in remote areas even in small quantities is concerning