

The Telegraph

It's official – this is the world's greatest island for stargazing

Emma Thomson 13 October 2017 • 1:23pm

It was as if a great celestial Bake Off was in action. Handfuls of sugar spilt across the sky and the faint floury stain of the Milky Way scattered overhead. With my neck craned all the way back, I felt dizzy trying to take in the immensity of it all. "Here, the stars are so bright you can read the newspaper at night," laughs Hilde Hoven, one of the residents on New Zealand's Great Barrier Island. In August of this year, Great Barrier – a 30-minute flight north-east of Auckland – was the first island in the world to be designated a Dark Sky Sanctuary. It's the third site in the world after the Cosmic Campground in the US state of New Mexico and the Gabriela Mistral Dark Sky Sanctuary, the site of Chile's government observatory.

This island of steep forested hills, wetlands and sweeping white-sand bays is completely off grid. All the residents are responsible for supplying their own power through solar, wind or gas. There are no billboards or street lights. And the complete lack of light pollution makes for a very sparkly stratosphere. Typically, tourists come here to fish, hike and swap fast-paced city life for something slower. But come winter, visitor numbers drop from 12,000 to 2,500 and a solution was vital to support the island's 900 residents. It seems the starry solution was staring them right in the face and local residents Gendie and Richard Somerville-Ryan decided to apply for Dark Sky status. Working with Auckland astronomer Nalayini Davies, they took readings all over the island one clear crisp night and sent the results off to the International Dark-Sky Association (IDA) for review. "We thought we'd be a Reserve, but when the results came back they said, 'You're not a Reserve' and we were really disappointed! They said, 'Your readings are technically darker than instruments should be able to measure – you have a very dark sky indeed!'"

grinned Gendie. "What's strange is the darkest readings came on the west coast, closest to Auckland, which proves their light dome doesn't touch us. If it was too bright you wouldn't see Venus on the horizon."

Sanctuary rules are stricter than those of a Reserve because they have to be situated in a very remote location, promote long-term conservation and above all prove a night-sky brightness routinely equal to or darker than 21.5 mpsa (magnitudes per square arc second). Great Barrier Island has an mpsa of 21.79. The effect has been immediate. After attending an intensive weekend training course – run by John Drummond, President of the Royal Astronomical Society of New Zealand – to become Dark Sky Ambassadors, Hilde (originally a translator) banded together with two other locals – Orla Cumisky (who works at the pub) and Deborah Kilgallon (a full-time mum) – to found Good Heavens and they now offer private stargazing experiences, starlit dinners with a gourmet chef and, on set dates, stargazing on the local beaches.

Hilde had their 8" Dobsonian telescope trained at the sky. "OK, no peeking at your mobile phones – the white light destroys your night vision and it'll take 10 minutes for your eyes to adjust again," she said, as we snuggled into beanbags positioned on the terrace of the hilltop Trillium Lodge. She beamed a green laser to point out the constellations of Sagittarius, Capricorn and Scorpio. "In New Zealand, the scorpion's tail is known as Maui's Fishhook. Legend has it Maui [the Polynesian demigod] went fishing on his canoe one day and cast his hook into the ocean. As he hauled it in, many rocks appeared. He kept pulling and pulling until Aotearoa [New Zealand] appeared."

Next, the telescope was tilted towards Jupiter to see its moons, then Saturn to spy on its icy rings. But best of all were the constellations that are never visible in the northern hemisphere, such as the Southern Cross and the Magellanic Clouds – dwarf galaxies orbiting the Milky Way. And the new ways of seeing the familiar, such as Matariki – the Maori name for the Pleiades star cluster. It's appearance signals the start of the Maori New Year,

but we know it as the Seven Sisters not far from
Orion's feet. ...