



The scourge of single-use plastic

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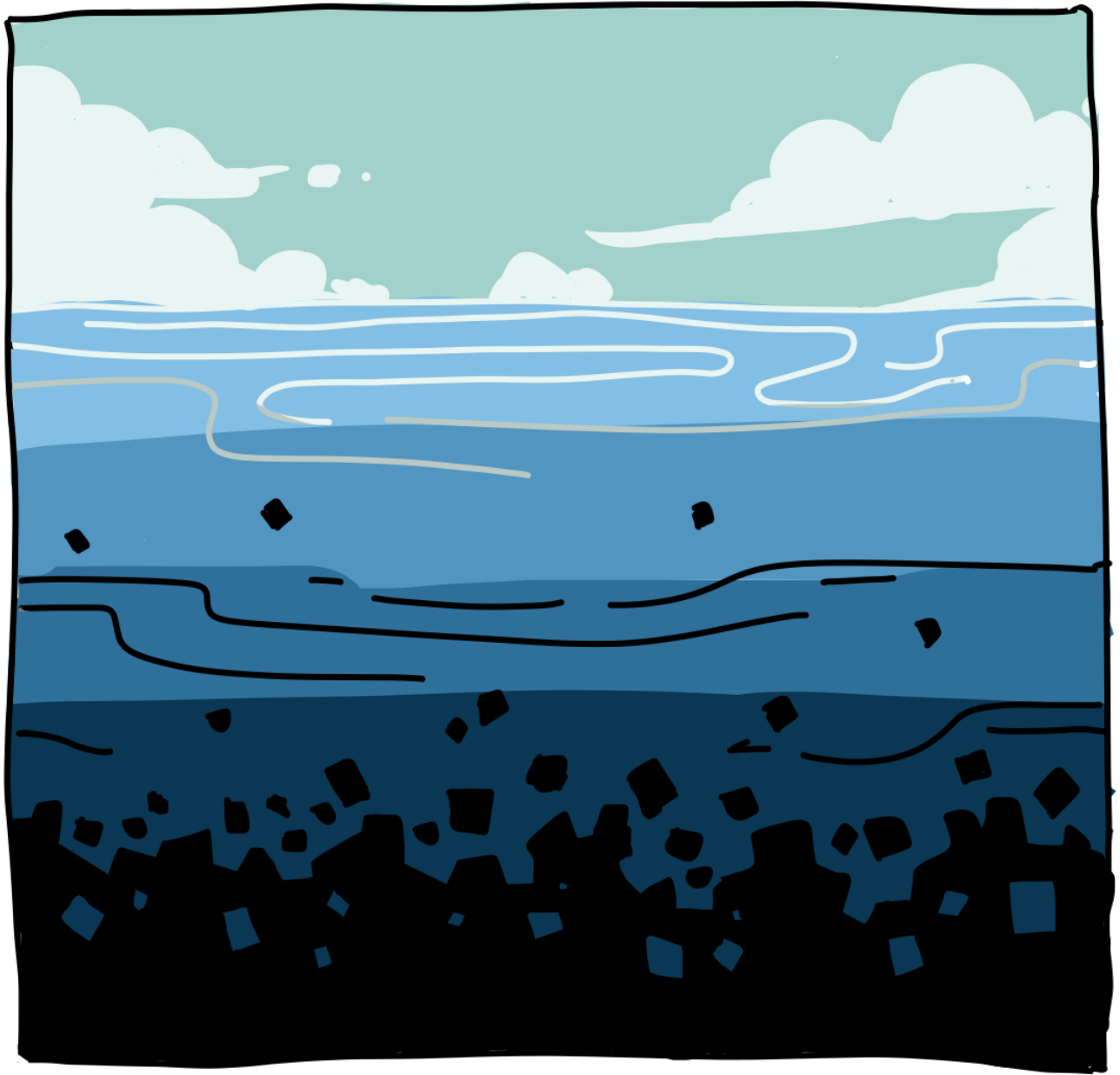


Illustration by Tanuj Ash Kumar

“Single-use” is the Collins Dictionary 2018 word of the year. Scientists have predicted that by 2050 there will be more plastic than fish in the oceans. Disturbing

problem. Citizens, politicians and public relations firms are talking about and realizing that our global dependence on single-use plastic is unsustainable. But how serious is this issue, and are we collectively doing anything significant to reduce our dependence on a material that is poisoning our planet?

For decades, single-use plastic has been a cheap, attractive, and omnipresent material seen as an indispensable part of our day-to-day lives. It packages almost every grocery item, takeout food, daily coffee, and retail purchase. But recently, public opinion has shifted drastically against this material. As people become more aware of the disastrous consequences of our love affair with single-use plastic, it is all too clear that this unsustainable habit must stop.

Over 330 million metric tons of plastic are produced annually around the world, despite our lack of infrastructure to process this amount of waste material. Most single-use plastic is not recycled, so most of our plastic waste enters the landfill, or worse, the ocean. Roughly eight million tons of plastic enters our oceans annually with disastrous consequences for the health of the ecosystem. The Great Pacific Garbage Patch, a massive floating island of plastic, has grown to an area that could cover France three times over. Every shore in the world is littered with plastic garbage. Over one million seabirds and over 100,000 aquatic mammals are killed annually because of plastic entanglement or consumption.

More alarmingly, plastics do not biodegrade; they instead become secondary microplastics, plastics that are broken down by light into small, sometimes microscopic pieces, but that never fully biodegrade. These microplastics permeate every surface of the planet. They enter low on the food chain when they are mistaken for krill and phytoplankton by fish, corals, sea-mammals, and birds. As the low-level consumers are eaten by larger fish, who are in turn eaten by bigger and bigger predators, the amounts of plastic biomagnify, reaching dangerous levels in top predators. As we view the catastrophic effects of plastic on aquatic ecosystems, we can only wonder how microplastics are affecting our own health. Recent studies have found that we are consuming significant amounts of

change.

Many countries around the world have taken action to reduce or halt the manufacturing and distributing of single-use plastic items. The European Union has committed to phasing out throwaway plastic including single-use cutlery, cotton buds, straws, stir-sticks, balloon sticks and plates by the year 2021. So far, 32 countries around the world have implemented some form of bans on plastic. Nearly half of these countries are African, where harsh penalties have been put in place. For example, in Kenya, anyone found using, producing, or selling plastic bags can face up to 4 years in prison or a 38,000 dollar fine. While this seems drastic, in recent years Kenya has become overrun with plastic bags which have clogged their waterways, often causing serious flooding and providing breeding grounds for mosquitos, resulting in serious malaria outbreaks. Other countries, such as India, implemented a ban on plastic bags as early as 2002, as cows had been dying from plastic ingestion. China followed suit in 2008, banning plastic bags, a measure which has reduced plastic bag waste in China by 60 to 80 percent. Ironically, during the time China imposed the ban on its own citizens' use of plastic bags, the country was taking in half of the world's plastic waste. In January 2018, when China announced it would no longer be the world's dumping ground, few countries were ready to recycle their plastic waste material locally. Most of the stockpiled waste is predicted to go to landfills and incineration plants and several million tons will likely reach the world's oceans.

A few progressive Canadian cities such as Montreal and Victoria have banned some single-use plastic such as bags and straws; other cities and provinces have proposed similar legislation. On a national level, we are lagging behind many other developed countries and are not meeting our global commitment to ocean health. A few federal initiatives have made some small changes, such as a ban on microbeads in January 2018 after the beads were officially declared toxic. Catherine McKenna, Minister of Environment and Climate Change, said during a recent news conference: "We can't just be talking about what everyone else needs to do. We need to be taking action." Although intentions seem good, thus far, Canada

must take more concrete steps to tackle this issue on a federal level: if microbeads can be declared toxic, so can plastic in general.

Public pressure has convinced some firms to commit to reducing their plastic waste. For example, Ikea will stop using and selling single-use plastic products such as straws, plates, cups, freezer bags, garbage bags and plastic-coated paper plates and cups by 2020. Companies such as Coca-Cola, PepsiCo, Nestle, and Evian will use only recycled plastics by 2025. Greenpeace ocean campaigner Emily Hunter warns against this “industry-led false solution” for “tackling the scourge of plastic pollution in our oceans.” Using recycled plastic will not prevent the end product, from making its way to the ocean. A better solution would be to use another material altogether. Plastic pollution has become such an unmanageable problem that many experts believe that responsible plastic management should be legislated. Mark Butler, the director of Halifax-based Ecology Action Centre, says, “Voluntary is great, but we need mandatory [action],” further stating that “if it can’t be recycled, we shouldn’t be using it.”

What can the average person do to tackle this seemingly insurmountable problem? As discouraging as the statistics may be, there are small actions we can all take to significantly reduce individual plastic use while waiting for slow-acting legislative change. Simple things such as bringing your own shopping bag, packing reusable containers for lunch and beverages, and requesting no straw, cutlery, etc. when ordering will make a small difference but will send a powerful message. If enough people refuse single-use plastic, other individuals and businesses will see that consumers are willing to prioritize the environment over a little convenience.

Government action is crucial: there must be a shift in how governments view corporate responsibility to reduce waste. If many companies have already reduced their dependence on plastic, it will be easier for government to legislate change. Putting pressure on businesses and governments does not require a great deal of time. A ten-minute email or, better yet, a phone call to your city councilor,



Though slow-acting, the political system can work if its citizens see themselves as agents of change and refuse to be apathetic. The next time you are asked if you would you like a plastic bag, think about the fossil fuels used to produce a bag as well as the decades it will take for each bag to break down into toxic microplastics that will enter and never leave the food web.



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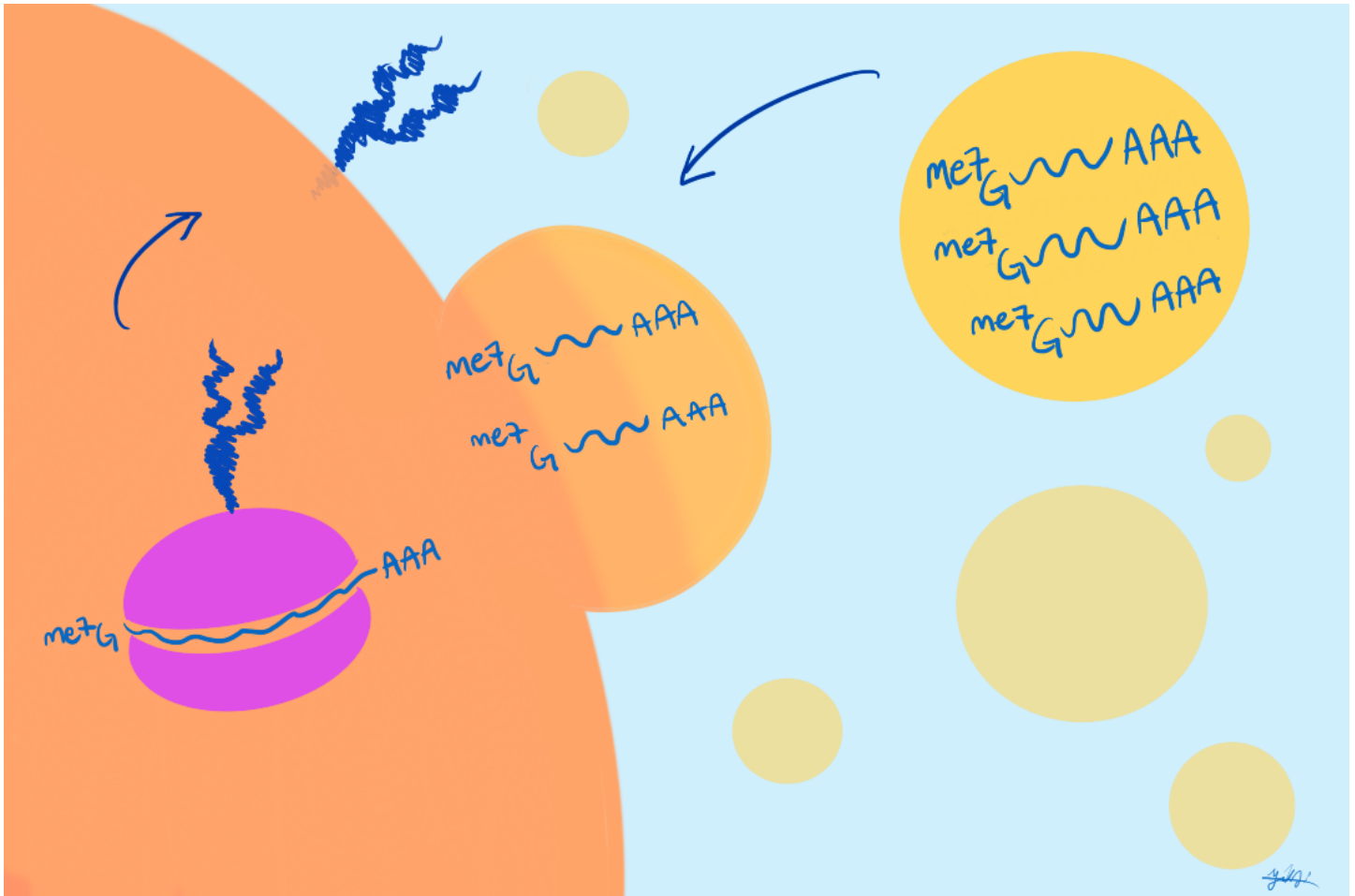
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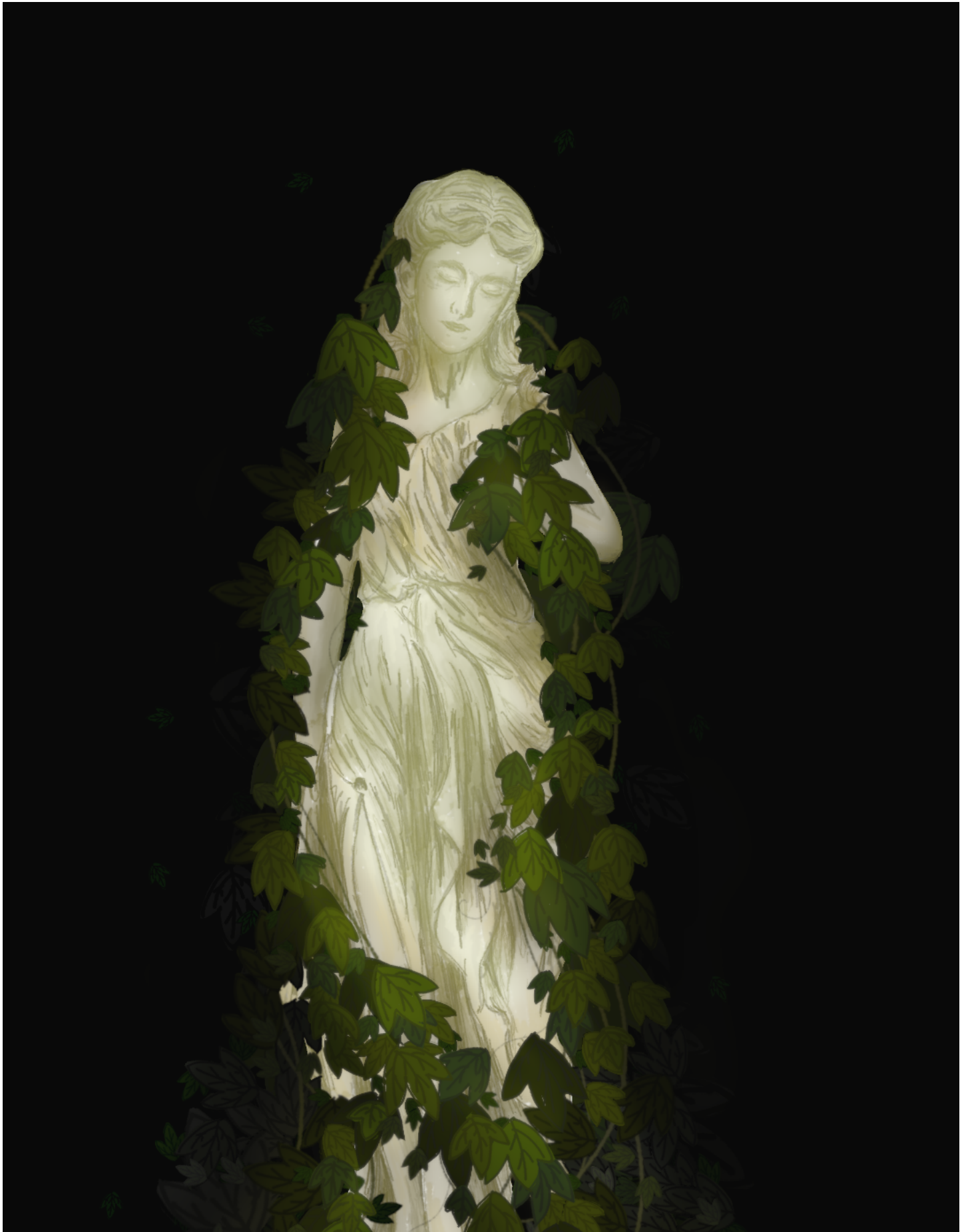
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