

Geology Expedition to Ecuador & The Galapagos Islands with Dr Theofilos Toulkeridis, Ph.D.

13 June to 23 June 2010

22 August to 01 September 2010

5 December to 14 December 2010



Cotopaxi, Ecuador

Group Tour

11 Days

QUICK REFERENCE ITINERARY

Day 1	Quito
Day 2	Quito
Day 3	Quito/Galapagos
Day 4	Galapagos
Day 5	Galapagos
Day 6	Galapagos
Day 7	Galapagos
Day 8	Galapagos
Day 9	Galapagos
Day 10	Galapagos/Guayaquil
Day 11	Guayaquil

OVERVIEW

Follow in the footsteps of renowned explorers such as Alexander von Humboldt and discover examples of breathtaking geology in the Avenue of Volcanoes and the enchanting Galapagos Islands. Accompanied by expert field geologist Dr. Theofilos Toulkeridis, this small group tour has been carefully designed to offer both amateurs and geologists alike remarkable insight into the forces of nature at work in this north western tip of South America.

This comprehensive itinerary visits Cotopaxi National Park to explore the majestic Cotopaxi Volcano, before embarking on a memorable cruise around the Galapagos archipelago onboard the exclusive yacht Isabela II. Land at the shores of North Seymour, Espanola (Hood), Floreana, Santa Cruz, Genovesa (Tower), Fernandina, Isabela, Bartolome, Santiago (James), and Baltra with ample opportunity to experience these unique islands and learn about their formation. After your cruise return to the mainland and spend your final night in the tropical city of Guayaquil nestled on Ecuador's Pacific Coast.

DR THEOFILOS TOULKERIDIS PH.D.



'Theo' has been a resident of Ecuador since 1999 and is a full-time professor at the University of San Francisco at Quito (USFQ). Dr. Toulkeridis' is one of the most reputable geologists living in Ecuador while also being the Founder and Director of the Centre of Geology, Volcanology and Geodynamics. He earned his Bachelor of Science and Master of Science degrees in Geology and Palaeontology with a speciality focus in Isotope Geochemistry from the University of Mainz and the Max Planck Institute of Chemistry in Mainz, Germany. His Ph.D. in Geology and Isotope Geochemistry was completed in 1996, with the same institutions and in collaboration with the Centre for Surface Geochemistry at the French National Centre for Scientific Research in Strasbourg, France. His research in Ecuador is mainly focused on volcanoes in the Sub-Andean basin including the sierra Cordilleras and also the Galapagos Islands.

DETAILED TRIP ITINERARY

Day 1



Quito

You will be met upon arrival by the Steppes Travel representative at the airport and transferred to your hotel. All transfers are shared (unless stated otherwise) and included in your trip; however it will not detail every transfer on this itinerary.

Hilton Colon Quito is located in the heart of Ecuador's capital, only 20 minutes away from the airport, in the financial district with easy access to the colonial sector of the city. The hotel has 5 restaurants serving a range of food, including Mediterranean, Japanese and local flavours. The hotel has a heated outdoor pool, adjacent to the gym with weight machines, sauna, steam bath and massage service. For night-time entertainment the hotel has a Casino.

Overnight at Hilton Colon in a deluxe room on a bed & breakfast basis.

Day 2



Quito

After breakfast transfer from Quito to Cotopaxi National Park for a full day guided tour exploring one of the worlds most highest and active volcanoes.

Rising to 19,347 feet (5,897m) above sea level, Cotopaxi is a Pleistocene strato-volcano that boasts one of the few equatorial glaciers in the world.



Cotopaxi's almost symmetrical cone was formed by lava, pyroclastic materials and vast amounts of lahars making up the plains that surround it. Following decades of dormancy, Cotopaxi began to show signs of unrest in December 2001 with earthquakes, increased fumaroles activity from the summit crater, and small phreatic explosions. Much of the fumarolic activity was detected in the smaller crater, especially on the western side.

During your visit, observe laharic deposits, andesitic lava flows, various pyroclastic deposits with big pumices and also pyroclastic flow deposits with covered paleosoils and datable vegetation (with C14 isotopic method). Furthermore, cross hummocks and explore evidence of partial collapses as well as ignimbrites, the deposit of a pyroclastic density current or pyroclastic flow.



Afternoon transfer from Cotopaxi National Park back to Quito.

Overnight at Hilton Colon in a deluxe room on a bed & breakfast basis.

Day 3

Quito/Galapagos

The Galapagos Islands

The geodynamic origin of the Galapagos Islands is a highly



debated topic. The most common (but not overall accepted theory) demonstrates a *Hot spot* in the mantle as their most likely origin. However, the interaction of the presumed Hot Spot together with the given plate movements gave rise to different morphological features such as the Caribbean Large Igneous Province, and the break-up of the Farallon plate into the Cocos and Nazca Plate.



Ongoing drifting of the continents and creation of Hot-Spot related volcanoes created the prominent Cocos and Carnegie Ridges and also the smaller Malpelo and Coiba Ridges. The story about birth, life and death of a typical volcanic island of the Galapagos may best explain how life arrived in the distant islands and come to evolve differently than in South America.



This expedition includes a cross section through all stages of island development and explores the oldest and most eroded, but still astonishingly well preserved islands to the east, through to the freshest lava flows of more recent volcanic activity.



After an early breakfast, transfer to the airport for the flight to Galapagos. It's a 3 hour flight from Quito via Guayaquil before landing in the Galapagos Islands. Upon arrival in Baltra you will be met and transferred to the dock to embark on your Galapagos cruise onboard Isabella II. Enjoy lunch and a welcome introductory briefing by the crew and the expert naturalist.

North Seymour Island

Firstly sail to North Seymour; a low flat island formed by the uplift of sub-marine lava. It is covered with scrub and bush vegetation and contains the largest colony of frigate birds. From here it is possible to observe the Magnificent Frigate with its bright red pouch and Blue footed Boobies when nesting conditions are suitable.



This evening back onboard the yacht, sip welcome cocktails prior to dinner and be debriefed on the following day's activities.

Isabela II is a superior 53m (166ft) 1083-ton yacht providing accommodation for up to 40 passengers in 20 air-conditioned double cabins with en-suite facilities. Isabella has three public decks offering the facilities one would expect to find on larger vessels, including a bar/lounge, sundeck, an elegant dining room, library, Jacuzzi and small gym. The three multilingual naturalist guides will lead smaller groups on island tours. Isabella has a glass-bottom boat for observing marine life.

Overnight onboard Isabella II in a twin room on a full board basis.

Day 4

Galapagos

Gardner Bay (Hood Island)

After breakfast disembark (wet landing) at the shores of



Gardner Bay. This morning, step onto Gardner Bay, Espanola (Hood). Walk along endless stretches of sandy beach where you'll find large colonies of sea lions. There is no trail to follow so this is a chance to explore and you may find a Galapagos Hawk, Darwin's Finches or Hood Mockingbird. Swim with sea lions from the beach. There's an excellent snorkelling site off Gardner Islet with a colourful diversity of sea life near Gardner Islet and Tortuga Rock with caves covered with invertebrates.

Punta Suárez (Hood Island)

This afternoon, disembark (dry landing) at Punta Suarez, Espanola where it is possible to witness the highest rate of endemic species in Galapagos. Sea lions noisily greet the pangas landing on their beach. From April to November, the waved albatross, found only on Espanola, perform their wild mating ritual. Colonies of blue-footed boobies engage in 'sky-pointing' to show off for potential mates. Nazca (formerly masked) boobies busily care for their young. Stunning swallow-tailed gulls are the only nocturnal gulls in the world. Red-billed tropicbirds take shelter under the cliffs. Darwin's Finches, Galapagos Doves and Galapagos Hawks can also be found here. Observe a unique species of marine iguana identified with traces of red and green colorings. Colourful sally light-foot crabs crawl along the shoreline near to the famous 'blow hole'.

Overnight onboard Isabella II in a twin room on a full board basis.



Day 5

Galapagos



Punta Cormorant (Floreana Island)

Disembark Punta Cormorant (wet landing) set near the northernmost tip of Floreana, which offers two highly contrasting beaches; the landing beach is of volcanic origin and is composed of olivine crystals, giving it a greenish tinge. At the end of the short trail is a carbonate beach of very fine white sand, formed by the erosion of coral skeletons; it is a nesting site for green sea turtles. Between these two beaches is a salt lagoon frequented by flamingoes, pintails, stilts, and other wading birds. An old eroded volcanic cone called Devil's Crown is a popular roosting site for seabirds such as boobies, pelicans, and frigates and it is not uncommon to see red-billed tropicbirds in rocky crevices. The centre of the crown is an outstanding snorkeling spot full of sea lions and colourful fish.



Champion Islet - Post Office Bay (Floreana Island)

Sail onward to Champion Islet to snorkel from the pangas or ride on the glass-bottom boat. Return on board and navigate to Post Office Bay. Wet landing at the historic barrel which serves as a post office, to learn about the human side of the islands, its early inhabitants and the adventures of pirates and whalers. Visitors drop off unstamped letters and postcards AND pick-up whatever mail they can hand deliver themselves when they return home! (Try it, it actually works!)



Overnight onboard Isabella II in a twin room on a full board basis.

Day 6



Galapagos

Santa Cruz Island

Following a dry landing transfer to the highlands of Santa Cruz. During clear weather this area affords scenic views across rolling hills and extinct volcanic cones covered with grass and lush greenery all year round. Explore the twin pit craters geology formation, Los Gemelos and hopefully glimpse the endemic, rare and magnificent vermilion flycatcher in the surrounding trees.



This afternoon visit the Charles Darwin Research Station. An audiovisual presentation on the Foundation and the islands awaits you along with the opportunity to meet its most famous resident Lonesome George. Be shown the secrets of incubating and raising young tortoises as well as shown the giant adult tortoises that are in the captive breeding programme.

Overnight onboard Isabella II in a twin room on a full board basis.

Day 7



Galapagos

Darwin Bay (Tower Island)

This morning disembark on a wet landing at Darwin Bay (those not wishing to disembark can enjoy a longer panga ride along the cliffs, depending on the weather conditions).

Tower (Genovesa) Island resides to the northwest, slightly removed from the Galapagos archipelago forming the Bahia Darwin. The south-western part of the island is an ocean-filled caldera set around a sizeable submerged volcano. A rock fall near the tip of the caldera's eastern arm makes a natural staircase up the 25m cliff.



Also affectionately referred to as 'Bird Island' for its profusion of bird life species, especially blue-footed boobies and more uncommonly red-footed boobies. Frigate birds fill the skies and at night the only nocturnal gulls in the world, the swallow-tailed gulls, keeps the air alive with sound. The beauty of this island is that it can only be reached on faster vessels and therefore its remoteness adds to its tranquility and its enjoyment. Snorkelling here is rewarding too.

Overnight onboard Isabella II in a twin room on a full board basis.

Day 8



Galapagos

For those who wake early, enjoy views of the famous Ecuador Volcano, which rises off the water line with one of its halves completely collapsed, and now resting underwater, while crossing the Equator line.

Tagus Cove (Isabela Island)

This morning visit Isabela, the largest island of the Archipelago, over five times bigger than Santa Cruz. Composed of six shield volcanoes that have merged into a



single land mass it has the highest point in the archipelago on Wolf Volcano. Only the faster boats are able to go to Isabela due to the distance so its remoteness adds to the sense of a natural island. Visit Tagus Cove, located on the western Island of Isabela. An uphill hike takes guests to the back of Darwin Crater, filled with salt water. The view at the end of the trail is worth the climb. Darwin is one of Isabela's six volcanoes, a remarkable contrast to the lower islands to the east of the archipelago. Discover Graffiti dating back to the early 19th century, and explore the Cove in pangas or sea kayaks to find Galapagos penguins, boobies, pelicans and other seabirds.



Punta Espinoza (Fernandina Island)

The afternoon brings us to the youngest island, Fernandina. Disembark (dry landing) for a one-mile walk. Punta Espinoza has an amazing combination of barrenness coupled with an array of wildlife. No mammals were introduced to the island, making it a unique environment with the highest density of marine iguanas, sea lions, sally-lightfoot crabs, hawks, penguins and the flightless cormorant.

Overnight onboard Isabella II in a twin room on a full board basis.

Day 9

Galapagos



Puerto Egas (James Island)

This morning disembark at Puerto Egas (wet landing). Most of the landscape on James (Santiago) Island is composed of tuff-stone layers and lava flows. This is a great opportunity to see land and marine birds. At low tide, marine iguanas graze upon the algae beds and there is a colony of fur-sea lions. Opportunity for snorkeling and swimming from the beach after the walk, or a ride on the glass-bottom boat. Lunch on board.



Bartolome Island

Walking on Bartolome seems like walking on the moon. Very few animals and plants are found on this island due to its inhospitable environment. After a dry landing, climb 30 minutes up steps leading to the summit of a once active volcano to view the lava bombs, spatter cones and cinder cones. From the top of the wooden stairs gaze out across the island for a panoramic view across the beach and of 'Pinnacle Rock'. Down below, crystal clear water is an invitation to snorkel with schools of tropical fish and Galapagos Penguins. Opportunity for a panga ride around Pinnacle Rock to observe penguins before or after the walk.



This evening enjoy a farewell cocktail and departure briefing.

Galapagos Itineraries and program are subject to change without previous notice due mainly to readjustment of the National Park policies and regulations, weather conditions, seasonal changes or safety reasons.

Overnight onboard Isabella II in a twin room on a full board basis.

Day 10



Galapagos/Guayaquil

After breakfast, disembark at the port and transfer to the airport for the flight back to the mainland, Guayaquil.

Guayaquil is Ecuador's largest city and home to the country's chief seaport with major industries focused on petroleum refining, shrimp fishing, and food processing. Although founded in 1535, Guayaquil has few ancient monuments remaining, having been ravaged relentlessly by pirates during its early history then fallen to a devastating fire in 1896. The city is however, in the midst of a major urban renewal project and is the most forward thinking and modern rival to Quito.



This afternoon enjoy a guided group tour of Guayaquil encompassing many of the city's main attractions including the Centennial Plaza which honours the heroes of Guayaquil's independence, Parque Iguana with its thriving population of tame land iguanas, and the waterfront Malecon 2000.

Situated alongside the Guayas River, Hilton Colon Guayaquil stands majestically within the booming commercial sector of the city, and only five minutes drive from the airport. Presenting a remarkable architectural design and a panoramic view of the city, all guests rooms at the Hilton Colon are spacious, tastefully decorated and each equipped with a mini-bar, TV, telephone, safe, radio, air-conditioning, bath tub/shower, hairdryer and internet facilities.

Overnight at Hilton Colon - Guayaquil in a twin room on a bed & breakfast basis.

Day 11

Guayaquil

This morning you will be collected from your hotel and transferred to the international airport for your flight home, by own arrangements.

TRIP PRICE

Price from £2,995.00 per person + flight taxes

The price includes return internal flights, local transport and excursions as detailed, airport-hotel transfers, accommodation (twin/double with private facilities) and board as described.

Extras include international flights from the UK, entrance charges to sites, parks and museums, extra local excursions and guided tours, international and domestic airport taxes. Travel insurance, visas, and items of a personal nature, such as laundry, drinks, etc

Please note that there is \$100 Galapagos National Park fee and a Tourist Card fee of \$10 payable in cash, per person in small denominations, on arrival to The Galapagos Islands. It is sometimes possible to pre-pay the \$100, if this is of interest please discuss it with us.

Why Travel with Steppes?

Steppes Travel was founded in 1989 with the objective of creating a travel company where service and knowledge are of the highest priority. We aim to design itineraries and include the highlights of any country, whilst taking travellers off the beaten track to see lesser known, interesting places not frequented by large numbers of tourists. We offer individuals the ability to travel safely in remote areas, with the knowledge that we have travelled there before.

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