Publication: Skyways
Date: 01 Jun 2016
Page: 54

Not waving but drowning

With World Oceans Day on 8 June, it's time to take stock of our seas

With the oceans being the least explored part of Earth (only 5% has been explored), thinking that they have largely escaped the ravages of humanity is almost logical.

Marine pollution is a huge concern from a biodiversity and ecological standpoint

With so little being known about our oceans, scientists believe they offer almost immeasurable resources for the planet. From undiscovered medicines to developing marine resources as a sustainable food source, we cannot afford to overlook what the oceans offer us.

But we do.

Our oceans are as imperilled as other wilderness. We often only consider the state of them when faced with massive industrial accidents, but we endanger our oceans on a daily basis.

Product peril

The US recently took action against a product that millions have been using since the 1970s. Microbeads, the tiny plastic balls or exfoliants contained in products like facial scrubs and toothpastes, were banned in a law passed in December 2015. The law, effective from July 2017, is the culmination of years of activism by scientists. In 2012, scientists proved that these tiny plastic particles were finding their way into the waterways of North America and moving up aquatic food chains.

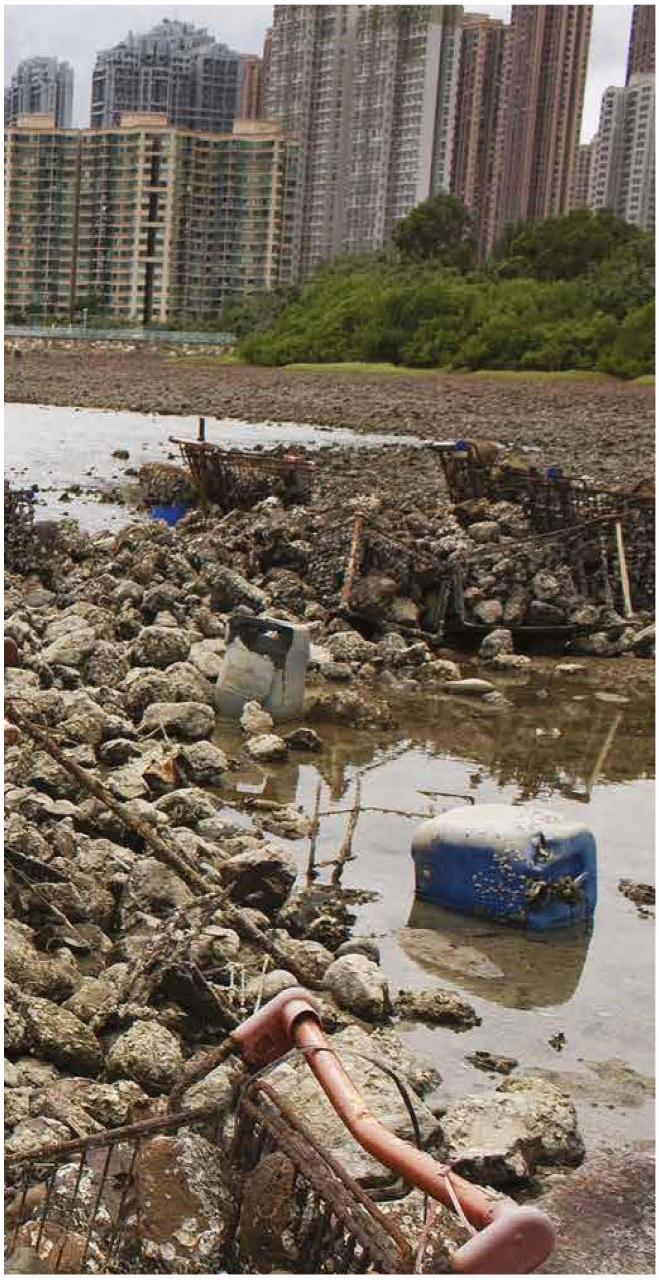
Research showed that microbeads, which fish mistake for food, were not only a danger to marine life, but alsovto humans. The pellets sometimes harbour dangerous chemicals that can cause problems in our food supply. There is growing concern that deep sea mining may pose a huge threat to ocean environments. Multinational companies have explored opportunities to mine in deep ocean areas, but environmentalists argue that it is impossible to know the extent of the impact massive disruptions of the ocean bed could have.

Large-scale contamination

According to a report from the World Wildlife Fund (WWF), more than 80% of ocean pollution comes from land-based sources. Together with microbeads, other sources of ocean pollution include pesticides, insecticides, chemicals and radioactive waste that make their way into our oceans. While pesticides and chemicals are clearly dangerous, even the most seemingly innocuous products end up being pollutants.

'Non-point sources of pollution' – a harmless-sounding scientific term – refers to micro-sources of

Publication: Skyways
Date: 01 Jun 2016
Page: 55



contamination: vehicles (even the drops of oil deposited on roads), septic tanks, movement of land on farms, and so on. All these 'non-point sources' make their way into rivers, lakes and oceans. Sewage is also a major problem, especially where large populations live around waterways. The WWF report estimates that 80% of urban sewage discharged into the Mediterranean is untreated.

Brunt of the litter

World Ocean Review cites a 1997 report by the National Academy of Sciences in the USA that estimates around 6.4 million tonnes of litter enter the world's oceans annually. It is estimated that in Indonesia, the coastal waters comprised four items of debris per square metre.

A study that mapped the total human impact on the seas revealed that the effect humans have on oceans is far worse than the scientists imagined. According to the study, 40% of the world's oceans have been negatively affected by human activities, including fishing, coastal development and pollution from shipping.

There are also studies looking into the premise that a form of bone marrow cancer – multiple myeloma – in humans is linked to ocean contamination. There are even reports claiming that fish should no longer automatically be considered a healthy food source, as toxic contaminant build-up in the food chain has started affecting dietary toxicity.

Possible solutions

As seen with the microbead legislation, there is some progress, however slow, being made. In February 2016, South African Environmental Affairs Minister Edna Molewa published draft notices and regulations in the *Government Gazette* to declare a network of 22 proposed Marine Protected Areas (MPAs) as part of Operation Phakisa. The network will create about 70,000km^2 of protected marine area, protecting off-shore ecosystems, marine biodiversity and fisheries management.

In SA, several organisations also lobby and run conservation programmes. The Endangered Wildlife Trust's (EWT) Source to Sea Programme is one such initiative. The programme emerged in the 1990s with a project to monitor the status of humpback dolphins, a threatened species negatively affected by shark nets off the KwaZulu-Natal coast. Interactions with specialists, government and NGOs have revealed an increasing number of impacts negatively affecting oceans and coastlines in southern Africa. Since 2006, the programme has redefined its objectives and been working to develop a comprehensive programme to tackle some threats and promote healthy marine and coastal ecosystems.

Bridget Corrigan, EWT's Source to Sea Programme Manager, says: "Marine pollution is a huge concern from a biodiversity and ecological standpoint as well as from a human health aspect. Oceans are not dumping grounds and we cannot consider dilution to be a solution. Eventually, our waste will catch up with us and make it impossible to ignore."

Proceeds from the sale of EWT Relate Bracelets support not only conservation causes, but also seniors in impoverished communities who supplement their pensions by threading the beads. The EWT Relate Bracelet is available online at www.relate.org.za/shop and www.ewtshop.co.za

Text | **Supplied** Photography | **Shutterstock**