# Islands that changed the world

*Stunning, isolated and teeming with life, the Galapagos Islands inspired Darwin to write 'On the Origin of Species.' More than a century-and-a-half after his visit, the archipelago is still the closest thing to Eden on Earth*

BY **SARFRAZ MANZOOR**
THE GUARDIAN, GALAPAGOS ISLANDS

The baby sea lion looked as if it were sleeping, resting peacefully under a mangrove tree seemingly hiding from the sun. I went closer and realized it was dead: the third carcass I had seen on my first day in the Galapagos Islands.

I had come to this archipelago of 19 islands, sprinkled 1,000km off Ecuador, expecting to be startled by teeming life. The baby sea lion silently decaying, like the dead frigate bird I had seen earlier, was a reminder that nature is as merciless as she is wondrous. The weak die and the strong survive; this was Darwinism in the very place that inspired Charles Darwin to develop his theory of natural selection. It was Darwin who had brought me here, on the eve of the 150th anniversary of the publication of *On The Origin of Species*, to see for myself this zoo without cages, these islands that changed the world.

The best way to see the Galapagos is by boat and there is no better boat than *La Pinta*. The yacht offers conclusive proof that evolution extends beyond living creatures and includes ships: HMS *Beagle*, Darwin's vessel, was 28m long and was among a class of ship nicknamed "coffin brigs" because of their tendency to sink; by contrast, *La Pinta* is a gleaming beauty, 60m long, with three decks, panoramic lounge bar, library, gym and hot tub.

Before I began my adventure I was nervous about who the other passengers might be; I suspected that luxury cruises attracted the over-privileged and obese — not so much survival of the fittest as arrival of the fattest. In fact, they were nothing like my stereotype, and since there were only 32 of us, we socialized in a way that would have been impossible on a larger ship.

The majority were retired — possibly because one would need a sizeable pile in the bank to be able to afford this cruise. It made me think that, if I were in charge, I would offer some heavily subsidized places for younger holidaymakers just to help liven up the atmosphere on board. Although the group was comprised mostly of Americans and Britons, there were also Italians, Dutch and a German couple whom I found particularly intriguing. The man was in his late 60s and wore an eye patch, while his wife was younger and always wore something gold. His amiable smile and one twinkling eye convinced me he was a Bond villain scouting for a base from which to plot ruling the world. The other option — that he was simply an older fellow from Cologne on holiday with his wife — seemed too fanciful to be credible.

The Spaniards who visited in the 16th century called this place Las Islas Encantadas — "the Enchanted Islands" — ships drifted out of sight of the islands because of the strong currents, and the sailors assumed it was the land that was vanishing and not the ships that were moving. It was those currents and the remoteness of the islands that made the environment unique, because they forced the species arriving by air or ocean currents to adapt to the special conditions of the various islands of the archipelago, which was formed by volcanoes rising from the sea bed.

Today it isn't buccaneers who come visiting, it's lawyers specializing in intellectual property; but as we clambered off our yacht on to *pangas* — motorized dinghies that sliced through the turquoise brine — we felt less like privileged tourists and more like free-spirited explorers.

The *pangas* deposited us on the beach of North Seymour Island and I was greeted by a landscape of rust and ash — red lava rock and palo santo trees the color of bleached bones, twisted and broken like disturbed skeletons. I picked a path through the espino, cacti and scurrying lava lizards as sea lions padded nonchalantly past. Above us hovered Galapagos doves with their distinctive red feet and blue eyes. I saw my first blue-footed booby, a rather comical-looking bird I assume was first discovered by a 12-year-old boy. The boobies are famed for their courtship dance where they kick their feet high in the air and spread their wings while whistling and honking.

A baby sea lion waddled over to a female, who cast an eyelashed glance at the pup before scornfully flicking it into the air. Female sea lions only feel affection for their own babies, so if a mother dies its children are doomed. We came across a male sea lion howling in pain from two large bite marks on its body.

"This one looks like it's been in a fight with the dominant beach-master sea lion," said Pablo, one of the three naturalists on board the yacht. "The beach-master can have up to 30 females in his harem and he will chase away younger males because they are a threat."

Despite the exoticism of the animal species in the Galapagos, I found myself comparing the wildlife on the islands with my own species: the male wingless cormorant trying to impress the female by presenting a string of seaweed, only to be spurned until he offered a more substantial clump; the male frigate bird that I watched, attempting to score with the females by inflating his red throat pouch until it was the size of a balloon.

When he visited the Galapagos, Darwin was surprised by the tameness of the creatures, which did not run from humans because they had not yet learned to fear them. As our *panga* skimmed across the glass-splintered sea, the sparkling water looking as though it had been dusted by crushed emeralds, I saw sea lions playfully leaping out of the water as frigate birds fluttered above like flapping origami. On another island, finches landed on branches centimeters from my face.

Liz and Martin, a retired couple from Kent, had come to the Galapagos mostly to spot birds. "For anyone who loves birds the Galapagos are a must," Liz told me. "What's so great about seeing a bird here rather than in England?" I asked. "Well, for one thing you can tell by their songs that a bird is foreign," Martin replied. "So," I asked, "when birds chirp in Spanish do they have upside-down exclamation marks before they start singing?"

The couple look at me blankly. Not being a bird enthusiast, I found it hard to get excited by finches and frigates, but Pablo promised there was plenty more to come. He was right.

The Galapagos do not thrill only with their wildlife: the pink flamingos standing on one leg in the brackish water, the flame-red Sally Lightfoot crabs scuttling on the black rocks, the tropical penguins and the green sea turtles, the dazzling yellow-tailed surgeonfish, sea stars and king angelfish that shimmered in the water under our glass-bottomed boat. No, it was the very landscape of the islands I found enthralling: the red-sand beach of Rabida Island, the result of hot lava flowing millions of years ago; pink-smudged sunsets floating above the astonishing whirls and twirls of black molten rock hardened into a lunar landscape on Sullivan Bay; the dun and chalk Kicker Rock, a monumental work of sculpture shaped by wind and sea.


PHOTO: REUTERS

On Santiago Island, the fourth largest in the archipelago, I saw hundreds of marine iguanas thawing in the sun. The reptiles, which Darwin dubbed "imps of darkness," were so black they melted into the landscape. It was hard to tell rock from reptile except for the shooting white arcs that would explode from their noses: their diets contain excess salt that has to be expelled by sneezing. Their motionlessness made them perfect subjects for photography and Garry Gale, for one, was delighted. A 71-year-old engineer from Toronto, he was visiting the Galapagos with his fiancee Heather and it was the photographic opportunities that had brought them to the islands.

Me, I didn't want to look through a lens; I wanted to look directly at these prehistoric creatures and wonder what they made of these strange intruders into their world. What had the forebears of these iguanas made of Alexander Selkirk — Daniel Defoe's inspiration for Robinson Crusoe — who visited the islands in 1708? What had the turtles thought when they saw HMS *Beagle*? Had they spied a giant wooden fish and wondered how it could float on water? What did the finches think when they saw gigantic white birds gliding out of the sky and landing on their islands, carrying hundreds of shuffling two-legged strangers?

"Attention! Attention! Killer whale spotted!" The crackling sound from the walkie-talkie shook me out of my reverie. Two killer whales had been sighted off the coast. We leapt into the *pangas* and raced towards our targets. Each time we spotted a sliver of black and white in the distance, it had vanished by the time we reached the spot.

That afternoon, the group gathered in the conference room for a lecture on Darwin and the Galapagos. Pablo explained how Darwin was only 26 in the fall of 1835 when he spent five weeks on the archipelago — this "world within itself" as he described it — as part of a five-year voyage aboard the *Beagle*. The observations he made in the Galapagos of finches that appeared to be slightly different on each island convinced him it was the specific conditions of the individual island that was forcing the finches to adapt and evolve. And so was born a theory that fundamentally altered how people saw nature and life on Earth.

Well, most people anyway. That evening, over dinner, I sat with Garry and Heather, who worked with patients who had lost limbs, fitting prostheses. I asked how it felt, as a woman of science, to be visiting the Galapagos?

"I don't believe in evolution, if that's what you mean," said Heather.

"I'm sorry?"

"I don't believe in evolution," she repeated. "I just can't believe we're descended from chimps."

"But what about Darwin, the finches, natural selection ... ?"

"I don't buy it," she said. "Who made the finches in the first place? And anyway the Bible has lasted so long, makes you think there has to be something to it, don't you think?"

"It certainly makes you think," I replied.

The Galapagos Islands are named after its famous tortoises — *galapago* is Spanish for "saddle," referring to their saddleback shells — and I had been looking forward to seeing them all week. I finally saw them on Santa Cruz Island. They were grazing quietly, apparently freely, but all suspiciously clumped together in one field. We had been warned not to get too close — advice Darwin had evidently not followed, since he had ridden the tortoises as if they were horses, getting "on their backs and then giving a few raps on the hinder parts of their shells." These days riding the tortoises is discouraged but I did see one giant tortoise clamber on to a female and start having what looked like a good time.

The most famous tortoise in the Galapagos is Lonesome George, who is nearing 100 years old and is "Lonesome" because he is the only surviving tortoise from Pinta Island and finding him a mate has proved unsuccessful. He is the last of the line, evidence of the damage humans (for whom tortoises once meant fresh meat) and "introduced species" such as dogs, pigs and rats can do to a fragile ecosystem.

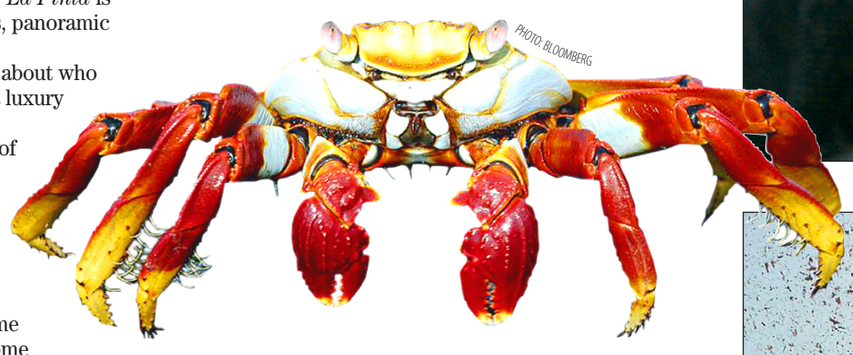
Today's tourists don't stack and unshell tortoises, but as I lined up patiently to grab a glimpse of Lonesome George, and later as I wandered past the cheap souvenir shops in Santa Cruz, I did wonder about the damage the 160,000 tourists who come to the islands every year are doing. Are they destroying the very thing they are coming to see? It was a question I put to Timothy Silcott, who works for the Charles Darwin Foundation, an environmental charity based in the Galapagos. "Tourism is incredibly important to the Galapagos," he told me. "It helps sustain the economy of the islands. The problem is not the number of tourists coming here as much as the related economy that sprouts up to support the tourists."

Yachts like *La Pinta* are relatively benign compared with hotel tourism: in the past 15 years, Silcott told me, the number of hotels on the islands has risen from 33 to 65 and the number of restaurants and bars from 31 to 114. The hotels and bars encourage migrants from mainland Ecuador to move to the islands for work, increasing the population and putting strain on the environment.

"The regulations for visiting the Galapagos are pretty solid," Silcott said. "You can't set foot on the islands without a guide; the itinerary is agreed a year in advance; you can't have a group bigger than 16; and no smoking or eating is allowed inside the national park [which covers 97 percent of the archipelago]."

A hundred and seventy-three years after Charles Darwin visited the islands, they are still the closest thing to Eden on Earth. On our last evening we gathered for a final cocktail and Pablo presented a slideshow of photographs he had taken during the week. It had been an exhilarating seven days, filled with images and moments I will not easily forget, and yet the most remarkable thing about my time was not what I did see but more what I did not. Tourists glimpse only a tiny fraction of every island that they visit; beyond the pre-planned trails, the Galapagos, mercifully, remain as they have always been — wild, untamed and mysterious: beyond imagination and beyond reach.

Above: A plane takes off from Baltra airport in the Galapagos Islands on Sept. 15, 2008. Ecuador will turn the airport into an ecological terminal to reduce its environmental impact on the area.
Right: A land iguana rests on a rock at the Galapagos National Park on Santa Cruz Island, Sept. 15, 2008.
PHOTOS: REUTERS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A visitor lies next to a sea lion pup on a Galapagos archipelago island.
PHOTO: BLOOMBERG

Left and above right: Lava spews forth from the Cerro Azul volcano on the Galapagos archipelago's Isabela Island.
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