INTRODUCTION

Western Ecuador is a remarkably diverse area and home to some of the most colorful and spectacular birds on earth, hosting more than 1,000 bird species in an area roughly comparable to the US state of New York. That is more than have ever been recorded within the continental United States and Canada combined, an area 140 times larger. This remarkable diversity exists primarily because of the influence of the Andes, the spectacular mountain range that dominates the region, reaching a height of 6,268m (20,564ft) at the summit of the Chimborazo volcano. This mountain range is very steep, giving rise to a set of distinct elevational life zones with different climatic conditions, each one with different vegetation and birds, ranging from tall, wet rain forest in the lowlands and lower elevations, to lush, epiphyte-laden cloud forest at middle elevations, stunted elf forest near tree line, and the vast páramo grassland and Polylepis woodland at the highest elevations. Ocean currents also contribute to this diversity; Ecuador lies at the boundary between the warm equatorial current to the north, and the cool Humboldt Current to the south. The equatorial current helps make northwestern Ecuador one of the wettest regions on earth, which gives rise to the lush rain forests. These forests extend northward through western Colombia to eastern Panama, an area often referred to as the Chocó bioregion; this is one of earth’s most biodiverse areas, possessing more than 60 endemic bird species. In contrast, the cool Humboldt Current holds little moisture, and its influence has led to the formation of deserts.
White-tailed Jay, one of the most striking birds endemic to the Tumbesian bioregion dry forests, and arid scrub on the mountain slopes and lowlands of southwestern Ecuador. This area is part of the Tumbesian bioregion, which extends southward into western Peru. While diversity is distinctly lower there than in the Chocó bioregion, endemism is very high, and the region as a whole has nearly as many endemic birds as the Chocó.

In this guide we provide species accounts and photographs covering the vast majority of birds found in western Ecuador, including all that a casual observer is likely to encounter on a short trip.

The photographs are, except for a very few exceptions, of wild, unrestrained birds in their natural habitats. Where possible, we have chosen photos that illustrate the key field marks of each species in a way that the field observer can expect to see them; as such these photos are not always of the "best" quality from a technical or artistic standpoint. We avoided using flash in most photos, since this can change or artificially enhance plumage colors and features.

This book would have been impossible even just a few years ago. Rapid technological advances in digital cameras and lenses have allowed photographers to capture images in low light conditions that were simply impossible before. These advances have in turn led to an explosion of interest in photography in the birding community, resulting in wide availability of superb images. Despite our best efforts, in a few cases no suitable photos were available. For several birds, we digitally modified a photo of a similar species; this is always mentioned in the text.

We chose to begin with western Ecuador because it has a more manageable number of species than the east, and excellent images are available for all but a few of them. We hope in the future to produce a sister volume that covers the eastern half of Ecuador, or even the entire country. At the moment, eastern Ecuador is not as well covered photographically, but this situation is rapidly changing.
REGION COVERED

The continental divide almost exactly divides the country in half by area. It served as a convenient and biogeographically sensible dividing line as we determined which species to include in this guide. We do not include the Galápagos Islands, since the avifauna is so completely different that it deserves, in all fairness, its own book.

In the interest of space, we have chosen to exclude certain species, such as extreme rarities and vagrants, species that are primarily pelagic and thus unlikely to be seen from shore, and certain birds that range primarily in the East but spill over very locally west of the divide. These species are detailed in Appendix I.

RANGE MAPS

The map provided for each species indicates its approximate known distributional range within Ecuador. Ranges, along with the elevation and habitat descriptions given in the text, can be very useful identification aids.

The ranges of many species in western Ecuador have contracted due to deforestation, and we have endeavored to map these species’ modern ranges rather than historical distributions. Please bear in mind that these maps are only a general guide. The ranges of many species are still imperfectly known, and some birds are highly prone to wandering. Seeing a resident species slightly outside its mapped range is probably not very remarkable, as long as the habitat is appropriate. However, if a resident species is recorded well outside its mapped range, it should be identified with care and documented with field notes, photographs, and/or sound recordings. Records of unusual sightings can be submitted to the Ecuadorian Ornithological Records Committee at cero.ecuador@gmail.com, and entered into online databases such as eBird.

Ecuador’s three largest cities, Guayaquil, Quito, and Cuenca, are marked with black stars on the range maps. Smaller cities are marked with black dots. The topography map shows the cities as well as many of western Ecuador’s most visited birding sites. In the range maps, resident (breeding) species are mapped in green. They are present year-round, and while some species may move short distances seasonally, they do not undertake long-distance migrations.
INTRODUCTION

Long-distance migrants from North America (boreal migrants) are mapped in blue. These species do not breed in Ecuador, and may spend only the boreal winter in the country or may merely pass through briefly as transients. The accompanying text indicates which months these birds typically occur in our region. In some species, small numbers can be seen even during the boreal summer months. Boreal migrants are occasionally seen well outside their mapped ranges, especially during northward and southward passage.

Migrants from the south (austral migrants) are mapped in red. Only a few of these occur in western Ecuador, and the months in which they are typically encountered are mentioned in the text.

Single dots represent isolated populations or, in the case of migratory species, isolated records. For very rare vagrants, only the locations of known, documented sightings are marked.

A question mark on the map indicates either (1) the species may occur in the indicated area, based on habitat requirements and existing records, but there are no documented sightings known to us; or (2) the species formerly occurred in that location, but there are no recent records, and it may no longer persist there due to habitat alteration.
The heading for each species account gives the English common name, the scientific name, and the body length (from bill to tip of tail) in centimeters (cm) and inches (in). Sometimes a range of sizes is given; in sexually dimorphic species, it can be assumed that the male is larger than the female, unless otherwise stated (e.g., most birds of prey). The text begins with the range of elevations, in meters (m), in which the species is typically found in western Ecuador (which is not necessarily the same elsewhere in its range). As with geographical ranges, this is only a guide. It is not unusual to find a species at a slightly higher or lower elevation, but it is generally very unusual to find a resident species more than several hundred meters outside the ranges given here.

The text following the elevation indicates the likelihood that the species will be encountered in the correct range and habitat. An experienced observer, such as a birding tour guide, will be able to find many of the scarcer species much more reliably than a casual observer. The descriptive terms used are subjective and should be taken only as rough estimates. Abundant: encountered every day in very large numbers; common: usually encountered daily and often in large numbers; fairly common: encountered on most days but sometimes missed; uncommon: not encountered on most days; rare: unlikely to be encountered, even over the course of a long trip; very rare: never expected—these species should be carefully observed and documented if possible. Species are sometimes said to be “local,” which indicates that they are known only from scattered locations, or are much more likely to be found in certain locations; this is often the status of rare species that have been staked out at a particular lodge, reserve, or other such location.

We then detail the bird’s habitat preferences; habitat is often a very useful feature when the observer is dealing with difficult groups such as flycatchers or furnariids. As an extreme example, if the stated habitat is “inside humid lowland rain forest,” the species would never be expected in a cow pasture or in a park in Quito. See p. 13 for more details on habitats in our region. A physical description of the bird follows; this often includes comparisons to similar species. For striking species that are virtually unmistakable, this section may be only a sentence, whereas for confusing species it will be quite lengthy. A large number of species are sexually dimorphic, which means the male and female differ in plumage, size, and/or other features. If significant differences exist, they are noted in the text. If male and female are not separately mentioned or described, the sexes are identical in appearance, or their differences are so minor as to be unnoticeable in the field.

We then provide some commentary on the behavior of the species, and often some additional information, such as specific locations where it is most likely to be found. Finally, for most birds, when it is deemed to be helpful, we include a voice description; transcribing bird songs and calls is not an easy task, but we hope that these might be useful in some instances.

Individual photos are labeled numerically, and where appropriate, with an additional label indicating a specific plumage type or subspecies mentioned in the species account: male (♂), female (♀), adult (ad.), juvenile (juv.), immature (imm.), alternate (alt.), basic (bas.). If no additional label is given, it can be assumed that the photo refers to adult plumage and that the species is not significantly sexually dimorphic.
Despite their dramatic plumage differences, Piura Hemispingus (left) and Western Hemipingus (right) are sometimes considered the same species, Black-eared Hemispingus. We expect many birders to use this book in conjunction with the existing *Birds of Ecuador* (2001) by Robert S. Ridgely and Paul J. Greenfield, and therefore we have tried, wherever possible, to use the same names or to mention them in the text. Due to the ever-changing interpretation of bird taxonomy, several English names may exist for the same species, and we list alternative names where appropriate. The taxonomic sequential order used here was also based on the IOC list, but we modified it occasionally in order to keep similar-looking species close together. While we were preparing this guide, the IOC redesignated the affiliations of numerous species, transferring many from one family to another, and more changes are sure to come in the future. This has resulted in some mixing of families in this guide, especially with the tanagers and finches. Since knowing the family of a given species is not normally necessary to identify it, we generally do not mention scientific family names, unless they are needed in descriptions of features or behaviors common to an entire family or in discussions of taxonomy.

**CONSERVATION**

Ecuador’s exceptional wealth of biodiversity is constantly under threat by human activities, as is true in so many parts of the world. Human population growth and expansion into natural areas, along with the often indiscriminate and unsustainable exploitation of natural resources, have plagued the country for decades. Deforestation levels, especially throughout the 1980s and 1990s, left Ecuador with a 90–97 percent deforestation rate in the Andes and the Pacific coastal lowlands; several private-sector and government-driven “mega-projects” added to the negative impacts on the land. Surprisingly, this trend has slowed to some degree, in no small part due to the realization that Ecuador’s natural beauty and biodiversity possess a value that could benefit the country and its people if managed more sustainably. The National System of Protected Areas covers nearly 20 percent of the country, but many of these parks and reserves essentially exist on paper only and are not effectively protected; they are not nearly enough on their own to adequately protect Ecuador’s threatened species. Several...
HABITATS

Nongovernmental organizations, such as Mindo Cloudforest Foundation, are very important for conserving habitat in Ecuador. Nongovernmental organizations, private landowners, and forward-thinking communities have taken it upon themselves to create their own reserves and, at the same time, begin encouraging sustainable ecotourism and “avitourism” throughout the country. This approach has been impressively effective; today, nearly all of the country’s rare and endangered species receive some level of protection. However, conservation is a never-ending battle. In some areas, unsustainable exploitation of natural resources continues, either by private companies or by the Ecuadorian government. More work is needed to develop more sustainable land-development practices and to continue to promote sustainable ecotourism.

HABITATS

We describe the habitats and elevational zones that are most frequently mentioned in the species accounts. When referring to forest types in the species accounts, we often also use modifiers such as “forest edge” or “inside forest.” Edge species can, for example, be seen along roadides and in forest clearings, but birds listed as being “inside forest” are likely to be seen only along forest trails. “Primary forest” refers to old-growth forest that has never been logged; little now remains in western Ecuador. “Secondary forest” was partially or completely logged but is currently in a state of regrowth. Secondary forest that has been only partially logged or that has had significant time to recover may be almost indistinguishable from primary forest to the untrained eye. Where forest was totally removed and only dense scrub has regrown, this is often referred to as “secondary growth.”

Humid forest—Humid forest, often called rain forest, receives high levels of rainfall, and its trees retain their leaves throughout the year. In hilly and mountainous areas that are frequently enshrouded in mist or fog, rain forest is referred to as cloud forest. Cloud forest is a rather vague term, since such misty conditions can occur over a vast elevational range. When referring to humid forest, we typically also mention the elevational zone in order to further define the habitat; elevational zones are described in more detail on p. 19.
Primary humid lowland forest has impressively large trees, up to 40m (130ft) tall, and a relatively open understory. At slightly higher elevations in the foothills, trees are not quite as tall, and they are often blanketed with epiphytes such as orchids and bromeliads. Very little primary forest now remains in the humid lowlands and foothills, and most of it is in the lower reaches of the Cotachi-Cayapas Ecological Reserve. Most humid lowland and foothill sites visited by birders, such as the Río Silanche and Milpe Bird Sanctuaries, Río Palenque Science Center, Tinalandia Nature Reserve, and Buenaventura Reserve, were in the past selectively logged, and nearly all the larger trees have been removed.

Humid subtropical forest occurs higher in the Andes and is what many people think of when they hear the term “cloud forest.” Slopes are usually very steep, and the larger trees can be covered with mosses and epiphytes. While trees in primary forest can reach 20m (66ft) or higher, the canopy can be shorter on steep, mountain slopes where soil is not as rich and landslides are frequent. A significant amount of primary (or nearly so) humid subtropical forest still remains in many areas of northwestern Ecuador. Some well-known examples of this habitat include much of the Paseo del Quinde (Nono-Mindo) Ecoroute (including the Tandayapa Valley), the Paz de las Aves Refuge (between Tandayapa and Mindo), and the slopes above Mindo.
HABITATS

Humid sub-tropical forest near Tandayapa

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Above the subtropical forest, the climate is distinctly cooler and the forest is more stunted; this is often referred to as humid temperate forest. Close to tree line, the canopy may be only about 5–10m (16–33ft) tall, and this dense, gnarly vegetation is often called “elfin forest.” While primary temperate forest does remain in a number of areas, much of it is inaccessible without a major expedition. The Yanacocha Reserve near Quito is arguably the best and most easily accessible expanse of primary temperate forest on the western slope. Other examples in our region include the upper parts of Pululahua Geobotanical Reserve, Utuana Reserve, and Pasochoa Reserve.

**Deciduous forest**—Much of western and southwestern Ecuador has a dry climate, and nearly all rain falls between January and April. Outside of this “wet season,” most trees lose their leaves, and the forest can appear dry and dead, though this is certainly not the case. All but a few bird species remain in this area year-round; while they may sing less, some are actually easier to see in the dry season, since there are few leaves to hide behind. Pristine deciduous forest can be quite tall, reaching 25m (82ft), and in some areas is dominated by enormous *Ceiba* trees, with their characteristic smooth green bark and bulbous trunks. Deciduous forest is found mainly in the lowlands and foothills; most higher-elevation areas receive enough rain that at least some of the trees retain their leaves year-round. Primary deciduous forest can still be found in many areas; some of the most well-known sites include the Jorupe Reserve, Machalilla National Park, and Cerro Blanco Protected Forest.
During the short rainy season, deserts on the Santa Elena Peninsula briefly become green and lush.

**Semi-humid forest**—We use the term “semi-humid” to describe forest intermediate between humid and deciduous forest. In most years, it receives enough rainfall for the taller trees to remain green all year, though smaller trees will lose their leaves in the dry season. Examples include the forest of the Rio Ayampe Reserve, much of that in Manglares-Churute Ecological Reserve, and subtropical forest around the town of Sozoranga.

**Mangrove forest**—Mangroves are distinctive trees with stilt-like roots that grow in saline coastal areas. In Ecuador, unlike some areas of the world, only a few bird species are restricted to mangroves. The extent of mangrove forests in Ecuador has been greatly reduced, primarily by shrimp-farming activities. Extensive mangroves can still be found in a few areas such as Manglares-Churute Ecological Reserve, the Muisne area, and near the town of San Lorenzo along the Colombian border.

**Desert**—Arid areas dominated by low scrub with only scattered trees. During the very brief rainy season (usually around February to March), deserts can briefly become some of the most verdant areas in Ecuador, with tall, lush grasses and abundant flowers; birds then go into a breeding frenzy and their songs ring through the desert. Rainfall varies seasonally, and in some years there is almost none. Ecuador’s most extensive deserts are found in the coastal lowlands west of Guayaquil, especially on the Santa Elena Peninsula, as well as in the far southwest along the Peruvian border.
Páramo—Páramo is found at very high elevations above tree line. In its pristine form, it consists of tall, wet grassland intermixed with small shrubs, though in many areas it has been converted to pastureland. Most of Ecuador’s páramo is in the east. The most pristine examples frequently visited by birding tourists are at Papallacta Pass, Antisana Ecological Reserve, and El Cajas National Park. The continental divide bisects all three of these areas, so at least some parts of them are on the western slope.

Inter-Andean valleys—Also known as intermontane valleys, these do not really constitute a habitat, but more of a microclimate. Some valleys in the Andean highlands experience a rain-shadow effect, as the air loses its moisture when it is forced up the outside slopes of the Andes. Inter-Andean valleys typically have dense arid scrub on their slopes and taller woodland near watercourses at their bases. Several bird species are mostly or entirely restricted to these valleys. Some examples of inter-Andean birding sites include the pass and the abandoned racetrack near Calacali and the Jerusalem Recreational Park (both north of Quito), and the upper Río Mira Valley north of Ibarra.

Wetlands—Numerous wetland habitats occur in western Ecuador. The largest wetlands are in the coastal plain, but there are also a number of highland lakes that are key

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habitats for a variety of bird species. Lowland wetlands include not only natural marshes and swamplands, but also man-made rice paddies, salt evaporation ponds, and shrimp cultivation ponds. Even the man-made habitats can be extremely important for resident species, as well as for long-distance migrants. Some of the most renowned wetland birding sites in the lowlands include the La Segua marshes (sometimes called Chone Lakes), the Ecuasal salt lagoons on the Santa Elena Peninsula, the Manglares-Churute Ecological Reserve, and the shrimp ponds near Santa Rosa. Highland lakes provide critical habitat for both resident and migrant waterfowl, coots, grebes, rails, and shorebirds. Lago San Pablo near Otavalo and Laguna Yahuarcocha near Ibarra are two well-known natural lakes in the west. Man-made reservoirs such as the ones in Cumbayá (a Quito suburb) and adjacent to the Quito airport attract many species; these are frequently checked by dedicated birders, who have discovered a number of extreme rarities in recent years.

ELEVATIONAL ZONES

We use only meters to delimit elevations in the species accounts. Feet are not used (or even understood) as a unit of measure anywhere in Ecuador, so we believe it is not helpful to include them. The elevation ranges given below are approximate.

**Lowlands**—0–400m. The relatively flat (at best slightly hilly) areas between the Andes and the Pacific coast.

**Foothills**—400–1300m. The lower slopes of the Andes and the upper elevations of the coastal range.

**Subtropics (or subtropical zone)**—1300–2500m. The mid-elevation slopes of the Andes.

**Temperate zone**—2500m to tree line. Tree line varies from location to location based on sun exposure, prevailing winds, and other climatic factors. It can be anywhere from 2800m to as high as 3800m on the western slopes of the Pichincha volcano (west of Quito).
INTRODUCTION

BIRD TOPOGRAPHY

crown
forecrown
hind-crown
nape and nuchal collar
scapulars
mantle
wing coverts
tertials
secondaries
primaries
rump
tarsus
crissum
rump
undertail
tail

upper mandible and culmen
lower mandible
chin
throat
breast
side
flank
belly
thigh (tibial feathers or "puffs")

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