## THE MAGIC OF GALAPAGOS

by Yvonne Koolhof

My husband, Russ, and I leafed through an Audubon Society publication and found a nature odyssey to the National Park and Marine Reserve of Ecuador, the Galapagos Islands. Once we made the decision we found ourselves in the hands of two superb organizations, the Audubon Society and the Lindblad Expeditions, leading us through an unforgettable journey.

On the 23<sup>rd</sup> May, 2003, we joined our group in Miami airport and were soon on our way to Guayaquil, a short flight to the island of Baltra and our ship, M/S Polaris. We had already been prepared to care and protect this fragile archipelago and had to shuffle our shoes in an anti-bacterial gel before proceeding to the ship.

Each day was packed with informational trips, led by our well-informed Ecuadorian naturalists who fast became our friends. Their articulate lectures revealed a deep pride and protective care of their environment. Our ship, the "Polaris" carried 64 guests plus an energetic crew, many of whom lived on the Island of Santa Cruz. After introducing themselves at our first buffet luncheon they prepared us for our first ride in a Zodiac, a powered rubber boat that seats 12 people. Each evening we enjoyed entertaining lectures and, once, the Ecuadorian girls from the mainland danced in their bright costumes.

The first day we sailed along the coast of Santa Cruz and viewed myriads of bright red **Sally Lightfoot crab** on black volcanic rocks, also the incredible **Blue-footed** 



Boobies. Some of our snorklers, who braved the 69F degrees in the chilly Humboldt Current later, complained about the sea lions who were peering at them through their masks!

We were entering the dry season, and the land looked arid with ghostly white "holy trees" and tall candelabra

**cactus**. In the water life was prolific with large **sting rays**, **eagle rays** and **white-tipped shark**. On land we had our first encounter with a **Darwin finch** – one of 13 species.

We sped overnight to the south-eastern island of Espanola and observed sea lions who were on the beach, snorting loudly to blow salt from their noses, also dark marine iguanas that turn bright red during the mating season owing to the red algae in their diet. We also sighted small lava lizards, a rookery of Nazca boobies, and identified a Yellow Warbler finch.

Our next stop the following day was Floreana Island, used as a post office by men of the whaling industry and still in use today. Visitors may leave post cards to be delivered some time later. Unfortunately, pirates decimated the turtle population of Floreana and then the whalers who stored them in the ship's hold for meat.

We headed North-West toward Fernandina and Isabela Islands to Boca Redonda, a group of rocks on top of a submerged volcano. The Zodiac took us close to the volcano shield where we floated into a cave in with sea turtles swimming close by. A flightless cormorant also joined us and group of sociable bottle-nosed dolphins. An ocean sunfish called the "mola-mola" surfaced, its fin showing shark-like as it moved. A sea lion, perched on a rock, held a large fish in its mouth, and was about to enjoy lunch, when a frigate bird swept down and snatched the prize away.

After a challenging jump from the Zodiac into a glass-bottomed boat in a turbulent ocean, we were rewarded with the sight of **parrot fish**, the famous **chocolate chip starfish**, and a **Galapagos eel**. Parts of the ocean floor were covered with **sea urchins**. Dozens of sea lions were showing off and teasing our snorklers.



For our next expedition we sailed around the northern part of Isabela, then southward to Santa Cruz, containing the largest population of the five inhabited islands. This is also the site of the Charles Darwin Research Station, and the home of the **giant tortoises**. It was a learning experience showing the intensive work toward conservation of many species, also the incubators and nurseries to increase the depleted tortoise population.

Tortoises were enjoying a meal of elephant ears as we left to view the star of the show, "Lonesome George," who is the only example of his sub-species left on earth. Attempts to mate him have consistently failed. Like the finches, tortoises vary from island to island, as

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those with flat shells feed on lower-growing shrubs, where they also find shade.

After we had shopped in the bustling town of Puerta Ayora, a bus took us to the highlands, where lowland shrubs gradually changed to forest. We lunched in an attractive farmhouse with a roof of hewn lumber, graced by the presence of Jacqueline De Roy, mother of Tui De Roy, the world-famous Ecuadorian nature photographer.

This terrain was richly endowed with tall trees, small banana plantations, and trees that looked like broccoli. However the invasive quinine trees, brought in by colonials, were spreading and are being systematically eradicated. Our objective was the elusive vermilion fly catcher, tiny birds with brilliant red breasts and black heads. We also sighted a woodpecker finch, light brown with black wings, and a Galapagos dove. Tortoises were hiding in the shade, away from the hot afternoon sun.

The far eastern corner of the archipelago shows a complete contrast to Santa Cruz, from lush green highlands to desert scrubland, punctuated with red mangroves, a shelter for **frigate birds** and **Red Footed Boobies**. We wet-landed on a small coral beach at Genovesa Island, in the corner of Darwin Bay.

This large submerged caldera housed large numbers

of **frigate birds**, showing scarlet appendages hanging from their throats. Seeking attention from the females, they would sway their heads, puffing their large scarlet balloons. There were huge numbers with the males often sitting on the eggs.



Our guide, Fernandina, told us of birds catching an unfortunate finch, and tossing it in the air to one another. During the scarcity of water the **Vampire finch** would puncture other birds for a drink. Meanwhile, juvenile sea lions vied with each other for their mother's milk, until a sharp bark would straighten them out!

Puerto Egas, on the western end of Santiago, allowed us to sight **penguins** on the rocks. Only 14 inches high, they, like the **marine iguanas**, were hard to spot against the black rocks. One final beach walk and the Zodiacs carried us back to the "Polaris", to clean up and get ready for the farewell cocktail party with Captain Fausto Hinojosa in the lounge.

As the week progressed we had become increasingly aware of the unique nature of each island, caused by the variations of climate and geology affecting the evolution of animals and the unexpected forms of life. Finches, especially, were the main thrust of Darwin research with such variations of the species.

Darwin spent five weeks in the observation of species, hardly knowing where it would lead him. It was the finch population that would show him the way. He

measured beak lengths, studied available seeds, and also irregularities in the climate that might cause the decline or increase of the species, with the ever-present struggle for food. It was the beginning of the survival-of-the-fittest concept.

Evolutionary biologists Peter and Rosemary Grant followed up Darwin's studies, banding and measuring individuals and following succeeding descendants of the same bird. After 38 years of study on Daphne Island, the Grants established the genealogy of groups of finches.



It would be remiss not to mention the attendant difficulties in preserving this jewel in the Pacific and the efforts of the Ecuadorians, assisted by the Audubon Society, to solve them. Human habitation has taken its toll, introducing species of plants from other countries not endemic to the area. Goats and hogs have denuded vegetation in some areas and dug up turtle nests.

Shrimp farming caused further problems, as nets dragged along the sea floor caused a serious impact by the industry. During recent years when the Ecuadorian government placed sanctions on shrimp fishing, angry fishermen retaliated by slaughtering hundreds of Galapagos tortoises, according to an account in a newsletter I received. The National Park Service of Ecuador began dialogues with the fishermen, concerning the endangerment of the sea cucumber – an important link in the food chain. It began a campaign for the restoration of Santiago Island by eradicating black rats and pigs and placed a moratorium on emigration of residents to the island.

Today, the archipelago has become subject to another hazard: tourism itself, bringing larger ships and more people, as many as 50 visitors at a time, lining up for guided nature trails. In spite of vigilance by the Ecuadorians and the support of donors and naturalists world-wide, without restraint, we stand to lose one of the earth's greatest treasures.



For more information, see www.galapagos.com www.darwinfoundation.org www.fundaciongalapagos.org

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