

KICKING PLASTIC'S BUTT!

Increasing awareness and installing cigarette butt receptacles reduces cigarette butt litter.



BACKGROUND

Cigarette butts contain over 4000 toxic chemicals that can pollute the surrounding environment¹. They also do not easily biodegrade, as most cigarette butt filters are made of plastic. Despite this, cigarette butts are one of the most littered items in the world². In Toronto, they regularly top cleanup lists, including at the U of T Trash Team's 2023 Urban Litter Challenge, where they were the top item found at eight cleanup sites around the Greater Toronto Area (Fig. 1).



2023 Urban Litter Challenge

Top Items

- 1 5,646 Cigarette Butts
- 2 2,620 Small Plastic Pieces
- 3 1,092 Food Wrappers
- 4 926 Paper
- 5 407 Bottle Caps

Fig. 1: Top 5 items found during the Sep. 17, 2023 Urban Litter Challenge cleanups.

OUR PROJECTS - AIMED AT REDUCING CIGARETTE BUTT LITTER

Harbourfront (2022)

In 2022, we ran an arts-based educational campaign aimed at increasing awareness that cigarette butts are plastic pollution. We put up awareness posters along the Toronto Harbourfront and collaborated with the Water Brothers to produce an educational [video](#). As well, artist-in-residence Emily Chudnovsky created sculptures out of littered cigarette butts for display at Patagonia and Ripley's Aquarium. We quantified cigarette butt litter during the campaign, observing a decrease in litter (Fig. 2).



The Water Brothers interviewing passersby for an educational video.



Photo: Jack McCombe
Sculpture by Emily Chudnovsky.



Transit poster, illustrated by Chelsea Wang.

St. James Town (2023)

In 2023, we ran a cigarette butt litter reduction campaign in St. James Town in collaboration with Community Matters Toronto (CMT). We installed cigarette butt recycling receptacles around high-rise buildings in the neighbourhood, and ran an accompanying outreach campaign including posters, social media, and community events. We quantified cigarette butt litter and receptacle usage during the campaign, observing a decrease in litter (Fig. 3) and steady receptacle usage (Fig. 4). The receptacles are currently maintained by CMT volunteers.



Outreach table.



A plastic-themed bingo outreach event.



A cigarette butt recycling receptacle.

RESULTS

Increasing awareness and installing receptacles reduces cigarette butt litter.

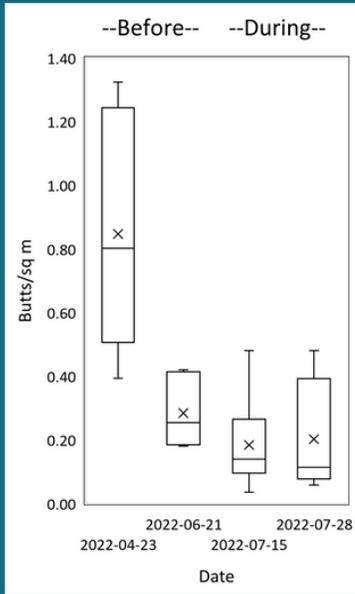


Fig. 2: Butts collected in Harbourfront transects decreased during the awareness campaign (2022).

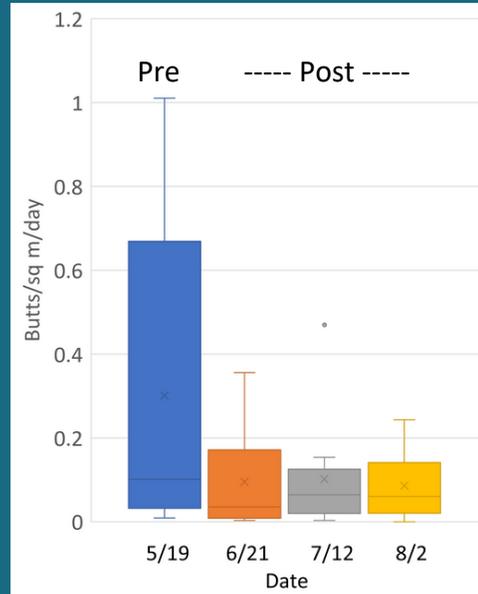


Fig. 3: Butts collected in St James Town transects decreased during the awareness campaign and after receptacle installation (2023). Litter count is standardized by day to account for occasional street sweeping.

Receptacles divert cigarette butts from potentially becoming litter.

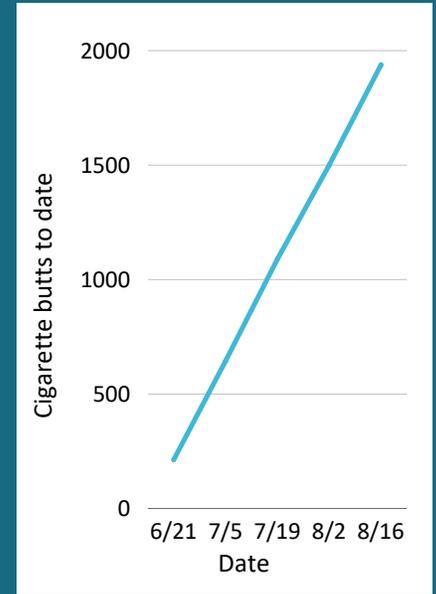


Fig. 4: Over twelve weeks, six receptacles in St. James Town collected an estimated 1,938 cigarette butts (2023).

CIGARETTE FILTER SPOTLIGHT

Cigarette butt filters are usually made of a plastic called cellulose acetate. There is a common perception that filtered cigarettes are healthier than unfiltered ones³; however, studies have shown that they do not have any health advantages³⁻⁵. In fact, cigarette filters increase toxicants from tobacco combustion, and they may be linked to increased rates of lung adenocarcinoma⁵. Researchers and public health authorities⁶, including the WHO⁷, have called for a ban on cigarette filters. Such a ban would help protect human health while curbing one of the most common forms of plastic pollution.



A close-up of the cellulose acetate filter.

RECOMMENDATIONS

- Raise awareness that cigarette butts are plastic pollution via signage, art, and other educational campaigns.
- Install more cigarette butt receptacles and make them visible.
- Ban the use of plastic cigarette filters.

ACKNOWLEDGEMENTS & REFERENCES

Learn more about Kicking Plastic's Butt! [here](#).

Huge thanks to Community Matters Toronto, Rothmans Benson & Hedges, TerraCycle, Wellesley Parliament Square, The Water Brothers, Waterfront BIA, Astral, Patagonia, and Ripley's Aquarium.

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