

Important Bird Areas of the Neotropics: **Panama**



Male Yellow-eared Toucanet *Selenidera spectabilis* (Karl W. Kaufman)

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In the first of a series on the Important Bird Areas of the Neotropics, ornithologists from the Panama Audubon Society introduce us to the Important Bird Area concept, then explain how they were among the first in the Neotropics to use it to identify Panama's most important sites for birds and bird conservation.

The Important Bird Area Programme: the concept

BirdLife International's Important Bird Area (IBA) Programme aims to promote the long-term survival of the birds of the world by establishing a global network of sites which, taken together, will preserve the habitat needed. An IBA is defined as a priority site for the conservation of globally threatened, range restricted and/or congregatory birds. IBAs are chosen using standardised, clearly-defined and scientifically-based criteria, and are intended to be practical tools for developing conservation strategies. Because many endemic plants and animals may also be found in IBAs, their protection will also help promote the conservation of biodiversity on a global level.

IBAs are often located within Endemic Bird Areas (EBAs), which are global centres of bird endemism: areas that encompass the overlapping breeding ranges of two or more restricted-range bird species (birds with total world ranges of less than 50,000 km²). BirdLife has identified 218 EBAs worldwide, most of them located in the tropics and subtropics⁵.

The Important Bird Area Programme was initiated in Europe in the early 1980s; 1991 saw the launching of the Middle Eastern IBA Programme, and the African Programme was

started in 1993. BirdLife initiated the Americas Programme in 1995. To date, 21 countries in the Neotropical realm are implementing IBA programmes, on a national or regional level, and these have, to date, identified more than 2,000 sites.

The Republic of Panama

The Republic of Panama is a small country situated on the southern end of the Central American Isthmus. Its surface area is approximately 76,000 km²—about the size of the Czech Republic or the U.S. state of South Carolina. Its small population (about three million inhabitants) is mostly concentrated around the major urban centres, so 38% of the country maintains some type of forest cover⁶. These range from the small patches of deciduous dry forests of the Pacific Slope through the virgin, greener and rainier Caribbean, to the cooler, mistier and lush cloud forests of the foothills and highlands.

Panama, as a meeting point for the faunas of North and South America, has an extraordinary wealth of birds for a country of its size, with 972 species recorded². Panama contains portions of five EBAs (Central American Caribbean Slope, Costa Rica and Panama Highlands, South Central American Pacific Slope, Darién Lowlands, and Darién Highlands); these hold a total of 103

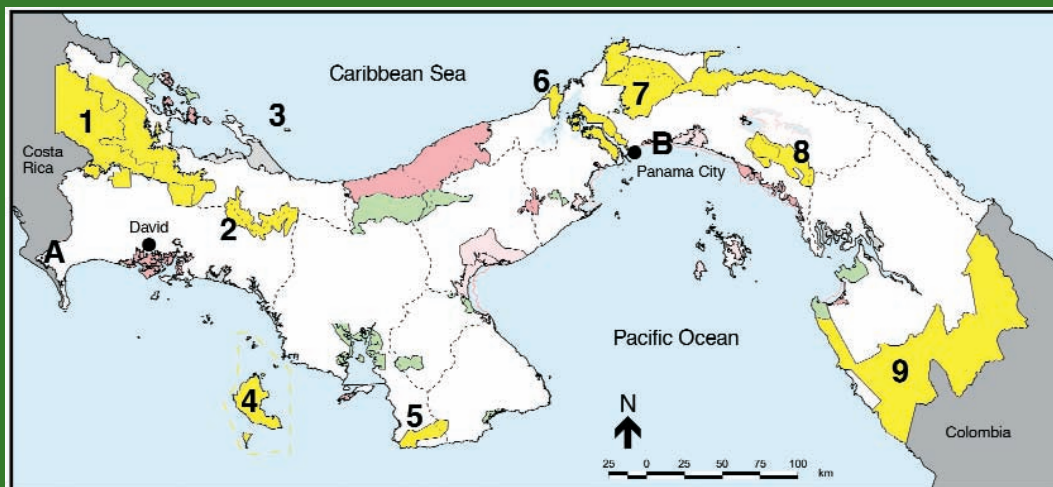


Figure 1. Panama's Important Bird Areas. Areas mentioned in the text are highlighted in yellow. For other areas, green = Globally important, protected; pink = Globally important, unprotected; light pink = Nationally important, unprotected; grey = Potential IBA. Sites are referred to in the text.

restricted-range bird species, the ninth-highest total of any country in the world. A total of 12 restricted-range species occur in Panama alone, including the Escudo Hummingbird *Amazilia handleyi*, which has one of the smallest ranges of any species.

Panama has 63 protected areas of various denominations including 12 National Parks and nine Forest Reserves; together, these cover almost a third of the national territory³. Still, deforestation rates are depressingly high, and over 44,000 ha of forest are lost each year⁴.

The Panama Important Bird Area Programme

The Panama Audubon Society (PAS), BirdLife Partner in Panama, was established in 1968 with the goals of promoting the appreciation and preservation of Panama's birds and their habitats. By the early 1990s, PAS had evolved from a small club for birdwatchers into a budding conservationist association, and was ready to take on bigger, better projects. In late 1995, PAS secured financial support from Fundación Natura, a Panamanian conservation funding agency, to initiate an IBA programme for Panama, thus becoming one of the first countries in the Neotropics to do so. The objective of the project was to identify the most significant areas for bird conservation in the country, and, in particular, to determine the unprotected areas that were of the highest priority for protection or management.

The Panama Important Bird Area Programme kicked off with a national workshop, held in Panama City in February 1996, to present and discuss BirdLife's international IBA programme, identify available sources of information, and discuss criteria for IBAs at the national level. Thirty-one representatives from 11 national and

international conservation and scientific organizations attended, and nominated 83 sites as potential IBAs.

The early stages of the programme also included the establishment of a computer database on the distribution of birds in Panama, which is still in use today. The database incorporates records from scientific publications historical and present, PAS fieldtrips, Christmas bird counts and other reports submitted to the PAS records committee, as well as surveys carried out by PAS as part of the IBA programme. These surveys, 23 in total, included expeditions to several areas that had not previously been visited by ornithologists, such as Cerro Chucantí in the Serranía de Majé and the Serranía de Jungurudó, both in Darién Province.

This work documented additional sites for several endemic species of the Darién Highlands. Surveys in western Chiriquí obtained the first records of the globally Endangered Yellow-billed Cotinga *Carpodectes antoniae* in Panama in 15 years, discovering the only known significant population in the mangroves near David. Surveys of the remnant forest fragments in the western Pacific lowlands documented the remaining Panama distributions of such nationally threatened endemics as Baird's Trogon *Trogon bairdii* and Golden-naped Woodpecker *Melanerpes chrysauchen*. Another component of the Panama IBA programme was a series of six training courses in bird identification for park rangers and other natural resource professionals, held in 1997 at National Parks and other protected areas throughout the country. The 71 participants then contributed bird lists and reports to the ever-growing database.

The second national IBA workshop was held in Panama City in April 1998, with 53 representatives from 20 organisations. Participants reviewed the results of the programme and provided additional information on 91 proposed IBAs. That same year PAS published a report listing the preliminary results of the programme and, in 2003, published the final *Directory of Important Bird Areas in Panama*¹, with the financial support of Vogelbescherming, BirdLife Partner in the Netherlands.

The directory identifies 88 sites as IBAs, with five additional sites included as potential IBAs. Each IBA has its own detailed account that includes a description of site geographical data (surface, elevation, etc.), information on threatened or endemic birds and other fauna present, conservation status and threats. Also

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included is a list of 216 bird species of national concern (those that are globally and/or nationally threatened, endemic, or restricted to a biome), background information on the IBA programme and detailed explanations of the criteria used to evaluate the sites.

IBAs in Panama

Criteria for IBAs at the global level (as developed by BirdLife International) include the presence of: globally threatened species; restricted-range species; biome-restricted assemblages; and congregatory species in globally important concentrations. Criteria for IBAs at the national level for Panama (as established during national IBA workshops) include the presence of: nationally threatened species and subspecies; congregatory species in nationally important concentrations; and rare, threatened, or unique habitats with characteristic bird communities. Of Panama's 88 IBAs, 49 are of global importance, while 39 are of national importance only. Twenty-seven IBAs are formally protected at the national level in their entirety, while four others are protected in part. Of the globally important sites, 26 are protected at the national level, in whole or in part.

Panama's IBAs are distributed all over the country. Unsurprisingly enough, they tend to coincide with forested areas, so they are concentrated on the Caribbean Slope; IBAs on the more populated Pacific Slope tend to be on the coast or in remote areas. The biggest IBAs of Western Panama, all globally important, are contiguous: La Amistad International Park (which extends into Costa Rica), Palo Seco Protection Forest, Volcán Barú National Park, Fortuna Forest Reserve, and Santa Clara (the only one lacking protection) cover over 400,000 ha (see Fig. 1, site 1; hereafter, all numbered sites relate to Fig. 1). La Amistad International Park is one of the most important strongholds for the globally Vulnerable Bare-necked Umbrellabird *Cephalopterus glabricollis* and Three-wattled Bellbird *Procnias tricarunculatus*. The park contains nearly all of the endemics of the Costa Rica and Panama Highlands EBA, as well as many of those of the Central American Caribbean Slope EBA and, with 59 endemic species present, may have one of the highest totals of any IBA in the world.

Further east on the continental divide is the unprotected Cerro Santiago (site 2), which includes the core of the presumed range of two globally Vulnerable endemics with extremely

limited distributions—Glow-throated Hummingbird *Selasphorus ardens* and Yellow-green Finch *Pselliophorus luteoviridis*—and 20 other bird species of national concern. This region is also a centre of subspecific endemism: 12 subspecies are apparently restricted to it, five of which are known from the Cerro Santiago IBA.

About 20 km offshore on the Caribbean Sea is Escudo de Veraguas Island (site 3), whose 400 ha surface is mostly covered with forest. It is home to the endemic Escudo Hummingbird and a number of endemic mammals and amphibians. Also forested, for the most part, is the 50,000-hectare Coiba National Park (site 4), the largest island on the Pacific coast of Central America. Coiba Island holds Panama's only significant population of the nationally endangered Scarlet Macaw *Ara macao*, is the only site for the globally Near Threatened endemic Coiba Spinetail *Cranioleuca dissita* and is one of the very few sites for the globally Vulnerable Brown-backed Dove *Leptotila battyi*. Nineteen of its approximately 100 species of landbirds are represented by endemic subspecies, and genetic analyses could reveal some to be distinct at the species level. Also on the Pacific is Cerro Hoya National Park (site 5), on the southwestern tip of the Azuero Peninsula. This is the only site for the nationally threatened endemic Azuero Parakeet *Pyrrhura eisenmanni*, which has a global range estimated at only 700 km².

Central Panama has maintained a large percentage of its forest cover thanks to the fact that the Panama Canal runs on rainwater. This is the main reason why our country has some of the most accessible forests of the Americas, some within 15 minutes of Panama City. Four National Parks protect the watershed, and a number of smaller protected areas, together with off-limits canal operation lands, have kept urban development at bay. On the banks of the Panama Canal, the unprotected Panama Canal West Bank, and the protected Metropolitan Nature Park, Camino de Cruces, Soberanía and San Lorenzo National Parks, and Barro Colorado Nature Monument (site 6) form a corridor that runs from the Pacific to the Caribbean and protects valuable stopover sites for migratory raptors, as well as habitat for several nationally threatened species.

Further east are Chagres and Portobelo National Parks (site 7), which are contiguous with the Narganá Wildlands Area. These hold breeding populations of the globally Near Threatened Harpy Eagle *Harpia harpyja*, plus many nationally threatened species, as well as many endemics of the Darién Lowlands and Darién Highlands EBAs



Western Sandpipers *Calidris mauri* with a few Semipalmated Sandpipers *C. pusilla* (Karl W. Kaufmann); Western is the most abundant species of the estimated 1.3 million small sandpipers that use the Upper Bay of Panama during migration



Female Yellow-eared Toucanet *Selenidera spectabilis* (Karl W. Kaufmann); an uncommon bird found throughout the Caribbean Slope, but more common in the foothills of Chagres and Darién National Parks

The foothills of Chagres National Park, one hour east of Panama City, are home to a number of Darién Highland EBA endemics (Karl W. Kaufmann)



Harpy Eagle *Harpia harpyja* (Karl W. Kaufmann); the most powerful bird of prey in the world is also the national bird of the Republic of Panama





Clockwise from top left:

Cloud forests of Fortuna Forest Reserve (Karl W. Kaufmann)

Bare-shanked Screech-Owl *Megascops clarkii* (Karl W. Kaufmann); this small cloud forest owl, endemic to the Costa Rican and Panamanian Highlands and Darién Highlands EBAs, is readily found along the Continental Divide in Fortuna Forest Reserve, and at Cerro Santiago and Darién National Park

Volcano Junco *Junco vulcani* (Karl W. Kaufmann); this endemic to the Costa Rica and Panama Highlands EBA is fairly common in the páramos of the highest slopes of Volcán Barú National Park, and was recently discovered in La Amistad International Park

Female Speckled Antshrike *Xenornis setifrons* (William Adsett); this much sought-after endemic to the Darién Lowlands EBA is very local in Panama, but is regular, if still rather rare, in the humid lower foothills of the Narganá Wildlands Area

Pirre Bush-Tanager *Chlorospingus inornatus* (William Adsett); this Panama endemic is common in the humid and elfin forests of the highlands of eastern Darién National Park

such as the globally Vulnerable endemic Speckled (or Spiny-faced) Antshrike *Xenornis setifrons*.

Eighty km east of Panama City is Serranía de Majé (site 8), an isolated mountain range 15 km inland from the Pacific that holds a number of globally Near Threatened species—such as Great Curassow *Crax rubra* and Russet-crowned Quail-Dove *Geotrygon goldmani*—and many Darién endemics, notably Beautiful Treerunner *Margarornis bellulus* and Varied Solitaire *Myadestes coloratus*. The western part of the range is protected by Majé Hydrological Reserve, but most of it still lacks any kind of formal protection.

Further east is the country's largest IBA and one of the largest wilderness areas remaining in Central America: the 579,000 ha Darién National Park (site 9), which extends along most of the Colombian border and includes several isolated mountain ranges. Darién National Park is the country's third-richest IBA in terms of threatened and endemic species, after La Amistad and Palo Seco, and it contains all of the endemics of the Darién Highlands and Darién Lowlands EBAs that occur in Panama. These include Choco Tinamou *Crypturellus kerriae*, Tacarcuna Wood-Quail *Odontophorus dialeucos*, Pirre Warbler *Basileuterus ignotus* (all Vulnerable), and Green-naped Tanager *Tangara fucosa* (Near Threatened). The area is also high in endemism at the subspecific level, with 27 endemic subspecies present.

Protecting Panama's IBAs

Since the initial phase of the project (site identification), PAS has been working for the conservation of IBAs in Panama, especially those that contain threatened, endemic, and biome-restricted species. Two of these sites, both globally important and unprotected, were determined to be of particularly high priority for protection: El Chorogo-Palo Blanco (site A), important for the

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endemic species of the western lowlands of Panama, and the Upper Bay of Panama (site B), the most important area for migratory shorebirds in the country.

With an area of 1,000 ha, the El Chorogo-Palo Blanco IBA is the largest area of intact forest remaining in Pacific western Panama below 1,000 m altitude. The forest extends for approximately 10 km along the ridge forming the Panama-Costa Rica border, and contains the best remaining example of the original avifauna of the western Pacific lowlands. A total of 28 threatened, endemic or biome-restricted species are present, nine of which are not found in any protected area. El Chorogo is the best site in Panama for the globally Near Threatened and nationally Critically Endangered Baird's Trogon and for White-crested Coquette *Lophornis adorabilis*, Golden-naped Woodpecker, Tawny-winged Woodcreeper *Dendrocincla anabatina* and Spot-crowned Euphonia *Euphonia imitans*. The globally threatened Turquoise Cotinga *Cotinga ridgwayi* (Vulnerable) and Yellow-billed Cotinga have also been recorded, and the Great Curassow persists. Several nationally threatened subspecies are also found here.

El Chorogo-Palo Blanco was considered to be the highest priority IBA for conservation because of the high number of threatened and endemic birds found only there, and because it is essentially unprotected and critically endangered by ongoing deforestation. In 2001 PAS was able to purchase 83 ha at the site with financial support from the Amos W. Butler Audubon Society of Indianapolis through the American Bird Conservancy; to date, a total of 283 ha have been purchased by PAS and its associates and established as private reserves. Additionally, PAS and other environmental associations have nominated the El Chorogo-Palo Blanco IBA for Wildlife Reserve status, a proposal currently being evaluated by the National Authority for the Environment.

Just east of Panama City lies the Upper Bay of Panama IBA, an area that includes mangroves and extensive tidal mudflats (up to 3 km wide) extending for 70 km to the mouth of the La Maestra River. This is one of the most important staging and wintering sites for migratory shorebirds in the Americas, with an estimated 1.3 million small shorebirds passing through during each autumn migration. Western Sandpiper *Calidris mauri* is by far the most abundant species, and it is estimated that 31.5% of its global population passes through the area each year. Significant numbers of Semipalmated Sandpiper

C. pusilla, Semipalmated *Charadrius semipalmatus* and Black-bellied Plovers *Pluvialis squatarola*, Willet *Catoptrophorus semipalmatus*, Whimbrel *Numenius phaeopus*, and Short-billed Dowitcher *Limnodromus griseus* also use the area. The largest concentrations are found in the western part of the site, the end closest to Panama City and, thus, the part most threatened by urban development as the city spreads eastwards.

In 1998 PAS proposed the Upper Bay of Panama for protection as an important wetland under the Ramsar Convention. After securing funds for the additional studies required in support of this proposal, which included extensive work with the rural communities that surround the IBA, the site was included in the Ramsar List of Wetlands of International Importance in 2003. Then in 2005 the site became the first in Central America to join the Western Hemisphere Shorebird Reserve Network as a site of Hemispheric Importance. PAS continues to work closely with a cluster of communities, offering workshops and awareness programmes to its residents; we also offer educational programmes to a number of Panama City primary schools located near the mangroves.

The Panama Important Bird Area Programme was the first large-scale project that PAS embarked on, and one that has guided most of our efforts in these 12 years. Although we've accomplished a lot, there is clearly much work left to do. A number of globally important IBAs still lack any type of protection, and even National Parks are protected mainly on paper. So PAS continues its work on research, environmental education, community involvement, and raising public awareness on the importance of preserving our birds and our natural heritage for future generations of Panamanians.

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