

# Remote Antarctic island is 'richer in biodiversity than the Galapagos'

June 8 2011, By Bryan Nelson

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Antarctica's remote South Georgia Island boasts 90 percent of the world's fur seals, half of the world's elephant seals, is navigated by vast populations of blue whales, sperm whales and killer whales, and has beaches that can be packed shoulder-to-shoulder with nesting penguins. In total, it contains nearly 1,500 recorded species, many of which are found nowhere else on Earth.

It's difficult to believe that until recently, this biological treasure was believed to be nothing more than an "inhospitable lump of rock."

In fact, researchers now believe that South Georgia Island contains more species than anywhere else in the [Southern Ocean](#), and may be the most biologically diverse remote island in the world - even more diverse than the storied Galapagos Islands, according to the Independent.

"It shows you don't have to be a tropical island or in a hot part of the world to support a lot of marine life. These [lumps](#) of rock may look inhospitable and cold, but once you are under the surface of the water they can support a diverse ecosystem," said Oliver Hogg, one member of a recent research team sent to survey the island's wildlife.

Though South Georgia has long been recognized as a hot spot for marine mammals and seabirds, researchers have only recently delved deeper into the waters surrounding the island, which is where most of its vast biological wealth resides. A recent analysis of records produced during the last 130 years of exploration has revealed at least 1,445 different

species in South Georgia's waters. More recent expeditions have pulled up so many examples of new marine life that they have yet to be properly counted and identified.

The types of marine life around the island vary immensely. There are unique fish, like the South Georgia icefish, [sea spiders](#), brittle stars, scores of [crustaceans](#) and [sea urchins](#), and even free-swimming worms. The island is also home to more than 81 species of sponge, 3 percent of which are endemic to the island.

One reason that South Georgia is so rich in biodiversity is its remoteness. As with the [Galapagos Islands](#), isolation can foster unique evolutionary progress. The island has also been isolated for a long time, for at least the last 45 million years.

"One of the reasons it's so rich is, we suspect, that it's a really old island. It separated from the continental land mass of South America and Antarctica about 45 million years ago, so it's had a lot of time to evolve new species and develop a really diverse ecosystem," said Hogg.

South Georgia also benefits from being positioned among currents that transport nutrients and species from both cold and warm waters. It essentially sits at an oceanic crossroads, bringing together unique creatures that would otherwise live a world apart.

Though the recent rediscovery of this vast biological treasure is exciting news, researchers also warn that it may already be threatened. Rising sea temperatures are particularly pronounced at the world's extremes - in the Arctic and the Antarctic - and many of South Georgia's species are sensitive to shifts in water temperature. Between 1925 and 2006, sea temperatures in the region rose on average by 33.62 degrees in January and 36.14 degrees in August. That's a change trending far faster than most species can likely adjust for.

Researchers say that South Georgia's new status as the Galapagos of the Southern Ocean will help foster awareness about the problem of global warming, and possibly even lead to new marine protections in the region.

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