

Costa Rica – Tropical Rainforest Legend

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\$2475 with credit \$2300 without credit – does not include airfare

4 graduate credit hours

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Day 1: Fly into San Jose, Costa Rica, where we will rent a car and begin our explorations of the extraordinary biodiversity of this beautiful country. Costa Rica is located on the land bridge between North and South America and is a corridor for wildlife from both continents. The cranes, herons, geese, deer, and coyotes migrate down from North America, while the parrots, toucans, peccaries, and jaguars have traveled in from the jungles of South America. This narrow strip of land boasts the best biodiversity of anywhere on the planet. “Measured in terms of number of species per 10,000 sq km Costa Rica tops the list of countries at 615 species, compared to a wildlife-rich country such as [Rwanda](#) that has 596, or to the comparatively impoverished U.S. with its 104 species.

<http://www.lonelyplanet.com/costa-rica/wildlife/overview>

Costa Rica has 850 bird species, 260 other animal species, and provides essential habitat for many endangered animals including sea turtles, Baird’s tapir, Jaguars, and Resplendent Quetzals. This tiny country has protected 10.27 percent of its land to national parks and reserves with another 17% set aside as “buffer zones,” and wildlife refuges. It has 32 National Parks, eight biological reserves, 13 forest reserves and 51 wildlife refuges. Costa Rica leads the tropical countries in maintaining beautiful ecosystems for intense wildlife biodiversity.

We will begin our adventure by driving to the tiny seaside town of Quepos, near Manuel Antonio National Park, which is our best chance to see the four species of monkeys who live in the rainforests of Costa Rica. Along our route, we will see vast tracts of cleared rainforest that is now growing palm oil trees. Learn the ecological devastation and economic growth of one of the tropic’s largest agricultural crops. Jigsaw lecture on the impact and uses of palm oil. After checking into our beachfront hotel, we will have time to take a sunset beach walk. Our documentation all of the species of birds, fish, and mammals that we see will begin this evening along the beautiful forested beach of Playa Espadilla.

Day 2: Costa Rica’s tiniest national park, Parque Nacional Manuel Antonio is one of the most biodiverse. We will arrive at the gates and meet our guide as the park opens at 8:00 a.m. and keep our eyes open for sightings of coatis, sloths, scarlet macaws, toucans, as well as Capuchin Monkeys, Howler Monkeys, Squirrel Monkeys and Spider Monkeys. Pack your lunch since after our tour, we will have additional time to explore and hike on our own along beaches and lowland rainforests.

Late afternoon will find us trading in walking shoes for snorkel gear as we set off to explore a beach side coral reef. Many of the reefs of Costa Rica have been destroyed by sedimentation run off from banana, palm oil and pineapple plantations. We will study coral reef ecology and impacts of global climate change and sedimentation after our snorkeling adventure. Bring your underwater cameras and notebooks for documenting reef fish and invertebrates.

Day 3: After leaving Quepos, we will drive to explore the active volcano of Poas, which towers at 8850 feet over the capital city of San Jose and erupts periodically on about a 40 year cycle. The isthmus of Costa Rica is made up of 14 known volcanoes, of which six have been active in the last 75 years. We will study the geology of the crashing of plate tectonics that is responsible for all the fireworks. Costa Rica is part of the famous Ring of Fire of Volcanoes. Our journey to the summit of Poas takes us through some of the most beautiful farmland in the country, where we will see coffee plantations, dairy farms and splendid views back down the valley. Let the weather Gods be with us, since on a clear day you can see both the Caribbean Sea and the Pacific Ocean from the summit of Poas. A viewing terrace allows us to peer down into the steaming caldera and acidic turquoise lake of one of the world's largest active craters at 895 feet wide and a mile deep. The cloud forest of Poas contains over 80 species of birds. After leaving the summit of Poas, we will drop down its eastern slope to La Paz Waterfall Gardens, where we will tour a Hummingbird Garden, a Butterfly Garden and see exhibits of some of the unique mammals and amphibians of Costa Rica. We will then hike down a trail through the rainforest past five thundering waterfalls. Make sure to bring your cameras with plenty of batteries. A shuttle bus will take us back up the steep grade to the Visitor's Center.

A short drive after leaving the Gardens, will bring us to the world famous biological research station of La Selva, where we will spend the night.

Day 4 and Day 5: La Selva, an Organization of Tropical Studies Research Station, is located in the lowland rainforest and is home to over half of Costa Rica's bird species as well as 120 mammal species including jaguar, peccaries, and howler monkeys. La Selva has a beautiful swinging bridge that crossed the Rio Sarapiquí. When I was on the recon trip for Costa Rica, a troop of 15 Howler Monkeys crossed this bridge at the same time I was on it. I have a photograph of a male Howler Monkey with my reflection in his eyes. La Selva is one of my favorite places on earth, since I spent a summer on a science expedition there and then got to go back the next summer as one of the leaders of the NSTA sponsored class. Over 31 miles of trails through the rainforest will await our exploration. We will spend the next two days submerged in biodiversity as we continue to document the species that we see. La Selva is the world known research station for biologists, entomologists, herpetology, botany, and habitat restoration. Late in the afternoon of Day 5, we will leave La Selva and journey to La Fortuna, the small town at the base of Arenal Volcano. This evening we will hope for a glimpse of the fireworks at the top of Arenal while we bask in a soothing luxurious volcanically heated hot springs, while learning the geology of volcanoes and hot springs.

Day 6: Our day will start with a 2 mile hike through the Hanging Bridges of Arenal, which is in a beautiful rainforest setting with great views of Arenal Volcano and hanging bridges crossing multiple streams. As we make our way around Laguna de Arenal today, we will continue our biodiversity lists of birds and mammals. This large freshwater lake is a beautiful setting for wildlife and agriculture and was formed in a tectonic depression. After our beautiful drive, we will climb steeply into the clouds of Monteverde Cloudforest Biological Reserve, the most famous of Costa Ricans Parks. It was here that scientists first realized that amphibians are sharply declining worldwide with the demise of the Golden Toad. Although extremely common up until 1986, the Golden Toad was extinct by 1988. We will tour the nearby Reserva Bosque Nuboso Santa Elena, which is funded and run by the community of Santa Elena and partially developed with the help of the local high school students. If dashing through the cloud forest on a zip line is your dream, you can zip line through the canopy instead of walking down the trails.

Day 7: Monteverde Cloud Forest Reserve limits the number of visitors on the trails at any one time, so we will arrive early and hire a guide. This is the best place to see the Resplendent Quetzal, an elusive and endangered cloud forest bird blast of color. Remember to bring your packed lunch as we will spend the entire day on the trails of Monteverde, with binoculars and cameras in hand to document this magical place. The reserve straddles the continental divide and is comprised of 6 different ecosystems. A biodiverse champion, Monteverde has over 150 species of amphibians and reptiles, 500 species of butterflies, 100 species of mammals, and 400 species of birds. All five species of cats live here – jaguars, jaguarundis, pumas, margays, and ocelots, although our chances of seeing the illusive cats are slight.

Day 8: The cloud forest of Monteverde is world famous and worth another early morning hike through the mists. As we leave Monteverde Cloud Forest, we have spectacular views overlooking the Guanacaste and the Pacific Ocean. We will make our way through the beautiful cloud forest slopes and arrive in the western Tropical Dry Forests of Costa Rica. The prevailing winds come in from the east and drop most of the moisture onto the volcanoes in central Costa Rica, so Guanacaste finds itself in a rain shadow with tropical dry forests. We will explore briefly along the Tempisque River searching for crocodiles, storks, jabirus, and roseate spoonbills and then make our way back to San Jose for our flight out tomorrow.

Day 9: We will leave Costa Rica filled with wonderful memories of the beauty and biodiversity of Costa Rica.