

Greening the Blue

The Price of Convenience is Too High

and Our Oceans are Paying for It!

By Jessica Llod-Mostyn

Living on a boat certainly makes you more aware of the environmental impact that you have. A considerable benefit is that you have a chance to look at things, question them, and engage on a different level than when on land. We consider everything that we produce and consume, plus harness the power of the elements. The wind being the main source of propulsion is bound to open up a sailor's eyes to alternative power sources.

Both solar panels and wind turbines are fairly standard on long-distance sailing yachts. However, there are still plenty of boats that prefer to run generators, particularly those with freezers, watermakers, or power-hungry electronics.



On our boat we have a fridge, no generator, and a finite supply of fresh water, more out of a desire to keep things simple and our budget down than for any ecological reasons. However, the years at sea have been educating us in the reality of our impact on the planet. I say “educating” because, as with everything about sailing, the learning process is continual as we muddle our way through how best to manage our life in this new environment.

We live at anchor rather than in marinas; we use a wind vane rather than an autopilot; we conserve our water and power as much as we can and try to create as little waste as possible. By coping with being on board we have inadvertently developed an ethos towards our sailing existence. However, we

The problem is everywhere, even island paradises like Fiji now have beach rubbish.



The “Great North Pacific Garbage Patch” washes rubbish onto the beaches of Laysan Island, Hawaii.
– Susan White, US Fish and Wildlife Service

discovered that we had a huge number of questions about what behaviour is ok. Are there some types of packaging that are reasonable to throw overboard? If common sense tells you that you mustn’t ever throw plastics over what does it tell you about glass bottles, tin cans, or paper?

One of our challenges in terms of thinking greener was devising a strategy for long passages at sea. So far we’ve crossed both the Atlantic and the Pacific oceans, taking 21 days and 26 days, respectively. For both we had more people on board than usual. More people and a long time at sea means that you consume and produce a lot before you reach your next port. Living mostly at anchor taught us to reduce our non-biodegradable waste as we simply had nowhere to store it. It forced us to separate our rubbish



and keep different containers for recycling, dramatically reducing the small amount of regular trash. We keep a “chum” bucket for food scraps easily tossed overboard when underway. At anchor we prefer to find somewhere ashore where it’s used as compost or feeding pigs.

Rubbish on a once pristine Indonesian beach.

Responsibly disposing of refuse and recycling once reaching the shore can really be tricky. The tiny island of Niue even made glass bottles illegal as they rely on a boat from New Zealand to remove their cans but there’s no provision to take bottles. The ban means that visitors by boat must wait until Tonga to recycle their glass. World cruising means visiting small islands with

no infrastructure for responsible waste management. In Bocas del Toro, Panama, every island was dependent on one mainland rubbish dump that simply locked its gates forever one day, when it got full. Then there are communities where locals drop the trash in their own backyards and beaches, only to watch the next wave or high tide bring it all back. Back when packaging was all biodegradable there would have been no problem. A generation ago we packaged our products in glass, metal, or paper. Now both the packaging and the items within are part of a throwaway mentality that is ruining every beach and overwhelming every landfill.

My husband and I also faced another issue: we were having a baby. One of the things we had to have a strategy for was what to do about her nappies. We had no plans to stop sailing once the baby was born, already planning our next ocean crossing with her. Even if we had wanted to use disposables what would we do about the bags full of dirty diapers building up after 20 or 30 days at sea? Cloth nappies might work fine when we’re safely moored in a marina and have water on tap but would it prove to be too great a challenge to cope with when out sailing with a finite water supply?

I found my knowledge somewhat lacking so I started to research more about the problem. The core of the crisis with rubbish both in our oceans and on land is plastic. Glass, metal, and paper can be far more easily recycled. The throwaway nature of plastic packaging engenders carelessness about what happens once it leaves our hands. Expendability doesn’t change the fact that the plastic itself is made to last forever. The vast majority of plastics are blown into the water or are dumped into the ocean after rainfall. Only 5% of plastics that we produce are recovered and recycled; 50% of them are buried in landfill; the other 45% is lost in the environment and washes out to sea. Plastic bottles, bags, food wrappers, and containers are now strewn throughout our oceans—and all of these are single-use items.



This has become a too common sight. A sea turtle trying to eat a plastic bag.

A tiny styrofoam particle is one of the biggest problems of marine debris.



More plastic trash on what was once a beautiful beach in Panama.



Only a small percentage of ocean plastics, around 20%, float on the sea surface. The other 80% appear at various depths throughout the water, coming to rest on the sea floor, being trapped in polar ice, or eaten by animals. Plastic rings from 6-pack fizzy-drink or beer cans cause entrapment and entanglement, leading to deformity, malnourishment, or death in marine animals. Seabirds tangled up in fishing lines, fishing nets, or plastic packing straps can’t move properly through the water, catch prey, or avoid predators. Plastic bags, balloons, bits of rubber flip-flops, even used condoms confuse animals as they look like fish or jellyfish.

The plastics that float become broken down further by sunlight and wave action. They get smaller but they never completely disappear. There are large systems of ocean currents that combine with prevailing winds that form slowly revolving whirlpools called “gyres.” The most studied is the one known as the “Great North Pacific Garbage Patch” because of



Being out on the water makes you more aware of just how important the elements are.

cap into the water. When smashed, a glass bottle will eventually become sand but that process takes thousands of years. The bottle cap will take a mere 300 years to breakdown, but is more likely to get swallowed up by an ocean creature in the meantime. When global sailing you find clusters of boats anywhere near a

the sheer volume of tiny plastic particles amassed there creating a plastic soup. Some are as small as a grain of rice, but are the degraded fragments of plastic bottles, bags, toys, and food containers.

The smaller the pieces are, the easier it is for them to be mistakenly consumed by marine life. The result of which is toxicity, blockages, dehydration, starvation, and death. Plastic particles are found throughout the food chain; from tiny shrimps, mussels, or fish, to birds, turtles, seals, dolphins, and whales. In one area of ocean the ratio of the presence of these “microplastics” to that of plankton was 6 to 1 in 2001. The same area was tested again in 2009 with a result of 36 to 1. If plastic is outnumbering the plankton then it’s no surprise that it’s building up in the animals that eat it, leaching chemicals into the fish and those who eat the fish—us.

How are these figures relevant to the average sailor? I’ve known several sailors who smoke and think nothing of tossing their cigarette butts into the sea. Cigarette butts are composed of cellulose acetate, another form of plastic that gets eaten by sea life. If not eaten whole, each cigarette butt takes around 10 years to biodegrade. Other cruisers drink bottled beer and chuck both the bottle and

supermarket, where cruisers are seen lugging countless plastic bags. In a bin or in landfill the slightest gust of wind can send these bags dancing out into the water. If you ignore their 50-year lifespan or animals trying to eat them, surely there’s the selfish concern that the bag could get wrapped around a propeller or sucked up into the engine strainer?

Even the eco-minded road has its problems. Instead of a normal rubbish bag we purchased a biodegradable trash bag, made from a cornstarch derivative that causes the bag to breakdown, but it’s still plastic. Not only can that bag still blow from landfill into the ocean to decompose, obstruct a propeller, or be eaten by a passing sea turtle, it will still take years to disappear entirely.

There are products that many would probably never even considered might contain plastic, like a tube of exfoliating face wash or any toothpaste containing whitening “microbeads.” A microbead is simply a teeny-tiny piece of plastic that, once you wash your face or brush your teeth with products containing them, go straight down the sink and into our waterways. A single tube of face wash can contain 330,000 of these microbeads. That means billions of “microplastics” are

The islanders are the most affected by the huge amounts of plastic that civilization has tossed into the sea. They have started the battle. Now it’s time for the cruisers to join in the fight!



being introduced into our oceans every day.

Sometimes it takes reading awful examples like these to force us to change. My family lives on the ocean and I want to take care of it for my daughter and the generations to come. However, even for us, with our solar panels, our wind turbine, and our general eco-friendly attitude, it means making adjustments to our lifestyle.

These changes, however, can be small, really small. By limiting single-use plastics in our everyday lives and disposing of these items properly we can reduce the amount of plastic waste entering the ocean—things like straws, coffee cups, plastic food wrap, balloons, plastic razors, toothbrushes, and of course plastic bottles. The same is true of bringing your own shopping bags with you to the supermarket when you’re provisioning. More and more supermarkets are trying to push things in the right direction by charging you for plastic bags at the checkout. Just recently California issued a state-wide ban on single-use plastic bags at supermarkets, grocery, and convenience stores.

As for bottled water, it’s a cheap and easy option to just buy one nice bottle or canteen and keep refilling it with tap water. In Australia, over 30 million plastic toothbrushes are used and disposed of in landfill, amounting to 1000 tons each year. But you can use a bamboo toothbrush with recyclable nylon bristles, which is easy to find online and cheap. A straight razor or safety razor may well still have plastic components but they can be used for decades and the metal blades recycled. A choice like that can save you a fortune as well.

Remember our dilemma about nappies? After some research we found a design that uses a pant with either a small cloth insert to launder or a cellulose-based biodegradable insert that can be flushed, composted or tossed to eventually breakdown completely. Plus, we made the effort to source a good eco-friendly detergent that’s gentle on the oceans for when we’re washing the cloth ones.

As a cruiser, I consider us to be the true guardians of the oceans, lakes, and waterways. This also puts us in a unique position to be leaders in water protection. There are an estimated 18,000 pieces of plastic in every square kilometer of ocean. Bans, fees, recycling, and product redesign are all good ways to move forward, but nothing can single-handedly correct what has already been done. The biggest impact will come from stopping the massive amounts of plastic litter before it travels over land and into our oceans.

Pollution takes what is marvellous out of the water. All the things that we love and enjoy about it—sailing, swimming, snorkeling—become somehow less complete, less inspiring. You may feel that it’s more convenient to pack your groceries in the bags they have at the store, buy the bottle of water while you’re out and about, or use the take away coffee cup as you’re in a hurry. But truly, the price of that convenience is too high and our remarkable

The battle is not over yet, and we can win this one. Cruisers are our frontline!

Snorkelling in clean ocean waters is one of the many joys of life on the water.

