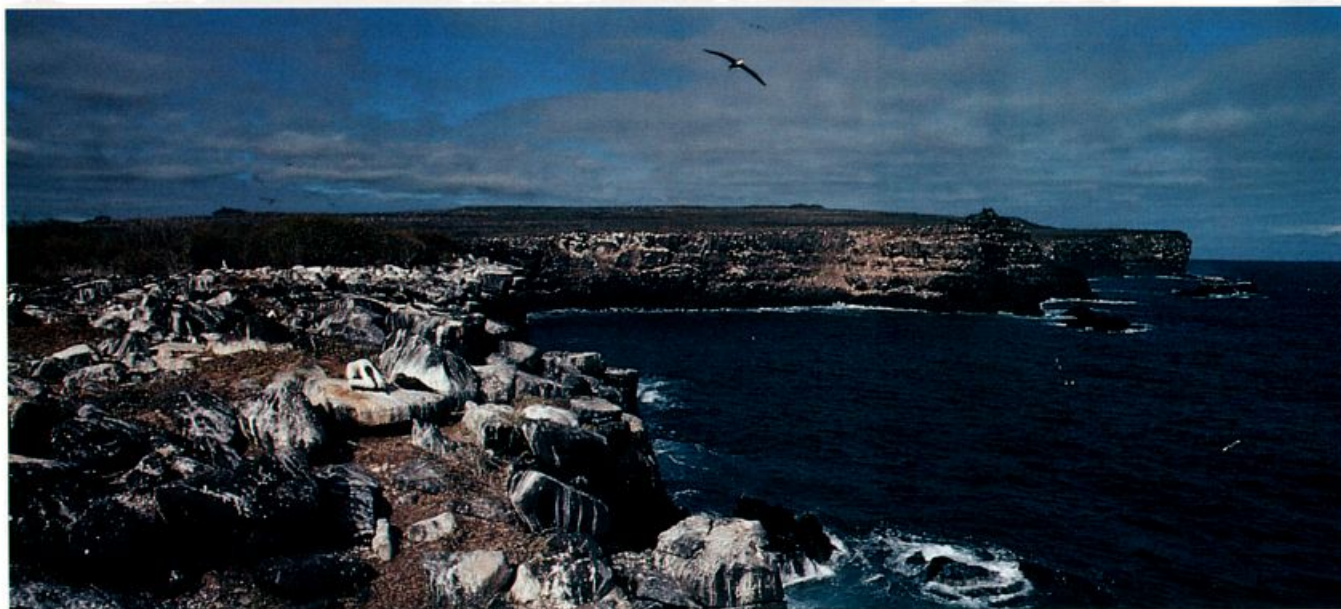


# Birding the Galapagos Islands



The vista from the south coast cliffs at Punta Suarez, Española. The crème de la crème of Galapagos visitor sites. Photo/Ron Naveen.

## Ron Naveen

**T**HERE HAS BEEN A VERITABLE REVOLUTION in Galapagos tourism in the 1980s. A combination of events has made these enchanted islands a more accessible attraction to thousands of travelers and natural history enthusiasts. In fact, a Galapagos trip has become practically *de rigueur* for birders and bird-watchers of all skills and stripes. The purpose of this account is to take a modern-day look at the islands that captivated Darwin, Melville, Beebe, Lack, Nelson, and De Roy—and to emphasize the possibilities and pitfalls solely from a birder's point of view.

Ten years ago, relatively few tours visited the "cradle of evolution." Many of those trips utilized a vessel known as the *Lina-A*, which now rests permanently on the floor of the Pacific Ocean, the victim of a scurrulous insurance scam. Since then, Galapagos tourism has flourished and proliferated. This is mainly due to the introduction of regular air service to the islands and the conversion of many smaller fishing vessels (30–60 feet) into touring boats. Not only is access to Galapagos easier both

by air and water, but prospective visitors have a wealth of tours from which to choose.

Tourism on the islands is closely regulated by the Ecuadorian government. Every visitor must employ an Ecuadorian company for arrangements while there. Despite voluminous advertising for a seemingly endless variety of tours at varied prices, particularly in American publications, it bears noting that all of these tour operators must work with one of the five or six Ecuadorian companies that handle charter cruises through the islands.

Because the majority of Galapagos visitors are non-birders, most itineraries reflect a generalist's orientation. These routine itineraries offer a wide sampling of the avifauna, but more serious bird students are apt to be disappointed. Many people visit the Galapagos with inflated birding expectations, then suffer acute depression (usually on the return flight to the mainland) when they realize that their itinerary never offered a chance for certain Galapagos bird spe-

cialties. Sometimes, birders mistakenly visit the Galapagos between mid-December and March when the spectacular Waved Albatross is usually absent, taking a post-breeding sojourn off the South American coast.

Often, even for the seasoned, logistics are maddening; even with the best of planning and plenty of time, there is a decent chance that some of the rarities will be missed. The problem, simply, is that some of the endemic bird species and attractive indigenous birds have very narrow ranges, or are found only at widely distant parts of the archipelago. Planning one's trip necessarily involves some gambling. The smaller boats generally move at less than eight knots per hour, a snail's pace that requires a 10-day minimum to visit the important birding locations. Conversely, the larger vessels are much faster, but by choice or by virtue of restriction, they don't (or can't) visit some of the premier birding haunts.

It behooves the interested birder to question a prospective tour operator closely about the itinerary and whether

or not a bi- or multi-lingual guide will be on board.

Three large cruise ships are presently active in the islands, but the scene is dominated by the smaller touring vessels that carry from four to twenty passengers. In 1986, 26,023 tourists visited the Galapagos Islands, and the numbers will likely rise. With the Ecuadorian economy tottering as a result of the massive 1987 earthquakes, Galapagos tourism may become a primary means for keeping the economy afloat. All of this follows persistent stories regarding additional landing strips (a new jet-strip opened on San Cristobal Island in 1986) and the possibility of a gambling casino and resort on southern Isabela Island.

Even before the 1987 earthquake, Ecuador wasn't considered a very prosperous country, thus, its attention to preserving Galapagos—despite the obstacles—is a rather remarkable accomplishment. The government's latest effort is the 1986 proclamation of a Marine Resources Reserve for Galapagos, covering all internal waters and extending at least 15 nautical miles around the archipelago. On balance, the marriage between the often competing goals of tourism and conservation seems to be holding stable for the moment.

One government agency, INGALA, administers to the needs of the islands' human residents and another, the National Park Service, trains naturalist guides, eradicates feral cats, dogs, pigs, goats, and rats, and establishes and maintains preservation areas. The independent Charles Darwin Research Station, funded jointly by the Ecuadorian government, the World Wildlife Fund, and other international agencies like the Smithsonian Institution, San Diego Zoo, Frankfurt Zoological Society, and UNESCO, and recently, by funds from a Nature Conservancy endowment, carries out scientific research. The Station is located in Puerto Ayora, Academy Bay, on southern Santa Cruz Island.

Forty-three visitor sites have been established, along with various rules to protect the fragile ecology. Every touring vessel must be accompanied by a naturalist or auxiliary guide who is sanctioned, trained, and certified by the National Park Service or the Charles Darwin Research Station. Your guide is your "ticket" to each of the visitor sites. Generally, the sites must be visited in daylight ("six to six" on the Equator) and, with the exception of the so-called



*Red-billed Tropicbird over the south coast of Española. Their shrill, policeman-like calls are often heard before the birds are seen. Photo/Ron Naveen.*

"open" areas, visitors must stay on the designated hiking and walking paths. Visits to the tourist sites are accomplished by riding a *panga*, a small wooden boat fitted with an outboard motor, from your tourist boat to shore. Wet landings are the norm, not the exception.

### **THE ISLANDS**

Galapagos straddles the Equator, far south of Chicago and 600 miles west of Guayaquil, Ecuador. The islands are bathed by two cold currents that bring rich and prey-laden, 20°C, water from May to December: the Humboldt, which flows north along the South American Coast and the submarine Cromwell, which flows from the south

and west. The cold water is an important ecological phenomenon because of the substantial productivity it brings to this tropical climate. This is why the most northerly penguins in the world survive rather well in the Galapagos.

There are 13 major islands, six minor islands, 42 islets with given names, and scores of unnamed rocks, outcrops, and footholds. Spanish place names are preferred by Galapagoenians and are used here. (A list of corresponding English names appears at the end of the article). Darwin trod four of the islands in 1835, during the voyage of the *Beagle*, and there is the chance to traverse some of the same earth that he walked. In this century, the islands have been the focus of a number of seminal scientific expeditions and studies. William Beebe and the New York Zoological



*Elliot's Storm-Petrel characteristically pattering the surface at Tagus Cove, Isabela. This is the closest relative of the Wilson's Storm-Petrel. Photo/Ron Naveen.*





*A Waved Albatross gaping during its courtship display at the Punta Suarez colony. The courtship is accompanied by much bowing, grunting, mooring, and sway-walking. Photo/Ron Naveen.*

However, without getting to loftier habitats like the transitional, humid, or fern-grass-sedge zones, the visiting birder doesn't have a chance of finding some of the specialties.

On one of the short (*i.e.* fewer than 10 days) trips on the large and fast cruise ships, there will be no difficulty reaching important birding outposts like Española (Waved Albatross, large-billed Large Cactus Ground Finch, Hood Mockingbird), Fernandina (Galapagos Penguin, Flightless Cormorant), and Genovesa (Red-footed Booby, Sharp-beaked Ground Finch, small-billed Large Cactus Ground Finch). On short trips with smaller vessels, however, it's difficult to reach even one of these outer locations without detracting seriously from important sites on the central islands.

Society in the 1920s; the pioneering Darwin's Finch studies of David Lack and Peter Grant; and, Bryan Nelson's monumental seabird work in the 1960s are but a few. Galapagos also is the home of Tui De Roy, whose beautiful and sensitive photographs have done much to popularize the islands in the 1980s, and to direct our attention to the archipelago's fragile status. Yes, there is much tradition and history tied to a Galapagos visit, adding genuine luster to what would be, in any event, a spectacular wildlife trip.

Most incoming flights land at the airport on Baltra, also known as South Seymour Island, which is located in the central part of the archipelago. You can still sail from Guayaquil to the islands on one of the larger tour vessels (a good way to look for Cape Pigeons, Parkinson's Petrel, and Markham's Storm-Petrel), but this adds a couple of long, rocky sea-days to your trip. Flying in provides a quicker start. Once you've paid your Galapagos Park fee at the airport (\$40 U.S. in 1987), it's a short bus ride to the nearby cove where your tourist vessel is anchored.

Some people arrive in Galapagos without a pre-arranged tour, take the ferry across the Itabaca Channel, then the bus across Santa Cruz to Puerto



*The red gape of a calling Lava Gull, a very rare, but usually seen Galapagos endemic. Photo/Ron Naveen.*

Ayora, hoping to hire a touring boat on short notice. This is a gamble that is likely to take a lot of time that could more valuably be spent on board and *en route*, visiting the islands. Moreover, it's not likely that one of these spur-of-the-moment arrangements will produce either a comfortable boat or a multi-lingual guide.

Eighty to ninety per cent of the Galapagos tours are 3-, 5-, or 7-day excursions. Ten-day trips are easily arranged, but aren't necessarily promoted by travel agents or tour operators. These shorter trips concentrate on the arid coastal zone and adjacent shorelines and mangroves of the central islands.

Regarding creature-comforts: there's no question that the larger cruise ships offer more room, but you won't necessarily enjoy the company of 60-80 traveling companions, and a break-neck schedule. Further, the large ships avoid or are prohibited from certain sites like Sombrero Chino Island, Black Beach on Floreana Island, and Daphne Island. Contrariwise, the smaller boats are less comfortable (and you may have to share one or, at best, two toilets), but their smaller capacity (usually 6-20 passengers) enhances the ambience of the islands, and the opportunity to enjoy one's fellow travelers. The smaller boats tend to spend more time at the visitor sites.

It must be emphasized that even if you've arranged a longer trip and obtained the itinerary that you prefer, it's still possible to miss a few of the endemics. Consider that the Charles Mockingbird resides on only two very small islands, one of which has no landing site and the other of which is strictly off-limits to visitors. Red-footed Boobies are easily seen only in the vicinity of Genovesa, far to the northeast. Further, the Mangrove Finch is almost impossible to find, and the Medium Tree Finch requires at least a two- to three-hour hike to an infrequently visited portion of one particular island!

## WEATHER

Generally, the best time to visit, for birds, photography, and comfortable weather conditions, is April through June. In late June and early July, the misty *garua* season begins. Although the birding remains good, the water is colder and the skies are cloudier, making the photographic opportunities a bit less than ideal. However, on the "up" side, the cloudiness reduces one's chances for severe sunburn, which always is a hazard at these latitudes. From December to March, it is very warm and the skies are usually clear, but this is the wrong season for Waved Albatrosses. If one visits in late September through December, the seas may be choppier than usual. Bring seasickness medicine, but there is every likelihood it won't be used.

*Nota bene!* If the islands are suffering through a serious "El Niño" phenomenon, cancel your trip altogether! During December–February cold currents are displaced to a greater or lesser extent by warmer flows from the north and east. Approximately every seven years this warm El Niño counter-current is extensive, bringing heavy rains, warm seas, and generally horrendous conditions for visitors. The effects of a serious El Niño may last well into the year. It's a time when the Darwin's Finches breed crazily, but the seabirds postpone breeding because they cannot find food. The islands turn green, rather than their usual burnt-out red and brown, from the sudden, lush plant growth. The seas are rough, rain is abundant and annoying, and you'll likely miss an inordinate number of birds. The 1982–1983 El



*An adult Red-footed Booby in a typical pose—in a tree—on Genovesa. Most Galapagos Red-footeds are brown-morph birds. Photo/Ron Naveen.*

Niño event was the worst on record, lasting well into the spring and summer. The mild event of 1987 was not as devastating, with seabirds finally getting back to their courtship routines in late May and June.

## BIRD SPECIALTIES

The birder's Galapagos objectives are the following 41 specialties:

- 13 endemic Darwin's Finches
- 4 endemic mockingbirds
- 4 endemic land birds (hawk, dove, martin, flycatcher)
- 2 endemic water birds (rail, heron)
- 18 Galapagos seabirds

The following comments about finding these 41 specialties are based on six years' experience in the islands, mostly

during February–July, including two serious El Niño events, a circumnavigation of all Galapagos waters, and visits to practically all of the visitor sites. Birding suggestions focus on the officially designated tourist sites, because these places are the ones you'll most likely be visiting. Occasionally, visits to off-limits areas are permitted, if an appropriate request is made, and a few of these sites are also mentioned.

## DARWIN'S FINCHES

To quote Michael Harris: "It is only a wise man or a fool who thinks that he is able to identify all of the finches which he sees." Amen! There are 13 Darwin's Finches in Galapagos; the 14th member of this unique subfamily called *Geospizinae* is endemic to Cocos Island, off Panama. These birds are best differen-



tuated by bill shape and size, which takes quite a bit of practice. These finches are “little brown jobs” of the highest order, and they offer the most difficult identification challenge among Galapagos avifauna. Despite their common names, ground finches can be found in trees,

Ground Finch (*G. magnirostris*)—and it shouldn’t be too difficult-to-find. In fact, a Medium Ground Finch may be with the Small Ground Finch that greets you at the airport! Mediums are fairly common at a number of locations. The Large Ground Finch is a bit harder-to-

*parvulus*), Large Tree Finch (*C. psittacula*), and Vegetarian Finch (*Platyspiza crassirostris*) are regular in this habitat. The larger size of the Large Tree Finch and Vegetarian Finch are very helpful, in addition to their characteristic bill shapes.



Galapagos (Wedge-rumped) Storm-Petrel flying over the cliffs near Prince Philip’s Steps, Genovesa. Note the distinctive large white rump patch. Photo/Ron Naveen.

tree finches on the ground, and cactus finches in other than cacti! Further, the plumage and color variations, although tempting and obvious points, aren’t diagnostic field marks. Many of the male ground finches show a predominately black plumage and dark bill while breeding, but it’s more likely that you’ll encounter the drab olive green or brown plumage shown by females, juveniles, and non-breeding males. A particular species on one island actually may have a noticeably different bill shape from the same species living on another island. Moreover, there are many apparent hybrids with which to contend. In addition to bill size and shape, location and distribution are helpful factors in one’s quest for finches (see Grant 1987 or Harris 1982).

You’ll probably be greeted at the airport by a Small Ground Finch (*Geospiza fuliginosa*), which is the most common Darwin’s Finch and, indeed, one of the islands’ most common land birds. The other finches, however, present a more difficult test of birding skills, and the best means of attack is to break the “Gang of 13” into smaller groupings, and to consider each assemblage separately.

**Ground Finches (4 species).** The Medium Ground Finch (*G. fortis*) identification is a matter of practice—its bill is larger than that of the Small Ground Finch and smaller than that of the Large

find, but you should see them in the arid zones along the coastline on Santa Cruz, Genovesa and, perhaps, on Daphne. Be careful! There are large-billed Medium Ground Finches on Santa Cruz, especially in the vicinity of the Darwin Station.

Sharp-beaked Ground Finch (*G. difficilis*) is the most difficult to find in the group, but only in terms of logistics. Genovesa is the only regularly visited island on which they are usually, and easily, seen. They are present, but harder-to-find on Fernandina and Santiago.

**Cactus Finches (2 species).** Cactus Ground Finch (*G. scandens*) should be easy-to-find. South Plaza, Santa Fe, and the paths through the Darwin Station are very productive. The Large Cactus Ground Finch (*G. conirostris*), like the Sharp-beaked Ground Finch, is a matter of logistics. The small-billed variety of the Large Cactus Ground Finch is found on Genovesa, the large-billed variety on Española. It is helpful to remember that the Cactus Ground Finch is not found in locations where the Large Cactus Ground Finch is found.

**Tree Finches (4 species).** You must get to higher elevations, above the arid coastal zone, to see these birds. The Santa Cruz highlands are very productive, especially near and above the small villages of Bellavista and Santa Rosa. The Small Tree Finch (*Camarhynchus*

A very good tree finch site is the path to the Tortoise Reserve in the Santa Cruz highlands. Another, in the same vicinity, is the Devine Farm, which requires special permission and, perhaps, an entrance fee. Don’t be frustrated if you can’t get into the Tortoise Reserve because it is totally overgrown, or into the Devine Farm for lack of permission. Any tree-laden area in the vicinity is a good place to look. Three other suggestions for good tree-finching are the grounds of Los Tuneles, a lava-tube, visitor-attraction near Bellavista (Santa Cruz), the trail above and behind the tidal lagoon at Playa Espumilla (Santiago) and the hike to the old salt mine at Puerto Egas, James Bay (Santiago).

Medium Tree Finch (*Camarhynchus pauper*) is found only on Floreana, and involves a hike of two to three hours, to the humid zone, to even have a chance of spotting this species. The best access is from Black Beach, on the northwest side of the island. Black Beach definitely is off of the beaten track, and requires that your tour operator arrange a visit. When you get to the proper habitat, it’s a matter of sorting through the numerous Small and Large Tree Finches to find your quarry.

**Woodpecker Finches (2 species)** These are the birds that use twigs and cactus spines as tools to extract insects from tree bark. Like the Large Tree and Vegetarian finches, they are relatively large. The Woodpecker Finch (*Cactospiza pallida*) can possibly be seen on the tree finch trails just mentioned, especially in the Santa Cruz highlands and at Playa Espumilla (Santiago). Another productive site is the trail to the “upper lake” above Tagus Cove (Isabela). The Mangrove Finch (*Cactospiza heliobates*), however, is clearly the most difficult-to-find Darwin’s Finch, and it’s more often missed than seen! The habitat, of course, is mangroves, and the bird’s range is from Caleta Black to Punta Moreno on western Isabela, on southeast Isabela opposite the Crossman (Hermanos) Islands, and, purportedly, on eastern Fernandina. The most accessible, and recently productive sites are the mangrove clumps on western Isabela between Caleta Black and

Punta Tortuga, especially at the latter site, which is just north of Tagus Cove. This particular coastline is dotted with outcroppings of mangroves, some of which are fronted by sandy beaches on which Green Sea Turtles lay their eggs. Pick a beach, go to the nearest mangroves, try to find an opening. Enter and make some “spishing” noise. The Mangrove Finch is a skulker, and might be foraging in the low-lying mangrove at your feet, as well as in the mangroves above your head. There are rumors of Mangrove Finch at the Punta Espinosa visitor site on Fernandina, just across the Bolivar Channel from Punta Tortuga and Tagus Cove.

*Warbler Finch (1 species)*. The Warbler Finch (*Certhidea olivacea*) is very easily seen, especially obvious at Genovesa and Española, as well as in the vicinity of the Darwin Station. It has the smallest bill of all of the finches, and resembles a warbler more than a finch.

In summary, maximizing your finch opportunities means including the following sites on your Galapagos itinerary: salt mine trail (Santiago); uplands trail at Playa Espumilla (Santiago); the Santa Cruz highlands above Bellavista and Santa Rosa; the humid zone on Floreana; Genovesa; Española; and the mangrove clumps between Caleta Black and Punta Tortuga (western Isabela).

## MOCKINGBIRDS

Three of the endemic mockingbirds are relatively easy-to-find, but the last, the Charles Mockingbird (*Nesomimus trifasciatus*), requires some special planning. The Galapagos Mockingbird (*N. parvulus*) is the most widespread, and is commonly seen on most of the regularly-visited islands. The Chatham Mockingbird (*N. melanotis*) requires a trip to San Cristobal Island, and the Hood Mockingbird (*N. macdonaldi*) requires a trip to Española Island. The Hood Mockingbird is the largest of the four, with a very large, slightly decurved beak.

The Charles Mockingbird has been completely extirpated from Floreana, the large island it formerly inhabited. This is a perfect example of how vegetational changes and feral animals—in this case cats and rats—wreak havoc on naturally occurring species. The bird is now restricted to two small islands, Gardner-by-Floreana and Champion,

located to the southeast of Floreana. The former has no easy access (it’s a towering bird stack that, actually, offers the best breeding situation for Red-footed Booby in the south) and the latter is totally off-limits to visitors specifically in order to protect the Charles Mock-

productive for hawks. Other good hawk sites are: Sombrero Chino; Buccaneer Cove (Santiago); and, Punta Garcia (eastern Isabela). If you hike to the top of Volcan Alcedo (Isabela), you’ll probably encounter a few hawks, as well as, hopefully, some Galapagos tortoises.



*Galapagos Hawk soaring over Española. This is a very gregarious Galapagos creature, often allowing a close approach when perched. Photo/Ron Naveen.*

ingbird. Only 90–100 individuals survive. So, the *modus operandi* is to ask your captain to circumnavigate Champion Island, running-in as closely as possible, so that a curious Charles Mockingbird might be “spished”-out of the abundant *Opuntia* cactus. Sooner or later, one is likely to emerge, albeit at a distance.

## LAND ENDEMICIS

The endemic Galapagos Hawk (*Buteo galapagoensis*) is one of the very few polyandrous birds in the world. Closely related to our North American Harris’ Hawk, it is a thrilling Galapagos sight, mostly because it is very curious and often allows close approach. Regular locations for them are Puerto Egas and James Bay (both Santiago) and the visitor site at Santa Fe. Occasionally, the hawks soar with the Blue-footed Boobies here and at Española, and at the latter site, you might find them riding the wind with the albatrosses. Unlike the boobies, of course, the hawks don’t plunge-dive after sub-surface prey! The trail to the end of the salt mine at Puerto Egas is very productive, and often their breeding activities can be observed around the lagoon at the old salt mine. Another Puerto Egas excursion, the walk to the fur seal grottos, also may be

The beautiful, blue eye-ringed Galapagos Dove (*Zenaida galapagoensis*) should be seen without difficulty; it is widespread and common. Galapagos Martin (*Progne modesta*) is more difficult-to-find, and may be missed. Good locations are: Tagus Cove (eastern Isabela); Buccaneer Cove (Santiago); Academy Bay; the rim of Volcan Alcedo (Isabela); and, Daphne. The Large-billed Flycatcher (*Myiarchus magnirostris*) is widespread although not terribly abundant and should be seen.

## WATER ENDEMICIS

The Lava Heron (*Butorides sundevalli*) looks like a black Green-backed Heron from North America and, indeed, they may be conspecific. Certainly along a beach or tidal lagoon, you’ll see one. The tidepool behind the beach at Bahia Darwin (Genovesa) is a good location for Lava and Yellow-crowned Night-Herons. The Striated Heron (*B. striatus*) may be just another form of the Lava Heron but, look for it at Punta Cormorant (Floreana) and Caleta Tortuga Negra (Santa Cruz).

Rain pools or wet areas in the miconia, fern-sedge highlands are the preferred habitat for the Galapagos Rail (*Laterallus spilonotus*), but it is very secretive. Possible sites for finding this



relative of the Black Rail (*L. amaicensis*) are: the Devine Farm, the Tortoise Reserve, and along the trail on the long hike to Media Luna, all on Santa Cruz; and, the humid zone on Floreana.

## SEABIRDS

Three of the seabirds are strictly Galapagos endemics: Lava Gull (*Larus fuliginosus*), Galapagos Penguin (*Spheniscus mendiculus*), and the very weird-looking Flightless Cormorant (*Nannopterum harrisi*). Swallow-tailed Gulls (*Creagrus furcatus*) and Waved Albatross (*Diomedea irrorata*) are indigenous to Galapagos (a few Swallow-taileds breed in Colombian waters and, from approximately late November to March, Waved Albatrosses migrate to the west coast of South America). You should encounter most of the seabirds, but there will be some challenges. One of the storm-petrels is difficult-to-find and identify (Band-rumped), and another may be surprisingly uncommon (White-vented). Red-footed Boobies are seen readily only on, or near, Genovesa, far to the northeast. The largest concentrations of cormorants and penguins are to the west, the least visited part of Galapagos Islands, but there are occasionally productive areas for penguins to the east.

The Galapagos Penguin is the world's most northerly penguin, and one that has the most flexible breeding strategy. It is prepared to raise young whether conditions are favorable—that is, when surrounding waters are cool and most productive. Generally, the colder water is to the west, so it's not surprising that the penguins' stronghold is the western side of Isabela and Fernandina. Recommended sites are the lava outcrops near Punta Espinosa (Fernandina), Tagus Cove (western Isabela), and Elizabeth Bay (western Isabela), the latter having very large numbers of them.

If you can't get to the west, try Bartolome where a small breeding colony has developed near the base of the spectacular Pinnacle Rock. Another central-islands site that may be productive is Sombrero Chino, off the southeast coast of Santiago, where stragglers or, perhaps, new breeders, have been seen fairly regularly. Penguins can travel great distances, and may make an unexpected appearance at places like Academy Bay (Santa Cruz) or Punta Cormorant (Floreana).

High on the list of recommended items to take on a Galapagos trip should be a mask and snorkel. Quite simply, there are very few experiences more thrilling than snorkeling with penguins, and Bartolome is a great location for some of these very close and special encounters! If you tire of porpoising with the penguins, there are plenty of sea lions with which you can playfully cavort.

The spectacular Waved Albatross is a major Galapagos highlight. The *creme-de-la-creme* of Galapagos visitor sites is the immense albatross colony at Punta Suarez (Española). A few Waved Albatrosses also breed on a small island



The beautiful Galapagos Dove is a common sight in the islands. Photo/Ron Naveen.

off the coast of Ecuador. The south coast cliffs of Española rank among the most awe-inspiring birding sites in the world! Imagine sitting on the cliff edge above the crashing waves and pounding surf, with albatrosses, Red-billed Tropicbirds, Swallow-tailed Gulls, and Blue-footed and Masked (and, rarely, Red-footed) boobies whizzing-by at eye level and above, while next to you the albatrosses are vigorously performing their courtship dances and displays. When the wind rises, the albatrosses walk toward and around you to get to the edge, then raise their wings to catch the wind and soar off down the coast. There's so much activity, that one can, as I have, shot an unbelievable number of rolls of film trying to capture this spectacle.

Straggling albatrosses return to Española around March, gathering in

large rafts below the south coast cliffs. By December, most have left the colony for the South American coast. In the central islands, during the nesting season, they are rarely seen north of the latitude of Academy Bay, although there are occasional sightings between Bartolome and Santa Cruz. In one recent year, a few were seen soaring above the storm-petrel cliffs on Genovesa. On the western side of Isabela, albatrosses are possible from approximately Elizabeth Bay south. Their main foraging area seems to be to the south and west.

The Dark-rumped Petrel (*Pterodroma phaeopygia*) is the most endangered Galapagos seabird, but you shouldn't have difficulty seeing one on the longer inter-island runs. It is endangered because of predation by feral animals in the Dark-rumped's highlands-breeding areas on Santa Cruz, Santiago, San Cristobal, Floreana, and Isabela islands. They have a wide-ranging foraging proclivity, and can be seen almost anywhere in Galapagos. Their looping, "roller coaster," *Pterodroma* flight is quite distinctive, and the best time to encounter one seems to be early morning and late afternoon.

If you happen to spend a night in Puerto Ayora, Academy Bay (Santa Cruz), try rising before sunrise to watch the morning flight of Dark-rumped Petrels out of the highlands toward the sea. The dock at the Hotel Galapagos is one vantage point, although any open area along Academy Bay will suffice. In the Santa Cruz highlands, the petrels nest in the vicinity of Media Luna and to the west, for example at Los Gemelos (the sinkholes), which are easily reached on the main Puerto Ayora-Baltra road. The last is an area where the petrels might be seen as they begin to return to their burrows at dusk, during June-October.

Audubon's Shearwaters (*Puffinus lherminieri*) are very common and easily seen, often in the company of Brown Noddies in a mixed feeding flock. If you do encounter a large raft of them, perhaps off of the north coast of Isabela, take the chance to study the shearwater's unique foraging strategies, as they hydroplane along the surface, moving forward with cocked and raised wings, and heads underwater.

There are three storm-petrels regularly seen in Galapagos, and with a little luck, you should see all of them. The most difficult identification problem is presented by the Band-rumped Storm-

Petrel (*Oceanodroma castro*), which is the largest of the three. With practice, the large size is helpful in these waters, but until then, concentrate on this storm-petrel's zig-zag flight, with shallow wingbeats, mixed in with some shearwater-like gliding. It is often seen on the long, early-morning runs to Genovesa, and with less regularity *en route* to Española, Fernandina, and San Cristobal. It is usually seen in small numbers and is not often attracted to touring boats.

The Wedge-rumped (Galapagos) Storm-Petrels (*Oceanodroma tethys*) are very common, and their large, white rump patch is quite distinctive, even at a distance. They are seen easily at the cliffs at Genovesa (reached by taking Prince Philip's Steps, then hiking through the Palo Santo trees to the cliffs), as well as on most runs between islands. Both Wedge-rumped and the White-vented Storm-Petrel (*Oceanites gracilis*) are noticeably smaller than the Band-rumped. At the cliffs at Genovesa, there will be thousands of Wedge-rumped "flighting" by you and, perhaps, Short-eared Owls (*Asio flammeus*) hunting them from the brush. (The Band-rumped also utilize these cliffs, but at night).

The White-vented (Elliot's) Storm-Petrel is an enigma. There are two subspecies, one of which presumably breeds in the Galapagos Islands, but a nest of either subspecies has never been documented. White-vented always seem to be present in Galapagos, but its numbers vary considerably. When surrounding waters are cool, they appear to be less numerous. The White-vented tends to be an inshore feeder and, in contrast to Band-rumped and Wedge-rumped, is less often seen on the long, inter-island runs. White-vented is the closest relative of Wilson's Storm-Petrel (*Oceanites oceanicus*) and, like its congener, it is an inveterate foot-patterer. Chumming for White-vented with fish scraps, vegetable oil, or frypan grease can be very successful!

Red-billed Tropicbirds (*Phaeton aethereus*) are bound to make at least one appearance during your trip. They are regularly seen at Genovesa, South Plaza, Española, Devil's Crown (near Floreana), Gordon Rocks (near South Plaza) and Daphne. At Española, there may be 200+ in flight at once! The Red-billed's shrill, policeman's whistle-like calls are distinctive. Red-billed is the common Galapagos tropicbird, but

there now is one sight record of a Red-tailed Tropicbird (*P. rubricauda*) *en route* to Genovesa (Harrison and Naveen, unpub. notes, 1987).

Blue-footed Boobies (*Sula nebouxi*) are very common, except during severe El Niño events, and they are particularly obvious because of their inshore feeding habits. You should have no problem enjoying this truly comical species, whose "dancing" routines will fuel your anthropomorphism. Breeding (and, thus, displaying) Blue-footeds are regularly seen at Española, Daphne, and North Seymour. Another very exciting sight is a feeding frenzy of Blue-footeds plunge-diving *en masse* after subsurface prey.

Although Masked Booby (*S. dactylactra*) feeds farther offshore, it is often seen between islands, but in much fewer number than Blue-footeds. Masked Booby breeding activities can be observed at Genovesa, Daphne, and Española. The chocolate-headed Masked juveniles are readily separated from the smaller, all-brown, chest-banded Red-footed juveniles, and the back-splotted (three white patches) Blue-footed juveniles.

Red-footed Boobies (*S. sula*) feed very far from their Galapagos breeding colonies, and often over very deep wa-

ter. Because their breeding strongholds lie on the fringes, Red-footeds are the most difficult Galapagos *sulid* to see. You can't miss them at Genovesa, documented by Bryan Nelson to be the largest colony in the world, but Red-footeds don't frequent central island waters. There are small breeding colonies at Gardner-by-Floreana in the south, and Punta Pitt on the eastern end of San Cristobal. Galapagos Red-footeds are predominantly brown, although the Genovesa colony contains a few white-morph birds.

You'll wonder why the strange Flightless Cormorant (*Nannopterum harrisi*) even bothers to stretch its scraggly, bedraggled wings! The cormorants, like the penguins, are concentrated on the western side of the archipelago. Good viewing sites are Tagus Cove (western Isabela) and Punta Espinosa (Fernandina). At close range, note this bird's intriguing, opaque-blue eye. If you can't get to the west, try Punta Garcia, in the shadow of Volcan Alcedo, on the eastern side of Isabela opposite James Bay (Santiago). Try to get to Punta Garcia at sunrise; the cormorants often leave very early to chase eels and other prey.

There are two species of frigatebirds in Galapagos, breeding at various sites



The cheeky Hooded Mockingbird is the largest of the four Galapagos mockingbirds. Note the long, slightly decurved beak. These animals practically crawl into your clothes and camera bags out of sheer curiosity. Photo/Ron Naveen.



throughout the archipelago. Only rarely do they breed in close proximity to one another, North Seymour being one of these sites. The Great Frigatebird (*Fregata minor*) stronghold is Genovesa, where only a few Magnificent Frigatebirds (*F. magnificens*) are found. Also, there are a few Greats breeding in the southern part of the archipelago.

Some identification points are in order, although the minutia is best left to the excellent black-and-white drawings and text in Peter Harrison's "Seabirds: An Identification Guide." Particularly relevant are the "wavy" lines in the axillaries of sub-adult Magnificents. Also, note that male Great Frigatebirds don't always have the allegedly diagnostic brown carpal bars, and that some adult male Magnificents show brownish carpals! In breeding condition, and at close range, male Greats show greenish dorsal plumes, while those of male Magnificents are purple. Juveniles are a bit less complicated, and females are very easy, female Greats having a pale or grayish throat, female Magnificents having a black throat.

The endemic Lava Gull, which looks like a dark Laughing Gull, should be seen, even though it's perhaps the world's rarest gull, numbering about 300 breeding pairs. Along with frigates, pelicans, and, occasionally, White-vented Storm-Petrels, they are readily attracted to the touring boats by gutted fish, and may be seen almost anywhere in the islands. The shores of Academy Bay happen to be particularly productive. Laughing Gull (*L. atricilla*) is the most overlooked gull in the islands. They are occasionally found here, especially in winter and early spring, but are passed-off as the more regularly occurring Franklin's Gull (*L. pipixcan*). It's helpful to know how to age and identify those two species accurately.

Swallow-tailed Gull (*Creagrus furcata*), in this writer's opinion, is the most beautiful gull in the world and one of the more endearing Galapagos highlights. They hardly can be missed, unless there is a severe El Niño. Swallow-taileds are nighttime-feeders, on squid in particular, and you may see them foraging under the moonlight while you're traveling from island to island at night. They have a lilting, slow, deep-flapping flight. At dusk, you may witness the beautiful, outward rush of hundreds of floppy-winged Swallow-taileds, headed for their feeding grounds well offshore. Breeding sites are South

Plaza, Española, North Seymour, and Genovesa

Sooty Terns (*Sterna fuscata*) are well-nigh impossible. They breed on Culpeper, far to the northwest, and rarely, if ever, visit the central islands. Brown Noddies (*Anous stolidus*) can hardly be missed, and their nesting habits are easily observed on a panga ride around Tagus Cove (western Isabela).

### OTHER BIRDS

Greater Flamingo (*Phoenicopterus ruber*) is rather uncommon, and of great concern to Charles Darwin Research Station scientists because its irregular breeding is so easily disturbed. They sometimes roam quite widely throughout the central islands, and a particularly stunning sight is a flock of pink flamingos flying over the black lava are right, at Rabida, the lagoon at Playa Espumilla (Santiago), the lagoons at Villamil (southeast Isabela), and at Punta Cormorant (Floreana).

Some good sites to try for the often elusive White-cheeked Pintail (*Anas bahamensis*) are the old salt mine lagoon at Puerto Egas (Santiago), Playa Espumilla (Santiago), Rabida, and the tidal pools behind Bahia Darwin (Genovesa) and Punta Cormorant (Floreana).

Paint-billed Crake (*Neocrex erythrops*) may be found at the same or lower elevations than the Galapagos Rail. Santa Cruz highlands areas such as the Tortoise Reserve and the Ortega and Devine farms offer the best chances. Hopefully, one will run across your trail through these areas.

Migrant shorebirds like Ruddy Turnstones (*Arenaria interpres*), Sanderlings (*Calidris alba*), Whimbrels (*Numenius phaeopus*) and resident waders like Black-necked Stilts (*Himantopus mexicanus*), American Oystercatchers (*Haematopus palliatus*) are best seen at Mosquera, an islet between North Seymour and Baltra, Punta Espinosa (Fernandina), and in the tide pools on the way to the fur seal grottos at Puerto Egas (Santiago).

Dark-billed Cuckoo (*Coccyzus melacoryphus*) is very secretive. Sometimes productive sites are the trail to the old salt mine at Puerto Egas (Santiago) and the Santa Cruz highlands. There is now some concern that this species is threatened by the Smooth-billed Ani that

have been introduced to Galapagos, and which are spreading rapidly.

Short-eared Owls are best found on Genovesa at the storm-petrel cliffs that are reached by climbing Prince Phillip's Steps. They are diurnal petrel-hunters. You may also encounter one while finching in the Santa Cruz highlands. Common Barn Owls (*Tyto alba*), conversely, are nocturnal, and hard-to-find, the Santa Cruz highlands being the most accessible, possible location.

Yellow Warbler (*Dendroica petechia*) is common and widespread. A little spishing usually brings out a horde of loudly chipping warblers. Vermilion Flycatcher (*Pyrocephalus rubinus*) is fairly readily seen in the Santa Cruz highlands, on the trail above Tagus Cove (Isabela), and on the hike to the rim of Volcan Alcedo, to name a few sites.

### MARINE MAMMALS, REPTILES

No doubt, the birds are enough excitement, but you'll also have many opportunities to savor other, spectacular Galapagos wildlife. On the western side, Bottlenosed Dolphins (*Tursiops truncatus*) and Minke Whales (*Balaenoptera acutorostrata*) are fairly regularly seen, with outside chances for Sperm (*Physeter catadon*), Fin (*B. physalus*), and Sei (*B. borealis*) Whales, Spinner Dolphins (*Stenella longirostris*), and Hammerhead Sharks (*Sphyrna*, sp.). California (Galapagos) Sea Lions (*Zalophus californicus*) are practically ubiquitous, and they make great snorkeling companions! You can also snorkel with the Galapagos Fur Seals (*Arctocephalus galapagoensis*) at the Puerto Egas (Santiago) grottos.

Marine iguanas (*Amblyrhynchus cristatus*) are very common, with the greatest concentrations to the west. At Española, the usually black marine iguanas give way to a more brightly colored (greens, reds, and pinks) ones, apparently of the same species. There are two species of land iguanas (*Conolophus*, sp.), one found easily on South Plaza, the other not so easily found on Santa Fe. You'll have no trouble seeing the abundant Lava Lizard (*Tropidurus*, sp.), but the non-poisonous and very secretive snakes (*Dromicus*, sp.) are easily missed.

The famous Galapagos Tortoise (*Geochelone elephantopus*) is very hard-to-see in the wild. The best chances, assuming they're not laying eggs in the lowlands, are the Santa Cruz Tortoise Reserve, the Devine Farm (Santa Cruz), and the trail to the rim of Volcan Alcedo (Isabela).

## CONCLUSION

A trip to Galapagos is a trip of a lifetime. The islands are a paradise where animals allow an unbelievably close approach, and the visitor is overcome with infectious, rampant anthropomorphism! But, it's not a place to visit quickly. Again, for those who take the time to arrange at least a 10 days' visit, more and more of the islands' charms will be savored. Galapagos, in a manner of speaking, is a state of mind. On my trips, I regularly plan for two full days at the Punta Suarez albatross colony on Española, and usually near the end of the trip. Invariably, the group is sitting on the cliffs as that second days' sunset approaches, all talk now overtaken by a weighty silence, with the only noises heard being the moos, grunts, and sighs of the displaying albatrosses. As the blues and pinks of the fading sunset appear, the group rises to take that last walk back to the boat, and it's not unusual to see tears running down cheeks, or to see passengers hugging and embracing one another. Here, in the middle of the Pacific, hundreds of miles from the mass of human civilization, is a sanctuary, a haven. A place to think, to meditate, and to appreciate. Birding Galapagos isn't just birding; it's touching the sensitive heart and soul of our existence.

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GALAPAGOS ISLANDS	
Spanish	English
Baltra	South Seymour
Bartolome	Bartholomew
Daphne	Daphne
Española	Hood
Fernandina	Narborough
Floreana (Santa Maria)	Charles
Genovesa	Tower
Isabela	Albemarle
Los Hermanos	Crossman
Marchena	Bindloe
Pinta	Abingdon
Rabida	Jervis
San Cristobal	Chatham
Santa Cruz	Indefatigable
Santa Fe	Barrington
Santiago (San Salvador)	James
Sombrero Chino	Chinaman's Hat

## BIBLIOGRAPHY

- De ROY (MOORE), T. 1980. *Galapagos: Islands Lost in Time*. Viking. (Now available in paperback, De Roy's masterpiece contains excellent photographs of most of Galapagos' flora and fauna; this book is the best possible inspiration for a Galapagos trip.)
- GRANT, P. 1987. *Ecology and Evolution of Darwin's Finches*. Princeton. (Grant's copious re-analysis of Lack's theories regarding the evolution of the Darwin's Finches, crammed with interesting information about this famous group of birds.)
- HARRIS, M. 1982. *A Field Guide to the Birds of Galapagos*. Collins. (Short on artwork, but otherwise excellent, especially regarding distribution, breeding, ecology, and overall natural histories of Galapagos birds; highly recommended.)
- HARRISON, P. 1985. *Seabirds: An Identification Guide* (Second Edition). Croom Helm. (The outstanding seabird identification text presently available, and a must for sorting through the various seabird plumages encountered in Galapagos.)
- . 1987. *Seabirds of the World: A Photographic Guide*. Christopher Helm. (A photographic approach to seabird identification, with superb line drawings of all of the world's tubenoses.)
- JACKSON, M. 1985. *Galapagos: A Natural History Guide*. University of Calgary. (A superb, overall natural history guide to all Galapagos fauna, flora, and geology; very highly recommended.)
- MOORE, De ROY T., and A. MOORE. 1980 (perhaps out-of-print). *Guide to Visitor Sites of the Parque Nacional Galapagos* (Guia a Los Sitios de Visita del Parque Nacional Galapagos). Galapagos National Park Service. (Excellent, bilingual descriptions of the major visitor sites, with maps and lists of fauna and flora likely to be encountered at each site.)
- LACK, D. 1983. *Darwin's Finches*. Cambridge University Press. Up-to-date reprint of Lack's classic finch study, with an excellent introduction and additional notes by L. Ratcliffe and P. Boag.)
- NAVEEN, R. 1982 (out-of-print). *Storm-Petrels of the World: An Introductory Guide to their Field Identification*. American Birding Association. (Suggestions for sorting through, and properly identifying, storm-petrels by their flight and feeding characteristics.)
- THORNTON, I. 1971. (out-of-print). *Darwin's Islands*. Natural History Press. (Excellent overview of all Galapagos fauna.)
- SCHOFIELD, E. K. 1984. *Plants of the Galapagos*. Universe. (Handy and very useful pocket guide to Galapagos plants.)
- WHITE, A., and B. Epler. 1982. *Galapagos Guide*. Libri Mundi. (Good, general introduction to Galapagos flora, fauna, geology, geography, and life zones; not as comprehensive as the new Jackson book, but still recommended.)
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