

# The Value of Citizen Science for Monitoring Marine Litter

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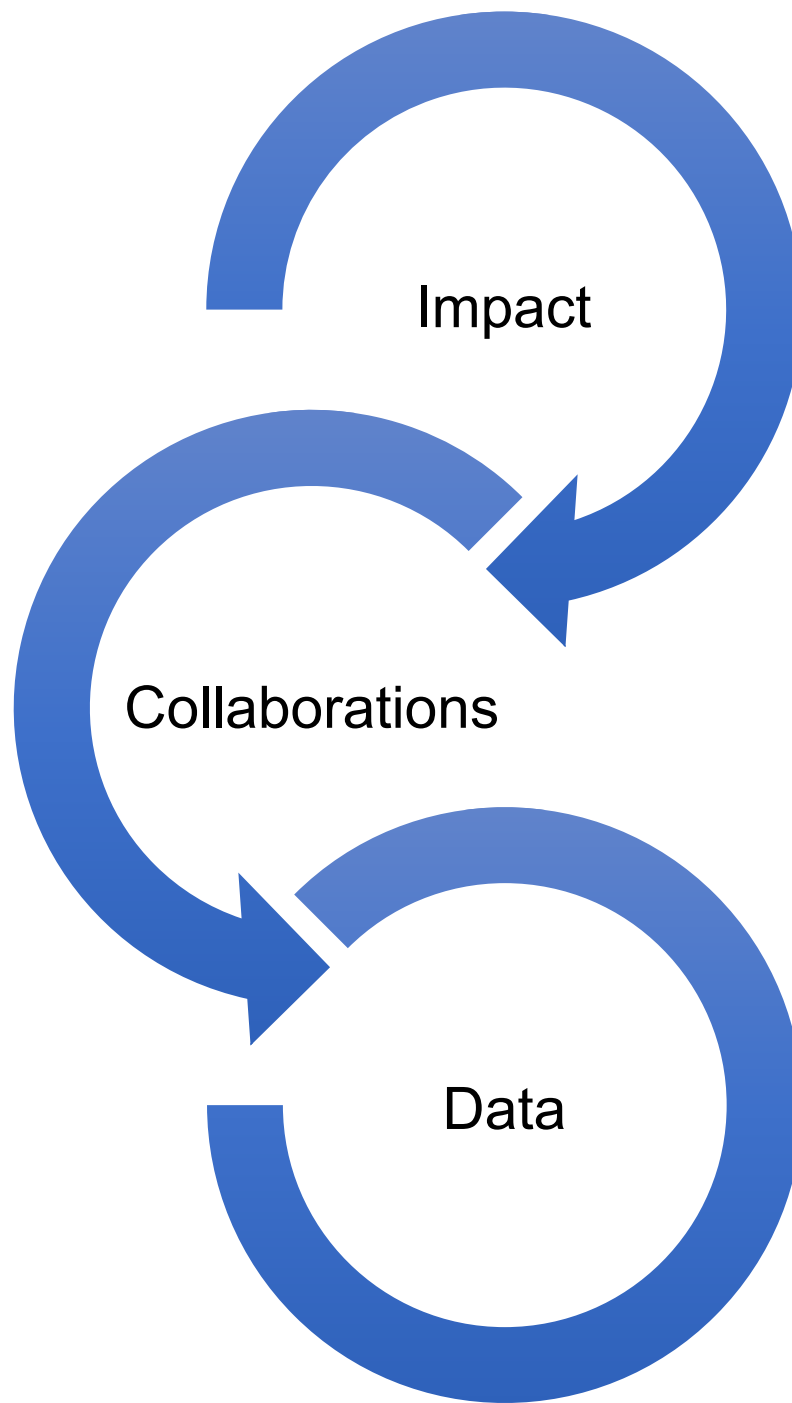
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# Citizen Science

Public involvement in scientific  
research!

# Citizen Science



# Citizen Science for Marine Litter

- Citizen science can expand our knowledge of the distribution of marine litter by increasing both temporal scales and spatial coverage, especially in remote areas
- The literature says citizen engagement in beach litter projects leads to positive behavioral change.

## 14.1.1 ... Floating Plastic Debris Density

Plastic debris washed/deposited on beaches or shorelines (beach litter)

Plastic debris in the water column

Plastic debris on the seafloor/seabed

Plastic ingested by biota (e.g. sea birds)

# Tangaroa Blue

**“Our mission is to reduce marine debris in our oceans  
But if all we do is clean-up,  
that’s all we’ll ever do!”**



# The Solution? The Australian Marine Debris Initiative



Beach & river clean-ups



Sorting debris



Data collection

Source Reduction Plans

We are Operation Clean Sweep® Australia partners.

## PREVENT PELLET LOSS

**Our goal is ZERO pellet loss**

- Contain spills
- Clean up swiftly & effectively
- Recycle or dispose of properly

**Operation Clean Sweep®**  
www.opcleansweep.org.au

AUSTRALIAN MARINE DEBRIS INITIATIVE  
VICTORIA DEPARTMENT



Track to the source



AMDI Database

AUSTRALIAN MARINE DEBRIS INITIATIVE

## Australian Marine Debris Database

The Australian Marine Debris Database was created to enable volunteers and organisations who were running beach cleanup events to also collect data on what they were finding with a consistent methodology so it could be collated into a standardised national database on marine debris.

Since 2004 more than 7 million pieces of data have been inputted into the Australian Marine Debris Database, creating a comprehensive overview of what amounts and types of marine debris are impacting beaches around the country.

[LEARN MORE](#)

Before submitting or accessing data, please be sure that you accept the data submission and data access open access policies.

### Submitting Data

The database has an open access policy enabling citizens, government agencies, communities and organisations to request data on marine debris in Australia for educational and research purposes. The data submitted is always owned by the contributor, however the Australian Marine Debris Database provides one place for all data to be housed, providing everyone involved in the marine debris issue one place to both access and submit data on marine debris.

[SUBMIT DATA](#)

### Data Access & Reporting

Our open access policy allows for a specific set of data reports to be generated for community groups, schools and partner organisations to assist in identifying marine debris trends and creating local source reduction plans.

# AMDI Statistics – 2004 - 2018

- 2,800 clean-up sites
- 118,000 volunteering opportunities
- 12 million items removed and recorded in the AMDI Database
- 250 source reduction plans implemented





# Dive Against Debris

**A year-round, underwater debris and data collection effort**

**Divers report on locations, types and quantities of litter**

**A training manual, a data card, a marine debris ID guide, and other support tools**

**Divers repeat the survey of their chosen dive site as often and as regularly as they can in order to help identify trends**

# Dive Against Debris

**Building evidence for **change****

**Empowering scuba divers to be agents of **change****

**Bringing **change** through strategic partnerships**

# Earth Challenge 2020

## Our Research Questions

As a global call to action, Earth Challenge 2020 can become a nexus for collecting and harmonizing one billion data points in any research areas that impact environmental and human health. At the same time, we identified a set of “core” research questions through a public call as practical opportunities for communities to converge around. We will work with our partners to refine these questions into actionable targets in Spring 2019.



What is in my drinking water?



How does air quality vary locally?



What are the local impacts of climate change?



How are insect populations changing?



What is the extent of plastics pollution?



Is my food supply sustainable?

# Key Points & Actions

- Assure the quality of the collected data: Clear protocols, training of volunteers, participation of professional scientists, and revision of samples and data
- Ensure standardized methods and quality control so that the data can legitimately be compared and used
- Project design
- Collaborations with NSOs and other stakeholders in the design phase



# Thank you!

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