



Digging into Litter Data

Susan Debreceni, Outreach Specialist



Why Shoreline Cleanups?

Litter is a problem created by humans and wildlife are paying the price.

Who we are:

- Conservation partnership of Ocean Wise & WWF-Canada
- National network of year-round shoreline cleanups, in all provinces/territories across Canada

What we do:

- Platform for individuals to rally together and make a difference by leading a shoreline cleanup.
- Shoreline Cleanups are led by volunteers and for volunteers
- Any where land connects to water



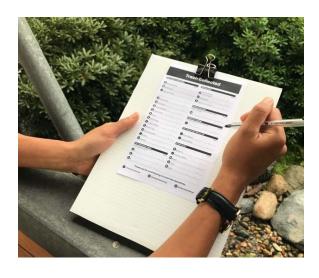




Why Shoreline Cleanups?

Shoreline litter is a year-round problem 🕾

- Short term Benefits: :
 - Litter is removed, lessens threat of potentially harmful materials
- Long term Benefits:
 - Citizen Science Litter data collected (type and amount) ©

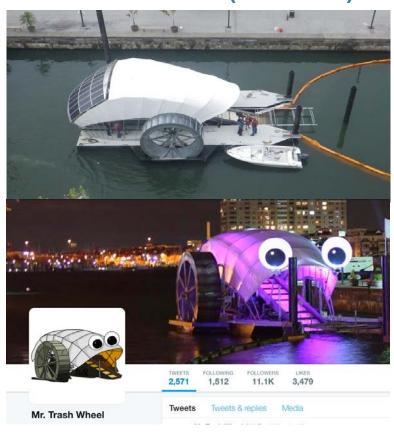






Other cleanup solutions?

1. Trash Wheels (Baltimore)



2. Seabin Project (Australia)



3. Collaboration!





Q: Which is a Shoreline?







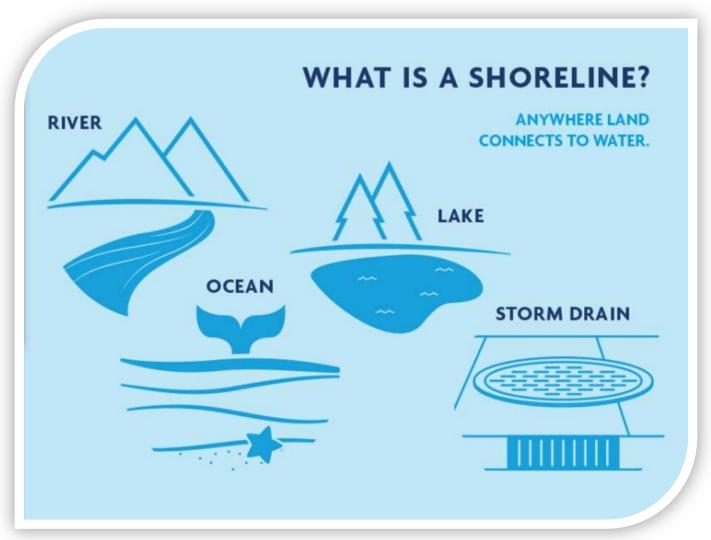








A: All of them (trick question)





Where does it come from?

Sources of litter:

- Recreational Activities
- 2. Smoking related activities
- 3. Fishing/Shipping
- 4. Illegal Dumping
- Medical/Personal Hygiene
- 6. Natural Disasters







What's the problem with it?

Impacts of litter:

- Entanglement
- Ingestion
- Invasive Species
- MICROPLASTICS!





Shoreline Litter Impacts

1. Entanglement











Shoreline Litter Impacts

2. Ingestion







http://globalnews.ca/news/1843538/hunks-of-plastic-found-inside-fraser-river-steelhead/



Shoreline Litter Impacts 3. Invasive Species

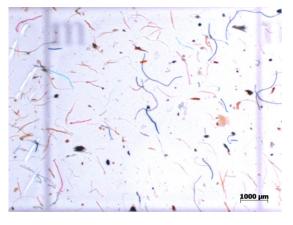




Shoreline Litter Impacts 4. Microplastics



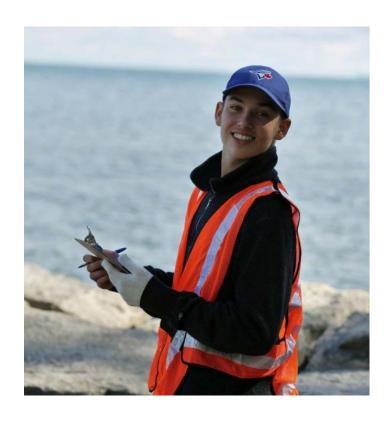




And now... back to data

The power of litter data:

- Citizen Science opportunity
- Quantify major/minor sources of litter
- Local to global scale
 (International Coastal
 Cleanup Day)
- Measure your impact
- Reflect on personal behaviours



It's such a fun and innovative way to do a park clean up while participating in a citizen science project AND learning about pollution in our waterways!

The Data we Collect



Individual Data Card

SITE INFORMATION:

Cleanup Site Name:			
Site Coordinator:			Cleanup Date:
Total Weight:	# of Garbage Bags:		# of Recycling Bags:
# of Volunteers Working On	This Card	Most Unu	sual Item:

Citizen scientists: Pick up all litter that you find and record data only for the items listed on the back. Please do not use words or check marks. Only numbers are useful. Please return this card to the Site Coordinator when complete.

EXAMPLE:			
Plastic Bags:	1HL III	=	TOTAL#

PRESENTING SPONSOR

Loblaw
Companies
Limited

NATIONAL SPONSOR

RICOH
imagine, change,

Trash Collected

MOST LIKELY TO FIND ITEMS:		FISHING GEAR:	
	TOTAL#		TOTAL #
Λ		Fishing Buoys,	
Beverage Cans:	=	Pots or Traps:	=
O Bottle Caps:	=	A	
- Bottle Caps.		Fishing Net:	=
Cigarette Butts:		Rope (1 metre - 1 piece):	=
		Rope (Imetre - I piece).	
	=		
•		OTHER PACKAGING	70711 4
Coffee Cups:	=	Plastic or foam packaging, strapping bands, tobacco packaging	TOTAL#
Δ			
Containers:	=	9	=
Food Wrappers:	=		
Pood Wrappers.		PERSONAL HYGIENE:	
Glass Bottles:	=	Condoms, diapers, syringes, tampons	TOTAL #
Cidos Bottios.			
Paper:	=		=
Plastic Bags:	=	TINY TRASH LESS THAN 2.5 CM:	TOTAL#
^			TOTAL
Plastic Bottles:	=	Foam Pieces:	_
•		- Fodini Toodo.	
Plastic Cups:	=	Plastic Pieces:	=
® at a parallely at the second			
Six Pack Holders:	=	OTHER TRASH:	
Straws:	=	OTHER TRACH.	TOTAL #
Straws.		•	
Utensils:	=	Balloons:	=
TOD T ADDITIONAL ITEMS		Clothing, Shoes:	=
TOP 3 ADDITIONAL ITEMS: Identify the top 3 items found that are not listed on the card	TOTAL#	0-	
are not listed on the card		Foam:	=
1 :	=	Tires:	=
		Tiles:	
① 2:	=	Toys:	_
		- 10101	
1 3:	=		

Thank you for contributing to trash free shorelines.







Recent Results and Trends

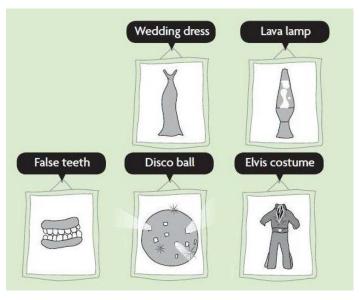
2017 Overview - Canada

Number of registered cleanups	1,829	Weight of litter removed (kg)	88,721
Number of registered participants	58,018	Trash bags filled	10,721
Distance of shoreline cleaned (km)	2,808	Recycling bags filled	3,144



Unusual Finds













Canada's Dirty Dozen

(2017 ranking)

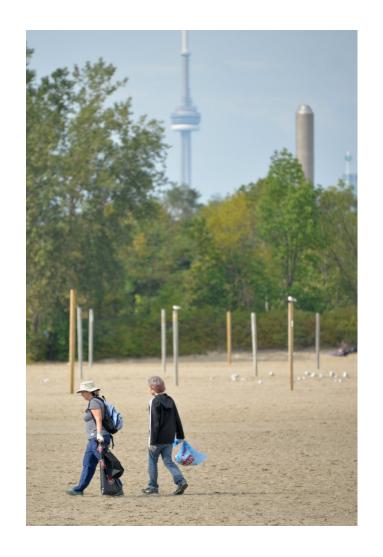
Rank	Item	# Removed
1.	Tiny Plastic and Foam	333,289
2.	Cigarette Butts	244,734
3.	Plastic Bottles	50,285
4.	Food Wrappers	47,466
5.	Bottle Caps	38,624
6.	Paper Materials	22,877
7.	Plastic Bags	22,724
8.	Miscellaneous Packaging	18,465
9	Straws	17,654
10.	Foam Materials	17,527
11.	Beverage Cans	17,327
12.	Rope (1 piece = 1 metre)	11,365



And in Toronto?

(2017 ranking)

Rank	Item	# Removed
1.	Cigarette Butts	49,124
2.	Tiny Plastic and Foam	31,529
3.	Bottle Caps	12,105
4.	Food Wrappers	8,626
5.	Straws	5,784
6.	Plastic Bottles	5,432
7.	Miscellaneous Packaging	3,725
8.	Foam Materials	3,521
9	Plastic Bags	3,483
10.	Paper Materials	3,234
11.	Beverage Cans	3,163
12.	Plastic Utensils	2,069





Which Have You Used?

Rank	Item	# Removed
1.	Tiny Plastic and Foam	333,289
2.	Cigarette Butts	244,734
3.	Plastic Bottles	50,285
4.	Food Wrappers	47,466
5.	Bottle Caps	38,624
6.	Paper Materials	22,877
7.	Plastic Bags	22,724
8.	Miscellaneous Packaging	18,465
9	Straws	17,654
10.	Foam Materials	17,527
11.	Beverage Cans	17,327
12.	Rope	11,365





What are the alternatives?





Litter Data in Action

- Saugeen District Secondary School (ON): Students shared cigarette litter data at city council to help install more receptacles
 - http://healthylakehuron.com/news_item.php?NewsID=98



Blue Flag:

Public education campaign, Butt-Free Beach Cleanup at Wasaga Beach



Litter Data in Action

Rose, Guild Park and Gardens (ON):
 Regular cleanup and "litter blitz" results sent to local council to increase # of bins along shoreline





Litter Data in Action

White Rock and Surrey Naturalists (BC):
 Sharing results of foam collected along
 Nicomekl to restrict use of expanded
 polystyrene foam on waterways



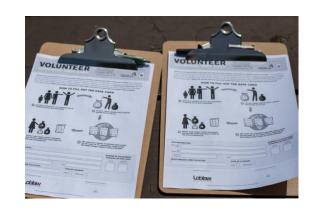


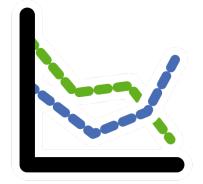
What's next for cleanup data?

- 1. Share results:
 - Volunteers
 - Friends, family & co-workers
 - Municipality
- 2. Have fun! Host a cleanup trivia might
- 3. Teachers? Bring it to the classroom
- 4. Compare results over time, notice any changes?

Have an idea or working on a project and need shoreline litter data?

Contact us, we're happy to share.







Thank you!

www.ShorelineCleanup.ca shorelinecleanup@ocean.org 1-877-427-2422

- **1** /shorelinecleanup
- @cleanshorelines
- Ø /shorelinecleanup





