

Seasonality of methane oxidation and deoxygenation in the water column in dynamic marine environments

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Introduction

Our oceans are flooded with mainly two types of pollution. Chemical or nutritional contamination is of concern for health, environmental, and economic reasons. This type of pollution occurs when human activity, especially the use of fertilizers on farms, causes chemicals to enter waterways and eventually into the ocean. Increased concentrations of chemicals such as nitrogen and phosphorus in coastal waters encourage the growth of algal blooms, which are toxic to wildlife and potentially harmful to humans. The negative health and environmental impacts of blue-green algae adversely affect local fisheries and tourism industries. Marine litter includes all products, most of which are made of plastic, that end up in the ocean. Litter, high winds and inadequate waste disposal all contribute to this accumulation of litter, 80% of which comes from land-based sources. Common types of marine debris include a variety of plastic items such as grocery bags and beverage bottles, cigarette butts, bottle caps, food wraps and fishing gear. Plastic waste is a particular problem as a pollutant because it is so durable. This garbage poses a danger to people and animals. Fish get caught in debris and get injured, and some animals mistake plastic bags for food and eat them. Small organisms eat small pieces of broken down plastic called microplastics and absorb chemicals from the plastic into their tissues.

Description

Micro-plastics are less than 5 mm in diameter and are found in a wide variety of marine organisms, including plankton and whales. When small organisms that consume microplastics are eaten by larger animals, toxic chemicals become part of their tissues. This is how microplastic pollution moves up the food chain and eventually becomes part of the food people eat. Solutions to marine pollution include prevention and cleanup. From shopping bags to shipping containers to plastic bottles, today's society is rife with single-use and single-use plastics. Changing how society uses plastic will be a long and economically difficult process. Also, some

products may not be cleaned. Many types of debris do not float, so they get lost in the depths of the ocean. Floating plastic tends to accumulate in large "patches" of ocean eddies. The Great Pacific Garbage Patch is one example of such a collection, whose size is not specified, but which covers an area of about 1.6 million square kilometers and contains plastics and microplastics on and below the surface of swirling ocean currents between California and Hawaii. Rather than islands of garbage, these specks are more like pepper speckles of microplastics swirling around sea soup, as the National Oceanic and Atmospheric Administration puts it. Even some promising solutions are not enough to tackle marine pollution. So-called "biodegradable" plastics often only decompose at temperatures higher than those ever reached in the ocean.

Conclusion

It has long been used as a deliberate dumping site for things. Recently, many countries have changed their policies to reflect the view that the oceans do not have infinite capacity to hold our waste. However, marine pollution remains a major problem, threatening marine life at all levels. Types of marine pollution can be classified into marine debris pollution, plastic pollution including microplastics, ocean acidification, nutrient pollution, toxins and underwater noise. Marine plastic pollution is a form of marine plastic pollution that comes in many sizes, from large raw materials such as bottles and bags to microplastics resulting from the fragmentation of plastic materials. Marine litter is primarily human litter that floats or floats in the ocean. Another problem is the runoff of nutrients (nitrogen and phosphorus) from intensive agriculture and the discharge of untreated or partially treated wastewater into rivers and then into the sea. These nitrogen and phosphorus nutrients (also found in fertilizers) stimulate the growth of phytoplankton and macroalgae and can lead to algal blooms (eutrophication) that are harmful to both humans and marine life. Overgrowth of algae can also suffocate sensitive reefs, compromising

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biodiversity and coral health.

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Conflict of Interest

The author declares there is no conflict of interest in publishing this article.

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