

**NOAA's Marine Debris Monitoring and Assessment Project: Promoting Standardization and Citizen Science**

**NOAA's Marine Debris Monitoring and Assessment Project: La promoción de Normalización y Ciencia de los Ciudadanos**

**NOAA's Marine Debris Monitoring and Assessment Project: Promouvoir la normalisation et de citoyens de la science**

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**ABSTRACT**

Marine debris monitoring requires coordinated effort and commitment by the partners involved, and can reap great benefits. Monitoring data provide important information on the types and sources of debris and can identify targets for mitigation, evaluate the effectiveness of marine debris prevention and management efforts, and determine the impacts that debris is having on the environment. The Marine Debris Monitoring and Assessment Project (MDMAP) was initiated in 2012 by NOAA's Marine Debris Program to provide widely applicable and inexpensive monitoring protocols to partners, with the intention of promoting standardization of shoreline marine debris monitoring methods. MDMAP has grown considerably with 246 current shoreline monitoring sites and has morphed from a program originally targeting the research community to a broader citizen science initiative. A freely accessible online resource for existing and interested monitoring partners was developed in 2016 which houses a series of online tutorials, survey datasheets, a detailed user guide to the database, data analysis examples and templates, a marine debris photo-identification guide, and an online enrollment page. Marine debris shoreline monitoring is an effective way to engage volunteers in a rewarding citizen science experience while providing valuable scientific data. In fact, with the appropriate training, guidance, and support, it has been shown that volunteer citizen scientists collect marine debris data of a comparable quality to scientific researchers. The MDMAP network also provides tools and opportunities for outreach and raising awareness about marine debris issues, sharing the message that every individual can become a part of the solution.

**KEYWORDS:** marine debris, monitoring, citizen science, NOAA Marine Debris Program