











## Endemic Mammals of the Dominican Republic

**Destination:** Dominican Republic

**Duration:** 4 Days **Dates:** 4<sup>th</sup> January – 8<sup>th</sup> January 2016

-  Driving into the forested highlands of the stunning Barohuca National Park
-  Spotting a critically endangered Hispaniolan Solenodon & Hispaniolan Hutia
-  Spotlighting with expert local trackers on the search for incredibly rare mammals
-  Seeing the 2<sup>nd</sup> smallest bird in the world, the Berbane Hummingbird
-  Exploring a bat cave as well as limestone & salt karts in search of wildlife
-  Having the expert guidance of the wonderful Dr. Jorge Brocca throughout the trip
-  5 mammal species including Solenodon, Hutia and 3 species of bats
-  Cruising around Lagoon Oviedo and its mangrove forests looking for birds
-  Searching for and also spotting a critically endangered Ricord's Iguana
-  Hand feeding wild Rhinoceros Iguanas on their island colony in Lagoon Oviedo

### Tour Leader / Guides

Martin Royle (Royle Safaris Tour Leader)  
 Dr. Brocca (Solenodon Researcher & Guide)  
 Jimeal (Mammal Tracker)  
 Mancho (Mammal Tracker)  
 Jose (Ricord's Iguana Researcher & Guide)  
 Fernando (Lagoon Oviedo Guide)  
 Miguel (Lagoon Oviedo Boat Driver)

### Participants

Mr. Chris Scharf

### Overview

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**Day 1:** Pedernales

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**Days 2-3:** Bahoruco NP

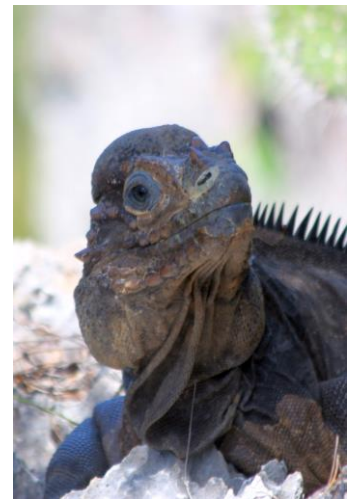
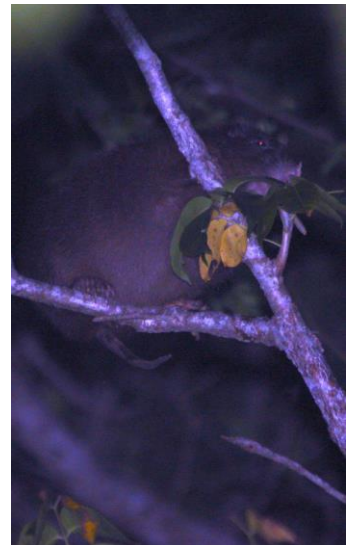
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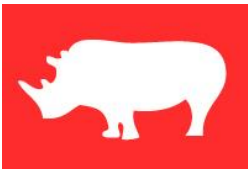
**Day 4:** Santo Domingo

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**Day 5:** Home

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# Day by Day Breakdown

## Overview

When it comes to unusual species of mammals for people who have heard of them, there can be none more unusual than the solenodon. Not only are they incredibly old from an evolutionary point of view having been separated from their closest relatives for around 78 million years; but they have several unique adaptations including a venomous bite with the venom being injected into the animal through a canal in the teeth and also a ball and socket joint on their nose which gives it incredible flexibility when foraging in leaf litter. There used to be several species of solenodon spread out across the larger Caribbean islands but since the arrival of Europeans to the Caribbean they have suffered and now only 2 species survive and both are very endangered and rarely seen anymore. The more common species is found on Hispaniola and with the expert guidance and help of our local guide Dr. Jorge Brocca we are able to track down and observe this incredible animal. We would also employ Jorge and his team to look for some of the other unusual and endangered animals of the southern forests and hills of the Dominican Republic.

We would be focusing on the south-west of the island and the massive protected area of Jaragua –Bahuroco – Enquirillo biosphere reserve. This area combines hilly forests, deserts, limestone karst formations and coastal lagoons and is home to a huge number of animals. Jorge would take us out at night to search for the nocturnal solenodon and arboreal rodent the hutia, and during the day we would be looking for birds as well as some of the resident reptiles including the two large iguana species. The huge rhinoceros iguana and the endemic and critically endangered Ricord's iguana.

This is a very specialist trip and one that lives and dies by its ability to see the Hispaniolan solenodon and then the other lesser targets of Hispaniolan hutia, Ricord's iguana and the more common rhinoceros iguana. If we are successful we will be some of the very few people in the world to have seen these species in the wild and we will be good in the knowledge that we have contributed directly to the ongoing protection of the Dominican Republic's wilderness areas and the conservation and research of its rarest inhabitants.

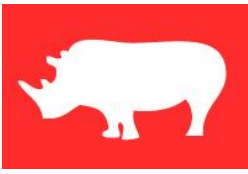


## Day 1 **Pedernales**

## *Arrival & Wildlife Watching*

This morning Jorge and Martin were informed by Chris that his flight had been delayed by 13 hours so we waited in the capital until the early afternoon when Chris landed. On meeting him we loaded our gear into the car and drove out of the city and along the stunning Caribbean coastline. The coast of southern Dominican Republic is one of the nicest in the world with white sand beaches and limestone cliffs skirting the island. Several pea green lagoons are dot the coastline and are hotspots for birds and marine life; as we drove for around 5 hours west along the coast we passed several of these lagoons and watched as the beautiful blue sea crashed against the cliffs until we reached the Pedernales region. This is in the far south-west of the island and very close to the border of Haiti. On arrival we checked into our accommodation straight away and rested for a while, we would head out into the highlands around Baruhoco and Jaragua National Parks at 9pm. We then left the accommodation to pick up our two local trackers in their nearby village. These trackers are ex poachers and are now employed by Jorge to find, capture and monitor the solenodons and other wildlife in the forests here. Because of the problems in Haiti (both humanitarian and environmental problems) many people try and illegally leave Haiti to enter the Dominican Republic and as a result the forests here along the border are peppered with illegal migrants. They not only pose a threat to the local wildlife and forest with poaching and logging but also to the rangers as they have been known to get aggressive rather than be reported to the police. So it is important that the local trackers and rangers are paid well enough to feel valued in their work and therefore adequately protect the area. Only through his hard work, encouraging eco-tourism and gathering international awareness for the wildlife of the Dominican Republic is Jorge able to have a team of guides and trackers as well as rangers. In the last few years of his work the knowledge base of what we know about the wildlife and environment of the Dominican Republic has grown exponentially. After collected Jimeal and Mancho we drove up and up into the hills of the Baruhoco National Park, this is great habitat for the solenodon and one thing that we didn't know about solenodons until Jorge's work started was that we they like disturbed agricultural land, particularly cattle pastures. As a result we would focus on an area that is on the border of the park and farmland; Jimeal and Mancho went off into the forest and pastures and Jorge, Chris and Martin remained on the main road in





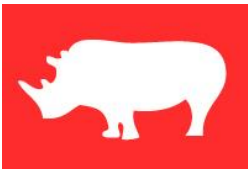
the vehicle. Connected by radios and mobile phones we would wait for the trackers to find a solenodon and capture it, the easiest way of finding one is to listen to the rustling as they walk over the dry leaf litter. The fewer people out traipsing around the forest at night the higher our chances of finding one and so that is why only the experienced trackers went out. So we sat and ate snacks and chatted about the solenodon, other Caribbean wildlife and conservation until we got the phone call, it was only around 2 hours later, which is pretty quick. We went into the cattle field next to the road and quickly saw the lights of the trackers coming back from the forest, in the canvas bag they had captured a male solenodon. The solenodon was released after Jorge had taken the measurements needed and did a basic health check. We then had around 15 minutes as the solenodon stayed around the area and allowed for close up photographs. Watching the golden-brown animal ambling over the sharp rocks was so strange, no other mammal moves with such an awkward and stiff gait. We also watched as the flexible nose rooted around and moved from side to side in an attempt to sniff out food and the way back to the forest and its preferred foraging areas. As we watched the solenodon we were told by Jorge about the main threats to the continued survival of the species. For a long time it was thought to be habitat destruction and whilst this is no doubt a very real threat to solenodons, we now know that they are capable of living in broken habitat and even foraging successfully in agricultural land. They have been hunted in their history and again no doubt hunting for food is a problem, but they are so few in number now that hunting is probably quite low down on their list of threats. What is the number one problem now is introduced animals, mostly dogs and then cats and mongooses. The first two species were brought by Europeans as pets and companion animals and have decimated local populations of all animals on the island. Cats are massive predators of their young and also compete with the solenodon by eating their native prey animals. Mongooses were introduced later as a means to control pest animals, but are very adaptable and successful predators that also feed on the solenodon's prey and their young. Most of what Jorge is trying to do is eradication projects around the island, getting rid of the dogs, cats and other invasive species is a huge part of conservation in the Caribbean islands and if it can be successfully achieved it will lead to an increase in the number of native animals. After the solenodon has disappeared into the forest and we could no longer here the distinctive rustling of the animal running on the dry leaves we left for the car, said goodbye to Jimeal and Mancho and headed back to the accommodation. We arrived back at around 1:30am and so decided that tomorrow we would not have a set time for anything and would most likely just focus on the iguanas around the coast in the afternoon.

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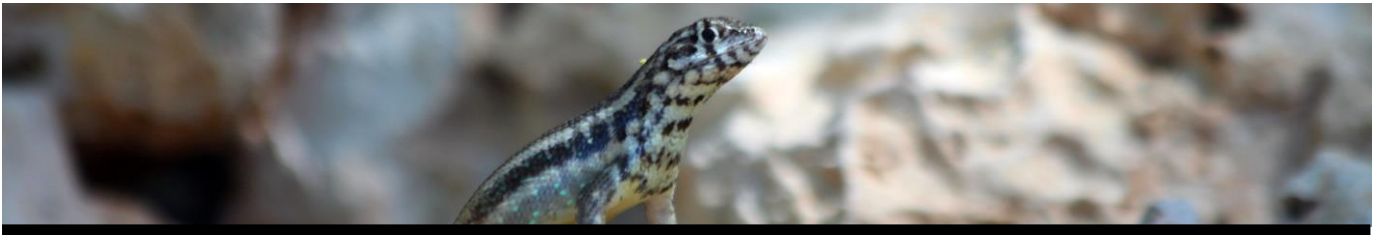
## Day 2 Jaragua National Park

## Wildlife Watching

Because of our late return to the accommodation last night we all slept in this morning and didn't head out until midday. This is a great time to try and see reptiles as the sun is fully up and they are at maximum temperature and very active. We drove out of the town of Pedernales and headed to the coast, driving along past the salt karst rock formations and the xeric coastal habitats. This habitat is home to many rare and endemic plant species including a species of cacti that is critically endangered and only found here. The bird life was good around these coastal wetlands, mostly water bird including brown pelicans, blue-winged teals and black-winged stilts which were the most common species found in the shallow wetlands. The area was also more productive for terrestrial birds than the dry and inhospitable habitat would suggest. Stoltz's flycatchers and northern mockingbirds being amongst the most common species seen. When we arrived at the beach we left the car and scanned the limestone cliffs for reptiles and birds, walking through the vegetation around the base of the cliffs was a good place to try and see some of the smaller and more colourful birds including Antillean mango (a pretty green hummingbird) and the endemic broad-billed tody; however it is also a very good place for mosquitos and we were mobbed a little. Further on from here we climbed up the trail onto the top of the limestone cliffs (being around 15m tall) and allowing fantastic views of the stunning blue water and white sand beaches. However this would be the best place to see the iguanas and other reptiles at this time of day and it wasn't very long before we spotted a basking Barohuco curly-tail on the white limestone rocks, this was followed by a pair of common ameivas scurrying around after each other amongst the rocks. But the real target was much larger and it wasn't long before we a huge male rhinoceros iguana feeding on cactus fruit just off the path. This iguana was huge and around 1.5m long with a huge bulky head and long spines down from the nape to the tip of the tail. He was largely unmoved by us carried on feeding and being so close to the path we were able to get great shots and views, the only problem being that the light was so harsh against the white limestone that the contrast from the shadows was a real problem from a photography point of view. We carried on and walked along the pathway and came across huge numbers of stunning butterflies all gong from palm to palm and cactus to cactus feeding on the pretty orange, pink and white flowers. As we walked along the limestone cliffs and took in the amazing and unique landscape here, Jorge was telling us about the plans to develop this whole area. The idea is for 'low-impact' hotels and resorts, but for fragile coastal environments and already endangered species there is no such thing and part of the work that Jorge is doing here is to hold off the development and try and find a more suitable area. But the money is talking and it looks like he is losing this battle and this cliff top path and its reptile, bird and butterfly life may disappear in favour of a beach resort or hotel. Further on we found a large female rhinoceros iguana and then a nesting pair of American kestrels flying around the cliff edge. They were riding around on the gusts of wind being pushed up the cliff from the sea and going back and forth to a there cliff ledge nest. They were flying around at eye level and so we were treated to some fantastic views, we then moved on and watched feeding brown pelicans in the shallows of Bahia de Aguilas.



We then returned to our vehicle and headed to meet Jose who would be our guide for the critically endangered and very elusive Ricord's iguana. The Ricord's iguana love the karst cliffs a little inland, Jose took us into the cliffs and around some newly developed agricultural land. The biggest threat to the population is the encroachment from farmland and the work that Jose is doing is largely concerned with protecting the land and repairing and setting up fences around the farmland and keeping the livestock off the cliffs. The livestock eat the iguanas food and are threatening them purely through the outcompeting them for resources. Walking through the dry scrub forest alongside the steep cliff we heard the rustling of leaves as one of two smaller iguanas ran off into the thick scrub, we couldn't see them very well. Then Jose spotted one high up on the cliff side, they are very elusive and are usually only seen when they bask on the ledges in the sun. We did get good, if distant views of this individual before Jose found 3 other ones. The first individual was a 3.5 - 4 year old and then the second was a fully grown adult male. They were all very skittish and when we tried to go closer they would scamper with incredible dexterity over the sharp karsts and into crags and small caves. Jose then took us to see some very old Taino petroglyphs, they are around 6,000 years old and therefore amongst the oldest in the whole of the Americas. Jose told us about the research projects that he has worked on as we turned and left the area to head back to our vehicle. Along the way we found an old nest burrow and also the dead and largely dissected carcass of an iguana. The weather had become very overcast and as the air became more humid we spotted a merlin perched in a dead tree on the top of the cliff. We then returned to the town and had dinner before picking up Jimeal and Mancho along the way and then headed to the forests for our quest for the hutia. After it was fully dark at around 9pm we headed into the forest and Martin, Chris and Jorge sat down and waited as the trackers went off to search for one. It was around 2 hours before we heard the whistles to signify they had found one, we quickly found where they were and came across a small tree around 8m tall and at the top where the main trunk branched off was a large arboreal rodent, we watched it feeding on the leaves and climbing very well among the small branches. We spent around 1 hour with the hutia before going back to the accommodation, along the way we found a large tarantula in the forest which was the last sighting of the night.



### **Day 3 Masai Mara National Reserve**

### ***Wildlife Watching***

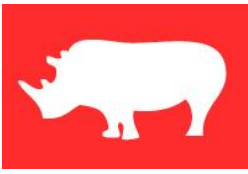
This morning we woke up a little later than first thing and had breakfast, in the grounds to the hotel we heard the worlds second smallest bird calling. We then had a visit from the vervain hummingbird and watched as this tiny bird called just next to us. We then headed out to visit some near shore lagoons for bird watching, smooth-billed anis, northern mockingbirds and a large Hispaniolan lizard-cuckoo were the main sightings as well as blue-winged teals, black-winged stilts, brown pelicans and common terns which were reasonably common around the shallow brackish pools. Then this afternoon we visited the large and hilly Barohuco National Park, this is the largest national park in the Dominican Republic and home to a huge variety of ecosystems, we drove up into the forest and as we reached higher ground we entered an area where surrounded by the strangest selection of plants we had seen, conifer trees, palm trees, cacti, ferns and orchids are all found living in this diverse forest. The most amazing thing about this forest is how large it is, the view points showed the true extent of the park, hills blanketed in trees spread out into the interior of the island. This is not the typical image of the Caribbean that people think of when they image the Caribbean. Another aspect we thought about when being driven around the forest was the lack of large animals that live here, the iguanas, solenodons and hutia being pretty much the largest animals in the forest, that was until donkeys, wild boar and deer where introduced and are now systematically being eradicated. We arrived at a stunning view point and visitor centre on a cliff ledge, the views out over the forest were incredible and we stayed here for some time watching birds as they flew past including a pair of Hispaniolan parrots and an American kestrel flying quickly over the canopy. We then returned to the town of Pedernales for a nice meal and some celebratory drinks after a very successful few days searching for some of the islands endemic and rare animals.

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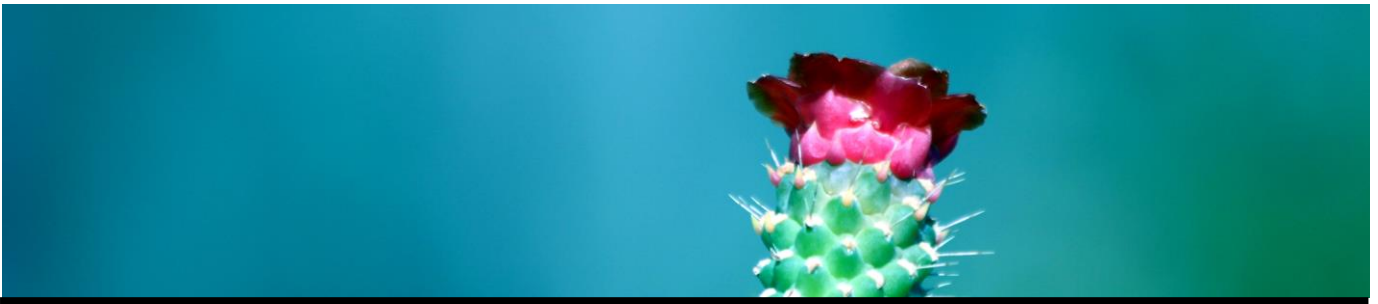
### **Day 4 Santo Domingo**

### ***Wildlife Watching & Travelling***

This morning we awoke early and departed to have a birding boat trip around Lagoon Oviedo. This is on the way to Santo Domingo and so we packed up and checked out of the hotel in Pedernales, stocked up on some snacks and hit the road. We arrived at the lagoon and met Fernando and Miguel who would take us across the lagoon and guide a trip to some of the small limestone islands. The most common birds around the lagoon were various species of terns including bridled terns, common terns and sooty noodyds. Alongside the terns we found many blue-winged teals in the lagoon and several large brown pelicans occupying the tops of mangroves that fringe the lagoon and several small islands. The guano in the trees showed that this was a regular roosting site for egrets and terns that live in the lagoon. Cruising the lagoon we watched a small flock of female frigate birds feeding, diving down



towards the water and then using their long necks and hook like beaks to bend their neck underneath their body to grab a fish. They are some of the most acrobatic of all birds and as well as getting their food for parasitically from other bird species they skim the water in this way to grab fish from the surface without getting their feathers wet. They do not have oil glands like many other aquatic bird species and so cannot fly if they get their feathers wet. We then arrived at a couple of small islands, these islands are full of rhinoceros iguanas and some small mixed colonies of terns. The iguanas here are large and are used to people, many of the visitors to the islands bring some fruit and feed the iguanas. This means they are very friendly and massive, we got great close views and some fantastic picture opportunities. We walked through the island and to a view tower that gave stunning views over the lagoon and sea grass meadows. Martin scanned the lagoon but couldn't find any signs of some of the larger marine life that sometimes inhabits these coastal lagoons like West Indian manatees, common bottlenose dolphins and marine turtles. We stayed here for a little while enjoying the views and taking advantage of the increased cool breeze of the tower. From here we were taken to another part of the lagoon and the shoreline here is home to some old petroglyphs, here they are around 1,000 years old and were made by the Taino inhabitants. Nearby the petroglyphs were many American flamingos, a huge colony of flamingos lives here and is one of the largest in the southwest of the island. From here we left the lagoon and carried on eastward along the coastal road, we stopped at a small set of caves called Los Platos near a rivulet that went out into the sea via a very popular shallow estuary where people come to swim and cool off in the heat of the day. We entered the caves and immediately smelt the tell-tale smell of scent of bat guano. There were 4 different species of bats found in the cave, including a large number of the large Jamaican fruit eating bats, these are amongst the most common species of larger bats throughout the Caribbean and Central / South America. As well as the Jamaican fruit-eating bats which were everywhere in the cave we also found small colonies of Waterhouse's leaf-nosed bats, brown flower bats and Mexican funnel eared bats. The bats were not the only animals in the cave, we found a huge scolendra centipede scurrying along the cave floor catching cockroaches and crickets and the other invertebrates that live in the cave and form a unique ecosystem in the darkness. After leaving the cave we carried on to Santo Domingo and checked into our accommodation and rested for a while. We then all met up for dinner in a nearby restaurant and go over what an incredible few days wildlife watching we had had in the Dominican Republic.



## Day 5 **Home**

## *Departure*

Today we had breakfast at the hotel before meeting Jorge and being taken back to the airport in time to catch our return flights to the US and UK respectively.

# Species List

## Endemic Mammals of the Dominican Republic - Jan 2016

### **Mammals** (\* = heard or signs only / CT = camera trap only)

	Common Name	Binominal Name
1	Jamaican fruit-eating bat	<i>Artibeus jamaicensis</i>
2	Cuban funnel-eared bat	<i>Chilonatalus micropus</i>
3	Brown flower bat	<i>Erophylla bombifrons</i>
4	Waterhouse's leaf-nosed bat	<i>Macrotus waterhousii</i>
5	Mexican funnel-eared bat	<i>Natalus stramineus</i>
6	Cuban fig-eating bat	<i>Phyllops falcatus</i>
7	Hispaniolan hutia	<i>Plagiodontia aedium</i>
8	Hispaniolan solenodon	<i>Solenodon paradoxus</i>

January				
4	5	6	7	8
			~100	
3				
			~10	
			~10	
			~10	
			~15	
	1			
1				

### **Birds** (\* = heard or signs only / CT = camera trap only)

	Common Name	Binominal Name
1	Spotted sandpiper	<i>Actitis macularius</i>
2	Hispaniolan parrot	<i>Amazona ventralis</i>
3	Blue-winged teal	<i>Anas discors</i>
4	Antillean mango	<i>Anthracothorax dominicus</i>
5	Hispaniolan parakeet	<i>Aratinga chloroptera</i>
6	Great egret	<i>Ardea alba</i>
7	Grey heron	<i>Ardea cinerea</i>
8	Burrowing owl	<i>Athene cunicularia</i>
9	Canvasback	<i>Aythya valisineria</i>
10	Cattle egret	<i>Bubulcus ibis</i>
11	Sanderling	<i>Calidris alba</i>
12	Turkey vulture	<i>Cathartes aura</i>
13	Feral pigeon	<i>Columbia livia</i>

January				
4	5	6	7	8
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		2		
	2		8	
	3			
~10				
2			21	
			4	
1				
			11	
8				~10
			1	
	1			
~50			~100	~150

14	Smooth-billed ani	<i>Crotophaga ani</i>
15	West Indian whistling duck	<i>Dendrocygna arborea</i>
16	Little blue heron	<i>Egretta caerulea</i>
17	Snowy egret	<i>Egretta thula</i>
18	Merlin	<i>Falco columbarius</i>
19	American kestrel	<i>Falco sparverius</i>
20	Magnificent frigatebird	<i>Fregata magnificens</i>
21	Ruddy quail-dove	<i>Geotrygon montana</i>
22	Black-winged stilt	<i>Himantopus himantopus</i>
23	Laughing gull	<i>Larus atricilla</i>
24	Vervain hummingbird	<i>Mellisuga minima</i>
25	Northern mockingbird	<i>Mimus polyglottos</i>
26	Stolid flycatcher	<i>Myiarchus stolidus</i>
27	House sparrow	<i>Passer domesticus</i>
28	Plain pigeon	<i>Patagioenas inornata</i>
29	White-crowned pigeon	<i>Patagioenas leucocephala</i>
30	Brown pelican	<i>Pelecanus occidentalis</i>
31	Gray-crowned palm-tanager	<i>Phaenicophilus poliocephalus</i>
32	Neotropical cormorant	<i>Phalacrocorax brasilianus</i>
33	Greater flamingo	<i>Phoenicopterus ruber</i>
34	Western tanager	<i>Piranga ludoviciana</i>
35	Great Antillean grackle	<i>Quiscalus niger</i>
36	Hispaniolan lizard-cuckoo	<i>Saurothera longirostris</i>
37	Hispaniolan spindalis	<i>Spindalis dominicensis</i>
38	Bridled tern	<i>Sterna anaethetus</i>
39	Caspian tern	<i>Sterna caspia</i>
40	Forster's tern	<i>Sterna forsteri</i>
41	Common tern	<i>Sterna hirundo</i>
42	Royal tern	<i>Sterna maxima</i>
43	Sandwich tern	<i>Sterna sandvicensis</i>
44	Black-faced grassquit	<i>Tiaris bicolor</i>
45	Broad-billed tody	<i>Todus subulatus</i>
46	Gray kingbird	<i>Tyrannus dominicensis</i>
47	Scissor-tailed flycatcher	<i>Tyrannus forficatus</i>
48	Ashy-faced owl	<i>Tyto glaucops</i>
49	Rufous-collared sparrow	<i>Zonotrichia capensis</i>

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			53	
5			47	
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	1			
	4			
			1	
1				
	4	2	3	

**Reptiles** (\* = heard or signs only / CT = camera trap only)

	Common Name	Binominal Name
1	Common ameiva	<i>Ameiva chrysolema</i>
2	Rhinoceros iguana	<i>Cyclura cornuta</i>
3	Ricord's iguana	<i>Cyclura ricordi</i>
4	Barahona curlytail	<i>Leiocephalus barahonensis</i>
5	Pygmy blue-tailed ameiva	<i>Pholidoscelis lineolata</i>
6	Hispaniolan least gecko	<i>Sphaerodactylus streptophorus</i>

January				
4	5	6	7	8
	2			
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	1			
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1	1	1	1	