ARTÍCULO / ARTICLE SECCIÓN / SECTION B

Rare birds in Ecuador: Second annual report of the Committee for Ecuadorian Records in Ornithology (CERO)

Aves exóticas en Ecuador: Segundo informe anual del Comité Ecuatoriano de Registros Ornitológicos (CERO)

Jonas Nilsson^{1,2,*}, Juan F. Freile^{1,3}, Roger Ahlman^{1,4}, Dušan M. Brinkhuizen^{1,5}, Paul J. Greenfield^{1,6}, Alejandro Solano-Ugalde^{1,7}

Comité Ecuatoriano de Registros Ornitológicos. E-mail: cero.ecuador@gmail.com
 Calle Leonardo da Vinci 239 y calle Rafael Sanzio, edif. Oberer, Cumbayá, Ecuador.
 Casilla Postal 17-12-122, Tumbaco, Ecuador.
 Calle Juan de Illánez, edif. Double Diamond, Quito, Ecuador.
 Casilla Postal 17-07-9345, Quito, Ecuador

⁶ Mindo Cloud Forest Foundation, urb. El Bosque, 2da etapa, calle Sexta #161, edif. El Parque, Quito, Ecuador.
⁷ Fundación Imaymana, calle Paltapamba 476, San Pedro del Valle, Nayón, Ecuador.
* Corresponding author/Autor principal, e-mail: jonas@wildsumaco.com

Editado por / Edited by: Diego F. Cisneros-Heredia PhD(c).

Recibido / Received: 15/10/2014. Aceptado / Accepted: 10/11/2014.

Publicado en línea / Published on Web: 19/12/2014. Impreso / Printed: 19/12/2014.

Abstract

We summarize bird species records submitted to the Committee for Ecuadorian Records in Ornithology (CERO) from July 2013 to March 2014. CERO compiles Ecuador's official country checklist and updates it annually. We present four new country records (Amazonetta brasiliensis, Porzana albicollis, Haematopus ater, Chroicocephalus philadelphia), one new country record that antedates earlier records (Vireo flavifrons), first voucher documentation for four species (Larus californicus, Tangara guttata, Conirostrum bicolor, Cardellina pusilla), and 26 significant range extensions or records of rare and poorly known species (Oceanodroma leucorhoa, Oceanodroma hornbyi, Sula leucogaster, Phalacrocorax bougainvillii, Butorides virescens, Ardea herodias, Egretta rufescens, Egretta caerulea, Eudocimus albus, Eudocimus ruber, Anas clypeata, Anas cyanoptera, Aythya affinis, Gallinago delicata, Limosa fedoa, Larus delawarensis, Hydroprogne caspia, Glaucidium griseiceps, Chloroceryle aenea, Platyrinchus saturatus, Myiarchus crinitus, Tyrannus niveigularis, Knipolegus poecilurus, Doliornis remseni, Setophaga castanea, Lonchura malacca). Three records are from the Galapagos Islands (Oceanodroma leucorhoa, Butorides virescens, Egretta caerulea), while all others were obtained in mainland Ecuador. Six species are eliminated from the Ecuadorian list (Geotrygon violacea, Topaza pella, Attila bolivianus, Pachyramphus rufus, Pachyramphus validus, Lonchura atricapilla). Two additional records were postponed for further expert revision (Thalassarche cauta) or for additional evidence (Neomorphus pucheranii) and three submitted records were rejected (Patagioenas oenops, Hydropsalis maculicaudus, Colaptes rupicola). This information updates our knowledge of the distribution and status of poorly known species in Ecuador, as well as the national bird checklist that currently reaches 1673 species (1608 confirmed with voucher documentation, 65 hypothetical).

Keywords. Distribution, status, birds, Ecuador.

Resumen

Presentamos los registros de aves enviados al Comité Ecuatoriano de Registros Ornitológicos (CERO) entre Julio 2013 y Marzo 2014. CERO recopila la lista oficial de aves del Ecuador y la actualiza anualmente. Presentamos cuatro registros nuevos para el país (Amazonetta brasiliensis, Porzana albicollis, Haematopus ater, Chroicocephalus philadelphia), un registro nuevo que antecede a otros previamente publicados (Vireo flavifrons), la primera documentación en el país de cuatro especies (Larus californicus, Tangara guttata, Conirostrum bicolor, Cardellina pusilla) y 26 extensiones significativas de distribución o registro de especies raras (Oceanodroma leucorhoa, Oceanodroma hornbyi, Sula leucogaster, Phalacrocorax bougainvillii, Butorides virescens, Ardea herodias, Egretta rufescens, Egretta caerulea, Eudocimus albus, Eudocimus ruber, Anas clypeata, Anas cyanoptera, Aythya affinis, Gallinago delicata, Limosa fedoa, Larus delawarensis, Hydroprogne caspia, Glaucidium griseiceps, Chloroceryle aenea, Platyrinchus saturatus, Myiarchus crinitus, Tyrannus niveigularis, Knipolegus poecilurus, Doliornis remseni, Setophaga castanea, Lonchura malacca). Tres registros provienen de las islas Galápagos (Oceanodroma leucorhoa, Butorides virescens, Egretta caerulea), mientras que todos los demás provienen del Ecuador continental. Se eliminan seis especies del listado nacional (Geotrygon violacea, Topaza pella, Attila bolivianus, Pachyramphus rufus, Pachyramphus validus, Lonchura atricapilla). Dos registros adicionales se pospusieron para revisiones más detalladas (Thalassarche cauta) o evidencias adicionales (Neomorphus pucheranii) y se rechazan los reportes de tres especies (Patagioenas oenops, Hydropsalis maculicaudus, Colaptes rupicola). Esta información actualiza nuestro conocimiento sobre la distribución y estado de especies de aves poco conocidas en Ecuador, así como el listado nacional de aves que actualmente incluye 1673 especies (1608 confirmadas y documentadas, 65 hipotéticas).

Palabras Clave. Distribución, estado, aves, Ecuador.



Record Number	Species	Locality, province	Date	Notes
2014-002	Peruvian Pigeon Patagioenas oenops	Chito, Zamora- Chinchipe	20 September 2007	Deficient documentation
2013-056	Spot-tailed Nightjar Hydropsalis maculicaudus	Gareno Lodge, Napo	9 September 2008	Misidentified Blackish Nightjar Nyctipolus nigrescens
2013-066	Andean Flicker Colaptes rupicola	Laguna Llaviuco, Azuay	14 June 2013	Deficient description

Table 1. Summary of rejected records submitted to the Committee for Ecuadorian Records in Ornithology (CERO) between 2013 and 2014.

Introduction

In CERO's first annual report [1] we briefly summarized the history and recent growth in Ecuadorian ornithology. In recent years, ornithological activity in the country has grown substantially, with the addition of at least 17 species for the country over the last four years, two new subspecies, a multitude of range extensions and an increase in significant new data concerning species that had previously been regarded as vagrants [1,2]. More and more reports are being received by CERO for revision and we would like to take the opportunity here to summarize a few important issues to take into account when finding a reportable bird species (see "Materials and Methods" below).

The best way to document any observation of a rare or noteworthy bird is either with a photograph/video, an audio recording or a voucher specimen. Permits are required for collecting birds in Ecuador. When using a camera, it is important to get as many different photos from various angles and as close as possible. Flight pictures are often conclusive. Audio recordings are just as important, especially for cryptic but vocal species, e.g., ovenbirds, antbirds, antpittas, tapaculos and flycatchers. Observers who do not carry a camera or recording equipment should try to provide as accurate and precise field notes and sketches as possible, preferably taken in situ during or right after the observation. A thorough and accurate description sent to CERO can be as acceptable as a photograph/video, audio recording or voucher specimen. Important things to consider when filling out a report are the following:

- a) Your own personal observation is what counts. Don't copy field marks or descriptions from a field guide. Different individuals of the same species often vary to some extent, but a combination of basic observed field marks often reveals the identification of a species [3].
- b) Important to look at and describe as many details and field characteristics as possible. A good way to become an avid birder is to learn the different anatomical and topographical parts of a bird. These are usually described in most field guides.

- c) Behaviour, size, moult and vocalizations are just as important as plumage; describe these as accurately as possible. Direct comparison with other accompanying species is very helpful as is taking into account other similar species that 'your bird' could be confused with. Moulting feather tracts is very important for identifying migrants. If you are not carrying recording equipment, a simply written description of the vocalizations heard can be very useful.
- d) A picture says more than a 1000 words. A sketch or field drawing (e.g., black-and-white or in color) can be extremely helpful in determining the identity of a species. Even if you are not particularly artistic, a simple sketch that highlights the most important characters you observed can do the trick.

A fairly recent method of keeping track of your bird observations and at the same time contributing to science is to report your observations to eBird (http://ebird.org). As more and more information accumulates in this database, possible patterns of distribution and migration might be revealed and this information can also be used for statistical research [4].

In this second report, CERO presents submissions received from July 2013 through March 2014, with records dating back to July 2007. Forty-six out of 51 records were accepted (from 35 species), two records are pending further discussion and three were considered insufficient for acceptance (Table 1). Further, we reviewed ten records of species to be removed from the Ecuador list (invalidate records), of which six were accepted.

Materials and Methods

CERO currently receives and reviews record forms of rare species, new country records, or significant range extensions. These records are voluntarily submitted by their authors through CERO's e-mail address (cero.ecuador@gmail.com) and webpage (http://ceroecuador.webs.com/), where the national country checklist and a list of 'most-wanted' species are also published. New country records since 2007 were evaluated and accepted by unanimous vote, while

first documentation, undocumented records of previous hypothetical species and major range extensions were accepted by majority vote. Taxonomy and species sequence follows August 2014 version of SACC [5]. Most sound-recordings were deposited by observers at the xeno-canto online archive (http://www.xenocanto.org/), for which a XC code is provided in the species accounts. Photographs are deposited at CERO digital archives, and most are published in this report. Some photographs are low-resolution files and/or poor images, but published herein due to their relevance as voucher documentation. Figures 1-3 below show photographic documentation for records arranged by categories (new country records, first documentation, rare species, and significant range extensions). Locality coordinates and elevation are provided in Table 2. An asterisk is used to indicate the first observer. Record numbers represent a unique, sequential numerical co-

Species accounts

Leach's Storm-petrel Oceanodroma leucorhoa

Record no. 2014-022: Province of Galápagos, between Española and San Cristóbal islands (photo), 14 November 2012 (D. Brinkhuizen).

One individual was photographed at sea, flying east between Española and San Cristóbal islands (Figure 3a). So far there are only a few sight records from Ecuador, all from Galápagos, but at least two were apparently obtained en route between Guayaquil and Galápagos [6]. The species possibly remains overlooked [7]. Determining subspecies might prove essential, as more than one species could be involved [8,9].

Ringed Storm-petrel Oceanodroma hornbyi

Record no. 2014-010: Province of Manabí, between Puerto López and La Plata Island (photo), 31 July 2007 (A. Woodall).

A single individual was photographed when it landed next to the observer's boat en route to Isla de la Plata (Figure 3b). There are very few documented records of this species off the coast of Ecuador [1] with one specimen recently deposited at the ornithological collection of the Museo Ecuatoriano de Ciencias Naturales, Quito (MECN 8637): a dead bird found by J. Illanes at Ecuasal, Mar Bravo, on 7 September 2007.

Brown Booby Sula leucogaster

Record no. 2013-058: Province of Santa Elena, La Chocolatera (photo), 17-18 August 2013 (B. Haase* and R. Ahlman).

An immature bird was seen on several occasions and photographed (Figure 3c) at La Chocolatera. Most likely the same individual was seen until late September 2013 (B. Haase, *in litt.*, October 2013). There have been previous records of adult *S. leucogaster* at this site and it seems plausible that the species occurs annually along Ecuador's coast [1].

Guanay Cormorant *Phalacrocorax* bougainvillii

Record no. 2014-031: Province of El Oro, near Isla Santa Clara, 19 December 2013 and 20 February 2014 (photo) (F. Sornoza* and J. Nilsson).

On 19 December 2013, a group of 28 individuals was first seen and photographed on a sandbank (Bajo del Burro) adjacent to Santa Clara Island by F. Sornoza (*in litt.*, January 2014). Another six birds (including an immature) were observed and photographed on rocky pillars adjacent to Santa Clara Island (Figure 3d). There are still very few records of the species in Ecuador, all from the southwest [10,11].

Green Heron Butorides virescens

Record no. 2013-061: Province of Galápagos, Santa Cruz Island, Black Turtle Cove (photo), 14 November 2012 (R. Ahlman).

An adult was observed at close range at a coastal mangrove lagoon at the northern part of the island (Figure 3e). This is the second record for the Galápagos Islands (but the first published photograph); it was first reported from the highlands of Floreana on 28 March 1996 [12].

Great Blue Heron Ardea herodias

Record no. 2014-005: Province of Orellana, Hotel La Misión, Coca, Napo River (photo), 24 January 2014 (P. Willoughby).

Record no. 2014-035: Province of Esmeraldas, Las Peñas (photo), 24–31 December 2013 (J. Nilsson).

The Napo River record (Figure 3f) involves the first published record for eastern Ecuador and the Amazon basin [10]. At Las Peñas, the species was first reported in December 2010 (D. Brinkhuizen and B. de Bruin, unpubl. data), with up to five individuals being seen annually in marshy areas north of town [1] and thus, CERO no longer requires reports from this area.

Reddish Egret Egretta rufescens

Record no. 2014-013: Province of Santa Elena, Pacoa saltpans north of San Pablo (photo), 14 November 2013 (B. Haase*, D. Brinkhuizen and J. Nilsson).

A dark-morph sub-adult was discovered on 14 November 2013 in a pond at the Pacoa saltpans complex (Figure 3g). It was observed several weeks earlier but was, at the time, regarded as an atypical Little Blue Heron *Egretta caerulea*. The individual was still present on 6 September 2014 (J. Nilsson, B. Olson and J. Olson, unpubl. data). It involves Ecuador's second record, with the previous being a white morph in Amazonia [1].

Locality, province	Latitude/Longitude	Elevation (m)
Atacames, Esmeraldas	00°52'N/79°50'W	0
Bahía de Caráquez, Manabí	00°35'S/80°25'W	0
Buenaventura, El Oro	03°33'S/79°59'W	1000
Cabañas San Isidro, Napo	01°35'S/77°55'W	2000
Canta Gallo, Sucumbíos	00°17'N/76°18'W	280
Cerro Mongus, Carchi	00°27'N/77°52'W	3400
Chanduy, Santa Elena	02°24'S/80°41'W	0
Chito, Zamora Chinchipe	04°56'S/79°03'W	c. 950
Coca, Orellana	00°27'S/76°58'W	250
Cuyabeno River, Sucumbíos	00°04'N/76°12'W	200
Ecuasal saltpans, Santa Elena	02°14'S/80°57'W	0
Entrance to Silanche Bird Sanctuary, Pichincha	00°14'N/79°22'W	c. 450
Española-San Cristóbal Islands, Galápagos	01°08'S/89°36'W	0
Estación Científica Yasuní, Orellana	00°40'S/76°23'W	220
Gareno Lodge, Napo	01°02'S/77°23'W	400
Jardín Botánico, Quito, Pichincha	00°11'S/78°29'W	2780
La Chocolatera, Santa Elena	02°11'S/81°00'W	0
La Sabalera, Lita, Carchi	00°52'N/78°28'W	650
La Segua, Manabí	00°42'S/80°11'W	10
La Selva Lodge, Sucumbíos	00°29'S/76°22'W	250
La Tola, Esmeraldas	01°12'N/79°03'W	0
Lagartococha, Sacha Lodge, Sucumbíos	00°27'S/76°27'W	240
Lago Agrio-Tarapoa road, Sucumbíos	00°02'S/76°34'W	260
Lago de Tilapia fishponds, Lago Agrio, Sucumbíos	00°12′/76°51′W	300
Las Peñas, Esmeraldas	01°06'N/79°09'W	0
Llaviuco Lake, Azuay	02°52'S/79°05'W	2800
Manglares-Churute (15 km north of), Guayas	02°19'S/79°38'W	10
Mataje, Esmeraldas	01°21'N/78°43'W	50
Pacoa saltpans, Santa Elena	02°06'S/80°43'W	5
Playa del Oro, Esmeraldas	00°52'N/78°48'W	200
Puerto Hualtaco, El Oro	03°26'S/80°13'W	5
Puerto Jelí, Santa Rosa, El Oro	03°27'S/79°58'W	10
Puerto López-La Plata Island, Manabí	01°25'S/80°57'W	0
Quebrada Honda, Zamora-Chinchipe	04°30'S/79°10'W	1600-2400
Rio Suno (mouth of), Sucumbíos	00°44'S/77°12'W	300
San Pablo estuary, Santa Elena	02°08'S/80°46'W	5
San Pablo Lake, Imbabura	00°13'N/78°12'W	2660
Santa Clara Island, El Oro	03°10'S/80°25'W	0
Santa Cruz Island, Galápagos	00°29'S/90°16'W	0
Tundaloma, Esmeraldas	01°10'S/78°45'W	c. 35
Valle del Santiago, Morona Santiago	04 27 S, 77 38 W	700–800
Wildsumaco Lodge, Napo	00°40'S/77°36'W	1500
Yahuarcocha Lake, Imbabura	00°22'N/78°05'W	2200
Yarina Lodge, Orellana	00°28'S/76°45'W	800
Zamora, Zamora-Chinchipe	04°04'S/78°05'W	1000

Table 2. Localities of records submitted to the Committee for Ecuadorian Records in Ornithology (CERO) between 2013 and 2014.

Little Blue Heron Egretta caerulea

Record no. 2014-038: Province of Galápagos, Academy Bay, Puerto Ayora, Santa Cruz Island (photo), 3 March 2014 (J. Toyra).

A single adult was photographed on a rocky shore-line and represents the fourth published record for the Galápagos Islands [11] (Figure 3h).

White Ibis Eudocimus albus

Record no. 2014-021: Province of Sucumbíos, 14 km east of Lago Agrio on the road to Tarapoa (photo), 10–24 March 2014 (J. Nilsson*, J. Olson*, B. Olson*, T. Seimola and D. Brinkhuizen).

A single immature bird, moulting to adult plumage, was observed on 10 March 2014 at a fish farm complex east of Lago Agrio (Figure 3i). The bird was observed amongst a flock of 4-6 Scarlet Ibis *Eudocimus ruber* (see below). It is the first record for eastern Ecuador [10]. Although the species is fairly common in the west [10], the origin of the flock observed is most likely from eastern Colombia [13].

Scarlet Ibis Eudocimus ruber

Record no. 2014-030: Province of Sucumbíos, 14 km east of Lago Agrio on the road to Tarapoa (photo), 10–24 March 2014 (J. Nilsson*, J. Olson*, B. Olson*, T. Seimola and D. Brinkhuizen).

A maximum of six birds (one adult and five immatures), together with an immature White Ibis *Eudocimus albus* (see above), were observed and photographed at a fish farm complex east of Lago Agrio (Figure 3j). Two birds (one adult and one immature) were previously reported from the same site [1]. It is unclear if their presence is seasonal (both observations are from March, during the dry season) and if the adult in question is the same individual observed a year earlier.

Northern Shoveler Anas clypeata

Record no 2013-062: Province of Esmeraldas, Las Peñas (photo), 4 October 2013 (R. Ahlman).

A single adult female was seen and photographed in the wetlands north of Las Peñas. Three individuals were photographed at the same site on 3 November 2013 (D. M. Brinkhuizen, unpubl. data). It seems that the species is a 'regular' visitor to this area during boreal winter, but as only a few records exist [1], CERO would like to further monitor its occurrence here and elsewhere in Ecuador.

Cinnamon Teal Anas cyanoptera

Record no 2013-065: Province of Santa Elena, Ecuasal saltpans, Salinas (photo), 15-16 August 2013 (B. Haase*, R. Ahlman).

Record no 2014-007: Province of Esmeraldas, Atacames (photo), 22 March 2014 (R. Ahlman).

Record no 2014-037: Province of El Oro, Puerto Hualtaco, N of Huaquillas, 26 July 2013 (J. Nilsson, D. Brinkhuizen).

Record no 2014-039: Province of El Oro, along the road to Puerto Jelí west of Santa Rosa (photo), 10-11 September 2013 (J. Nilsson).

Two adult males, two immature males and two females were seen in a saltpan complex at Salinas, but was not relocated on 17 August. A single immature male together with Blue-winged Teals *Anas discors* were seen close to Atacames (Figure 3k). One male and two females were seen in a shrimp pond east of Puerto Hualtaco, close to the Peruvian border. Finally, a group of five pairs were seen and photographed in a shrimp pond west of Santa Rosa, which is the largest number recorded so far in Ecuador.

First records for Esmeraldas and Santa Elena provinces. The subspecific affinity is still not clear but birds seen during austral winter in southwest coastal Ecuador might belong to *A. c. orinomus*, which is common in western Peru [14]. The record from Esmeraldas could pertain to the northern migrant *A. c. septentrionalium* given the date and that it consorted with *A. discors*. There is also a recent published record of three birds shot in Manabí province [15]. It seems likely that *A. cyanoptera* is becoming a regular austral migrant in small numbers to the southwest coast. It remains unclear, though, if it was overlooked here before or if it has in fact increased in number.

Brazilian Teal Amazonetta brasiliensis

Record no 2014-006: Province of Sucumbios, north of Lago Agrio (photo), 5 March 2014 (R. Ahlman).

First record for Ecuador. A male (possibly an immature given the somewhat dusky bill) was seen and photographed at "Lago de Tilapia", a large expanse of fishponds 15 km N of Lago Agrio (Figure 1a). The observer suspects that this bird was a migrant or wandering individual that had been pushed down by heavy rain during the night/early morning. It was searched for in the afternoon when the rain had stopped but not relocated. It is likely that it originated from the llanos of Colombia, possibly straying to new areas after deforestation in the Amazon, similar to other species [1].

Lesser Scaup Aythya affinis

Record no 2014-011: Province of Santa Elena, Pacoa saltpans N of San Pablo (photo), 16 November 2012 (B. Haase).

Record no 2014-033: Province of Manabí, La Segua marshes, W of Chone (photo), 5 January 2014 (J. Nilsson).

First record for the province of Santa Elena [11] involves one individual seen and photographed at the saltpan complex at Pacoa. At La Segua, 25 individuals were observed and photographed, matching numbers seen in January 2013 (Figure 31). The 2013 flock grew to 95 individuals in February [1]; unfortunately we have no reports from February 2014. Number of records

and the number of birds in each record have notably increased over the last years [1,10], but CERO will continue to receive reports of this species to further document its occurrence in the country.

Ash-throated Crake Porzana albicollis

Record no 2014-018: Province of Sucumbios, Sacha Lodge (photo, recording), 17 January 2014 (R. Vickers*, M. Lysinger, J. Nilsson).

First record for Ecuador. Several territorial pairs of what apparently is a breeding resident population were found at Laguna Lagartococha, Sacha Lodge on 17 January 2014 (Figure 1b). Lagartococha is an old oxbow lake overgrown with grass, scattered trees and bushes, where the lodge keeps a small canal open for canoeing. As there are a few pairs here, it seems likely that it will be found elsewhere in marshy habitat in northern Amazonian Ecuador.

Blackish Oystercatcher Haematopus ater

Record no 2013-057: Province of Santa Elena, Chanduy (photo), 20 June 2013 (G. E. Wallace*, H. Freifeld*, R. Ahlman).

First record for Ecuador. A juvenile was discovered at Chanduy village and remained until at least 9 August 2014 (R. Ahlman). It was seen and photographed by several observers (Figure 1c). During low tide it fed on exposed rocks just off the fishing port while during high tide it rested on sandy beaches. This record could involve a post-breeding dispersal of a juvenile that fledged in northern Peru [14], or possibly an overshooting austral migrant. During its stay at Chanduy the bird moulted from juvenile to adult plumage.

Wilson's Snipe Gallinago delicata

Record no 2014-004: Province of Imbabura, Lago San Pablo (photo), 23 January 2014 (R. Ahlman).

A flock of three was found at a water treatment plant on the west side of the lake. The birds were photographed and heard calling (Figure 3m). This represents the fifth record for Ecuador but only the second documented. Two birds were found here during the boreal winter of 2013 [1]. See Freile *et al.* [1] for a detailed discussion of previous observations.

Marbled Godwit Limosa fedoa

Record no 2014-040: Province of Manabí, Bahía de Caráquez, 1 January 2014 (J. Nilsson).

Twenty-one individuals were seen in the Chone river estuary near the new bridge between Bahía de Caráquez and San Vicente. This is a known wintering site since it was first discovered in 2007 [1]. CERO no longer requires written reports from this area. However, as only a handful of records exist from Ecuador [1,10], new localities will provide a more thorough understanding of the species' migration in Ecuador.









Figure 1. New country records for Ecuador. a) Brazilian Teal Amazonetta brasiliensis (R. Ahlman); b) Ash-throated Crake Porzana albicollis (J. Nilsson); c) Blackish Oystercatcher Haematopus ater (R. Ahlman); d) Bonaparte's Gull Chroicocephalus philadelphia (D. M. Brinkhuizen).

Ring-billed Gull Larus delawarensis

Record no. 2013-064: Province of Esmeraldas, La Tola (photo), 3–4 October 2013 (R. Ahlman).

A single bird in second winter plumage was observed and photographed on a shrimp pond (Figure 3n), resting and feeding together with Laughing Gull *Leucophaeus atricilla* and Grey-hooded Gull *Chroicocephalus cirrocephalus*. It was last seen and photographed on 2 November 2013 (J. Nilsson). This represents the second confirmed record from Ecuador, the first being photographed at La Libertad, Province of Santa Elena in 1991 [10]. Haase [11] reports several unconfirmed sightings from Ecuasal and Monteverde but precludes validation, owing to identification uncertainty.

California Gull Larus californicus

Record no. 2014-008: Province of Imbabura, Yahuarcocha (photo), 14 February 2014 (K. Terán Portelles, E. Guevara, R. Hipo, D. Pozo and L. Salagaje).

A single bird in first winter plumage was first located on 14 February 2014 while resting on floating material and on a nearby dock. Other observers later relocated it, with last observations on 5 March 2014 (R. Ahlman). This is the first documented record for South America [5], and the second Ecuadorian record (Figure 2a). Ridgely & Greenfield [10] report a sighting from Ecuasal, Province of Santa Elena. R. S. Ridgely (*in litt*. 2011) considers the sighting from Ecuasal as valid since observers (Davis Finch and he) saw the bird for a protracted time period and took detailed field notes.

Bonaparte's Gull Chroicocephalus philadelphia

Record no. 2014-015: Province of Santa Elena, San Pablo estuary (photo), 12–14 November 2013 (B. Haase*, J. Nilsson and D. Brinkhuizen).

First record for Ecuador. A bird in first winter plumage was first located on the morning of 12 November 2013 swimming and foraging in a phalarope-like manner. It remained in the same channel at San Pablo estuary for the next two days when photographed (Figure 1d), foraging together with Grey-hooded Gull *Chroicocephalus cirrocephalus* and Franklin's Gull *Leucophaeus pipixcan*.

Caspian Tern Hydroprogne caspia

Record no. 2014-032: Province of Manabí, La Segua marsh (photo), 5 January 2014 (J. Nilsson).

Seven birds of undetermined age and sex were located and photographed on a muddy lakeshore of a small, fairly open lake with small floating 'islands', surrounded by marshy vegetation and muddy beaches (Figure 3o). This record, which is the largest concentration of the species in Ecuador to date, is from the same area previously reported by CERO [1], and suggests that the wetlands between Chone and San Vicente are possibly a regular stopover/wintering site for the species.

Central American Pygmy-owl Glaucidium griseiceps

Record no. 2014-003: Province of Carchi, La Sabalera, near Lita, 15 August 2008 (P. Moscoso* and J. Freile).

A single bird was observed in the daytime, roosting in a tree hole c. 1.6 m above the ground, inside tall primary forest. It remained motionless for 3 min, slowly moving its head sideways. There are few records of this species in Ecuador [16] and the species' natural history, distribution, status, and even taxonomic affinities in Ecuador remain poorly known [10].

American Pygmy Kingfisher Chloroceryle aenea

Record no 2014-026: Province of Pichincha, Jardín Botánico de Quito (photo), 13–15 July 2013 (R. Ahlman, S. Woods).

A female-plumaged bird was photographed and seen by various observers at a small pond surrounded by lush bushes and smaller trees in northern Quito (2750 m elevation) (Figure 3p). This constitutes the first Ecuadorian highlands record [10], with few observations from the Mindo area (A. Solano-Ugalde and J. Freile, unpubl. data). It is reported as casual in the Bogotá (Colombia) area, at 2600 m elevation [13,17].

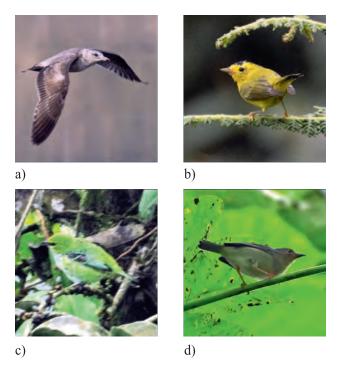


Figure 2. First documented records of birds previously regarded as hypothetical occurrences in Ecuador. a) California Gull *Larus californicus* (D. M. Brinkhuizen); b) Wilson's Warbler *Cardellina pusilla* (D. M. Brinkhuizen); c) Speckled Tanager *Tangara guttata* (J. Nilsson); d) Bicolored Conebill *Conirostrum bicolor* (J. Nilsson).

Cinnamon-crested Spadebill *Platyrinchus* saturatus

Record no 2013-059: Province of Sucumbios, Canta Gallo, N of San Miguel River, 21 September 2013 (J. Nilsson).

A single individual was seen at mid strata inside selectively logged old growth (*terra firme*) with open understory, accompanying a small mixed species flock. This is only the second record for Ecuador; the first record being a male mist-netted and collected in the same area 20 years earlier, on 9 Aug 1993 [10].

Great Crested Flycatcher *Myiarchus crinitus*

Record no 2013-060: Province of Pichincha, Jardín Botánico de Quito (photo), 17 October 2012 (R. Ahlman).

Record no 2014-027: Province of Esmeraldas, Playa del Oro, 17 January 2014 (I. Ellis, J. Nilsson, G. Ellis).

Record no 2014-028: Province of Esmeraldas, Mataje (photo), 29 December 2013 (J. Nilsson, I. Ellis, G. Ellis).

Record no 2014-029: Province of Esmeraldas, Tunda Loma (photo), 19 January 2014 (I. Ellis, J. Nilsson, G. Ellis).

A juvenile was seen and photographed in a lush area with trees and bushes in northern Quito (2750 m elevation). This is the third record for the Ecuadorian highlands, the first and second records coming from the same locality [1]. It is known at up to 2600 m on the



Figure 3. Rare birds and major distributional extensions recorded in Ecuador from July 2007 to March 2014. a) Leach's Storm-Petrel Oceanodroma leucorhoa (D. M. Brinkhuizen); b) Ringed Storm-Petrel Oceanodroma hornbyi (J. Topham); c) Brown Booby Sula leucogaster (R. Ahlman); d) Guanay Cormorant Phalacrocorax bougainvillii (J. Nilsson); e) Green Heron Butorides virescens (R. Ahlman); f) Great Blue Heron Ardea herodias (Paul J. Willoughby); g) Reddish Egret Egretta rufescens (D. M. Brinkhuizen); h) Little Blue Heron Egretta caerulea (J. Toyra); i) White Ibis Eudocimus albus (D. M. Brinkhuizen); j) Scarlet Ibis Eudocimus ruber (D. M. Brinkhuizen); k) Cinnamon Teal Anas cyanoptera (R. Ahlman); l) Lesser Scaup Aythya affinis (J. Nilsson); m) Wilson's Snipe Gallinago delicata (R. Ahlman); n) Ringbilled Gull Larus delawarensis (R. Ahlman); o) Caspian Tern Hydroprogne caspia (J. Nilsson); p) American Pygmy Kingfisher Chloroceryle aenea (R. Ahlman); q) Great Crested Flycatcher Myiarchus crinitus (J. Nilsson); r) Snowy-throated Kingbird Tyrannus niveigularis (D. M. Brinkhuizen); s) Rufous-tailed Tyrant Knipolegus poecilurus (R. Ahlman); t) Bay-breasted Warbler Setophaga castanea (S. Sæther); u) Tricolored Munia Lonchura malacca (J. Nilsson).

Bogotá Savanna in Colombia [17] and it is recorded as far south as N Peru [14]. One individual was seen and heard in the canopy of tall old growth, c. 1.5 km E of Playa del Oro village, along the Pueblo Trail. It responded well to playback of its own species. Two individuals were seen along a forest trail west of the

village of Mataje on two different occasions: 29 December 2013 and 20 January 2014. Lastly, one bird was seen and photographed a few km SE of Tunda Loma Lodge (Figure 3q). There is only one earlier documented record from the west slope [1]. Considering that four individuals were seen within three weeks in

species	tarsus	culmen length	culmen width	culmen depth	tail	wing chord
P. homochrous	22.2	16.2	9.2	7.6	68	87.9
P. validus	25.5	17.5	9.6	8.3	75.1	101.5
MECN 7225	23.4	15.4	8.1	6.6	66.5	89.5

Table 3: Measurements of museum specimens of *Pachyramphus homochrous*, *P. validus* and specimen MECN 7225, from southern Ecuador, incorrectly identified as *P. validus*. Data for *P. homochrous* is the mean obtained from 15 specimens studied in MECN and MUMSM. Data for *P. validus* is mean of two specimens studied in MUMSM. Data in cm.

the same general area (extreme northwest Ecuador) we suggest that the species might be more regular here during boreal winter than previously thought.

Snowy-throated Kingbird Tyrannus niveigularis

Record no 2014-023: Province of Pichincha, Jardín Botánico de Quito (photo), 4 March 2014 (D. Brinkhuizen).

Two individuals were seen and photographed in a lush area with trees and bushes in northern Quito (2750 m elevation) (Figure 3r) and at least one individual was still present in October 2014. This represents the first Ecuadorian highlands record as well as the first high Andes record [10,17].

Rufous-tailed Tyrant Knipolegus poecilurus

Record no 2014-024: Province of Pichincha, Jardín Botánico de Quito (photo), 22 April 2011 (R. Ahlman).

Record no 2014-025: Province of Pichincha, Jardín Botánico de Quito (photo), 19 November 2010 (R. Ahlman).

One adult was seen and photographed on two separate occasions (November 2010 and April 2011) while foraging in bushes and small trees as well as on the ground, at 2750 m elevation (Figure 3s). This represents the first record for the Ecuadorian Interandean valleys [10]. Elsewhere the species is known to range up to 3100 m [14, 17]. It remains to be determined where these birds come from. The main population in Ecuador ranges mainly from 1000-2000 m in the east Andean slopes, but there is at least one record of a breeding pair in the extreme northwest (J. Nilsson, unpubl. data) [18], and it is known from Nariño in southwest Colombia [13].

Chestnut-bellied Cotinga Doliornis remseni

Record no. 2014-036: Province of Carchi, Cerro Mongus (photo), 22 January 2014 (M. Cabrera, J. Nilsson, I. Ellis, G. Ellis).

At least three individuals, presumably an adult male, an adult female and an immature were observed in dense elfin forest just below treeline. The male was spreading its crest while vocalizing. Although there are several earlier records from this type locality [19], we report the first ever recording of its vocalizations (xeno-canto XC 165648, 165650), which is almost identical to Bay-vented Cotinga *Doliornis sclateri* (see

xeno-canto XC 41676). The presence of a young bird represents a hint towards the basically unknown breeding biology of the genus *Doliornis* [20]. A photographic record was recently published from a new locality in Ecuador for the species (Quebrada Río Plata, Llanganates National Park) [21].

Yellow-throated Vireo Vireo flavifrons

Record no. 2013-054: Province of Napo, Wildsumaco Lodge, Coopmans' trail, 10 February 2008 (J. Nilsson).

A single adult was found foraging for insects 7 m up in an open tree in tall secondary forest, close to a mixed species flock. Nilsson *et al.* [22] reported this as the first Ecuadorian record, antedating observations from the provinces of Esmeraldas and Imbabura presented in CERO's first annual report [1].

Wilson's Warbler Cardellina pusilla

Record no. 2014-001: Province of Napo, Cabañas San Isidro (photo), 8 December 2013 (H. Brieschke*, M. Lysinger and C. Bustamante).

An adult male was observed and photographed at close range in secondary forest edge in the lodge gardens (Figure 2b). It was continuously seen until 13 February 2014 (D. Brinkhuizen). This is the first photo-documented record for the country and the first for the eastern Andes. There are at least three previous observations known to CERO from the provinces of Pichincha and Loja [23].

Bay-breasted Warbler Setophaga castanea

Record no. 2014-012: Province of Esmeraldas, Playa de Oro, 22 February 2012 (L. Seitz).

Record no. 2014-020: Province of Pichincha, Km. 126 Calacalí-La Independencia Road (photo), 4 February 2014 (D. Brinkhuizen, J. Gustad, S. Sæther, K. Sæther, C. Kamsvåg, K. Hendseth).

A single observation from Playa de Oro was posted on eBirds, but no details were provided. A photo from the same site was later submitted by N. Athanas, which corroborates the identification. In Pichincha, one immature male was observed and photographed in secondary forest edge at the entrance to Río Silanche Bird Sanctuary (Figure 3t). It was loosely associated with a mixed species flock, occasionally uttering a *tjek* call reminiscent of Backpoll Warbler *Setophaga striata*.

Speckled Tanager Tangara guttata

Record no. 2013-055: Province of El Oro, Buenaventura Reserve, Piñas (photo), 18 July 2012 (L. Navarrete).

Record no. 2014-014: Province of El Oro, edge of Buenaventura Reserve, old hummingbird garden, Piñas (photo), 16 February 2014 (J. Nilsson).

First record involves two birds, presumably adults, observed (one of them photographed) in tall second growth while following a mixed tanager flock dominated by Beryl-spangled Tanager Tangara nigroviridis. Second record involves a single adult observed and photographed at the edge of primary forest canopy, adjacent to the highway (Figure 2c). It was seen briefly joining a mixed species flock that included other tanager species, Scarlet-rumped Cacique Cacicus uropygialis and other birds attracted by swarming termites. The species was first observed in this area by P. J. Greenfield on December 2003 and by M. Lysinger on February 2004 [18]. The taxonomy of this population, which is separated by more than 650 km from the nearest population in Colombia (T. guttata tolimae) [24], remains unclear. It may well represent an isolated population of T. g. tolimae or a new taxon [18]. Specimens are needed to confirm its identity.

Bicolored Conebill Conirostrum bicolor

Record no. 2014-016: Province of Sucumbios, unnamed young river island near Sani Isla, Napo River (photo), 6 March 2014 (A. Solano-Ugalde*, J. Nilsson, B. Olson, J. Olson).

A single adult male was observed, videotaped, sound recorded and photographed by J. Nilsson, B. Olson and J. Olson. while foraging acrobatically, clinging upsidedown, in subcanopy of a *Cecropia* sp. stand (Figure 2d). This represents the first documented record of the species in Ecuador, where a single previous observation exists [10]. A month earlier the species was observed at the same locality (A. Solano-Ugalde, *in litt*. March 2014), and C. Vogt last saw it on 25 September 2014.

Tricolored Munia Lonchura malacca

Record no. 2014-034: Province of Guayas, 10-20 km north of Manglares-Churute (photo), first found in December 2004 (O. Carrión*, M. Gurney, J. Nilsson, P. Coopmans, A. Solano-Ugalde, D. M. Brinkhuizen).

On 21 February 2014 some 70 birds were observed and photographed feeding on seeding grass at the edge of a dirt road through vast sugar cane fields (Figure 3u). Also seen flying with dry grass in their beaks, most likely nesting material. This record further confirms the presence of an established feral population of this species along the central coastal lowlands of Ecuador [25], where apparently first found by M. Gurney in December 2004 at Rio Palenque, province of Los Ríos, and the late P. Coopmans in January 2005 at Puerto Inca, province of Guayas. Additional sightings since 2007 include: photos taken at the eastern edge of Quevedo city (*fide J. M. Carrión*), one observed near La Concor-

dia, province of Esmeraldas (A. Solano-Ugalde), one photographed near Las Golondrinas (D. M. Brinkhuizen) and further observations in the Manglares-Churute region (see Chestnut Munia *L. atricapilla* account below).

Invalidated records

Some species have been erroneously assigned to the Ecuadorian avifauna by different authors over the years [10,26]. Here, we review some species that merit elimination from the country bird list owing to: 1) misidentification; 2) erroneous location of collecting/recording sites; 3) taxonomic changes or distribution revisions. Further revisions of species not actually occurring in Ecuador, but reported in literature will continue to be published in forthcoming CERO reports.

Violaceous Quail-Dove Geotrygon violacea

Record no. 2014-x02: Province of Sucumbíos, Cuyabeno (audio-recording), 2-10 August 1992.

Three birds were reported, one of them seen and taperecorded inside terra firme forest near the edge of a lagoon [10]. Tape recordings where later reviewed by N. Krabbe who reidentified them as Grey-fronted Dove *Leptotilla rufaxilla*. Later on, the observer himself told N. Krabbe that he believed that his records involved misidentified *L. rufaxilla*.

Crimson Topaz Topaza pella

Record no. 2014-x010: Province of Sucumbíos, mouth of Suno River (specimen), 1899.

Oberholser [27] reported three specimens collected at the mouth of Rio Suno, which are the type specimens of the subspecies *Topaza pella pampreta*. However, Hu *et al.* [28] concluded that this taxon is not valid, being a synonym of *T. pella smaradgula* from the Guianan shield, more than 1,500 km away from Amazonian Ecuador, and suggested that mislabelling would explain Ecuadorian records. Ridgely & Greenfield [10] already suggested eliminating this species from the country list.

Dull-capped Attila Attila bolivianus

Record no. 2014-x01: Province of Orellana, Yarina Lodge and Estación Científica Yasuni (photo), 13 August 1998 and December 2001; Province of Sucumbíos, Sacha Lodge, 7 June 1995.

Observations at Yarina and Sacha Lodge by the same observer [10] of "attilas with white eyes" were first identified as this species. A photographic record from Yasuni Research Station was first identified as *A. bolivianus* and published in 2003 [29]. Howell [30] suggested the (remote?) possibility of an undescribed white-eyed form of *A. spadiceus* that resembles *A. bolivianus*. Boano & Janni [31] presented evidence of a white-eyed form of Bright-rumped Attila (*Attila spadiceus*). A later revision of the Yasuni photo by J. Freile

confirmed its identity as *A. spadiceus* (wing bars, no duller cap, bright yellow rump). Meanwhile, N. Athanas stated that the first observer apparently retracted his earlier observations (*in litt*. to P. Coopmans). Given that *A. bolivianus* is not known to migrate or perform long seasonal movements [32], and that the nearest records in Amazonian Peru are more than 500 km southeast of the reported Ecuadorian sites [14], we believe all Ecuadorian observations pertain to white-eyed variants of *A. spadiceus*.

Cinereous Becard Pachyramphus rufus

Record no. 2014-x06: Province of Zamora Chinchipe, Zamora (specimen), 1896-1897; Province of Morona Santiago, Valle del Santiago (specimen), 1896-1897.

Two specimens collected by E. Festa and held at Museo Regionale di Scienze Naturali of Turin, Italy [10] are the only records of the species in Ecuador. Ridgely & Greenfield [10] already questioned the identification of these specimens given that the separation of female *P. rufus* and Chestnut-crowned Becard *P. castaneus* was not clearly understood at that time. Janni & Pulcher [33] revised the Torino specimens separately and reidentified them as *P. castaneus* owing to a very obvious grey postocular line, richer chestnut crown, and duskier loral stripe.

Crested Becard Pachyramphus validus

Record no. 2014-x07: Province of Zamora Chinchipe, Quebrada Honda (specimen), 13 January 1998.

A single specimen, identified as an immature male P. validus, collected at Quebrada Honda and deposited at Museo Ecuatoriano de Ciencias Naturales (MECN 7225), is the only record of the species in Ecuador [10]. A thorough revision of specimen MECN 7225 revealed that it is a One-colored Becard Pachyramphus homochrous. Another specimen (MECN 3833) is identical in plumage to MECN 7225 but identified as P. homochrous. Measurements of tarsus, culmen length, culmen width, culmen depth, tail and wing chord (Table 3) of these two specimens are similar to measurements of 15 other specimens of P. homochrous held at MECN, but significantly smaller compared to measurements of two specimens of *P. validus* taken at Museo de Historia Natural Javier Prado, Universidad Mayor San Marcos (MUMSM), in Lima, Peru. Pattern and color tone of the crown in specimens MECN 7225 and 3833 differ from specimens held at MUMSM and from illustrations in Schulenberg et al. [14] and Fitzpatrick et al. [34], as follows: 1) crown is more blackish rather than sooty in MECN 7225 and 3833; 2) blackish is restricted to crown in MECN 7225 and 3833, whereas sooty area descends to, or even below, ocular line in proper P. validus; 3) dorsal parts of proper P. validus are rustier than in MECN 7225 and 3833 (Figure 4). Also, moulting pattern of immature *P. validus* apparently differs from that shown by these specimens. There are several recent records of *P. homochrous* from the Andean highlands, even from the central valleys above 2700 m elevation, suggesting that this species moves seasonally along this altitudinal gradient.







Figure 4. Specimens of *Pachyramphus homochrous*, P. validus and MECN 7225, from southern Ecuador, incorrectly identified as *P. validus*. Specimen MECN 7225 on the extreme left in photo A; second from left to right in photo B. Photo C corresponds to specimens of *P. validus* at MUMSM for comparison of crown color and pattern (J. Freile).

Chestnut Munia Lonchura atricapilla

Record no. 2014-x04: Provinces of Guayas, Los Ríos and Santo Domingo de los Tsáchilas, several localities, several dates between 1998-2012.

Carrión *et al.* [25] reported a number of observations dating back to 1998 from nearly 30 localities between Manglares-Churute region northwards through Santo Domingo area. These observations were first assigned to *Lonchura atricapilla jagori* but a later revision of photographs (including record no. 2014-34 presented herein) by R. Restall [35] confirmed that all pertain to cinnamon-bellied and cinnamon-flanked variants of Tricolored Munia *L. malacca*. According to R. Restall,

there are no confirmed records of *L. atricapilla* from South America, with only a handful of reports from some Caribbean islands.

Rejected records

Three records were rejected (Table 1) due to insufficient information for accurately assessing them. Rejected records include one species that lacks documentation in the country (*Patagioenas oenops*), one species recorded only once (*Hydropsalis maculicaudus*), and a significant range extension (*Colaptes rupicola*). Two additional records were postponed for further expert revision (*Thalassarche cauta*) or for additional evidence (*Neomorphus pucheranii*).

Acknowledgements

This report is dedicated to the late Juan Carlos Matheus and Fernando Ortiz Crespo, who pioneered Ecuadorian birding and ornithology in many ways. We offer our sincere thanks to all observers who submitted records to CERO, and to N. Krabbe and R. Restall for external advise. We also acknowledge B. Haase, F. Sornoza, R. S. Ridgely, R. Vickers, M. Lysinger, C. Vogt, J. M. Carrión, O. Carrión, and N. Athanas for sharing information and unpublished data. C. Garzón and L. Salinas allowed us to review specimens at MECN (Quito) and MUMSM (Lima), respectively. Special appreciation goes to Lelis Navarrete and Robert Ridgely as active members of CERO until recently, and for their continuing support to CERO as external reviewers. Thanks to our institutions and birding tour operators for providing us with the opportunity to work in the field again and again, and to so many fellow field ornithologists and birders for their companionship throughout the four corners of this wonderful country. We welcome our new committee member: Mitch Lysinger.

References

- [1] Freile, J.; Ahlman, R.; Brinkuizen, D.; Greenfield, P.; Solano-Ugalde, A.; Navarrete, L.; Ridgely, R. 2013. "Rare birds in Ecuador: first annual report of the Committee of Ecuadorian Records in Ornithology (CERO)". Avances en Ciencias e Ingenierías, 5(2): B24–B41.
- [2] Solano-Ugalde, A.; Freile, J. F. 2012. "A decade of progress (2001-2010); overview of distributional bird records in mainland Ecuador". *Ornitología Neotropical*, 23(suppl.): 29–35.
- [3] Sibley, D. 2010. "Aves: guía básica de identificación". Serie Biodiversidad, Corbidi: Lima.
- [4] Lebbin, D. 2009. "Sharing your bird sightings to help conservation". *Neotropical Birding, 4:* 13–18.
- [5] Remsen, J.; Cadena, C.; Jaramillo, A.; Nores, M.; Pacheco, J.; Robbins, M.; Schulenberg, T.; Stiles, F.; Stotz, D.; Zimmer, K. 2014. "A classification of the bird species of South America", Link:

- http://www.museum.lsu.edu/~Remsen/SACCBas eline.html, American Ornithologists' Union, South American Classification Committee. Access date: 5 October 2014.
- [6] Wiedenfeld, D. 2006. "Aves, the Galapagos Islands". *Check List*, 2: 1–27.
- [7] Swash, A.; Still, R. 2000. "Birds, mammals, and reptiles of the Galapagos Islands, an identification guide". *Yale University Press: New Haven, New Jersey*.
- [8] Onley, D.; Scofield, P. 2007. "Albatrosses, petrels, and shearwaters of the world". *Helm Field Guides: London*.
- [9] Howell, S.; McGrath, T.; Hunefeld, W.; Feenstra, J. 2009. "Occurrence and identification of the Leach's Storm-Petrel (*Oceanodroma leucorhoa*) complex off southern California". *North American Birds*, 63: 540–549.
- [10] Ridgely, R.; Greenfield, P. 2001. "The Birds of Ecuador". Cornell University Press: Ithaca, New York.
- [11] Haase, B. 2011. "Aves marinas de Ecuador continental y acuáticas de las piscinas artificiales de Ecuasal". Aves & Conservación, BirdLife International and Ecuasal S. A.: Guayaquil.
- [12] Vargas, H. 1996. "First record of Green Heron (Butorides virescens) in the Galapagos Islands". Noticias de Galápagos, 57: 5–6.
- [13] Hilty, S.; Brown, W. 1986. "A guide to the birds of Colombia". *Princeton University Press: Princeton, New Jersey.*
- [14] Schulenberg, T.; Stotz, D.; Lane, D.; O'Neill, J.; Parker, T. 2007. "Birds of Peru". *Helm Field Guides: London*.
- [15] Camacho, C.; Wilson, R. 2011. "New record of Cinnamon Teal *Anas cyanoptera* in Ecuador". *Bulletin of the British Ornithologists Club*, 131(1): 69–71.
- [16] Freile, J.; Castro, D. 2013. "New records of rare screech owls (*Megascops*) and pygmy owls (*Glaucidium*), with taxonomic notes and a conservation assessment of two globally imperilled species in Ecuador". *Cotinga*, 35: 7–12.
- [17] Fjeldså, J.; Krabbe, N. 1990. "Birds of the high Andes". *Apollo Books: Copenhagen*.
- [18] Ridgely, R.; Greenfield, P. 2006. "Aves del Ecuador". Academia de Ciencias de Philadelphia and Fundación Jocotoco: Quito.
- [19] Robbins, M.; Rosenberg, G.; Sornoza, F. 1994. "A new species of cotinga (Cotingidae: *Doliornis*) from the Ecuadorian Andes, with comments on plumage sequences in *Doliornis* and *Ampelion*". *Auk*, 111(1): 1–7.

- [20] Kirwan, G.; Green, G. 2011. "Cotingas and manakins". *Helm Identification Guides: London.*
- [21] Soria-Robalino, A. 2012. "Doliornis remseni Chesnut-bellied Cotinga Cotinga Cresticastaña". Boletín Sociedad Antioqueña de Ornitología 21: 58–60.
- [22] Nilsson, J.; Solano-Ugalde, A.; Freile, J.; Garcia-Dominguez, J. 2013. "First records of Yellow-throated Vireo *Vireo flavifrons* in Ecuador". *Cotinga*, 35: 74–78.
- [23] Solano-Ugalde, A.; Pérez, V.; Ahlman, R. 2007. "Primeros registros de la Reinita Gorrinegra (Wilsonia pusilla) en Ecuador". Boletín Sociedad Antioqueña de Ornitología 17: 59–62.
- [24] Isler, M.; Isler, P. 1999. "The tanagers: natural history, distribution, and identification". *Smithsonian Institution Press: Washington, D.C.*
- [25] Carrión, O.; Bohórquez, C.; Álava, J. 2012. "Primeros registros confirmados y distribución preliminar de la Monjita Castaña (Lonchura atricapilla jagori) en Ecuador: ¿especie introducida o arribo extralímite?". en: "Memorias III Reunión Ecuatoriana de Ornitología", J. Freile, E. Guevara, T. Santander (Eds.), Aves y Conservación, Fundación Numashir, Universidad San Francisco de Quito, Ecuador Experience: Quito.
- [26] Freile, J.; Ahlman, R; Greenfield, P.; Solano-Ugalde, A.; Brinkuizen, D.; Navarrete, L.; Ridgely, R. 2014. "Lista oficial de las aves del Ecuador". Link: http://www.cerowebs.com, Comité Ecuatoriano de Registros Ornitológicos. Access date: 5 October 2014.
- [27] Oberholser, H. 1902. "Catalogue of a collection of hummingbirds from Ecuador and Colombia". *Proceedings of the U.S. National Museum*, 24: 309–342.
- [28] Hu, D.; Joseph, L.; Agro, D. 2000. "Distribution, variation, and taxonomy of *Topaza* hummingbirds (Aves: Trochilidae)". *Ornitología Neotropical*, 11(2): 123–142.
- [29] de Vries, T. 2002. "Birds of Ecuador, un libro interesante, útil, pero..." *Nuestra Ciencia*, 4: 54–55.
- [30] Howell, S. 2002. "Additional information on the birds of Ecuador". *Cotinga*, 18: 62–65.
- [31] Boano, G.; Janni, O. 2008. "Rufous-morph Bright-rumped Attila *Attila spadiceus* with white eyes: photographic evidence from Peru". *Boletín Sociedad Antioqueña de Ornitología* 18: 16–19.
- [32] Ridgely, R.; Tudor, G. 2009. "Field guide to the songbirds of South America, the Passerines". *University of Texas Press: Austin.*

- [33] Janni, O.; Pulcher, C. 2007. "Reidentification of Ecuadorian specimens of *Pachyramphus rufus* as *P. castaneus*". *Bulletin of the British Ornithologists Club* 127(3): 246–247.
- [34] Fitzpatrick, J.; Bates, J.; Bostwick, K.; Caballero, I.; Clock, B.; Farnsworth, A.; Hosner, P.; Joseph, L.; Langham, G.; Lebbin, D.; Mobley, J.; Robbins, M.; Scholes, E.; Tello, J.; Walther, B.; Zimmer, K. 2004. "Family Tyrannidae (Tyrant-Flycatchers), species accounts". en: "Handbook of the birds of the world, vol. 9", J. del Hoyo, A. Elliot, D. Christie (Eds.), Lynx Edicions: Barcelona.
- [35] Restall, R. 1996. "Munias & Mannikins". *Pica Press: Robertsbridge*.