Executive Summary

From May 19-29, 2019, Conservation Volunteers International Program (ConservationVIP®) successfully led a volunteer trip to San Cristóbal and Isla Isabela in the Galápagos Islands. The 14-member volunteer group included ConservationVIP® trip leaders Mark Hardgrove and Barbara Kennedy. Ecuadorian guide Andres de la Torre assisted our group throughout the trip. His knowledge of the islands, wildlife, history, and culture contributed significantly to the experience of our volunteers. In addition, certified Galápagos National Park Service local guides accompanied the group at different locations on the trip.

Group activities supported the ongoing sea turtle research project conducted by the University of San Francisco de Quito at the Galápagos Science Center on San Cristóbal. Dr. Judith Denkinger, marine biologist from University of San Francisco de Quito, led our sea turtle project work on San Cristóbal. Volunteers photographed sea turtles to contribute data for the research database at different locations in the Galápagos.
The volunteer group also worked on a variety of habitat improvement projects at Campo Duro on Isla Isabela where giant tortoises are raised in a protected environment until they are mature enough to be released in a natural setting in Galápagos National Park. In addition, trash pickup was conducted on several National Park beaches in the Galápagos, helping protect the nesting and feeding of shore birds, sea turtles, sea lions, and reducing ocean pollution that negatively impacts all sea life.

During the trip, approximately 644 hours were devoted to job training, safety meetings, orientation, and volunteer project work: 448 volunteer hours were dedicated to the sea turtle data collection and beach cleanups. Utilizing GoPro cameras at various survey sites, the volunteer group collected 1720 digital photographs of underwater marine life. These sea turtle and other marine life photographs provide data about local turtle populations to support the research conducted by the University of San Francisco de Quito at the Galápagos Science Center. Facial recognition software is used to analyze the photographs, giving the researchers new data each trip. In addition, more than 196 hours were spent at Campo Duro on Giant Tortoise Habitat Restoration.

**Detailed Trip Report**

**Day 1:** Trip Leaders and Ecuadorian guide Andres de la Torre led an in-depth orientation and briefing at the group hotel Casa Opuntia on San Cristóbal Island, beginning at 2:00 PM. Following the orientation, the group hiked out to the Interpretive Center, Darwin Bay (the location where Charles Darwin first landed in 1835), and Playa Carola, where we enjoyed a variety of marine and wildlife, including sea lions, swallow-tailed gulls, frigate birds, and the endemic marine iguana, the world's only seagoing lizard.

**Day 2:** After a tasty and substantive breakfast, the group travelled by bus to Centro de Crianza de Tortugas Terrestres. At the Crianza, which is part of the Galápagos National Park's semi-natural breeding programs and sanctuaries for giant tortoises, the volunteers began their familiarization with giant tortoises. It was feeding day for the tortoises, and the group was fortunate to witness the hungry tortoise enjoying Otoy, a taro like plant.

After our visit to the Crianza we headed to Puerto Chino, a beautiful beach and rocky headland where we looked for seabirds and patrolled for litter. A few volunteers got a close look at frigate birds, who were resting on the headland. We also learned about the life cycle of the marine iguana, from our local guide Mariuxi.
After a return to our hotel and lunch, the group hiked to the Galápagos Science Center for an orientation on the sea turtle census and research project led by marine biologist Dr. Judy Denkinger. Presentations were given by Dr. Denkinger, her students, lab specialists, and principle investigators on their work, microplastics, and other types of ocean trash that affects sea life, as well as climate change. Many questions were enthusiastically asked by group participants indicating significant appreciation for our projects in collaboration with the Galápagos Science Center. The volunteers were especially intrigued and excited to learn of the facial recognition software used to identify, classify, and catalog each sea turtle photographed.

Day 3: In the morning volunteers were grouped by twos, assigned a GoPro camera, and obtained snorkeling equipment and wet suits. After ensuring proper fit and seal of all gear, volunteers headed off for the first snorkeling experience and sea turtle data collection. We travelled to Playa Loberia, named after the sea lions (lobos). We took our first series of photos with the GoPro cameras and enjoyed the land and marine wildlife.

In the afternoon, the group hiked to Darwin Bay for continued snorkeling and sea turtle data collection. Volunteers photographed several sea turtles there. A few volunteers enjoyed a game of play instigated by two young sea lion pups, who also “assisted” in some of our sea turtle photography by harassing the turtles we were attempting to photograph.

Day 4: After breakfast, we boarded two boats for our trip to Kicker Rock, a volcanic cone featuring a monolithic rock formation rising over 500 feet above the ocean. On the journey we observed sea lions, blue-footed Boobies, and magnificent frigate bird males, displaying their bright red throat pouches. The water at Kicker Rock was beautiful with moderate temperatures.
While snorkeling, we photographed sea turtles, lava gulls, several species of boobies, and many species of fish. The volunteers experienced swimming into both the large and small cracks. Back on the boats the group warmed up with lemongrass tea provided by our crew and traveled toward a remote beach while enjoying a delicious lunch served by the boat crew. At the beach, volunteers cleaned up small bits of trash.

Day 5: With early departures, volunteers transferred via air shuttle in two groups from the island of San Cristóbal to Isla Isabela. The first two nights on Isla Isabela were in the village of Puerto Villamil. While waiting to check into the hotel, volunteers combed the beach for trash and collected plastic and other trash threatening marine and wildlife.

Later the group met up with local guide, Christian, who led the group on a walk in the Galápagos National Park to the Centro de Crianza, the Giant Tortoise Center on Isla Isabela, where tortoises are bred and kept in safe captivity from the time they hatch until they reach the maturity necessary for safe release into a wilder environment or into their natural habitat. While at the Crianza the group learned about the captive breeding program, which supports several subspecies of tortoises.

Day 6: Friday morning we were shuttled by bus to the marina and boarded the boat to the Islet of Tintoreras where different forms of lava on the islands are found and mangrove trees are more mature. Blue-footed boobies, Galápagos penguins, many adult and juvenile marine iguanas, and sea lions inhabit the area.

The group took a short hike and enjoyed the magic of lava rock formations, an assortment of iguanas, and enjoyed observing a number of white-tipped reef sharks resting in water filled lava cracks.

Volunteers snorkeled in crystal-clear turquoise waters of the Las Tintoreras, where many sea turtles, a number of them resting on the sandy bottom, were photographed for the Galápagos Science Center research project. A special treat was being in the water as large marine iguanas swam into shore with the incoming tide.
In the afternoon, we donned helmets and set out on mountain bikes to ride approximately 10-mile roundtrip to the Wall of Tears, which serves as a haunting reminder of when Isabela was used as a penal colony. Prisoners toiled in the hot equatorial sun to build this monument as punishment to serve their time. The group saw giant tortoises feeding in the wild along the route.

**Days 7-8:** In the morning the group packed up and boarded the bus to Campo Duro, our location for the next volunteer project. An Eco-Camp located in the cooler, lush, tropical highlands on the slopes of the Sierra Negra Volcano, Campo Duro works under permit with Galápagos National Park. The 3-acre, privately-owned camp provides a protected reserve to help raise 11 Giant Tortoises approximately 16 years old.

Sleeping in tents at the camp, volunteers worked for 2½ days on a variety of projects to improve the tortoise habitat at Campo Duro. Each evening volunteers savored good conversations with each other, sometimes around a campfire. One night our budding astrophysicist helped us identify stars and constellations during a short clearing period. It was a thrill for many to see the Southern Cross for the first time. (and music followed.)
Campo Duro projects included:
- trimming new shoots off existing Otoy plants and transplanting approximately 200 plants for new growth for tortoise food over an area approximately 1800 square ft
- trimming via weed eater all grounds to permit the emergence of new grass and minimizing overgrowth of weeds
- raking and piling trimmings and debris for mulch around surrounding tree trunks
- clearing pathways for tortoises to access ponds and ensuring rock paths were well-defined, allowing tortoises to trim their nails as they move about the grounds.
- Raking debris out of the ponds
- Trimming the natural fence around the Tortoise enclosure, and planting cuttings in areas where the vegetation along the fence is thin.

Day 9: After breakfast, the group completed tasks in the tortoise enclosure, then cleaned up, marked, and stored tools for subsequent ConservationVIP® volunteer trips. After lunch the group packed up, said goodbye to the Campo Duro staff and tortoises, and returned to the hotel in the village of Puerto Villamil.

Day 10: Fully rested and up early, volunteers travelled by bus to the Sierra Negra trailhead where our local guide Christian gave us an extensive introduction to the volcanic origins of the Galápagos Islands as we hiked the trail for a view of Sierra Negra volcano. The overcast skies made for pleasant temperatures on the 10-mile trail known as Volcan Chico. The summit revealed fantastic views of the caldera and amazing landscapes.
That evening, volunteers enjoyed a special dinner and celebrated the new friendships and lasting memories. The compassion, energy, and thoughtfulness of each volunteer was infectious as everyone expressed a deep appreciation for our time and the work we accomplished together.

Day 11: The group flew on two separate flights to Baltra, arriving in time to catch their connecting flights to other destinations or to home. Volunteers left as citizen scientists who are dedicated to helping sustain some of the world’s greatest landscapes, cultural sites, and biodiversity!

Submitted by Mark Hardgrove and Barbara Kennedy, Trip Leaders for ConservationVIP®
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