

Alright, the plastic problem. What an interesting echo-chamber of a question. This is one of the topics I see most discussed, and despite this, I never see any opposing viewpoint even mentioned. Is this, perhaps, because the opposition has a valid point? we shall see (or, rather, sea).

First off, the “Plastic is actually a major problem” side.

According to www.cleanwater.org, which is a wonderful site full of cited sources and statistics (more websites should do this, I laud them on their commitment to truth if nothing else), plastic



pollution in the ocean has a massive effect on marine birds, fish, whales, and basically everything with a flipper. They argue that the destruction of these species could result in a weakened, or potentially devastated ecosystem. They also make the argument that fish we eat commonly eat plastic and thus could be unsafe for human consumption. Similar, or even identical arguments are used by the sites conservation.org, biologicaldiversity.org (this particular one uses anti-corporate sentiments in their arguments - why is environmentalism so closely tied to socialism?!), and conserve-energy-future.com.

Now, for the opposition.



independant.co.uk accurately states that the vast majority of plastics, are, in fact, non-toxic. In fact, there is - according to the independent - not much scientific evidence that plastic accumulation in internal tissues is harmful to the animals, and I might bring up the point that it might not even matter if these species die - they don't contribute positively to climate change.

The quotes “There is considerable evidence to suggest that plastic particles are regularly released from the guts of organisms without negative effects — and note that researchers have tended to test for concentrations in considerably higher amounts than are found in the environment” stands out.

While larger pieces may strangle these creatures (which I do believe can be considered “harm”) the smaller micro-plastics that are ubiquitous may very well be harmless in even moderate quantities.

(Image: Cyanobacteria may produce more than 85% of the world's oxygen)

Now, to throw their points against one another.

The biggest conflict I see here is that the affirmative side claims that plastic can be toxic to animals whereas the negative side claims that the plastic ingested is some of the safest forms of plastic, and cannot be toxic. The most damning proof against the affirmative's side is the fact that most animals do eventually defecate the micro-plastic they consume, and those who don't manage to remove it appear to be relatively unaffected except in the notable case where they feel (full) because of the plastic they have eaten.

This is indeed a problem. However, the negative side could then point out that despite this massive infusion of plastic, most of the plastic ingestion does not lead to starvation and in fact even most conservation websites agree (<https://conserveturtles.org/information-sea-turtles-threats-marine-debris/> being one) that only around a million marine animals are killed each year by plastics. If we take into account how many species and undiscovered species of animal there are, this is a more than sustainable death rate. Furthermore, despite their suspicions, the affirmative side has a startling lack of evidence suggesting that micro-plastics have a harmful effect on humans, who, not having gills, may very well just defecate the plastics we eat.

Furthermore, plastics have nothing to do with climate change. Even environmental websites have to admit that they do not cause harm to plants (<https://www.fu-berlin.de/en/presse/informationen/wissenschaft/2017/201702/microplastics-soil.html>, <https://www.unenvironment.org/news-and-stories/story/plastic-planet-how-tiny-plastic-particles-are-polluting-our-soil>, <https://www.niva.no/en/news/microplastics-in-agricultural-soils-a-reason-to-worry>)

Do note how many of these say that, despite making dire warnings, the effects of plastic on plants is unknown. Only the german site admits that there may be no negative effects, and based on my own moderate quantity of knowledge on how plants use water (a simple chemical reaction to get carbon dioxide for photosynthesis) micro-plastics may well never adversely affect plants.

Side note: An interesting characteristic of many environmental websites is a conflation of emotional appeal, fear-mongering, and logical fallacies, which I find odd considering they have significant scientific backing, usually eliminating the need for such manipulation.

In short, while plastics are indeed killing an amount of marine life each year and plastic production is growing, there is little evidence that it harms humans and even less that it will be a major problem for most marine animals - the chances of it harming sea creatures appear to be low, even on conservation websites.

VERDICT: Status quo. This one entirely depends on whether or not you consider a million fish a year to be a major problem. Personally, I don't , but then again this isn't about my personal beliefs is it?

Sources:

Independant Article: <https://www.independent.co.uk/environment/plastic-oceans-pollution-microplastics-evidence-harm-recycling-dumping-waste-a8275416.html>

Cyanobacteria: <https://news.nationalgeographic.com/news/2004/06/source-of-half-earth-s-oxygen-gets-little-credit/>

Articles talking about the affects on wildlife: <https://metro.co.uk/2018/03/15/microplastic-can-harmful-7389101/>

<https://www.sciencedaily.com/releases/2008/01/080130092108.html>

Source on marine death count : <https://conserveturtles.org/information-sea-turtles-threats-marine-debris/>