

David Ascanio, Gustavo Rodriguez and Robin Restall

# Birds of VENEZUELA

# **HELM FIELD GUIDES**

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### Christopher Helm An imprint of Bloomsbury Publishing Plc

50 Bedford Square 1385 Broadway
London New York
WC1B 3DP NY 10018
UK USA

### www.bloomsbury.com

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This electronic edition published in 2017 by Bloomsbury Publishing Plc

First published in 2017

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British Library Cataloguing-in-Publication Data A catalogue record for this book is available from the British Library.

> ISBN: PB: 978-1-4081-0535-1 ePDF: 978-1-4729-2567-1 ePub: 978-1-4729-2566-4

Designed by Julie Dando, Fluke Art

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# **ACKNOWLEDGEMENTS**

A field guide is frequently the product of the contributions of many people. This one is no exception. From its original conception, we were fortunate to count on the advice of several colleagues and what you see today is the result of years of rich discussions with them.

Various ornithological institutions were kind enough to respond to our continuous requests. Our special gratitude goes to Miguel Lentino and Margarita Martinez at the Colección Ornitológica Phelps. Miguel's encyclopaedic knowledge of Venezuelan ornithology helped us locate sources that otherwise would have been almost impossible to access. Margarita permitted us to examine thousands of bird specimens and helped locate obscure collection localities. Equally important, Jorge Pérez, of the Universidad Central de Venezuela, proved a wise adviser when important decisions had to be made. In the field, we appreciated the company and assistance of Yrving Carreño, Ramón Rivero and the brothers Perez-Chinchilla (deceased). Other museums that provided important records were the Museo de Historia Natural La Salle (MHNLS) and Museo de la Estación Biológica de Rancho Grande (MEBRG).

In more than three decades of fieldwork, we have been fortunate to enjoy the field companionship of several regional experts. Tony Crease and Iván Tepedino were always willing to share their findings from El Paují, Bolívar, near the Venezuela/Brazil frontier. Diana Esclasans gave important input concerning seabirds, while Jose Gustavo León and Karla Pérez tirelessly provided invaluable information concerning the birds of Zulia. Equally, Jhonathan Miranda was always ready to help revise selected texts despite his many other commitments.

A special mention must be made of the Sociedad Conservacionista Audubon de Venezuela (SCAV) and its incredible *pajarólogos*. We have been lucky to travel with them for many years. They include Carmen Cabello, Lorenzo Calcaño, Nicla Camerín, Roberto Carletti, Luisa Dittmar, Alberto Espinoza, Dilia García, Olga García, Matías Gonzalez, Paula Sifontes, Phil Gunson, Marieta Hernández, Beto Matheus, Jorge & Gertrudis Matheus, David McLachlan-Karr, Isabel Lafee, Jeannette Nouel, Rafael Ravard, David Southall and Mauricio Zanoletti. The SCAV was our first birding 'home' and the late Mary Lou Goodwin our first teacher.

Several colleagues and friends also provided important information, among them Ramón Arbujas (deceased), José Ignacio (Nacho) Areta, Hugo Arnal, Francisco Bisbal, Alberto Blanco, Alexander Blanco, Salvador Boher, Carlos Bosque, Mike Braun, Greg Budney, Rosana Calchi, Diego Calderón, Giuseppe Colonnello, Javier Colvee, Mario Cohn-Haft, Paul Coopmans (deceased), Andrés Cuervo, Lucrecia Díaz-Capriles, Peter English, Juan Carlos Fernández-Ordóñez, David Fisher, Norbert Flauger, Rosendo Fraga, Gertrudis Gamarra, Sandra Giner, Malú Gonzalez, Alejandro Grajal, Saúl Gutiérrez (deceased), Floyd Hayes, Francisco Herrera, Josep del Hoyo, Otto Huber, Mort & Phyllis Isler, Alvaro Jaramillo, Guy Kirwan, Martyn Kenefick, John Kvarnbäck, Jeri Langham, Luis Levin, Barry Lyon, Yemaya López, Roger Manrique, Curtis Marantz, Peter Mathiessen (deceased), Miguel Mata, Félix Medina, Glenda Medina, César Molina (deceased), Luis Gonzalo Morales, Alejandro Nagi, Adrián Naveda, Nancy Núñez, John Moore, Marvin Morales, Daniel Muller, Rosauro Navarro, Thore Noernberg, Brian O'Shea, Celeste Paiva, Yemaya Padrón, Gianni Papadakis, Chris Parrish, Emma Pescador, Mikko Pyhälä, Betsy Carolina Quintero, J. Van Remsen, Carlos Rengifo, Robert Ridgely, Gilberto Ríos (deceased), Clemencia Rodner, Franklin Rojas-Suárez, Virginia Sanz, Thomas Schulenberg, Sergio Seipke, Gary Stiles, Iván Tepedino, Carolina Tosta, Carlos Verea, Andrew Whittaker, David Wolf, Renzo Zeppilli and Kevin Zimmer.

Edward Dickinson and Les Christidis kindly allowed access to the database of the *Complete Checklist of the Birds of the World*, 4th edition, and we are very thankful for this.

Lorenzo Calcaño, Luis Figueroa, William Goulding, Phil Gunson, Jorge Matheus, Daniel Muñoz, Mikko Pyhälä, Román Ruggera, Jordi Sargatal, Hadoram Shirihai, David Southall and Ben Wilson provided many of the photos used to confirm range extensions or as an aid for the illustrations.

To access bird vocalisations we used our own private collections, but complemented these with recordings deposited on the Xeno-canto and Macaulay Library websites. Today's world of instant communication allowed us to resolve several mysteries and taxonomic challenges. The Ovum and NEO-ORN list servers, as well as the Aves de Venezuela Facebook group and Aves Venezuela website were incredible sources of information that otherwise would have been impossible to locate so quickly.

### From David Ascanio

First and foremost, I thank Steve Hilty for the many years he spent teaching me about Neotropical birds while we were guiding birding tours together. Steve and the late Richard Ffrench were among the first to take me into the field and opened my eyes to a world of birds previously known solely from the mountains surrounding my neighbourhood.

Marcos Salcedo was generous enough to guide me through the complicated network of waterways in the Orinoco Delta. In northeast Venezuela, Luis Gerardo González and Gedio Marín (Universidad de Oriente) provided important data.

Special appreciation goes to Chip Haven, Bob & Vera Thornton, the late Mark Sokol, Kent Lannert, Stephen Ross, Elaine Langlois, Kim Cosner and Patricia Shoultz. Their support permitted the use of recording equipment in the field or financed expeditions to areas of Venezuela otherwise impossible to reach.

During my years working for Victor Emanuel Nature Tours (VENT) I have had the opportunity to learn about birdlife in a broader context, providing me with a holistic view of Neotropical birds. For that, I thank Victor Emanuel and Barry Lyon for enabling such opportunities.

Also, I want to express my gratitude to our editors, Nigel Redman, Jim Martin and Alice Ward, as well as the book's designer, Julie Dando. Their tolerance, trust, understanding and many hours spent working on this guide were an essential part of the process. Even when going got tough, Nigel, Jim, Alice and Julie always trusted in our work. Additionally, I am beholden to Guy Kirwan for his incredible editing skills and amazing capacity to pick up inconsistencies.

During my career I have been constantly inspired by the impressive, boundary-stretching work of the late Paul Schwartz. I dedicate this book to his memory, as well to my sons Carlos and Luis. Their presence in my life have offered constant motivation.

This book was originally conceived as a spin-off of *Birds of Northem South America* and for that I will always be thankful to Robin Restall for inviting me to be one of the authors of this publication. In closing, I also offer my appreciation to Desiree Starke for her understanding and support in all these years of work despite me taking too much of our time together to write this field guide. My gratitude extends also to my parents Pedro Ascanio and Gioconda Motta, my brothers, sisters, as well as my nephews and nieces. Their support and understanding during many absences allowed me time to work on this publication.

### From Gustavo A. Rodriguez

I dedicate this book to my wife Haydee for her support, understanding, patience and love throughout these years.

# INTRODUCTION

Located in northern South America, Venezuela is privileged to host a rich variety of habitats, including extensive marine and coastal territories, xerophytic formations, montane wet forest and *páramo* in the high Andes, seasonally flooded grassland in the Llanos (plains) and tropical humid and wet forest. Unique to Venezuela are the tepuis (table-top mountains) and the Orinoco River, hosting a distinctive and highly endemic avifauna. This diversity of landscapes and habitats accounts for the country's amazingly varied avifauna, which is one of Venezuela's top natural highlights.

In addition, the Venezuelan avifauna is one of the best known in South America, principally due to the efforts of W. H. Phelps and W. H. Phelps Jr, who invested unparalleled time exploring many natural areas. With the foundation of the Colección Ornitológica Phelps (1938), they started an ambitious plan, the results of which were well documented in *Lista de las Aves de Venezuela y su distribución* and subsequently in *A Guide to the Birds of Venezuela* (1978). The latter was the first true field guide for South America. Thereafter, after 25 years of relative dormancy, Venezuela came under the spotlight again with Steve Hilty's *Birds of Venezuela* (2003). Hilty's inclusion of distribution maps, detailed information and voice descriptions represented another quantum leap in our understanding of the country's birds. Three years later, Restall, Rodner and Lentino published *Birds of Northern South America* (2006) in which they listed all the subspecies occurring in the country.

Equally unparalleled, Paul Schwartz was a pioneer in recording the voices of Neotropical birds and his work provided the basis for the use of bioacoustics in avian taxonomy.

This field guide aims to complement these previous publications. Its main goal is to help identify the birds of Venezuela in the field, in a compact format (text, maps and illustrations together) which is proven to be one of the most practical means for bird identification in the field. Nevertheless, several innovations have been made (e.g. broad subspecies distribution, detailed relative abundance and accompanying website), which we hope the reader will find useful. For more information, please refer to 'How to use this book'.

Although the original plan was to produce a spin-off from *Birds of Northern South America*, we quickly realised that our plan was more ambitious. Thus Robin Restall produced many new illustrations and several of the original ones were digitally retouched.

Our hope for this publication was to produce the first compact field guide to the birds of Venezuela. We realise there is still much more to discover. Therefore, we encourage both birdwatchers and scientists to submit their observations to the Aves Venezuela website <a href="https://www.avesvenezuela.net">www.avesvenezuela.net</a> (relevant sightings) or to the eBird project (when submitting complete bird lists). With the aim of providing continuous updates to \*Birds of Venezuela\*, we plan to upload updates and corrections to the Aves Venezuela website. We will upload bird vocalisations, distribution maps by subspecies, and updated distribution maps to this website. We invite our users to inform us of corrections, typos or new information that will improve this publication via e-mail: contact@avesvenezuela.net



Harpy Eagle, *Harpia harpyja*. Photo by Barry B. Boyle

# HOW MANY BIRD SPECIES ARE THERE IN VENEZUELA?

This is a simple question with a complex answer. First, it depends on the taxonomy employed. Second, it depends on the criteria used to include (or not) species not yet described (but known to exist) and species not officially reported in the country, but likely to occur or known from unconfirmed records (hypothetical).

Furthermore, avian taxonomy has always been dynamic, but since the advent of molecular biology it has experienced a revolution. Worldwide, ornithological taxonomy and nomenclature have been subject to dramatic revision; changes such as elevating subspecies to species rank, or vice versa, and taxonomic reshuffles at the levels of genus or even family, are constantly occurring. Likewise, a major revision of currently recognised subspecies is likely to affect the validity of several described taxa. Consequently, defining the total number of species and subspecies that occur in a given region or country is a difficult, or at least subjective, task.

For this guide, we have basically followed the taxonomy and nomenclature (as of June 2015) of the South American Classification Committee (SACC) of the American Ornithologists' Union (AOU). Nevertheless, the reader will notice some more conservative positions, such as the order of the families of non-passerines, where we have elected to follow a more traditional approach, as well as other minor differences compared to SACC's taxonomy.

As of June 2015, we recognise 1,384 bird species as occurring in Venezuela (599 non-passerines, 426 suboscine passerines, 352 oscine passerines and seven introduced species), of which 45 species are endemic. Taxonomic changes will continue. As a result, we have decided to include taxa that are likely to be recognised as species in the near future, or are in the process of formal description. These are the unnamed (Turimiquire) tapaculo *Scytalopus* sp. nov. (Pl. 150), and an unnamed (Orinoco) wagtail-tyrant *Stigmatura* sp. nov. (Pl. 166).

Additionally, to our knowledge eight subspecies were under revision at the time we submitted the text of this book, all with the potential to be elevated to species rank in the near future. These are afforded separate accounts and distribution maps, to highlight this fact. They are: Painted (Venezuelan) Parakeet *Pyrrhura picta emma* (Pl. 67), Band-winged (Mataui) Nightjar *Systellura* (*Caprimulgus*) *longirostris roraimae* (Pl. 84), Russet-throated (Two-banded) Puffbird *Hypnelus ruficollis bicinctus*, Black-crested (Paraguaná) Antshrike *Sakesphorus canadensis pulchellus* (Pl. 135), Slate-crowned (Mataui) Antpitta *Grallaricula nana kukenamensis* (Pl. 149), Dull-coloured Grassquit *Tiaris obscurus* (Pl. 227), Yellow (Golden) Warbler *Setophaga petechia petechia erithachorides* (both on Pl. 254).

There are also 50 additional species not yet officially recorded in Venezuela, but which could occur in the country in the future, and these are described in Appendix 1 'Hypothetical Species'.

Additionally, we draw attention to new species that have been described in Venezuela since the publication of Hilty's *Birds of Venezuela*, as well as those that were once considered part of Venezuelan avifauna but are not treated so here given the lack of solid evidence, or following fresh taxonomic work suggesting a different treatment.

New species (does not include subspecies elevated to species rank):

Río Orinoco Spinetail Synallaxis beverlyae (Pl. 122)

Delta Amacuro Softtail Thripophaga amacurensis (Pl. 125)

Perijá Tapaculo Scytalopus perijanus (Pl. 150)

Carrizal Seedeater Amaurospiza carrizalensis (Pl. 231)

### Species previously considered part of the Venezuelan avifauna but excluded here:

White-faced lbis *Plegadis chihi* (no evidence of occurrence in Venezuela; see hypothetical list)

Sun Parakeet Aratinga solstitialis (no evidence of occurrence in Venezuela; see hypothetical list)

Táchira Emerald *Amazilia distans* (currently considered a hybrid)

Sapphire-vented Puffleg *Eriocnemis luciani* (probably a locality error)

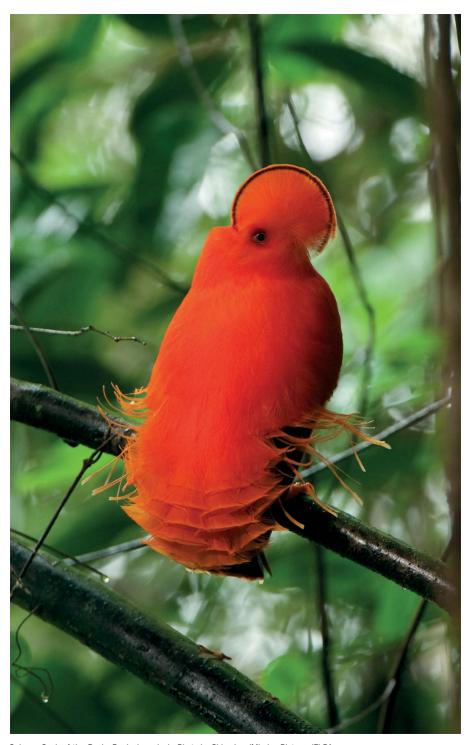
Green-tailed Trainbearer Lesbia nuna (probably a mislabelled specimen)

Pearly-eyed Thrasher Margarops fuscatus (extinct in Venezuela)

Vitelline Masked Weaver *Euplectes franciscanus* (no definite records of breeding population)

Northern Red Bishop *Ploceus vitellinus* (no definite records of breeding population)

In order to provide the reader with updated information, we intend to list any future taxonomic changes affecting Venezuela's avifauna or errors in this publication on the Aves Venezuela website www.avesvenezuela.net.



Guianan Cock-of-the-Rock, Rupicola rupicola. Photo by Chien Lee/Minden Pictures/FLPA.

# GEOGRAPHY, CLIMATE AND MAJOR REGIONS

We have divided the country into regions of ecological and ornithological significance, mostly with the aim of providing broad descriptions of the distribution of the subspecies (in summary form), using codes (see 'Subspecies and their distribution' on p.35). However, these codes are also used extensively elsewhere in the text.

The regions and corresponding abbreviations are:

N: all areas north of Orinoco River (except the Delta region).

S: all areas south of Orinoco River (except the Delta region). Covers the two largest states in Venezuela, Bolívar and Amazonas, plus S Delta Amacuro state (whose N boundary is the Delta region). Given such a large area, in pertinent cases we give precise information of a specific location within the region (examples: NE Amz—C Bol; N Amz C & F Bol)

Orinoco: the main branch of the Orinoco including its sedimentary river islands as well as the riverine (gallery) forest along its banks.

Delta: this rather homogeneous region includes all of the distributaries of the Orinoco that empty into the Atlantic Ocean. Its southern limit is formed by the 'Río Grande' (the main and southernmost branch of the Orinoco). The 'Delta' region includes all of N and C Delta Amacuro state. Bear in mind that the term 'Delta' is widely used as a short form of 'Delta Amacuro state'. If in doubt, the reader will have to refer to the distribution map of the species to visualise if we are referring to the region or to the state.

Islands or Offshore Islands: includes all of the islands on the continental platform of Venezuela.

Coasts, sea: includes the vast coastline (almost 3,800 km) of Venezuela, the offshore islands belonging to the country and its continental platform.

Additionally, N Venezuela (region N) is subdivided into:

W: the Andes of Perijá (Zulia state) and the San Luis Mountains (Falcón state), usually above 600 m. Sometimes includes the area of the Táchira depression, between SW and the Andes.

Andes: the main Venezuelan Andes from N Táchira to Mérida, Barinas, Trujillo and S Lara.

SW: a small but ornithologically important area in SW Táchira, which shows affiliations with the E Andes of Colombia. Separated from the main Andes of Venezuela by the Táchira depression.

NW: a relatively heterogeneous region including the lowlands of Falcón, Zulia and N Lara. Includes the arid and desert scrub region of NW Venezuela.

Llanos: occupying one-third of Venezuela's territory, this includes the vast plains of the Orinoco, which are frequently subdivided into the low Llanos of Apure state, the upper Llanos of Barinas, Portuguesa and Cojedes states, and the E Llanos of Anzoátegui and Monagas states. Some birds that are characteristic of the E Llanos reach N Bolívar

NC: mountains in NC Venezuela, commonly known as the Cordillera de la Costa. Includes the interior chain and is located from Yaracuy to Carabobo (just reaching Guárico), Araqua and Miranda states.

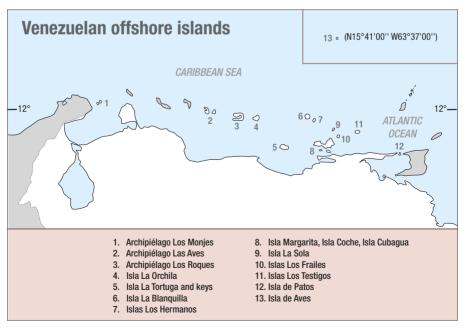
NE: the E Cordillera de la Costa in the states of Sucre and N Monagas is usually divided into three major mountains: the Macizo de Caripe, Macizo del Turimiquire and Cordillera de Paria.

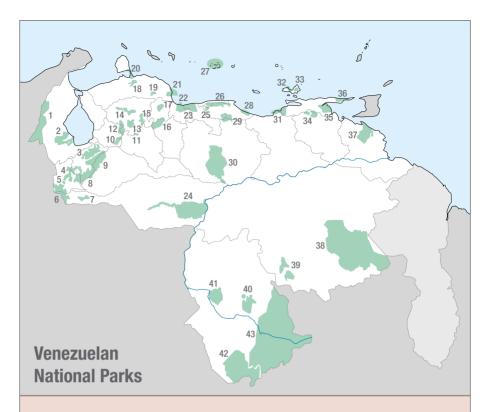
We have further specified the following region in S Venezuela (region S).

SE: SE Bolívar (mostly the tepuis and Gran Sabana). This is another particularly important ornithological region given its high endemism. Includes the Sierra de Lema, the Gran Sabana (plateau) and all of the table-top mountains in E Bolívar, from Auyán-tepui to the Roraima formation and south to Chirikayen-tepui.

Regarding climate, most of the country's lowlands enjoy a fairly stable mean temperature throughout the year with 'cooler' days between December and January. With respect to climatic variations, during *El Niño* years the dry season extends well into the wet season, producing severe drought over most of N Venezuela (and parts of the S as well). Likewise, there are also wet years (known as *La Niña*) when the rains extend well into the dry season. Climatic variations affect bird movements and breeding, and therefore their relative abundance for short periods.



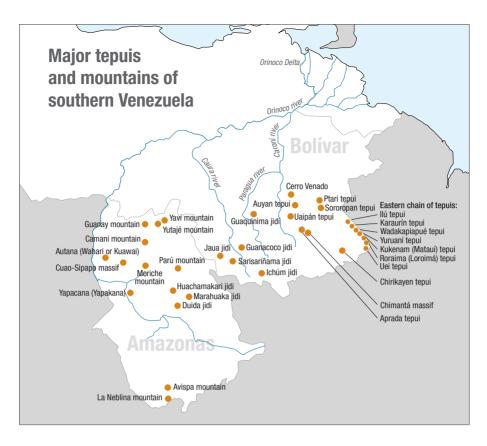




### **National Parks**

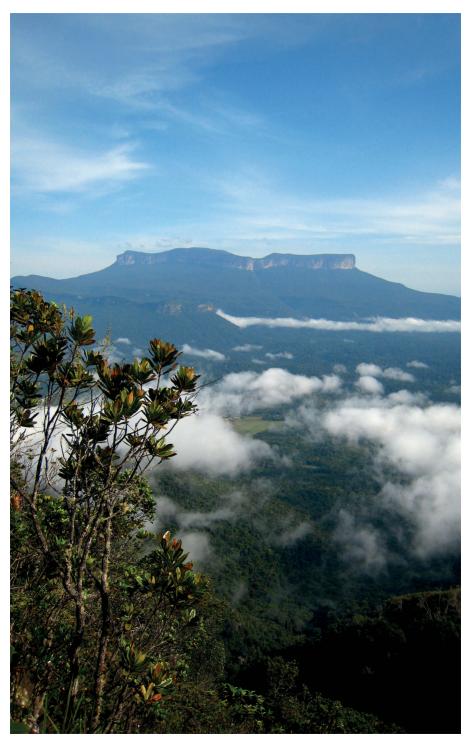
- 1. Sierra de Perijá
- 2. Ciénagas del Catatumbo
- 3. Sierra de la Culata
- 4. Páramos of Batallón y La Negra / J.P. Peñaloza
- 5. Chorro el Indio
- 6. El Tamá
- 7. Rio Viejo / San Camilo
- 8. Tapo Caparo
- 9. Sierra Nevada
- 10. Guaramacal
- 11. Guache
- 12. Dinira
- 13. Yacambú
- 14. Cerro Saroche
- 15. Terepaima
- 16. Tirgua / General Manuel Manrique
- 17. Yurubí
- 18. Sierra de San Luis / Juan C. Falcón
- 19. Cueva de la Quebrada del Toro
- 20. Médanos de Coro
- 21. Morrocoy
- 22. San Esteban

- 23. Henri Pittier
- 24. Cinaruco-Capanaparo / Santos Luzardo
- 25. Macarao
- 26. El Ávila / Waraira Repano
- 27. Los Roques
- 28. Languna de Tacarigua
- 29. Guatopo
- 30. Aguaro Guariquito
- 31. Mochima
- 32. Laguna de la Restinga
- 33. Cerro El Copey
- 34. El Guácharo
- 35. Turuépano
- 36. Península de Paria
- 37. Mariusa / Delta del Orinocco
- 38. Canaima
- 39. Jaua-Sarisariñama
- 40. Duida Marahuaka
- 41. Yapacana
- 42. Serranía de la Neblina
- 43. Parima Tapirapecó





South wall of Roraima tepui. Photo by David Ascanio.

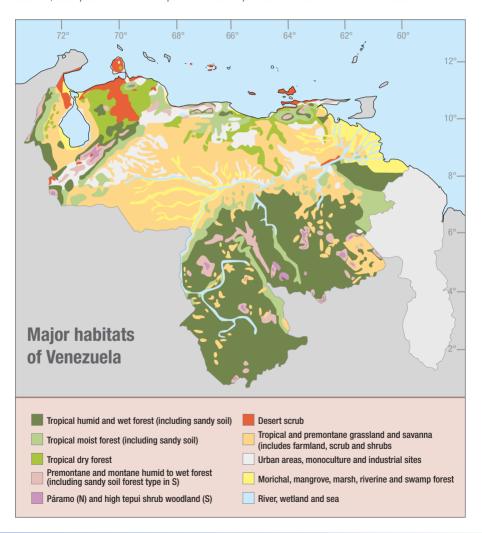


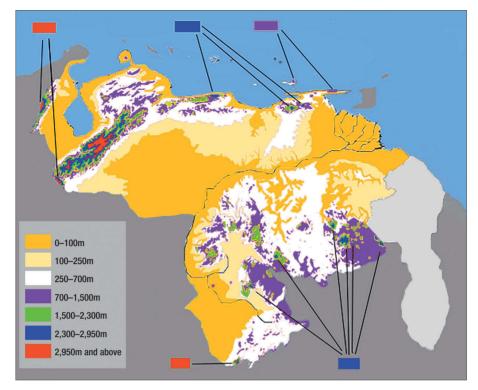
Tepui slope. Duida Jidi, Amazonas. Photo by David Ascanio.

# **DESCRIPTION OF HABITATS**

Physical and biological factors, such as mean temperature, amount of rainfall, flood pattern, seasonality, type of soil and landscape, determine the nature of plant communities in a given location or region. At a broad scale, these different communities form vegetation zones. At a smaller scale, a region or location within a certain vegetation zone is usually characterised by a mix of different habitats, determined by differences in soil composition and drainage, local temperature and moisture, elevation and degree of human action. Each habitat accommodates a different set of birds that are adapted to use the resources provided by the particular habitat (see map of habitats).

While some birds tolerate a wide variety of habitats, including urban areas (e.g., Black Vulture, Great Egret, Tropical Mockingbird, Bananaquit, Blue-grey Tanager, etc.) and are usually seen frequently, others show at least some degree of specialisation, meaning that they are restricted to certain types of habitat. A few are extreme habitat or resource specialists, adapted to live in just one type of habitat or dependent on a specific resource. Some examples include: Maroon-chested Ground Dove, White-bearded Helmetcrest, Point-tailed Palmcreeper, Río Orinoco Spinetail, White-plumed Antbird and Carrizal Seedeater. These specialists are generally more local or seasonal, usually restricted to certain parts of the country or occur in areas of more difficult access.





Elevation map of Venezuela

Learning to distinguish the different types of habitats is thus essential to know the suite of species that can be expected within a given area. Bear in mind that some bird species may look almost identical, but occur only in radically different habitats!

Furthermore, habitats are closely tied to elevation. For the purposes of this field guide, we have divided the elevational spectrum into five zones as follows.

Tropical: 0-700m (0-2,300 feet approx.)

Premontane: 700–1,500m (2,300–4,920 feet approx.)

Montane: 1,500–2,300m (4,920–7,545 feet approx.)

Upper montane: 2,300–2,950m (7,545–9,680 feet approx.)

Páramo: 2,950m and above (9,680 feet and above)

These altitude zones are useful to distinguish similar habitats at different elevations. For example, humid forest in the lowlands is termed **tropical humid forest** and often accommodates a different suite of birds than humid forest in the mountains, i.e. **premontane** or **montane humid forest**. The limits of these zones are somewhat subjective, as they depend on landscape, rainfall and other factors. Consequently, the same habitat type can occur at different elevations in different parts of the country. For example, in montane habitats, humid forest will reach lower elevations on wetter slopes, but appear at higher elevations on the drier side. When these elevation zones are not given as part of habitat names, it usually means that the habitat type is given with a broader altitudinal meaning (savanna may be tropical or premontane savanna). Note that paramo is also used to describe a habitat.

The following habitat names are those used in this guide. In these descriptions, all forest types are assumed to be primary.



Tropical dry forest. Hato Piñero. Cojedes state. Photo by David Ascanio.

### LOWLAND FOREST TYPES

From sea level to c.700m (2,300 feet approx.). In this field guide we have omitted the use of *terra firme* which refers to a forest type that never gets flooded. All types of tropical forest are thus considered a kind of *terra firme* unless the opposite is mentioned.

# Tropical dry forest

A forest comprising mostly low to mid-height trees (6–15m or 20–50 feet), most of which (at least 75%) are deciduous (i.e. they shed their leaves during the dry season). Found in lowlands and areas of low rainfall (600–1,100 mm/year), with strong seasonality, where it rains for only a few months. The predominant type of forest in Llanos, it also occurs along coasts and in N Bolívar.

# Tropical moist forest

Slightly moister than tropical dry forest, this is dry-land forest with a mid-height to high canopy (8–35m or 26–114 feet), and 20–70% deciduous trees. Rainfall is 1,000–2,000 mm/year and seasonality is less marked than in tropical dry forest. Occurs in parts of the upper Llanos, especially adjacent to riverine forest. Also found in the foothills of Andes, the NC, NW and NE. In the S it is a transitional type between tropical dry and humid forests.

# Tropical humid forest

Tall-canopy, dry-land forest, with emergent trees reaching c.40m (140 feet). Rainfall can be considerable (2,000—4,000 mm/year) and the 'dry' season lasts just a few months. Most trees are evergreen (<25% shed their leaves). It covers the S Delta, Bolívar and Amazonas, most of the Andean foothills, the Lake Maracaibo basin, the Llanos of extreme W Apure and Barinas, and parts of the NC and NE. In S Venezuela, the soils where this forest grows tends to be poorer than in the N and we often refer to it as 'red-soil forest' in comparison to the even-poorer sandy soil forest type in the same region. Large tracts of this forest are being selectively logged; thus many of the emergent trees are gone, giving the impression of a shorter forest type.



Tropical humid forest. Caura river watershed. Bolívar state. Photo by David Ascanio.

# Tropical wet forest

Although similar to tropical humid forest, there is even more rainfall, with a mean of 4,000+ mm/year and an almost imperceptible dry season. Confined to a few areas in Amazonas and C and S Bolívar.

# Tropical sandy soil forest

This forest type grows on well-drained sandy soils. Generally less diverse than other forest types, the trees tend to be smaller and the leaves usually harder to break. These forests are always intersected by black-water rivers and part of it can get seasonally flooded. It occurs in S Amazonas and patchily in Bolívar. Several bird species are specialists of this habitat.

### Riverine forest

Also known as riparian forest, it includes gallery forest in the Llanos. Found along rivers and usually moister, with more evergreen and fewer deciduous trees than adjoining forest types. It may be contiguous with tropical moist, humid or wet forest, and it is partially flooded during the rainy season. Found mostly in the Llanos, along the Orinoco River and in parts of Delta Amacuro and the S. In this field guide we have made no distinction between forest in white water rivers (varzea) and forest in black water rivers (igapó).



Riverine (gallery) forest. Hato El Cedral. Apure state. Photo by David Ascanio.

# Swamp forest

Humid or wet forest that is seasonally flooded to depths of c.1–5 m, (3.3–16.4 feet) often for several months. Occurs in low-lying, poorly drained areas, mostly in lowlands along rivers, in parts of Bolívar, Amazonas, Yaracuy, Delta Amacuro. S Lake Maracaibo (Zulia) and the Gulf of Paria (Sucre).

### PREMONTANE AND MONTANE FOREST TYPES

Premontane forests occur approximately between 700 and 1,500m (2,300–4,920 feet approx.), while montane forests occur approximately between 1,500 and 2,300m (4,920–7,545 feet approx.).

### Premontane humid forest

Similar to tropical humid forest, but found in mountains and foothills (at higher elevations). Usually richer in mosses, orchids, fungi and bromeliads, and occurs in the Andes, Perijá, Táchira, coastal cordillera and its eastern chain, as well as at the base of several tepuis in Bolívar and Amazonas, on red (as opposed to sandy) soil.



Montane wet forest. Colonia Tovar. Aragua state. Photo by David Ascanio.

### Premontane wet forest

Similar to premontane humid forest, but experiences higher rainfall. Frequently enveloped by clouds and the trees are usually covered with mosses, orchids, ferns and bromeliads. Occurs over much of the Andes, as well as in parts of the coastal cordillera and its eastern extension. Small tracts are also a feature of the slopes (E Bolívar) and summits (W Bolívar, Amazonas) of several tepuis on red (rather than sandy) soil.

### Montane wet forest

Usually above premontane wet forest, growing approximately between 1,500 to 2,300m (4,920–7,545 feet). Rainfall is high (1,500–3,500 mm/year) and trees are always covered with mosses, ferns and bromeliads. Some areas are rich in palm trees. It is also found extensively in the Andes, Perijá and Táchira, as well as in parts of the coastal cordillera.



Premontane wet forest. Henri Pittier NP. Aragua state. Photo by David Ascanio.

# Premontane and montane sandy soil forest

Similar to tropical sandy soil forest, but at higher elevations (700–2,300m or 2,300–7,545 feet) and on sandy soil. Mostly on slopes and summits of tepuis. Several pantepui endemics occur in or are restricted to this habitat. Compared to red-soil forests, trees are generally smaller with leaves that are harder to break.

# Upper montane wet forest or elfin (dwarf) forest

Stunted forest at c.2,300–2,950m, defining the treeline at its upper limit. Rather open, with low trees (2–8m tall or 6.5–26 feet) and high humidity that often manifests as mist. Trees are usually crooked and cloaked with mosses and bromeliads. Although found in small patches in the Coastal Cordillera, it is mostly confined to the high Andes and is home to some endemic bird species.

### OTHER HABITAT TYPES

### Páramo

A moderately dry to wet high-elevation (above 2,950 m or 9,680 feet) open environment, above the treeline, formed by a mix of grasses, shrubs and a few bushes but dominated by *Espeletia* plants. Home to several Mérida endemics and other habitat specialists. Restricted to the Andes, W and SW.

# High tepui shrub woodland

A specialised, rather open environment formed by a mix of low grasses, shrubs and bushes, with year-round high humidity (often cloud-covered) on the summits of tepuis. Several pantepui endemics are found in this habitat.

### Bamboo

Clumps of native bamboo (*Chusquea* sp.) within extensive areas of montane and upper montane wet forest, in highlands of the Andes, W, SW, and NC, or spiny bamboos (*Guadua latifolia* and *Rhipidocladum* sp.). When *Chusquea* bamboos are seeding, it is usually possible to find several bamboo specialists, which are otherwise difficult to observe. In contrast, the only spiny bamboo specialist feeds on insects.



Paramo. Road to Pico El Aguila. Mérida state. Photo by David Ascanio.



Tepui shrub woodland. Roraima tepui. Bolívar state. Photo by David Ascanio.



Morichal. Southern Gran Sabana. Bolívar state. Photo by David Ascanio.

### Morichal, morichales or moriche swamps

Stands of Moriche palms (*Mauritia flexulosa*) growing in low-lying, poorly drained areas that get flooded at least part of the year, thereby forming a swampy environment. Found locally in parts of S Anzoátegui and Monagas, as well as in Bolívar and Amazonas, and extensively in the Orinoco Delta and Gulf of Paria. A few habitat specialists occur in such stands.

### River islands

Sedimentary islands along the Orinoco and its major tributaries on which pioneer vegetation grows. Although they host relatively few bird species, these include several habitat specialists.



River island. Delta Amacuro state. Photo by David Ascanio.

# Oxbow lakes

Small lakes formed when a large river suddenly changes its course permanently as a result of a severe flood or another natural event. Occur close to large rivers in Bolívar and Amazonas.

# Rocky outcrops

Exposed rock formations located amid forest or savanna-type formations. Such outcrops can be fairly flat or with steep slopes. Mostly found in the south.

# Desert or thorny scrub

A permanent, rather open scrubby formation in extremely dry or desert-like areas (rainfall 400–700 mm/year), dominated by cacti, thorny bushes and shrubs. Found along the coasts of islands and the mainland, as well as patchily on the dry side of the Andes. Rather species poor, it supports several habitat specialists.



Seasonally flooded tropical savanna. Amazonas state. Photo by David Ascanio.

# Open or light woodland

Includes both natural and man-made semi-open areas with more or less continuous canopy of medium-sized trees and rather open understorey. In Llanos, it includes *matas* and the ecotone between forest and grassland or savanna.

# Tropical and premontane savanna

Tropical savanna is similar to the previous habitat but more open, with fewer and usually shorter trees or bushes (often dominated by *Curatella americana*), combined with grasses of various heights. In Brazil, it is referred to as *cerrado*. Also found in transition zones between forest and grassland. Premontane savanna is similar, but occurs at higher elevations (700–1,500m or 2,300–4,920 feet).



Tropical grassland with Sarisariñama Jidi in background. Bolívar state. Photo by David Ascanio.

# Tropical, premontane and montane grassland

Tropical grasslands are large open areas, with grasses of different heights, seasonally flooded or not, with few or no trees. The dominant habitat over most of the Llanos, although it also occurs in the coastal cordillera and eastern chain, as well as N Bolívar and Amazonas. Premontane and montane grasslands are similar but found at higher elevations above 700m or 2,300 feet. Large areas occur in the SE (Gran Sabana) and patchily in Amazonas, often on sandy soils. Also found sparingly in NC and Andes.

### **Pasture**

Similar to grassland, but modified by humans, mostly for cattle ranching, usually with a high proportion of introduced grasses. Large areas occur in NW Llanos, S Zulia and N Bolívar. Also found as high as 3,500m (11,480 feet) in the Andes.

### Farmland

Similar to pasture, but also includes all kinds of cultivated areas, with shrubs, bushes or isolated trees. Can be used for commercial crops as well as livestock farming.

### Shade-coffee and cocoa plantations

Plantations of coffee (in mountains and foothills) or cocoa (lowlands), shaded by large canopy trees (*Erythrina* and *Anacardium* among others) that are usually planted. This habitat often grows close to forest and is often used by boreal migrants. Found in the Andes, W, NC and NE. Does not include sun-coffee plantations, which are rather poor in birdlife.

### Second growth

All types of forest formations that are not primary (i.e. have been logged, burned or the result of natural treefalls in recent decades). Recent second growth (10–30 years old) is characterised by pioneering plants (such as *Cecropia* sp.) and other trees and bushes, has a dense undergrowth and rather low canopy (5–12m or 16–40 feet), while old second growth (30 years to 200 years or older) is relatively advanced regrowth forest with tall trees (up to 30m or 100 feet). Older stages can be difficult to distinguish from a mature primary forest, but they usually lack emergent or very broad (older) trees. Second-growth forest can be of any type (dry to humid) and at any elevation.



Early stage of second growth. It can also be taken as scrubby vegetation. Caura river. Bolívar state. Photo by David Ascanio.



Caribbean coast. Araya peninsula. Sucre state. Photo by David Ascanio.

# Forest borders and clearings

Edge environments with colonising plants at the borders of all forest types. Common along roadsides and borders of forest communities, villages and farmland. Usually rich in bird species given high productivity in both insects and fruits, although some specialised forest birds will never visit borders or clearings.

# Scrub or scrubby vegetation

Permanent plant communities comprising a mix of grasses, shrubs, scrubby bushes and small-stature trees, usually in dry areas, as well as regrowth areas that have been altered as a result of human activities such as burning, erosion and overgrazing. Less rich than forest formations in terms of bird species and expanding as a result of increased human activity.

# Mangroves

A community growing along the coast or close to it. From the ornithological perspective, there are two important types: red mangrove, which grows near coasts or along rivers and channels subject to ocean tides in NE (less so along the Caribbean coast in N of the country); and black mangrove, which usually grows away from the water's edge. Mangroves grow along island and mainland coasts, although the largest areas are in the Orinoco Delta.

### Coasts

All kinds of coastal environments on both islands and mainland, including sandy and rocky beaches, tidal flats, mangroves, estuaries, rocky cliffs and harbours.

### Wetlands

All types of wetlands, both fresh and brackish, and either natural or man-made, including rivers, streams, lakes, ponds, marshes, swamps, flooded savannas, dams and reservoirs, at any elevation.

# Urban areas and gardens

Includes city parks, gardens and highly modified landscapes.



Wetland. Hato El Cedral, Apure state. Photo by David Ascanio.

# BIRD IDENTIFICATION

Identifying birds can be challenging, even with a field guide. Without trained eyes and ears, there is no guarantee for 100% reliable identification of all species we see. This is particularly true with confusing groups such as swifts, hummingbirds, furnariids, antbirds and tyrant flycatchers. We encourage the user to enhance his/her observation skills and learn to take accurate field notes. As this is a field guide, you should feel comfortable to mark the book for your own use, e.g. by highlighting any field mark that we have not indicated. Furthermore, if you wish to share them, please let us know!

Colour of feathers can be significantly affected by the amount and angle of light to which the bird is exposed. A Roadside Hawk on a cloudy day may show contrasting dark rufous in the outer part of the upperwing, while on a sunny day it will be perceived as having an astonishing amount of red at the base of the primaries. In the first and last light of the day, when the sun has just risen or is about to set, a white bird (such as an egret) may seem to have an unusual orangey or pinkish cast.

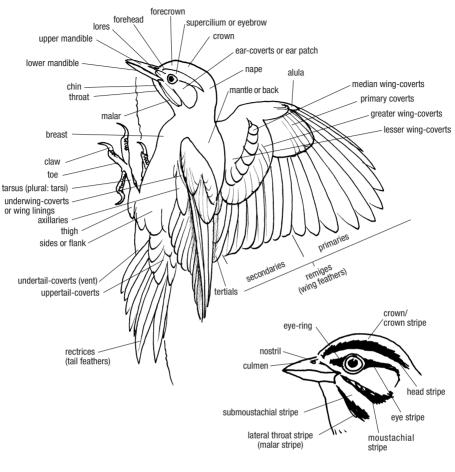
Bear in mind that individual plumages may look different to the plates since brightness and contrast vary through the year. In most passerines, when a complete moult is finished, contrast will be sharp and the feathers will have a vivid coloration. In contrast, at the end of the breeding season, plumage can look dull and bleached. One important aspect is wingbars. For example, many elaenias (tyrant flycatchers) show three wingbars in fresh alternate plumage (April, May) but one fades rapidly, thus for most of the year they can seem to have two wingbars Also, moulting tail feathers (rectrices) on certain passerines may give a misleading impression of a forked tail.

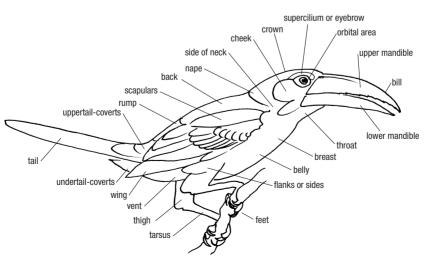
Another tricky issue is that juveniles of many species often show odd characters. Many of these juvenile plumages are illustrated here, but others are not. A juvenile Pale-breasted Thrush (like most juvenile *Turdus*) will show some orange dots on the wing, which the adult plumage lacks. Juvenile hummingbirds and passerines often show a yellowish to orange gape.

Be aware that the general appearance of many crested birds can vary dramatically depending if the crest is laid back flat or if it is raised or unfolded, often when excited, stressed or in display. For example, in Rufous-fronted Thornbird the crest is usually laid back, but during courtship it may be raised affording the bird an unusual appearance.

The presence of sap, nectar or pollen can affect plumage colour. This is especially common in hummingbirds, which often get stained by pollen, or boreal migrant warblers, when foraging in flowering or fruiting trees (*Erythrina* sp.). Likewise, leucistic individuals (a genetic abnormality with partially white plumage) show up occasionally and always represent a challenge. Such aberrant plumages have been reported in various groups including vultures, anis, woodpeckers and even grackles.

# **BIRD TOPOGRAPHY**





# HOW TO USE THIS BOOK

Similar in structure to other compact field guides, this one covers, in 248 plates, all 1,384 species known to occur in Venezuela. Each species has a concise text and a distribution map, accompanied on the facing page by the illustrations. Additionally, all subspecies are mentioned in the text and most of them are illustrated, while their distribution is described in the text. An appendix is provided with information for 50 additional (hypothetical) species.

Although we have tried to provide as much useful information as possible for each species, space restrictions have forced us to take some hard decisions, and there was often only sufficient space for key information relevant to identification. However, where there was enough space on the plates, additional information regarding life history and habits has been provided.

In the species accounts (and plates), the information is always presented in the context of Venezuela, not worldwide. For example, 'largest kingfisher' means largest kingfisher in Venezuela, not in the world. 'Only dipper' indicates the only dipper in Venezuela. Likewise, the expressions 'unknown', 'little known' or any other describing a species are always used solely in the Venezuelan context.

The following are guidelines to understand how the information is organised and presented. We recommend reading it thoroughly to take full advantage of the information provided.

### FAMILY ACCOUNTS (pages 44-55)

These short paragraphs describe for each family the most relevant characteristics, such as plumage, habitat, habits, behaviour or voice. The features stressed in this paragraph depend on the family. For larger families, there may be additional information regarding the different genera or groups and how the family is organised. For monotypic families, the text is usually short, as the only member is already described in the species accounts. This section describes aspects common to all family members which are usually not mentioned in the species accounts. It is advisable to become familiar with the families, as this will make it easier to locate a given species.

### SPECIES ACCOUNTS

### Plate number and title

This gives a short description of the species on the plate (e.g. chachalacas and guans). The length of the plate title is variable, and depends on the species involved.

### Plate introduction

Following the title, there is a short paragraph highlighting common aspects of the species on the plate and the key features useful for their field identification. In large, complex families (e.g. tyrant flycatchers, antbirds), distinguishing features of the genera treated are often mentioned too. Features common to all species or distinctive of a genus mentioned in the plate introduction are usually not repeated in the species accounts. A few plates lack an introduction, usually if the species included are miscellaneous, with few common features or where their identification is rather straightforward.

### Species accounts

The following paragraphs detail the different sections of the species accounts, in order. Note that the only sections with a subheading are 'Similar species' (SS), 'Voice' and 'Alternative name' (AN).

### Common name(s)

Common English name is in **bold** and is followed by the scientific name in *italics*. This appears as a binomial (e.g. *Crypturellus variegatus*) for monotypic species, or as a trinomial (e.g. *Crypturellus undulatus manapiare*) if the species is polytypic but only one subspecies occurs in Venezuela. If two or more subspecies occur, the binomial is used and the various subspecies are shown at the beginning of the main text. Where there are alternative common, generic or species names, they are often given at the end of the species account. Relevant taxonomic notes are also placed at the end of the account.

#### Measurements

The total lengths of adult birds are given in cm (and inches). When there is a large difference in size between  $\[ \sigma^3 \] \]$  and  $\[ \varsigma \] \]$ , or between different subspecies, this is mentioned. Likewise, we provide tail or bill lengths, or wingspans, where considered relevant.

#### Subspecies and their distribution

The overall distribution is shown on the map. In polytypic species, all subspecies known to occur in Venezuela (in alphabetical order) with their broad distributions (in parentheses) are presented after 'Ssp.'. Information is summarised using the codes described in the section 'Regions' (see p.40). N, S, E and W are used extensively. Where necessary, we have used abbreviations for states or locations. The symbol '-' is used to indicate a continuous range. For example, 'Llanos: Bar–Anz' means that the subspecies is distributed in the Llanos between Barinas and Anzoátegui. Where subspecies are clearly disjunct, for example one occurs in the W, Andes, NC and NE, (thus only in N) and another occurs only in Amazonas and W Bolívar (thus only in S), we may simply state N and S. For monotypic species (or those with only a single subspecies in Venezuela), no information concerning subspecies or distribution is presented because all relevant information is contained in the map.

Although we are aware of a current controversy about an excessive number of bird subspecies in Venezuela, we haven't omitted any because their validity or otherwise is outside the scope of this book. We hope, however, that a thorough revision of all subspecies described for Venezuela will be forthcoming. For spellings of subspecies, we have followed the *Howard and Moore Complete Checklist of the Birds of the World.* 4th edition (2013, 2014).

# Endemic species and regional endemism

If a species is endemic, we highlight the region(s) where it occurs in CAPITALS. Rather than using a geopolitical approach, we decided to define regions of endemism using ecological barriers. Therefore, a few endemic areas of Venezuela are shared with neighbouring countries (e.g. Perijá Mountains and the pantepui region). According to the above criterion, the regions or categories of endemism used herein are as follows.

PERIJÁ ENDEMIC: the W mountains bordering Colombia that reach their highest elevation on Pico Tetarí at 3,750m (12,300 feet). Separated from the Venezuelan Andes and located in W Zulia. The region is shared with Colombia.

MÉRIDA ENDEMIC: the main Venezuelan Andes, separated from the E Andes of Colombia by the Táchira depression. The highest elevation is Pico Bolívar at 4,978m (16,332 feet). Located between N Táchira and S Lara states and entirely within Venezuela.

TÁCHIRA ENDEMIC: the mountains of SW Táchira, sharing more species with the E Andes of Colombia than the Mérida Andes. Separated from the Mérida Andes by the Táchira depression.

COASTAL CORDILLERA ENDEMIC: the Cordillera de la Costa (coastal mountain range) from N Lara to E Miranda, including the coastal mountains of Carabobo and Aragua as well as the interior chain from S Aragua to N Guárico. The highest elevation is Pico Naiguatá at 2,765m (9,072 feet), and the region lies entirely within Venezuela.

PARIA ENDEMIC: the Cordillera de la Costa Oriental on the Paria Peninsula, in E Sucre. The highest elevation is c.1,370m (4,495 feet) and the region is entirely within Venezuela.

TURIMIQUIRE ENDEMIC: the W section of the Cordillera de la Costa Oriental, in the Turimiquire massif at the border of Sucre, Monagas and Anzoátegui states. The highest elevation is Pico Turimiquire at 2,596m (8,517 feet) and it lies entirely within Venezuela.

ORINOCO RIVER ENDEMIC: species restricted to habitats along the Orinoco River and its tributaries. Includes the sedimentary river island specialists as well as those found in riverine forest along its banks. This region is shared with Colombia.

PANTEPUI ENDEMIC: the table-top mountains (Precambrian origin) of S Venezuela including the Gran Sabana plateau, Sierra de Lema, Sierra de Pacaraima and Cerro La Neblina. The highest elevations are the summit of Roraima tepui at 2,810m (9,219 feet) and Pico Neblina at 2,994m (9,823 feet). The region is shared with Guyana and Brazil.

NORTHWEST ENDEMIC: encompasses two habitats, the mangroves of NE Falcón and the arid desert scrub ranging from N Lara to N Falcón and N Zulia. This region is shared with Colombia.

A complete list of Venezuelan endemics can be found in Appendix 2 on p.557.

# Elevational range

Altitudinal distribution is presented in metres. The elevational range shows the lower and upper extremes of reported occurrences, but the actual range where the species is normally found can be narrower. We often indicate such narrower ranges, e.g., 500–2,800m (usually 1,000–2,200m), or we combine altitude information with status codes (see below). Additionally, hummingbirds, bellbirds, rails and crakes, and others, perform marked seasonal elevational movements (reaching lower altitudes in the rainy season) or dispersal. We often provide additional information of elevation ranges at different seasons, e.g. 0–850m (below 500m in the rainy season). Finally, if the elevation range differs between the S and N of the country, this is also indicated, e.g. 0–1,800m (N), 0–500m (S).

#### Status

In this section we provide, using codes, information regarding relative abundance, seasonality, migratory patterns (for long-distance migrants) and if a species is local or more widespread. Although we have made an effort to show actual abundance if the information is available, in practice the information will often reflect little more than the probability of finding a species (rather than its real abundance), especially for uncommon, little-known species. Additional details to complement the status codes (such as details on local migrations) may be provided elsewhere in the text. Bear in mind that birds have a great capacity to move under certain conditions, thus for some species the status information can appear inaccurate at certain times of the year. For example, White-tailed Nightjar is common in the Llanos but at the peak of the dry season it can move away or remain quiet, and thus appear uncommon or rare.

#### Codes used for relative abundance:

CM: Common

LC: Locally common

SC: Seasonally common

FC: Fairly common

LFC: Locally fairly common

SFC: Seasonally fairly common

UC: Uncommon

LU: Locally uncommon

RA: Rare

VG: Vagrant (reported only once or a few times in the country).

#### Codes used for seasonality:

BM: boreal migrant, from N (usually Oct-Apr)

AM: austral migrant, from S South America (usually Apr-Oct)

TR: transient, used for boreal migrants, found only briefly during southbound or northbound migrations.

These codes can be given either alone or in combination (e.g. FC–UC, BM). We have followed a descending order, from 'common' to 'rare' (always posted last) and, where pertinent, we have provided in brackets any temporal information associated with relative frequency. For example, White-plumed Antbird *Pithys albifrons*: LFC (S: Julearly Apr)–UC (S: May–early Jun). RA (SW).

Sometimes, we also use the codes together with regional codes or elevation data to provide more accurate information regarding abundance in different areas or at different elevations, e.g.: UC (N), FC (S); FC (Llanos), RA (elsewhere); CM (0–800m), FC (800–1,500m), RA (1,500–2,500m).

#### General description

This usually represents the 'bulk' or 'core' of the species account. Here we provide general features concerning plumage, habitats and habits essential for identification. The most relevant key information is shown in *bold italics*. Bear in mind that the amount of information provided and emphasis given to each aspect can differ markedly between groups. Space permitting, additional information concerning general life history, conservation, behaviour, migrations or other data may be also provided. The following are treated in the description.

#### Plumage

Apart from the feathers, we include also the bill, legs and other bare parts (e.g. caruncles or wattles). As plumage details can always be observed in the illustrations, rather than presenting a complete description, we emphasise key features that help distinguish a species from similar ones. More extensive descriptions are nevertheless often necessary for difficult groups such as raptors, owls, nightjars, ovenbirds, tyrant flycatchers and antibirds. Unless otherwise specified, adult plumage is described. For dimorphic species, the male is usually described first. Then female plumage is described, preceded by Q. Often, only the main differences from of plumage are described. For residents, unless otherwise specified, it is assumed that there is no difference between breeding and non-breeding plumage, or breeding plumage is described. If there is an obviously different non-breeding plumage, then it is clearly signalled 'non-breeding'. However, for boreal migrants, which usually possess a marked difference between breeding and non-breeding plumages (many waterfowl, shorebirds and warblers), we describe the non-breeding plumage, which is that most likely to be seen in Venezuela while present in the country. Only if necessary, breeding plumage is then described. Space permitting, juvenile or immature plumages are also described if they are different. Any departure from these patterns is always made clear.

In many species of raptors (Accipitridae and Falconidae), there are numerous plumages, due to sexual dimorphism, different juvenile and immature plumages, plus different morphs. These plumages must also be described for both perched and flying birds, meaning that plumage descriptions for raptors are often longer than for other families.

#### Habitat and habits

We emphasise the most frequent habitats where the species is found, but bear in mind that birds are highly mobile. For example, if we say that a bird occurs in sandy soil forest this indicates that it is usually found there, but it could move to nearby habitats for a limited period. In this section we also mention aspects such as whether the species is commonly found alone, in pairs or in groups. Bear in mind that species usually found in pairs can be seen in small family groups, or species usually found in pairs can be seen alone during the breeding season if one bird is on the nest. Space permitting, we also include details of feeding habits, flight, swimming or locomotory behaviour, local migratory movements and other details, with emphasis on those helpful or critical for identification. Depending on the group or species, this section can be long, short or, in some cases, absent.

#### Similar species (SS)

Here we discuss confusion species or highlight a species' most important key features, be they size, plumage, habitat, habits, or voice, which quickly enable the reader to separate it from similar species. Due to space constraints, we cannot always include all potential confusion species, only those most likely in range. Very similar species that live in a different region (with no overlap) are not always mentioned. When the species is unmistakable, this subheading may be absent or the species is simply referred to as 'unmistakable'.

#### Voice

Voice is an essential identification aid for many groups and, in some cases, the only means to achieve a reliable identification. We mention the most common call or song of each species. In some cases, variations or dialects are also described. If no description of voice was available for Venezuela, we provide data from a neighbouring country. The length of this section varies considerably. In groups where voice is a vital (if not the only) tool to identify species, e.g. tinamous, owls, nightjars, many tyrant flycatchers, antbirds, antpittas, wrens, etc., we usually give emphasis to this section, and it is usually longer. For other groups, e.g. swallows, migrant warblers and others, where voice is not necessarily critical, the section is usually short. Most migrants are silent on their non-breeding grounds, so for these species, as well as vultures and other normally silent species, this section may be excluded. When voice is unknown for a species, we indicate this or omit the subheading.

Vocal descriptions are usually a combination of a simple description in plain English (e.g. 'a whistle c.3 seconds long, ending in a tremolo') or, when necessary, sound transcriptions or transliterations. All voice transcriptions are written in *italics*. Although we have endeavoured to describe the voice as accurately as possible, remember that sound is perceived very differently by different people.

Bird voices are transcribed using two different methods.

- (1) When voices can be described using English vocabulary, or other known words like names of people, countries, cities, etc., this method is used. For example, *Mc-white!* (Azara's Spinetail) or *Gua-te-ma-la* (Rufousvented Chachalaca). In this case, the description is preceded by (E).
- (2) When the transcription must be written using characters rather than English words, the following phonetic alphabet is used, where each character has only one possible sound irrespective of the position it occupies, which characters precede or follow it or how many times it is repeated in a sequence:

```
a as in car, calm
ä as in bag, bad
e as in bed, red (used only for short sounds)
ee or i as in see, feet
o as in four
u as in boot, foot
g as in get
h as in hot, him
j as in jay, John
k as in cat, key, quit
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The consonants or combinations **b**, **ch**, **f**, **p**, **r**, **s**, **sh**, **t**, **th**, **w** and **z** are also used with their natural sound in English. No other characters are used in the transcriptions. All character sounds are short. For a longer sound, the characters are simply repeated as many times as necessary, for example, *piiiit* or *peeeet* is longer than *pit* or *peet* and *bää* is longer than *bä*.

Stressed sounds are written as capitals. The sound *ee* or *i* is always capitalized as *EE*, e.g., *hu-hu-HUUUU*, *KEEEEEEE*, while an exclamation mark is used when a song ends abruptly, e.g. *fuueeeeEEt!* and a question mark denotes a querulous sound, e.g. *uhuuu?* 

The textual presentation suggests how rapidly the syllables are delivered: tu...tu...tu is very slow, tu,tu,tu has a pause between syllables (at least one second); tu tu tu has a short pause (less than a second) between; tu-tu-tu is faster, with almost no pauses; and tututu is very fast; even faster is t'r'r, indicating a rolling or rattling sound.

To more accurately learn the voices of Venezuelan birds, we recommend using the following websites: Aves Venezuela www.avesvenezuela.net, Xeno-canto www.xeno-canto.org and the Macaulay Library www.macaulaylibrary.org.

#### Alternative names/taxonomic notes (AN)

For species that have been recently subject to revision (taxonomic split or lump, change of subspecies to species rank or vice versa, or change of common or scientific name) we provide a short taxonomic note at the end of the account. We often also provide other English names (e.g. as used in Hilty's *Birds of Venezuela*, 2003) so that users can cross-reference with other publications. In many cases we highlight the possibility that species might represent multiple species.

#### Neighbouring countries

The last section of the species account indicates in which of Venezuela's neighbouring countries, the species is present, using the following codes:

C: Colombia

B: Brazil

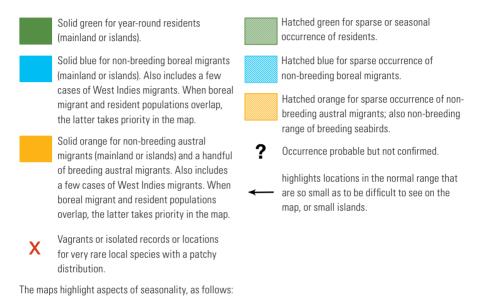
**G**: Guyana

TT: Trinidad & Tobago

ABC: Aruba, Bonaire and Curaçao

# Distribution maps

The maps depict the species' known distribution in the country. Subspecies' distributions are not shown separately. Bear in mind that given size constraints, the map must be used as a visual aid and never considered to be 100% accurate. Due to the small size of the distribution maps, Isla de Aves, the smallest and northernmost Venezuelan offshore island is not normally shown. In cases where a species occurs in this tiny island, we do it by means of a red X, an arrow, a green or hatched orange spot as necessary, at the top edge of the map. Note that this island's location is shown further south than its real geographical location (on the distribution map). The current coordinates of Isla de Aves (N15°41'00'' W63°37'00'') are shown on the map of offshore islands of Venezuela (page 16).



#### Illustrations

Although our original plan was to use the illustrations previously used in *Bird of Northern South America*, several new illustrations have been prepared and many others have been digitally retouched. Unlike many compact field guides, this book provides more than one illustration for many species, and many subspecies are shown.

The illustrations are based on photographs and museum specimens. Therefore, it is possible that in some cases, under extreme or poor light conditions the user will observe brighter, richer or drabber plumages compared to those illustrated.

In most plates, all species are illustrated at the same scale, except occasional obvious miniatures of birds in flight, swimming, etc. In the few cases where two different groups of birds on a plate are illustrated at different scales, a line separates the different areas of the plate.

We realise there are families with so many species that several plates are needed to cover them and thus finding a species you're seeing can be a time consuming task. For that reason we have prepared several *Master Plates* and have uploaded these in the AvesVenezuela website www.avesvenezuela.net. Please, download and laminate these plates for use in the field. They will allow broad comparison between similar species and will reduce the time invested by flipping through plates to identify an unknown species.

For the diurnal raptors (Cathartidae, Pandionidae, Accipitridae and Falconidae) we have included 6 additional double-spread plates of raptors in flight (plates 19–24), preceding the regular plates for these families. Those are the only plates in this field guide showing illustrations only (with no text or maps).

# **ABBREVIATIONS**

#### **REGIONS:** (see the section 'Subspecies and their distribution' on p.35)

N: north of the Orinoco River

S: south of the Orinoco River. Sometimes includes S Delta Amacuro (south of Imataca river).

W: Perijá (Zulia) and San Luis (Falcón)

Andes: Mérida, Trujillo, Lara, Barinas and N Táchira, and sometimes, part of Yaracuy is also considered within this region

SW: SW Táchira

NW: lowlands of Falcón, Zulia and N Lara (includes the arid NW), and sometimes the lowlands of Yaracuy

Llanos: central plains from Apure to Monagas

Delta: Much of Delta Amacuro state from the northern channels south to the Imataca river. Includes the Gulf of

Paria.

NC: C Coastal Cordillera from Yaracuy to Miranda

NE: Paria and Turimiquire in Sucre and N Monagas. If a species occurs in lowlands, includes Anzoátegui and

lowlands of previous states.

SE: SE Bolívar (Sierra de Lema, E tepuis and Gran Sabana)

# STATES AND LOCATIONS: Three-letter abbreviations are used for states; four or more letters for locations.

Amz	Amazonas	Fal	Falcon	Irj	Irujillo
Anz	Anzoátegui	Gua	Guárico	Turim	Turimiquire
Apu	Apure	Lar	Lara	Perj	Perijá
Ara	Aragua	Marg	Margarita	Por	Portuguesa
Bar	Barinas	Mer	Mérida	Rorm	Roraima
Bol	Bolívar	Mir	Miranda	Suc	Sucre
Car	Carabobo	Mon	Monagas	Yar	Yaracuy
Coj	Cojedes	Tac	Táchira	Zul	Zulia

# STATUS: (for more details see 'Status' on p.36)

CM	Common	LFC	Locally fairly common	RA	Rare
LC	Locally common	SFC	Seasonally fairly common	VG	Vagrant
SC	Seasonally common	UC	Uncommon	BM	Boreal migrant
FC	Fairly common	LU	Locally uncommon	AM	Austral migrant

#### SEX:

#### OTHER ABBREVIATIONS:

> more than		cm	centimetre(s)	NP	National Park
< less than		Е	east	S	south
BNS	A Birds of Northern South	juv	juvenile	sec	second(s)
	America (Restall et al. 2006)	imm	immature	sp. (spr	o.) species (plural)
С	central (geographic)	m	metre(s)	ssp.	subspecies
C.	about, approximately	min	minute(s)	W	west
cf.	compare	N	north		



White-bearded Manakin, *Manacus manacus*. Photo by George Grall.



Sunbittern, Eurypyga helias. Photo by Flip de Nooyer.

# **GLOSSARY**

Agonistic: behaviour associated with conflict between one individual and another, and refers to the posture or voice usually referred to as extreme excitement.

Alpha male: the dominant male among those of the same species, usually associated with the lek, mating, nesting or foraging.

Allopatric: two or more species or subspecies that occur in separate geographical areas (i.e. their ranges do not overlap).

Antiphonal: precisely timed alternating singing by two birds (usually a pair).

Austral: pertaining to or from the south (i.e. S South America).

Bare or soft parts: the non-feathered parts of a bird, i.e. eyes, eye-ring, cere, bill, legs and feet.

Boreal: pertaining to or from the north (i.e. Middle and North America and the Caribbean).

**Brood-parasite**: a species that lays its eggs in other species' nests in order that the host species will raise its young.

Cere: bare skin (often brightly coloured) at the base of the upper mandible on raptors, owls and parrots.

Congeneric: belonging to the same genus.

Conspecific: belonging to the same species.

Crepuscular: active in twilight (at dusk or dawn).

Diagnostic: key features (of plumage, behaviour, flight pattern, habitat, etc.) that unequivocally identify a species or group.

Dihedral: in flying raptors, a V-shaped profile.

Dimorphic: see sexually dimorphic.

**Duetting**: male and female singing simultaneously or antiphonally in response to one another.

**Echolocation**: A system by which some species emit high-pitched sounds and upon reception of the waveform they can navigate in darkness or low light conditions.

**Ecotone**: transition zone between two different habitats

Eclipse: a dull, female-like plumage exhibited by male ducks post-breeding.

**Emergent tree**: those trees that grow taller than the surrounding canopy in a forest.

Endemic: restricted to a defined area (e.g. a country, mountain range, etc.), and does not occur elsewhere.

Gape: base of the bill where the mandibles join. It is frequently pronounced in juvenile birds.

Genus (plural: genera): a taxonomic category between family and species, containing one or more related species.

Always the first word in a scientific name, e.g. Mimus in the species Mimus gilvus (Tropical Mockingbird).

Glide: to fly in a straight line on level wings (not flapping).

Graduated: refers to the tail, when the central feathers are longest and the outer ones are progressively shorter.

Hybrid: the result of interbreeding between two different species.

Immature: bird with plumage intermediate between juvenile and adult.

Juvenile: a bird in its first full plumage after leaving the nest.

**Lek**: a behaviour shown by some hermits, manakins and cotingas in which several males gather to display to attract females. Also the location or 'arena' where males display. Some ecologists include some tyrant flycatchers as species that display in leks (although it is usually a single male rather than various males).

Leucistic: a pigmentation deficiency, involving birds that are unusually pale in coloration.

**Local**: a species that is of patchy, rather than widespread, occurrence in appropriate habitat within its normal range.

Melanistic: black or blackish, referring to a morph.

Microhabitat: an extremely local environment that supports a particular species.

Monomorphic: a single colour morph.

Monospecific: genus or family with a single species.

**Monotypic**: a biological group containing just one taxon, e.g. a species without any subspecies, or a genus comprising only a single species.

Morph: one of possibly several different types of coloration, especially common in raptors and to a lesser extent in some owls.

Morphometrics: measurements for a species, including total length or size of a given part such as the wing, bill, tarsus and tail.

Neotropics: the region encompassing the Caribbean islands, most of Middle America and all of South America.

Non-passerine: one of the two large subdivisions within birds, which includes all those not considered 'songbirds'.

Nomadic: erratic wandering, usually related to seasonal weather conditions or food availability.

Nominate: the first taxon described within a polytypic species.

Oscine passerines: frequently called songbirds, a group of birds with the ability to learn aspects of their vocalisations. They are also known for having absolute control of their syrinx. This group has feet adapted for perching. In Venezuela includes the vireos and greenlets, jays, swallows and martins, wrens, thrushes, gnatcatchers, pipits, thrushes, tanagers and allies, brushfinches and sparrows, cardinals, warblers and allies, blackbirds and orioles, siskins and euphonias (plates 190–247). Cf suboscine passerines.

Pantepui: a region encompassing both the tepuis and their slopes as well as the mountains in S Venezuela, roughly above 1.500m.

Passerine: one of the two large subdivisions within birds, which includes all birds commonly known as 'songbirds'.

Pelagic: pertaining to the open sea; pelagic species spend most of their lives at sea, coming to land only for breeding.

Polymorphic: a species with more than one morph, particularly common in raptors.

Polytypic: a species with two or more subspecies.

**Resident**: a species found year-round in the country. Most resident species breed in the country. However, a few are non-breeding residents.

Sedentary: a species that remains in the same area throughout the year.

Sexually dimorphic (or Dimorphic): applied to species where males and females have different plumage, shape or size.

Soar: mostly refers to raptors, flying on level wings, without flapping, usually in circles and with the tail spread out.

Subadult: an imprecise term referring to immature plumage but close to becoming a full adult.

Suboscine passerines: a group of birds differing from the oscine passerines by the syrinx structure and believed to develop song innately, although a few exceptions have been noted such as the bellbirds. In Venezuela includes the Furnariids (woodcreepers, spinetails, ovenbirds and allies), antbirds, antpittas and anthrushes, tapaculos, tyrant-flycatchers, tityras and becards, manakins and most cotingas (plates 122–189). Cf oscine passerines.

Subspecies: distinct allopatric forms within a species, usually named on the basis of either plumage characters and/or measurements.

Sympatric: two or more species that occur in the same area (i.e. their ranges overlap).

Synonymised: when two different taxa are lumped together and considered to be the same species. In this case, the taxon described first takes priority.

Syringeal cartilage: elastic and flexible type of connective tissue in the vocal organ of a bird.

Taxon (plural taxa): a taxonomic unit of any rank, most frequently applied to species or subspecies.

**Taxonomy**: the theory and practice of classifying organisms.

**Tepui**: a sandstone table-top mountain in S Venezuela, often with rich endemic avifauna.

Territorial species: a species that occupies and defends a defined area (territory).

Tidal flat: a coastal area subject to tidal flooding.

**Trap-lining**: a behaviour of some hummingbirds that follow a regular foraging route around several flowering plants. Usually implies non-territorial behaviour.

Tremolo: a vibrating sound.

Wingspan: the distance measured from wingtip to wingtip.

# **FAMILY ACCOUNTS**

#### TINAMOUS Tinamidae

(Plates 1-2)



Plump, chicken-like terrestrial birds of mostly undisturbed forests, with thin neck, rounded wings and very short tail. Very shy and hard to see, often retiring quietly before being noticed, although may run or fly noisily for short distances if surprised. Although terrestrial, they usually roost on low branches. Quite vocal, especially at dusk, their voices are some of the most haunting sounds of tropical forests and learning them is an important aid to identification.

#### **DUCKS AND GEESE Anatidae**

(Plates 3-6)

A fairly uniform family of waterbirds with webbed feet and broad bill. Of the species in Venezuela, almost half are boreal migrants, but even resident species perform at least local seasonal migrations within the country. They occur throughout the country up to the páramo, provided there is water. They moult all flight feathers simultaneously, rendering the birds flightless for about one month annually. Whistling-ducks occur in flocks numbering thousands during the dry season in the Llanos. Migratory species are usually silent in the wintering grounds. There is only one true sheldgoose, the Orinoco Goose.

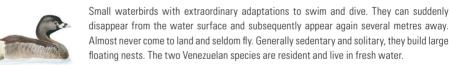
#### SCREAMERS Anhimidae

(Plate 6)

Massive, corpulent goose-like waterbirds with large, sturdy legs and feet, and long unwebbed toes that can walk over intersected floating vegetation despite their weight. They have a short chicken-like bill, hooked at the tip, sharp spurs at the wing-bend and either a shaggy crest or a long antenna-like frontal spike. Always close to water, but almost never swim. Good fliers and frequently perch on large trees. Quite vocal, their hoots and screams are among the loudest of all waterbirds.

#### **GREBES** Podicipedidae

(Plate 6)



# BOBWHITES AND WOOD-QUAILS Odontophoridae

(Plate 7)

Plump terrestrial birds with short, strong legs. Wood-quails inhabit primary forests, and are very secretive and hard to see. They are quite vocal and heard far more often than seen. The smaller Crested Bobwhite is the only Venezuelan member of the family; it occurs in open areas and is thus easier to see

# CHACHALACAS, GUANS AND CURASSOWS Cracidae (Plates 8–9)

A family of sedentary, large, fowl-like birds with a long tail and large, strong legs and feet. Most species inhabit pristine forest. One species reaches the treeline and one has adapted to urban areas. All are quite vocal and mostly arboreal, although all can run on the ground. Curassows spend most of their time on the ground and roost in trees. All species fly, but usually only over short distances.

#### ALBATROSSES Diomedeidae

(Plate 10)

The largest and heaviest seabirds, and some have the widest wingspans of all birds in the world. Long stout bills. Highly pelagic, they can remain at sea for weeks or months, and they rarely come to land except to breed. They mostly soar and glide, and rarely flap. Just one species has been reported in Venezuelan waters.





#### SHEARWATERS Procellariidae

(Plate 10)

Small to medium-sized pelagic birds, with long narrow pointed wings, long slender bills, and short tails and legs. Their flight involves flapping, soaring, gliding and banking. They feed by seizing invertebrates from the sea surface or by shallow dives.

# STORM-PETRELS Hydrobatidae

(Plate 10)

Small, rather delicate pelagic birds. They have shorter wings and proportionately longer legs than shearwaters. The two species occurring in Venezuela are mostly dark brownish or blackish with white rumps. They flutter low over the sea surface while feeding on invertebrates and tiny fish, and occasionally follow fishing vessels.

#### TROPICBIRDS Phaethontidae

(Plate 11)

Solitary, elegant seabirds, best known for their long, flexible tail streamers. They nest in small loose colonies on ledges on rocky sea cliffs. So far, one species in Venezuela.

BOOBIES Sulidae (Plate 11)

Rather large gregarious birds of open seas and coasts. Slender pointed wings, pointed bills and wedge-shaped tails. They are excellent divers, plunging diagonally into the sea in pursuit of fish. Migratory movements may occur in some species.

#### CORMORANTS Phalacrocoracidae

(Plate 12)

The only species of this family in Venezuela, Neotropic Cormorant is a common waterbird of mainly freshwater wetlands throughout the country. Feeds by diving for fish and differs from Anhinga by its shorter bill and neck. Takes off from water after a long splashing taxiing over the surface.

#### ANHINGAS Anhingidae

(Plate 12)

Also known as 'snake-birds' the Anhinga has a long neck and long sword-like bill, used to spear fish while diving. Occurs in small numbers mainly at freshwater wetlands, mostly in the lowlands.

#### PELICANS Pelecanidae

(Plate 12)

Common and familiar seabirds, found along coasts in all kinds of environments. They are large and heavy, with a huge pouched bill. They fish by plunging into sea with great precision. One species in Venezuela.

# FRIGATEBIRDS Fregatidae

(Plate 12)

Large, streamlined, common seabirds of coastal areas, with long angular wings and a long forked tail. They feed by snatching fish from the sea surface or by robbing other seabirds. They gather in large breeding colonies where males display their balloon-like inflated red pouches. So far, one species in Venezuela.

#### HERONS, EGRETS AND BITTERNS Ardeidae

(Plates 13-16)

Familiar, widespread, largely aquatic birds (just two species in Venezuela are common away from water). Most are resident (only two species are boreal migrants). They have long legs, neck and pointed bill, and do not swim or dive. Most wade slowly in shallow water, waiting patiently for a fish to come within range. Flight slow and leisurely, usually with retracted neck. Most nest colonially, except for forest species. Many species develop ornate plumes and brightly coloured soft parts during breeding.



#### IBISES AND SPOONBILLS Threskiornithidae





Large waterbirds with a bare face and long decurved bill (ibises) or straight spatulate bill (spoonbill). Fly with neck outstretched, often in V formation, alternating flapping with occasional glides. They prefer lowlands and most are especially common in or confined to the Llanos. Most species nest colonially and perform local seasonal movements, and they fly long distances commuting from roosts to feeding grounds.

#### STORKS Ciconiidae

(Plate 18)

Very large, long-legged, mostly white and have long heavy bills. Less tied to water than other waterbirds, often feeding in drying ponds and even grasslands. The three species occur in lowlands, with Wood Stork living on both coasts and inland, the other two largely confined to the interior, especially the Llanos. Fly with neck outstretched and may soar high. They can commute long distances from roosts to feeding areas. Essentially voiceless (except Maguari Stork during courtship) and most sounds are non-vocal (mostly bill-clapping), given mainly on or around nest.

# FLAMINGOS Phoenicopteridae

(Plate 18)

Highly gregarious waterbirds with a very long neck and legs, and a unique boomerangshaped bill specialised for filtering food in shallow brackish water. Their flight silhouette with long legs and outstretched neck is distinctive. Commute very long distances (even across Caribbean) from roosting to feeding areas. One species in Venezuela.

#### NEW WORLD VULTURES Cathartidae

(Plates 19, 25)

Large to very large, mostly scavengers. Often confused with large raptors, but vultures have bare heads, weaker bills and weaker feet, which are specialised to walk on the ground and not to grasp or kill prey, as raptors do. Excellent fliers, they can soar for long periods using minimal energy. Keen-sighted and the three *Cathartes* have an acute sense of smell. Andean Condor is the largest flying bird in the world. All species are largely silent, except for occasional grunts and hisses.

#### OSPREY Pandionidae

(Plates 19, 26)

Osprey is a specialised fish-eating raptor. It is a boreal migrant, but a few non-breeding individuals may remain year-round in small numbers. Only one species.

#### KITES, HAWKS AND EAGLES Accipitridae

(Plates 19–24, 26–36)

A large family of diurnal predators with a hooked bill and sharp claws, specialised for hunting. The family is heterogeneous in terms of size, shape and habits. The common names of hawk, eagle or kite are subjective and of little use to separate the different groups. Females are larger and more powerful than males. In general, they are strong fliers and most species are more commonly seen in flight, usually soaring, rather than perched. Flight shape, size and colours or patterns on wings, body and tail are essential field marks. The family includes both residents and migrants. Local movements have also been documented. Several species attend fires in the Llanos. Some species are quite vocal.

#### CARACARAS AND FALCONS Falconidae

(Plates 24, 37–40)

Small to medium-sized raptors. With few exceptions, all have black or dark eyes. Four distinct groups: caracaras are generally opportunistic, feeding on easy prey and carrion (with one exception); forest-falcons are specialised and agile predators of forested regions; true falcons are streamlined and very fast, most of them adapted to catch prey in flight; and Laughing Falcon is a specialised snake-eating raptor.



# RAILS, CRAKES, GALLINULES AND COOTS Rallidae (Plates 41–44)

Small to medium-sized, birds usually in habitats associated with wetlands or damp ground (with few exceptions). Short-winged, most fly seldom or only over short distances, except when migrating. Strong feet with long toes and most are adapted for swimming or walking, especially on top of aquatic vegetation. Many have red eyes. They keep their short tail cocked and some species flick it up and down when nervous. Most crakes and some rails are small, secretive and difficult to see as they remain hidden within dense vegetation or grasses. Gallinules and coots are larger, easier to see and most of them swim in open wetlands. Most species are vocal, calling mainly at dawn and dusk, and sometimes at night. Learning their songs is essential for field identification. Note that several *Laterallus* crakes have similar voices.

#### TRUMPETERS Psophiidae

(Plate 45)

Large, terrestrial and highly social forest birds. Largely frugivorous, although they also take insects and may follow army ants. Wary and suspicious in areas where hunted. Runs away noisily or flies awkwardly to a high perch when pressed, but can be rather trusting where not hunted. Often taken as pets by Amerindians. Just one species in Venezuela.

#### SUNGREBE Heliornithidae

(Plate 45)

Small and strictly aquatic, with lobed feet. Inhabits quiet, lowland wetlands, mostly under cover of flooded forest in slow-moving rivers. Swims low in water or partly submerged, and dives frequently. Occasionally flies or swims across rivers. One species in Venezuela.

# SUNBITTERN Eurypygidae

(Plate 45)

Medium-sized waterbird with superbly patterned plumage. Stunning wing pattern visible in flight or display. Mostly inhabits quiet shady riverbanks, sandbars and edges of forest ponds in lowlands. Walks slowly and gracefully, picking small prey at water's edge, but does not swim. One species in Venezuela.

#### THICK-KNEES Burhinidae

(Plate 45)

Large, terrestrial plover-like birds of dry open lowlands. Especially common in the Llanos, they walk upright, and are often hard to spot during day time due to their camouflaged plumage and habit of freezing or lying on ground in grassland or shrubby vegetation. More active at night. May run short distances and occasionally fly low. Rarely close to water. One species in Venezuela.

# JACANAS Jacanidae

(Plate 45)

Common, small waterbirds of freshwater, vegetation-choked wetlands. Especially abundant and conspicuous in the Llanos. Long toes adapted to walk on water hyacinths and other aquatic vegetation. Often raise wings revealing conspicuous yellow plumage. Fly with long legs and toes visible beyond tail. Males incubate the eggs and raise the chicks. One species in Venezuela.

#### LIMPKIN Aramidae

(Plate 45)

Only species of the family is a large, ibis-like waterbird of lowland wetlands. Walks slowly and usually hunched, often within vegetation. Sometimes perches on bushes. Flight somewhat jerky. When flying short distances, keeps outstretched neck below horizontal, with dangling legs. Feeds largely on apple snails (*Pomacea* sp.) and its population and seasonal movements are highly tied to the abundance of this food source.

# PLOVERS AND LAPWINGS Charadriididae

(Plates 46-47)

Small to medium-sized, partly or largely aquatic birds. In general, they differ from sandpipers and other shorebirds by their more compact appearance and shorter, thicker bill. Most species usually alternate quick runs over short distances with pauses. The two species of lapwings are resident. Most plovers are boreal migrants.





# OYSTERCATCHERS Haematopodidae

(Plate 46)

The only species in Venezuela is a distinctive, large, chunky seashore wader, with a long, straight, thick red bill. Inhabits beaches and tidal mudflats, feeding on a variety of invertebrates.

# SNIPES AND SANDPIPERS Scolopacidae

(Plates 48-53)

A family of slimmer shorebirds (compared to plovers) with usually longer legs, bill and neck. Most are boreal migrants and many species gather in large numbers (hundreds, even thousands) in coastal but also shallow inland wetlands during the boreal winter. A few species are confined to grasslands. Excellent fliers, most have powerful and fast wingbeats. Given their drab non-breeding plumage, mostly different shades of grey and brown, species can be difficult to tell apart from one another. Careful observation of bill size and shape, leg colours, plumage details, habitat and feeding behaviour is necessary for accurate identification.

#### STILTS Recurvirostridae

(Plate 53)

The only species in Venezuela is an elegant, long-legged resident of coastal and inland wetlands, with pied plumage. Walks in shallow water and occasionally wades belly deep.

#### SKUAS AND JAEGERS Stercorariidae

(Plate 54)

Skuas and jaegers are large, heavy, powerful seabirds with a heavy hooked bill and wedgeshaped tail. They are known for their habit of stealing food from other species.

#### **GULLS AND TERNS Laridae**

(Plates 54-59)

A large, rather uniform family of waterbirds. Most are strictly or partially marine. About half the species are migratory. Gulls have a thick bill, and rounded wings and tail. Terns are slimmer, have a thinner pointed bill and many have a forked tail, while some species are common inland.

# SKIMMERS Rynchopidae

mmon iniand. (Plate 59)

The tern-like skimmer has a unique bill adapted for skimming food from water while flying.

#### PIGEONS AND DOVES Columbidae

(Plates 60-63)

A rather uniform family of plump, short-legged birds with small heads and weak bills. They are distributed over most habitats, with both arboreal and terrestrial or semi-terrestrial species. Most have fast direct flight with sustained powerful flapping. They are largely frugivorous or granivorous, and bob their heads continuously as they walk. In most species, the  $\mathbb Q$  is similar to the  $\mathbb O$  but duller. In general, the name pigeon is used for larger species and dove for smaller ones, but there are exceptions.



# MACAWS, PARROTS AND PARAKEETS Psittacidae

(Plates 64-72)

A rather homogeneous family of tiny to huge birds, collectively known as psittacids, which are widespread and occur in almost any habitat, although they are more diverse in lowland forests. Most have thick, hooked bills and several are brightly coloured with a prevalence of green in their plumages. Usually noisy and highly social. They eat mostly seeds, fruits and other plant matter. Strong fliers, many commute long distances between roosts and feeding areas. Many species are threatened due to the illegal pet trade.



(Plates 73–75)

Medium-sized, rather elongated birds with long tails. Most have the bill decurved and undertail spotted whitish. Both arboreal and terrestrial species occur. Most of the *Coccyzus* are either boreal or austral migrants. Several species possess unusual breeding behaviour, including brood parasitism (*Dromococcyx* and *Tapera*) and communal nesting (*Crotophaga*). Some species are quite vocal, being ventriloguial and much more easily heard than seen.



# **HOATZIN** Opisthocomidae

(Plate 74)

The Hoatzin is a primitive-looking bird of lowland riverine habitats. Flies awkwardly and feeds on leaves. Despite riverine habitat, they never visit the water, except young chicks, which have claws on the wings and are able to swim and dive to escape predators.

# BARN OWLS Tytonidae

(Plate 76)

A medium-sized, pale owl of open or semi-open areas, with a heart-shaped face and longish, feathered legs. One species in Venezuela.

# TYPICAL OWLS Strigidae

(Plates 76-79)

A rather uniform family of small to large nocturnal birds of prey. Their large eyes face forward and are set in facial discs, but unlike nightjars and potoos, produce little reflection in light. Short tail and rounded wings. Most are found alone. Due to their nocturnal habits, they can be difficult to see. Very few species are at least partially diurnal. Their plumages are cryptic, mostly brown and grey, and some are very difficult to tell apart based only on plumage. Learning their voices is thus important both for identification and to locate them.

#### OIL BIRD Steatornithidae

(Plate 80)

The Oilbird is the only nocturnal frugivorous bird in the world. It is found in colonies numbering from a few to several thousand birds, usually inside caves. Forages at night, mostly on palm nuts and fat-rich fruits. They use echolocation (similar to that of bats but at lower frequency) to find their way inside caves during the day and outside at night.

# POTOOS Nyctibiidae

(Plates 80)

Strictly nocturnal, solitary birds with a large head, broad bill with a hooked tip and large eyes that produce a bright reflection in light. At their daytime roosts, on a stump or branch, they perch upright with head pointing up. This, combined with their cryptic plumage, makes them easily missed. At night, they capture large insects by sallying out and returning to an open perch. Tend to use same perch both to roost and from which to hunt for weeks and even months, making them easy to find once a favoured perch is discovered. Their odd but distinctive nocturnal cries, usually on moonlit nights, consist either of mournful wails or gruff growls that have inspired legends of mystical significance.

#### NIGHTHAWKS AND NIGHTJARS Caprimulgidae

(Plates 81–84)

Small to medium-sized nocturnal birds with cryptic plumage (mostly grey and brown) that perch horizontally on the ground or on low branches. In several species the  $\mathcal{O}^{\mathsf{T}}$  shows more extensive white, especially on wings and tail, largely replaced by buff in  $\mathcal{Q}$ . All are vocal (especially nightjars) and usually much easier to hear than see. Learning their voices is therefore important. A few species are austral or boreal migrants. Two groups: nighthawks are crepuscular, have long pointed wings and a rather short square or forked tail, whereas nightjars are strictly nocturnal and have rounder wings that do not reach tip of long tail when perched. The male of one species of nightjar has some long ornate rectrices.

# SWIFTS Apodidae

(Plates 85-87)

A very uniform family of small to medium-sized, slim, streamlined, fast-flying birds. Extreme adaptation to aerial life, spending most of their life on the wing. Powerful, long, pointed wings and usually short tails. Superficially resemble swallows, but fly straighter and faster, with faster wingbeats, and never perch on wires or poles.







Their feet are weak, permitting them to cling to surfaces, but not to perch or walk. Several species nest behind waterfalls. Plumages black, white and shades of grey and brown. This combined with their fast flight, usually high, makes field identification extremely difficult, so careful observation of behaviour, habitat, voice and subtle differences in shape and colours is necessary for field identification.

# HERMITS AND HUMMINGBIRDS Trochilidae (Plates 88–104)

Hummingbirds occur in a wide variety of habitats, from desert scrub to páramo. Several species undertake seasonal, local or altitudinal migrations, often related to food availability, and their local abundance varies accordingly. Feathers are iridescent, their colours varying dramatically depending on the amount and angle of light. Most species are dimorphic, the  $\mathcal Q$  usually being much duller than  $\mathcal O$ , which often show ornamental feathers on head or tail, and impressive colours that glitter in appropriate light. Bill size and shape also vary, as an adaptation for feeding on nectar, although insects represent an important part of their diet. Many species are 'trap-liners' and several species of hermits gather in leks. Pay attention to bill and tail size, shape and colour, as well as overall colours, habitat and elevation. Hybridisation between some species has been documented.

# MOTMOTS Momotidae (Plate 105)

A small group of colourful, medium-sized forest birds with long heavy bills. Both species occurring in Venezuela have long tails ending in racquets. They eat fruits, large insects and other small prey, and perch quietly for long periods inside forest where they are usually difficult to spot, even when singing, given that their deep songs have a ventriloquial quality. Habitually perch upright, swinging the tail from side to side like a pendulum.

# QUETZALS AND TROGONS Trogonidae (Plates 105–107)

A very uniform group of medium-sized forest birds. Males show colourful plumages, often with a metallic gloss. Note their short and thick bill, rounded wings and long, square-tipped tails. They are strictly arboreal and mainly frugivorous, although can also eat insects. Members of this family cover short distances with undulating flight (alternating flaps with short glides on closed wings) inside forest or across small clearings, and perch upright quietly for long periods. Despite their bright colours, they can be hard to find (unless singing), but once spotted, they can usually be studied at length. Immature resembles adult Q. Quetzals are larger with bright green upperparts and elongated wing-coverts. Trogons are smaller with barred tails, their patterns often being useful in identification. Quetzals sing mostly during the breeding season whereas trogons may sing year-round.

# JACAMARS Galbulidae (Plates 107–108)

A very uniform group of small to medium-sized birds with a slender body, usually long tail and very long pointed bill. Most have glittering plumage with metallic colours and occur in forested or partially forested areas in lowlands. They spend long periods perched quietly, upright on a branch, and occasionally sallying to catch large flying insects and other invertebrates before returning to the same perch. Some species are reported to join mixed-species feeding flocks for short periods.

# KINGFISHERS Cerylidae (Plate 109)

Another uniform group varying from tiny to medium-sized birds with a large head and disproportionately large bill for their size. Feed on fish and live and nest close to water. All are resident except Belted Kingfisher, which is a boreal migrant. The larger resident species are especially common along lowland forested rivers and streams, where they are usually seen perched or flying low.







#### PUFFBIRDS AND NUNBIRDS Bucconidae

(Plates 110-112)

Chunky, fat-looking birds with a large head, thick neck, short tail and usually large hook-tipped bill. Their loose plumage makes them look 'puffy'. Most live, at least partially, in forested lowlands. They use the sit-and-wait foraging method, spending long periods waiting for prey (large insects or small vertebrates) to pass by. Their forest haunts and lethargic behaviour make them easily missed, but once located, they usually permit close approach and can be observed at length. The puffbirds are locally known as 'bobo' or 'bobito' (dummy bird). All except a couple of species sing occasionally, usually only at dawn or before then, making them even more difficult to locate.



#### **NEW WORLD BARBETS Capitonidae**

(Plate 112)

Barbets are chunky, short-tailed and short-necked, with a heavy bill. Their plumages are brightly coloured and show noticeable sexual differences. Songs are rather subdued hoots or purrs. They feed largely on small prey and occasionally on fruits.



# TOUCANS AND ARACARIS Ramphastidae

(Plates 113-115)

Colourful arboreal residents of forested habitats. Toucans are large with a long tail and a disproportionately long and heavy-looking (albeit actually light) bill, which is their trademark. Most show small sexual differences, although  $\mathcal{PP}$  have smaller bills than  $\mathcal{PP}$  and juveniles have even smaller bills. Omnivorous but feed largely on fruits. Usually fly through forest in single file. Toucans are quite vocal (usually classified as 'yelpers' or 'croakers') and songs can be heard over long distances, making them among the most representative sounds of Neotropical forests.



#### PICULETS AND WOODPECKERS Picidae

(Plates 116-121)

A rather uniform group of tiny to mid-sized sedentary arboreal birds of wooded areas. Cling to and creep over trunks and branches, pecking wood to find food, and can also drum or hammer rapidly for territorial purposes. They feed on larvae or adult insects, including ants, but also some vegetable matter. Most species are sexually dimorphic with the  $\ensuremath{\mathbb{Q}}$  showing usually less or no read on head. Vocalisations and drumming patterns may aid field identification. Piculets are tiny with very short stiff tails. Woodpeckers vary from small to large, with a moderate-length tail used for support when creeping up trees. Their flight is undulating, alternating short flaps with glides on closed wings. When they alight on a tree, they usually work their way up the trunk.



#### **OVENBIRDS** Furnariidae

(Plates 122-134)

Two groups are involved, the ovenbirds and the woodcreepers (the latter were formerly separated as Dendrocolaptidae). Ovenbirds occur in a variety of habitats from primary forest to urban areas, and their nests involve bulky structures from thorny tunnels to a large conglomerate of chambers. One individual makes mud (oven-like) nests. Woodcreepers are arboreal, climbing vertical and more horizontal branches, and nest in tree cavities. Although members of the family can be identified using plumage and habitat, the different species are often best separated by voice. Dominant colours are brown, white, rusty and grey.



# ANTBIRDS Thamnophilidae

(Plates 135-145)

The antbirds were previously united with the antthrushes and antpittas within an expanded Formicariidae. Today, all three groups are treated as separate families. The antbirds are dimorphic and can be subdivided into four groups. The robust antshrikes have heavy and hooked bills, and prefer dark and shady areas. They either hop along branches or make short straight sallies. A larger group, the antbirds, comprise a heterogeneous group of generalists, microhabitat specialists or army ant specialists. Some have loud vocalisations while

others deliver high-frequency notes when singing. The antwrens are the smallest. Some are restricted to the forest canopy while others occur close to the ground. Two additional genera do not fit with any of the previous groups: *Clytoctantes* (distinctive bill) and the plump *Dysithamnus* (antvireos). Knowledge of voice and understanding of species niches are important for field identification. The members of this family are largely insectivorous.



#### ANTTHRUSHES Formicariidae

(Plate 146)

Originally considered together with Thamnophilidae, this family comprises two genera: Formicarius and Chamaeza. The sexes have similar plumage. Members of the Formicariidae walk on the forest floor, but can fly to a low branch when singing. Some nest and roost on branches. Formicarius are mainly terrestrial, normally perching on branches up to 2m (6.5 feet) above ground, although they can even sing from the canopy at the height of the breeding season. Chamaeza comprises a group of terrestrial antthrushes, which are usually shy and difficult to see.

# ANTPITTAS Grallaridae

(Plates 147-149)

This family was previously subsumed in Formicariidae with the Thamnophilidae. The larger antpittas (*Grallaria, Hylopezus, Myrmothera*) comprise some of the most difficult-to-see species, despite that some sing for long periods of time and, although highly terrestrial, some reach up to 20m (65 feet) above ground, or even the canopy, especially when roosting or nesting. The smaller antpittas (*Grallaricula*) occur mostly in forest understorey and favour dark areas of dense vegetation. Normally, they perch no higher than eye level, and rarely reach the subcanopy. *Hylopezus* are small terrestrial antpittas, sometimes perching up to 4m above ground when singing. *Myrmothera* are slightly larger, occur almost exclusively on the ground and have the incredible capacity to remain hidden and motionless. The sexes

# TAPACULOS Rhinocryptidae

have similar plumage.

(Plate 150)



With an inappropriate common name, *Scytalopus* tapaculos comprise a group of skulking birds that tend to remain on the ground within dense vegetation in premontane and montane wet forest. Many tapaculos inhabit *Chusquea* bamboo while *Acroptemix* occurs in second growth. Reliable field identification of *Scytalopus* requires knowledge of their vocalisations. While in other countries (Ecuador, Colombia, Perú) cryptic species have been described based on distinct vocal and other physiological differences, studies of *Scytalopus* in Venezuela are still in their infancy. We recognise six species of *Scytalopus* but at least one undescribed species is known.



#### TYRANT FLYCATCHERS Tyrannidae

(Plates 151-177)

Tyrannidae is the largest bird family in Venezuela and represents one of the best examples of avian diversity. Some are frugivorous, others insectivorous and a few are omnivorous. At least one genus feeds partially on ants (*Sublegatus*). They occur in almost every habitat, from páramo to desert scrub. For identification, focus on size, foraging strata, voice, habitat, posture and wingbars. Behavioural aspects such as foraging strategy (mixed-species flocks, army ants, solitary) and movements (cocking the tail, lifting or drooping the wings) are also useful for field identification.



#### COTINGAS Cotingidae

(Plates 178–182)

This remarkable family includes species with the strangest vocalisations, the most bizarre behaviour and some astonishing plumages. Most are frugivorous although some have been reported taking small vertebrates. In many species, the male spends much of the day displaying at a lek. Some species possess elaborate courtship where males display within sight of each other. In other species the males maintain only aural contact. Some species possess bright electric plumage.

# SHARPBILL Oxyruncidae

(Plate 182)

Of controversial and still unresolved taxonomy. Almost restricted to the canopy (rarely in subcanopy or lower forest strata), the single species tends to follow mixed-species flocks. It has a unique pointed bill and sings infrequently.



#### MANAKINS Pipridae

(Plates 183-185)

An exclusively Neotropical family of small, sometimes slightly chunky-bodied species. Frequently divided in two groups. One is represented by males with striking plumage (sexually dimorphic), these being quintessential tropical birds. The second is represented by species with drab and uniform plumage. Many of the colourful species display at leks and some perform amazing acrobatics accompanied by mechanical sounds produced by the tertial feathers. During the breeding season males can sing from the same perch for long periods. The taxonomy of this family is controversial and still unresolved.



# TITYRAS, SCHIFFORNISES, MOURNERS AND BECARDS Tityridae (Plates 186–189)

One of the most recently described families in the Neotropics, members of the Tityridae were previously placed within the Tyrannidae, Cotingidae and Pipridae. Although now considered in their own family, its taxonomy continues to puzzle ornithologists. Believed to involve two subfamilies, the Tityrinae (*lodopleura*, *Tityra*, *Xenopsaris* and *Pachyramphus*) and Laniisominae (*Laniisoma*, *Laniocera* and *Schiffomis*).



#### VIREOS AND GREENLETS Vireonidae

(Plate 190-192)

With the exception of two species, drab plumage is the norm in this family. Insectivorous (some feed on berries for part of the year) and found from the subcanopy to canopy. Some could be confused with warblers (Parulidae) but always have heavier bills. Voice rather repetitive and monotonous. Includes both migrants and residents.



JAYS Corvidae (Plate 193)

Conspicuous, noisy and gregarious, jays are usually first noticed by their unique vocalisations. Most have at least some blue in the plumage, except one species that is yellow, green and black. All are apparently omnivorous. Members of this family have been suggested to include some of the most intelligent of all animals.



#### SWALLOWS AND MARTINS Hirundinidae

(Plates 194-196)

Members of this cosmopolitan family are well known for feeding in flight. Martins usually fly over open fields, perching in large groups. One species frequently occurs near water. Swallows are smaller and can be confused with the more aerodynamic swifts (Apodidae), but have distinctive buoyant flight patterns in contrast to the more direct and faster-flying swifts. Tend to roost in groups. Some swallows occur in forested areas but most are found in open habitats.



#### DONACOBIUS Donacobiidae

(Plates 197)

Donacobius (the sole member of the Donacobiidae) was formerly placed with the mockingbirds (Mimidae) or with the wrens (Troglodytidae), but is nowadays placed in its own family. It performs elaborate displays usually perched from waterside vegetation (*Thalia geniculata* and *Eichhornia* sp.).



# WRENS Troglodytidae

(Plates 197-200)

Best known for their incredible vocalisations, most forest species tend to remain in the understorey, but a few are canopy-dwellers. The larger species found in more open



habitats tend to perform elaborate duets accompanied by unique movements. One species is restricted to premontane and montane grassland and shrubby vegetation. This family includes one of the most widespread species throughout the Americas.

DIPPERS Cinclidae (Plate 200)

Dippers favour rivers with rapids and boulders in the Andes. During the rainy season, when river flow increases dramatically, they visit forest streams. Their long feet permit them to jump and move rapidly over wet substrates. The only species found in Venezuela does not swim like other members of the family.

#### WAXWINGS Bombycillidae

(Plate 200)

Characterised by their soft and silky appearance, the only *Bombycilla* that occurs in South America has only been reported a few times in Venezuela. Occurs in small loose groups that silently forage on berries.

# **GNATCATCHERS** Polioptilidae

(Plate 201)

Small and delicate, the wren-like gnatcatchers are insectivorous and usually found in savannas, forest borders and second growth. Thin-billed and long-tailed, which is usually held cocked when singing. In contrast, gnatwrens usually occur close to the ground. They were previously considered part of Sylviidae, an almost exclusively Old World family.

#### PIPITS Motacillidae

(Plate 201)

The drab-coloured pipits have long legs and inhabit grassland where they walk or run on the ground. The two species in Venezuela are allopatric. They perform aerial displays.

#### THRUSHES Turdidae

(Plate 202-205)

Plump birds found worldwide. Many members are known for their elaborate songs. Some usually occur near the ground. Males tend to be conspicuous in the breeding season. One species is considered the foremost mimic in the Neotropics. Some species are migratory.

#### MOCKINGBIRDS Mimidae

(Plate 205)

The only species currently found in Venezuela is large, ubiquitous and conspicuous. Its long tail, long legs and habit of perching in the open make field identification easy. The widespread Tropical Mockingbird is not really a mimic. Pearly-eyed Thrasher, which is nowadays extinct in the country, formerly had a very restricted range in Venezuela.

# TANAGERS, SEEDEATERS AND ALLIES Thraupidae

(Plates 206-219, 223-228)

With their bright colours, this family represents one of the icons of Neotropical ornithology. Many species exhibit multicoloured plumage, but others are drab. The family comprises solitary and flocking species, and most possess a diverse diet from fruits to arthropods. Seedeaters are nowadays considered part of this family. Voice is usually non-melodious. Among this family, *Tangara* tanagers are quintessential Neotropical birds, given their unique and astonishing plumages.



# CHLOROSPINGUSES, BRUSHFINCHES AND NEW WORLD SPARROWS Emberizidae (Plates 219–222, 228)

A heterogeneous and somewhat controversial family (in terms of composition) that includes ground-dwellers (brushfinches) and midstorey species (some sparrows). More changes to the membership of this family can be expected.

#### CARDINAL GROSBEAKS AND ALLIES Cardinalidae

(Plates 229-231, 237)

Cardinalidae is a family of indeterminate taxonomic position and has been subject to considerable changes of composition. Two groups are involved: the thicker-billed species (*Pheucticus, Cyanocompsa, Periporphyrus, Caryothraustes* and *Amaurospiza*) and the slimmer-billed genera (*Piranga, Habia, Cardinalis, Passerina* and *Spiza*). Most occur in forest except the Dickcissel. The family includes both residents and boreal migrants. The relationship of this family to Thraupidae remains controversial, while *Paroaria* cardinals have recently been removed from this family to the Thraupidae.



#### NEW WORLD WARRIERS Parulidae

(Plates 232-239)

Mostly arboreal birds with a thin bill and restricted to the Americas. Two groups, boreal migrants and residents. More than half of the first group acquire exquisite breeding plumages when in North America, but are drabber in winter. Many arboreal species winter in shade-coffee plantations, forest edge and in plantations of exotic trees. Other species are usually found on the ground or near it. Most resident warblers have less colourful plumage and exhibit marked territorial behaviour. They include the redstarts (*Myioborus*), a yellowthroat (*Geothlypis*) and the *Basileuterus* and *Myiothlypis* warblers.



#### NEW WORLD BLACKBIRDS Icteridae

(Plates 240-244)

A heterogeneous family restricted to the Americas of small to medium-sized species, mostly with black and yellow in their plumage, although orange or red is also present in some. Various species build elongated or shorter basket-shaped nests. Bill and legs strong, with very elaborate songs to dry or harsh phrases. Distinctive pendulum display in oropendolas.



# SISKINS AND EUPHONIAS Fringillidae

(Plates 245–247)

Mainly a North American, Eurasian and African family, with few representatives in the Neotropics. The species in Venezuela are resident. All have conical bills. Includes dimorphic euphonias and chlorophonias, and active and gregarious siskins and goldfinches. The first two occur mainly in forests or their edges. Habitats of siskins and goldfinches vary according to species and some shift seasonally. Various species commonly known as finches and seedeaters (i.e. Plumbeous Sierra-Finch, Slaty Finch, Saffron Finch, Sicalis yellow-finches, Emberizoides grass-finches, Sporophila seedeaters, Pileated Finch) are currently placed in Thraupidae and brushfinches are placed in Emberizidae.



# PLATE 1: LARGE AND MEDIUM-SIZED TINAMOUS

Tinamous are furtive, hard to see and best identified by voice.



# Highland Tinamou Nothocercus bonapartei bonapartei

38-41cm (15-16")

1,000–2,500m. SFC (Dec-Jan)–UC. *Sooty-black crown and nape, pale fulvous throat.* Mostly alone on floor in damper areas of premontane and montane wet forest. **SS** *Larger* Grey Tinamou is overall grey. In SW, see Tawny-breasted Tinamou. **Voice** A loud honking disyllabic *wa-ro* or *kue-ro*, repeated 3–7 times at rate of c.2 in 3 sec, or repeated for up to c.1 min. **C**.



#### Tawny-breasted Tinamou Nothocercus iulius

38-41cm (15-16")

2,400–2,800m. LU–RA. *Upperparts densely barred black. Chestnut crown and sides of head contrast with white throat.* Alone on floor of montane wet and dwarf forest. **SS** In lower edge of limited range, overlaps with Highland Tinamou, which has sooty crown, fulvous throat and no obvious barring. **Voice** A long series of up to 35 high-pitched, short trills at c.2–3 per 2 sec, with 4–6 of those faster and lower pitched, just before last few of series at initial speed and pitch. **C**.



#### White-throated Tinamou *Tinamus guttatus*

34cm (13.5")

0–200m. LFC–UC. Sooty-black crown and white throat. Back, wings and tail heavily spotted buff to whitish. Dull greenish legs. Alone on floor of undisturbed tropical humid and wet forest. Also in sandy soil forest. SS Larger Great Tinamou has rufous-brown crown and lacks buff spotting. Smaller Undulated Tinamou looks plain above, has coarsely barred lower underparts, yellow-greenish legs and prefers boggy terrain. Voice A loud, slow, sad two-toned whistle uuuuu, uuuUUU. Each tone c.1 sec long, with a pause of 1–1.5 sec in between. The first note uniform, the second slightly upwards inflected. C, B.



# Great Tinamou Tinamus major

46cm (18")

Ssp. *major* (Delta, S: E Bol), *zuliensis* (N, S: Amz–W Bol). 0–200m (N), 0–1,500m (S). FC. *Large and brownish with small-headed appearance*. Alone on floor of tropical and premontane humid and wet forest. Favours undisturbed areas. Shy, may freeze in undergrowth if feels threatened. **SS** Largest tinamou in S and lowlands in general. In N foothills, Grey Tinamou greyer and usually occurs higher. See White-throated Tinamou. **Voice** A loud two-parted whistle, each part c.1 sec. First tone rises and second falls in pitch, ending in a tremolo. Repeated up to six times. Also single short (1–1.5 sec) tremulous whistles. **C.B.G.** 



#### Undulated Tinamou *Crypturellus undulatus manapiare*

28-32cm (11-12.5")

0–200m. LFC–LU. Flanks, thighs and vent coarsely barred black. Legs yellow-green. Usually in boggy areas in riverine and swamp forest. Also riverbanks and river islands, second growth and scrub. Shy but less so than allies and easier to see in swampy areas or as it flies across rivers or streams. SS Heavily barred lower underparts distinctive, also note habitat, shared only with Cinereous Tinamou, which is darker and more uniform. Voice A sad 3–4-note whistle repeated often during day, especially in breeding season. First note slightly lower pitched and last one with an ascending inflection, hu hu hu-hu? C.B.G.



#### Grey Tinamou Tinamus tao

46cm (18")

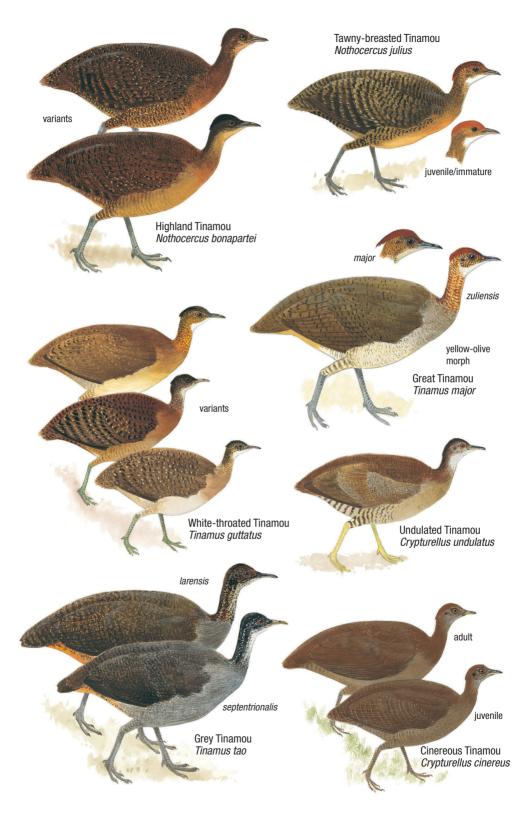
Ssp. larensis (W, Andes, SW, NC), septentrionalis (NE). 50–1,900m. UC. Large and greyish. Crown sooty-brown. Neck brown with fine white speckles forming stripe down neck. Q: upperparts more olive and barred; underparts greyer. Alone on floor of tropical to montane humid and wet forest in foothills and on slopes. SS See Highland and Great Tinamous. Voice A single short (<1 sec) tremulous whistle, repeated every c.10 sec. C,B.



#### Cinereous Tinamou Crypturellus cinereus

30.5cm (12")

0–200m. LFC–UC. *Uniform smoky-brown*. Juvenile has barred upperparts. Usually alone, *typically close to water in seasonally flooded riverine and swamp forest*. Also second growth, forest borders and farmland. **SS** Darker and more uniform than allies, also note habitat, shared only with Undulated Tinamou. **Voice** A single pure whistle, like a rusty gate or swing, <1 sec long, repeated usually for long periods at 3–5-sec intervals. May counter-sing with other individuals at different pitches. Song of Sunbittern (Pl. 45) similar but usually slightly longer with slight change of pitch at end. **C,B,G**.



# PLATE 2: MEDIUM-SIZED AND SMALL TINAMOUS

Tinamous are secretive, hard to see and best identified by voice.



# Red-legged Tinamou Crypturellus erythropus

28-30.5cm (11-12")

Ssp. cursitans (SW), erythropus (NE, S) idoneus (W), margaritae (Marg), spencei (Andes, NW, NC, Llanos). 0–1,300m (N), 0–700m (S). LFC. Pinkish-red legs. Grey chest contrasts with buffy to ochre breast and whitish throat  $\mathfrak{P}$ : more barred above and usually more reddish and richly coloured. Alone on floor of tropical dry and riverine forest. Also in tropical moist forest, second growth, scrubby vegetation and forest borders. Less shy and easier to see than allies. SS See Little Tinamou. Voice A sad three-part whistle, first note slightly lower and last with a querulous inflection, hu hu-huu? or soi so-la?, similar to song of allopatric Undulated Tinamou, which is 3–4-parted. C,B,G.



# Brown Tinamou Crypturellus obsoletus

25-30.5cm (10-12")

Ssp. cerviniventris (NW, NC), knoxi (Andes). 1,000–2,200m. SFC–UC. Mostly reddish-brown with contrasting grey neck and head, and blackish crown. Variable barring on lower underparts. Q: more rufescent. Alone on floor of premontane and montane wet forest. Also in scrubby vegetation adjacent to forest. SS Smaller-Little Tinamou has pale throat, less contrasting head and no barring below. Voice Remarkable song a series of up to 40 short tremulous notes in up to 30 sec, which starts slowly (3 sec between notes) and gradually accelerates and rises, becoming very fast and almost hysterical at end. C.



# Tepui Tinamou Crypturellus ptaritepui

28-30.5cm (11-12")

PANTEPUI ENDEMIC: 1,350–1,800m. SFC (May–Jul)–UC. *Uniform dark brown with greyer face, neck and underparts. Pale greyish eyes.* Alone on floor of *premontane and montane sandy soil forest,* mainly on slopes of tepuis and Sierra de Lema. **SS** In restricted range, see smaller Little Tinamou, which is paler, more rufescent and has darker eyes. **Voice** A long (c.3 sec) high, slightly descending pure whistle, fading at end, similar to Wing-banded Wren (Pl. 199). **G**.



#### Grev-legged Tinamou Crypturellus duidae

28-30.5cm (11-12")

0–200m. UC–RA. *Head, neck and breast bright rufous*.  $\mathcal{Q}$ : Upperparts more distinctly barred. In riverine and tropical humid and wet forest. Also sandy soil forest. **SS** Variegated Tinamou has mostly black head and is more coarsely and boldly barred. See Barred Tinamou in S Amz. **Voice** A slow, sad two-part whistle, c.2 sec long. Two parts somewhat slurred, with second part slightly higher and ending with guerulous inflection. **C,B**.



#### Variegated Tinamou Crypturellus variegatus

28-30.5cm (11-12")

0–1,300m. FC. Similar to Grey-legged Tinamou, but *more boldly marked, with black crown and nape and dark grey sides of head. Boldly barred upperparts, flanks and lower underparts.* On floor of tropical and premontane humid and wet forest. **SS** See Grey-legged and Barred Tinamous. **Voice** A common and memorable song: series of 6–7 high tremulous whistles, first one long (c.1 sec) then a 2–3-sec pause and the rest quickly accelerating and slightly rising. **C,B,G**.



#### Barred Tinamou Crypturellus casiguiare

25cm (10") 0-300m

SFC (Jan, Aug)—UC. Contrasting bright rufous head, white throat, slaty chest and white belly. Upperparts coarsely barred black and rufous. Confined to sandy soil forest. **SS** Larger Greylegged Tinamou lacks boldly barred upperparts and has rufous foreparts. Larger Variegated Tinamou has mostly black head. **Voice** A long series of up to 32 pure whistles in c.40 sec that first rise and then fall in pitch and decelerate. **C**.



#### Little Tinamou Crypturellus soui

22-24cm (8.5-9.5")

Ssp. andrei (Andes, NW, NC, Llanos, NE), mustelinus (W, SW, Andes: Mer), soui (Delta, S). 0–1,700m. FC. Variable, but note small size and rather uniform unbarred plumage with brown or rufescent tones. Eyes brown to yellow. Q: brighter and richer rufous. Tropical dry to premontane wet forest, borders, second growth near forested areas and scrubby vegetation. SS Smallest and most widespread tinamou. Red-legged Tinamou has reddish legs and is in usually drier habitats. See Brown and Tepui Tinamous; also wood-quails and quail-doves (Pl. 7, 63). Voice Its variable voice is often an imitation of Great Tinamou, but more complex, higher pitched and less resonant. Also up to ten short tremulous whistles, each rising in pitch and slightly accelerating, and a single tremulous whistle c.1.5 sec long, rising then falling, and repeated occasionally. C,B,G,TT.