



Rutgers University - Computer Science
Reducing Plastic Pollution
in Oceans

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Data Science Master's Students

Motivation

Problem Overview and Motivation

1 million plastic drinking bottles purchased every minute

Only 9% of plastic waste ever produced has been recycled

8.3 billion tonnes of plastic produced has been since 1950

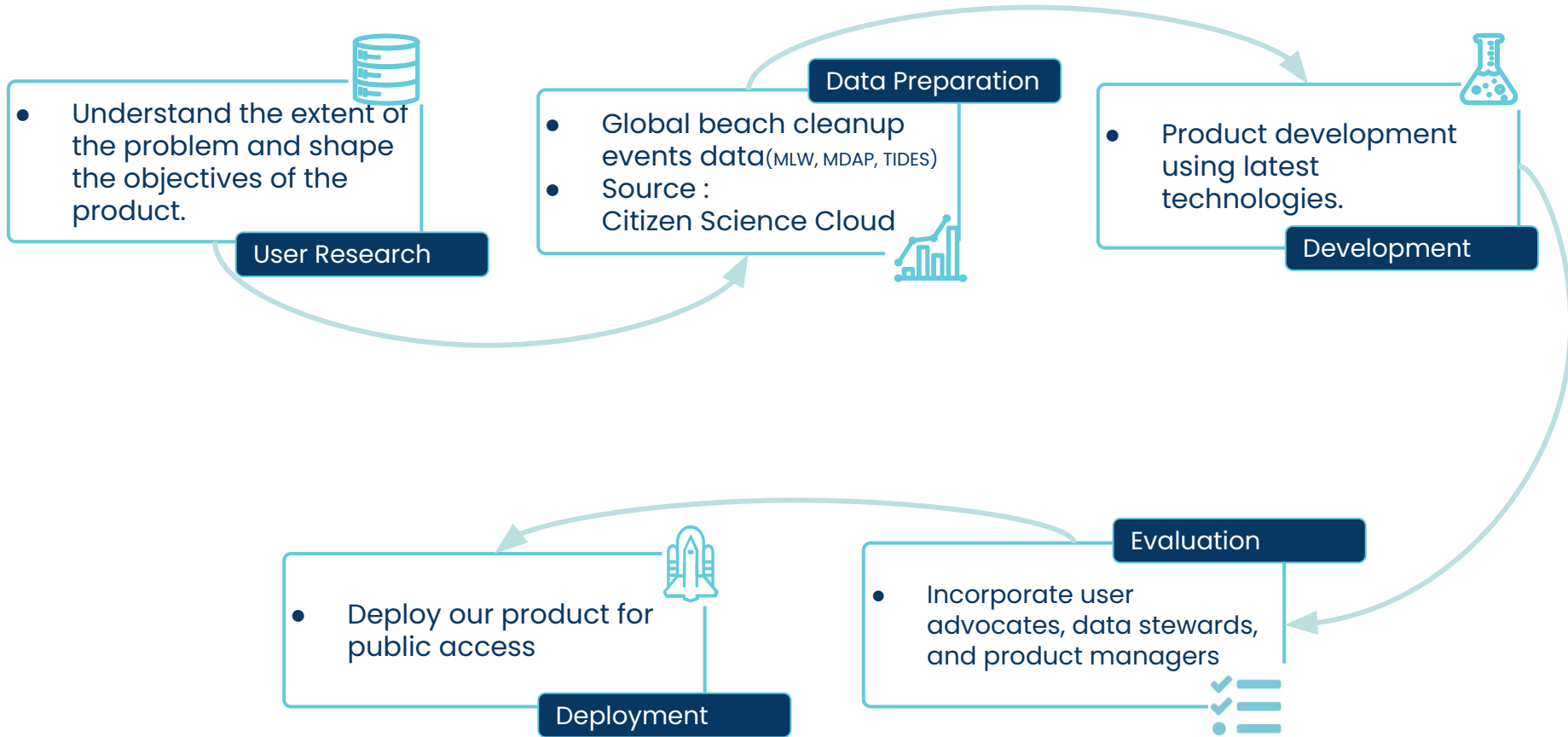
Ocean plastics directly impact more than 800 species worldwide



Protect Marine Animals



Protect human and the environmental health.



Reducing plastic pollutions in the ocean by increasing cleanup events



Event Date:

Beach Location:

Organization:

Show Events By:

Number of Items Collected

Show Results By:

City/Country

Beach

Total Volunteers

390980

Number of Events

15581

Total Items Recorded

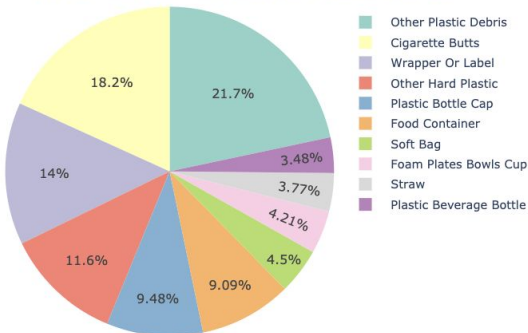
4652116

Avg Meters Covered

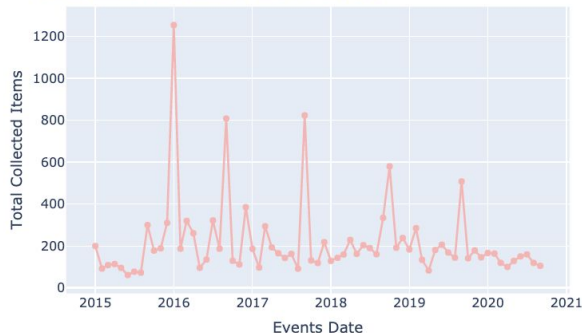
942



Top 10 most common plastics in California, US



Total Items collected in California, US



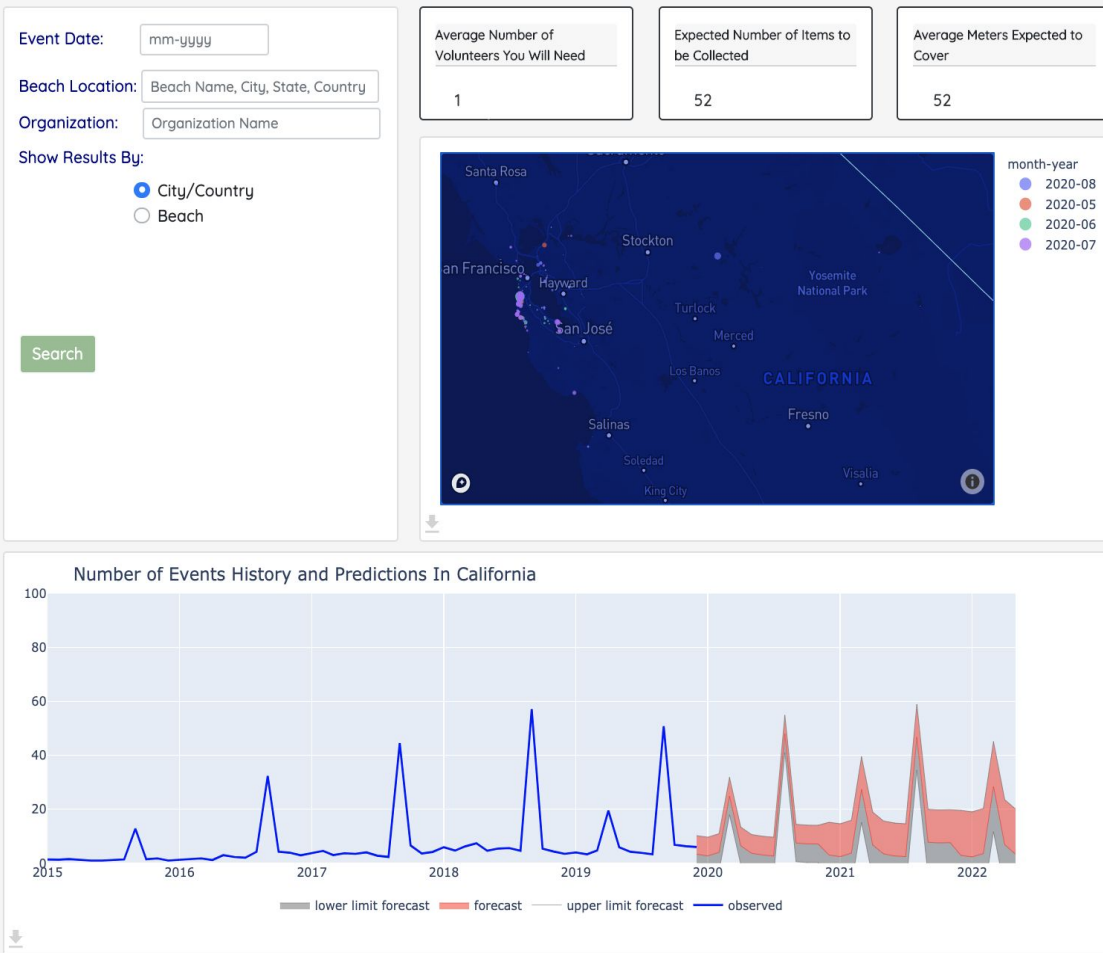
Top Events Organization in this location: [California Coast National Monument Task Force!](#)

Help The Volunteers

- Track their progress and the trend through the seasons.
- Suggest beach cleanup events near to their location.
- Check the cleanup events progress in other countries.
- Provide the latest news and guidance.
- Check the type of animal entangled.

Help The Events' Organizers

- Check the beaches that lack cleanup events
- Predict the number of volunteers needed for a beach cleanup.
- Forecast the increase of cleanup events in the future.
- Help them plan and share their cleanup events.



Be Part of it: [Plan a Cleanup Event](#)

User-Friendly Web Application

- Easy to use tutorial.
- Export Reports.
- Download Images.
- Interactive tools.
- Responsive visualizations.
- Cloud deployment.

2015 2016 2017 2018 2019 2020

Event Date:

Beach Location:

Organization:

Show Events By:

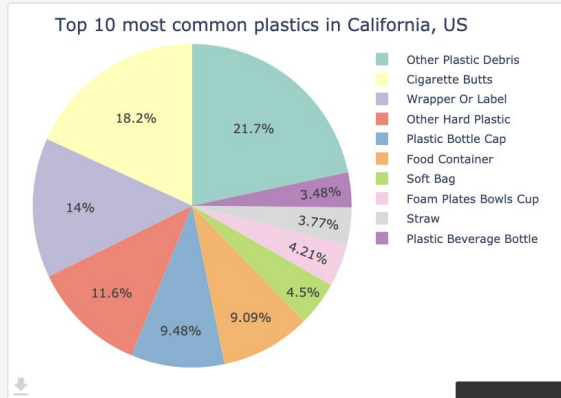
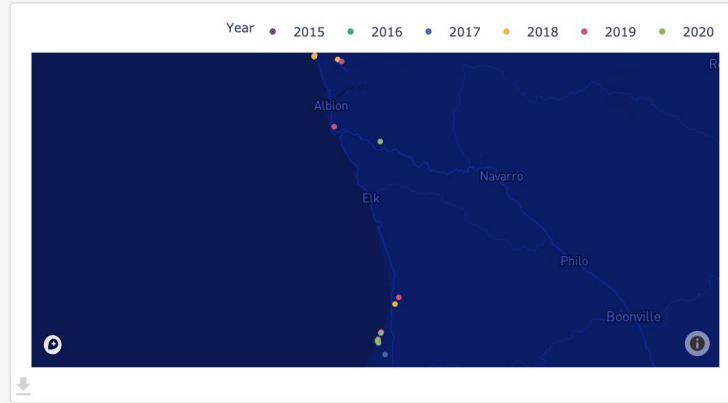
Number of Items Collected

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Beach

Total Volunteers	Number of Events	Total Items Recorded	Avg Meters Covered
390980	15581	4652116	942



Top Events Organization in this lo

Select which cleanups to view based on their date, location, and organisation!



Want to start your own cleanup?
Get started here.

oceanconservancy.org



Plan a Trip to the Beach: stay
healthy, prevent pollution

epa.gov



Hear from a Volunteer: I took
part in a beach clean-up and
this is what I learnt

blog.terracycle.com



[How We Can Keep Plastics Out
of Our Ocean - Video](#)

[National Geographic](#)

Ocean Plastics



A Twitter list by [@FatimaSaadeh993](#)
plastic pollution in the oceans



MarineDebrisTracker
[@DebrisTracker](#)



Together, we are building a bigger picture of plastic
pollution around the globe. Thank you for helping us
reach 3 million litter items recorded on Debris Tracker.
[#CitizenScience](#)



Nov 18, 2020



[MarineDebrisTracker](#) Retweeted



Heather Koldewey
[@HeatherKoldewey](#)

Hey little bottle, looks like you've been at sea for a
while! Wonder where you came from? Early morning
dog walk=data collection with new [@OneLessBTL](#) list
on [@DebrisTracker](#) [#citsci](#) [@2minbeachclean](#)
[@plasticfreepz](#) [@PlasticFreeMz](#)

Incorporate social media to increase awareness

<http://ocean-plastic-pollution.herokuapp.com/>