

Saving Noah's Ark

One of the giant tortoises may still be able to recall the young Irenäus Eibl-Eibesfeldt making landfall on the Galapagos Islands 50 years ago. It was the second time the behavioral scientist had visited the Pacific archipelago 1,000 kilometers off the coast of Ecuador. This time he was there on behalf of UNESCO, and he came up with a concept to save this paradise on Earth, a place that had already impressed Charles Darwin and inspired him to write his Theory of Evolution.

Created millions of years ago by volcanic eruptions, a unique plant and animal world developed on the Galapagos Islands. Giant tortoises, marine iguanas, land iguanas, sea lions and a multitude of bird species live on the islands. But this Noah's Ark was already under threat back in the 1950s. Today, half a century after Irenäus Eibl-Eibesfeldt embarked on his journey, the future of the islands is still not secure. UNESCO has therefore placed the archipelago on its List of World Heritage in Danger. The ecosystem of the Ecuadorian Pacific island group is threatened by increasing immigration and uncontrolled tourism, according to an announcement made by the World Heritage Committee at its meeting in Christchurch, New Zealand on June 26, 2007.

Eibl-Eibesfeldt, head of the Max Planck Society's Research Unit for Human Ethology until 1996, indicated as much in an interview this year: "Tourism is going to become a problem," he predicted, "because the ships are getting bigger and bigger; these days, around 100,000 visitors come every year. That's too much. More and more people from Ecuador are also moving to Galapagos to live. Restrictions need to be put in place. If another 10,000 people settle on the islands (at the moment about 30,000 live there), it's all over."

The behavioral scientist cited the domestic goats that are allowed to run wild as another problem. They are constantly encroaching into new areas, eating all the vegetation there and destroying the basis of life for the tortoises and other endemic species. The problem has since prompted some action: the 14,000 goats are now being hunted, and helicopters are even being used to shoot them down.

Irenäus Eibl-Eibesfeldt got to know the Galapagos Islands on his many research trips and has followed events there over five decades. His first trip to the archipelago was thanks to marine scientist and underwater cameraman Hans Hass, who invited the biologist, then 25, to join him on a 12-month expedition to the Caribbean and the Galapagos Islands on his three-masted schooner Xarife in 1953/54. Hass's goal for the expedition was to develop his new method of free-swimming diving and filming for scientific use. He no



An unusual pet: Irenäus Eibl-Eibesfeldt kept this marine iguana for 15 years. She took a walk through the apartment every morning and went out onto the terrace when the sun came out.

longer wanted to observe fish and other marine creatures in tanks, but wanted to watch them in their natural environment instead.

In order to participate in the journey, the young behavioral scientist Eibl-Eibesfeldt had to learn to scuba dive. On one dive with Hans Hass, they encountered a 2.5-meter-long shark, which watched them with interest at first but then swam on by. As Eibl-Eibesfeldt notes dryly, "We obviously didn't fit into its feeding pattern." On later dives, the scientist made an interesting observation: a shark seldom comes alone – it is usually accompanied by small fish eating the parasites off of its body. These little 'cleaning fish', as he called them, put Eibl-Eibesfeldt onto a new topic: the cleaning symbiosis in fish.

It was January 6, 1954 when Eibl-Eibesfeldt first set foot on virgin ground on Galapagos. The Xarife had dropped him off near the small island of Osborn in the south of the ar-

chipelago. The noise audible far out to sea left no doubt that this was a sea lion habitat. The ship's officer pressed a rope into his hand so that he could swim to shore, hauling the boat with the photographic equipment behind him.

The young biologist wasn't quite comfortable with the idea of having to swim right through the middle of the sea lions. But when he anxiously asked if one of them was likely to nibble on him, the officer laid his mind to rest, saying: "Aw, come on, they only eat fish." The scientist spent two days on the island observing the behavior of these largely peaceful animals.

His next stop was the island of Santa Cruz, where his plan was to look for Galapagos tortoises. This island, with its humid climate and fertile soil, is inhabited – mostly by Ecuadorians, but there are a few Europeans there, too. They cleared ground to establish banana and coffee plantations, among other things. And they slaughtered tortoises for their tasty meat. Eibl-Eibesfeldt's group saw entire fields of tortoise carcasses – in spite of the laws passed in Ecuador back in 1934 protecting creatures like tortoises, land iguanas, marine iguanas, penguins, sea lions and fur seals.

But that wasn't the worst of it. On the tiny Las Plazas islands to the east of Santa Cruz, which ought to be an idyll rich in animal life, one of Eibl-Eibesfeldt's walks on the beach brought him upon the semi-decaying corpses of six sea lions with their skulls smashed in. The animals had obviously been butchered by fishermen who felt they disturbed their fishing.

And on the small island of Baltra north of Santa Cruz, a refuge for Galapagos land iguanas, the scientist found but a single example of the species. It was lying beneath an overhanging rock. Eibl-Eibesfeldt described the scene: "The sun had dried out the animal's body. And it showed the entry and exit holes of a bullet wound." A military base had been established on the island during World War II, the remains of which – derelict barracks, abandoned fuel dumps, empty munitions depots – can still be seen today. Soldiers from the base had obviously hunted the iguanas out of boredom.

These harrowing impressions moved Irenäus Eibl-Eibes-



The Charles Darwin Station on Santa Cruz. Scientists from around the world come here to study biotopes on land and in the sea.

Süddeutsche Zeitung, April 7, 2007 Galapagos still needs protection

The Galapagos Islands are a symbol of international nature conservation today. Their unique animal life led Charles Darwin to call them a "laboratory of evolution". In the 1950s, descriptions of the perilous state of the indigenous fauna on the Galapagos Islands by the young Austrian behavioral scientist Irenäus Eibl-Eibesfeldt left a strong impression. His reports of two trips, in 1953/54 and 1957, resulted in the establishment of the Charles Darwin Foundation and the research station of the same name. Without these two institutions, many of the unique creatures of this island kingdom would no longer exist.

feldt to write a memo to UNESCO in Paris in 1955 following the expedition, pointing out the need for more effective protective measures on the Galapagos Islands. He proposed installing sanctuaries and setting up a research station. He recalls that his memo met with a "most encouraging response." And it brought him the UNESCO mandate of visiting the islands once again for several months

to take stock of the animal world and to choose a location for his suggested biological station.

Eibl-Eibesfeldt set off on his second trip to the Galapagos Islands in June 1957, this time accompanied by Robert Bowman, a zoologist from California, and two reporters from Life Magazine, Alfred Eisenstaedt and Rudolf Freund. This four-month excursion allowed him to explore the interior of the big islands. Of all the islands the group visited, Santa Cruz appeared to be the most suitable for the planned research station: the island occupied a central location, had a small settlement in the south, had many different animal habitats thanks to its size, and was still populated by its original fauna in spite of the settlement – even the giant tortoises had survived inland. A location in Academy Bay in the southwest of the island was selected for the research station.

This recommendation was published in a UNESCO Mission Report together with Eibl-Eibesfeldt's own observations. He summarized that, while there were many problems, there were still sufficient animal populations present throughout the archipelago on which to build. The Charles Darwin Foundation was founded in Brussels in 1959 and attended to the issues of financing, planning, building and operating a biological station.

The Charles Darwin Research Station was built between 1960 and 1964. Scientists from all over the world go here to study biotopes on land and in the sea. "This station gives Ecuador a research center of international acclaim," says Eibl-Eibesfeldt. This is the very station where the scientist was awarded the "Orden nacional al Merito" by the Ecuadorian government.

His proposal to set up wildlife parks and reserves was also implemented. Since 1959, all of the area of the Galapagos Islands that was unpopulated by man at that point in time has been a national park (with the exception of the island of Baltra, accommodating the archipelago's only airfield). The park contains designated conservation areas that only scientists can access. For tourists, scenically and zoologically noteworthy points of interest that they may visit on guided tours have been signposted. Without the tourists, the archipelago's population would not have any means of making a living and the Galapagos Islands would drift into obscurity.

Saving this Noah's Ark was all about finding a balance between the needs of nature and those of man. And improving the giant tortoises' prospects of reaching a biblical age and of recalling interesting encounters – like when they met a young biologist from Germany. MICHAEL GLOBIG

PHOTO FROM: IRENÄUS EIBL-EIBESFELDT, GALAPAGOS, DIE ARCHIE NOAH IM PAZIFIK, PUBLISHED BY PIPER VERLAG, MUNICH, 1991

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