

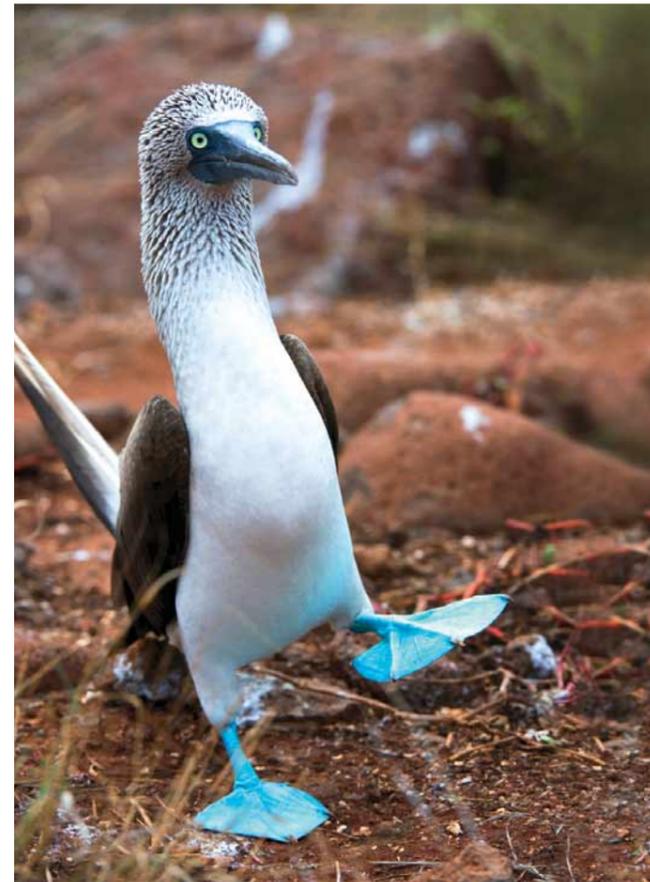


WORDS GAIL MACCALLUM

Paradise or paradox?



The Galápagos Islands boast some of the harshest conditions on the planet. But if you are an iguana, frigatebird or tortoise – or, for that matter, human – you have to find a way to deal with it.



Clockwise from top left: blue-footed booby; magnificent frigatebird; red-footed booby; Galápagos sea lion; greater flamingo (opposite)



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THERE'S A CHILDREN'S memory game in which you list random objects and add to it until someone misses: "I went to the shops and I bought an apple." "I went to the shops and bought an apple and a hammer." And so on. Imagine if you played it in a shop selling only plants and animals. Imagine you put everything on the list in a spaceship, which crashes somewhere barren and desolate, but its cargo survives. If you can imagine what might happen next, you're a step closer to getting a sense of what it's like in the Galápagos Islands.

The Galápagos archipelago is described as a paradise on Earth, and it was once named the Enchanted Isles. All but three per cent of its land area is now a national park. The place that launched dozens of nature documentaries, it's a haven for a Noah's Ark of endemic species (found nowhere else). There's a reason for that: it hosts some of the harshest conditions on the planet, its land barely cooled from the volcanoes that ejected it. The islands are so young that if the history of the Earth was the length of a day, the formation of the Galápagos would fill only the last 10 seconds. In some areas, the lava hasn't even lost its glaze and loose shards tinkle like broken crockery as you pick your way along. It's a lunar landscape with a Biblical weather forecast: short period of flood followed by prolonged desiccation and drought, and the species that have survived here have had to make the best of some terribly bad luck with oceanic drift.

Take marine iguanas. It's thought their ancestors rafted to the Galápagos from South America, then presumably looked around the baking lava scoria, shrugged their scaly shoulders and got busy, in an evolutionary way. Iguanas are cold-blooded, known neither for speed nor agility, and their lumbering search for food not eaten by more agile species led them to develop the black colouring that allows them to gain the most from the equatorial heat, their unique marine ability and a taste for the usually unpalatable and barely nutritious. A marine iguana's typical day consists of lying spreadeagled on lava boulders to absorb as much heat as possible. Once at a balmy 37°C, it climbs

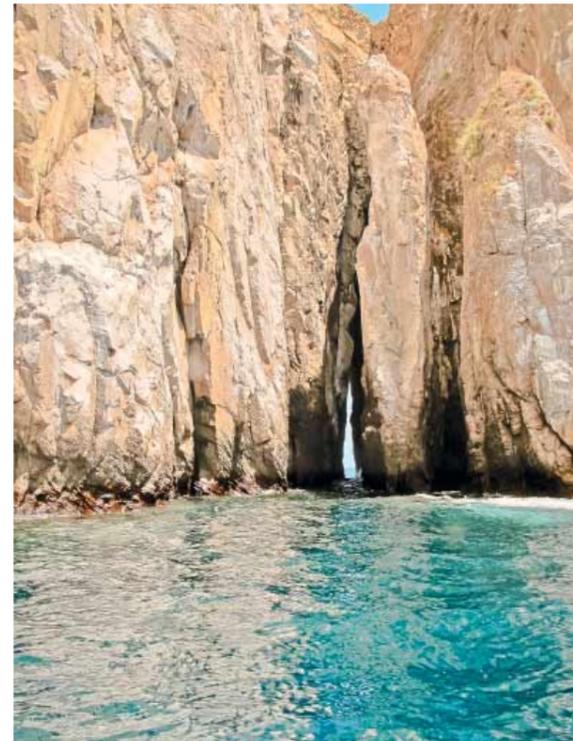
into an ocean chilled by fast-moving deep-ocean currents to feed on nutrient-poor algae. When its rapidly cooling body hits crisis point, it climbs out for another cycle of warming, swimming, chewing – and sneezing, because its body can't deal with the salt in the water and it must expel it regularly from glands near its nose.

Marine iguanas have evolved into subspecies on different islands, each with unique characteristics. Those on the volcanically active western islands of Isabela and Fernandina are largest, and occur in larger numbers. The smallest sub-type is found on Genovesa, a 14sq km, partly submerged caldera that's particularly affected by freshwater shortages during El Niño events. To survive hard times, the Genovesa marine iguana has evolved the trait of shrinking – not just losing weight, actually shrinking its bones.

MARINE IGUANAS are probably on the right track, given that oceanic life here is so bountiful. Life's pretty good for the seabirds inhabiting the archipelago in city-like densities. The 60sq km of Española receives almost the entire world population – some 30,000 birds – of the glorious waved albatross every year. Breeding pairs reacquaint themselves via an elegant, bobbing, beak-clacking square dance, and then raise ungainly chicks that sport '70s rock star hairdos until they fledge and fly. Genovesa is so packed with winged residents, it's known as "bird island". It's a breeding site for red-footed and Nazca boobies, gulls, storm petrels and tropicbirds.

The main drawback for seabirds are pirates – frigatebirds, another Galápagos resident committed to doing things the hard way. Frigates are fish-eaters, but their feathers aren't water-protected, so they can't get into the ocean to feed. They've solved this evolutionary oversight by learning to snatch fish from the ocean surface while on the wing, and by watching for other species' successful hauls, whereupon they indulge in a dogfight, harrying and hassling until the victim drops or regurgitates its meal, which the frigate then catches in midair. ➤

Galápagos land iguana; sunset at Prince Philip's Steps, Genovesa Island (left)



PHOTOGRAPHY: GETTY IMAGES; SUNSET: © IAN CONNELLAN/GAIL MACCALLUM/CURIOS TRAVELLER



Clockwise from top left: Kicker Rock at San Cristóbal Island; whale shark; greater frigatebird chick; scalloped hammerhead sharks; Galápagos flycatcher on Floreana Island



WILDLIFE GALÁPAGOS

If you're a Galápaguan land species, you need to be very small or very large to get the most out of scarce resources. Giant tortoises can last a year without food and water, which led to their exploitation by humans for food. Darwin's famous finches evolved from a common ancestor into 13 known Galápagos species, each with a niche feeding behaviour. They eat different combinations of seeds, flowers and insects, and one species drinks the blood of seabirds.

But perhaps the biggest species surprise for Galápagos visitors is the archipelago's 25,000 permanent humans. The islands have been more or less inhabited since the early 19th century, and were regularly visited for 200 years before that. In the age of sail, pirates and adventurers would stop off to search for water, load as many as 200 tortoises onto their boats for protein - and bury their loot. English buccaneer William Dampier reported one of the more memorable troves he saw: several hundred sacks of flour, eight tonnes of quince paste, a large Virgin Mary carved from wood and a mule he described as "stately". Whalers followed in the pirates' wake in greater numbers, for much the same reasons: it's thought that up to 200,000 tortoises were plundered from the Galápagos before the 20th century.

The archipelago has been part of Ecuador since 1832, its best-known inhabitants idealistic but doomed utopian colonists, such as José de Villamil, who founded the Asilo de la Paz (Refuge of Peace) convict settlement on Floreana Island. It ended badly, as did the adventure of a countess who arrived in 1932 with two lovers, a pistol and a whip, causing havoc with other residents until her still-unsolved disappearance two years later. The Galápagos has also hosted an ill-fated 1920s Norwegian turtle- and fish-canning endeavour, and a US Army base and airfield during WWII.

Today, most residents (Galápagueños) live in the towns of Puerto Ayora and Puerto Baquerizo Moreno. Tourism accounts for more than 50 per cent of the economy and was among the issues raised in 2007 when the Galápagos went on the list of endangered World Heritage sites. Only about 2000 people a year visited the islands in the 1960s; in 2012 more than 120,000 came.

And while people flock in ever-greater numbers to see the Enchanted Isles and their enchanting residents, these iconic animals might actually prefer to travel in the other direction: to continental surplus, where mates are plentiful, food easy to gather, and home and hearth a bit more welcoming. They just need another spaceship. 🐦

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Blue-footed boobies diving for fish

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