SUPER NATURAL

More than a chance to island-hop in sweet seclusion, chartering a superyacht in the Whitsundays is an opportunity to join a citizen science project aimed at surveying the Great Barrier Reef. It's sustainability steeped in luxury.

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AQUA PLAN
Superyachts and reef conservation might seem like strange bedfellows, but it's all hands on deck in a climate emergency.

The only footprints on this small sand cay belong to a colony of crested terns. It's low tide when the glimmering waters of the Coral Sea recede to uncover a narrow sandbar leading to Langford Island, one of 74 islands in the Whitsundays archipelago. This fleeting landform, dubbed One Foot Island, will be reclaimed by the high tide in a few short hours. But for now, as the midday sun embroiders the scene with its gilt thread, we have it all to ourselves.

Playing the role of desert-island castaway comes easily. Here is a rare chance to explore a spot as ephemeral as it is beautiful. I yield to the impulse to run, and the terns take flight. I trace ripples in the sand as if learning a mysterious cursive script. I clamber over rockpools filled with shells, coral fragments and sea snails. Hermit crabs scatter as my shadow falls on them. I wade into the translucent water to watch a green turtle floating in the shallows, grazing calmly under my gaze.

AUSTRALIA

Soon lunch is served on the beach in the shade of a marquee. Its tent legs are wedged firmly into the sand and positioned so the water laps at our feet. We pull up comfortable camp chairs at a table dressed with white linen and set with elegant crockery, glassware and silverware. Ahead of us is an exquisite feast prepared by chef Nigel Syme: miso salmon, oysters with wakame, papaya salad, eggplant tempura and shiitake and shimeji mushrooms tossed in butter. I close my eyes, committing every mouthful to memory so I have a catalogue with which to console myself back home, when the closest thing I'll have to a private chef is the number of the local fish and chip shop.

Just hours earlier, we were spirited from Hamilton Island Marina to the 42-metre superyacht *De Lisle III*, on loan through charter company Ocean Alliance. The polished vessel was refitted in 2019. It sleeps nine guests and has seven crew members. Typically, it spends six months gliding around the Whitsundays, and the rest of the year in the South Pacific, including Fiji, Vanuatu and Papua New Guinea. Tashi Matthews is one of the affable crew members who greeted us this morning, offering refresher towels, cold drinks and a wicker basket for our shoes. "Have you eaten?" she asked with concern. "Nigel has prepared a fruit platter, but he can make you a hot breakfast if you like." I nodded appreciatively.

A tour of the boat's lavish interiors followed, from the lower staterooms to the top sundeck complete with outdoor jacuzzi spa and collection of ocean-going "toys", including kayaks, stand-up paddleboards and jet skis. As we found our sea legs, our captain, Chris Jordan, took us 35 nautical miles (65 kilometres) past the silica sands of Whitehaven Beach and the Cornetto-like turquoise swirls of Hill Inlet – which is how we came to be anchored off Langford Island by lunchtime.

Chartering your own superyacht ticks off many boxes. "It's one of the most private and curated travel options," Ocean Alliance's Joachim Howard tells me. "Guests can be secluded for the charter period if they wish, or immerse themselves in the local culture." Demand is spiking among younger travellers, while multi-generational yachting holidays are also trending. Itineraries can be tailored to include everything and (almost) anything your heart desires – from fast-paced adventure to laid-back island-hopping. In my case, it was a chance to combine the Apollonian (a citizen science project) with the Dionysian (the grandeur of a private vessel) in a beloved setting. I'm joined by Nicole Senn, an environmentalist at Cairns-based not-for-profit Citizens of the Great Barrier Reef, and marine

BRIGHT SHIP
The top deck of *De Lisle III*, equipped with seating and a jacuzzi. Opposite: The yacht's upper deck has a central bar, dining area and blue upholstery.

CLOSE ENCOUNTERS
Surveying healthy coral in the Whitsundays. Right: Nicole Senn and James Unsworth. Below: An underwater panorama; turtles are a common sight.

"I can't stop snapping photographs because the cay is teeming with so much marine life: porcupine rays, sea cucumbers, barramundi cod, moray eels and trochus shells the size of human skulls."

scientist James Unsworth from tour operator Ocean Rafting. Getting up close to the Great Barrier Reef has rarely been as urgently compelling. Increasingly, Unsworth finds that people climb aboard his boat saying something to the effect of, "I want to see the reef before it dies."

In the Whitsundays we're positioned about two-thirds of the way down the reef, which follows the contours of Queensland's coastline in a 2,300-kilometre stretch from the tip of Cape York Peninsula to Bundaberg. This World Heritage-listed marine wonder is often described in breathless superlatives: it's bigger than the United Kingdom, Switzerland and Holland put together, with 1,500 species of fish, 400 types of coral, 4,000 types of molluscs and 240 species of bird. It's the world's most extensive coral reef ecosystem, and, for heaven's sake, it's one of the only living structures on Earth that's visible from space.

But experts warn the Great Barrier Reef is facing an existential threat from climate change. A recent study published in *Current Biology* notes that only two per cent of its coral reefs have escaped bleaching during five mass events since 1998. Lead author Professor Terry Hughes from James Cook University says that global warming is changing the frequency, intensity and scale of climate extremes. "We no longer have the luxury of studying individual climate-related events that were once unprecedented or very rare," he notes in a statement. "Instead, as the world gets hotter, we have to understand the effects of sequences of rapid-fire catastrophes, as well as their combined impacts."

Bleaching occurs when tiny coral polyps, stressed by spikes in sea temperatures, expel the microscopic photosynthetic algae called zooxanthellae, which otherwise live symbiotically within their tissues and give reefs their kaleidoscopic colour. Some corals subsequently starve and die, but Unsworth tells me this is not inevitable. "I've often heard that – 'Bleached coral is dead coral'. It's not. I've seen bleaching here and I've seen amazing recovery." However, Hughes's paper makes it clear that recovery depends on many factors, with more frequent and severe bleaching undermining reefs' resilience over time.

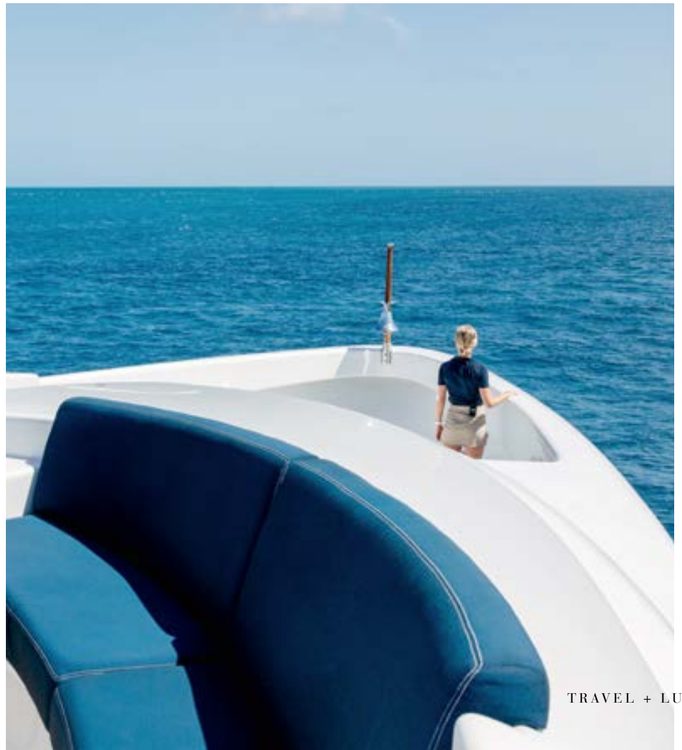
Back on board *De Lisle III* after lunch, we head south to Hook Passage, keen to snorkel despite tropical storm clouds massing overhead. The sight prompts Senn to note that climate change also brings more extreme weather events, such as cyclones. "They're a massive issue," she says. Powerful waves pulverise coral reefs; floodwaters bring nutrient run-off linked to outbreaks of the venomous crown-of-thorns starfish. The effects aren't uniform. "Part of the reef is recovering and part of it is thriving. It's such a nuanced story," she adds.

We get the opportunity to see for ourselves, for Senn has enlisted our participation in the second annual Great Reef Census, which involves citizen scientists – skippers, snorkellers, divers and dog-paddlers – jumping in the water and taking survey images of the individual coral reefs they visit. She hands me a GoPro with a floating handle and instructs me on technique. "It's easy. People don't even need to know what they're looking at," says Senn. "It's more than signing a petition – you're taking part in meaningful action." These snapshots are later analysed and used to help inform scientists' decision-making about where to prioritise resources and recovery efforts.

We slip on wetsuits and plunge into the waters of Saba Bay off Hook Island. The looming storm limits visibility to five metres, and I register a fleeting jolt of cold before a captivating underwater tableau eclipses all other thought. A school of electric-blue fusiliers swish their sunshine-yellow tails. Nestled into the soft coral below is the pleated shell of a giant clam, its iridescent mantle exposed. Coral trout, dour expressions at odds with their gaudy spots, dart out of crevices. Shoals of delicate angel fish drift by.

All I can hear is the sound of my breath, slowed to the meditative rhythm imposed by a mask and snorkel. It's not until I resurface, reluctantly, that I realise it's raining. As we step onto the teak platform at the back of the boat, I wrap myself in a proffered Turkish towel and turn to see a trillion fast, hard raindrops

SHIP SHAPE
The spiffily designed, 42-metre *De Lisle III* stretches over four levels, with elegant interior and exterior spaces.



hit the water, creating a pointillist painting of ocean and sky. I go in search of the sundress I placed over the back of the lounge earlier in my haste to enter the water. It's where I left it, neatly folded.

My master cabin downstairs is fitted out with a king-sized bed, an ensuite, a walk-in wardrobe, a flatscreen TV, and a desk bearing tomes such as the *Super Yacht Bible* – a collection of photos, not commandments. It's a stylish cocoon, decorated in deep nautical blues and white, with timber panels, strategically placed portholes and an antique spyglass on the side table. I run a deep, warm bath, float like kelp among the bubbles and start to drift off. The sound of distant clattering and the sight of whipped waves outside the porthole are the only signs the storm has intensified. Later, Jordan tells me that we'd passed through a serious squall, with 50-knot winds. Most boats won't venture out in 35 knots or more – which is classified as gale force – but *De Lisle III* takes it all in stride.

Superyachts and reef conservation efforts might seem like strange bedfellows. Yet initiatives such as the Great Reef Census benefit by harnessing the help of all boats already on the water. "No matter whether it's a superyacht or a dinghy, everyone can participate," Senn says. Robust and self-contained, superyachts can reach remote areas inaccessible to day-trippers, including the 40 per cent of the Great Barrier Reef that has never been previously surveyed. Since November 2020, Ocean Alliance has also hosted scientists as they perform a range of tasks, including recording microplastics.

CRYSTAL CLEAR Exploring Langford Island, one of 74 isles in the Whitsundays archipelago.

As the travel industry becomes more conscious of its environmental impact, superyacht owners and operators are helping drive big shifts in technology to reduce carbon emissions. The world's first solar-powered yacht emerged more than a decade ago, while over the past five years the number of electric or hybrid yachts either in operation or under construction has risen from zero to 250. Other initiatives include wastewater-treatment systems, battery banks for silent operation at anchor, and greater use of more energy-efficient designs.

Howard says the crew and owners of superyachts are naturally inclined to protect the marine environment that supports their industry. "On-board sustainable practices are much more common, not only through statutory legislation, but crew actively minimising their footprint," he says. "Charter guests also desire to contribute to the ecosystems they are experiencing." Ocean Alliance taps into a network of specialists, including marine biologists and local conservation groups, to support guests' increasing desire to contribute to recovery efforts. In addition to participating in the Great Reef Census, for instance, guests have previously visited a turtle nursery in Papua New Guinea's Conflict Islands and engaged in coral reef restoration projects in French Polynesia. As I'm lulled to sleep by the gentle roll of the ocean that night, I'm already dreaming of the next trip.

I'm woken at 4.58am by the sound of the anchor being hauled up as we set off to the outer reefs. I pop up to the sundeck and Matthews hands me a double-shot latte to drink as the sun rises. Soon, there's nothing but 360-degree ocean surrounding us. Depending on whether you consult Google Earth or Captain Jordan's chart-plotter, we're heading for Circular "Quay" or "Cay" Reef – a semi-rectangular coral reef that's a world away from its Sydney namesake, stretching 13 kilometres on its longest side and enclosing a central lagoon.

Charting the entire Great Barrier Reef is a massive – and, some might suggest, quixotic – quest. Last year's Great Reef Census gathered 13,263 images from just 147 reefs, representing less than five per cent of the 3,000 or more individual reefs that make up the whole. The scope of this last figure stuns me – we know so little about the Great Barrier Reef that we must still guesstimate its true dimensions. Despite the research it inspires and the affection it evokes, it remains an enigma. Citizens of the Great Barrier Reef assigns each reef a priority score based, in part, on how much (or little) is known about it. Circular Quay Reef scores 6.9 out of 7.0, adding

CRUISING AROUND Clockwise from top left: The yacht's ample lounge area; miso salmon prepared by a private chef; the gleaming exterior; toasting the trip.

importance to our mission. Usually, Jordan navigates from the bridge, but as *De Lisle III* approaches this lesser-explored reef, he comes up to the sundeck for better visibility. "It's pretty spicy in that lagoon," he says, referring to the treachery of the reefs lying just below the surface of the water.

"Yeah, there's a few scatter bommies," First Officer Ryan Bowring chimes in. Bommies, I learn, are not explosives, but coral clusters rising up from the sea floor. As they weigh different options, I imagine that Captain James Cook, who complained bitterly of a coral "labyrinth" before *The Endeavour* ran aground on reefs in 1770, would take comfort in knowing his nemesis was still presenting formidable navigation challenges more than two centuries on. Jordan, however, identifies a suitable course. Safely anchored, we take to the water. It's high tide, and the currents are strong. I spot clownfish peeping from behind an anemone, and swim through a school of spiralling baitfish. The edge of the reef drops off dramatically to the deep blue beyond. And then I see a shark beneath me. I estimate he's about my size and, with a flash of primeval dread, hightail it back to the tender.

"Don't panic." Here is Bowring, relaxed and zinc-smeared, holding out a hand to help me scale the ladder. "He's not going to hurt you." Later, I learn the sharks we encounter, including blacktipped and whitetipped reef sharks, and the tawny nurse that sent me scurrying, are unmistakable signs of a healthy reef. Also encouraging: the presence of humphead Maori wrasse, a predator of crown-of-thorns starfish; parrot fish, which clean coral reefs by consuming unwanted algae; and the fast-growing tips of staghorn coral, which emit a spectral violet glow.

Lunch is a seafood banquet served on the upper deck – plump prawns, crab cooked in saltwater, eggplant chips, and a selection of tasty salads. Sated, I stretch out to bask in the sun. A wedge-tailed shearwater swoops by seeking scraps, but the crew members clear plates before she attempts a second sortie. I'm tired from the morning's exertion and tempted to take a nap or (marginally more appealing) to ask the captain to fill the spa bath upstairs. But there's one last chance to snorkel before the boat returns to the waters surrounding Hamilton Island. The plan is to anchor there for the night before making for land the next morning.

We head for a different site on Circular Cay Reef. I can't stop snapping photographs because it's teeming with so much marine life: porcupine rays, sea cucumbers, barramundi cod, moray eels and trochus shells the size of human skulls. In the dappled late-afternoon light, caves and fissures, from which startled fish emerge as we swim by, open up every few metres. Broken coral rubble, the legacy of cyclonic activity, lies in long valleys along the sea floor. However, the abundance of new growth is encouraging, and the much-anticipated coral spawning, which is due to occur on the upcoming full moon, adds a further note of optimism. I'm chuffed to hear it, and beam as though I'm personally responsible. My contribution is, of course, a drop in the ocean. Yet those few dozen underwater photos have provided a sense of achievement that I've contributed, in some small way, to documenting the reef. T

The writer travelled as a guest of Ocean Alliance. Charter rates for De Lisle III *start at $165,000 per week. oceanalliance.com*

THE LIFE AQUATIC
Hypnotic sunset vistas from the aft deck. Opposite: *De Lisle III* makes a bold statement from every angle.