

The Mizzen



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The Mizzen's Paradigm: consent, diversity, accuracy, guality, student perspective, representing ourselves, our peers, and the people and places we visit with respect.

The Mario Kart Tournament

Eric S.

With the release of Mario Kart on the Super Nintendo Entertainment System (SNES) in 1992, the video game industry was transformed forever. Players can choose from Mario, Wario, Yoshi, Peach, Bowser or another loveable character and race in a grand prix or battle match. Due to its popularity, new editions have been released for many gaming platforms since the SNES.



On February 27th, which was the midpoint of the Atlantic crossing from Bermuda to the Azores, students and faculty enjoyed a rest day. In advance, a twoperson committee began planning a Mario Kart tournament. Posters were placed around the ship advertising the event (some posters even taunted David Green and his alleged video game skills) and encouraged ship wide participation. The event took place in the "stadium" (galley), using the projector screen, 2 Nintendo Switches, and 4 controllers. In addition to each racetrack's challenges, players also battled adverse environmental conditions while trying to secure their spot in the semi-finals. The ship was battered by large waves and 50 knots of wind, with gusts reaching 65 knots. During the first match, competitors braced themselves as the ship rolled violently, pots and pans clanged in the dish-pit, and the central ceramic and cutlery cabinet dislodged and slid into the stadium. Congratulations Sam for winning the tournament. Thank you Sebastien for creating the event schedule and for providing the game system and controllers for this uplifting community building event.

BIOS

Rafferty

On February 16th, students participated in an optional afternoon at the Bermuda Institute of Ocean Sciences (BIOS). BIOS researches and monitors the marine organisms surrounding the Bermudian coast. The students first visited Cooper's Island, which is a protected zone, to collect and remove washed up garbage and micro-plastics, and to eliminate invasive plant species. Previously, scientists in Bermuda introduced kiskadee to combat the overgrowth of scale. However, kiskadee became dominant and started to crowd out native species. It was devastating to witness the volume of micro-plastics that washed ashore from all over the world. After the invasives were combated and the debris was gathered, we made a guick stop for lunch and a swim.

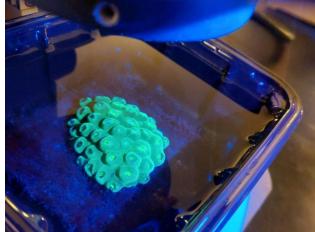


Image by Liv

After arriving back at the research center, we focused on learning about the coral surrounding Bermuda. Bermuda's waters are unique as the large fluctuations in temperature prohibits many marine organisms such as zooplankton and phytoplankton from surviving in abundance. This is why Bermuda's waters appear crystal clear. The coral present in Bermuda is also different since it can withstand such temperature changes. We observed the coral researchers had grown in their labs. They had two species present: star coral and brain coral. We were also given samples of various types of zoo plankton and phytoplankton stilled in formaldehyde to observe. As several students are interested in pursuing careers in marine biology, it was exhilarating to gain new academic knowledge and then observe it in nature. This high interest experience provided a glimpse into being a student at BIOS and the marine biology stream. The lecturing professor was very informative and discussed the summer programs and scholarships that the institute offers to students. This afternoon excursion was an educational and enjoyable experience for students and faculty.

Life as We Know It

Rohan Egan

Visible light from the external world passes through your eyes and is interpreted in the visual cortex for the first time as you open and blink. Young, bright, and curious. When you didn't worry about the shortage of your remaining time as it appeared infinite. When you didn't worry about your parents or pets getting older. Life just unfolded in a pleasant manner. You were a child guided by your imagination, unable to fully comprehend your own existence. Then time starts to tick; its rate exponentially increases. It's a race, where each week is a lap of the track and you're excited to get to the finish line. As you rest, you start to think about how you could have improved your performance. You feel like you have so much potential, except your inert. A broken clock, frozen, unable to progress. You visualize other clocks and see their hands move on and on. The distance from your childhood memories increases and you hope to have a few more highlights here and there. You begin to reflect more and try to understand why the development of your capabilities slowed. You start to do things that motivate you, the type of things that you're passionate about. You stop letting the people around you influence you in an inauthentic way. You step out of the mundane. You step out of your comfort zone. Your awareness of yourself and the present moment grows. The world where you perish begins to have more purpose within the depths of nothingness. Others' perceptions of you become less cumbersome as your inward strength increases. You feel more secure as you begin to reach some of life's innumerable finish lines again. You begin to cherish the journey and look forward to the next section of your lifelong adventure.

The "New Kid" Survival Guide

Maya Schutz

"Maya, wake up. It's 1:55 a.m. You have Watch in five minutes." I stumble out of bed to find my roommate also awake. Having difficulty waking up for night Watch is not a new kid phenomenon; it's universal for teenagers. With a raincoat in one hand and shoes in the other, we dash out the door and up the stairs. You're still in your PJ shorts; those won't do in 5° Celsius weather. You run back to switch them. Don't forget the 2 a.m. snack. Snag a piece of toast or two. Putting on your harness and sliding in just on time for roll call may motivate you to grab extra sustenance prior to the next night Watch.

Class Afloat is a transformative experience. Who knew we were capable of doing so much in 24 hours. Arriving at the start of the 2^{nd} term when everyone already knew the "ropes" required rapid adjustments. I didn't want to be the new kid forever. Here's my 6 rules for success:

- <u>Crucial: do NOT wake up your roommates</u> when going to night Watch. Four irritable and sleep deprived teenagers in one room will not end well. Your roommates will look after you if you look after them. Find opportunities to support them.
- Your Mom is not there to remind you to clean up after yourself. One hand for the ship and one hand for yourself. If you take care of the ship, it will take care of you. It's everyone's responsibility to clean, whether it's rinsing dishes, organizing your room, or doing backshaft properly. If you don't, you will be put in the pillory.
- 3. <u>Go on deck whenever possible.</u> Don't be consumed by the stress of assignments and homework. There's an ocean full of wonder and mystery outside. Climbing the rigging to the Royal provides an opportunity for reflection. If you look closely, you can see Earth's curvature.
- Embrace night Watches. They create great memories. You can see stars, constellations, and consider whether another universe exists while you steer. The best conversations are had from 2 – 4 a.m. while peeling potatoes.
- <u>Hide your snacks.</u> One package of cookies will vanish in 30 seconds if they are exposed. Vultures circle overhead constantly. One crinkle and "you're done."
- <u>Avoid hibernation mode</u> and socialize. The best memories are from chatting in the mess instead of hiding in my bunk. New friendships, languages, card games, and skills like ukelele will be acquired.

Bermuda

Mila Trager

Congratulations: you're sitting in first class, but the plane is going to crash.

In Bermuda, an island with a heavy weighing history, our guides Liana and Ajala raised our consciousness of the powerful black protests and resistance movements of the past decades. They passionately spoke about the insurrections of the 1600s, the Poison Plots of the 1700s, and other grand historic events like the 1959 Theatre Boycott and the 1965 BELCO uprising.

It is not only important to educate ourselves about the historical facts, but to consider how these atrocities relate to us. Whiteness is a concept that did not exist until 500 years ago; it was invented to consolidate Europeans along class lines and to distinguish themselves from enslaved non-whites as part of the capitalist system based on chattel labour. Even though slavery was abolished in 1834 in Bermuda and many other places, oppressive systems remain in place today.

Liana metaphorically asked us to "think about how [we] can use our own white body to block the brown body from the bullet." This continues to resonate with me as it is not enough to merely refrain from engaging in racist behaviors, but one must actively contribute to the transformation of outdated systemic beliefs. Instead of seeing "whites" as privileged, the speakers described white people as the inheritors of a "morally bankrupt system" and "beneficiaries of white violence." The following metaphor is instructive in understanding their message: "it is like sitting in first class, but the plane is going to crash."

It is important to engage with Black history and consider how deeply engrained the legacies of systemic oppression are. Globally, we cannot continue the "business as usual" approach. The autopilot needs to be disengaged, and a new equitable course plotted.

A 15-Year-Old vs a Fast-Food Franchise

Pasha Jones

I worked for a major Canadian fast food company that is famous for its coffee.

When I was 14, my mother urged me to seek out employment opportunities, and as I was motivated by money, I complied. I pieced together my half blank resume and nervously dropped them off to several stores. The last place that I applied to was the aforementioned Canadian fast food chain. Infamous for their addictive donuts and coffee, I was excited by the prospect of working there. It was a 10 minute bike ride from my house and I already knew someone that worked there. After applying, I received a call from the manager offering me an interview.

The day came and I anxiously made my way into the store. After a successful interview, I began work the day after I flew home from New Brunswick, and I was exhausted. I had just come from a huge science fair where the projects were mostly about environmental issues and sustainability. It made me hyper-aware of my carbon footprint wherever I went.

Within the first day, I was disgusted by how many plastic cups we went through. By the second shift, I was angry about how much garbage we were throwing out, partially because I was the one to bring it outside. Within the first week, I realized that we didn't recycle in our restaurant. We had signs that alleged that some bins were for recycling; however, we would take each bag from the restaurant and throw them in the dumpster outside. This confused me because we had the city recycling container outside, yet threw away the plastic and paper in the trash.

I remember feeling so guilty that I started collecting the recyclables every time I worked and put them in a separate bag. I tried to get the other staff to do so, but many others refused. I became frustrated by these failed attempts. It made me mad that no one else felt like this was the end of the world. Running out of ideas, I realized that I had to say something. Maybe speak to my supervisor or manager? However, I knew they had no jurisdiction over the matter. If I wanted something to change, I would have to talk to the store owner.

I told myself that the next time the store owner comes in, I was going to say something. At this point in my life, I had difficulty standing up for myself, let alone standing up to someone who controls the paycheques. The day came; I walked in for my regular 9 hour shift from 2 - 11, only prepared to handle the requirements of the shift. I see all the employees rushing to clean, the donut display is fully stocked, and everyone is properly wearing their uniform. This meant that the store owner was coming.

30 minutes into my shift, a well dressed individual walked into the restaurant as if they were on a mission. If their mission was to make someone cry within 5 minutes of them being there, then the mission was accomplished. This individual was intimidating as they were the "scary store owner." When they realized they didn't recognize me, they walked over. This was my first time meeting this individual. It was a quick introduction, I was respectful, and after a quick "nice to meet you," this individual turned around. **continued**

As this individual turned, I got their attention and asked, "why don't we have recycling bins?" They looked surprised, maybe because my tone was perceived as being arrogant. They replied with "we do have a recycling bin, it's in the back outside." I saw how they were trying to avoid this issue, so I corrected myself and replied with "we don't have recycling bins inside for the customers. We don't even have them behind the counter for us." I remember feeling angry when I said this. This individual stood there, stunned, with the look of "I've being caught." proceeded to say that "we throw away all this plastic, the coffee grounds containers, the sirop jugs, and all the plastic cups." I'm pretty sure they tried to argue that it would be nearly impossible to start putting real recycling inside the store, but I always had a rebuttal. The conversation ended with this individual saying "I'll make sure we get recycling bins after our renovations." This was the best victory up until that point in I felt that I might have my life. accomplished something good.

Did we get recycling bins after our renovation? No, but this didn't leave me feeling hopeless. Shortly after that day I had an angry customer yell at me for our lack of recycling and it didn't even upset me. I realized that there are other people who feel that little things, like putting aper in the right container, is just as important as other things. If everyone cared as much as the angry customers, things would be much different.

I quit working at this location two years later. I hope to return as a customer in the future and see a legitimate recycling system, rather than misleading signs on the garbage bins.

A Hike

Students in English 11 and 12 were provided with a single image as a prompt for creative writing. The following piece is in response to a picture of a male and female hiking on a mountain with snow on the ground and in the trees.

Ani

There was a blur of green and white from the car window. Kate was observing the rise and fall of mountains as she and her older brother, Colin, drove down the highway. They were heading to their weekly hiking trip to watch the sunrise. He first started taking her when she was fourteen. She realized later that they both have different reasons for going on these trips. Kate is trying to find something she feels like she has been missing forever. After every trip, she feels closer to finding this "something." The only problem is that she doesn't know what it is; if it's a physical object or a feeling. She has been looking for this intangible thing for most of her life. So far, she knows that this "something" has led people to do beautiful and terrible things throughout their lives to obtain it. She's also aware that her mother never found it at the bottom of her glass.

Kate is broken out of her reverie by the opening of the car door. She hears her brother's muffled voice come from behind the vehicle.

"You better start helping me unpack our stuff before I 'forget' your bag."

Kate rolls her eyes and pushes the passenger door open. The pine scented breeze ruffles her hair as she heads to the hatch to get her bag.

The sound of the car locking signals the start of their trip as they began heading up the trail. There was a recent snowfall that has an ethereal effect on the woods, making every surface sparkle under the moonlight. The white powder also creates a heavy silence that weighs over everything. And if you're quiet enough, you could hear the birds shuffling on the overhead tree branches. The two siblings continue their ascent up the slope. An hour later, the trees that have cut mercilessly through the snowy Earth start to become fewer. As the ground levels out, Kate looks back and shouts to her brother, "race you there."

Colin doesn't pick up his slow pace, but she starts jogging in her snowshoes. She runs into the biting wind that leaves her face feeling numb and her lungs start to burn with the taste of winter air. Kate slows down as she gets closer to the edge of the cliff. The view leaves her breathless. Kilometers of snowy mountains and trees can be seen. She's on top of the world, with darkness to her back and the call of the birds fading. Right there, as the sun rises, Kate catches the thing she has spent so long trying to find.



Liv-ing it Large in the Kitchen

Liv Jefferson

"What time do you start?" I asked Oskar, the lovely man who has been feeding us for the past month. I had decided to spend our rest day satisfying my curiosity about how a kitchen on the high seas ran. I steeled myself, having heard the dreaded words "five a.m." from previous chefs, but I had talked myself into believing it wasn't that bad.

"Thirty" he replied. Decent, I thought, five thirty is even better. Lovely stuff!

"Three thirty" he clarified.

I remembered all too late that Oskar was our on-board baker. My heart sank, my despair rose, tears were welling up at the thought of lost sleep.

"Yes, yes super! Excellent! I can hardly wait! I'll see you then!" I said cheerily. As I trudged off, I wondered how I could casually slip my newfound misfortune into as many conversations as possible.

The next morning - bright-eyed and bushy tailed - Oskar appeared in the galley. "Mrng" I grumble-murmured, looking even more dishevelled than usual. Oskar set to work loading dough ingredients into the Kitchen Aid, and I set to work intensely studying his every move. For some reason this seemed to unnerve him, so he retrieved some vegetables from the fridge for me to chop into batons. Accustomed to "busy work", I was making good progress until a big wave rudely tumbled my cucumber onto the floor. Resilient as I am, I got back to work, only to be hit by a sneaky second swell. The cucumber lurched precariously, but I quickly pinioned it with my knife. Fool me one time, sea, fool me one time...

By now the dough was ready to be shaped! Oskar demonstrated how to shape it into small dome with a simple, two-handed manoeuvre. I tried, I failed, I tried again, I failed again, I got grumpy, and I refused to do anymore. Like I said, true resilience. Convinced it was a Jedi-mind trick, I moved onto the final (and most matched to my skill level) stage, using moulds to press the dough into different shapes, before adding an array of cheese, oats and seed toppings. They went into the oven looking absolutely dapper, and when we retrieved them later they looked even better, with the 4-to-6-watch pilfering a couple hot off the pass.

Next on the menu was French toast. After cracking a dozen eggs, and only having to pick out 11 million shell fragments, Oskar handed me the mixer. I was determined to impress and thankfully I got through it without my power-tool privileges being revoked. Then it was time to fire up the fun-looking pit grill! Oskar battered and dropped in the bread slices, whilst I was on spatula duty. The next 20 minutes were a flipping nightmare, the sea picked up its rocking, and I alternated between trying desperately to not fall into the hot oil and uphill-hiking back from the opposite side of the galley back to the grill.

It was all worth it though to see the beautiful golden French toast slices finished and keeping warm in the oven. I generously left Oskar to clear up and went to breakfast to fish for compliments before retiring to bed for a well-deserved lie down.

I returned at 8.45am to help our other chef, Rainer, dice pork tenderloin, pickles and olives for lunch. The sea was angry, and it was akin to a 90-minute "abs attack" class, in a bouncy castle whilst holding a knife. I feared for my life, but mostly Rainer's life, who was blissfully unaware of my lack of coordination.

Scary as it was, my vantage point from the galley window allowed me to behold the event of the day; the mess storage cabinets broke away from the floor and slammed into the portside tables. If this doesn't sound exciting to you, then you haven't lived on a 65m ship with the same people since October – trust me, it was big news. The scene was like a renaissance painting brought to life. Cupboard doors and drawers crashing open, plates smashing, messers, gabels and teeloffels cartwheeling through the air. Floaties and faculty were gallantly holding the naughty cupboard fast as the Alex II heeled relentlessly from side to side. Cries for the engineers and camera shutter clicks filled the air. Some continued to eat their cereal as they watched the goings-on, and I'm pretty sure the competitors from the day's Mario Kart Tournament were completely oblivious as they stared slack-jawed at the zooming of Yoshi and Peach around the Animal Crossing track.

It was soon time to make some baguettes to accompany dinner. Obviously, my earlier baking prowess had surpassed Oskar's wildest expectations, as I was relegated to oiling the baking sheets. After feeding my ego more lies, my trusty-but- continued continued

The State of the Sea

scary knife and I set to chopping up bell peppers, garlic and onions. Not to toot my own horn, but I was also entrusted with opening the cans of corn and the job of "chief taster". Once my discerning palate was satisfied that the chilli con carne and chilli sin carne were both delicious, it was time for a tea break before service.

I washed the interesting scent combination of French toast and pickles out of my hair, then returned to help watch 5 with backschaft. This was a great opportunity to peerpressure people into seconds, whilst heavily exaggerating my role in the creation of the meal. After dinner, armed with Multistar and a green cloth, I shined the kitchen surfaces until they gleamed.

I collapsed into bed exhausted but also with a sense of fulfilment mixed with relief that all I had to do tomorrow was teach. All of the crew on the Alex II are volunteers. They use their precious vacation time and pay for their airfare to and from ports just to join us. They sleep in narrow bunks with roommates and endure the rocking and the rolling of the seas, the cacophony of noise in the mess, and the maze of various floaties' shoes littering the corridors. How Oskar and Rainer smile broadly when they see us - instead of scowling or making rude gestures - I will never understand. I wonder if what keeps chefs returning to the Alex II galley is an intrinsic love of cooking, or an altruistic personality, or maybe just the high-tech crew shower that has disco lights and a banging sound system. For whatever reason, I am grateful that they do. My day in the kitchen was eye-opening, inspiring, and a great reminder of the importance of gratitude in a community such as ours.

Robert Bailey

My favorite place on the ship is the windsock that flies from the top of the Großmast. It's a bit of a process to climb this high; hop onto the side of the boat, climb the three shrouds, clip into the safety wire as you pull yourself up onto the two platforms and a nerve-wracking traverse from the final shroud on to the Jacob's ladder. The ladder itself always feels flimsy, making you clip in on every rung, and your muscles start to hurt because you grip so tightly against the swaying of the boat. Then your feet hit the cold, solid, yellow steel of the main mast and you feel secure again. There are several reasons I love being up here:

Firstly, the windsock only has space for one person. This means it's the one part of the boat where you can be assured of some solitude; ten whole precious minutes where you will not be bothered by any loud adolescents and their incessant stories, questions, and gripes.

Standing 37 meters in the air, you're also normally higher than the Northern Gannets that sometimes follow our boat. I love to watch them hunt, gliding over the mast and looking for fish displaced by the ship's wake. When they spot one they dive vertically, reaching speeds of up to 60 mph; fast enough to snap their necks on the hard surface of the water if they mistime their approach. At the last moment they adjust their position, pulling their wings back behind their body so that they are more hydrodynamic and helping to reduce the impact.¹ They emerge from the water with a shake of their feathers and a plump dart of silver between their beaks, which they adjust with a flick of their heads and swallow whole mid-flight.

Mostly, it is a place where you can stand and reflect. The wind blows harder up here, blocking out the whirr of the generator and the noises from the deck below. The ocean stretches out on all sides, interminably to the horizon. The 62 meter ship below you seems to shrink to the size of a hot rod car and you start to appreciate how small this vessel we have been calling home actually is against the sheer expanse of water that covers 70% of our world's surface. I have spent a lot of time up here, staring out at the waves and, inevitably, my mind turns to contemplating the state of the sea below.

Sometimes this ocean we have crossed seems to have an abundance of life. Watching from the bow, you will often see constellations of flying fish exploding from beneath the ocean surface. The larger, solitary flying fish can glide for a hundred meters or more. The juveniles take off in formation, squadrons of miniature fighter pilots, the sun glinting off their steely wings. We have watched a school of iridescent Mahi Mahi use the wave created by the ship to hunt in a pack, their flashing colours changing from green, to blue, to purple as they communicate to each other. Portuguese Man O' Wars have passed us by, their bladdered sails buffeted by the same winds that have pushed us from destination to destination.

We have seen five different species of dolphin. Passed sea turtles taking deep recuperating breaths at the surface after long dives. Marvelled at humpback whales and their calves breaching off the coast of the Dominican Republic.

Other times, we see nothing for days on end- a lifeless, empty desert of shifting liquid dunes. To some extent the surface of the deep ocean has always been like this, a nutrient poor expanse with pockets of life liberated by some floating anomaly; a dead tree that provides a nursery for young fish (and therefore prey for predators) continued

or a bloated dead whale carcass, the scent of its rancid blubber detectable in the water column for hundreds of miles, drawing sharks and other scavengers.

It is our ports of call that have brought us face to face with the effect humans have had on this underwater world, once considered an almost infinite source of resources. The undeniable truth is that we have sailed across a depleted ocean, with many of its ecosystems now teetering on the brink of collapse.

Whilst diving in Barbados and Dominica, we saw how coral reefs have been decimated by Stony Coral Tissue Loss disease. This relatively new disease affects up to 30 different hard coral species, liquifying the soft tissue of the polyp that lives inside the calcium carbonate skeleton. It starts as a small white spot, but quickly spreads. It can kill off an entire colony, that took hundreds of years to grow, in days. The scientific community is unsure as to whether it is caused by a virus or a bacterium, but it has spread quickly- possibly hitching a ride in the ballast tanks of ships and even on SCUBA diver's equipment. Its spread has been rapid, potentially leading to local extinctions of many coral species. It has already permanently altered many reef systems across the Caribbean and shows no sign of abating.²

Invasive lionfish, accidentally released from aquaria, have also taken hold across the Caribbean. Their venomous spines mean they have no natural predators, and they produce huge broods of fifty thousand eggs every 3 days³. I have seen at least a couple on almost every dive or snorkel that I have gone on this year. Lionfish are expert ambush predators, hoovering up juvenile fish of all species and considerably reducing the number of fish and reef diversity.

Top predators are now conspicuously absent from most reefs, with a recent survey suggesting that sharks and rays are functionally extinct from 20% of reefs worldwide.⁴ In Cabo Verde, we saw this firsthand- three critically endangered Giant Guitarfish heads rotting at the side of the fishing harbor. Whether this was accidental by-catch from bottom trawling or deliberate targeting for the Chinese shark-fin market was unclear. Losing these individual species is tragic, but we also lose all the ecosystem services provided by these predators. Sharks tend to pick off diseased fish, which helps to stop the spread of those diseases to other citizens of the reef. They also help keep the food chain in balance; by removing medium sized predators, sharks help increase the number of smaller grazers, that in turn help keep the reef from being overrun by algae.

Fish stocks have plummeted world-wide due to overfishing. Any floaties who donned a snorkel in the Dominican Republic would have been shocked at the emptiness of the reefs- in a thirty minute swim, the largest fish I saw was the size of my little finger. The World Bank estimates that 90% of fish stocks are now fully exploited or overfished⁵. Unprofitable fishing industries, like those in the UK, are supported by government subsidies- encouraging fishermen to continue to extract ever dwindling reserves of fish. Because we do not see beneath the ocean the vast majority of people have no clue as to the effect of fishing practices. Take bottom trawling as an example; bottom trawling is the process by which weighted nets are dragged between two boats along the ocean floor. The effect is akin to driving a dozen bulldozers through a rainforest: seaweed, corals, crustaceans, fishall indiscriminately wiped out, leaving nothing but rubble in its wake. Most of the biomass caught by the nets is not of commercial use, known as by-catch, and is discarded back into the ocean-dead. Scandalously, these practices are even allowed in many Marine Protected Areas⁶.

The fishing industry is also one of the leading causes of ocean plastic waste. Ghost fishing, in which discarded nets and fishing lines continue to trap and drown marine organisms, is a huge problem particularly for larger marine organisms. We have seen a number of these nets pass by the boat on our voyage, some tens of meters long. In Bermuda, we partnered with local organizations to help with a beach clean-up on Cooper's Island. The vast majority of the large plastic waste we removed was fishing equipment. However, we are all guilty of contributing to the plastic crisis; floaties will remember the individual plastic pots of jams, butters and condiments consumed in their thousands during our stay at Forest Lodge and the single use plastic plates, cups and cutlery used during our homestays in the DR.

From a distance, the white sand beach on Cooper's Island looked idyllic. Walking along it you started to notice the plastic litter: the Cuban brand plastic bottles, the West African lobster pots, Coca Cola lids and nylon ropes. It was striking that some of the examples of plastics found were old- with one make-up bottle in perfect condition despite floating around on the ocean since the 1970s. Plastic breaks down painfully slowly. The bright colors look like fish and squid and are ingested by seabirds, filter feeders or turtles- filling their stomachs, tearing, and scarifying oesophagi and intestines so they can't digest food. As plastic decays, it flakes into microplastics- magnets for toxins which accumulate on its surface. Sarah and Phoebe, focused their whole beach cleanup trying to remove these flakes from a $1m^2$ area of the beach, pulling up hundreds of tiny pieces, but continued

microplastics break down further to nanoplastics, small enough to enter our bloodstream and our individual cells. Larger marine organisms contain high levels of these toxins, and it is thought to be affecting their health and reproduction. Recent analysis found over 80% of people had nanoplastics in our lungs, blood, and other organs ⁷ . Overshadowing all these issues, hangs the existential threat of the climate crisis and the effects of global heating. Rising sea temperatures, ocean acidification and decreasing oxygen levels threaten to completely wipe out tropical coral reefs world-wide and wreak havoc on all other ocean ecosystems. The good news is that there is still time to help the ocean. A few recent developments, also seem to show that the world might finally be waking up to the damage that we have done to our biggest life support system. There is some amazing work being done by scientists, local communities and conservationists that provide hope that we can not only conserve the remaining ecosystems we have, but to restore them to their former glory. This article will be continued in the following edition of The Mizzen. ¹ Discover Wildlife: https://www.theguardin.com/environment/2020/jul/23/sharks- functionally.commu Biol 5, 440 (2022). ³ National Ceanie and Atmospheric Administration: https://flowergarden.noaa.gov/education/invasivelionfish. ⁴ The Guardian: https://www.theguardian.com/environment/2020/jul/23/sharks- functionally.ceanies.ad Atmospheric Administration: https://flowergarden.noaa.gov/education/invasivelionfish. ⁵ The Guardian: https://www.theguardian.com/environment/2023/jan/19/feeble- curbs will-abotom-traving-in-only-three-marine-parks/in-england ⁷ The Guardian: https://www.theguardian.com/environment/2022/mar/24/microplastics-found- in-human-blood-for-first-time	The Spirit of the SeaDavid GreenETake care of all that ails you Cmaj7When you set sail across the water Dadd9Dadd9BmWhen the waves are beating heavy EYou'll have to hold your own Asus2 AmAsus2 AmC#mYill be beside you; a lucky charm, a guiding light F#mF#mBLike the way the sunlight sparkles in the purling of the tide F#mF#mBOr the way the water glistens in the play of the moonlight C#mC#mBI'll be hot tea when you're grumpy AAF#mOr a lifeline if you need me EEBI'll be for you when I'm not even there BI'll be with you if you need me C#mC#mBI'll be with you if you need me C#mC#mC#mBI'll be with you, if you need me C#mChoppy waters and long nights ABChoppy waters and long nights ABChoppy waters and long nights AAF#mBWhen you feel thinner than a cloud and you think you're fading out C#mIf there's a hard watch B And you feel cold to the bones AAF#mBAnd you feel cold to the bones AAF#mI'll be with you buddy, body, mind and soul
	When you feel thinner than a cloud and you think you're fading out C#m If there's a hard watch B And you feel cold to the bones A F#m
2	G# Where this old ship might take us next nobody knows When you set sail across the water, think of me I'll be with you if you need me Like the spirit of the sea I'll be with you, if you need me think of me
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