

Conservación Colombiana

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Conservación Colombiana

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Percnostola rufifrons jensoni, km 14, Leticia, Amazonas, Colombia, 16 September 2017. Tom Friedel, © <http://www.BirdPhotos.com>

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Contenidos — Contents

Conservación Colombiana 26	
<p>Revision of the status of bird species occurring or reported in Colombia 2019 <i>Revisión del estado de las especies de aves que han sido reportadas para Colombia 2019</i> Thomas Donegan, Trevor Ellery, Juan Carlos Verhelst & Paul Salaman</p>	4-17
<p>New record of Green-winged Teal <i>Anas crecca carolinensis</i> in Colombia <i>Nuevo registro del Pato Aliverde Americano <i>Anas crecca carolinensis</i> en Colombia</i> Robert Clements</p>	18
<p>Records of three new antbirds for Colombia <i>Registros de tres nuevos hormigueros para Colombia</i> Tom Friedel</p>	19-20
<p>Back from the brink of extinction: how the recovery of the Yellow-eared Parrot united a nation <i>De vuelta desde el borde de la extinción: como la recuperación del Loro Orejiamarillo unió una nación</i> Paul Salaman, Alex Cortés & David Waugh</p>	21-35
<p>Nuevos registros del Ganso del Nilo <i>Alopochen aegyptiaca</i> en Colombia <i>New records of Egyptian Goose <i>Alopochen aegyptiaca</i> in Colombia</i> Cristián Mur & Thomas Donegan</p>	36-39
<p>Incidence of intermediate specimens or hybrids in the brush-finches <i>Atlapetes</i> (Aves: Passeriformes) <i>Tasa de ocurrencia de ejemplares intermedios o híbridos en el género <i>Atlapetes</i> (Aves: Passeriformes)</i> Thomas Donegan & Blanca Huertas</p>	40-41
<p>First confirmed record of Scissor-tailed Flycatcher <i>Tyrannus forficatus</i> for Colombia and South America <i>Primer registro confirmado de <i>Tyrannus forficatus</i> para Colombia y Suramérica</i> Rob Felix & Balmes Mabel Mosquera Lima</p>	42-43
<p>Instructions for authors – <i>Instrucciones para autores</i></p>	44-46

Revision of the status of bird species occurring or reported in Colombia 2019

Revisión del estado de las especies de aves que han sido reportadas para Colombia 2019

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Abstract

We again revise Colombia's checklist based on new records and the literature. Band-tailed Antbird *Hypocnemoides maculicauda*, Black-tailed Antbird *Myrmoborus melanurus* and Cave Swallow *Petrochelidon fulva* are newly added to the Colombian bird checklist, based on photographic records. Christmas Shearwater *Puffinus navitatis* is returned to the checklist as an unconfirmed species based on a new sight record. A new photographic record allows Scissor-tailed Flycatcher *Tyrannus forficatus* to be promoted from unconfirmed to confirmed status. Great Frigatebird *Fregata minor* is promoted to confirmed status, based on a revision of overlooked historical specimens and a new photographic record. Three species are added to the "escaped" category, but which lack evidence of establishment, namely: Turkey *Meleagris gallopavo*, Swan Goose *Anser cygnoides* and Egyptian Goose *Alopochen aegyptiaca*. Splits are accepted of Riparian Antbird *Cercomacroides fuscicauda* and Campina Thrush *Turdus arthuri*. Several amendments to genus and species names, English names and linear order are made, following recent publications. The Colombian checklist rises to 1,941 species (excluding escapees).

Keywords: New records, Colombia, birds, status revision.

Resumen

Nuevamente revisamos el listado de aves de Colombia, basado en nuevos registros y la literatura. Las especies *Hypocnemoides maculicauda*, *Myrmoborus melanurus* y *Petrochelidon fulva* se agregan al listado de aves de Colombia, basadas en registros fotográficos. *Puffinus navitatis* vuelve al listado, basada en un nuevo registro visual. Con un registro fotográfico, la especie *Tyrannus forficatus* es ahora elevada al estado de especie confirmada. La especie *Fregata minor*, se promociona a estado confirmado, posterior a una revisión de especímenes históricos que habían sido pasados por alto, y un nuevo registro fotográfico. Se agregan *Meleagris gallopavo*, *Anser cygnoides* y *Alopochen aegyptiaca* en la categoría de especies escapadas, pero dichas especies carecen de evidencia sobre su establecimiento. Hemos aceptado las separaciones taxonómicas de *Cercomacroides fuscicauda* y *Turdus arthuri*. Finalmente, se realizaron varias modificaciones a los nombres de géneros y especies, nombres en inglés y el orden lineal del listado. El número de especies registradas en el listado de aves de Colombia asciende a 1.941 especies (excluyendo especies exóticas que no han establecido poblaciones).

Palabras clave: nuevos registros, especímenes, fotografías, revisión del estado.

Introduction

Our checklist of the Birds of Colombia has been in existence for 18 years, published in various printed editions (Salaman *et al.* 2001, 2007, 2008b, 2009, 2010), is the basis for three field guides (McMullan *et al.* 2010, 2011, McMullan & Donegan 2014) and available online with annual updates since 2016 (latest edition: Donegan *et al.* 2019). During this time, we have published annual updates discussing new records, evaluating older ones and incorporating taxonomic changes (Salaman *et al.* 2008a, Donegan *et al.* 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2018).

Since the publication of the checklist of Avendaño *et al.* (2017a, hereafter ACO), we assessed all their proposed changes (Donegan *et al.* 2018) and proposed a new dialogue, noting: "that it would ... be optimal to unify Colombia's bird checklist by combining our checklist with

ACO's". This approach was rejected and so our next update is now published here.

We are delighted that more and more birders and ornithologists are sharing their information online. Avendaño *et al.* (2017a) called for observers to publish their records, as do we. During this series of papers, we have often made efforts to assist observers in bringing their records to print. In this paper, we have been given permission to replicate some online photographs and include observation details based on materials in eBird (2020). However, there remain a number of other new records for Colombia in online resources, including for Tawny-headed Swallow *Alopochelidon fucata*, White-bellied Piculet *Picumnus spilogaster* and White-crowned Sparrow *Zonotrichia leucophrys* where relevant observers have either not responded to our requests for information or apparently intend to publish elsewhere. Other species,

notably American Avocet *Recurvirostra americana*, remain in a state of limbo, with photographs being available online but unpublished (Donegan *et al.* 2011, 2018).

We have started in this edition to cite records presented in eBird (2020), in a way which accords with applicable user guidelines. Moreover, since all photographs on eBird (2020) are automatically archived in the Macaulay Library collection, unlike for some other web resources, these can be counted as confirmed records. By this, we do not mean to prejudice or scoop any future publications based upon such data, and would encourage observers to write up additional details of interesting new records.

In connection with this update and in this edition, we have sourced and encouraged the write-up of several new national records (Felix & Mosquera Lima 2020, Friedel 2020, Mur & Donegan 2020 and three further records set out within this paper). This journal edition constitutes the main source of published new national records for Colombia in the year since our last update was published (Donegan *et al.* 2018). The sole exception are a new photographic record in eBird (2020: Cave Swallow *Petrochelidon fulva*, below) and papers leading us to reassess one exotic, non-established escapee (Turkey *Meleagris gallopavo*, below). We acknowledge that there have been a number of important separate taxonomic developments in the same time period.

Status nomenclature

Methods applied in assessing records are set out in Donegan *et al.* (2018). We previously placed birds in one of the categories listed in Table 1 under "Old Code" (see e.g. App. 1). This scheme allowed the various combinations of sight records versus confirmed records, San Andrés & Providencia records and unreliable older specimens to be distinguished (see Donegan *et al.* 2018). San Andrés & Providencia are a contiguous part of Colombia's national territory and records there are equally as valid as any other national record. However, these have been recorded separately in order to facilitate comparisons with the AOS-SACC checklist for Colombia, which excludes San Andrés & Providencia. Note that the Colombian "mainland" for these purposes includes Isla Malpelo, Isla Gorgona, offshore continental islands and contiguous territorial sea of these areas and the continental mainland itself, which are all acceptable for AOS purposes. A separate Malpelo list could also be developed in future.

These categories may have introduced some confusion, since some of the contractions we used are rather similar to one another and no hierarchy was presented between them as to which may have been best (except that Escaped species were always discounted as part of the checklist).

We have reviewed this scheme in light of other checklist authorities' models. The American Ornithologists' Society (Chesser *et al.* 2019, Remsen *et al.* 2020) operates a four-way distinction between hypothetical (our "Obs"), Introduced, Extinct and confirmed (otherwise undenoted) records. In contrast, the British Ornithologists' Union (2018) scheme distinguishes modern records of naturally occurring species (Category A, including those based on confirmed or sight records), species based only on older records (pre-1950) (Category B), introduced and established species (Category C), species of dubious origin (possible but unproven escapees) (Category D) and actual escapees (Category E).

Going forwards we propose a new scheme for status of Colombian birds (Table 1), taking into account the best of other authorities' schemes, but addressing specific issues for Colombia, i.e. a separate San Andrés & Providencia list, records based on dubious older specimens of uncertain provenance and the "hypothetical" concept for sight records.

Table 1. New status categories

New Code	Old Code	Description
Category A: Confirmed records		
A1	[none]	Confirmed on the mainland
A2	Obs+	Confirmed on San Andrés & Providencia, with unconfirmed records on the mainland
A3	SA	Confirmed on San Andrés & Providencia only
Category B: Unconfirmed records		
B1	Obs	Unconfirmed records on the mainland
B2	Obs & SA Obs	Unconfirmed records both on mainland and San Andrés & Providencia
B3	SA Obs	Unconfirmed records on San Andrés & Providencia only
B4	Bog	"Bogotá" specimen only
B5	Obs Bog	"Bogotá" specimen and also other unconfirmed records
Category C: Established, introduced species		
C1	Int	Introduced and established on the mainland
C2	[not yet used]	Introduced and established on San Andrés & Providencia only
C3	[not yet used]	Introduced and established but unconfirmed records only
Category D: Extinct		
D	Ext	Extinct
Category E: Escaped		
E1	Esc	Escaped with confirmed records
E2	Esc Obs	Escaped with unconfirmed records [Note: no separate escapes list for San Andrés maintained]

Note: "mainland" for these purposes includes continental mainland together with Isla Malpelo, Isla Gorgona, offshore continental islands and contiguous territorial sea".

Species added

Christmas Shearwater *Puffinus navitatis*

This species stood on Colombia's list for several years based on a sight record by Spear & Ainley (1999) in the Panama Bight region (under old category "Obs", now Category B1). This record had been accepted by us (since Salaman *et al.* 2008a) and other authorities (e.g. Estela *et al.* 2010, Avendaño *et al.* 2017a) for Colombia, until Donegan *et al.* (2018) noted that the observation locality fell within Panamanian territorial waters.

A new observation is reported by Schmitt *et al.* (2018) in eBird (2020) on 22 March 2018. This relates to observations made by Fabrice Schmitt, Steve N.G. Howell and participants on a WINGS tour. The observation locality (2°50'N, 83°20'W) falls squarely in Colombian territorial waters. The usual benchmark for counting pelagic species on national bird lists (e.g. Remsen *et al.* 2020) is to apply a 200 nautical mile limit from land. This location is more than 200 nautical miles west of mainland Colombia. However, it falls c.150 km WSW of Isla Malpelo and so "counts" for Colombia as a national record. According to the observers, who know the species from elsewhere, identification was relatively straightforward: an all brown little shearwater, easily separated from Sooty Shearwater *Ardenna grisea* by smaller size and lack of gray underwing flashes. Tens of thousands of Sooty Shearwaters were seen by the same observers during the two weeks previous to this sighting, providing a good point of reference. Christmas Shearwater was identified versus the dark morph of Wedge-tailed Shearwater *Ardenna pacifica*, which was also observed on the same tour (Fig. 3) due to its size and different tail shape. Since no photographic confirmation is available, Christmas Shearwater returns once again to the Colombian bird checklist, and again with unconfirmed status (Category B1, formerly "Obs").

Band-tailed Antbird *Hypocnemoides maculicauda*

Black-tailed Antbird *Myrmoborus melanurus*

Photographic records by Friedel (2020) in this edition allows these two antbird species to be added as new confirmed species for Colombia (both as confirmed species in Category A1).

Cave Swallow *Petrochelidon fulva*

Massiah & Levesque (2017 in eBird 2020) present a photograph of this species from the southernmost tip of San Andrés on 2 November 2017. A Colombian specimen exists with unreliable locality data (Lobo–y–HenriquesJC 2014), but the species was not previously listed for the country due to question marks over that record. It can now be added as a confirmed species for San Andrés & Providencia, at least (Category A3, formerly "SA"). Doubtless it will also be recorded before too long on the north coast.



Figure 1. Photograph of adult male Great Frigatebird *Fregata minor* specimen no. LACM 103088 collected by Robert Pitman and Larry Spear near Malpelo Island on 6 December 1985, with close-up showing the greenish mantle sheen.

Changes of status

Great Frigatebird *Fregata minor*

We previously reviewed the status of this species in Donegan *et al.* (2010), transferring it from confirmed (now Category A1) to unconfirmed (former "Obs", now Category B1) status (known only from sight records) so as to align with Anonymous (2009). Hypothetical status was also adopted by Avendaño *et al.* (2017a), which is a later iteration of Anonymous (2009)'s list. Salaman *et al.* (2001) previously included this species for Colombia, citing Pitman *et al.* (1995) and it was placed in a confirmed category by Salaman *et al.* (2008a, 2009) until the revision in Donegan *et al.* (2010), who found no specimens databased in Biomap Alliance Participants (2019).

Pitman *et al.* (1995) reported hundreds of birds on Malpelo island, considering it a probable but unconfirmed breeding species. López-Victoria & Estela (2006) considered it a breeding species, also reporting hundreds of birds there. Estela *et al.* (2010) claimed that the latter records were supported by photography and there are multiple sight records from Malpelo (20 checklists in eBird 2020) and two on the Pacific coast of Nariño (Carantón & Cubillos 2019 and Tabares Segovia 2019, each in eBird 2020), both of which claim unpublished photographic support. A claimed separate photographic record by David Caro from a Malpelo expedition, reproduced in Donegan *et al.* (2010), was considered by experts not to show diagnostic marks sufficiently to qualify as a confirmed record.



Figure 2. Close up of same bird as in Figure 3 from two angles, showing the characteristic greenish mantle sheen in closer detail. 22 March 2018 © Dan Durda.

Therefore, despite such extensive and numerous observations, no confirmed photographic record appears yet to have been published.

A further review of literature in connection with our revision of the status of this species in the country reveals that Pitman *et al.* (1995) reported taking 6 specimens of Great Frigatebird on Isla Malpelo in December 1985.



Figure 3. Great Frigatebird *Fregata minor* in the Colombian Pacific, together with a smaller Wedge-tailed Shearwater *Ardenna pacifica*. 22 March 2018 © Dan Durda.

These are deposited at Los Angeles County Museum (specimen nos. LACM-103088, 103768, 104323, 106756, 105757 and 106758), which means that it should have been retained as a confirmed species (Category A1).

Kimball Garrett (*in litt.* 2019) provided the following information about the LACM specimens: the culmen of the male depicted in Fig. 1 measured 97.1 mm. Another adult male (LACM 103768, prepared as a flat skin and complete skeleton) has a culmen of 100.6 mm. Both measurements are within or even below the expected range for males in central Pacific Ocean populations of Great Frigatebird (*F. minor palmerstoni*) and below that usually found in males of any population of Magnificent Frigatebird *F. magnificens*. However, both were labelled as of subspecies *rigdwayi*. Both male flat skins show a strong green sheen on the dorsal feathering. Mensural data, together with plumage, means that there is no question these two specimens are *Fregata minor*. The other four Malpelo specimens of *F. minor* at LACM were prepared as complete skeletons.

There is also a recent confirmed photographic record. Between 1315 hrs and 1415 hrs on 22 March 2018, during

a Pacific pelagic tour operated by WINGS, Steve N.G. Howell, Dan Durda and others observed an adult male Great Frigatebird, which was photographed (Figs. 2-3) alongside a Wedge-tailed Shearwater *Ardenna pacifica*. The pale alar bar and green sheen (clearly visible on the mantle) both support identification as Great Frigatebird (S.N.G. Howell *in litt.* 2019). In addition, this locality is a long way offshore for Magnificent Frigatebird *F. magnificens*.

The observation locality was between 4°26.744'N, 83°38.304'W (1315 hrs) and 4°49.625'N, 83°43.458'W (1415 hrs). The maritime boundary between Colombia and Panama in this region is at 5°N, based on point F/6 in the *Treaty on the Delimitation of Marine and Submarine Areas and Related Matters between the Republic of Panama and the Republic of Colombia* of 20 November 1976 (produced in United Nations 1987, pp. 160 & 163), meaning that these records are in Colombian waters. A second test for qualifying marine bird records involves a 200 nautical miles (c.320 km) limit from land applied by Remsen *et al.* (2020, Proposal 76 by A. Jaramillo 2003) and other authors. Again, this record qualifies on account of the locality range falling c.230 km NE of Isla Malpelo.

Scissor-tailed Flycatcher *Tyrannus forficatus*

This species is transferred from hypothetical (formerly "Obs", now Category B1) to confirmed status (Category A1) based on the photographic record of Felix & Mosquera Lima (2020) in this issue.



Figure 4. Lesser Violetear *Colibri cyanotus*. Páramo la Floresta, Serranía de los Yariguíes, mun. Zapatoca, dpto. Santander (06°49'N, 73°19'W; 2,800 m) (B. Huertas). This hummingbird was formerly known in Colombia as Green Violetear *C. thalassinus*.

Splits

Lesser Violetear *Colibri cyanotus*

We follow the study of Remsen *et al.* (2015) and other authors (e.g. Chesser *et al.* 2016, Gill & Donsker 2020, Remsen *et al.* 2020) in splitting Central from South American populations of this species. This results in a change of name to the above for the previously-more-widespread Green Violetear *C. thalassinus*, an individual of which is illustrated in Fig. 4.

White-shouldered Fire-eye *Pyriglena leucoptera*

Isler & Maldonado-Coelho (2017) proposed separating the genus *Pyriglena* into five species, whose distributions all encompass Amazonian regions. Under this split, Colombian populations referable to the subspecies *castanoptera* of the East slope (e.g. Fig. 5) would be transferred into Western Fire-eye *P. maura*. As noted by McMullan *et al.* (2018), the western slope subspecies *pacifica* is confirmed close to the Ecuadorian border in Nariño and there are several sight records from ProAves' RNA Pangan (Salaman *et al.* 2008b, p.46; Beckers 2004, van Els 2015 and Urueña 2019a, the latter three each in eBird 2020). The *pacifica* subspecies differs somewhat in plumage and voice from east slope birds, but not drastically; it would also be placed within a split *maura* in the new arrangement, together with east slope birds.

Blackish Antbird *Cercomacroides nigrescens* Riparian Antbird *Cercomacroides fuscicauda*

The Riparian Antbird, a species of Amazonian várzea habitat, was proposed to be split from Blackish Antbird of the Colombian east slope (and elsewhere) by Mayer *et al.* (2014). As flagged in a note to the latest online version of Colombia's bird checklist (Donegan *et al.* 2019), we overlooked the occurrence of *C. fuscicauda* in Colombia when reviewing Mayer *et al.*'s split in Donegan *et al.* (2014). That review omitted to list the corresponding SACC proposal (Proposal 636 by K.J. Zimmer 2014 in Remsen *et al.* 2020) when other contemporaneous revisions by SACC were listed and accepted for Colombia. This is probably because Salaman *et al.* (2001, 2010) listed only subspecies *aequatorialis* of the *nigrescens* group for Colombia, but not *fuscicauda*, based on Biomap Alliance Participants (2019).

Since Hilty & Brown (1986), the occurrence of populations referable to this group in both Leticia (Riparian) and the East slope (Blackish) has been reported, but without any confirmed record in the literature until Mayer *et al.* (2014). Riparian Antbird was included as confirmed for Colombia alongside *C. nigrescens* by Avendaño *et al.* (2017a) for Colombia, but without comment or citation (despite those authors purporting to provide citations for all changes to Colombia's bird list since Hilty & Brown 1986).



Figure 5. Male (above) and female (below) of Western Fire-eye *Pyriglena maura castanoptera*, Serranía de los Churumbelos, Cauca (east slope). P. Salaman, 1998.

Mayer *et al.* (2014) refer to archived sound recordings of a split Riparian Antbird *C. fuscicauda* from the Colombian

Amazon, but they had no samples from Colombia of the *aequatorialis* East slope subspecies of Blackish Antbird *C. nigrescens*. Riparian Antbird seems to occur in appropriate riparian habitats broadly in dpto. Putumayo, based on 17 checklists in eBird (2020). Photographs of Riparian Antbird are shown in Fig. 6, to supplement previously published sound recordings with a confirmed photographic record.

A redefined Blackish Antbird occurs on the southernmost east slope of Colombia, with records only in Nariño (Hilty & Brown 1986, McMullan *et al.* 2010, 2011, McMullan & Donegan 2014), Sierra de Macarena (Cadena *et al.* 2010, McMullan *et al.* 2018) and a single sight record by Uruña (2019b in eBird 2020) in Putumayo. There are several historical specimen records for Colombia listed in Biomap Alliance Participants (2019), although no details of any of them appears ever to have been published. Specimens labelled as *C. [nigrescens] aequatorialis* in Biomap Alliance Participants (2019) include three from Naturalis Biodiversity Centre in the Netherlands which appear to have been mis-identified (S. van der Mije *in litt.* 2019).



Figure 6. Female (above) and male (below) Riparian Antbirds, Puerto Nariño, dpto. Amazonas, Colombia. © Tom Friedel / BirdPhotos.com
<https://www.birdsofcolombia.org/ecuador/Cercomacroides.html>

Two specimens listed at the Academy of Natural Sciences, Philadelphia (ANSP 165077 & 165078) were collected at San Miguel, Nariño by T. Mena in 1946-7. They do not feature in an annotated checklist of the relevant collection (Meyer de Schauensee 1951) and are presently out on loan so cannot be verified (N. Rice *in litt.* 2019). However, the Biomap records are consistent with the museum database (N. Rice *in litt.* 2019) and the identifications were verified in the doctoral thesis of V. Aparecido Cavarzere Jr. (2014, p.363) as a male and female, respectively, of *C. nigrescens*.

Accordingly, following this review, both of these species now qualify as confirmed (Category A1) for Colombia.

Campinas Thrush *T. arthuri*

Following Cerqueira *et al.* (2016), we previously (in Donegan *et al.* 2015) split Amazonian (Floodplain) Thrush *Turdus debilis* and Campina Thrush *T. arthuri* from the familiar Black-billed Thrush *T. ignobilis*. We reversed that change in Donegan *et al.* (2018) based on Avendaño *et al.* (2017b), who concluded that the 2016 study's phylogeny was compromised by inadequate sampling of Colombian populations. Stiles & Avendaño (2019) have now revealed sympatry between *T. arthuri* and *T. (ignobilis) debilis* in Colombia, supporting a split of the former. All three studies also propose splitting the tepui species Pantepui Thrush *T. murinus*, which has not been recorded in Colombia. We now recognize Campinas Thrush again.

We welcome the endeavours of those studying this group, but it is unfortunate that relevant researchers have now proposed three different taxonomic arrangements for the same species-group within just four years!

Others

Various other splits and lumps, mostly of extralimital forms, are addressed below where SACC proposals relevant to Colombia and published in Remsen *et al.* (2020) are discussed.

New subspecies records and descriptions

Black-headed Antbird *Percnostola rufifrons jensoni*

This Amazonian subspecies, previously known only north to Peru, is newly recorded for Colombia by Friedel (2020) in this edition.

Pale-breasted Thrush *Turdus leucomelas upichiarum*

In addition to their review of the *T. ignobilis* group, Stiles & Avendaño (2019) described *Turdus leucomelas upichiarum* as a new subspecies from the Chiribiquete region of eastern Colombia.

Escaped species

Turkey *Meleagris gallopavo*

A fairly common farmyard bird in Colombia. Baptiste *et al.* (2010) report the species as subjected to intentional introduction and as an invasive species in northern Colombia, the Chocó-Magdalena region and the northern Andes. Zuluaga & Echeverry-Galvis (2016) and Restrepo-Cardona *et al.* (2019) reported domestic Turkey among the prey of the endangered Black-and-chestnut Eagle *Spizaetus isidori* during an ecological study. We have previously overlooked listing this as an escaped bird in Colombia. Turkeys occur in Colombia generally on small farms for subsistence meat or as ornamental or pet birds. They tend to be kept in relatively more secure captivity than Chickens *Gallus gallus* due to their higher economic value. However, domesticated birds do not tend to range far if left to wander and can be observed in some rural and village settings. Species in this category (Category E, formerly "Esc") are not a formal part of Colombia's checklist. The species lacks a confirmed photographic record for now, so is added only in Category E2 (formerly, both Esc and Obs).

Swan Goose *Anser cygnoides*

This goose species, whose wild ancestor is of Chinese origin, occurs in domestication, principally in Asia. It is not previously reported for Colombia. A single Swan Goose was observed and photographed within a flock of free-ranging domestic geese *Anser anser* at Bahía de Solano, dpto. Chocó (8 April 2019) by Trevor Ellery (Fig. 7).

This group of birds could be seen on the sea, but returned to gardens adjacent to human settlements when the tide came in. As a result of its bill knob, this bird can be identified as of the "Chinese Goose" breed. Since the record is only a singleton record, in a state approaching domestication, and there is no evidence of any established population, it is added only to the list of escapees (Category E1, formerly "Esc"). This is not part of the official Colombian bird check-list. We are not aware of any previous record in Colombia and the species is rare in the country, even in captivity.



Figure 7. "Chinese Goose" domestic breed of Swan Goose *Anser cygnoides*. Bahía de Solano, Chocó (Trevor Ellery).

Egyptian Goose *Alopochen aegyptiaca*

This waterfowl, a native of Africa, has been widely introduced into Europe and North America. It has not previously been reported in Colombia, even in a recent review including both captive and cultivated species (Baptiste *et al.* 2010), although McMullan & Donegan (2014) mentioned recent records. These records and others are discussed by Mur & Donegan (2020) in this issue. Since breeding is already taking place in suitable habitats, this species should be monitored actively for upgrading to introduced (Category C1, formerly "Int") status. However, given the recent nature of its introduction, the species is added only for now as a confirmed escapee (Category E1, formerly "Esc"). The possibility of natural vagrancy from introduced populations in Florida seems remote, for the reasons given by Mur & Donegan (2020).

Corrections

In producing the updated checklist of the birds of Colombia (Donegan *et al.* 2019) following our last revision paper, it was noted that the Table of changes to the Colombian list in Donegan *et al.* (2018: Table 3, p. 33) contained several errors. A restatement of that table showing corrections is set out in Appendix 1:

- White-faced Storm-Petrel *Pelagodroma marina*, a newly accepted species for Colombia (see Donegan *et al.* 2018, p. 14), was omitted.
- Although we continue to recognize the split of Rufescent Antshrike *Thamnites rufescens* (see Donegan *et al.* 2018, p. 31), as proposed by Isler & Whitney (2017), the split does not occur across the Andes as implied by Remsen *et al.* (2020, images by J.V. Remsen 2017 in Proposal 758 by M. Isler & B. Whitney 2017), but instead southern Amazonian forms are separated from the rest, meaning that both the western and eastern forms occurring in Colombia are of the same species under this treatment, now to be referred to as *T. abanatinus*.
- Prior to our 2018 update, Pine Warbler *Setophaga pinus* was in category Obs+ (now Category A2), not "SA Obs" (now Category B3) (as denoted in Donegan *et al.* 2018, p.21), but its revised status (in Category Obs & SA Obs, now Category B2) was correctly denoted. This example illustrates the need for a new nomenclature of status categories in this edition!
- We omitted to include the split of Amazonian Grosbeak *Cyanoloxia rothschildii* (see Donegan *et al.* 2018, p.32; Proposal 736 by N. García 2017 in Remsen *et al.* 2020, based on García *et al.* 2016) in the table.

Not of relevance to species totals, we also noted that following the taxonomic revision of *Megascops* (see Dantas *et al.* 2016, Donegan *et al.* 2018, pp.31-32), in addition to recognition of Choco Screech-Owl *Megascops centralis*, the other species occurring in Colombia, previously referred to as Vermiculated Screech-Owl

Megascops vermiculatus is renamed as Foothill Screech-Owl *Megascops roraimae*. The correct name was used in the latest online checklist (Donegan *et al.* 2019).

Prior to publication of this paper, the photographer of a *Phylloscartes* Tyrannulet (reproduced in Donegan *et al.* 2018, p. 29, Fig. 21 as a confirmed record of Ecuadorian Tyrannulet *P. gualaquizae*) contacted us to withdraw the identification (R. Felix *in litt.* 2020) after comments provided through eBird (2020) by D. Lane and A. Bartels. This bird is now considered more likely to be of Spectacled Bristle-Tyrant *P. orbitalis*, another rare species in Colombia. Whilst clearly somewhat embarrassing, it is perhaps not entirely unsurprising that the observers, authors and reviewers all missed this: identification of the tyrannulets of the East slope probably represents one of the toughest identification challenges in current Colombian ornithology and is not well addressed by relevant field guides. The high position of the upper wing-bar and pale lower mandible suggest that this bird was indeed misidentified. Ecuadorian Tyrannulet nonetheless retains its status as a confirmed species in Colombia, on account of other confirmed records on eBird (2020). Some of these are inadequate to support certain identification, but that of Orozco Montoya *et al.* (2018: ML 130871941), among many records from La Escondida reserve on the east slope of dpto. Putumayo, leaves no doubt.

Genus names, linear order, spellings, English names and pended proposals

The following changes to names and orders, which are either under consideration or have been accepted by Remsen *et al.* (2020), are relevant to Colombia and adopted here. Proposal numbers and, where appropriate, key references supporting these changes are cited below:

- 730. Revise generic limits in the Thraupidae (J.V. Remsen) (note: several other parts of this proposal were previously accepted in Donegan *et al.* 2018, but the following had been pended):
 - 730.17 Resurrect *Geospizopsis* for *Phrygilus unicolor* and *P. plebejus*.
 - 730.18 Recognize a monotypic *Tephrophilus* for *Buthraupis wetmorei*; recognize monotypic *Sporathraupis* Ridgway 1898 for *Thraupis cyanocephala*; and continue to recognize *Anisognathus* as monophyletic despite lack of support (both, Burns *et al.* 2014, 2016).
- 751. Revise species limits in *Poliophtila guianensis* complex (J. Socolar) (Smith *et al.* 2018) (see above).
- 759. Treat *Pyriglena* (Thamnophilidae) as consisting of five species (Isler & Maldonado-Coelho 2017) (see above).
- 778. Revise the classification of the Icteridae: (A) add seven subfamilies; (B) split *Leistes* from *Sturnella*; and (C) modify the linear sequence of genera (Powell *et al.* 2013, Remsen *et al.* 2016, Schodde & Remsen 2016).

780. Change the generic classification of the Trochilini (part 1) (Stiles *et al.* 2017).
- 790A. Treat *Ramphocaenus sticturus* as a separate species from *Ramphocaenus melanurus* (D. Lane) (Smith *et al.* 2018), resulting in the split of an extralimital form and only a change in English name for the sole species still recognized as occurring in Colombia (which may represent at least 3 good species, a case meriting further study).
796. Recognize *Colibri cyanotus* as a separate species from *C. thalassinus* (Remsens *et al.* 2015) (see above).
- 797A. Split extralimital *Aramides albiventris* from *Aramides cajaneus* (J.V. Remsens) (Marcondes & Silveira 2015).
- 797B. Change English name of *Aramides cajaneus* from Gray-cowled Wood-Rail (J.V. Remsens).
798. Split the storm-petrels (Hydrobatidae) into two families (S.M. Billerman) (Reddy *et al.* 2017).
799. Establish English names for the two species of *Schistes* (F. G. Stiles).
800. Establish English names for the two species of *Urochroa* (F. G. Stiles & J. V. Remsens).
- 801A. Establish English names for *Grallaricula ferrugineipectus* split: retain Rusty-breasted Antpitta for *G. ferrugineipectus* (J. Beck).
802. Revise familial limits and the linear sequence of families within the nine-primaried oscines (N.A. Mason) (Barker *et al.* 2013).
807. Change the English name of *Discosura longicaudus* (M. Iliff).
812. Split Sierran Elaenia (*Elaenia pallatangae*) into two species (T. Schulenberg) (Rheindt *et al.* 2008, 2009, Tang *et al.* 2018) (results in split of a tepui group with no change to Colombia's checklist).
814. Recognize *Turdus murinus* and *T. arthuri* as species distinct from *T. ignobilis* and establish English names for both (Stiles & Avendaño 2019) (see discussion above).
817. Treat *Epinecrophylla fjeldsaai* and *E. pyrrhonota* as subspecies of *E. haematonota* (Isler & Whitney 2018); results in a change of name of Colombian populations back to *E. haematonota* again, reversing the change made and discussed in Donegan *et al.* (2013) based on Whitney *et al.* (2013) (which was accepted in SACC Proposal 589). The English name for this species again becomes Stipple-throated Antwren.
- 818A. Split *Pyrocephalus nanus* of the Galapagos from *P. rubinus* (A. Jaramillo) (Carmi *et al.* 2016).
819. Resurrect the genus *Dendroma* Swainson 1837 for *Philydor erythropterum* and *P. rufum* (S. Claramunt) (Derryberry *et al.* 2011).
820. Treat North American *Cistothorus stellaris* as a separate species from *Cistothorus platensis* (S. Claramunt) (Robbins & Nyári 2014).
824. Change English name of *Oceanodroma hornbyi* to Hornby's Storm-Petrel (A. Jaramillo).
825. Treat *Sarkidiornis sylvicola* as a separate species from *Sarkidiornis melanotos* (J. Pacheco) (del Hoyo & Collar 2014). We omitted to analyse this cross-continental split from our review in Donegan *et al.* (2015), but agree with it.
827. Revise the classification and linear sequence of the Tyrannoidea: (A) Recognize a new family Onychorhynchidae; (B) Modify linear sequence of families; (C) Add three subfamilies to the Tyrannidae (J.V. Remsens & D. Dyer) (Cicero & Johnson 2002, Ohlson *et al.* 2008, 2013, Rheindt *et al.* 2008, Tello *et al.* 2009, Zucker *et al.* 2016).
828. Revise classification of Claravinae: (A) transfer *Claravis geoffroyi* and *C. mondetoura* to *Paraclaravis*, and (B) modify linear sequence of genera (J.V. Remsens & N. Mason) (Sweet *et al.* 2017, Sangster *et al.* 2018).
833. Treat *Lophornis verreauxii* as a separate species from *Lophornis chalybeus* (J.F. Pacheco) (del Hoyo & Collar 2014), a reversal of our previous cautious pending of this split in Donegan *et al.* (2015) on account of a broader vocal data set and requested plumage analysis involving all species in the relevant SACC proposal.
836. Replace the genus name *Islerothraupis* with its senior synonym *Loriotus* (Piacentini *et al.* 2019).
- The following proposals currently being considered by AOS-SACC are pending for a future checklist update:
702. Change hyphenated group-names within the genera *Pseudotriccus*, *Euscarthmus*, *Myiornis*, *Lophotriccus*, *Oncostoma*, *Atalotriccus*, and *Hemitriccus* (K. J. Zimmer).
754. Elevate 13 taxa to species rank based on playback experiments (Freeman & Montgomery 2017):
- A. Elevate *Pseudocolaptes johnsoni* to species rank.
 - C. Elevate *Grallaria andicola* to species rank.
 - E. Elevate *Ochthoeca thoracica* to species rank.
 - F. Elevate *Myadestes venezuelensis* to species rank.
 - H. Elevate Amazonian populations of *Tunchiornis ochraceiceps* to species rank.
 - I. Elevate South American populations of *Basileuterus culicivorus* to species rank.
 - J. Elevate *Myiothlypis chlorophrys* to species rank.
 - K. Elevate *Myiothlypis striaticeps* to species rank.
 - M. Elevate Amazonian populations of *Arremon aurantiirostris* to species rank.
755. Split *Campylopterus largipennis* into four species (Lopes *et al.* 2017).
777. Recognize additional species in the *Aulacorhynchus "prasinus"* toucanet complex (K. Winker).
781. Change the generic classification of the Trochilinae (part 2) (Stiles *et al.* 2017).
792. Establish English names for *Thamnistes* species (J. V. Remsens).
- 818 (Parts B-C only). Split further *Pyrocephalus rubinus* into multiple species (A. Jaramillo) (Carmi *et al.* 2016).

821. English names within *Ramphocaenus melanurus* complex (D. Lane).
829. Merge *Oceanodroma* into *Hydrobates* (S. Billerman) (Wallace *et al.* 2017).
830. Transfer *Picoides fumigatus* and all *Veniliornis* to *Dryobates* (J.V. Remsen & S.M. Billerman) (Shakya *et al.* 2017).
832. A. Recognize the new genus *Cryptopezus* for "*Hylopezus nattereri*" and B. transfer *H. berlepschi*, *H. fulviventris* and *H. dives* to *Myrmothera* (Carneiro *et al.* 2019).
835. Change the English name of *Saucerottia saucerottei* (J.V. Remsen).
837. Recognize additional species in the Sedge Wren (*Cistothorus platensis*) complex (Robbins & Nyári 2014).
840. Establish English family name for the Onychorhynchidae (J.V. Remsen).
841. Change the species status of two swifts of the genus *Chaetura*: (A) recognize *C. andrei* as a valid species, and (B) treat *C. viridipennis* as conspecific with *C. chapmani* (Chesser *et al.* 2018).

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Table 2. Changes to numbers of species in particular categories and new species total in this bird checklist update for Colombia.

Change	Species / Category	A1	A2	A3	B1	B2	B3	B4	B5	C	D	E1	E2	Total
	Old category	Conf.	Obs +	SA	Obs.	Obs SA Obs	SA Obs	Bog	Obs Bog	Int	Ext	Esc	Esc Obs	
<i>Totals per category 2018</i>		1854	2	11	49	1	8	2	3	4	1	[12]	[5]	[1952]
Species added	Christmas Shearwater <i>Puffinus nativitatis</i>				+1									
	Band-tailed Antbird <i>Hypocnemoides maculicauda</i>	+1												
	Black-tailed Antbird <i>Myrmoborus melanurus</i>	+1												
Splits	Cave Swallow <i>Petrochelidon fulva</i>			+1										
	Riparian Antbird <i>Cercomacroides fuscicauda</i>	+1												
Escaped species	Campinas Thrush <i>T. arthuri</i>	+1												
	Turkey <i>Meleagris gallopavo</i>												[+1]	
Changes of status	Swan Goose <i>Anser cygnoides</i>											[+1]		
	Egyptian Goose <i>Alopochen aegyptiaca</i>											[+1]		
Overall change since 2018 update	Great Frigatebird <i>Fregata minor</i>	+1			-1									
	Scissor-tailed Flycatcher <i>Tyrannus forficatus</i>	+1			-1									
New totals per category 2019		+6	2	+1	-1							[+2]	[+1]	[+9]
<i>[Less Category E - escaped species]</i>													<i>E:</i>	<i>[20]</i>
TOTAL FOR COLOMBIA 2019			A:	1874				B:	62					1941

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Appendix 1. Re-cut summary of changes in the 2018 update. Omitted or corrected cells are highlighted in bold and underscore. New category statuses adopted in this paper are also shown for convenience but the columns have not been re-ordered, as was the case for Table 1.

Change	Species	Conf.	Obs.	Obs Bog	SA	SA Obs	Obs+	Obs & SA Obs	Bog	Ext	Int	Esc	Esc Obs	Total	
	Category Codes	A1	B1	B5	A3	B3	A2	B2	B4	D	C1	E1	E2		
November 2016 Checklist totals		1,859	46	1	11	7	3	0	5	1	4	[9]	[7]	1,937 [1,953]	
Species added	Chilean Flamingo <i>Phoenicopterus chilensis</i>	+1													
	Red-tailed Tropicbird <i>Phaethon rubricauda</i>		+1												
	Juan Fernandez Petrel <i>Pterodroma externa</i>		+1												
	White-chinned Petrel <i>Procellaria aequinoctialis</i>		+1												
	Tahiti Petrel <i>Pseudobulweria rostrata</i>		+1												
	Gould's Petrel <i>Pterodroma leucoptera</i>		+1												
	White-faced Storm-Petrel <i>Pelagodroma marina</i>		+1												
	Antshrike <i>Thamnophilus</i> sp.	+1													
	Yellow-crowned Elaenia <i>Myiopagis flavivertex</i>	+1													
	Ochraceous Wren <i>Troglodytes ochraceus</i>	+1													
	Red-crested Finch <i>Coryphospingus cucullatus</i>	+1													
Lincoln's Sparrow <i>Melospiza lincolni</i>		+1													
Common Quail <i>Coturnix coturnix</i>												[+1]			
Splits	Rufescent Antshrike <i>Thamnites rufescens</i>	+1													
	Choco Screech-Owl <i>Megascops centralis</i>	+1													
	Amazonian Grosbeak <i>Cyanoloxia rothschildii</i>	+1													
Species removed	South American Tern <i>Sterna hirundinacea</i>		-1												
	Christmas Shearwater <i>Puffinus navitatis</i>		-1												
	White-bellied Storm-Petrel <i>Fregatta grallaria</i>		-1												
	Bluish-fronted Jacamar <i>Galbula cyanescens</i>	-1													
	Black-necked Araçari <i>Pteroglossus aracari</i>	-1													
	Undulated Antshrike <i>Frederickena unduliger</i>		-1												
	Chestnut-shouldered Antwren <i>Euchrepomis humeralis</i>	-1													
	Painted Tody-Flycatcher <i>Todirostrum pictum</i>	-1													
	Roraiman Flycatcher <i>Myiophobus roraimae</i>	-1													
Couch's Kingbird <i>Tyrannus couchii</i>						-1									
Dotted Tanager <i>Tangara varia</i>	-1														
Lumps	Bogota Sunangel <i>Helianthus zusii</i>								-1						
	Perija Starfrontlet <i>Coeligena consita</i>	-1													
	Colombian Screech-Owl <i>Megascops colombianus</i>	-1													
	Amazonian (Floodplain) Thrush <i>Turdus debilis</i>	-1													
Campina Thrush <i>T. arthuri</i>	-1														
Changes of status	Imperial Snipe <i>Gallinago imperialis</i>			+1					-1						
	Belcher's Gull <i>Larus belcheri</i>	+1	-1												
	Galapagos Penguin <i>Spheniscus mendiculus</i>	-1	+1												
	Antillean Nighthawk <i>Chordeiles gundlachii</i>	-1				+1									
	Little Woodstar <i>Chaetocercus bombus</i>	-1	+1												
	Black Nunbird <i>Monasa atra</i>	-1	+1												
	Pacific Parrotlet <i>Forpus coelestis</i>	+1	-1												
	Beautiful Treerunner <i>Margarornis bellulus</i>			+1					-1						
	Buff-throated Tody-Tyrant <i>Hemitriccus ruficularis</i>	+1	-1												
	Short-tailed Field Tyrant <i>Muscigralla brevicauda</i>	+1	-1												
	White-throated Kingbird <i>Tyrannus albogularis</i>	+1	-1												
	Foothill Schiffornis <i>Schiffornis aenea</i>	+1	-1												
	Gray-chested Greenlet <i>Hylophilus semicinctus</i>	-1	+1												
	Guianan Gnatcatcher <i>Poliopitila guianensis</i>	-1	+1												
	Pirre Chlorospingus <i>Chlorospingus inornatus</i>	-1	+1												
	Palm Warbler <i>Setophaga palmarum</i>	-1				+1									
Pine Warbler <i>Setophaga pinus</i>					-1	-1	+1								
Island Canary <i>Serinus canaria</i>												[+1]	[-1]		
Zebra Finch <i>Taeniopygia guttata</i>												[+1]	[-1]		
Overall Change since 2016 Checklist		-5	+23	+2	-	-+1	--1	+1	-3	1	-	[+3]	[-2]		
New totals per category 2018		1,854	4849	3	11	78	2	1	2	1	4	[12]	[5]	[1,952]	
Less escaped species														[-17]	
TOTAL FOR COLOMBIA 2018														1,935	

New record of Green-winged Teal *Anas crecca carolinensis* in Colombia

*Nuevo registro del Pato Aliverde Americano *Anas crecca carolinensis* en Colombia*

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Abstract. Details are presented of a recent record of Green-winged Teal *Anas crecca carolinensis* in dpto. Sucre. This duck is a rare vagrant to Colombia and this appears to be the first departmental record.

Keywords: new record, teal, distribution.

Resumen. Se presentan detalles sobre un registro reciente de *Anas crecca carolinensis* en el dpto. de Sucre. Esta es una especie de pato migratorio, raro en Colombia, y este, parece ser el primer registro para el departamento.

Palabras clave: nuevo registro, pato, distribución.

Introduction

Green-winged Teal *Anas crecca carolinensis* breeds in North America and is a rare vagrant to Colombia (McMullan & Donegan 2014), with only a handful of published records, including on San Andrés island (McNish 2003) and in dptos. Cundinamarca (Hilty & Brown 1986), Valle del Cauca (Cifuentes-Sarmiento 2016) and Magdalena (Arzuza *et al.* 2008) in the mainland.

Methods

On 18 February 2019, we were bird-watching at Reserva Natural Sanguare, dpto. Sucre on the Caribbean coast, a few hours' drive south-west of Cartagena. The reserve is a mix of coastal mangrove and dry forest, containing a number of small freshwater lakes. This was the penultimate day of a superb holiday in Colombia – our first trip to South America – mixing some birding with other activities.

Results

I was by myself watching one of the smaller lakes surrounded by trees at Reserva Natural Sanguare, which among other things had a number of Blue-winged Teal *Anas discors* on it. I then noticed, close-by but not immediately associating with them, a different duck which at first sight was very familiar to me, as we have many Common (Eurasian) Teal (*Anas c. crecca*) in the area where I live. However, I soon realised that the white vertical stripe on the side of its breast meant that this could only be a Green-winged Teal (*A. crecca carolinensis*). I watched the bird for about fifteen minutes – it hardly moved – and took some photographs (Fig. 1) in which I subsequently noted the bird's lack of a horizontal scapular stripe. I also consulted McMullan & Donegan (2014) and realised that this was an unusual sighting. I uploaded the record to eBird (Clements 2019 in eBird 2020) and noted that

this indeed was the first for the country on that database and apparently the first record for dpto. Sucre – a splendid end to an excellent holiday!

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Figure 1. Green-winged Teal at RN Sanguare, Sucre. 18 February 2019. Above in habitat, below close up.

Records of three new antbirds for Colombia

Registros de tres nuevos hormigueros para Colombia

[Editors' note: this piece first appeared on the website www.birdphotos.com. The author has kindly allowed it to be reproduced in this edition of *Conservación Colombiana*.]

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Abstract. Details are presented of photographic records of Black-headed Antbird *Percnostola rufifrons jensoni*, Band-tailed Antbird *Hypocnemoides maculicauda* and Black-tailed Antbird *Myrmoborus melanurus*, a subspecies and two species of antbird not previously reported to occur in Colombia.

Keywords: new record, antbird, distribution.

Resumen. Se presentan detalles sobre registros fotográficos de *Percnostola rufifrons jensoni*, *Hypocnemoides maculicauda* y *Myrmoborus melanurus*, una subespecie y dos especies de aves hormigueros no reportados anteriormente en Colombia.

Palabras clave: nuevo registro, hormiguero, distribución.

In February of 2019, I visited Leticia in the Colombian Amazon for a third time. Although Mitú and Iririda are very popular destinations for birders, I have always felt that Leticia, with the large number of Amazon river and várzea specialists, was just as interesting.

In 2017, we encountered an ant swarm around kilometer 14 in Leticia, and I was able to obtain photos of both a male and female Black-headed Antbird *Percnostola rufifrons*. Most maps do not show this species in Leticia. The '*jensoni*' subspecies is in northeast Peru and the '*minor*' subspecies is in east Colombia. The female I saw resembles the female '*jensoni*' (from HBW information) because it has a lot of grey, but it seemed odd to see the subspecies on the other side of the Amazon river. There are now a few other records on eBird of the Black-headed Antbird in the 'tierra firme' forests in Leticia, but I have not seen another photo of the female.

In February 2019 we visited a new várzea site near Lago Tarapoto, because most of the usual sites were flooded. On the way we passed through a section of forest on a boat, and recorded a pair (male and female) of Band-tailed Antbirds *Hypocnemoides maculicauda*. They did not respond to the recording I had for a Black-chinned Antbird *Hypocnemoides melanopogon*, and I didn't have a recording for the Band-tailed Antbird. Both sexes clearly show a band on end of the tail. I had seen a pair of similar antbirds in 2017 in almost the same place, except during low water, but was not able to photograph the tail or hear the song. They somehow seemed

different than the Black-chinned Antbirds I had seen in Iririda because they were out of the forest at the water edge, and moving as a pair, so in 2019 I was on the look out for Band-tailed Antbirds.

In the same várzea forest, we found a male Black-tailed Antbird *Myrmoborus melanurus* on the first visit, a female on the second visit a few hundred meters further along, and both sexes together on the third visit. I didn't know what species it was until the third visit, and the female at least responded to playback and then disappeared, almost as if it had encountered playback before (which seems unlikely). This patch of várzea was especially dark and wet and full of mosquitos.

All three birds illustrated were photographed and are shown in Figure 1. Given that these three pairs of birds that had previously thought to be species or subspecies only found on the south side of the very wide Amazon river, I am wondering how much of a barrier the Amazon river really is. How often does an antbird cross the Amazon river? Perhaps they cross some of the Amazon tributaries further west, or places where islands shorten the crossing? Could they cross on floating vegetation?

Acknowledgements

Most of the records described in this article were seen with local guide Otto Linares, who has excellent eyes and ears for finding secretive birds.



Figure 1. Three new antbirds for Colombia. Males are on left and females are on right and middle centre. Top: Black-headed Antbird *Percnostola rufifrons jensoni*, km 14, Leticia, Amazonas, Colombia, 16 September 2017. Middle: Black-tailed Antbird *Myrmoborus melanurus*, Puerto Nariño, Amazonas, Colombia, 21 February 2019. Lower: Band-tailed Antbird *Hypocnemoides maculicauda*, Puerto Nariño, Amazonas, Colombia, 25 February 2019. All photographs by Tom Friedel, © <http://www.BirdPhotos.com>.

Back from the brink of extinction: how the recovery of the Yellow-eared Parrot united a nation

*De vuelta desde el borde de la extinción: como la recuperación del Loro Orejiamarillo *Ognorhynchus icterotis* unió una nación*

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Abstract

At the turn of the twentieth century, the Yellow-eared Parrot *Ognorhynchus icterotis* was considered abundant across the Colombian Andes but, by the 1990s, hunting of the parrot and logging of Quindío Wax Palms *Ceroxylon quindiuense* for Palm Sunday had decimated the population, pushing it to the verge of extinction. As an emergency response, a conservation campaign was mounted to protect this Critically Endangered species, involving collaboration among many entities and communities across Colombia, who together addressed the multiple challenges facing the species with innovative strategies. After starting conservation efforts, the population rebounded from 81 individuals in the early 2000s and started expanding back across its former range. By 2019, the population exceeded 2,600 individuals and it was no longer considered at imminent risk of extinction. The dire plight of the Yellow-eared Parrot unified a nation to work collaboratively to save the species. This resulted in one of the most successful recoveries of a species on the brink of extinction. In an era when mankind is struggling to reverse the fate of so many endangered species, the recovery of the Yellow-eared Parrot in Colombia offers hope that we can make a difference even in the face of great adversity.

Keywords: Yellow-eared Parrot, conservation, Colombia, wax palm, Critically Endangered, population recovery.

Resumen

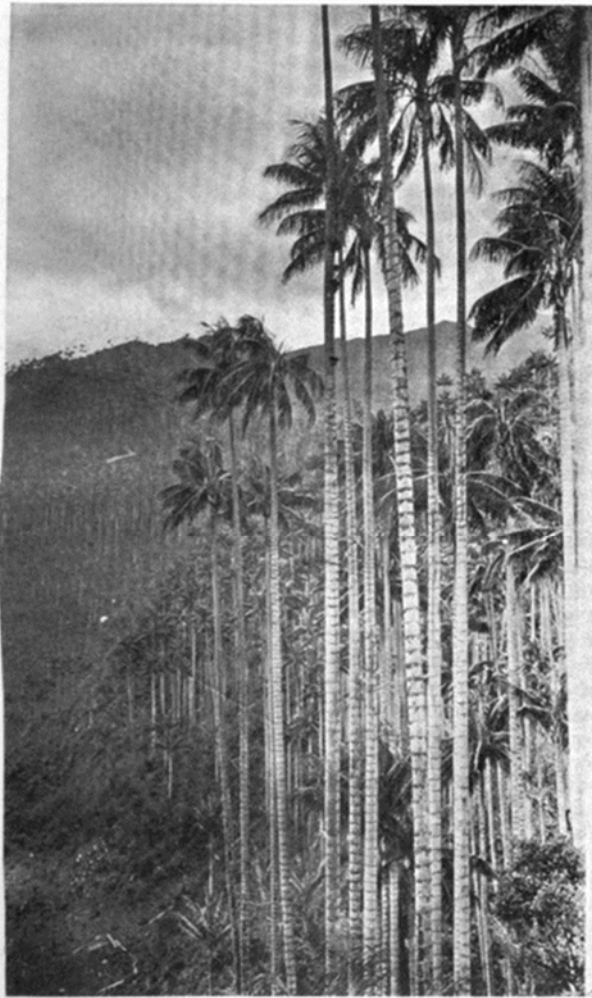
A comienzos del siglo XX, el Loro Orejiamarillo *Ognorhynchus icterotis* se consideraba abundante en los Andes colombianos, pero hacia 1990, la caza del loro y la tala de la Palma de Cera del Quindío *Ceroxylon quindiuense*, relacionada con las celebraciones del Domingo de Ramos, habían resultado en la disminución de la población llevándola al borde de la extinción. Como respuesta de emergencia, se organizó una campaña de conservación para proteger a esta especie en Peligro Crítico, trabajando en colaboración con varias entidades y comunidades de Colombia. Se abordaron múltiples desafíos con estrategias innovadoras. Después de comenzar varios esfuerzos de conservación, la población del loro se recuperó desde 81 individuos y comenzó a expandirse. En el año 2019, la población había superado a los 2.600 individuos; por tal razón, la especie ya no se considera en riesgo de extinción. La grave situación del Loro Orejiamarillo unió la nación para salvar a la especie, resultando en una de las recuperaciones más exitosas de una especie al borde de la extinción. En una era en que la humanidad está luchando por revertir el destino de tantas especies amenazadas, la recuperación del Loro Orejiamarillo en Colombia ofrece la esperanza de poder hacer cambios incluso frente a una gran adversidad.

Palabras clave: *Ognorhynchus icterotis*, conservación, Colombia, *Ceroxylon quindiuense*, Peligro Crítico, recuperación de la población.

Introduction

A mass extinction crisis is upon us (Ceballos *et al.* 2017). A growing proportion of the earth's biodiversity has already disappeared in the form of species extinctions (Ceballos *et al.* 2015), whilst tropical forests and other natural habitats are being destroyed at an alarming rate (Laurance 2010). Whilst certain elements of human society seek to eliminate nature as a by-product of commercial activities,

conservationists have engaged several last-ditch efforts to save species on the brink of extinction. Some of these have been too late, such as in the case of the Northern White Rhino *Ceratotherium simum cottoni* (Anon 2018), Poo-uli or Black-faced Honeycreeper *Melamprosops phaeosoma* (BirdLife International 2019), and Golden Toad *Incilius periglenes* (Anchukaitis and Evans 2010). In an era when conservationists are struggling to reverse the



WAX PALMS

Photographed on the Quindío Trail, Central Andes, where in 1801 Humboldt and Bonpland discovered this species. Mature trees were estimated to attain a height of 180 to 200 feet. A large Parrot (*Ognorhynchus icterotis*) was found, nesting in colonies in these palms in May, 1911. The nesting-holes were just below the leaves.
(Subtropical Zone.)



Figure 1: Photo plate from Chapman (1917) and photograph from Google Earth (2019) typical of the current landscape on the Quindío trail.

grim fate of so many threatened species and face an overwhelmingly pessimistic outlook, we present a remarkable success story of a species recovery, for the Yellow-eared Parrot *Ognorhynchus icterotis*, that gives hope and reassurance that conservation efforts *can* make a difference in the face of adversity. Within two decades, sustained conservation actions have resulted in a lost species being rediscovered, its breeding grounds eventually found, the rebuilding of its population and a gradual downgrade from Critical Endangered status.

Once common in the northern Andes of Colombia and Ecuador, the Yellow-eared Parrot had essentially vanished by the 1990s. The species is a magnificent

and unique green parrot with fluffy yellow cheeks. It is a member of a monotypic genus, so as well as being endangered, it is also unique. The species' ecology had previously been linked to the Quindío Wax Palm *Ceroxylon quindiuense* (Chapman 1917). Further investigations during this conservation project revealed that this giant palm is essential for the bird's nesting, roosting and feeding activities. Unfortunately, the tree itself is itself threatened (assessed as Vulnerable by the IUCN since 1998 to date). Deforestation for cattle pastures combined with overharvesting of the trees' leaves for use in celebrations of Palm Sunday nearly wiped out the wax palm. However, historically it was widespread (Salaman 1999, BirdLife International 2016).

In May 1911, the ornithologist Frank Chapman found extensive tracts of wax palms in the Colombian Andes supporting Yellow-eared Parrot populations. He noted: "*In places nearly every palm was occupied by a pair of these birds...*" (Chapman 1917). The accompanying landscape photo by Chapman (Fig. 1) depicts a substantial wax palm-dominated forest landscape. His description noted that the Yellow-eared Parrot was "*common, and in places, abundant...*" during his exploration of the Central Andes.

By 1996, the Yellow-eared Parrot population had been devastated by hunting and habitat loss. Wax palms had been decimated (Fig. 1) and few Yellow-eared Parrot flocks survived. It was clear that this enigmatic species, a unique monotypic genus, was fast approaching extinction (Salaman 1999). The species had already been wiped out from northern Ecuador (Krabbe & Molina 1996) and no Colombian records existed since 1985, possibly 1991 (Collar *et al.* 1992).

This situation paralleled the decline of the Carolina Parakeet *Conuropsis carolinensis*, a formerly widespread species of eastern North America. Both species are monotypic, gregarious, non-range

restricted and once reported as abundant. Both species were unwary of man and easily hunted – even failing to disperse when attacked. This facilitated the obliteration of local populations by over-enthusiastic hunters or collectors, with entire flocks slaughtered. In an encounter with Carolina Parakeets, the ornithologist Alexander Wilson documented: "*I saw them in great numbers... they settled, in one body, on a neighboring tree, covering almost every twig of it, and the sun, shining strongly on their gay and glossy plumage, produced a very beautiful and splendid appearance. Having shot down a number, some of which were only wounded, the whole flock swept repeatedly around their prostrate companions, and again settled on a low tree, within twenty yards of the spot where I stood. At each successive discharge though showers of them fell, yet the affection of the survivors seemed rather to increase; for, after a few circuits around the place, they again alighted near me, looking down on their slaughtered companions with such manifest symptoms of sympathy and concern, as entirely disarmed me.*" (Brewer 1854). An extraordinary level of tameness to man also affects Yellow-eared Parrot, which likely contributed to its rapid extirpation for subsistence hunting.



Figure 2. Yellow-eared Parrot *Ognorhynchus icterotis* emerging from a Quindío Wax Palm *Ceroxylon quindiuense* cavity.

Extinction in Ecuador

In an attempt to help save the Yellow-eared Parrot from extinction, Loro Parque Fundación launched emergency conservation efforts first in Ecuador, attempting to save the last known flock in 1996. Three key properties were purchased in 1997 and 1998 totalling 160.2 ha in Cotopaxi Province and were managed with a view to protect habitat for the species. These properties included the last known roosting site in Ecuador. Despite these actions, the population continued to decline from hunting; two birds were seen in September 1998, but despite intensive searches that continued for years to come (Salaman 1999), the species has not subsequently been recorded in Ecuador (see further Krabbe & Molina 1996).

A new record, a glimmer of hope and Proyecto *Ognorhynchus*

Our work with this species in Colombia started when a flock of 24 parrots was discovered in October 1997 in Colombia's Central Andes by Paul Salaman, who was leading a bird tour across Colombia (Salaman *et al.* 1999).

This exciting find led to an immediate conservation response, via the formation of "Proyecto *Ognorhynchus*" (Salaman *et al.* 2006a). The project was supported by Loro Parque Fundación and led by project director Paul Salaman. It was organized as an emergency conservation project with project team members operating on the basis only of grants. The aim of the project was to find viable population of the Yellow-eared Parrot and save it from extinction. However, despite 3,500 field hours by experienced ornithologists on the team spent searching, over eleven months from May 1998, concentrated in the region of the 1997 sighting, no further records were made (Salaman *et al.* 1999). To collect local knowledge about the parrot's presence, an outreach poster was circulated across Colombia as part of a campaign, asking for sightings to be reported. Several promising reports by local residents were followed up on, but the study continued to draw blanks. The species was considered to be extinct at its historical stronghold sites. Its survival looked increasingly bleak (Salaman *et al.* 1999).

Golden-eared discovery

Just as efforts were drawing to a close, the project team followed-up on a report from the remote Cucuana valley in the Central Andes of mun. Roncesvalles, dpto. Tolima. Late afternoon on 18th April 1999, project team members Bernabé López-Lanús and Alonso Quevedo heard the faint but distinctive raucous chatter of parrots, and then descending from the clouds above a breath-taking alpine-like landscape,

flocks of Yellow-eared Parrots swooped down in tightly synchronized barrel rolls into palm-studded pastures. The parrots alighted in Quindío Wax Palms *Ceroxylon quindiuense* overhead and clambered down the fronds in chattering pairs and small groups to gorge on bundles of ripening thumb-sized palm fruit. A total of 81 birds, including a breeding pair at a nest were discovered at this site (Salaman 1999, 2001, Salaman *et al.* 1999). After almost a year of unsuccessful searches, there was hope after all!

The site was 55 km from the 1997 observation, which may have involved wandering birds foraging for food. Critically, the nesting site of what appeared to be the last flock of *Ognorhynchus* had now been found! The plot of the film *Rio 2* (2014) revolved around conservationists finding an undiscovered fantasy flock of the Spix's Macaw *Cyanopsitta spixii*, another Neotropical Parrot considered Critically Endangered. In 1999 in Colombia, this fictional story was imitated in real life, with the discovery of a viable flock of the Yellow-eared Parrot in its natural habitat!

The *Proyecto Ognorhynchus* team immediately launched a comprehensive conservation program in an emergency response to study and protect the species. Over the coming months, a wealth of information on the species' ecology and natural history was gathered from round-the-clock observations.

Every evening, the parrots would gather and socialize together, before roosting for the night beside the heart of the palm. Like a children's kindergarten class, pairs and small groups chattered, preened and frolicked amongst the palm groves, often flying within feet of people as they played, seemingly without a care in the world. It was clear that the Yellow-eared Parrot was an exceptionally social and strongly bonding species. They dispersed from roost sites at first light; during the day, they gradually returned, arriving at the wax palm roost site by mid- to late-afternoon.

Imminent threats

It quickly became apparent that there were multiple major threats facing the Yellow-eared Parrot and the wax palm upon which the bird depended, that collectively imperilled the species' long-term prospects of survival. The greatest issues hinged on four principal threats:

- 1) Hunting for food and sport: Unlike other parrots, this species is highly approachable and appears blissfully ignorant of people, so much so that children with slingshots could approach close enough to kill birds as a pastime. Local people would also shoot the parrots for food.

- 2) Habitat loss: 90-93% of montane forests had been decimated at key sites for the parrot. Although the national parks network includes several significant protected areas in the middle-section of the Central Andes (e.g. PNN Los Nevados, PNN Otún Quimbaya, PNN Páramo Las Herosas, PNN Nevado del Huila), none of them included suitable habitats where Yellow-eared Parrot occurred.
- 3) Lack of nest site availability: The parrots nest only in dead standing wax palms. These were prime material for durable fence posts or firewood, causing the trees to be cut down and used by farmers. Furthermore, the time for a wax palm to develop from a sapling through life to a dead tree is significant, and the recuperation of nesting sites is therefore challenging.
- 4) Overharvesting of wax palm fronds for Palm Sunday: The central fronds or spike of live wax palms was coveted for traditional Palm Sunday processions in Colombia. Wax palm stands across the Colombian Andes were decimated for this demand.

With these principal threats identified, the team formulated a conservation strategy (Salaman *et al.* 2006b), which by necessity was founded on meticulous field study to elucidate the essential elements of the ecology and biology of the Yellow-eared Parrot (Flórez 2006, Pacheco & Losada 2006, Salaman *et al.* 2006c).

Grave situation, grave solution

Before addressing threats, the project had to address difficult security and health and safety issues as the newly discovered colony was located in an area under control of the 50th front of the FARC (*Fuerzas Armadas Revolucionarias de Colombia*) guerrilla and a major battle zone for confrontations with the national army. Since 1964, the guerrillas had been in armed conflict with the Colombian government and by 1999 the FARC were at an historic strong point with over 20,000 combatants and controlling much of Colombia's rural territory.

It was therefore necessary, consistent with most other conservation projects of the period in Colombia, to obtain permission and support for fieldwork from both governmental and non-governmental authorities and to obtain community support for the project. Biological conservation was generally consistent with the political ideals of this guerrilla group, who not only allowed the project to continue but issued a decree



Figure 3. Yellow-eared Parrot relies on Wax Palms for perching and feeding.

requiring protection of the Yellow-eared Parrot from hunting. This decree and educational aspects of the project resulted in broad adherence from local inhabitants; hunting stopped immediately, forming a starting point for population recovery. Thereafter the project team had no evidence of a parrot being harmed. Ironically, owing to the rebel prohibition, the Yellow-eared Parrot had become a beneficiary of Colombia's civil conflict.

Although hunting - a major immediate threat to the species - was soon averted, the *Proyecto Ognorhynchus* team worked at great personal risk in a conflict zone to study and protect the parrot. Enduring attacks from all sides, one member of the field team was kidnapped and held for eight months by guerrilla rebel forces. On another occasion, the National Army mistakenly shot at the field team with rocket-propelled weapons from a Sikorsky Black Hawk helicopter. One team member was imprisoned for five months on charges of being a guerrilla (and later released). And a team member was caught up in and survived a major battle between guerrilla and local police forces, which resulted in the death of all local police officers and a subsequent major bombardment and re-taking of Roncesvalles by the national army.

There appeared to be no lasting harm to the parrots, despite two separate major artillery battles that took

place between the government and guerrilla forces close to the parrots' roosting site. Also, while all the members of the field team survived, the often-dangerous work environment and some of the harrowing experiences they suffered resulted in post-traumatic stress for several. Despite the risks and sacrifices made by the field team, several senior persons in the broader ornithological community in Colombia offered little to no support for these efforts and more often alienated and criticized the team. Overall, the team's dedication to the conservation of the endangered parrot and the threatened wax palm was exceptional and possibly unparalleled.

Local institutional support

In 2000, it became apparent that to further the project's aims (and those of other conservationists in Colombia), a stronger local institutional support network was necessary. Proyecto Ognorhynchus had to date operated via volunteer and professional ornithologists receiving grants to carry out conservation from an external funding organization, namely Loro Parque Fundación via an unincorporated project made up of willing collaborators. However, those involved had found considerable difficulty in obtaining the local institutional support necessary to develop firmer conservation projects in Colombia. Colombia, the world's most biodiverse country with a bird list approaching 2000 species, lacked any effective local conservation NGO. Those working with birds were associated with universities and bird-watching groups, who were able to contribute information but had not succeeded in establishing protected areas or operating other on-the-ground practical conservation outcomes (one notable exception being Fundación Proselva, which had successfully established a reserve in dpto. Cauca but whose director Álvaro José Negret had then recently died). Some international NGOs were also present in Colombia, but operated out of offices rather than in the field. Finally, governmental organizations such as the National Parks network were slow to act and lacked any practical control of much of their territories, which were *de facto* controlled by insurgents. For safety reasons, most of their staff, like those of major NGOs, were located in offices in major cities and they avoided fieldwork in many areas.

The ten-person team established a non-profit organization called "*Fundación ProAves de Colombia*" (formally constituted a year later), with a mission to promote biodiversity conservation in Colombia. Certain other projects, such as Colombian EBA Project, an exploratory project to find new sites worth of conservation efforts, were also adjoined to ProAves. At a time of tremendous political insecurity

in rural Colombia, the ProAves team sought to take practical steps to protect the Yellow-eared Parrot –and other species - for the sake of conservation. This seed project led to broader conservation successes. Today, ProAves owns 28 nature reserves, totally over 60,000 hectares in 13 departments of Colombia, which protect almost 1,500 bird species, including 80% of all threatened bird species.

Trafficking threat?

Global trade and wildlife trafficking have threatened the survival of many parrot species, and the increasing scarcity of species only escalated the amount that some people were willing to pay for captured trade birds. Between 1992 to 1996, nearly half of the 1,540 birds confiscated from being illegally smuggled out of Colombia were parrots – and probably undetected exports exceeded these figures by factors of ten. Of an estimated 16 million birds held as pets in the United States, the majority are parrots; aviculturists take a particular interest in rare species that others may not hold.

Tragically, Yellow-eared Parrots survive very poorly in captivity. Despite active trapping for the pet trade, the species' social behaviour and strong bonding appear to be a precursor to a rapid stress-related mortality when placed into caged confinement. For example, of one flock of 60 Yellow-eared Parrots in Ecuador, a farmer trapped 40 in the late 1980s, of which half died within one day and the remaining 20 died the following day (Forshaw 2017). There was documentation of only two Yellow-eared Parrots successfully being held in captivity. Both were imported into the UK in the 1960s (Low 1972). Since then, we have no evidence of the species being held in captivity.

Parrot and Palm

With the most urgent threat of hunting addressed locally, the ProAves team assessed potential obstacles and opportunities for a recovery.

The Yellow-eared Parrot is bound to the Quindío Wax Palm for nesting and roosting. It feeds the young the pulp from wax palm fruits. The wax palm is recognized as the world's tallest palm, standing over 59 m high. In 1986, it was declared the national tree of Colombia and received legal protection, but that was not enforced (Martínez 2018). By the 1990s, the core populations of Quindío wax palm were restricted to 12 sites in Colombia and four in northern Peru.

The palms are long-lived and slow-growing, with individuals first forming rosettes on the ground. After an average of 57 years old, they then start growing a trunk. This slow developmental phase of the wax palm

means they do not reach maturity until around 75+ years old when their above-ground stem reaches a height of *c.* 12 m (Sanín *et al.* 2013).

In the Cucuana valley, sporadic pastures have stands of uniformly mature wax palms that averaged almost 100 years old (dated between 1914-1926) and are over 20 m tall (Sanín *et al.* 2013). As the Quindío wax palm was so durable and cast little shadow (as the tallest palm in the world), it was not always cut down when the forest beneath it was cleared to make way for pasture. However, there is almost no wax palm recruitment, as palm seedlings are eaten by cattle in pastures with standing palms, and cattle also venture into forest patches to eat palm seedlings.

The palms are so tall that they can be considered a "forest above a forest". Their trunks and leafy-fronded tops extended far above the canopy. The height of the trees made them ideal nesting sites for the parrots, being largely inaccessible to terrestrial predators. Interestingly, the wax palms were also sought after by early settlers, who harvested the trees for wax in a non-destructive manner – with each palm producing up to 12 kilograms (26 lbs) of wax per month (Madrñan and Schultes 1995). The wax had a similar composition to bee's wax and was used for torches that gave abundant light and an agreeable odour.

Challenges to the species' recovery

In 1998, the Quindío wax palm was declared Vulnerable on the IUCN Red List (Bernal 1998), a status it still holds. However, in our view, the species warrants Critically Endangered status, as it meets the relevant IUCN criteria (CR A4c,e, B1+2c) of having an observed population reduction of >80% over three generations (considering a single generation is >80 years) both the past and projected (e.g. lack of seedling recruitment and the present die-off).

Research has shown that the availability of suitable nest sites to form a colony was an obvious challenge, as standing dead palm trunks were scarce, although the crowns of dozens of wax palms were dying. From the flock of 81 birds, just one chick fledged on 9 June 1999 from a 20-meter standing dead hollow palm.

Many palms appeared stressed and diseased with evidence of a beetle (*Xyleborus* sp.) attack and a fungus (*Ceratocystis* sp.); the former is considered responsible for transmitting the latter. Overall, up to 30% of standing palms were at various advanced stages of senescing with the crowns dying and falling off the trunk. The high rates of mortality were of concern for the long-term, but in the short-term the dead trunks provided additional nesting sites for the parrot.

When the wax palms died, the soft, spongy ground tissue or pith would degenerate within months and collapse downwards inside the trunk. The hollow so created was protected by the extremely durable palm bark and cortex that could sustain the palm standing for many years. The palm bark was so hard that chainsaws would have difficulty cutting them, but an axe could eventually cut down a palm. The fibrous and naturally water-resistant bark of the dead palm yielded excellent fence stakes, so that when a palm died it was often cut down and cut-up, usually for stakes for fences and housing construction.

Farmers' crusade for conservation

To address the combined issues of preventing dead palms from being cut down and facilitate palm recruitment, Fundación ProAves sought the collaboration of local farmers to change farming methods. This effort focused on local pride for the last remaining populations of this parrot and its palm and awareness of issues to encourage voluntary actions needed to save the species. Once the people in rural communities of Roncesvalles municipality were made aware that the fate of the parrot and palm was in their hands, that elicited an extraordinary positive response from the entire community.

No further dead standing palms were cut down and ProAves staff assisted farmers with fencing materials and labour to protect forest patches from cattle encroachment. A palm nursery was established by ProAves to grow seedlings with the eventual hope to plant a future generation in secure locations.

Within just a few years, Yellow-eared Parrot breeding activities and reproductive success rates drastically increased with the associated increase in the availability of dead hollow palms that were no longer being felled.

Nest box initiative

Fundación ProAves developed one of the first artificial nest box campaigns in the Neotropics to supplement natural sites (Osorno 2006). Using wood shaped and painted as palm trunks, nest boxes were carefully mounted on live palms. The response to using the boxes was slow at first, but later deployment in other colonies with limited dead palms proved more successful. The most successful technique to facilitate nest availability was to cut a small (10-12 cm diameter) hole half-way up the side of a recently dead palm. Parrots readily took to these palms and breeding productivity accelerated.

Within just three years, the breeding colony grew and 93 young were fledged (in 2002), with two "back-to-back" nesting seasons *per annum*. Recorded fledgling



Figure 4. Active artificial nest (#4 la Palestina, Jardín, Antioquia).



Figure 5. Nest replicating natural conditions created by cutting holes in a dead palm stand.

recruitment success rate averaged 64% for all breeding pairs. Of successful nests, an average 55% of nests fledged one chick, 31% fledged two chicks and 14% of pairs fledged three chicks.

Breeding studies demonstrated the first example for a New World Psittacid using "cooperative breeding assistants", whereby Yellow-eared Parrot non-breeding offspring from a breeding pair assisted with the care and feeding of siblings. The bonding between pairs was extraordinarily affectionate in the species, with frequent and prolonged physical attention, such as preening, feeding and perching side-by-side. Pairs seemed almost inseparable. Frequent copulation events lasted up to twelve minutes in duration and involved various positions suggestive of cloacal

locking as noted in Madagascar's Vasa parrots (Wilkinson and Birkhead 1995).

Habitat protection

Every day at dawn, Yellow-eared Parrot flocks disperse from the wax palm roost site across an area of 480 km² in search of fruiting trees in montane and subtropical forests. The species has a varied diet feeding on more than 18 different fruiting trees and regularly changing routes to seek seasonal sources of fruit. It predominately feeds on four species of Euphorbiaceae (*Croton magdalenensis*, *Hyeronima antioquensis*, *Sapium utile* and *S. stilare*), and one species of each Verbenaceae (*Citharexylum subflavescens*) and Ehretiaceae (*Cordia barbata*). *Hyeronima antioquensis* is considered regionally Endangered (Alzate *et al.* 2008).

The steep terrain and fertile volcanic-rich soils of the Central Andes are ideal for cattle pasture and consequently 89% of montane cloud forests in the region have been cleared. The Cucuana and adjacent Cucuanita valleys were progressively converted to pasture, mostly since the 1950s. Today, only 11% of forest patches remain, with wax palm stands distributed spottily.

The last surviving forests of the Cucuana and Cucuanita valleys were previously unprotected.

In 2009, with the growing breeding population Fundación ProAves focused on establishing new protection for the major foraging areas in the Cucuana and Cucuanita valleys. With the support of Rainforest Trust and American Bird Conservancy, the 3,998 ha Loros Andinos Bird Reserve was established in Roncesvalles Municipality (Tolima) through the purchase of private properties and their designation as nature reserves. The 189 ha Loro Orejiamarillo Bird Reserve was also established in Jardín Municipality (Antioquia) to establish a base of conservation efforts for a newly discovered population there. These new reserves focused on protecting surviving natural habitat, restoration of old pasture and selectively logged forest, and reforestation with native trees and wax palms.

Furthermore, material support was provided to private property owners in the Cucuana valley who were willing to enrol in a land stewardship scheme to set aside land for regeneration and reforestation. A voluntary environmental tax levied on water rates aimed to sustain the program, but the results were mixed as many people opted out of the voluntary contribution.



Figure 6. Nestling growth development showing the same bird developing from hatchling to pullus.

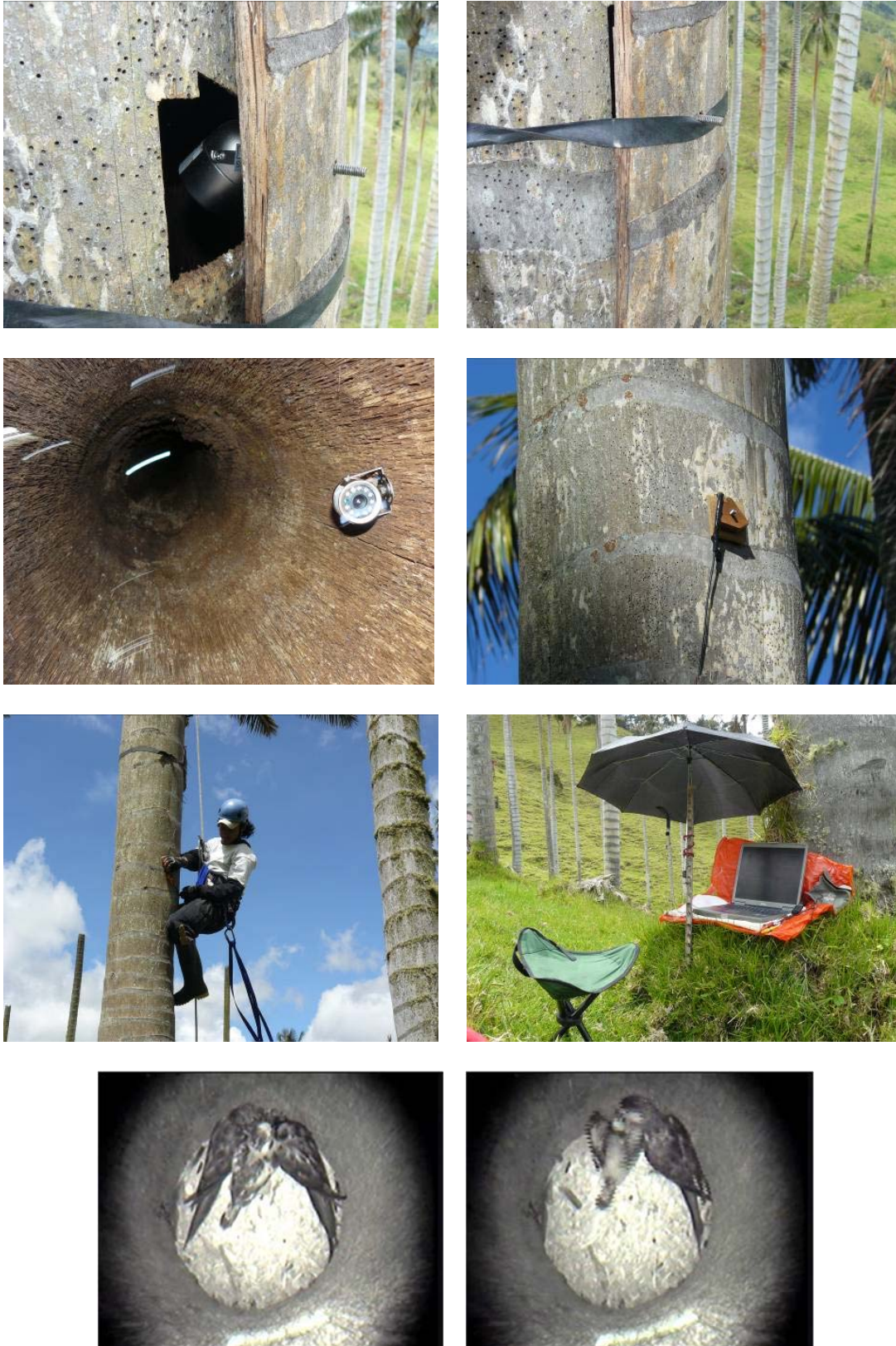


Figure 7. Instalation process for video cameras in nest cavities with example monitoring footage.

Extraordinary threats and unique solutions

The most bizarre threat and our greatest challenge was from the Roman Catholic church's tradition of celebrating Palm Sunday by laying palm fronds ahead of religious processions, replicating Jesus' triumphant entry to Jerusalem, which was accompanied by the laying of palms by the people. Since the 18th century, communities would celebrate the first day of Holy Week with a processions of wax palm fronds every Palm Sunday. The tradition is observed by millions of adherents to the Roman Catholic Church across the Andes of Colombia. Colombia is considered over 90% Christian and 80% Catholic.

For example, in Jardín – Antioquia, it was estimated in 2001 that between 200-300 wax palms were cut down to secure fronds counted in the Palm Sunday procession. Wax palms typically had 11 fronds at any one time, but fully-grown fronds were too heavy and not used. It was clear that wax palms were decimated ahead of each Holy Week, which presented perhaps the single greatest long-term threat to the survival of the parrot and palm.

Initially, the Roman Catholic leadership (e.g. nationally and in ecclesiastical provinces based on communications with bishops) rejected requests for a national moratorium on using wax palms on Palm Sunday, taking the view that the wax palm had been used for centuries and that it was "the palm of Palm Sunday". Although it was noted that Colombian law gave the wax palm full protection, thus it was illegal to be in possession of a living wax palm frond, the church was resistant to change.

However, ProAves did succeed in convincing local priests to encourage their congregations from restraining from using wax palms. In Roncesvalles, the Catholic priest was immediately open to not using the wax palm. ProAves assisted by providing hundreds of wax palm seedlings in paper cups for parishioners to carry in the procession with the message to plant them at home. This was largely a success with only a few wax palm fronds used (Salaman 2002).

It was not until 2004 that the Cardinal of the Roman Catholic church of Colombia instigated an immediate nationwide ban on using wax palms in Palm Sunday processions from then on. After just a few years, a centuries-old religious tradition was modified, and Palm Sunday processions have celebrated nature and life as well.



Figure 8. Project poster from 2008.

Colombians rally to save nature

From 2002, Fundación ProAves and Conservation International-Colombia united with regional environmental corporations across Colombia to form a major national awareness campaign called "Reconcile with Nature" to spread information about the fragile plight of the palm and parrot. The uniqueness of the campaign for nature and being connected to the most important religious festival immediately gained media attention. For example, a 25-second TV advertisement on the palm and parrot was repeated thousands of times across the national TV channels as free public slots before and during Holy Week for several years.

This sudden cascade of attention galvanized the Colombian National Police and environmental corporations to enforce environmental legislation to start confiscating palm fronds. Regional and national news of seized truckloads of palms inspired further enforcement efforts. Almost overnight, there was hope that the annual plunder of wax palms could be arrested.



Figure 9. Community outreach activities, including the Yellow-eared Parrot festival, workshops in schools and field trips.

Originally, many rural communities were ignorant of the plight facing the palm and the parrot. The "Reconcile with Nature" campaign ensured the plight of both species was firmly in the public eye and a national priority. To build that momentum, Fundación ProAves in partnership with local, regional and national governmental entities embarked on a "Loro bus" (Parrot Bus) roadshow campaign to reach hundreds of remote rural schools and communities across the Andes.

A 1967 U.S. school bus was converted into a mobile environmental classroom to present videos, exhibitions, workshops, and other activities. For almost five years, the bus toured across nine departments in the Andes, educating and involving an average of 2,600 children and 400 adults per month. Saving the wax palm and Yellow-eared Parrot was the new tradition – embraced and institutionalized across all generations of Colombians (Salaman *et al.* 2006d).

Population monitoring

The parrot population's response to conservation actions was quite unexpected. From 81 individuals in April 1999, the population breeding activity and fledging success rate increased year-on-year. By 2002, 93 chicks fledged successfully. Then, 155 km directly north of the Cucuana valley, a second breeding population of Yellow-eared Parrots was discovered in the Western Andes between the Municipality of Jardín (Antioquia) and Río Sucio (Caldas) by Juan Lazaro Toro (Toro & Flórez 2001). This was a major breakthrough and the beginning of pattern of the species recolonizing areas with wax palms from the two source populations with significant nesting activity, sometimes twice a year. By 2010, individuals had risen to 1,103 although it was considered that only 106 breeding pairs were active, as most individuals were considered immature. By 2013, there were 1,408 individuals.

Based on these two populations, the species started significantly expanding its range and reoccupying old haunts and new locations with remnant wax palm populations with small numbers of individuals apparently ranging further perhaps to explore new sites (e.g. Donegan *et al.* 2006). In 2009, a flock of 30 individuals was discovered 190 km directly east in the Eastern Cordillera (Murcia-Nova *et al.* 2009). By 2015 a flock of 15 individuals was located over 300 km south on the east slope of the Andes (Rosero-Chates 2015), just 110 km north of Ecuador. It is hoped that the Yellow-eared Parrot could soon recolonize Ecuador.

In order to best assess the population size, a national parrot census was organized by Fundación ProAves in December 2018 and in April 2019. In December 2018, a census was simultaneously conducted at 41 sites in seven departments in the Western, Central and Eastern Cordilleras that recorded 2250 individuals.

In April 2019, surveys at 12 locations in four departments documented a total of 2,601 individuals, including 998 individuals simultaneously in Roncesvalles (a 13-fold increase since 1999). The latter count is considered accurate, since it was undertaken during the principal breeding season and when most individuals congregate at roosts in the breeding colonies. After April 2019, a total of 240 chicks fledged in the Cucuana valley alone further increasing the population.

Conclusions

The decline of the Yellow-eared Parrot appeared to mirror that of the Carolina Parakeet, both having once been abundant and both having been hunted to the brink of extinction. By the late 1990s, the Yellow-eared Parrot was probably within a decade of going extinct, especially after efforts came too late in Ecuador where the species went extinct in 1998, exactly 80 years after the last Carolina Parakeet died.

From a total of 82 birds (including 24 adult pairs), in the Cucuana valley in April 1999 to 2,601 individuals as of April 2019, including hundreds of adult pairs plus a further 240 chicks fledged soon after the census. Importantly, the Cucuana valley population was the source that has repopulated the Andes, so that historic colony sites are being recolonized.

It is now considered that there are at least 1,000 mature individuals and the species continued recovery warrants the species IUCN threat status to be downgraded to Near-threatened. Two decades of conservation actions for the Yellow-eared Parrot has resulted in one of the most successful recoveries of a species on the brink of extinction.

What made the difference?

An intensive two-decade, multifaceted, science-driven conservation effort, initiated by interested persons who later drove forwards the project via Fundación ProAves, with two-decades of sustained support from Fundación Loro Parque was critical to the recovery of the species. However, the dire plight of the Yellow-eared Parrot and Quindío Wax Palm unified a nation to act. The parrot and palm brought together an eclectic alliance, on all sides of Colombia's armed conflict, of both scientists and religious persons, from school children to landowners. But what was key was

a nation working collaboratively to make changes and give nature hope.

Now, 100 years after the last individual of the Carolina Parakeet and the species went extinct, we are proud that the Yellow-eared Parrot has a new lease of life and its IUCN threat status has been downgraded from Critically Endangered to Endangered and soon it is expected to be considered for Near Threatened status.

Acknowledgements

We sincerely thank the people of Colombia, especially the communities of Roncesvalles and Jardín, who together saved the Yellow-eared Parrot. Without their tremendous commitment to change traditions and habits and care for their parrot and their environment, it would not have been possible for the Yellow-eared Parrot to rise like a phoenix from the ashes.

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Nuevos registros del Ganso del Nilo *Alopochen aegyptiaca* en Colombia

New records of Egyptian Goose Alopochen aegyptiaca in Colombia

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Resumen

Presentamos detalles sobre recientes registros del Ganso del Nilo *Alopochen aegyptiaca* una nueva especie para Colombia, todos posteriores al año 2014. Consideramos que los registros probablemente constituyen individuos escapados o liberados de cautiverio o domesticación. La especie parece estar reproduciéndose en Colombia.

Palabras clave: *Alopochen aegyptiaca*, nuevo registro, especie introducida.

Abstract

We present details of a recent spate of records of Egyptian Goose *Alopochen aegyptiaca* a new species for Colombia, all occurring after 2014. We consider these likely to involve the escape or release of birds from captivity or domestication. The species appears to be reproducing in Colombia

Keywords: *Alopochen aegyptiaca*, new record, introduced species.

Introducción

El Ganso del Nilo *Alopochen aegyptiaca*, es una especie de origen Africano que se ha reportado como especie invasora o introducida en varios continentes. Tiene poblaciones introducidas en los Estados Unidos, especialmente en Florida, y en Europa (especialmente en el Reino Unido) en donde la especie es actualmente común en parques y humedales naturales (Lever 2005).

Hasta el momento, *A. aegyptiaca* no había sido categorizado oficialmente para Suramérica (Remsen *et al.* 2020) ni para Colombia (Donegan *et al.* 2019, Avendaño *et al.* 2017). Aunque en los últimos años se han mantenido listados de especies introducidas o en cautiverio (Baptiste *et al.* 2001, Donegan *et al.* 2019), estos tampoco incluyen registros de esta especie.

En Colombia se ha incrementado la difusión de los registros de aves debido al aumento de observadores de aves, la "ciencia ciudadana" y el uso por ellos de bases de datos en línea (p.ej. eBird 2020) con el fin de compartir fotografías y archivar registros. En el presente artículo presentamos detalles sobre algunos registros recientes de *Alopochen aegyptiaca* en Colombia.

Metodología

Entre las primeras observaciones de esta especie en la región de Bogotá con fotografías en eBird (2020)

fueron realizadas por Cristián Mur y Estela Quintero-Weldon (2018) en el Humedal La Florida, Cundinamarca. Durante el trabajo realizado por la actualización del listado de aves de Colombia, TD encontró en eBird (2020) dichas fotografías, que fueron tomados durante un tur lideado por CM. Estas observaciones inicialmente fueron incorrectamente identificadas. Este humedal es un conocido punto-clave para la observación de aves endémicas cerca a Bogotá, que alberga especies importantes o endémicas de la región como *Cisthorus apolinari*, *Rallus semiplumbeus*, *Synallaxis subpudica* y subespecies endémicas de *Chrysomus icterocephallus* y *Gallinula melanops*. Estas y otras observaciones fueron desarrolladas en el marco de las actividades realizadas por las asociaciones de ornitología, como conteos neotropicales de aves acuáticas, conteos navideños, el Global Big Day, conteos de migratorias en honor a Thomas McNish y monitoreo de las aves de los humedales y zonas verdes urbanas y periurbanas

Aparte, Thomas Donegan realizó varias observaciones *al libitum* durante una visita al eje cafetero en los municipios de Montenegro, Armenia y Calarcá (Quindío) durante enero del año 2014.

Se revisaron los registros en línea utilizando eBird (2020).

Tabla 1. Información acumulada de registros del Ganso del Nilo *Alopochen aegyptiaca* en Colombia.

Primera fecha	# de individuos	Localidad	Tipo de Registro
<u>Eje Cafetero</u>			
4/1/2014	2	Panaca, Montenegro, Quindío	Personal, T. Donegan (registro fotográfico: Fig. 1; ver también McMullan & Donegan 2014, Escaped Species p.1).
<u>Región de Bogotá</u>			
13/9/2016	2	Aeropuerto El Dorado, Bogotá D.C.	Dennys Plazas (2016 en eBird 2020: registro fotográfico, ML100519711).
1/2017	3	Parque la Florida, Cundinamarca	Personal, C. Mur.
3/2018	2	Parque la Florida, Cundinamarca	Personal, C. Mur.
4/2018	3	Parque la Florida, Cundinamarca	Personal, C. Mur.
3/5/2018	3	Club de Golf la Florida, Cundinamarca	Personal, Estela Quintero-Weldon & Cristián Mur (2018 en eBird 2020: registros fotográficos, ML99652621, ML99652711, ML99652821: Fig. 2).
21/7/2018	20	Humedal Gaulí, Finca el Juncal	Iván Valencia (2018 en eBird 2020: registro fotográfico ML110514601).
13/7/2019	2	Parque Jaime Duque	Maria Suárez & Germán Sarmiento (2018 en eBird 2020: registro fotográfico ML 168372221).
2018-2020	2-5	Parque la Florida, Cundinamarca	Muchos observadores (eBird 2020).
<u>Región de Cali</u>			
29/3/2017-10/10/2017	2, nidificando con hasta 6 huevos	Universidad Javeriana Cali, Valle del Cauca	Felipe Estela (2017 en eBird 2020: registro fotográfico, ML52821061).
12/3/2017	1	Ecoparque Lago de los Gansos, Valle del Cauca	José Martínez de Valdenebro (2017 en eBird 2020: registro fotográfico ML 50902831).
28/7/2018-4/5/2019	2	Humedal Parcelación la Riverita, Valle del Cauca	José Luna Solarte (2018 en eBird 2020) <i>et alia</i> , incluyendo Angela Sinisterra <i>et al.</i> (2019 en eBird 2020: registro fotografico ML 156637911).
8/9/2019	3	Universidad San Buenaventura, Valle del Cauca	Pablo César Calderón Aguirre (2019 en eBird 2020: observaciones)
7/12/2019	2	Club Campestre de Cali, Valle del Cauca	Juan Carlos Hincapie Consonni & Felipe Estela (2019 en eBird 2020).

Resultados

Para Colombia, no había ningún registro conocido por nosotros de *Alopochen aegyptiaca* hasta el año 2014. Posterior a esto, se ha registrado la especie en once localidades en tres regiones de Colombia (ver Tabla 1).

Discusión

Los registros de *Alopochen aegyptiaca* aquí presentados pueden explicarse de dos maneras: individuos escapados una vez introducidos al país o individuos provenientes de las poblaciones en los Estados Unidos.

Primero, considerando la posibilidad que estos reportes puedan provenir de individuos escapados del cautiverio, es notorio que todos los lugares de observación se encuentran en cercanías de centros urbanos o con presencia significativa humana, y lejos de las costas de Colombia. Es también notable, la carencia de observaciones de esta especie en Centroamérica o el Caribe, aunque existen registros, del 2016 en Curaçao (Wellens 2016), y del 2018 en Bonaire, el último de un individuo considerado como probablemente escapado (varios observadores: eBird 2020).

El registro en Quindío, fue realizado en una finca interactiva que también alberga varias poblaciones de especies exóticas. Aunque no observamos ninguna señalización para el público sobre *Alopochen aegyptiaca*, como fue en el caso de la mayoría de especies exóticas enjauladas, es muy posible que los dos individuos observados hubiesen sido originalmente parte de la colección de animales del lugar. Los individuos fueron observados sobre un lago artificial que también incluyó individuos de especies nativas en su hábitat natural, como *Ardea alba* y *Phimosus infuscatus*, y patos nativos o introducidos como *Dendrocygna autumnalis* y *Anas platyrhynchos*. Además de utilizar el lago y los pastizales alrededor de él, los gansos se aproximaron a los visitantes para pedir bocados de comida, como se observa en poblaciones introducidas de esta especie en parques urbanos de Europa y Estados Unidos.

Los registros en Bogotá, se encuentran en las zonas del borde capitalino, principalmente en el Parque La Florida y alrededores. Posterior a nuestras comunicaciones sobre la presencia de esta especie en Bogotá, se ha reportado la especie por parte de muchos otros observadores en la misma localidad. Parece que dos individuos fueron por primera vez observados en cuerpos de agua dentro del aeropuerto El Dorado. El conteo ha incrementado hasta cinco individuos, indicando que probablemente se están reproduciendo. El primer registro en el aeropuerto sugiere orígenes en individuos confiscado por las autoridades y liberados por ellos. Los registros recientes del Parque Jaime Duque refieren a un lugar con una colección de aves exóticas.

De la misma manera, se puede reportar una expansión de localidades de observación de la especie en la región de Cali (eBird 2020: Tabla 1). Al parecer, el centro de la población, fue unos gansos ornamentales en la Universidad Javeriana, quienes nidificaron desde el año 2017 (Estela 2017).

Considerando la posibilidad que estos registros puedan provenir de individuos migratorios, es de anotar que en Norteamérica, las poblaciones introducidas en Florida han expandido su distribución, y hoy día la especie llega hasta Texas, con registros de individuos hasta California y Oregon (eBird 2020). Así pues, se podría considerar la posibilidad de registros también hacia el sur. No obstante, pareciera más probable que en todos los tres centros de observación de esta especie en Colombia, los registros se tratan de una introducción.

Conclusión

Los bases de datos en-línea han ganado popularidad, además del aumento de observadores de aves capacitados por científicos para reconocer las especies nativas, migratorias e introducidas hace que se pueda conocer mejor la diversidad en zonas alejadas de centros poblados o en zonas periurbanas. La publicación de estos reportes de una especie introducida, es importante y conveniente para analizar y monitorear dichas expansiones.

Se sugiere monitorear los cambios poblacionales de esta especie, nuevo registro para Colombia, las posibles afectaciones negativas que la especie introducida pueda tener sobre los habitats y las especies nativas con las que compite por recursos o espacio y debido a que la comunicación sonora es importante para las aves (Sueur & Farina 2015), se sugiere monitorear interacciones sonoras de competencia que puedan surgir con los demás Anseriformes.

Se recomienda continuar monitoreando esta especie, su población y impactos ecológicos.

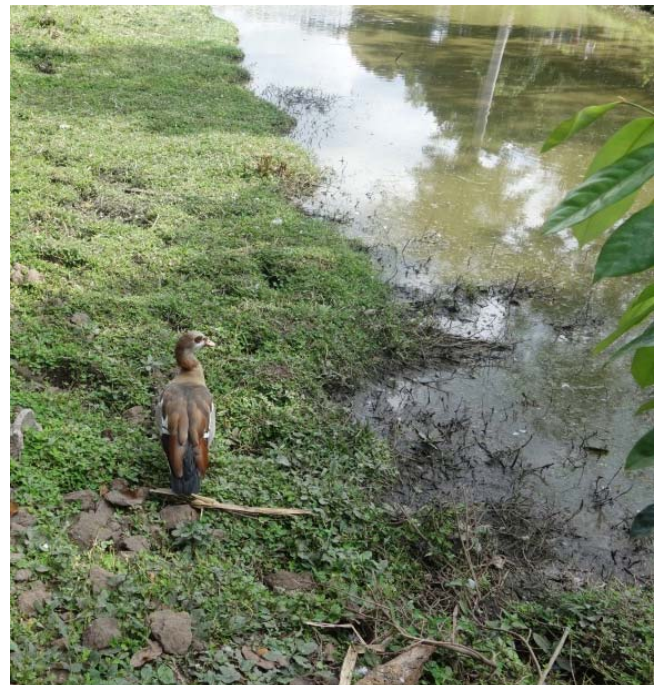


Figura 1. *Alopochen aegyptiaca* en Panaca, Montenegro, Quindío, 4 de Enero del 2014. © T. Donegan.



Figura 2. *Alopochen aegyptiaca* en Club Golf La Florida, Cundinamarca, 3 de Mayo de 2018. © E. Quintero-Weldon (eBird 2020: ML99652621 & ML99652711).

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Incidence of intermediate specimens or hybrids in the brush-finches *Atlapetes* (Aves: Passeriformes)

Tasa de ocurrencia de ejemplares intermedios o híbridos en el género Atlapetes (Aves: Passeriformes)

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Abstract. We discuss certain cases of hybrids or intermediate specimens in the genus *Atlapetes*, some of which have been overlooked in the literature or recently reported. The incidence of hybridization in the genus is approximately double that observed in Passeriformes in general, a factor potentially relevant to the natural history and evolutionary processes of diversification of the genus.

Palabras clave: hybrid, intermediate, diversification, passerines.

Resumen. Discutimos ciertos casos de hibridización o ejemplares intermedios en el género *Atlapetes*, algunos de los cuales han sido pasados por alto en la literatura o recientemente reportados. La tasa de ocurrencia de híbridos en este género, es aproximadamente el doble de la tasa registrada en los Passeriformes en general, un factor que pueda tener relevancia para la historia natural y procesos evolutivos de la diversificación del género.

Keywords: híbrido, intermedio, diversificación, passeriformes.

In their paper on *Atlapetes* brush-finches, Sánchez-González *et al.* (2015) considered that "Hybrids appear to be very rare among *Atlapetes* species." Based on García-Moreno & Fjeldså (1999), they reported only a "single bird that may be a hybrid between [Bay-crowned Brush-Finch] *A. seebohmi* and [Rufous-eared Brush-Finch] *A. rufigenis*" amongst "hundreds of specimens" studied and referred also to a "single intermediate individual between [Grey-eared Brush-Finch] *A. melanolaemus* and [Bolivian Brush-Finch] *A. rufinucha*". The latter case was also remarked upon by Remsen (1993). These authors further reported specimens considered "intermediates" between two geographically proximate subspecies of Yellow-breasted Brush-Finch *A. latinuchus* (subspecies *latinuchus* and *comptus*) based on their fieldwork. McCarthy (2006) and Carantón-Alaya *et al.* (2018) included other lists of hybrids or suspected hybrids in this genus.

In this paper, we discuss whether the claim of Sánchez-González *et al.* (2015), that hybridization is "very rare" in *Atlapetes*, can be supported. By using the term hybrid, we refer to claimed cases of specimens or individuals that appear to be hybrids between sympatric species. This situation differs from at least one case (involving Moustached Brush-Finch *A. albofrenatus*, discussed below), where intermediates between two taxa occur in a particular small region where one or more of the parent morphotypes are absent. The birds occurring in these areas are not necessarily properly referred to as hybrids, since a hybridization event may have been historical: the parents of specimens studied today may themselves be hybrids or descendants of hybrids. Such cases, and instances where hybridization may have been more historical, or where this is suspected but not known, are referred to here as involving intermediates.

Donegan & Huertas (2006) discussed a specimen referred to as the "Perijá bird" from dpto. Cesar (Instituto de Ciencias Naturales, Universidad Nacional, Bogotá, catalogue no. ICN 32646), which is morphologically intermediate between Moustached Brush-Finch *A. albofrenatus* and Black-fronted (or Perijá) Brush-Finch *A. nigrifrons*. This was overlooked by Sánchez-González *et al.* (2015) and asserted by Carantón-Alaya *et al.* (2018) to be a hybrid of those two species. Donegan *et al.* (2014) studied the latter situation in detail, uncovering field notes evidencing a second individual of this morphotype and seven specimens of intermediate plumage between the "Perijá bird" morphotype and nominate *A. albofrenatus* (six at the Academy of National Sciences Philadelphia and one at the University of Michigan). They presented photographs taken in the field of live birds showing intermediate morphotypes. It is unclear whether the Perijá bird specimen itself represents an intermediate, a hybrid or an undescribed taxon (Donegan *et al.* 2014), but it can be reported that intermediates exist between either: (i) *A. albofrenatus* and "Perijá bird" morphotype; or (ii) *A. albofrenatus* and *A. nigrifrons*.

Carantón-Alaya *et al.* (2018) further reported on a recently collected specimen, diagnosed as a hybrid between White-naped Brush-Finch *Atlapetes albinucha* and Dusky-headed Brush-Finch *Atlapetes fuscoolivaceus*, whose status as such was confirmed using molecular data. This appears to have occurred following a range expansion with deforestation, resulting in two previously allopatric (and morphologically very different) species coming into contact. Previously, Fjeldså & Krabbe (1990) reported a hybrid between Rusty-bellied Brush-Finch *A. nationi* and White-winged Brush-Finch *A. leucopterus* (see also McCarthy 2006).

Donegan & Huertas (2006, p.108) in relation to Slaty Brush-Finch *Atlapetes schistaceus* reported an "an apparent intergrade *A. s. tamae* / *A. s. schistaceus*" (Museo La Salle, Bogotá no. 7552) with "a speculum on one wing but not the other". We reviewed our photographs of this specimen, which further reveal an intermediate dorsal coloration.

Our own studies of *Atlapetes* (specimen numbers listed in Donegan & Huertas 2006, Donegan 2007) resulted in a finding of 2/330 (0.6%) hybrids or intermediates based on specimens in museums. This figure rose to 9/338 (2.7%) including specimens that were targeted (due to their locality in the intermediation zone between the "Perijá bird" and *albofrenatus* in depto. Norte de Santander: data in Donegan *et al.* 2014).

Of the 31 species of *Atlapetes* recognised by Gill & Donsker (2020), at least 10 (32%) namely *seebohmi*, *rufigenis*, *melanolaemus*, *rufinucha*, *fuscoolivaceus*, *albinucha*, *leucopterus*, *nationi* [either *nigrifrons* or a related undescribed Perijá taxon] and *albofrenatus* have been found to have given rise to intra-generic, between-species intermediates or hybrids. (Certain other examples cited by McCarthy 2006 involve species now usually placed in other genera, such as *Arremon*). This rate far exceeds, and in fact is almost double, the 16.8% incidence for the phenomenon recorded for Passeriformes globally by Aliabadian & Nijman (2007). This rate is recorded despite the relatively lower intensity of study and collections of Neotropical (and in our case especially, Colombian) birds versus those from other regions (e.g. Nearctic, Palearctic). In a further two *Atlapetes* species, hybrids or intermediates have been recorded between recognized, diagnosable subspecies which are likely to be good phylogenetic species, namely within *latinuchus* and *schistaceus*; the observed incidence of hybridization could be re-evaluated with possible future taxonomic splitting.

Hybrids or intermediates therefore appear to be relatively prevalent between species in the genus *Atlapetes*, compared to some other passerine birds. This may have several implications for future studies. First, taxonomic studies of the group should take into account that morphotypes represented by few specimens require particular attention. For example, the undescribed "Perijá bird" morphotype is known from just a single museum specimen, taken in a mountain range that has been heavily deforested. The possible status of this specimen as a hybrid should be considered carefully alongside other possible hypotheses. However, a hybrid origin should not be assumed: some *Atlapetes* are simply very rare or localized in their distribution. One recent taxonomic description based on just three old specimens (Antioquia Brush-Finch *A. blancae*: Donegan 2007) proved controversial, some claiming it more likely to involve a hybrid or other explanations than a valid species (e.g. Planet of Birds 2013) until its recent rediscovery in the field (Correa Peña *et al.* 2019, Valencia *et al.* 2020).

The observed incidence of hybridization could also be relevant to the history of diversification of the genus *Atlapetes*, which merits further molecular study into the possibility of hybrid speciation or recurrent introgressive hybridization. Only a few examples of these have been claimed to date in birds (Ottenburghs 2018); *Atlapetes* could be a good place to look for further examples.

Acknowledgments

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First confirmed record of Scissor-tailed Flycatcher *Tyrannus forficatus* for Colombia and South America

Primer registro confirmado de Tyrannus forficatus para Colombia y Suramérica

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Abstract. Photographic documentation is presented of a record of Scissor-tailed Flycatcher *Tyrannus forficatus* in Colombia. Previously, this species was reported to occur in the country by sight records only, without confirmed documentation.

Keywords: new record, flycatcher, distribution.

Resumen. Se presentan detalles sobre un registro fotográfico de *Tyrannus forficatus*. La especie ha sido reportada anteriormente en Colombia con base en registros visuales, pero este es el primer registro confirmado.

Palabras clave: nuevo registro, atrapa-moscas, distribución.

Scissor-tailed Flycatcher *Tyrannus forficatus* is a Nearctic migrant that breeds from the south-central United States to northeastern Mexico. It is a relatively short-distance migrant and has its wintering range primarily in southern Mexico and Central America, south into Costa Rica and (rarely) Panama and in Florida. It occurs further south as an occasional or overshooting migrant or vagrant (Regosin 2013).

The species was previously reported without details of any particular observations in various lists, field guides and other publications relating to Colombia (see discussion in Donegan *et al.* 2009 and references therein) until Rowland & Master (2011) reported three individuals near Puerto Pinzón (Santander). Although a comprehensive description of the observation was presented, no photographs were taken to further document that record.

On 30 December 2018 we observed a Scissor-tailed Flycatcher in adult plumage along the road between Bahía Solano and El Valle, Chocó, Colombia (6°9.440'N, 77°24.017'W) (Fig. 1). The bird was present along the side of the road, perched in a bush with lots of dead branches, hunting for insects. After 10 minutes it flew towards another bush, further from the road. There it stayed for a couple of minutes, catching some more prey. Finally, it took off to fly over a hill, out of sight. The area consisted of pastures with cattle, interspersed with bushes and patches of forest.

Identification was checked and confirmed after reviewing our Colombian field guide (McMullan & Donegan 2014).

In the most recent checklists, the species is treated as hypothetical or as known only from observations for both Colombia (Avendaño *et al.* 2017, Donegan *et al.* 2019) and South America (Remsen *et al.* 2020). Since there are no records on eBird (2020) of this species except ours (Felix & Mosquera Lima 2018), the sighting described here appears to

be the first confirmed record for the country and the continent.

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Figure 1. First photographic documentation of Scissor-tailed Flycatcher *Tyrannus forficatus* in Colombia and South America: El Valle, Chocó, Colombia, 30 December 2018. © Rob Felix.

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pobre redacción o no se ajusten a las normas editoriales, serán devueltos para su adecuación antes de ser considerados para revisión por el Comité Editorial.

Los trabajos que pasen la primera etapa serán enviados a por lo menos dos árbitros expertos en el área de conocimiento respectiva, cuyas identidades serán desconocidas para los autores a través de todo el proceso de evaluación. Para notas cortas (menos de dos páginas) el uso de un solo árbitro con comentarios del comité editorial es también posible. Para asegurar la imparcialidad en la evaluación, las identidades de los autores también resultan desconocidas para los árbitros (proceso de evaluación doblemente ciego). Los árbitros disponen de dos semanas para remitir un concepto detallado sobre los siguientes aspectos u otros: el título refleja el tema del escrito, el resumen es claro y permite conocer con claridad el contenido y los elementos básicos del escrito, las palabras clave son pertinentes, la organización y redacción del manuscrito, la originalidad y alcance del trabajo presentado, claridad y delimitación del problema, la justificación es coherente con el problema abordado, la descripción de la metodología utilizada es clara y pertinente, existe formalidad en la escritura, existe relación entre la temática abordada teóricamente y los objetivos y la metodología utilizada, es rigurosa la presentación y discusión de los resultados, la consistencia entre resultados y conclusiones y la pertinencia y precisión de las referencias bibliográficas citadas. Los árbitros pueden enviar sus comentarios o correcciones sobre el manuscrito mismo electrónicamente o en un documento o correo aparte.

Cuando la recomendación de los árbitros coincide, se toma la decisión de aceptar o rechazar el trabajo. Si se rechaza, éste junto con los comentarios de los árbitros, es devuelto a los autores con la recomendación de corregirlo y considerar su publicación en otra revista o en otro número de la revista. La decisión de rechazar un trabajo es definitiva e inapelable. Si se acepta con la recomendación de hacer modificaciones, éste junto con los comentarios de los árbitros, es devuelto a los autores para que preparen una versión revisada y corregida, para lo cual disponen de dos semanas. Los autores deben remitir la versión corregida junto con detalles enviados al editor enumerando los cambios realizados de acuerdo con las recomendaciones hechas por los árbitros.

Anotar las correcciones utilizando subrayado para la pronta identificación. El Editor toma la última decisión acerca de la aceptación de la versión corregida considerando el concepto de los árbitros y las correcciones hechas por los autores. Los árbitros pueden hacer sus aportes en relación con la bibliografía u otro aspecto que no incida en el contenido del manuscrito, de igual manera, pueden hacer recomendaciones al Comité Editorial de la Revista (sólo será conocido por éste) al redactar un concepto de evaluación general del trabajo en el cual incluya las apreciaciones más importantes de su valoración, sugerir las observaciones, modificaciones, controversias y ajustes que estimen convenientes (aunque no se recomiende para publicación).

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