n t r e u X e a n В e a C h 2



Beach litter survey results for Montreux-Clarens-Vevey November 2015 - April 2016

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The other 1%
Geneva sites open

Water Monitoring

Microbiologicals



Somebody needs to do this

The project

- 2 Montreux Clean Beach Project II (MCBPII) removes and inventories the visible pollut-
- 3 ants on the shoreline of Lake Léman.
- The data collected can be used to evaluate current litter mitigation strategies. MCB-
- **5** PII is designed and inspired by the citizen science method.
- 6 MCBPII is the second project initiated by
- 7 hammerdirt. The results of MCBPI and the project plan can be found at our website
- 8 www.plagespropres.ch.

o Data

- The data for each survey location is available for download from our website, fol-
- 10 low the "Kobotoolbox" link for the location in question. Once you have accessed the
- 10 "toolbox" you can download the data, view the results on a map or view the results
- one by one, images are included. The raw data is added to our repository on GitHub
- 11 monthly.
- 12 https://github.com/hammerdirt/beachLit-terSurveys

12 Association

All the labor and resources for this project are furnished by hammerdirt association. We are always looking for serious, dedicated individuals that would like to fund, initiate or participate in projects of this type. For more information:

www.hammerdirt.ch

Funding

MCBPII is unfunded, all costs for the project have been assumed by Shannon and Roger Erismann, the founders of hammerdirt. We would like to expand our operations to include more locations and more surveys. Individuals or groups interested in funding this project or an expanded version should contact us directly.



Labor and administration

193hours

Collecting debris, and data entry

41 hours

Blog and social media up dates 31

Data wrangling

51_.

Reports and research

Partners

0

Comercial partners

Public partners

1

Non financial partner

Revenue

0

Grants or subsidies

0

Donations

Expenses

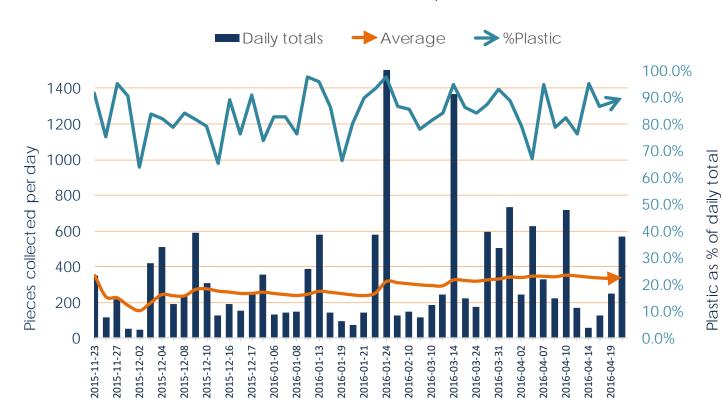
1′601_{CHF}

Expenses not inleuding labor

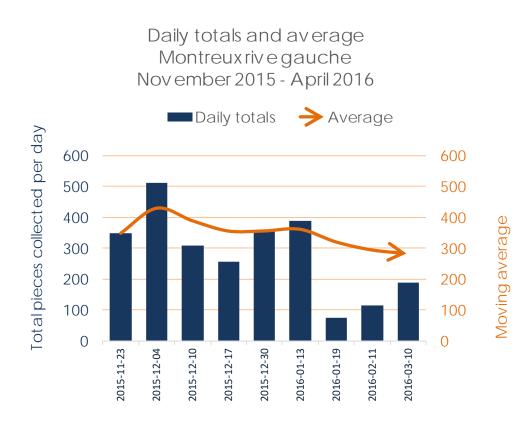
Summaized results all locations Nov 2015 -April 2016

Location	# Of surveys	Total pieces	% Plastic
Montreux Rive Droite	8	1,932	81.2%
Montreux Rive Gauche	9	2,548	84.7%
Baye de Clarens	11	2,563	89.3%
Veveyse	12	2,060	83.0%
Plage du Pierrier	2	1,943	95.1%
Plage de la Maladaire	1	733	88.8%
Bain des Dames	1	594	87.4%
Port de la Tour-de-Peilz	1	570	89.8%
Plage de l' Arabie	2	2,633	90.2%
l'Oyonne	1	717	82.1%
Totals	48	16,293	87.3%

Daily totals, moving average and plastic as % of daily total Montreux-Clarens-Vevey November 2015 - April 2016



Individual results: Montreux rive gauche



2'548 pieces of trash were removed in 9 operations from Montreux rive gauche-(MRG).



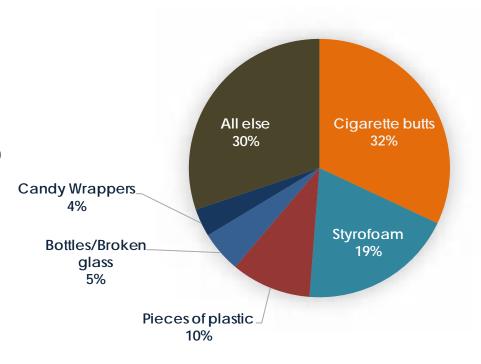
https://kc.kobotoolbox. org/hammerdirt/ forms/Montreux

70% of the items found can be attributed to 5 categories :

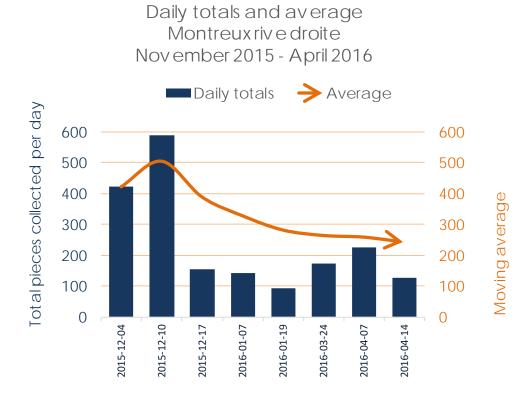
- 1. Cigarettes
- 2. Foam
- 3. Pieces of plastic
- 4. Bottles or broken glass
- 5. Candy wrappers

The rest of the litter found (30%) is spread out among 59 other categories.

Top five categories of trash found Montreux rive gauche November 2015 - April 2016



Individual results: Montreux rive droite



1'932 pieces of trash were removed in eight operations from Montreux rive droite (MRD).



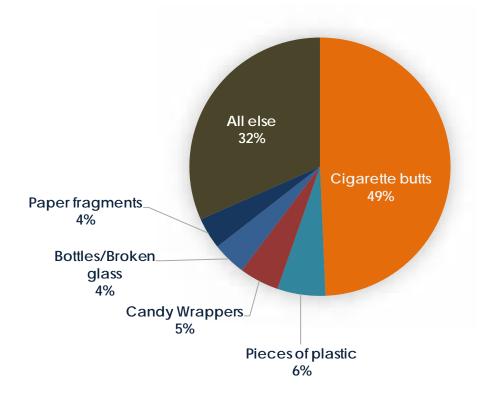
https://kc.kobotoolbox org/hammerdirt/ forms/Montreux

68% of the items found can be attributed to 4 categories :

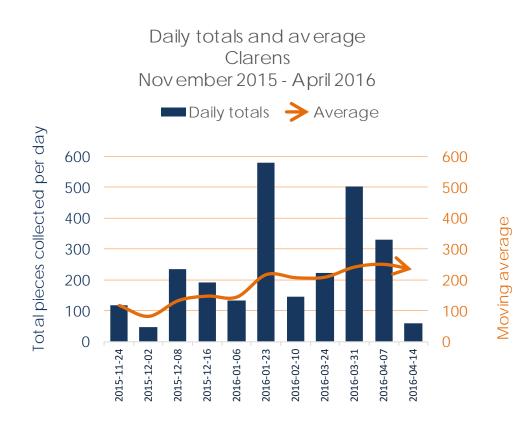
- 1. Cigarettes
- 2. Plastic pieces
- 3. Candy wrappers
- 4. Bottles/Broken glass
- 5. Paper fragments

The rest of the litter found (32%) is spread out among 46 other categories.

Top five categories of trash found Montreux rive droite November 2015 - April 2016



Individual results: Baye de Clarens



2'563 pcs of trash were removed in eleven operations from the Baye de Clarens.

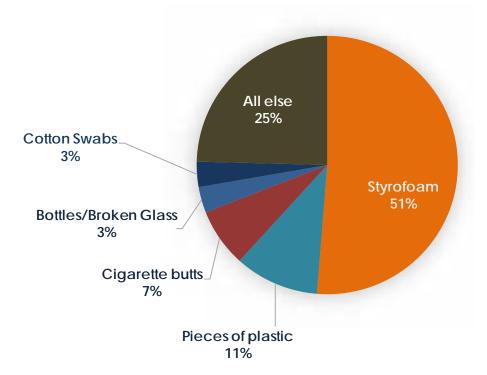


75% of the items found can be attributed to 4 categories :

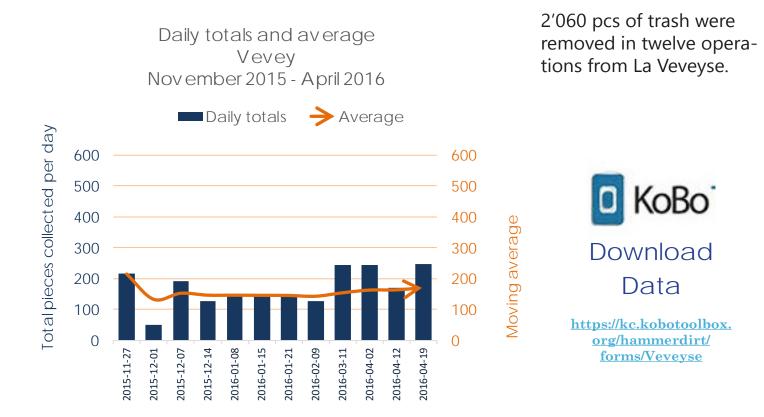
- 1. Foam
- 2. Plastic pieces
- 3. Cigarettes
- 4. Bottles/Broken glass
- 5. Cotton swabs

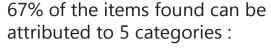
The rest of the litter found (25%) is spread out among 60 other categories.

Top five categories of trash found All sites combined November 2015 - April 2016



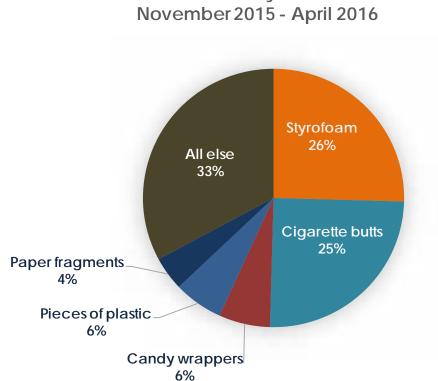
Individual results: La Veveyse





- 1. Foam
- 2. Cigarette butts
- 3. Candy wrappers
- 4. Pieces of plastic
- 5. Paper fragments

The rest of the litter found (33%) is spread out among 57 other categories.



Top five categories of trash found

Veveyse

Top five categories of trash found Individual reults: La Tour-de-Peilz Bain des Dames-Oyonne-Port-Maladaire Locations with two or November 2015 - April 2016 less inventories. La Tour-de-Peilz combined Styrofoam 23% All else L'Oyonne - 717pcs 35% La Maladaires - 733pcs Plastic pieces Le Port - 570pcs 19% La Bain des Dames - 592pcs Industrial sheeting 5% Cotton swabs Top five categories of trash found Cigarette butts 7% 11% Plage de l'Arabie November 2015 - April 2016 Candy wrappers 17% Plage de l'Arabie All else Cigarette butts 2'633pcs 42% 13% Plastic pieces Top five categories of trash found 13% Le Pierrier November 2015 - April 2016 Bottles/Broken Industrial glass sheeting 5% 10% All else 25% Styrofoam 38% Shotgun Plage du Pierrier cartridges. 3% 1'943pcs Cotton swabs 7%

Cigarette butts. 9%

Pieces of plastic 18%

World Water Monitoring Challenge

Hammerdirt is participating with other citizen scientists in the "World Water Monitoring Challenge" to test the quality of our waterways, share our findings and protect our most precious resource.

Coordinated by the Water Environment Federation (WEF) and the International Water Association (IWA) low cost kits are designed to test the following water quality parameters: temperature, acidity (pH), clarity (turbidity), and dissolved oxygen. The kit contains guidelines and enough reagents to repeat up to 50 tests.



Hammerdirt is purchasing these kits to sample the water in the vicinty of our regularly monitored locations.

Microbiologicals

How does the quantity of certain bacteria change during the summer months?

In addition hammerdirt will be purchasing Coliscan CSK10 a low cost test, ideal for sample sizes of 1-5 mL of river or lake water.

We want to understand how water chemistry and biological activity fluctuates in the presence of signifigant changes in visible aquatic pollutants.

Lab space is provided by the hackuarium

Funding is the greatest barrier for gathering water data, we have opted to commence with low cost methods until further funding/collaborations materialize.



Hammerdirt was invited to the first national meeting of abandoned litter collectors of France. On the weekend of March 18 and 19 groups from Algeria, France, Belgium and Switzerland were invited to exchange Ideas and experiences at Boulogne-surmer, Pas-de-Calais.

Switzerland would greatly benefit from a similar national conference of concerned organizations, state and federal regulatory bodies and citizen action groups to discuss current efforts and create effective collaborations to address our visible pollution problems.

Un grand MerSea to all the amazing members at Asso Nature libre for organizing the event and inviting us to represent la Suisse.

It was a great pleasure to meet all the passionate people, the 1%'s that refuse to ignore the visible pollutants and actually bend down to pick it up.

Why we do it?
"Because it's there!"



Hammerdirt participated in an organized beach clean on March 20th in Wimereux, more than 600 kg of visible pollutants were removed from the environment.







Geneva locations are active for the summer

MCBPII has added locations for summer 2016 in Geneva. Data will be gathered at various sites in the city, Along the Rhone, Arve and lakefront. Contact us for more information or to participate. Follw the evolution of the project in Geneva at the plagespropres blog on wordpress:

https://plagespropres.wordpress.com/

