



## PROJECT REPORT GALÁPAGOS ISLANDS VOLUNTEER TRIP January 14 – 24, 2020



### Executive Summary

From January 14-24, 2020, Conservation Volunteers International Program (ConservationVIP®) successfully led a volunteer trip to San Cristóbal and Isla Isabela in the Galápagos Islands. The fourteen-member volunteer group included ConservationVIP® trip leaders Mark Hardgrove and Susan Murray. Ecuadorian guide Andres de la Torre assisted the group throughout the trip with transportation, meal logistics, and local guide translations as needed. His knowledge of the park and islands, wildlife, history and culture contributed significantly to the experience of the volunteers. In addition, certified Galápagos National Park Service local guides accompanied the group at different locations on the trip.

Group volunteer 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 the University of San Francisco de Quito, led the sea turtle project volunteer work on San Cristóbal. Volunteers photographed sea turtles at four different locations on the islands of Santa Cristobal and Isla Isabela which contributed data for the Center's research database.

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 532 volunteer hours were devoted to job training, safety meetings, orientation, and volunteer project works: 273 volunteer hours were related to the sea turtle data collection, 43 volunteer hours dedicated to beach cleanups, and 216 volunteer hours were dedicated to the giant tortoise habitat restoration. Utilizing GoPro cameras at four survey sites, the volunteer group collected ~7000 digital photographs of underwater marine life. These sea turtle and other marine life photographs provide data about sea 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.

### Detailed Trip Report

**Day 1:** The trip Leaders and Ecuadorian guide Andres de la Torre led an in-depth orientation at the hotel Casa Opuntia on San Cristóbal Island, beginning at 2:00 PM. Following the orientation, the group hiked to the Interpretive Center, Darwin Bay (the location where Charles Darwin first landed in 1835), and Playa Carola, where they enjoyed a variety of marine and wild life, including sea lions, frigate birds, and the endemic marine iguana reptile, 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 education and familiarization with giant tortoises. After the visit, the bus then proceeded to Playa Puerto Chino where the group took a short hike to the beach and the rocks to view the flora and fauna of this location.





The group then returned to the hotel and walked to lunch where they were introduced to Dr. Judith Denkinger. After lunch they were fitted for wet suits, snorkeling and camera gear and then hiked with Dr. Judy and the guides to Darwin Bay for their first volunteer activity in support of the sea turtle research project. Several turtles were spotted as well as a beautiful, large brown pelican and various fish. Many yellow-tailed goat fish were spotted feeding just below the surface.



**Day 3:** After breakfast, the volunteers boarded two boats for the trip to Kicker Rock, a volcanic cone featuring a monolithic rock formation rising over 500 feet above the ocean. On the journey they observed many birds including blue-footed Boobies, frigate birds, and the swallow tail gull. The first stop was at the Cerro Brujo (Witch's Hill) beach where they had a view of Kicker Rock, also known as Leon Dormido (sleeping lion). The groups went on the beach and the guides led them on a short walk while sharing local history and more information about the local flora and fauna. The group learned about the unique roots and filtering ability of mangroves and their critical role in many coastal systems. Groves host rich concentrations of nutrients as well as plankton which in turn make them breeding grounds for the sea and land wildlife including the turtles. The above-land root systems also protect the animals from large predators. The guides showed the volunteers how they can start new mangroves by planting their seeds which was promptly copied by the volunteers throughout the rest of the trip.



Trash was picked up along the route and upon return to the boat, the groups received a locally prepared delicious lunch consisting of rice, fish and vegetable dishes. The boats then proceeded to Kicker Rock and took a tour around this large rock allowing for different views and spotting of wildlife. They then identified the location for the volunteers to enter the water. Both groups spent about one hour in the water taking pictures of turtles, fish, sea lions, sharks. Everyone thoroughly enjoyed the magical underwater views including the colorful reef and the large and dense schools of fish. Back on the boats the groups warmed up with lemongrass tea and chocolate provided by the crew and then returned to San Cristobal with many pictures, impressions and memorable moments they would not easily forget.



**Day 4:** After breakfast, the group hiked to the Galápagos Science Center for a tour of the facility and the labs as well as an orientation on the sea turtle census and research project led by marine biologist Dr. Judy Denkinger. Overviews were also given by Juan Pablo Munoz, marine biologist, who invited some of the lab specialists to talk about the center's many projects including micro plastics, community engagement and other types of ocean trash that affects sea life. Juan Pablo showed the group a video about the plastic trash and the resulting micro plastics and the initiative to determine and fix the root cause of the issue in addition to clean-up. (the video can be seen at <https://www.youtube.com/watch?v=aS8IBxi2xJE> ). The group left with a quote imprinted in their minds *"making a better world for our kids and making better kids for our world."*

Many questions were enthusiastically asked by the volunteers indicating significant appreciation for the projects in collaboration with the Center. Mark Hardgrove presented two donated GoPro cameras to Juan Pablo on behalf of ConservationVIP® and the volunteers. The volunteers



returned to the hotel with additional understanding of the many challenges and how their work supports the efforts. They were intrigued and excited to learn about the various projects as well as the facial recognition software approach to identify, classify, and catalog each sea turtle photographed.

After lunch, the group travelled to Playa Loberia, named after the sea lions (lobos). The group first hiked along the shore on the lava rock to the viewpoint while also looking for trash. This is also a location where they saw and learned about the large and colorful Galápagos marine iguanas. At the viewpoint they saw turtles in the choppy water below, boobies, the swallow tail gull, frigate birds and the red-billed tropic bird. Birds were diving and flying from their rock



positions while marine iguanas seemed to be watching the activity. After the hike, the groups went into the water to continue their volunteer work photographing the turtles and wildlife.



**Day 5:** Very early in the morning, the 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. Upon arrival at the airport, the volunteers met the local guide, Fausto.

After eating breakfast, Fausto and Andres led the group on a walk 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. They also learned that Campo Duro, where they would be performing volunteer work later that week, is one of the wilder environments where the young giant tortoises go prior to release into the wild. Most of the 11 tortoises that are now about 10 years old were recently transferred from Campo Duro to be released into the natural habitat at the Northern part of the Island. The group was able to see 4 of these tortoises in quarantine at the center while they also saw the helicopter in the air which had just transported some of the others to the Northern habitat of the island. Later, at Campo Duro, they would see the 20 new arrivals, ~5-year-old tortoises that will spend the next 10 years at this location. There were also 3 older tortoises, one missing a rear leg, one discovered recently on the road and one of the previous 11 who has an oversized neck.



In the afternoon, the group was outfitted for the bike trip to the Wall of Tears. They received helmets and set out on mountain bikes to ride a ~10-mile roundtrip to the Wall of Tears, which serves as a haunting reminder of the time when Isla 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 as many as 10 Giant Tortoises along the route, the most ever seen so far on our trips which was very exciting! Along the way they stopped at a mature mangrove area and the local guide Fausto walked them through a mangrove forest to a freshwater area and explained to the group more about mangroves. After hiking up to the Wall of Tears, some of the group hiked up to the viewpoint where they had an almost 360° view of the island.





**Day 6:** Today the group was 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, lava egrets, crabs, and many adult and juvenile marine iguanas, and sea lions inhabit the area.

First, the group took a short hike led by Fausto, the local guide, and they enjoyed the magic of lava rock formations, an assortment of iguanas (including two males dueling, a pair mating and a skeleton), and a few white-tipped reef sharks in the surrounding waters. The volunteers then performed their fourth and last snorkeling volunteer work in the waters of Las Tintoreras, where sea turtles were photographed for the Galápagos Science Center research project.



In the afternoon, the groups received information about the beaches to the North and South of the hotel and they were provided with bags and gloves to clean up the beach. All volunteers spent ~2 to 3 hours walking and cleaning the beaches. Prior to dinner, each shared about their clean-up experiences including the volume of trash, the unique items they found, and the volume of micro plastics. They collected many items and locals and tourists gave them additional items and thanked them for their efforts. There were 11 large trash bags of trash which were picked up the next day. A job well done!

**Days 7-8:** In the morning the group checked out of the hotel and boarded the bus to Campo Duro, the location for the next volunteer project of the trip. Campo Duro is an Eco-Camp located in the cooler, lush, tropical highlands on the slopes of the Sierra Negra Volcano. The camp works under permit with the Galápagos National Park. The 6-acre privately-owned camp located within the park boundaries provides a protected reserve to help raise Giant Tortoises. As noted earlier, the Park just transitioned the grown tortoises to the wild and provided Campo Duro with 20 young tortoises of approximately 5 years of age with potentially another 20 to be added. The project for our volunteers for this trip was to extend the habitat by moving the fence. After approval by the National Park, a trench of 240 feet was dug through roots and rock and the old fence was dug out and moved, adding about 3000 sq. foot to the habitat. While digging the trench, the group encountered many roots and rocks and several very large rocks. To take out the fence, it also required much digging as the fence was deep and folded to prevent tortoises from escaping the habitat. After reinstalling the fence in the new location, the group then relocated or planted a total of 140 various tree cuttings and plants to help cover the fence. This will also deter the tortoises from wanting to leave the area. The group also raked the property to move the cuttings from the weed eater who worked 1.5 day at the property, funded by ConservationVIP®. Lastly, the group was able to identify all 20 tortoises by number which is helpful for future groups. At the end of the project, which was completed ahead of schedule, tools were cleaned and returned. Newly purchased tools were marked and stored in their new locations.

The volunteers slept in tents at the camp. The 2.5-day intensive project was completed ahead of schedule by the volunteers, allowing for some rest and relaxation and spending time with the 20 new “kids.” New tools were acquired for Campo Duro, identified by color and provided to the local owner. The volunteers enjoyed the beautiful, lush surroundings, organic food, homemade Aji, outdoor showers and the quiet, dark evenings with no artificial light pollution. Evenings were concluded with the enjoyment of music around a pit fire and warm conversations and memories of the day’s work activities.





In summary, the work performed at Campo Duro included:

- Extending the habitat by ~3000 sq. ft. by digging a trench through rock and roots and moving 240 ft. of linear fence in sections. Pulling and tying the fence properly to minimize the escape of the tortoises (they like to dig and climb).
- Cutting and / or relocating plants and bushes around the new fence, ~140 shoots which will help deter the tortoises from exploring near the fence.
- Trimming grass and weeds via weed eater on all grounds to permit the emergence of new grass (food for tortoises) and minimizing overgrowth of weeds.
- Raking and piling trimmings and debris for mulch around surrounding tree trunks.
- Inventory of the 20 new tortoises by picture and number to be used for identification and accounting for future ConservationVIP® volunteers.



**Day 9:** After breakfast, some volunteers did a final tortoise inventory verification of the group of 23: 1, 2, 3, 4, 6, 24, 27, 30, 50, 51, 52, 57, 59, 60, 70, 71, 76, 79, 82, 83 and the 3 larger tortoises. After lunch the group packed and received a big thank you for their work by the Campo Duro owner, Don Wilfredo. Mark Hardgrove, in turn, thanked Campo Duro for their partnership and good care of the volunteers. They then said goodbye to the Campo Duro staff 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 they started a ~10-mile hike. Along the way, the local guide Fausto and Andres gave them an extensive introduction to the volcanic origins of the Galápagos Islands including the 2015 and 2018 events. They hiked the trail along the caldera up to the point that was impacted by the 2018 fissure eruption. The group was able to see the location of the 2015 eruption as well as the lava from a fissure from 2018. They also had a view of Isla Fernandina which just weeks ago had a small eruption. Additionally, they had views of the 9 by 10 km Caldera as well as the west side of the island. They saw flora and fauna including the Darwin Daisy and the Mockingbird. The overcast and periodic sunny skies made for pleasant temperatures on the 10-mile trail. On the way back to the hotel the volunteers were provided a lunch by the staff of Campo Duro and some said a final goodbye to the 23 tortoises.



In the evening, volunteers enjoyed a special dinner and celebrated the new friendships and lasting memories. The group had prepared a special presentation for their Ecuadorian guide, Andres, thanking him for his work during the trip including the logistics and arrangements of hotels, rooms and restaurants, the fabulous food and especially his knowledge of the local



culture, islands and flora and fauna. The compassion and the positive attitudes of the volunteers on this trip was infectious and aided to the large amount of work done. They made it look easy.



**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! Indeed, **"ordinary people performing extraordinary services"**

**Submitted by Mark Hardgrove  
with the assistance of Susan Murray,  
Trip Leaders for ConservationVIP®**

