

# Climate change drowned out by plastic

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Plastic pollution in the oceans has been garnering a lot of media attention of late. Politicians and decision-makers are making statements that plastic pollution is the number one threat facing our ocean. *National Geographic* recently ran a cover story titled “Planet or plastic”. Environmental nongovernmental organizations have been making similarly strong statements and have been calling for a ban on plastic straws through #stopsucking campaigns.

Plastic pollution is most certainly a threat to the oceans, and surveys of public perceptions of threats to the oceans generally score pollution as the greatest, followed by other impacts such as overfishing and habitat degradation, whereas the impact of climate change scores lower (Eddy, 2014; Lotze, Guest, O’Leary, Tuda, & Wallace, 2018). These perceptions run contrary to expert opinion that climate change and overfishing are the greatest threats to the oceans (Eddy, 2014). Additionally, the recently released *The Global Risks Report* lists the top two global risks to society as extreme weather events (floods, storms) and failure of climate change mitigation and adaptation (World Economic Forum, 2019).

There has been debate among scientists whether campaigns such as #stopsucking undermine awareness about, and action for, climate change. Some suggest that increasing any type of environmental awareness and action is a step in the right direction and can foster further action. Others suggest that people have a limited capacity for environmental issues, and fear that individuals who perceive plastic pollution as the biggest threat, and subsequently refuse plastic straws, might feel like they do enough for the planet. A problem with solving climate change is that it requires collective, institutional changes to make meaningful impacts—through carbon taxes and transitioning to renewable power grids. It has proven difficult to communicate the impacts of climate change in a way that can inspire collective action in many Western nations, and presently the greatest reduction in global carbon intensity is attributed to China’s reduction in coal consumption. Ironically, two thirds of plastics entering the oceans from rivers are estimated to originate from 20 rivers, most of which are Asian (Lebreton et al., 2017).

As scientists, we need to collectively and consistently communicate the greatest threats to our oceans to close the knowledge gap.

Recent research suggests that the strongest factor motivating climate change adaptation behaviour is the perception of whether others are engaging in adaptive actions (van Valkengoed & Steg, 2019). This research suggests that if climate change was perceived as the greatest threat and society demanded policies and infrastructure to transition to renewable energy, individuals would follow, much as they have by refusing plastic straws. The challenge that remains is how to make the public aware that climate change is the greatest threat to the oceans. It is clear that the scientific community needs to experiment with new forms of science communication and engage organizations who specialize in this field, as efforts to date have produced a mismatch between expert and public perceptions.

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