

Costa Rica & Panama Canal

Aboard *Sylvia Earle* | 21 April – 03 May 2023





San Jose, Punta Arenas

DAY 1 | Friday 21 April 2023

Position at 1200 on April 21

Latitude: 09° 58.3' N

Longitude: 084° 49.8' W

Course: 192°

Speed: At anchor

Wind Speed: 6 knots N

Barometer: 1010

Air Temp: 28°C

Dramatic volcanoes, misty cloud forest, and deep river valleys make Costa Rica an ideal destination for the adventure minded.

After months (even years) of planning, weeks of anticipation and long-haul flights from around the globe, we finally arrived in the incredible natural wonderland of Costa Rica, raring to begin our adventure.

We started the day with a delightful breakfast facing the blue water of the hotel pool before boarding the bus and hitting the road!

Today we visited the Green Ark Ethno Botanical Garden. What a magical place! We learnt about herbs, trees, flowers, fruits... some native, some exotic, all interesting with many a surprise to us. We were even able to try some of the leaves and fruits!

There were lots of birds and brightly coloured butterflies around that were fascinating to watch.

It was a full morning, and we enjoyed that first contact with the Costa Rican environment!

A lovely lunch was waiting for us at the main house, with fruits, juice and plenty of tasty dishes, seasoned with the herbs we just saw in the gardens.

A long drive followed through the busy San Jose de Costa Rica afternoon, taking us to our final destination of the day, Puntarenas Port where beautiful *Sylvia Earle* and the Aurora team and crew were waiting for us.

We were welcomed at the wharf by locals playing live Costa Rican music, a tropical vibe in the air as we clambered up the gangway for the first photo of our Expedition.

The Aurora E Team and hotel crew were full of smiles and ready to get us checked in and settled into our new home-away-from-home, the *Sylvia Earle*.

Onboard we total 60 Expeditioners with nationalities representing Australia (31), Israel (7), New Zealand (2), UK (10), USA (10), along with 16 Expedition Team and 80 Ship Crew from all over the world.

We had a small window to settle into cabins and enjoy delicious embarkation refreshments before Expedition Leader Roger called us together to welcome us aboard. We met the Expedition Team, Doctor and Hotel Department. We are definitely in good hands!



Curú National Wildlife Refuge

DAY 2 | Saturday 22 April 2023

Position at 1200 on April 22

Latitude: 09° 47.3' N

Longitude: 084° 54.6' W

Course: 096.5°

Speed: At anchor

Wind Speed: 15 knots S

Barometer: 1009

Air Temp: 31°C

What is Costa Rica's motto?

The small Central America nation of almost 5 million people is famous for its stunning beaches, lush jungles and a laid-back way of life defined by its national motto — Pura Vida! The national motto and tourism slogan loosely translates to Live Life or Enjoy Life

After an early morning breakfast, we boarded Zodiacs to splash down into warm water to begin a morning hike in the Curu Dry tropical forest. Once on the beach we changed into dry walking shoes and divided up into four small groups in search of wildlife and found the wildlife quite cooperative. Larger mammals that made an appearance were white tailed deer, including a cute spotted Bambi enthusiastically nursing a doe on the trail, agoutis (watusa), racoons and coati mundi. We also spotted a few species of heron, mot mot, kingfishers, woodpeckers as well as colorful blue morpho butterflies and damsel and dragonflies. Monkeys also graced our morning in the form of capuchin and howlers. Our experience was greatly enhanced by the additions of local experts, Willow, Bill and Percy as well as our own Conrad and Arlet.

Upon returning to the *Sylvia Earle*, we refreshed with cold drinks and a fantastic lunch buffet to recharge for afternoon water activities, including some snorkelling, kayaking and hiking. The snorkellers enjoyed cooling down in the warm waters to view a variety of colourful tropical fish including wrasses and damselfish. Kayakers came to shore to hop into inflatable kayaks to explore up the river a bit in search of birds, trees and anything else lurking amongst the roots of the tropical trees that rim the shoreline. As our kayakers explored one of the rocky shorelines, they drifted under overhanging trees with beautiful white blossoms to the sound of alerts by howlers.

It was quite amazing to encounter howler monkeys lazing about in the branches so we could get a good look at them.

Once hikers, snorkelers and paddlers were all back on board, well-rinsed and properly hydrated, we were all given an official welcome in the lecture lounge by Captain Arsen and his senior officers.

We learnt a little bit more about who they are before the captain toasted to our 'dream' adventure!

This was followed by Roger's preview of our activities at Manuel Antonio National Park. By this time, we Expeditioners were more than ready to be greeted in the dining room with all the wonderful creations of the chef and kitchen staff to fuel us for another day ahead.



Manuel Antonio, Tulemar Beach

DAY 3 | Sunday 23 April 2023

Position at 1800 on April 23

Latitude: 09° 25.6' N

Longitude: 084° 10.7' W

Course: 175°

Speed: At anchor

Wind Speed: 3 knots S

Barometer: 1008

Air Temp: 29°C

Located just north of the Equator, Costa Rica is one of the most bio-diverse spots on the planet and is a leader in ecotourism. There are few places in the world where so many types of habitats fit into such a small place.

Today we awoke to the familiar sound of Roger's voice in the early morning darkness. "Rise and shine, it's Manuel Antonio time!" After a groggy start and a strong coffee or two, we departed for the marina to be picked up by our shuttle bus and shuttled away to the famous Manuel Antonio National Park. Travelling up the steep roads, we got some great views of the *Sylvia Earle* moored out in the bay. Upon arrival, we took a short walk through the colour side alleys to the park entrance before meeting our local wildlife guides. Within the park, we were treated to many animal delights on our walk, including the violet-crowned woodnymph hummingbird, black-throated trogon and the iconic two-toed sloth. On several occasions a brilliant flash of fluorescent blue flew over our head. This was the blue morpho butterfly, a national symbol of Costa Rica with a whopping 20 centimeters wingspan. We also learnt about the incredible relationships between plants and animals, especially the pollinating species of hummingbirds that can visit hundreds of flowers in a single day.

After our park walk, we made our way back down to the park entrance, where we were treated to some very tasty pineapple and watermelon. Then we hopped onto the air-conditioned bus, where everyone was miraculously seated within 30 seconds of the bus doors opening. The power of heat and humidity! On our trip out of the marina back to *Sylvia Earle*, an incoming fishing boat proudly displayed their catch of the day to us as we motored past (with encouragement from Nacho).

In the afternoon, several of us joined Willow in the lecture theatre for her talk about the typical tropical plants of Costa Rica. This was followed with Bill's display of entomology in the Citizen Science Centre. For the water adventurers, a few Zodiacs were packed full of stand-up paddleboard gear and made their way to Tulemar Beach. The water was warm but refreshing with a few breaking waves to keep us on our toes, or off them depending on your balance capabilities! Conrad gave us a demonstration of his paddle boarding skills but decided to forego going for the graceful beach landing on a particularly dumpy wave much to the disappointment of the spectators. However, there were plenty of splashes throughout the afternoon for us to enjoy. Soon it was time for us to leave the beach and head back for a much-needed shower and cool drink.

As the sunset, we gathered for our daily recap followed by another delicious dinner. After dinner, Pia treated us to a lecture on the fundamentals of photography before we said goodnight to another day in paradise. Pura Vida!



Punta Marengo (Osa Peninsula)

DAY 4 | Monday 24 April 2023

Position at 1230 on April 24

Latitude: 08° 47.431'N

Longitude: 083° 43.913'W

Course: 167.1°

Speed: At anchor

Wind Speed: 4 knots SE

Barometer: 1010

Air Temp: 28°C

Costa Rica remains peacefully and firmly committed to the well-being and safety of our population. We promote a model of development based upon harmony with nature; solidarity and social inclusion; economic and trade opening; development of our human resources, and innovation.

After navigating overnight, once again we woke up in another incredible place thanks to Captain Arsen and his crew. This time, right outside Corcovado National Park, which is a very special place. The Osa Peninsula is the territory of the indigenous people Guaymi and Boruca. The peninsula was named after one of their most respected chiefs, Osa, who was known for having many beautiful traditional ornaments made from gold.

This paradise on earth is rich in precious minerals and incredible levels of biodiversity that are sometimes hard to comprehend. There are more than 500 species of trees, 150 mammal species, 370 bird species, 40 freshwater fish species, 117 amphibians, 80 reptiles and well over 1000 insect species. Like the land, the underwater world is a rich environment exploding with marine diversity. For this reason, it is said that this area is one of the most biologically intense places in the world, with approximately 2.5% of the planet's biodiversity. The Osa Conservation Area was created in 1991 and six years later, the government declared Punta Rio Claro a Natural Wildlife Sanctuary, making it one of the most important natural preserves in Central America. This was carried out to protect species in danger of extinction such as the scarlet macaw, squirrel monkey, howler monkey, tapirs and pumas.

Today, we gave the Zodiac drivers a well-deserved rest and took local boats. One of them had ten times more horsepower than our great inflatable boats. They had a steep and high bow designed to cut big waves and swiftly cross to the near shore for a safe Pacific Ocean beach landing, despite the reduced visibility of the skipper to see what was in front of him!

We had another incredible walk in the tropical rainforest. A normal humid morning was followed by our first torrential rain showers. It felt nice to get wet and to lower our body temperatures.

Our time on the beach was spent in the perfect location, in the middle of a bay, where we not only went for a bath in the warm seawater, we also were in front of a temporary freshwater creek, which drained most of the early shower into the sea, making it a bit more refreshing.

Later in the day, the water in the creek became considerably lower giving us an indication of how fast things change in the jungle. This area receives more than 5000 millimetres of precipitation a year, so getting to experience a few millimetres of rain in the middle of the day, followed by sunshine was the perfect way to spend a day in this beautiful tropical forest.



Golfo Dulce (Saladero, Punta Adela, Golfito)

DAY 5 | Tuesday 25 April 2023

Position at 1600 on April 25

Latitude: 08° 41.6' N

Longitude: 083° 20.0' W

Course: Varied

Speed: At anchor

Wind Speed: 2 knots SE

Barometer: 1008

Air Temp: 30°C

Compared to other civilized Central and Latin American nations, Costa Rica has one of the most developed economies and has one of the highest standards of living. It also has one of the lowest percentages of people in poverty compared to neighboring countries, being at 16 percent.

Today the *Sylvia Earle* sailed into the tranquil waters of the Golfo Dulce at sunrise. This is a remarkable place of great beauty. The bay is about the same size as the Bay of San Francisco, but it has a tropical rainforest. It receives the water of 4 rivers: Rincon, Esquinas, Coto and the Tigre. On the Rincon and Tigre rivers, gold mining has taken place. This is now regulated since the miners used to go up the rivers and stay for months at a time. They were able to do this by practising subsistence hunting with carbines. In those years peccary, tapir, deer, and paca were part of their daily diet.

In the 70s the aluminium giant Alcoa was interested in the mineral rights to the peninsula and the deal almost went through. There were energetic protests in front of the Legislative Assembly and many children were sent to stone the windows of the building. The locals knew that the police would not retaliate against the young children. The protests were successful and played a part in protecting one of the planet's most spectacular national parks.

In the morning we landed in Saladero which is perfect to learn about tropical botany since it has an ample collection of tropical plants. On our walk we saw many birds such as the yellow-throated toucans, the largest of its family in Central America. They are an effective seed spreader but also a voracious nest robber. Some of us had a chance to see the white hawk soaring above us. It is, a bird that is found in healthy rainforest habitats. We were also able to try some unusual fruits such as yuplon and starfruit and it was also our last chance to enjoy the local coffee, which is famous worldwide. After our land adventure, we had a chance to snorkel on a nearby reef that is having a coral restoration makeover and were able to see some of the reef species of fish from the Eastern Pacific Ocean. The presence of grouper, snappers, and lobsters indicates that this is an area respected by the local fisherman.

We then stopped in Golfito on the eastern edge of the gulf to clear immigration on our way to Panama. Golfito was a bustling banana town for decades until the 70s when the United Fruit Company left to start operations in Honduras. This affected the economy of the community. The government then stepped in and created a duty-free zone to attract local tourism. This brought some much-needed cash as the visitors had to stay overnight and

spend money on accommodation and food. Golfito is now a town nestled within the rainforest and we used its calm waters for our farewell toast to Costa Rica as well as a group photo taken by our wonderful photographer Pia.

As we enjoyed lounging on the outer decks, we looked back at the days gone by and felt grateful to Costa Rica for sharing with us its wildlife, national parks, beaches and warm hospitality. Pura Vida!



Coiba Island (Pepito & Rancheria)

DAY 6 | Wednesday 26 April 2023

Position at x 1900 on April 26

Latitude: 07° 37.344'N

Longitude: 081° 41.621'W

Course: 025.0°

Speed: At anchor

Wind Speed: 3 knots S

Barometer: 1010

Air Temp: 29°C

Panama is known as a transit country because of the Panama Canal. While the country is known for its famous canal, its natural attractions include birding, whitewater rafting, and snorkelling tours. Panama's biodiversity has been said to be three times higher than the United State, Canada and Europe combined.

Our first day in Panamanian waters. We awoke to a very calm blue sky day with an air temperature of 30°C and a water temperature of 32°C.

The morning activities started with snorkelling at Pepito Island, kayaking and a landing at the rangers station on Coiba Island. The station is part of the Coiba National Park of Panama, it was declared a UNESCO World Heritage Site in 2005. Once a penal colony, access to the island was historically limited, allowing much of the area's natural resources to survive untouched.

The beaches and waters surrounding Coiba Island offer shelter to four turtle species: leatherback, hawksbill, olive and loggerhead. Other local species include the Coiba Island agouti (*dasyproctac coibae*), the mantled howler monkey, an opossum and white-tailed deer and over 30 varieties of bats.

Conrad led some walks around the Rangers station during which he reported seeing the endemic Coiba Agouti and Howler monkey.

Snorkellers at Pepito Island saw many tropical sea creatures including hawksbill turtles, whitetip sharks and olive ridley turtles.

Jamie carried out a micro plastic survey on the ranger station beach where there wasn't any obvious plastic litter, but a few Expeditioners did see a lot of plastic bottles on the nearby beach to the south.

Back onboard we enjoyed another scrumptious lunch before opting for more adventures onshore.

The activities took place on Rancheria Island where we had snorkelling, stand-up paddling and swimming at a beautiful beach lined with coconut trees.

Some pelicans were seen flying low across the water. Some of our hard-working crew came ashore in the afternoon to enjoy a swim with us at the beach.

Our intrepid divers Chris and Nella completed their last two dives today with a local dive operator. Highlights of



Coiba, At Sea

DAY 7 | Thursday 27 April 2023

Position at 1300 on Apr 27

Latitude: 07° 29.4' N

Longitude: 081° 41.3' W

Course: 135°

Speed: At anchor

Wind Speed: 2 knots SE

Barometer: 1008

Air Temp: 30°C

Panama is the only place in the world where you can see the sunrise on the Pacific and set on the Atlantic.

Today was another interesting day on this voyage.

To kick it off, a few of us spotted spinning dolphins from the dining room during breakfast. What acrobatic fellows they are!

Around 8 a.m. we jumped into our wonderful shuttling toys called Zodiacs toward the landing site. This morning we visited Punta Clara on Coiba Island and the penal colony of Coiba, which is a national park and listed as a UNESCO World Heritage Site. Coiba is a natural paradise, however, the wonderful natural beauty is hidden behind a dark past. For almost 100 years this residence was occupied by criminals and political prisoners, today it is one of the regions, greatest biodiversity locations on the planet.

When we arrived, the mango trees and some of the army scouts, who live and work there, gave us a warm welcome and showed us around. They told us about the history and some horrifying stories from the old days. The prison was built in 1919 during the dictatorship of Omar Torrijos and Manuel Noriega and it hosted Panama's most dangerous criminals and those who were "on the wrong side of the political struggle", and it remained so until 2004 with up to 3000 prisoners who were known as "The Disappeared", because many of them they were never seen again.

On our way back to the ship more spinning dolphins were playing and jumping in the waves.

We had a marvellous lunch back onboard, where we could spend more time with the Expedition Team who share fantastic stories about their life both at sea and on land.

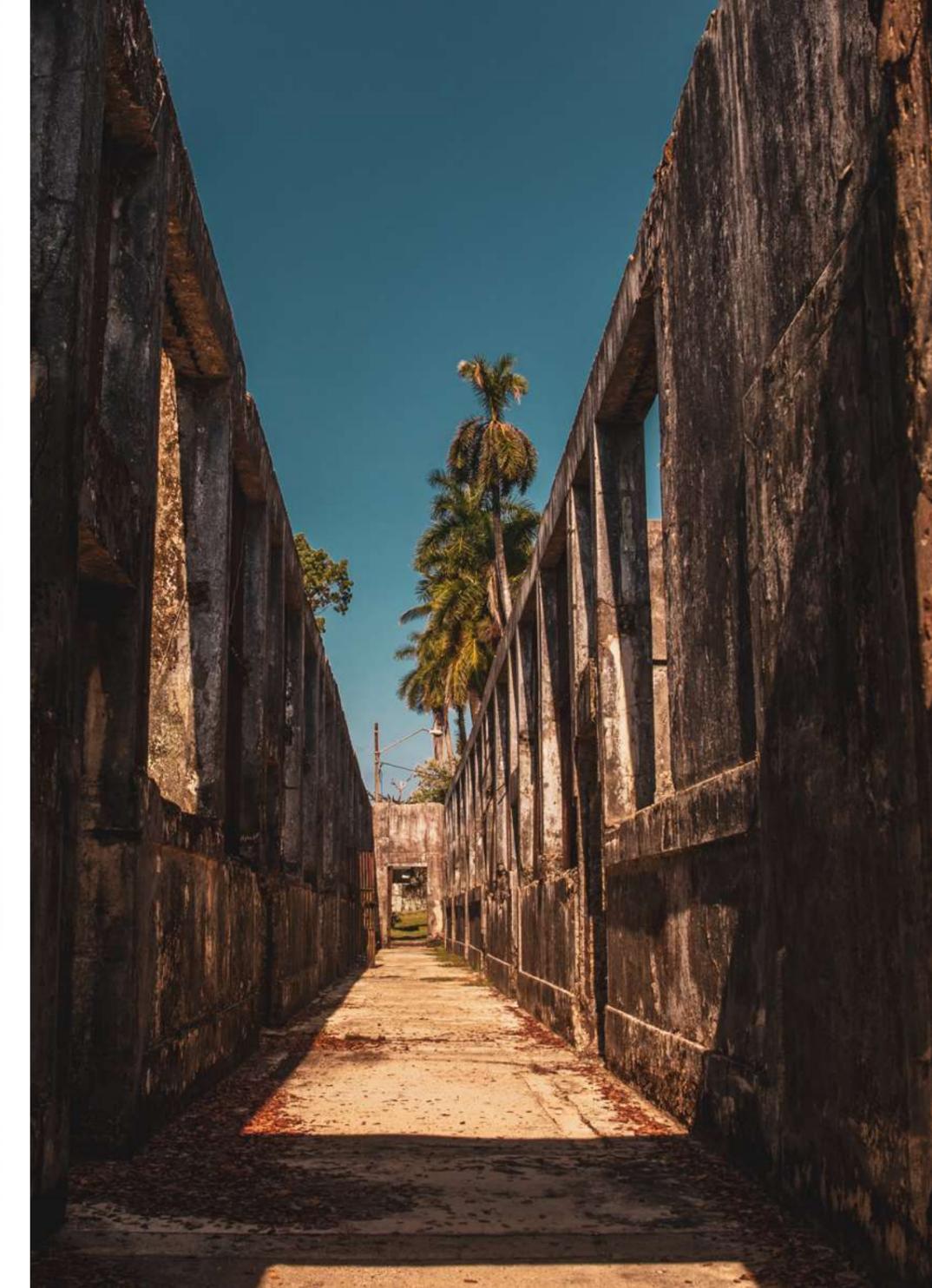
After lunch, with his particular humour, Conrad gave us an amazing talk about the birds in Costa Rica and Panama and we could see some of the birds that we have spotted during the last few days and some others that now are on our bucket list.

Between lectures, our talented galley served us up an array of treats for afternoon tea before we joined Jamie for his lecture on underwater soundscapes. We learned about the importance of sound underwater, and how through sounds we can understand what and why events like belching corals happen. We listened to the sounds

of corals, fish, whales, dolphins and divers! It was super interesting, mostly about the perspective of how with this kind of searching illegal fishing can be prevented.

Cocktail time!

Today we enjoyed drinks and canapes outside on Deck 7 to watch the magic of a Panama sunset. Our toucan mascot was joined in the pool while others relaxed in the jacuzzi or on a comfy lounge chair. Together as the sun was setting, we said goodbye to another day in paradise.



At Sea, Bartolome

DAY 8 | Friday 28 April 2023

Position at 1900 on April 28

Latitude: 08° 46.098' N

Longitude: 079° 07.845' W

Course: 330.9°

Speed: 1.8 knots

Wind Speed: 5 knots S

Barometer: 1009

Air Temp: 28°C

What are people from Panama called?

Panamanians. Spanish: Panameños) are people identified with Panama, a transcontinental country in Central America (a region within North America) and South America, whose connection may be residential, legal, historical, or cultural.

Good morning *Sylvia Earle!*

Waking up to a beautiful sunrise, we made our way through the Gulf of Panama, en route to Bartolome Island. The coffee was hot, our breakfast was hearty and the sea birds joined us alongside the ship.

Conrad gave a lecture on the life and culture of the Embera people.

Soon after, Willow taught us about the origin of the edible tropical plants, which was super helpful since we will be making our way down the Charges River on Saturday to visit an Embera Village.

A mellow morning it was, nevertheless, there was still a ton of beauty to be seen on the outer decks as we approached Bartolome Island.

It was a perfect weather day - the sun was shining, the winds were low, and a white sandy beach awaited us after our lunch. Hoping to paddle board and snorkel, our expedition team made their way towards the beach, with water activity gear in tow. Getting closer, the team landed us safely on the beach, where we enjoyed a beautiful swim in turquoise waters and a snorkel & paddle board with pleasing conditions! The cherry on the cake for our bird watchers was the spotting of a blue-footed booby! Conrad was quick on the mark and rounded us up to sneak a peek. As we approached the side of the island, we saw one posing on the top of a cactus. How lucky were we! Later we learnt that the last Zodiac of the day that went for a look saw two! How lucky were they!

So, plan A for the day was a success and even some of our ship's crew came out to the beach for a swim in the warm water. They work extremely hard, so it was good to see them enjoy themselves.

Back onboard, we joined for a quick recap before heading up to Deck 7 for sunset and our voyage BBQ. Our crew had been hard at work to make sure it was one we would never forget! A red carpet, party hats, sangria and party tunes made for a perfect setting.

Filling our bellies and singing along to some well-known songs, the brave among us started dancing to the rhythm of Footloose.

Those who stayed out beyond dessert were treated to several songs from our very own Trevor's band. We continued to sing along to more great hits before calling it a night.

A fun way to end a great day in Panama!

Buenas noches, *Sylvia Earle!* Qué duerman bien!





Lago Gatun, Ella Puru/Embera Village

DAY 9 | Saturday 29 April 2023

Position at 1900 on April 29

Latitude: 08° 54'55.4"N

Longitude: 079° 30'54.4"W

Course: 82°

Speed: At Anchor

Wind Speed: ENE

Barometer: 1009

Air Temp: 27°C

U.S. Senators were undecided about where to build the Canal, whether in Panama or in Nicaragua. Philippe Bunau-Varilla, who lobbied for a Panamanian Canal, sent every senator a Nicaragua postage stamp depicting one of the country's many volcanoes. It was an effective ploy: Panama had no volcanoes, thus was a safer bet. The U.S. senators agreed Panama was a better option. The stamp can be found today in the National Postal Museum in Washington, D.C.

We were greeted in the morning by the skyline of Panama City and an exciting day ahead of exploring further inland by bus. We embarked into the Zodiacs and motored into the Flamenco Marina to meet our buses and guides, Vincent, Luis, Anna and Archie, who were taking us out for a day of adventure.

We made our way up to the dock at Gamboa and boarded several Lanchas to head out onto Gatun Lake to see the wildlife and sights. Speeding along, it was lovely to have a nice breeze on our faces, as the heat of the day was intense! It was amazing to also pass some huge container ships on the way to the smaller tributaries we were to explore. Many animals were sighted during the tour, including capuchin monkeys, howler monkeys, keel-billed toucans, snail kites, wattled jacanas, bats, American crocodiles and even for a lucky boat, a Geoffroy's tamarin monkey.

After a great time with the wildlife, we then steamed our way back past Gamboa and over to the Embera village of Ellapur to meet the local Embera people and learn some of their customs. Climbing off the lanchas and onto the dock, we were instantly greeted by the local Embera people wearing traditional attire and playing traditional music.

Before we had even made our way to the main area, we spotted a beautiful three-toed sloth in a tree. Scratching itself and climbing around (slowly of course). It posed wonderfully for some great photo opportunities.

We started our visit with a walk through the village, learning about some of the local plants. Then we followed a nice trail into the jungle.

We returned to the village and watched a fantastic display from the local people, including an explanation of their clothing and artwork/handicrafts. We then enjoyed a lovely local jungle lunch of fish caught from the lake, delicious patacones and tropical fruits, all served up in banana leaves. A wonderful dance display from the local ladies was a fantastic end to the visit.



Casco Viejo, Miraflores Lock

DAY 10 | Sunday 30 April 2023

Position at 1900 on April 30

Latitude: 08° 54.915'N

Longitude: 079° 30. 905'W

Course: 80.0°

Speed: At Anchor

Wind Speed: 3.4 knots NE

Barometer: 1008

Air Temp: 28°C

The lowest toll ever paid for transiting the Panama Canal was 36 cents (equivalent to \$5.13 in 2017), by American Richard Halliburton who swam across the isthmus in 1928.

What a lovely morning spent exploring Casco Viejo, the old town of Panama City. We started our day with a walking tour of the streets, marvelling at the rich history of this pocket of the city, which was declared a World Heritage Site in 1997. Our expert guides led us through the streets, where they shared tales of the structures around us. We came upon the old city walls, that have incredibly stood since the 16th century and we visited the Iglesia De San José (Church of Saint Joseph), with its incredible altar of mahogany and gold.

Strolling the streets, we appreciated the old-style architecture and the hundreds of years of history, from pirates to priests and everything in between. It was such an incredible place to wander and explore. We finished up our morning here with a delicious lunch at Casablanca Restaurant before our afternoon of experience continued.

As the tropical sky darkened and thunder rolled across the Panama City skyline, we walked along the sea wall to where our buses were waiting to take us to our afternoon destination, Miraflores Lock. As we drove through the city streets, the rain came down around us; the timing couldn't have been more perfect, as we were all dry and enjoying the air-conditioning inside. Upon our arrival at Miraflores Lock, we made our way inside the bustling IMAX cinema complex. Where we were handed our special glasses, ushered into the theatre, and took our seats in time for the 3D movie spectacular 'Panama Canal – A Land Divided, a World United'.

The film gave us such great insight into the history and construction of the Panama Canal, this incredible feat of engineering and ingenuity. Afterwards, we headed across to the visitor's centre, where we had the opportunity to witness ships passing through the Lock system, making their passage from the Caribbean Sea to the Pacific Ocean. It was absolutely amazing to watch, and in less than 24 hours, we would be in their place, as our ship, the *Sylvia Earle* would be making her first journey through the world-famous canal system.

After marvelling at the spectacle that is the Panama Canal, we made our way back through the city, to Flamenco Marina, where we took our final Zodiac ride of the voyage, back to the ship for cocktails and canapes. It was another wonderful day on this amazing adventure, steeped in history, witnessing a structure that has shaped our modern world.



Panama Canal (Between the Americas)

DAY 11 | Monday 01 May 2023

Position at 1300 on 01 May

Latitude: 08°. 9965' S

Longitude: 079°.5916' W

Course: Variable course approaching locks

Speed: Variable speed approaching locks

Wind Speed: 4 knots W

Barometer: 1009

Air Temp: 30°C

My impression about the Panama Canal is that the great revolution it is going to introduce in the trade of the world is in the trade between the east and the west coast of the United States.

Our day dawned outside of Amador to the ca-chunking of the anchor chain being taken up to leave the Pacific and transit the Panama Canal to the Caribbean. As we headed for the bridge of the Americas, we picked up a pilot, a guide and 15 other assorted handlers from a moving pilot boat.

The *Sylvia Earle's* very first journey to transit the Panama Canal, splitting two continents, began simply with two people in a rowboat. They tossed a line up to a handler to pull across a heavier rope that in turn pulled across a cable to connect to a "mule", the first of a pair of electric tugs that kept us centered in the locks from rails on either side. Three liquid steps elevated us 85 feet to the level of Lago Gatun where we could continue traveling over what was once a very hilly jungle only a little over a century ago.

The engineering marvel that made our transit possible would not have been possible without the sacrifice of lives and years of toil by people of colour who came from all over the West Indies as well as Europe to blast, dig and claw their way through rocky hilly terrain. Their blood and sweat created the Culebra Cut and joined Gatun Lake and the watersheds of 21 rivers to complete this wonder.

What goes up, must come down as we stepped down three additional locks to drop back down the 85 feet to the level of the Caribbean. Once we'd passed under a rather pretty set of tuning forks known as Atlantic Bridge, that was it. We began to sail across the southern Caribbean towards Cartagena, Colombia, passing the city of Colon and several remote beach communities.

Of course, being on the *Sylvia Earle* meant we were pampered by the friendly galley team serving meals up on the observation level Rockhopper restaurant to be sure we didn't miss anything during our 8.5-hour transit. We even had an ice cream social as we cleared our last bridge.

Conrad and Arlet would never forgive me if I didn't highlight other natural marvels that graced our passage: American crocodiles, variegated Squirrel, ospreys, herons and a forked tail fly catcher who apparently wasn't aware that they weren't supposed to nest here. As well as an air force of swallows that played in the air currents rising off our upper decks showing off their flying skills. Today left all well fed, tired, sun-drenched and full of new experiences.



Caribbean Sea

DAY 12 | Tuesday 02 May 2023

Position at 1300 on 02 May

Latitude: 10°03.929' N

Longitude: 077°33.864' W

Course: 081°

Speed: 6.3 knots

Wind Speed: 18 knots E

Barometer: 1010

Air Temp: 27°C

Only 10 million of the required 250 million cubic meters of earth had yet been removed. The undertaking is a vast one, far exceeding that of the Suez canal, and every one there believed it would not be finished for many years

A day on the *Sylvia Earle* never passes without excitement, even on our day at sea! We awakened to blue skies and scattered clouds mirrored by dark blue seas with frothy whitecaps exploding with flying fish. Breakfast was followed by Jamie's excellent talk, "A Brief History of Boats – Exploring the Blue Planet". Covering the history of boats from their humble beginnings of rafts and dugouts to Caligula's Pleasure Boats to current container and passenger ships (and many others in between), we travelled through the technology and engineering marvels of boats that resulted in a greater exploration of the world.

Justine and Lelia led an informative Disembarkation Talk. Detailed instructions on tomorrow forced us to sadly realise this voyage is almost over. Bus lists for Cartagena tours and airport transfers are posted.

Conrad's talk "Neotropical Mammals in South America" was spectacularly introduced by a large pod of dolphins (Atlantic Spotted or Spinners?) providing quite a show. The development of the isthmus resulted in the Great Fauna Exchange allowing species to migrate north and south, creating the great diversity of mammals existing in Central and South America. While we have been fortunate to see many mammal species on this trip, Conrad highlighted others that exist but are more difficult to see, including the large cats jaguars and pumas.

After lunch, another pod of dolphins arrived – a fitting send-off! Expeditioners were treated to a tour of the bridge, examining the high-tech world of ship piloting and navigation. Captain Arsen was welcoming and offered an excellent overview, responding to many questions. Highlights included the automatic piloting system, radio equipment, charts, and the need to maintain a constant watch.

Chief Engineer Praveen provided a better understanding of the ship's inner workings via a virtual tour of the Engine Room, including a video highlighting the impressive noise and vibrations that occur as the ship is moving. Thorough and interesting overviews of the ship's electric motors, stabilisers, desalination units, diesel oil separators, and waste management systems were covered.

The evening began with a beautiful tea, followed by Captain Arsen's cocktail hour. Crew members of the month were announced and congratulated. Immediately after we had the farewell dinner, with amazing food and baked



Cartegena

DAY 13 | Wednesday 03 May 2023

Position at 0900 on 03 May

Latitude: 10°24'15.5" N

Longitude: 075°31'53.4" W

Course: Alongside

Speed: Alongside

Aurora Expeditions send out a big thank you to for your great humour, constant enthusiasm and smiling faces. It was a pleasure having you all on board and being able to share some of the pleasures that the Costa Rica, Panama and Cartegena have to offer. May your memories live long and bright.

Wind Speed: 13 knots N

Barometer: 1007

Air Temp: 27°C



Acvitiy Log

Snorkel Guide: Eddie Hauzer, Hannah Cowley

Dive Guide: Patrick Horgan

Kayak & Stand-up Paddle Guides: Michael Gray & Lisa Deziel

Total number of snorkel outings: 5

Total number of kayak outings: 2

Total number of dive outings: 3

Total number of stand-up paddle outings: 3

Saturday April 22nd, 2023. Tortuga Island, Costa Rica - Snorkel Outing

Our first day of activities for our voyage on board the *Sylvia Earle* started off great! In the morning, we went on an awesome guided hike through Curú nature reserve. It was full of wildlife, green forest and colourful flowers.

After lunch, we headed down to the mudroom and were kitted out with our snorkelling and kayaking gear. Some of us went for a swim at the beach at Isla Tortuga, whilst others joined the first snorkel session at a small nearby island. The water was warm with 5-metre visibility and loaded with fish. We saw damselfish, trevallies, wrasses, parrotfish and surgeonfish.

Saturday April 22nd, 2023. Tortuga Island, Costa Rica - Kayak Outing

Our first day's paddling outing found us exploring the waters of Curú nature reserve by kayak. A half dozen kayakers enjoyed paddling along the beaches and up a freshwater stream in search of wildlife. As we wandered back downstream to the sea, we paddled under native Plumeria blossoms to encounter resonant calls of howler monkeys overhead with some great viewing.

Sunday April 23rd, 2023. Tulemar Beach, Costa Rica - Stand-up Paddle Outing

From beautiful Tulemar Beach, we had people try out paddleboarding, many for the first time. Most of them found that it was a great way to cool off on a hot day entertaining both themselves and those that were on land for some of the fabulous watery dismounts. Lots of people surprised themselves at what they could do and what it felt like to "walk on water".

Sunday April 23rd, 2023. Manuel Antonio Island, Costa Rica - Dive Outing

Today was also our first day of diving for the trip in the waters of Manuel Antonio. Our first dive was at a spot called El Aquario (The Aquarium). We dove in boardshorts and rash shirts in a balmy 28 – 29°C water temperature. A heavy downpour the night before meant that visibility had been reduced to around 5 metres, but regardless we still had a fun dive, seeing an abundance of crayfish, moray eels, nudibranchs and plenty of reef fish all around. For our second dive, we dove at Starfish Gardens, and as the name suggests, we saw plenty of starfish. Other interesting sightings included a huge Panamic green moray, a wonderful school of circling trevally and flower urchins, beautiful but venomous to the touch! What a lovely first day of diving in the warm waters of Costa Rica.

Monday April 24th, 2023. Isla Del Cano - Dive Outing

Our day's dive trip kicked off with a transfer in a lancha (local boat) from the ship out to Isla del Caño. We met the crew from Costa Rica Dive N Surf and jumped into their dive boat to begin our day of diving. Our first dive was at a site called La Ancla (The Anchor) in beautiful clear waters with around 15 metre visibility and again a balmy 28°C water temperature. Wildlife was everywhere! We saw plenty of white-tipped reef sharks, some very relaxed green sea and hawksbill turtles, many fish including big blue spotted trevally and dogtooth snapper, little scissortail damselfish and gobies amongst the reef and we were even lucky enough to find a seahorse. Our second dive was at the aptly named Bajo del Diablo (Devil's Drop) which is an advanced dive site, but luckily for us, the current was low and the surge only light. We dropped down into beautiful clear water and circumnavigated some fantastic pinnacles covered in soft corals with small reef fish close to the reef and big pelagic fish such as trevallies, barracudas and milkfish up above us in the water column. What an amazing day of diving and our favourite spot for the trip!

Tuesday April 25th, 2023. Punta Adela, Costa Rica - Snorkel Outing

After a steamy morning trekking through the jungle at Saladero Eco Lodge, it was time for a nice snorkel to cool off at Punta Adela. We moored the Zodiacs beside a nice reef with the jungle right next to us. This spot was a site of coral reef restoration, and we saw the structures and efforts under the surface to bring this site back to good health. There were a variety of different corals from branching finger corals to larger mushroom corals. Reef fish were plentiful, with many sergeant majors, some large parrotfish and wrasse, dogtooth snapper and mullet snapper and some cute pufferfish amongst the corals. Once again, the water was nice and warm, and swimming around in this tropical bath was a lovely way to spend the afternoon during our final stop in Costa Rica.

Wednesday 26th April, 2023 - AM. Pepito Island, Coiba National Park, Panama - Snorkel Outing

What an incredible morning we had snorkelling off the coast of Coiba Island, at Pepito Island, in the region of the Coiba National Park, Panama. This morning's snorkel was such a wonderful opportunity for us all to experience the diversity and richness of a healthy reef ecosystem as is found in this region. We split into two groups to enjoy our morning snorkel, each group arrived at the beach on Pepito Island, donned their snorkel gear, and set off from the shore, and slipped into the balmy 28°C water. We were immediately greeted by a large school of baitfish in the shallows and as we made our way out to the point, along the coast, both groups were treated to an abundance of wildlife and corals. The rocky reef was home to some branching and boulder-type corals, that all seemed in good health. Throughout our snorkels we encountered schools of surgeon fish, rainbow runners, sergeant majors and excitingly, some white-tip reef sharks and hawksbill turtles, these were definitely a highlight! The crystal clear, warm waters of Pepito Island were a fantastic snorkelling location, and one that we will all remember for a long time to come!

Wednesday 26th April, 2023 - AM. La Rancheria Island, Coiba National Park, Panama - Kayak Outing

During a morning kayak outing at Cocos and La Rancherito Islands off Coiba National Park here in Panama we paddled into one of most pristine beaches of the trip only to find that we were lucky enough to be the only ones there. Having a beach like this to ourselves led to cooling swims and explorations of the beach to see what kinds of shells were present and to enjoy the shade of some postcard-perfect palm trees.

Wednesday 26th April, 2023 - AM. La Rancheria Island, Coiba National Park, Panama - Dive Outing

For the day's diving outing, our first site was named Iglesia (Church) at Isla Rancheria. We dropped down the mooring line and swam around a rocky reef full of marine life. White-tip reef sharks, green sea turtles and a massive Panamic green moray next to a big crayfish were some of the highlights of the dive. We spent a lovely surface interval on a beach covered in tiny hermit crabs at Isla Canales de Afeura before dropping into our second dive at Buffet. As the name suggests, it really was a buffet of marine life, with an abundance of fish including a school of several hundred grunts towards the end. We also spotted a hawksbill turtle, more white tip reef sharks and two octopuses! Our final day of diving was yet another treat and full of exciting wildlife interactions.

Wednesday 26th April, 2023 - AM. La Rancheria Island, Coiba National Park, Panama - Snorkel and Stand-up Paddle Outing

For our afternoon, we spent time at Rancheria Island, where we could snorkel, swim or test our balance with stand-up paddling! We had plenty more laughs having a go on the stand-up paddle boards and we even had some of the ship's crew join us and have a go themselves.

The snorkelling once again took place from the beach and this site had an abundance of hard corals, known as boulder corals. This type of coral is very slow growing and may be less vibrant than its soft coral counterparts. We enjoyed a snorkel along the edge of the reef, keeping our eye out for species of fish, sea stars and urchins. Due to tidal conditions, the visibility at this site was reduced in comparison to our morning location, but we all made the most of it and had a great time. A few intrepid folks chose to join our guides at a site further afield that was scouted, and at this location we enjoyed exploring the reef and checking out its inhabitants.

Overall, our day at Coiba National Park was a highlight of the snorkelling activities and everyone was chuffed with the experience!

Friday April 28th, 2023. Bartolome Island, Panama - Snorkel and Stand-up Paddle Outing

After a morning spent at sea, we were all very keen to head off the ship, for what would be our last Zodiac-based adventure of our voyage! The keen snorkellers amongst us headed out to explore the rocky reef of Bartolome Island. There was an abundance of fish life, particularly on the point and in this area, we had the chance to

glimpse a moray eel, drummers, sergeant majors, parrotfish, triggerfish and even the long, slender pipefish. The waters here were slightly cooler than our previous days snorkelling, and this is likely attributed to the currents of the Gulf of Panama, bringing in cooler waters.

Meanwhile, off the beach, we were able to have another opportunity to paddle around on the stand-up paddle boards over the clear waters of the island. Fortunately for us, we had the beach to ourselves once again and were able to enjoy it with just our fellow expeditioners and crew from the ship.

We also had a chance to observe some birdlife, with frigate birds circling overhead, pelicans and cormorants nearby and for those that were keen, the chance to see blue-footed booby's! We had such a lovely time snorkelling, paddling and enjoying the beach of Bartolome Island, a great place to spend our afternoon.





Citizen Science Log

Project Name How many times was this project done during this voyage?

Microplastics	6 times
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The majority of beaches sampled during the Costa Rica and Panama voyage had very few microplastics in the survey areas, which was a positive result. Larger plastic debris was spotted (plastic bottles, plastic bags etc.) on certain areas of a beach but they were not present in the beach quadrats sampled.



Bird Sightings

Bird Species April

	21	22	23	24	25	26	27	28	29	30	1	2	3
Spotted Sandpiper		●		●	●			●			●		
Solitary Sandpiper					●								
Pectoral Sandpiper						●							
Willet											●		
Whimbrel				●									
American Oystercatcher								●					
Magnificent Frigatebird			●	●	●	●		●	●	●			
Brown Booby			●	●		●		●			●		
Blue-footed Booby								●					
Red-footed Booby									●				
Brown Pelican	●	●	●		●			●		●			
Sandwich Tern	●										●		
Royal Tern	●						●		●				
Laughing Gull	●						●	●	●	●			
White Ibis				●	●			●		●			
Anhinga									●				
Neotropic Cormorant			●					●	●	●	●		
Southern Lapwing									●	●	●		
Plain Chachalaca		●											
Grey-headed Chachalaca											●		
Black-bellied Whistling Duck									●				
Muscovy Duck		●											
Great Egret									●	●	●		
Cattle Egret					●								
Snowy Egret									●		●		
Bare-throated Tiger Heron		●			●								
Black-crowned Night Heron								●	●				
Yellow-crowned Night Heron								●		●	●		

Bird Species April

	21	22	23	24	25	26	27	28	29	30	1	2	3
Tricolored Heron									●	●			
Little Blue Heron									●		●		
Green Heron									●				
Striated Heron									●				
Purple Gallinule									●				
Common Gallinule									●				
Northern Jacana			●										
Wattled Jacana									●				
Grey-necked Woodrail			●			●							
Great-tailed Grackle		●	●	●	●		●	●	●	●	●		
Tropical Mockingbird				●					●	●	●		
Tourquoise-browed Motmot			●										
Blue-crowned Motmot				●									
Amazon Kingfisher			●				●						
Ringed Kingfisher									●		●		
Pale-billed Woodpecker			●										
Lineated Woodpecker						●							
Golden-naped Woodpecker					●	●							
Red-crowned Woodpecker				●	●	●		●			●		
Hoffmann's Woodpecker			●										
Snail Kite									●		●		
Common Black Hawk			●		●		●						
White Hawk					●								
Roadside Hawk							●						
Swainson's hawk						●							
Broad-winged Hawk												●	
Yellow-headed Caracara				●	●	●	●					●	
Crested Caracara									●				

Bird Species April

	21	22	23	24	25	26	27	28	29	30	1	2	3
Peregrine Falcon											●	●	
Double-toothed Kite			●										
Plumbeous Kite						●							
Osprey											●		
Common Potoo			●										
Black Vulture		●	●						●	●	●		
Turkey Vulture		●	●		●			●	●	●	●		
Scarlet Macaw		●		●	●		●						
Red-lored Amazon Parrot											●		
Orange-chinned Parakeet		●		●	●		●		●		●		
Mealy Parrot						●							
Greater Ani									●				
Keel billed Toucan									●				
Yellow-throated Toucan				●	●								
Keel-billed Toucan									●				
Black-throated Trogon			●	●									
Slaty-tailed Trogon				●									
Black-headed Trogon		●											
Gartered Trogon		●											
Mangrove Hummingbird		●											
Cinnamon Hummingbird		●											
Rufous-tailed Hummingbird		●	●		●						●		
Steely-vented Hummingbird		●											
Violet Crowned Woodnymph			●										
Garden Emerald						●				●			
Gray-breasted Martin		●			●				●	●	●		
Mangrove Swallow						●			●		●		
Southern Rough-winged Swallow						●							

Bird Species April

	21	22	23	24	25	26	27	28	29	30	1	2	3
Voux Swift											●		
Great Kiskadee				●	●	●	●						
Lesser Kiskadee											●		
Boat-billed Flycatcher		●											
Rusty Margined Flycatcher											●		
Social Flycatcher		●											
Tropical Kingbird				●	●	●			●	●	●		
Eastern Kingbird									●				
Common Tody Flycatcher					●				●				
Fork-tailed Flycatcher									●	●	●		
Lesser Elaenia						●		●		●			
Panama Flycatcher					●						●		
Streaked Flycatcher		●					●						
Tropical Pewee		●			●								
Greenish Elaenia									●			●	
Scaly-crested Pigmy Tyrant					●								
Golden-crowned Spadebill				●									
Long-tailed Manakin		●											
Orange-collared Manakin				●									
Blue-crowned Manakin				●									
White-lored Gnatcatcher		●											
Tropical Gnatcatcher											●		
White-tipped Dove				●			●						
Rudy Ground Dove									●		●		
Rudy Quail Dove			●										
Pale-vented Pigeon					●				●	●	●		
Short-billed Pigeon				●									
Rock Dove(Feral Pigeon)											●		

Bird, Mammal and Other Sightings

Bird Species	April												
	21	22	23	24	25	26	27	28	29	30	1	2	3
Northern Waterthrush		●		●									
Buff-rumped Warbler		●											
Chestnut-sided Warbler				●									
Mangrove Warbler							●						
Red-eyed Vireo		●	●										
Bananaquit			●	●			●						
Black-cheeked Ant Tanager				●									
Palm Tanager				●	●		●						
Summer Tanager					●								
Golden-hooded Tanager				●									
Blue-grey Tanager				●	●		●				●		
Cherie's Tanager				●	●								
Crimsson backed Tanager						●			●	●			
Bay-headed Tanager				●									
Gray-headed Tanager				●									
White-shouldered Tanager					●								
Red-legged Honeycreeper				●		●	●						
Masked Tityra				●									
Black-capped Tityra					●								
Cocoa Woodcreeper				●	●								
Wedge-billed Woodcreeper		●		●									
Northern-barred Woodcreeper		●											
Streaked-headed Woodcreeper				●									
Chestnut-backed Antbird			●										
Black-hooded Antshrike			●	●									
Dotted-winged Antwren				●									
Pale-breasted Spinetail				●									
Rose-throated Becard		●											

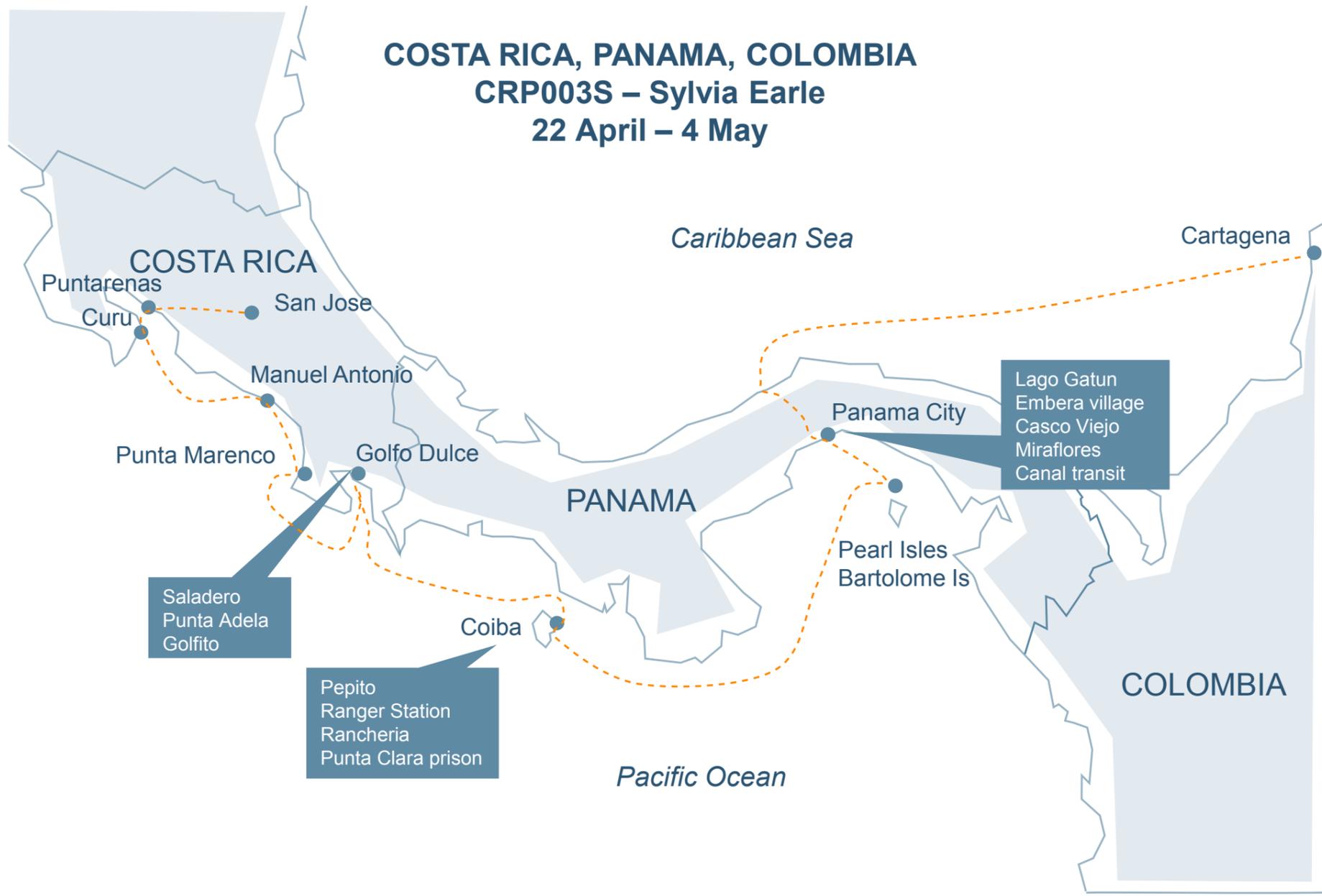
Bird Species	April												
	21	22	23	24	25	26	27	28	29	30	1	2	3
Riverside Wren			●	●									
Rufous-naped Wren		●											
House Wren					●								
Rufous and White Wren		●											
Gray-cheeked Thrush				●									
Swainson's Thrush						●							
Clay-colored Thrush									●		●		
Orange-billed Sparrow			●	●									
House Sparrow										●			
Yellow-faced Grassquit						●	●						
Blue-black Grassquit						●							
Variable Seedeater					●								
Streaked Saltator							●						

Other Species	April												
	21	22	23	24	25	26	27	28	29	30	1	2	3
Blue Morpho Butterfly		●			●				●				
Anartia fatima Butterfly				●									
Uranea Moth				●									
Leaf Cutter Ants			●	●	●								
Halloween Crab			●										
Hermit Crab		●	●	●	●	●							
Mangrove Crab		●											
Yellow-tipped Damselfly				●									
Square-spotted Dasher Dragonfly											●		

Mammals Species	April												
	21	22	23	24	25	26	27	28	29	30	1	2	3
Northern Raccoon		●	●										
Long-nosed Bat		●								●			
Three-toed Sloth			●							●			
Two-toed Sloth			●										
Central American Agouti			●										
Coiba Agouti						●							
Variagated Squirrel		●	●								●		
White-tailed Deer		●											
White-throated Capuchin Monkey				●						●			
Mantled Howler Monkey										●			
Coiba Howler Monkey						●							
Central American Spider Monkey				●									
Geoffroy's Tamarin Momkey										●			
White-nosed Coatimundi		●											
Pantropical-spotted Dolphin						●	●						
Spinner Dolphin								●					●
Bryde's Whale										●			
Atlantic-spotted Dolphin												●	
Boottle-nosed Dolphin				●		●							

Reptile Species	April												
	21	22	23	24	25	26	27	28	29	30	1	2	3
Brown Basilisk Lizard		●	●			●			●				
Green Iguana									●		●		
Ctenosaur Lizard		●	●			●			●				
American Crocodile									●		●		
Yellow-bellied Sea Snake						●							
Green Turtle				●		●							
Hawksbill Turtle				●		●							







Expeditioners:

Mark Burns

Dianne Burns

Valmai Clues

Trevor Clues

Cayce Connell

Hillary Connell

Michael Connell

Hugh Dampney

Gregory Dare

Alana Dare

Andy Domeracki

Osher Elron

Chris Eyles

Win Eyles

Ray Fabish

Steven Gardner

Liz Gardner

Penny Griffith

David Griffith

William Haber

Sue Hall

Bob Hall

Arieh Heanig

Meira Heanig

Orit Herzog

Anna Holdsworth

Ian Jennings

Penny King

Orna Sima Lubliner

Jason Lye

Linda Lyell

Kim Lyell

Deb Markham

John Markham

Gail Masters

Bill Matthias

Angie Matthias

Fiona McLeod

Nella Moyle

Chris Moyle

Bill O'Brien

Jan O'Brien

Allan Ockenden

Janet Ockenden

Jen Parker

Greg Pryor

Avi Reisberg

Fedy Reisberg

Trevor Rowe

Sue Rowe

Ann Rymill

Barry Schulz

Belinda Shand

Sing Ting

David Turner

Kathy Vitkovsky

Julie Wahlberg

Nancy Wilkes

Judith Wilton

Willow Zuchowski

Expedition Team:

Expedition Leader: Roger Kirkwood

Assistant Expedition Leader: Lelia Cataldi

Onboard Expedition Manager: Justine Bornholdt

Marine Biologist/Citizen Science Coordinator: Jamie McWilliam

Naturalist: Max Schoffel

Naturalist: Conrad Weston

Local Guide: Arlet Calvo

Enrichment Specialist: Willow Zuchowski

Enrichment Specialist: Bill Haber

Photography Guide: Pia Harboure

Expedition Medic: David (from Dunedin) Palmer

Kayaking Master: Michael Gray

Kayaking Guide: Lisa Deziel

Snorkel Master: Hannah Cowley

Snorkel Guide: Eddie Hauzer

Dive Master: Pat Horgan

Zodiac Manager: Ignacio (Nacho) Marino

Onboard Expedition Assistant: Ari Benzo Ciria

Senior Officers & Heads of Department:

Master: Arsen Prostov

Chief Officer: Gabriel Eduardo Centella Molina

Second Officer: Raymer Rosario Fernandes

Safety Officer: Sergio Enrique Saldana Hernandez

Ship Doctor: Gino Tiraboschi

Chief Engineer: Praveen Kumar Kaushal

First Engineer: Alexandru Lazar

IT Officer: Yury Kovyrshin

Hotel Director: Balvant Singh

F&B Service Manager: German Cayasso Wilson

Head Bartender: Restlie Dimasaka Baldemor

Chief Purser: Liza Merillo

Executive Chef: Suresh Pai Karkala

Sous Chef: I Gusti Ketut Purnawirawan

Hotel Controller: Rey Satuito Nolasco

Receptionist: Kateryna Tauzhnianska

Receptionist: Jaypee Alota Abonitalla

Head Stateroom Attendant: Anil Kumar Kashyap

Bosun: Leo Francis Magnaye Marzan

Able Seaman: Anthony John Narvaez Brosas

Able Seaman: Eduardo Caranoo Aloyan

Able Seaman: Nestor Fernandez Arangorin

Able Seaman: Rene Balsomo Casipe

Able Seaman: Luis Fernando Alvarez Santos

Able Seaman: Diaz Roque

Deck Cadet: Vlad Nicolescu

Photographs thanks to:

Pia Harboure





