Revision of the status of bird species occurring or reported in Colombia 2018

Revisión del estatado de las especies de aves que han sido reportadas para Colombia 2018

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Abstract
Chilean Flamingo *Phoenicopterus chilensis*, an Antshrike *Thamnophilus* sp., Yellow-crowned Elaenia *Myiopagis flavivertex* and Red-crested Finch *Coryphospingus cucullatus* are each newly added to the Colombian bird checklist, based on photographic records. Ochraceous Wren *Troglodytes ochraceus* is added based on a sonogram of an archived sound recording. Red-tailed Tropicbird *Phaethon rubricauda*, Juan Fernandez Petrel *Pterodroma externa*, White-chinned Petrel *Procellaria aequinoctialis*, Tahiti Petrel *Pseudobulweria rostrate*, Gould's Petrel *Pterodroma leucoptera* and Lincoln's Sparrow *Melospiza lincolnii* are each added as unconfirmed based on sight records. Following new publications and a revision, several species are removed from Colombia's checklist: South American Tern *Sterna hirundinacea*, Christmas Shearwater *Puffinus navitatis*, White-bellied Storm-Petrel *Fregetta grallaria*, Bluish-fronted Jacamar *Galbula cyanescens*, Black-necked Araçari *Pteroglossus aracari*, Undulated Antshrike *Frederickena unduliger*, Chestnut-shouldered Antwren *Euchrepomis humeralis*, Painted Tody-Flycatcher *Todirostrum pictum*, Roraiman Flycatcher *Myiophobus roraimae*, Couch's Kingbird *Tyrannus couchii* and Dotted Tanager *Tangara varia*. New photographic records allow White-throated Kingbird *Tyrannus albogularis* and Pacific Parrotlet *Forpus coelestis* to be promoted from unconfirmed to confirmed status. Short-tailed Field Tyrant *Muscigralla brevicauda* is returned to confirmed status based on a specimen and further supported by new photographic records presented here. We publish sonograms of archived sound recordings so as to promote Buff-throated Tody-Tyrant *Hemitriccus rufigularis* and Foothill Schiffornis *Schiffornis aenea* to confirmed status. Imperial Snipe *Gallinago imperialis* and Beautiful Treerunner *Margarornis bellulus* are now known from field observations as well as historical "Bogotá" specimens. Following status revisions, various species are downgraded to unconfirmed status, namely: Galapagos Penguin *Spheniscus mendiculus*, Little Woodstar *Chaetocercus bombus*, Black Nunbird *Monasa atra*, Gray-chested Greenlet *Hylophilus semicinereus*, Guianan Gnatcatcher *Polioptila guianensis*, Pirre Chlorospingus *Chlorospingus inornatus*, Pine Warbler *Setophaga pinus* and Palm Warbler *Setophaga palmarum* (the latter being confirmed on San Andrés and Providencia only, with photographs presented here). We present details of an overlooked specimen record for Colombia and new photographic records of Cape May Warbler *Setophaga tigrina* and Crimson-breasted Finch *Rhodospingus cruentus* as well as photographic records of White-bellied Spinetail *Mazaria propinqua*, Ecuadorian Tyrannulet *Phylloscartes gualaquizae* and Pink-footed Shearwater *Ardenna creatopus*, all of which we retain as confirmed species. We present new information on the status of the Mallard *Anas platyrhynchos* and Feral Pigeon *Columba livia* as breeding and introduced species. Common Quail *Coturnix coturnix* is a newly recorded escaped species that lacks evidence of establishment. Island Canary *Serinus canaria* and Zebra Finch *Taeniopygia guttata* are now confirmed escapees, due to photographic records. Splits are accepted of Rufescent Antshrike *Thamnistes rufescens* and Choco Screech-Owl *Megascops centralis*, with Bogota Sunangel *Heliangelus zusii* and Colombian Screech-Owl *Megascops colombianus* no longer recognized as valid species. Several amendments to genus and species names, English names and linear order are made, following recent publications. The Colombian checklist changes to 1,934 species (excluding escapees). Methods for categorizing records and the assessment of the status of species for a national checklist are discussed, in terms of the kinds of records (sight records, photographs, sound recordings, telemetry, specimens, etc), escaped or introduced species and taxonomy. We discuss all identified differences between our list and another recently published checklist of Colombia's birds.

Keywords: New records, specimens, photographs, status revision, guidelines.

Resumen
Las especies *Phoenicopterus chilensis*, *Thamnophilus* sp., *Myiopagis flavivertex* y *Coryphospingus cucullatus* se agregan al listado de aves de Colombia, todas basadas en registros fotográficos. *Troglodytes ochraceus* se agrega basada en una grabación archivada y un sonograma publicado. *Phaethon rubricauda*, *Pterodroma externa*, *Procellaria aequinoctialis*, *Pseudobulweria rostrata*, *Pterodroma leucoptera* y *Melospiza lincolnii* se agregan como especies sin confirmar, basadas en registros visuales. Teniendo en cuenta nuevas publicaciones y una revisión, se quitan varias especies del listado Colombiano, estas son: *Sterna hirundinacea*, *Puffinus navitatis*, *Fregetta grallaria*, *Galbula cyanescens*, *Pteroglossus*

aracari, *Frederickena unduliger*, *Euchrepomis humeralis*, *Todirostrum pictum*, *Myiophobus roraimae*, *Tyrannus couchii* y *Tangara varia*. Con registros fotográficos, las especies *Tyrannus albogularis* y *Forpus coelestis* son ahora elevadas al estado de especies confirmadas. Igualmente, *Muscigralla brevicauda* asciende a estado confirmado teniendo en cuenta un espécimen y registros fotográficos aquí presentados. Publicamos sonogramas de grabaciones archivadas de: *Hemitriccus rufigularis* y *Schiffornis aenea*, y por ello estas especies son elevadas al estado de confirmadas. Las especies *Gallinago imperialis* y *Margarornis bellulus* se conocen de observaciones en campo, además de especímenes históricos de "pieles de Bogotá". Posterior a una revisión del estado en el país de varias especies, se cambian las siguientes especies de un estado confirmado a un estado sin confirmar: *Spheniscus mendiculus*, *Chaetocercus bombus*, *Monasa atra*, *Hylophilus semicinereus*, *Polioptila guianensis*, *Chlorospingus inornatus*, *Setophaga pinus* y *Setophaga palmarum* (el ultimo siendo confirmado únicamente en las islas de San Andrés y Providencia, con fotografías presentadas aquí). Presentamos detalles de un especímen y nuevos registros fotográficos de *Setophaga tigrina* y *Rhodospingus cruentus*, y además se presentan registros fotográficos nuevos de *Mazaria propinqua*, *Phylloscartes gualaquizae* y *Ardenna creatopus* para re-confirmar su estado en el país. Presentamos nueva información sobre el estado de *Anas platyrhynchos* y *Columba livia* como especies introducidas y establecidas. Se registra *Coturnix coturnix* en la categoría de especies escapadas confirmadas, pero la especie carece de evidencia sobre su establecimiento. *Serinus canaria* y *Taeniopygia guttata* se vuelven especies escapadas confirmadas, basadas en registros fotográficos. Hemos aceptado las separaciones de *Thamnistes rufescens* y *Megascops centralis*, mientras que *Heliangelus zusii* y *Megascops colombianus* ya no son reconocidas como especies taxonómicamente validas. 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 1.934 especies (excluyendo especies exóticas que no han establecido poblaciones). Se discuten métodos para la categorización de registros y la evaluación del estado de las especies en un listado nacional, en términos de las clases de registros (visuales, fotográficos, grabaciones, telemetría, especímenes etc.), especies escapadas o introducidas y la taxonomía. Discutimos todas las diferencias entre nuestro listado y otro listado recientemente publicado sobre las aves de Colombia.

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

Introduction

Our checklist of the Birds of Colombia has been in existence for 17 years, published in various printed editions (Salaman *et al.* 2001, 2007a, 2008b, 2009, 2010) and was used as the basis for three field guides (McMullan *et al.* 2010, 2011, McMullan & Donegan 2014) before being made available online (Donegan *et al.* 2015b, 2016b). During this time, we have published information-rich annual updates discussing new records, evaluating older ones and incorporating taxonomic changes (Salaman *et al.* 2008a, Donegan *et al.* 2009, 2010, 2011, 2012, 2013, 2014a, 2015a, 2016a). In providing written summaries justifying changes based on an assessment of records or taxonomies and presenting photographs and sonograms in a periodical publication, we aimed to meet or lead best practice for transparency and to ensure that Colombia had a solid basis for its national checklist.

Since publication of our last update paper in 2016, a number of developments occurred. First, Fundación ProAves, the publisher of this journal, went through a period of difficulties in its governance, during which publication of this journal was suspended, ultimately resulting in the replacement of various board members and the appointment of a new executive director. Secondly, the first author left ProAves' board and took an extended break from working with birds.

Separately, Avendaño *et al*. (2017a, hereafter ACO) published their long-gestating alternative Colombian checklist that had been foreshadowed by Anonymous (2009). ACO's new checklist provided useful supplementary materials tracking all taxonomic and record-based changes since Hilty & Brown (1986). In their related paper, the authors treated our prior contributions to the development of Colombia's national checklist dismissively and took positions on the status of several species which we consider to be incorrect. They considered, in relation to the development of a list of Colombia's birds, that "Varios autores han tratado de dar respuesta a estos interrogantes" [various authors have tried to answer these questions], citing Salaman *et al*. (2001, 2008b), McMullan & Donegan (2014) and Donegan *et al*. 2009, 2016) among others. They also considered that "hoy no se sabe con precisión cuántas y cuáles especies de aves existen en el territorio colombiano" [today, it is not known with precision how many and which bird species exist in Colombian territory]. The same authors also ignored the provisional work we have done on subspecies occurrence and ranges (Salaman *et al*. 2001, 2007a, 2008b, McMullan & Donegan 2014, Verhelst & Salaman 2015, Verhelst 2018, McMullan *et al*. 2018) which, whilst incomplete and preliminary, contains more information than less detailed secondary sources which they recommend. ACO also presented new information or new opinions on the status of several species.

These developments, both internal to ProAves and as regards ACO's new list, together called into question the future of this series of papers. However, in mid-2018, ProAves' new executive director decided to recommence publication of *Conservación Colombiana* and, in

particular, asked us to reassess our checklist based on the information presented in ACO's checklist. We discuss the future of Colombia's checklists further below.

Our previous papers on Colombia's checklist have delved straight into assessing species status after a short introduction. The advent of ACO's alternative list and certain of the differences we noted between their list and ours led us to believe that a statement of our current methods and protocols may assist in explaining and identifying certain divergences between the two lists. This statement also assisted us in re-evaluating the status of some species, which in some cases we have not considered in over a decade.

Whilst several authors have now attempted to produce a national checklist, including our various editions and ACO's new list, Colombia has, to date and unlike most other countries (Friele *et al*. 2018), failed to establish an official records committee. These observations should also be useful in terms of enabling our previous work to be integrated into any future developments in that respect.

Methods

When developing a national or regional checklist, authors must assess: (i) quality of records of particular species; (ii) introduced or escaped species; and (iii) taxonomy and nomenclature (mostly splitting and lumping but also issues around genus and family limits, subspecies and dating, authorship, availability and priority of names). Vernacular names are also part of the work of any committee, but we do not discuss such issues in detail here.

More particular to Colombia, given its history of exploration, a fourth issue arises concerning the uncertain collecting localities of historical specimens labelled "New Grenada", "Colombia" or "Bogotá" (without more detail), which may or may not have been recorded within the boundaries of today's country. National boundaries changed significantly following the separation of "Gran Colombia", which up to the 1820s included all of modern-day Panama, Ecuador and Venezuela, as well as parts of Costa Rica, Peru and Brazil. Panama was not separated from Colombia until 1903.

This paper aims to discuss the three standard checklist challenges (records, introduction and taxonomy), plus the fourth Colombia-specific issue of old specimens. We focus on the protocols and methods that we have developed during work on the checklist of the birds of Colombia since 2001 to address these challenges and cite various examples that we have considered. We note that Carlos *et al*. (2010) recently elaborated a set of methods and protocols for addressing the Brazilian checklist, which was, in part, borne out of disagreements over how to assess particular cases. In some ways, the advent of ACO's list and the differences between their list and ours makes this section necessary in a Colombian context.

Quality and categories of records

Novel bird records can be based on different events or circumstances, or studies using different methodologies (Carlos *et al*. 2010, Freile *et al*. 2018), including:

(i) undocumented field observations;
(ii) mist-netting data or radio telemetry (locations of ringed and tracked birds);
(iii) sound recordings;
(iv) photographs; and/or
(v) specimens deposited in natural history museums.

Generally, field observations are treated as "unconfirmed" or "hypothetical". Specimens are generally treated as confirmed records. Some authors accept the other kinds of records as confirmed or unconfirmed in particular circumstances, depending on how objectively verifiable the data is and whether or not the information has been published. The question of whether telemetry records (unsupported by photography) should be treated as confirmed or unconfirmed is discussed below under our account of Pink-footed Shearwater *Ardenna creatopus*. Although these categories seem discrete, particular situations may require critical evaluation or could give rise to differences of interpretation.

Sight records. The British Birds Rarities Committee is probably the longest-running organization that assesses field observations of nationally rare birds; its work can be traced back to the British Ornithologists' Union's records committee established in 1878 (Freile *et al*. 2018). They require a short form to be submitted to the committee (BBRC 2011) with observation details. The committee considers records of listed nationally rare species (not just new national records) and assesses these as reliable or otherwise, with details of acceptable records published regularly (e.g. Hudson & the Rarities Committee 2011). In South America, the Trinidad & Tobago records committee (Hayes & White 2000 and subsequent publications available at rbc.ttfnc.org) has perhaps the longest tradition of assessing records (1,350 to date: Freile *et al*. 2018) and also works on the basis of submission of a form similar to that of BBRC.

The American Ornithologists' Society (formerly, the American Ornithologists' Union) (AOS) in contrast has a more formal approach which is perhaps more directed towards academics and advanced amateurs. Details of new records must be submitted to AOS committees in a formal written online proposal, in academic style, including literature citation. Only new national records are considered. The proposal system is open to "members of the ornithological community" (AOS 2018). In most cases, details of new records are published elsewhere in the ornithological literature prior to consideration by the AOS (e.g. Chesser *et al*. 2018).

Our approach to developing the Colombia checklist to date has been based more on the BBRC model. We actively keep in touch with the birdwatching community, scour sources such as xeno-canto, eBird.org and bird trip reports for new records and contact observers and colleagues to gauge their interest in publishing details of them in *Conservación Colombiana*. This is similar to how some other national record or checklist authorities currently operate in South America (Freile *et al*. 2018): the *modus operandi* of the Committee of Ecuadorian Records in Ornithology (e.g. Freile *et al*. 2013) is close to ours. They too take active steps to assess records and procure the publication of photographs from online sources in their reports. However, that committee has a broader remit than ours, including of rare birds and range extensions generally, whilst we focus to date solely on national status. We also often help advanced amateurs bring their publications to print through perhaps a more proactive and collaborative review and editing process than exists in some more academic-focused ornithological journals.

ACO's approach, although just started, seems based more on the AOU model in that they have restricted their scope to published information, whilst at the same time making generic pleas for others to publish details of records. ACO claims not to accept records based upon technical reports, databases or personal communications, so differs in methodology from BBRC, the Ecuador records committee or Trinidad & Tobago model. At the same time, ACO included a number of species and excluded others based on unpublished manuscripts of committee members, which seems inconsistent. We have previously included species that we or others had observed or claimed but not published on, especially in Salaman *et al*. (2001, 2007a). However, we moved away from doing so more recently, since unpublished findings might lack rigorous analysis and can lead to errors. We published a major paper including 18 new records for the country (Salaman *et al*. 2008a) to clean up many of these situations and also detailed new records in annual updates thereafter. We also engaged in a significant purge of species based on poorly-documented or questionable records (especially in Donegan *et al*. 2009, 2010). Based on certain species accounts below and Avendaño *et al*. (2017a), this was clearly incomplete and this edition includes further deletions.

There is also a spectrum of values that can be applied in decision-making, in particular, how liberally or critically to assess sight records. Factors in favor of being liberal include comity and trust among observers, an attempt at producing a complete checklist (for a poorly-known fauna like Colombia's) and openness towards both academic and non-academic communities. Countering against liberalism are principles of scientific method and the importance of empirical evidence. It is also important for any records or checklist committee to be consistent in assessing different species' status, with clearly defined methods and principles, since this engenders appropriate expectations to those submitting or publishing records.

In our series of papers, observers' records have only been rejected following reasonable attempts to investigate the situation thoroughly and, where possible, further direct communications with the observer. A disadvantage of this is that some accepted hypothetical or unconfirmed records are based upon scant published information, especially where details have been submitted privately or where the observer proposes to publish details later elsewhere and then does not get around to doing so promptly. Several examples of such species are discussed in the accounts below. Our starting point has been that submitted records, previous publications and site lists should have the benefit of doubt in the absence of an investigation discounting the record, especially for a country like Colombia which lacked appropriate publication vehicles for bird records outside academia during the 1980s and 1990s. Moreover, extraordinary claims require extraordinary evidence, but entirely expected claims do not. Many first national records for Colombia still fall in the "entirely expected" category.

Borderline photographic records. In addition to controversies over whether to accept records at all, there can be inflection points as to which category a species falls into. A good example of this for Colombia is the Double-crested Cormorant *Phalacrocorax auritus*, which is known in Colombia from two sight records (Salaman *et al*. 2008a, Donegan & Huertas 2015). The second sight record was backed up by published photographs of a distant bird, whose bill is certainly too long and bare skin on the gape too extensive for the only confusion species, Neotropical Cormorant *Phalacrocorax brasilianus*. However, these features are only seen in a pixellated image. There was no unanimity, among experts that we consulted, between whether a photograph apparently showing these unequivocally objective identification features (badly) was enough; or whether, in principle, a first confirmed national record requires better quality documentation (Donegan *et al*. 2015a). We conservatively treated this photographic record effectively as a sight record, not least given a wish to avoid being perceived to apply conflicts of interest. The species remains unconfirmed for Colombia, both on our list and on ACO's. The status of this cormorant is certainly arguable either way as confirmed or unconfirmed and requires further scrutiny.

Sound recordings. As for sound recordings, our policy has been only to treat records as confirmed if a published sonogram exists in literature. We have treated those sound recordings that are only archived online as if they are hypothetical, even if the serial number is cited in a publication. ACO adopted a more liberal protocol for sound recordings, treating as "confirmed" all species for which there is an archived online recording, but no published sonogram or discussion of the identification of

the recording. We have previously published sonograms to upgrade various species to confirmed status (e.g. Lesser Wagtail-Tyrant *Stigmatura napensis* in Donegan *et al*. 2009). In this issue, we publish a number of sonograms of sound recordings for species which, after details of the first national record has been published, lack a published sonogram. This enables us to align our list to the extent possible with ACO's.

Specimen records. For new specimen records, a serial number and museum should be referred to in the publication as a minimum, although ideally a photograph of the specimen should be published for new national records.

Erroneous records and frauds. All records, whether based on observations, sound recordings, photographs or specimens are subject to risks of error. Anyone can record sounds or take photographs from anywhere in the world and then upload them to a database with the wrong location, whether intentionally or not. With greater international travel and widespread contribution to online resources, there is greater scope for records, photographs or sound recordings to be uploaded to websites specifying the wrong locality or even the wrong country. Specimens are usually regarded as the gold standard of empirical evidence for record documentation, since they are preserved for posterity and are publically accessible, allowing reinspection. However, even this source of records is not incontrovertible and requires critical examination. Some specimen records for Colombia have been mislabeled or wrongly databased (e.g. Lobo–y–HenriquesJC 2014). The specimen database of Biomap Alliance Participants (2018), whilst comprehensive, contains many identification errors, most originating with misidentifications at museums themselves (some discussed below). Moreover, specimens can be subject of frauds (e.g. Dalton 2005).

Objectivity. It has been personally frustrating for us to list a host of species as "hypothetical" or "unconfirmed", when we have seen them in Colombia with our own eyes: as far as we are concerned, such species are confirmed! However, as far as the checklist is concerned they are unconfirmed. Sometimes, we have inadvertently omitted to place some such species in a hypothetical category, such as Ecuadorian Tyrranulet *Phylloscartes gualaquizae* (as discussed and resolved as confirmed in the account below). Species previously in a hypothetical status based on our own observations have included Worm-eating Warbler *Helmitheros vermivorum*, Fiery-throated Fruiteater *Pipreola chlorolepidota* and Yellow-throated Tanager *Iridosornis analis*, all of which have subsequently been "confirmed" by others' published photographs, often taken from the same locality or nearby. Least Flycatcher *Empidonax minimus* and Double-crested Cormorant *Phalacrocorax auritus* are remaining examples of species in such a status.

ACO, in contrast, listed as confirmed certain species which are only known from unpublished manuscripts, sight records of committee members or unpublished photographs on facebook, notably in the cases of Puna Teal *Anas puma,* Beautiful Treerunner *Margarornis bellulus* and American Avocet *Recurvirostra americana*. Presumably in some cases, confirmed status has been denoted with the same inadvertence as ours in the past. However, it is important that such errors are corrected, since confirmation should be an objective concept and not one assessed from the authors' subjective point of view.

Objectivity issues also arise as regards acceptable kinds of publications from which records may be based. We have previously included several species for Colombia based on unpublished manuscripts (especially in Salaman *et al*. 2001). ACO listed some species based on such information, such as Puna Teal *Anas puna* and confirmed records of Pacific Parrotlet *Forpus coelestis*. Many of the new national records in manuscripts referenced in Salaman *et al*. (2001) have now been published (e.g. Salaman *et al*. 2008b, Newman 2008), but others have not been; some such records were later retracted or appeared to have involved misunderstandings (as detailed in accounts below). The section below on "Species removed" is probably of itself informative as to why records based on unpublished manuscripts should not usually be accepted without accompanying observation details or further investigation.

Introduced and escaped species

Unlike record credibility issues, which checklist committees have often grappled with on a case-by-case basis, the topic of invasive species has attracted considerable attention as a concept in the periodical literature and the proceedings of taxonomic committees (e.g. Dudley 2005). Blackburn *et al*. (2011) developed a universal model for assessing biological invasions, which we have since used. For the US, UK and other more developed checklists, controversies over the status of introduced species can be a high-stakes game for competitive listing by birdwatchers and decisions are closely vetted. In Colombia, the opposite situation arises, in that there are very few introduced species (four listed in Donegan *et al*. 2016b and three by ACO) in a country whose checklist total exceeds 1900 species.

We have kept two lists for invasive species, largely following the structure of the British Ornithologists' Union (BOU) (Dudley 2005) but with fewer sub-categories. The first category uses our label "Escaped", denoted "Esc" on the checklist. This is broadly equivalent to BOU "Category E" and includes species that have not only passed Blackburn *et al*. (2011)'s "Introduction" stage (i.e. transported from their home

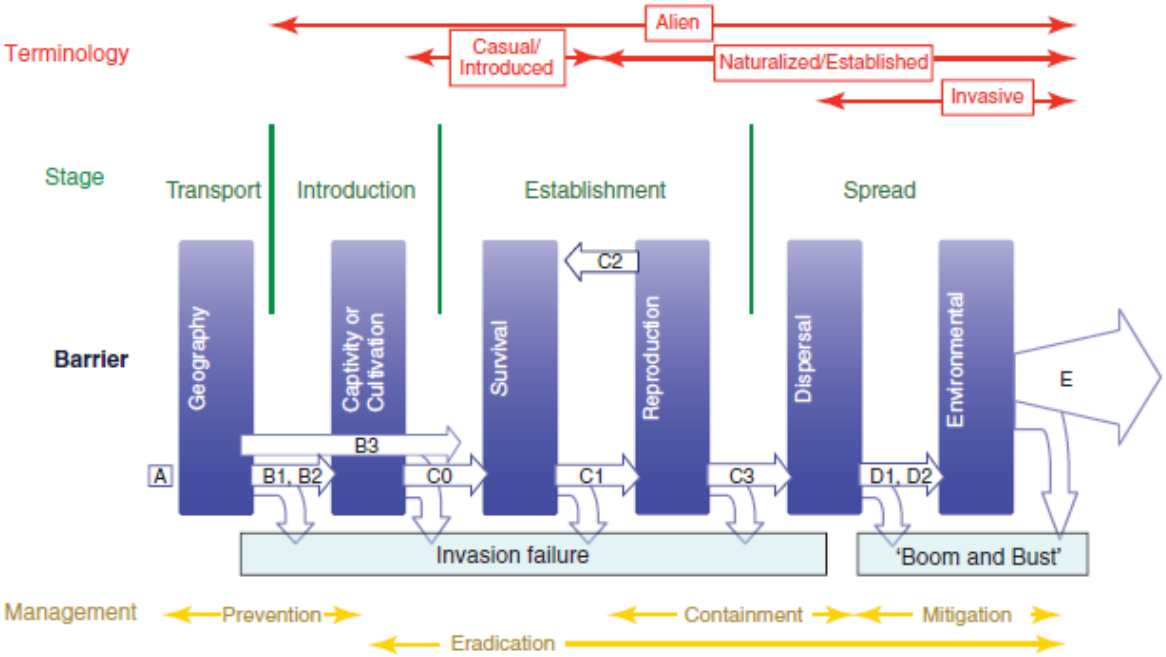

Figure 1. Assessing the status of introduced and escaped species (based on Blackburn *et al*. 2011). We monitor escaped species (category Esc) as those which have moved from "Captivity or Cultivation" to "Survival". However, these do not form part of the official national checklist. We recognize as introduced species (category Int) those which have moved from "Survival" to the "Reproduction" stage and also require some evidence of "Dispersal". Introduced species are part of the national checklist.

range into captivity in Colombia: see Fig. 1) but also the "Survival" stage (i.e. they have been recorded outside of captivity or ranging free in "wild conditions" in Colombia). Wild conditions for such purposes include urban or otherwise human-modified habitats. These species appear in a list of escaped species at the end of the checklist and do not form part of the official national checklist count. Instituto Alexander von Humboldt has further attempted to make a list of species occurring in Colombia in both the Introduction and Survival categories (Baptiste *et al*. 2010). They also list captive-only species. Other checklists either do not feature escaped species at all until they are introduced (e.g. ACO) or include some of them on a "hypothetical list" in borderline cases (e.g. Remsen *et al*. 2018). In our view, the maintenance of a list of escaped species is valuable, since it allows for monitoring and facilitates in-field identification of species that may be observed. For the same reason, it is important for field guides to illustrate such species (e.g. Svensson *et al*. 1999, McMullan & Donegan 2014, McMullan *et al*. 2018).

Our second category for Introduced species (labelled "Int") involves those which have moved from Blackburn *et al*. (2011)'s "Survival" stage to reproduction and establishment in the wild (see Fig. 1). This is equivalent to BOU's "Category C" or AOS's "introduced" status. These species form part of the national checklist and are included within the main list in taxonomic order, consistent with most other checklist authorities (BOU, AOS and indeed ACO).

Standards for differentiating introduced and escaped species. Different checklists have adopted different standards for introduced species. The criteria of AOU (1983) are rather vague, based on little more than the word "introduction" or "establishment". The BOU criteria (Dudley 2005) involve several detailed sub-categories which are unnecessary to enumerate for Colombia given the small number of species involved. If a species occurs in good numbers (at least 100) outside of captivity for several years (at least 15) and has been shown to or is assumed to have reproduced, we have counted it as "introduced" and not "escaped". The introduced vs. escaped category lives alongside the confirmed vs. unconfirmed category, since a species cannot be added to a checklist unless good records exist and cannot be considered "confirmed" unless records of a certain quality have been published. As a result, a species may be both: escaped and unconfirmed; escaped and confirmed; or introduced and confirmed. We have not yet had a case of an introduced and unconfirmed species, although ACO (in our view incorrectly, as detailed below) placed Feral Pigeon *Columba livia* into such a category.

Escaped or vagrant? A further issue with escaped species concerns the possibility of natural vagrancy explaining the record. By way of example, the topic has been explored in detail as regards the status of Ruddy Shelduck *Tadorna ferruginea* records in the British Isles (Harrop 2002). Most of these are considered escapes, although vagrancy from introduced populations in

northern Europe or natural populations further east are possible and could explain some records. In Colombia, we have fewer borderline cases, but some controversies exist. All Mallard *Anas platyrhynchos* records in Colombia are best assumed as of introduced or escaped origin, although there is one sight record from a remote primary habitat in the llanos (Donegan *et al*. 2013) which could arguably be of a natural vagrant. Chilean Flamingo *Phoenicopterus chilensis*, discussed further below, may be the first Colombian species whose records likely relate to both escapees and vagrant birds. ACO surprisingly listed Yellow-faced Siskin *Spinus yarrellii* as a naturally occurring species in Colombia based on a single photographic record, but this was made hundreds of kilometers from its known range in Eastern Brazil. Since, the species is not known to wander seasonally (see account below), it is in our view best treated as an escapee. ACO omitted to list Pale-winged Trumpeter *Psophia leucoptera* on the basis of a record assessment, but we have accepted the sole Colombian record as a sight record and instead treat the species as an escapee (see account below).

Old specimens of questionable national provenance

Because old specimens labelled "Bogota", "New Grenada" or "Colombia" could have come from modern-day Panama or Ecuador, we classify the handful of species known only from such records in their own special hypothetical or unconfirmed category of "Bog". These do not form part of the confirmed species list for the country and are therefore equivalent to sight records until confirmed by other records. Some such species are known from both sight records and unreliable old specimens and so are found under two unconfirmed categories ("Obs" and "Bog").

Taxonomy

As illustrated by Avendaño *et al*. (2017a), taxonomy has resulted in more changes to the Colombian checklist since Hilty & Brown (1986) than new records, new species, alien introductions or other factors. This phenomenon is likely to be universal for medium-sized to larger countries. There are essentially two major taxonomic decisions which national or regional checklist committees need to address, illustrated in Fig. 2.

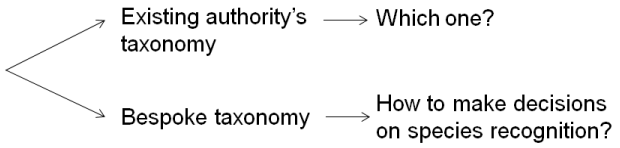

Figure 2. Decision matrix for checklist committees on taxonomic issues.

Which list to choose. If there is an existing good (or good enough) taxonomy, it is in principle better to follow that. However, global taxonomies are often difficult for national or regional checklists to adopt by rote, since such lists tend to struggle in being up-to-date with latest research at a local scale and often lack local expertise. We have discussed taxonomic issues in greater detail in previous checklist update papers (Donegan *et al*. 2015a, 2016a) so present only a summary here.

The situation with bird checklists is made more complex due to the unnecessarily large number of different global and regional checklist authorities and their differing taxonomies. Major works include those of: (i) the International Ornithological Congress (IOC) (Gill & Donsker 2018); (ii) Clements/eBird (Clements *et al*. 2018); (iii) the Howard & Moore checklist (Dickinson & Remsen 2013, Dickinson & Christidis 2014); and (iv) BirdLife International/IUCN/Handbook of the Birds of the World (del Hoyo & Collar 2014, 2016). All these lists have major but disparate practical applications and traction in different contexts. Supra-national regional taxonomic authorities may also be relevant. The AOS-SACC (South American Classification Committee of the American Ornithological Society) produces a South American checklist (Remsen *et al*. 2018) and AOS-NACC (North American Classification Committee of the American Ornithological Society) produces a separate checklist (Chesser *et al*. 2018: including San Andrés and Providencia, with considerable species overlap for birds of the Colombian Chocó also).

ACO chose to adopt (almost entirely) AOS-SACC taxonomy (Remsen *et al*. 2018). This invokes a source which they considered to be "rigorous" and "most up to date possible". ACO therefore effectively rejected all different taxonomies of other committees or authors that had not been "formally recognized" by AOS-SACC. However, AOS-SACC has a chequered track record on objectively addressing species limits issues (Donegan *et al*. 2015a) and nomenclature (González *et al*. 2011, Nemésio *et al*. 2013, ICZN 2018). It can also be slow to act compared to other global checklist authorities (Table 4), the committee itself presently having identified 141 issues which urgently require proposals, one of which refers a paper published back in 1984 (Remsen *et al*. 2018).

We have developed a more bespoke taxonomy for the Colombia checklist, attempting to find a middle-ground between various global and regional checklist authorities. None of our treatments is truly unique to the checklist; all of them are supported by at least one other global authority (Table 4). We have also explained in detail our rationale for all deviations from AOS-SACC and denote them in the list itself (Donegan *et al*. 2016b). We follow AOS-SACC closely for family and generic limits, English names and spellings.

Table 1: Our overall scheme for assessing species and records.

A. Taxonomy	B. Type of record	C. Specimens only: certainly in country or taken before national boundaries changed	D. Provenance
Invalid taxonomically at species rank (not listed)			
Valid taxonomically at species rank	Unreliable sight record or database record (not listed)		Escaped **(Esc)**
	Reliable sight record or database record OR Unpublished photograph, unpublished sound recording, unarchived or unpublished specimen (together with at least a reliable record of same or a sight record or database record) OR Unidentifiable photograph, sound recording or specimen, together with at least a reliable sight record or database record **(Obs)**		
	Published and identifiable photograph; published and identifiable sonogram of sound recording; or published details of specimen and museum serial number	"Bogota", "Colombia" or "New Grenada" specimen **(Bog)**	Introduced **(Int)**
		Specimen with reliable locality data	Naturally occurring

Instead of following one checklist authority by rote, as ACO purport to (although do not entirely, as discussed below), we sought to capture the 'best of the best'. Similar steps have been taken in Brazil, where the relevant records committee maintains its own taxonomy. The Brazil records committee notably adopts more liberal (phylogenetic or lineage-based) species concepts than global or regional authorities (Piacentini *et al*. 2015), resulting in relatively more splits being reflected in their national list than ours.

Inconsistencies between this plethora of world checklists have been discussed at some length (e.g. Remsen 2015, 2016, Garnett & Christidis 2017, Raposo *et al*. 2017). The present situation, where multiple global checklists have different taxonomic and nomenclatural product, creates confusion among users of bird names, such as birdwatchers, conservationists, governments and, indeed, authors of national checklists. We would support any steps that are taken to unify these lists (e.g. Gill & Christidis 2018). It is important that rationality, objectivity, up-to-date-ness, consistency, fairness, transparent procedures on conflicts of interest and compliance with the International Code of Zoological Nomenclature (ICZN 1999) are promoted.

Taxonomic decision-making in practice. In terms of a process for decisions: sympatric populations (those which occur together in the breeding season) and parapatric populations (those which replace one another by elevation or similar without a geographical boundary) that do not hybridize are usually fairly clear-cut candidates for species rank. For such populations which hybridise, a judgment must be made, considering the size of any hybrid or intermediate zones, mate choice studies, subjective phenotypic differences, genetic distance, paraphyly / monophyly and hybrid frequency, in a way which is consistent among the species treated in the list.

Allopatric populations result in most controversies. We have historically followed Helbig *et al*. (2002) and Isler *et al*. (1998), which tend to rank as species populations with diagnosable plumage and voice, where diagnosis exceeds that of related sympatrics in the same genus or family. We reassessed all of del Hoyo & Collar (2014)'s splits based on the Tobias *et al*. (2010) system for non-passerines, accepting some and rejecting others with reasons (in Donegan *et al*. 2015a, 2016a). Donegan (2018) developed a more precise universal scoring system for allopatric populations, which we have yet to apply in Colombia due to the focus in this paper on

records. We also consider published molecular data and prefer to adopt splits or lumps to avoid polyphyly or paraphyly, where possible. Other persons may prefer to jump straight to phylogenetic species concepts or give more weight to molecular data versus phenotypic data.

Overall scheme of records

Our overall scheme – and that of many other authorities even if not expressed in these terms – involves applying multiple parallel sets of criteria (taxonomy, provenance, type of record and "old specimen filter") to assess records into essentially three broad categories: not formally listed, unconfirmed and confirmed (Table 1).

In order to be accepted for the confirmed list for Colombia, a species must be recorded in a "green" category in each of the first three columns in Table 1. For old specimens, the fourth column must also be marked in green. Any species which is yellow for one or more categories is treated as unconfirmed or hypothetical. Any species treated as red for one or more categories is not counted at all. A list and other information on subspecies occurring in Colombia is also maintained (see Verhelst & Salaman 2015, Verhelst 2018, McMullan *et al*. 2018), as is a list of escaped species (in Donegan *et al*. 2016b), such that changes to taxonomy or introduced status can be more easily monitored. Any species may be categorized as Esc or Int; Obs; or Bog. In practice, only two of these have ever been used in combination (Esc + Obs for escaped species whose presence is based only on sight records; and Obs + Bog for species known in Colombia from both sight records and old "Bogotá" specimens but no confirmed locality).

In our Colombia checklist, species known only from the San Andrés and Providencia islands (SA) are also denoted, as are such cases based on sight records only (SA Obs) or confirmed in San Andrés but only sight records in the mainland (Obs*). Whilst these islands form a contiguous part of Colombia's territory, this region is excluded in lists of South American birds (Remsen *et al*. 2018). These categories help those wishing to make comparisons with the products of other authorities or who wish to compare nations' checklists based only on continental faunas.

In the following sections, we now provide our usual narratives on changes to Colombia's checklist, based on the published literature, new records and an analysis of differences between our list and ACO's new list. A result of this focus is a paper largely addressing issues around the status of bird records, which typically, and not necessarily fortunately, involves a focus on seabirds, vagrants, introduced species and Amazonian species whose distributions are not fully understood.

Figure 3. Chilean Flamingo *Phoenicopterus chilensis*. Bocagrande, Tumaco. The lower photograph is a magnification of the upper one. © Nena Frida Caicedo.

Species added

Chilean Flamingo *Phoenicopterus chilensis*

Two adult individuals of this species were recorded in the country in the Pacific coast of dpto. Nariño, by Nena Frida Caicedo and Marcela Arango on 18 July 2018. Caicedo photographed the species (Fig. 3). The observation locality is at Bocagrande, which is a beach near Tumaco, Nariño. The genus of the illustrated birds is unmistakable. Caribbean Flamingo *Phoenicopterus ruber* of northern Colombia is the main confusion species and has been reported at least once in the Colombian Pacific, via a record supported by unpublished video taken on 31 July and 7 September 2003 at Parque Nacional Natural Sanquianga (Ruiz-Guerra *et al*. 2007). A further record of this genus in the Colombian Pacific was made by national park staff at Parque Nacional Natural Sanquianga in 1998 and was considered possibly to be of Chilean Flamingo, but uncertain as to species identification (Ruiz-Guerra *et al*. 2007). Finally, Parra-Hernández *et al*. (2015) presented a photograph of what they identified as a Caribbean Flamingo from an inland locality in Picaleña lagoon, Ibagué, Tolima during June 2015. In our view, their photograph appears more likely to be of Chilean, but it must be assumed to be an escaped bird based on the observation locality.

Zooming in on the image in Fig. 3 reveals a pallid head, extensively dark distal bill and contrasting dark knee-caps, all typical of Chilean Flamingo (Erize *et al*. 2006). We shared the photograph with Lelis Navarrete (*in litt*.

2018) who has extensive experience with both species and agreed with this identification. Chilean Flamingo occurs north into Ecuador (McMullan & Navarrete 2013) and has previously been predicted to wander into southwestern Colombia (McMullan & Donegan 2014). Chilean Flamingoes are widely held in zoological collections, but the locality of this record leads us to believe that these particular birds are most likely to be natural vagrants.

Red-tailed Tropicbird *Phaethon rubricauda*
ACO claim sight records, incorrectly citing Spear & Ainley (1999). Instead, Spear & Ainley (2005, Fig. 2), which we had previously overlooked and which ACO did not cite either, reports this species broadly in Colombian Pacific waters during surveys between 1980-1995. Greater numbers were recorded in boreal Autumn than in boreal Spring surveys in Colombian waters. David Ainley (*in litt*. 2018) provided us with certain of his databases in an attempt to verify the records, but it would seem that relevant data was held by or originates with the late Larry Spear, meaning that further details on specific localities are unavailable. Nonetheless, the information in the relevant publication, which includes mapped records in Colombian territorial waters is in our view sufficient to add this as an unconfirmed species for Colombia (Obs). The species was illustrated as hypothetical in McMullan *et al*. (2018) accordingly. D. Ainley (*in litt*. 2018) also confirmed that there are no photographs to support these records.

Reviewing Ainley's database we uncovered a record erroneously under species code TRRT (Red-tailed Tropicbird) which must instead be of **Red-billed Tropicbird *Phaethon aethereus*** (TRRB) in Colombian waters just east of Quitasueño (14.40°N, 81.78°W) on 8 May 1986. This is a confirmed species with a few specimens recorded in Biomap Alliance Participants (2018), there are only a handful of records for Colombia.

Juan Fernandez Petrel *Pterodroma externa*
ACO list this seabird as unconfirmed, based on sight records by Ballance (2007). Ballance (2007) mapped records of Juan Fernandez Petrel, depicted as broad circles. Their Fig. 3 shows one record which appears close to the Panama / Colombia marine border but is probably indeterminate as to country. Ballance *et al*. (2007, Fig. 3) is inconsistent with their Fig. 5 in not featuring the mentioned record for any study years. In the top right map, it also appears to show small numbers of this species recorded throughout the Colombian Pacific coastal region in the year 2000. Ballance *et al*. (2007, Fig. 5, bottom left map) does, however, show one Colombian record to the west of Isla Malpelo (centroid at *c*.02°N, 85°W) from the year 2003, which appears to be from Colombian territorial waters (cf. Estela *et al*. 2010, Fig. 1). That record also features in Ballance (2007, Fig. 3) and we consider it acceptable as a sight record.

Neither Pitman (1986) nor Ballance *et al*. (2006, Figs. 4-5) reported Juan Fernandez Petrel in Colombian territorial waters. However, Ballance *et al*. (2002) maps the Pacific distribution of this species in more detail, including mapped observations in Colombian territorial waters of the Pacific Ocean during calendar years 1988, 1989, 1990, 1998, 1999 and 2000 (Fig. 3, p. 12 and Fig. 11, p. 22). This was indeed the most common species reported in their overall study, with 16,755 separate observations, meaning that Colombian records are likely to be reliable. Since no photographs or other details are available from this study, we can only add this species to Colombia's checklist as being based on observations (Obs). The species has not been previously reported for Ecuador either, but is mapped into Ecuadorian waters also, by Ballance *et al*. (2002). Erize *et al*. (2006) also report **De Filippi's Petrel (Mas a Tierra Petrel)** *Pterodroma defilippiana* from Colombian waters, but we are not aware of any actual records to date.

White-chinned Petrel *Procellaria aequinoctialis*
ACO added this seabird for Colombia based on sight records, citing Estela *et al*. (2010). The latter refer to records by S. Cook, who reported the species in Cabo Manglares, Nariño in Kirwan *et al*. (2006). This record was overlooked by us previously and the species is now added to an unconfirmed (Obs) category.

Tahiti Petrel *Pseudobulweria rostrata*
Included as hypothetical by ACO, citing sight records in Ballance *et al*. (2006). The relevant maps in that publication (Ballance *et al*. 2006, Fig. 12, p. 381) are taken from Ballance *et al*. (2002, Fig. 2, p. 11). Both publications map records of Tahiti Petrel in the Colombian Pacific during calendar years 1988, 1989, 1990, 1998, 1999 and 2000. This was among the more common species reported in this study and it is clearly well-known to the authors from their observations in locations further north where the species is known to occur. Since no photographs or other details are available, however, we can only add it to Colombia's checklist as being based on observations (Obs). This species has not been included for South America by some authors (Erize *et al*. 2006, Remsen *et al*. 2018), but Ballance *et al*. (2002) reported it in other countries, including at least as far south as the territorial waters of Ecuador and Peru.

Gould's Petrel *Pterodroma leucoptera*
Reported at a handful of localities in Colombian Pacific waters by Ballance *et al*. (2002, Fig. 4, p.14) in calendar years 1988, 1989, 1990, 1998 and 2000. The species has previously been reported only a few times from in South America (Barros & Schmitt 2015) but it also seems to occur off mainland Ecuador and Peru (Ballance *et al*. (2002) in addition to the Galapogas (Erize *et al*. 2006). We add this species as known from Colombia based on sight records (Obs). Neither we nor ACO previously listed this species.

White-faced Storm-Petrel *Pelagodroma marina*
Spear & Ainley (2007, p. 49) reports this pelagic species widely from the Pacific Ocean as far north as 8.15°N. There appear to be austral spring and austral autumn concentrations of the species west of the Galapagos and in the Lima area, with birds wandering from those into Colombian territorial waters. Whilst the authors did not include any mention of Colombian records, David Ainley (*in litt*. 2018) has kindly permitted us to review and publish his available locality data from the relevant study in Appendix 1. These include six observations of White-faced Storm-Petrel from localities in Colombian Pacific waters in May 1990. Unfortunately, no photographs are available, meaning that this species is added as only unconfirmed. Neither we nor ACO previously listed this species.

Antshrike *Thamnophilus* sp.
This refers to an undoubtedly new taxon for science from Inírida, Guainía. Details and a photograph were presented by Flórez (2017). Further study might show this new taxon either to be related to Chestnut-backed Antshrike *T. palliatus* or worthy of species rank. In either case there is an additional species of *Thamnophilus* that can be added to Colombia's checklist since there are no records of *palliatus* in the country. Some persons have commented adversely in web forums of our inclusion of undescribed species in the checklist. However, as for other previously-listed but un-named species, there is no reason why observers who see the species or those measuring the country's diversity ought not to count this antshrike, now that details of its occurrence and clear photographs have been published. Listing this species is consistent with our approach to other obvious but unnamed species, details of which had been published (such as the *Scytalopus* and *Megascops* listed since Salaman *et al*. 2010 that are now named and discussed further below).

Yellow-crowned Elaenia *Myiopagis flavivertex*
Flórez & Kirwan (2017) published details of multiple observations of this unobtrusive flycatcher from Guainía, Eastern Colombia, backed up by sound recording serial numbers, observations and an online photograph, although without any published photograph or sonogram. Ramirez *et al*. (2018) subsequently published further observations from the interior of eastern Colombia, including a high quality photograph, which counts as a confirmed record. This species is long overdue as an addition to Colombia's checklist. Hilty & Brown (1986) predicted its occurrence and McMullan & Donegan (2014) depicted it as a likely species for Colombia. ACO included it in their new list citing the same papers, which were published between the time of publication of our previous update in 2016 and their list. There is also a specimen from San José del Guaviare collected on 20 October 2012, details of which will be published in due course (F.G. Stiles *in litt*. 2018). *Myiopagis* are often elusive and hard to identify in the field. This particular species appears to be quite widespread in eastern Colombia and overlooked, as is discussed quite eruditely in both cited papers.

Ochraceous Wren *Troglodytes ochraceus*
Archived sound recordings and field observations from Cerro Tacarcuna were presented by Renjifo *et al*. (2017). However, the authors published no sonograms. ACO accepted the species as confirmed based on archived sound recordings. A sonogram is produced in Fig. 4, together with another recording of the species from Panama, in order to ensure that it meets our criteria as a confirmed national record and such that we may align our list with ACO's.

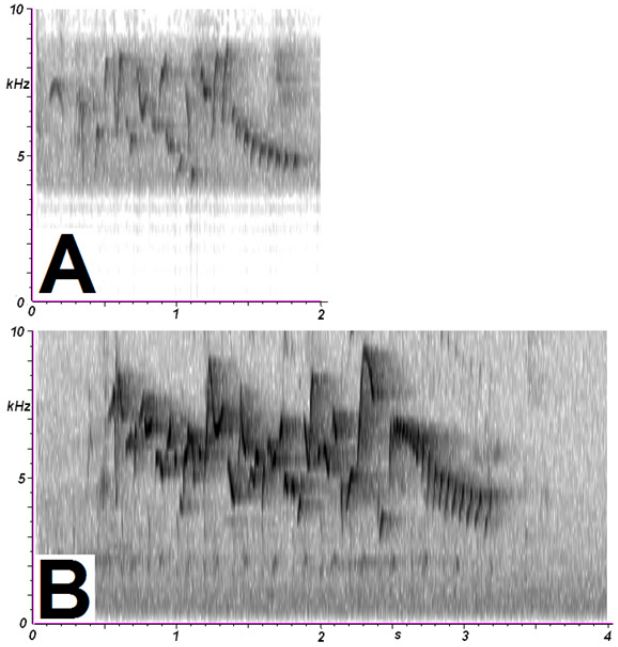

Figure 4. Ochraceous Wren *Troglodytes ochraceus* vocalisations. A. Cuchilla del Lago, cuenca río Bonito, Corregimiento de Balboa, Unguía, Chocó (XC184885: Jorge Avendaño). B. Sendero Los Quetzales, Chiriqui Province, Panama (XC31764: Andrew Spencer).

Red-crested Finch *Coryphospingus cucullatus*
An unmistakable photograph in this edition by Delgado & Rodriguez (2018) means that this species can be newly added for Colombia. One of the same photographs was published previously by Copete (2018). These are based on a bird observed near Mocoa, Putumayo on 25 March 2018.

Lincoln's Sparrow *Melospiza lincolnii*
We add this species for the first time into our hypothetical category (Obs) based on an individual observed by Edwards & Scheffers (2018) on 30 March 2017 at ProAves' Reserva Natural de Aves Homiguero in Norte de Santander.

New escaped species

Common Quail *Coturnix coturnix*
A photographic record of a single individual recorded in 2011 in the municipality of Ibagué, Tolima by Parra-Hernández *et al*. (2015) means that this species can be added as a confirmed escapee. Quails are numerous in captivity in Colombia, with cramped cages containing sometimes hundreds of birds a common sight in towns. It is perhaps surprising that an escapee has taken so long to be registered.

Species removed

South American Tern *Sterna hirundinacea*
As noted by ACO, Donegan *et al*. (2010), Estela *et al*. (2010) and McMullan & Donegan (2014), the only record discussed in the literature to date for Colombia is that of Spear & Ainley (1999). Both we (since Salaman *et al*. 2007a) and ACO have listed the species for Colombia as unconfirmed on this basis. However, closer inspection of Spear & Ainley (1999, at p. 180) reveals that the observation locality (00°32'N, 81°00'W) is within Ecuadorian territorial waters. The relevant national maritime boundary between Ecuador and Colombia in the Pacific Ocean follows a straight line of latitude at 01°27'N. D. Ainley's databases included no other Colombian records. On the basis of "goal line technology", this species must therefore be removed from Colombia's checklist.

Christmas Shearwater *Puffinus navitatis*
Included for Colombia since Salaman *et al*. (2007a) and also by ACO, in each case as unconfirmed and in each case solely on the basis of a sight record by Spear & Ainley (1999), which Estela *et al*. (2010) also considered to be the sole record. Closer inspection of Spear & Ainley (1999, at p. 180) reveals that the observation locality (06°48'N, 83°00W) is within Panamian territorial waters. D. Ainley's databases included no other Colombian records. This species is therefore removed from our list and it should not be listed for South America either (cf. Remsen *et al*. 2018 "hypothetical list"). It is expected that wanderers will be found in the country as Colombia's Pacific region is further explored. A list of possible species for Colombia was developed by Salaman *et al*. (2001). Any attempt to update that list should include this species and several others discussed in this section.

White-bellied Storm-Petrel *Fregetta grallaria*
The only record to date for Colombia is that of Spear & Ainley (1999), resulting in listing of this species by Salaman *et al*. (2007a) and in subsequent editions and publications and by ACO, in both cases as an unconfirmed species. Spear & Ainley (2007) provided more information on the occurrence of the species in the eastern Pacific, noting records as far north as 4°N but in high seas west of 110°W and mostly west of 140°W. The 1999 record has hitherto been considered the only Colombian record (Estela *et al*. 2010). However, the observation locality of Spear & Ainley (1999) (00°59'N 80°55'W) is within Ecuadorian territorial waters and therefore the record must also be discounted nationally. D. Ainley's databases included no other Colombian records.

Bluish-fronted Jacamar *Galbula cyanescens*
Records were reported from Parque Nacional Natural Amayacu (dpto. Amazonas) by Salaman *et al*. (2001), citing BOU, i.e. the BOU-supported expedition to this locality by Kelsey *et al*. (unpublished). We contacted Martin Kelsey who kindly searched his records and no longer holds a copy of the checklist. M. Kelsey (*in litt*. 2018) confirmed that he personally has not seen the species in Colombia (although that does not mean that others who contributed to the checklist did not see it). Unless and until a copy of the site checklist resurfaces, we therefore remove the species from Colombia's checklist, aligning our list with that of ACO.

Black-necked Araçari *Pteroglossus aracari*
First included in Colombia's checklist by Salaman *et al*. (2007a), but in error as noted by ACO. ACO themselves erroneously cited Salaman *et al*. (2001) as the basis for this record, but the species is not listed in that work. We tracked the error down to an early manuscript of Salaman *et al*. (2007a) worked on David Caro and emailed to other co-authors on 20 November 2006. This species' addition was related to an error connected with the elimination of Stripe-billed Araçari *P. sanguineus* which is treated as a subspecies of Collared Araçari *P. torquatus* (not *P. acaraci*) by Remsen *et al*. (2018), but had been afforded species rank by Salaman *et al*. (2001), consistent with some other authorities (e.g. Dickinson 2003, Gill & Donsker 2018). An embedded comment concerning this taxonomic change had been included in the previous manuscript iteration and the change appears to have been misimplemented. The same error was perpetuated in all following checklist editions and associated works (e.g. McMullan *et al*. 2010, 2011, McMullan & Donegan 2014). We apologise for the error and not noticing this previously. There are no records of this species in Colombia to our knowledge (based on other literature and searches of Biomap Alliance Participants 2018 and eBird 2018). It occurs a few hundred kilometres from the Colombian border with Venezuela and Brazil (Erize *et al*. 2006).

Undulated Antshrike *Frederickena unduliger*
Donegan *et al*. (2010) first listed this antbird for Colombia, promoting to species rank a subspecies that had been listed previously for the country by Salaman *et al*. (2001, 2007a, 2008b, 2009). These lists all refer to the subspecies occurrence in dpto. Caquetá (with no more details). Rodner *et al*. (2000) apparently first listed *undulgera* (as then spelt) for the first time in Colombia, with a denotion of “S Co”. In Restall *et al*. (2006) this

was amended to “extreme SE Col”, without more. Isler *et al*. (2009) split *unduliger* from *F. fulva* and mapped it into eastern Colombia (although not in dpto. Caquetá), also referring to its occurrence in the country in the text, but without citing any specific Colombian records. Ridgely & Tudor (2009) also mapped an unsplit *unduliger* into easternmost Colombia in *fulva*'s part of its range. These maps are presumably based on Rodner *et al*. (2000), Restall *et al*. (2006) and Salaman *et al*. (2001, 2007a, 2008b). Dickinson (2003), Dickinson & Christidis (2014), Zimmer & Isler (2003) and Del Hoyo & Collar (2016) only listed *unduliger* for Brazil, Bolivia and Peru and refer to the Caquetá distribution under *F. fulva*. Biomap Alliance Participants (2018) list 14 Colombian specimens of this genus, all of which are from Caquetá and all of which are identified as subspecies *fulva*. These include *fulva* specimens from Villa Fátima, Caquetá by Borrero and Dugand in August 1947 (Nicéforo & Olivares 1968) whose identification has been verified (F. G. Stiles *in litt*. 2018). Assertions of *unduliger*'s occurrence in Colombia originate with Rodner *et al*. (2000) and Restall *et al*. (2006), who provided no locality data and predate Isler *et al*. (2009)’s review. We therefore agree with ACO that whilst this is a "probable species for the country", no acceptable records of *F. unduliger* exist. It should be looked out for in eastern Amazonia; those working in that area should be urged to check their sound recordings.

Chestnut-shouldered Antwren *Euchrepomis humeralis*
Not accepted for Colombia by ACO. Hilty & Brown (1986) considered that the species "may" occur in Colombia. It was added to Colombia's checklist in Salaman *et al*. (2001) citing Ridgely & Tudor (1994) who mapped the species into the Leticia region of Colombia but did not specify any Colombian localities or records. Ridgely & Tudor (2009) corrected this and only mapped it south of the Amazon river. Zimmer & Isler (2003) also presented a more restricted map, excluding Colombian localities. The species does not appear in Biomap Alliance Participants (2018) or other databases. It has not been re-evaluated for Colombia's list since its addition in 2001. Based on our current methods, we remove this species from the list, consistent with ACO.

Painted Tody-Flycatcher *Todirostrum pictum*
Salaman *et al*. (2001) first included this species in Colombia's checklist, citing reported sight records by Mark Pearman from Leticia. It has appeared in all subsequent checklist editions. M. Pearman (*in litt*. 2018) confirmed, after checking his notes carefully, that although he has seen this species in other countries, he has not seen it in Colombia. This species was reported as likely for Colombia by Hilty & Brown (1986). We disagree with ACO that the record is implausible, since there are confirmed sound recordings from the north-eastern side of the rio Negro in Brazil and sight records from within a few kilometres of the Colombian border, including by Jose Gustavo León on 18 December 2006 at Capuana, Venezuela on eBird (2018). It should therefore be looked for in eastern Colombia, but is removed from our checklist for now at least, consistent with ACO.

Roraiman Flycatcher *Myiophobus roraimae*
ACO referred briefly in their Annex 3 to an unpublished manuscript of Stiles & Naranjo which demonstrates that the specimens reported by Olivares (1964; not referenced by ACO but see References below), Hilty & Brown (1986) and Álvarez *et al*. (2003) relate to other species. We accept Avendaño *et al*. (2017) as sufficient authority to remove the species from the checklist. The specimen numbers in question includes those at the Instituto de Ciencias Naturales, Universidad Nacional in Bogotá, including ICN 32823, 32879, 33220-33222 (all PNN Chiribiquete, 1994-1998), 31957, 31977, 31980 (all Rio Mesay, Caquetá), 23757 (Pitalito, Meta) and 9958 (Caño Cubiyú, Vaupés) (based on Biomap Alliance Participants 2018). ACO also refer to specimens at the Instituto von Humboldt collection that they have inspected. We have not inspected the specimens ourselves but the public database of specimens together with Avendaño *et al*. (2017)'s note by authors, one of whom was curator of the relevant collection, as well as the range disjunction from other populations, are probably just enough to remove this species from Colombia's checklist. However, we look forward to seeing the manuscript published.

Couch's Kingbird *Tyrannus couchii*
A Colombian record of this species is based upon a museum specimen database entry uncovered by Lobo–y–HenriquesJC (2014). Following a further review, it came to our attention that Cory (1887) does not include this species among those recorded in the relevant expedition. Lobo–y–HenriquesJC (2014) notes that the specimen was lost, relabelled or destroyed on account of it being considered a dubious specimen. In its absence and in light of Cory (1887) we therefore consider it more likely than not that the FMNH specimen database included an erroneous locality. ACO did not accept this record and we now also remove the species from our list.

Dotted Tanager *Tangara varia*
Hilty & Brown (1986) considered that this species "may occur" in Colombia. It was added to Colombia's checklist by Salaman *et al*. (2001) and in subsequent editions on the basis of a "sighting at Puerto Inírida (Kaestner in litt.)". Other authors, such as Ridgely & Tudor (2009) have mapped it across the border into Colombia, accordingly. We contacted Peter Kaestner (*in litt*. 2018) who confirmed that he has not recorded the species there or elsewhere in Colombia and so the species must have been included in error, as implied by ACO.

Changes of status

Imperial Snipe *Gallinago imperialis*
Historically known only from two "Bogotá" specimens (Hilty & Brown 1986), although Biomap Alliance

Participants (2018) list only one, namely BMNH 1891.10.20.546 which is indeed the type specimen for the name *imperialis* (Fig. 5). Arango (1986) reported a sight record from PNN Chingaza and there have been further unconfirmed reports in a thesis based on fieldwork at El Cocuy, Boyacá (Suárez Sanabria 2014). ACO list the species for Colombia as confirmed without comment. ACO do not however distinguish between species known only from Bogotá specimens and those with confirmed localities in the country. We continue to list this species in a hypothetical category, but now as "Bog" and "Obs" (previously just "Bog").

Figure 5. The type specimen of Imperial Snipe, collected in the "vicinity of Bogotá". Photograph by Mark Adams. © Natural History Museum, Tring, UK.

Belcher's Gull (Band-tailed Gull) ***Larus belcheri***
Long considered a "possible" species for Colombia with observations nearby in Panama (Hilty & Brown 1986) and first listed for Colombia by Salaman *et al*. (2001). Estela *et al*. (2010) found no records but Donegan *et al*. (2010) maintained the species as hypothetical on the basis of Restall *et a*l. (2006), who considered the species to be "rare" in the Colombian Pacific. ACO did not list this species for Colombia, considering it only "probable". Previously unpublished sight records meant that we were reluctant previously to de-list the species. These and new photographic records detailed by Ellery & Salgado (2018) in this edition (also referred to in McMullan *et al*. 2018) allow it certainly to be retained – and, moreover, now as a confirmed species.

Galapagos Penguin *Spheniscus mendiculus*
As noted by ACO, this species should be regarded as unconfirmed in Colombia, being known only from sight records reported in Hilty & Brown (1986). An "Obs" denotation is added to our list.

Antillean Nighthawk *Chordeiles gundlachii*
Listed by McNish (2003) for San Andrés and Providencia, but no locality or date is specified. Antillean Nighthawk is also reported at these localities by Cleere & Nurney (1998), which was the basis for Salaman *et al*. (2001) first listing the species. Cleere (2010) similarly mapped the species for San Andres and Providencia. Thomas McNish has now sadly passed away (Balcazar *et al*. 2013), precluding more information being published about his observations. However, he was a reliable observer and this is a plausible species for San Andrés, so we disagree with ACO's delisting of the species.

Antillean Nighthawk is reported from Isla Providencia by Donegan & Huertas (2018) in this edition and by F. Estela *et al*. on Roncador and Serrano (Asociación para el Estudio y Conservación de las Aves Acuáticas de Colombia 2017, eBird 2018). A review of *Chordeiles* specimens in Colombia for overlooked *gundlachii* would be worthwhile, since it vacates the Caribbean region in the Nearctic winter and probably winters on the South American mainland (Cleere & Nurney 1998, Cleere 2010). There are no specimens at Universidad Nacional (F. G. Stiles *in litt*. 2018) and Biomap Alliance Participants (2018) include none for Colombia. We had omitted to note that no confirmed records existed, and none on the mainland (although this was mentioned in McMullan *et al*. 2010, 2011 and McMullan & Donegan 2014), so we now downgrade it to SA (Obs).

Little Woodstar *Chaetocercus bombus*
Listed by ACO as hypothetical based on Salaman & Mazariegos (1998), which was the basis for Salaman *et al*. (2001) first listing the species for Colombia. We have previously listed this as confirmed (since Salaman *et al*. 2007a) based upon AMNH 108850 from La Tigrerra, Cauca (collected by F. M. Chapman in 1911) (Biomap Alliance Participants 2018). This specimen was also identified as *C. bombus* in both the AMNH and Biomap databases. Unlike for some museums, Biomap data tends to be reliable and accurate for AMNH. In light of ACO's differing treatment, we requested and were kindly provided with a photograph of the specimen by the curators, which is of a female Gorgeted Woodstar *C. heliodor*. It had been transferred to the correct (*heliodor*) draw at AMNH without the museum's database being updated (B. Bird *in litt*. 2018). Notably, however, Chapman (1917, p. 312) listed *C. heliodor* (and not *C. bombus*) for Miraflores, which we understand to be the same locality, albeit the author expressed difficulty in identifying the particular specimen more than tentatively.

Another "Colombia" specimen listed by Biomap Alliance Participants (2018) is at the Zoölogisch Museum Amsterdam (no. 38726) but this too appears to be a female of *C. heliodor*. eBird includes a further sight record by Christian Flórez Paez from río Ňambí, Nariño. Given the unacceptability of these specimens as the basis for confirmed records, we therefore align with ACO's list and change our status for this species to unconfirmed.

Black Nunbird *Monasa atra*

ACO did not list this species for Colombia at all, and considered published records to be insufficient. There are numerous confirmed records of this species along the Venezuelan side of the río Orinoco (Hilty 2003) and tentative sight records by S. Hilty from near Inirida in Colombia (Hilty & Brown 1986), which were later reported by the same author as actual sight records, presumably as the observer's experience with the species increased from work in Venezuela (Hilty 2003). Gallo-Cajiao (2002) provided details of his observations of *Monasa* from Puerto Inirida but could not identify the bird he saw to species. The species was first added to our checklist by Salaman *et al*. (2007a) and features in all subsequent editions. S. Hilty (*in litt*. 2018) confirmed that he was content with his record standing as a hypothetical or sight record. We therefore continue to list this species for Colombia, although as hypothetical (Obs), a denotion which was previously omitted.

Figure 6. Pacific Parrotlet *Forpus coelestis* Near Tumaco, Nariño, July 2017. © T. Ellery.

Pacific Parrotlet *Forpus coelestis*

We previously added this species based on sight records of Brinkhuizen & Seimola (2014), in Donegan *et al*. (2014a) and listed it as "Obs". ACO refer to specimens detailed in an unpublished F. G. Stiles manuscript on the birds of Nariño. Two specimens were taken near Tumaco on 12 March 2015 (F. G. Stiles *in litt*. 2018). There are now also tens of records of this spreading species from dpto. Nariño, including several photographic records (Figs. 6-7 and others; locality and date information in figure captions). Together, these records allow us to treat the species as confirmed and align our list with that of ACO.

Figure 7. Pacific Parrotlets *Forpus coelestis*. km 28 de la Tumaco-Pasto road, Nariño. 1 October 2017. The observer has seen the species at this locality since 12 July 2015. © Vinicio Góngora Fuenmayor.

Beautiful Treerunner *Margarornis bellulus*

Long considered "surely" to occur in the country (e.g. Hilty & Brown 1986). A "Bogotá" specimen was recently reported (Verhelst-Montenegro 2015) leading to its inclusion in our list (Donegan *et al*. 2015). This species was reportedly observed by Renjifo *et al*. (2017) at Cerro Tacarcuna "investigating vine tangles and epiphytes 4–5 m above ground", but no sound recordings, photographs or specimens are reported for this species in their account or appendix, nor are any details presented on the plumage or identification of the birds they observed. These records were nonetheless claimed by the authors to constitute a "confirmed locality" and the "first confirmed records in Colombia". ACO also list this as a confirmed species. Based on the field observations of Renjifo *et al*. (2017), the species changes in status to "Bog + Obs", known from a Bogotá specimen and unconfirmed sight records only. The reported "Bogotá" specimen is at the Copenhagen museum, no. 101007 (Biomap Alliance Participants 2018). We contacted the curators for information on this specimen but received no response by the date of publication. The specimen requires confirmation.

Buff-throated Tody-Tyrant *Hemitriccus rufigularis*

Copete (2016) and Williams & Lowen (2017) each published information about archived sound recordings of this species from Colombia made by Diego Calderón at "Nuevo Mundo", Putumayo. The species was listed by ACO as confirmed, although they incorrectly cited

Williams (2016) as authority. On our list, we have the species as hypothetical (Obs), since no sonograms have been published (Donegan *et al*. 2016) and D. Calderón (*in litt*. 2016) asked us not to publish such details until his publication had been forthcoming (which we will presume has now happened as a result of Williams & Lowen 2017). A sonogram of a recording by Brayan Jaramillo from the same locality and a similar vocalization of a bird from Peru (wherein the species' type locality) are published in Fig. 8 such that it can be certainly considered as confirmed and with a view to aligning our list with that of ACO.

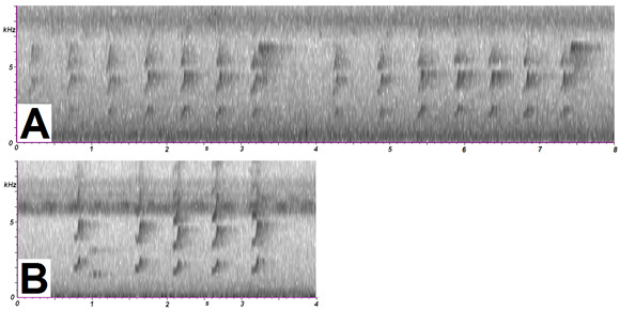

Figure 8. Sonograms of vocalisations of Buff-throated Tody-Tyrant *H. rufigularis*. A. Nuevo Mundo, Resguardo Indígena Jardín de la Sierra, Orito, Putumayo Colombia (X322779: Brayan Corral Jaramillo). B Unnamed ridgeline above Pueblo Libre, Provincia de Tocache, San Martín, Peru (XC393801: Todd Mark).

Short-tailed Field Tyrant *Muscigralla brevicauda*

This species has had an odd history in our list. Salaman *et al*. (2001) first listed it based on Ortiz von Halle (1990) and then Salaman *et al*. (2007a, 2008b, 2009), McMullan *et al*. (2010, 2011) and McMullan & Donegan (2014) included the species as confirmed. However, Donegan *et al*. (2010) inexplicably and erroneously downgraded it to hypothetical, following the equally erroneous (then AOU-SACC, now AOS-SACC) Colombia list of Anonymous (2009). Hypothetical treatment was denoted in Donegan *et al*. (2015b, 2016b), though not in related field guide literature cited above, where the error had been spotted. The specimen reported by Ortiz von Halle (1990) means that the species is indeed correctly treated as confirmed, as noted by ACO and in earlier iterations of our checklist. We also present here some recent photographic records taken by Vinicio Góngora Fuenmayor at Playa El Bajito, San Andrés de Tumaco, Nariño on 9 July 2017 (Fig. 9), which are the first confirmed records for the country which illustrate this interesting terrestrial flycatcher species in life and in its habitat.

Figure 9. Short-tailed Field Tyrant *Muscigralla brevicauda* © Vinicio Góngora Fuenmayor.

White-throated Kingbird *Tyrannus albogularis*

This is a regularly-observed species in the Leticia region in urban and forest edge habitats and elsewhere in southern Amazonia of Colombia. However, to our knowledge it still lacks any published confirmed record or specimen, which is probably an oversight due to no-one paying much attention to it. We and ACO both still listed the species to date as unconfirmed. Sight records were first made by Pearman (1994) and we are unaware of subsequent publications addressing the status of this species or providing a confirmed record. There are however many records in eBird (2018). One of these photographic records, taken by Sergio Orlando León G. at Leticia, is reproduced in Fig. 10 so that the species can be listed as confirmed. Its pallid head and contrasting eye stripe, that allow identification from the widespread Tropical Kingbird *Tyrannus melancholicus*, are clearly visible. There are many other records and this particular photograph is not claimed to be the first photographic record for the country, but is included for checklist confirmation purposes.

Figure 10. White-throated Kingbird *Tyrannus albogularis* at Leticia, Amazonas, 22 April 2018. ML96285121/eBird. © Sergio Orlando León G.

Foothill Schiffornis *Schiffornis aenea*

Williams (2016) included reference to archived sound recordings, which ACO used as the basis of treating this species as confirmed in Colombia. A sonogram of the first Colombian sound recording is produced in Fig. 11, for the sole purposes of enabling us to transfer the species from Obs to a confirmed category and align our list with that of ACO.

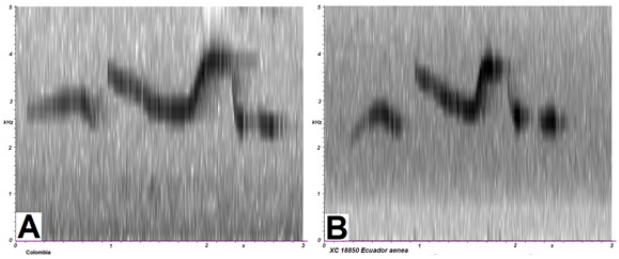

Figure 11. Sonograms of vocalisations of Foothill Schiffornis *Schiffornis aenea* A. Sendero El Fin del Mundo, Mocoa, Putumayo (XC306626: Juan David Ramírez Restrepo). B. Quebrada Mishquiyacu, Moyobamba, San Martín, Peru (XC18850: G. Boano; copy of Donegan *et al*. 2011, Fig 3I).

Gray-chested Greenlet *Hylophilus semicinereus*

ACO list this species as unconfirmed, citing Hilty & Brown (1986) and the Spanish translation of the same work. Hilty & Brown (1986) refer to both a sight record and a "tentative" photographic record by J. Dunning, but no confirmed records. Dunning (1987) did not illustrate it, although he mapped the species into Colombia west to his observation locality, as do Ridgely & Tudor (2009). Salaman *et al*. (2001) also refer to records by P. Kaestner in Inírida but this seems to have been in error (P. Kaestner *in litt*. 2018). Stiles & Beckers [2016] did not report the species and Biomap Alliance Participants (2018) include no Colombian specimens. Since Dunning's photographs are not available for review, we agree with ACO and downgrade its status to "Obs".

Guianan Gnatcatcher *Polioptila guianensis*

ACO treat this species as known in Colombia from unconfirmed sight records only, based on "Newman (1992)" (= Kingston *et al*. 1992), Newman (2008) and Janni *et al*. (2013). eBird (2018) also includes sight records by Hernán Arias from the same region. Biomap Alliance Participants (2018) include no data on specimens for Colombia. We had previously listed the species as confirmed, but change this to "Obs". Its presence is however fairly well-documented. The main reason that there are no confirmed records is that trying to find this bird in a mixed canopy flock from ground level in tall Amazonian *terra firme* forest is extremely difficult. Observers in eastern Colombia should be encouraged to attempt to take record photographs to confirm its status in the country.

Pirre Chlorospingus *Chlorospingus inornatus*

ACO recognise this species for Colombia only as hypothetical, citing Robbins *et al*. (1985) and Isler & Isler (1999). We first listed it as a confirmed species in Donegan *et al*. (2011; see further Anon 2012a) on the basis of specimens reported by Ruiz-Ovalle & Hurtado (2010) in a published conference abstract. Since Renjifo *et al*. (2017) had trouble locating further information on certain records of Ruiz-Ovalle & Hurtado (2010) and Ruiz-Ovalle & Hurtado-Guerra (2014) did not provide information on this species, we change the status of the species to "Obs", as ACO have done, until further publications are forthcoming.

Palm Warbler *Setophaga palmarum*

We list this species as confirmed, but ACO considered it unconfirmed, citing records in Hilty & Brown (1986) and Pearman (1993). Biomap Alliance Participants (2018) include on their database a single specimen from Providencia (Field Museum of Natural History 26572) taken by R. Henderson in Old Providence. The species was included in the inventory of Henderson's study by Cory (1887) and verified by Bond (1950). McNish (2003) published a photograph of this species from San Andrés island, which is a second confirmed record.

Figure 12. Palm Warbler mist-netted on San Andrés island. 24 October 2001. © Paul Salaman, Sara Lara & Robert Burridge.

Paul Salaman, Sara Lara and Robert Burridge also mist-netted a bird on 24 October 2001 (Fig. 12). Pacheco Garzón (2012) reported 20 mist-net captures on San Andrés island from 2004-2008 (e.g. Fig. 13). Trevor Ellery reports small numbers seen on San Andrés in December 2010 to January 2011 mostly along the beach habitat and on the ground. Turning to the mainland, Pearman (1993) observed the species in Turbo, Antioquia and this was cited as the basis for Salaman *et al*. (2001)'s addition of the species for Colombia's list. Another more recent mainland sight record comes from Gustavo Bautista (*in litt*. 2018), who observed the species at SFF Los Flamencos, Guajira on 14 February 2014. The status of this species is therefore changed to "Obs+SA" indicating confirmed records on San Andres but only sight records on the mainland. For ACO list purposes, the species should have been listed as confirmed. Immediately before going to press, Bayly (2018) published a further photographic record from San Andrés, which was erroneously claimed as a first national record based on Avendaño *et al*. (2018).

Figure 13. Palm Warbler, San Andrés island, 21 November 2017 © Andrea Pacheco.

Pine Warbler *Setophaga pinus*

As for Cape May Warbler, we list this species as Obs+SA, meaning that there are observations on the mainland, but that the species is confirmed on San Andrés. ACO list the species as unconfirmed. A sight record from Santa Marta (Strewe & Navarro 2004) is the basis for unconfirmed mainland records cited by ACO and in Salaman *et al*. (2007a). Another Pine Warbler was observed recently at Bellavista, Sierra Nevada de Santa Marta by Miles McMullan, and Chris, Helena and Mya-Rose Craig in June 2012 and there are more sight records in eBird (2018) for the north coast. We had previously treated as confirmed various mist-netting records on San Andrés island by Pacheco Garzón (2012) who captured 3 birds in 2008. However, no photographs are available from that study. Biomap Alliance Participants (2018) list no Colombian specimens either, so the species is downgraded to its own novel category of both Obs and SA(Obs).

Island Canary *Serinus canaria*

This escaped species has been reported several times in Colombia (summarized in Donegan *et al*. 2010), but lacks a confirmed record. Miles McMullan (*in litt*. 2017) sourced the photographic record in Fig. 14 by Isak Isaksson, taken at Calle 110A-1A Este, Santa Ana, Bogotá on 22 April 2017. It is still to be regarded as escaped (not introduced), since breeding has not been shown, but now confirmed and in category "Esc".

Figure 14. An escaped Canary in Bogotá. Isak Isaksson.

Zebra Finch *Taeniopygia guttata*
An unmistakable photographic record by Parra-Hernández *et al*. (2015), of a bird observed in Cañón del río Combeima, Tolima in 2015 means that this exotic species can be upgraded from being hypothetical and escaped (Obs Esc) to a confirmed escapee (Esc).

Notes on other species

Puna Teal *Anas puna*
ACO refer to sight records in an unpublished F.G. Stiles manuscript concerning birds of Nariño, but without providing information on date, locality or identification notes. We considered listing this species as hypothetical, but since no details of the records have been published, it is not yet accepted.

Mallard *Anas platyrhynchos* / Domestic Duck *Anas platyrhynchos domesticus*
The status of this species has been discussed in previous publications concerning the Colombian checklist as both an introduced species (Salaman *et al*. 2008b, Donegan *et al*. 2010), with one sight record in the llanos possibly being of a vagrant (Donegan *et al*. 2013). ACO did not list this species for Colombia at all, considering that evidence of reproduction and establishment "no es contundente" [is not overwhelming].

Mallards are now widely distributed in Colombia, with over 60 localities noted in eBird (2018: Fig. 15) and a national population well into three digit numbers. Urban parks in the Bogotá region include over 100 birds of themselves. The first Colombian record is of at least 60 years' vintage (Biomap Alliance Participants 2018). The Bogotá population has been reported for at least 25 years (Ordoñez 1992) and has been increasing, especially over the last 10 years. Salaman *et al*. (2008b) published a photograph for record documentation purposes, but during perusal of coffee table literature in connection with the *Columba livia* account, we noted an earlier published photograph featuring Mallards at Parque Simon Bolivar, Bogotá (El Tiempo 2000, p. 117).

We have made counts at various sites, especially at: (i) Parque Timiza (min. 9 in January 2012; max. 30 on 29 December 2017; more recently 29 on 26 October 2018), but typically *c*.25 since the first records in 2008 in at least annual surveys over a 15 year period: T. Donegan records); (ii) Parque Simón Bolivar (min. *c*.30 max. *c*.40 in 2011-2012 in counts by T. Donegan and M. McMullan); and (iii) Parque Centrochía (30 on 3 January 2016, including 3 active nests with between 3-5 white eggs: Fig. 16); up to 10 at Parque Los Novios (eBird 2018, O. Cortés records) and smaller numbers in various other city parks.

Maximum counts in eBird (2018) in less urban or less modified habitats of the Bogotá region include reports of up to 12 individuals at Humedal Jaboque, up to 20 at Parque La Florida and small numbers in Humedal La Vaca. The species has further been reported at Humedal Tibanica (Torres-Martínez & Peña Cañón 2013). There are 26 localities for the species in the Bogotá region in eBird (2018) – and this omits a few further localities where we have observed the species.

In dpto. Boyaca, three localities each have reports of c.4 birds: Pozo de Hunzahúa-río Farfacá in Tunja, Sotaquirá and Humedal Vereda Mirabal. There are also records from Santuario de Fauna y Flora Iguaque (Anon 2012b). In Santander, Mallards have been reported at three localities in Bucaramanga and also Páramo de Santurbán (3 individuals) (eBird 2018). Up to 12 birds are reported at Ekoparque Luna Forest, Bolivar (eBird 2018). In Medellín, counts of up to 15 birds have been made in the botanic gardens (eBird 2018).

The Cali area includes a further 11 localities, mostly clustered around the parks and golf or leisure clubs to the south of the city north to the Universidad del Valle area (eBird 2018). The first Colombian record is from this region: a bird of domestic origin collected in 1957 from Laguna La Ovejera, Cerrito, dpto. Valle del Cauca (Biomap Alliance Participants 2018). In the Zona Cafetera, 15 dispersed localities are reported in eBird (2018), most harbouring small numbers, but with a maximum count of 6 at Embalse Cameguadua, Caldas (eBird 2018) and *c*.15 birds on artificial lakes at Panaca, Quindío (T. Donegan, January 2014).

Some Mallards in Colombia are all-white birds. Some of them have enlarged posterior regions or vestigial wings and may be flightless. A number of birds include elements of original plumage or mixed domestic/wild plumage and are shaped normally. Birds that are hybrids or show plumage intermediate with domestic or feral Muscovy Ducks *Cairina moschata* are frequent (e.g. Parra-Hernández *et al*. 2015). Birds in wild-type or near-to-wild plumages are however found in all regions where the species occurs and are prevalent (see further Fig. 16 and also Salaman *et al*. 2008a).

We previously proposed Mallard as an introduced species to AOS-SACC based on less information than that presented here, but this was rejected (Remsen *et al*. 2018). Some committee member comments on that proposal seem to reflect understandable but questionably justifiable intellectual or birding "snobbery" towards populations which occur predominantly in human-modified or urban habitats, which include many leucisms and are often inelegant. Despite the rise of the Mallard being one of the most notable recent changes to the fauna of the Bogotá region, the species was ignored in a review of such changes (Stiles *et al*. 2017a).

Some have considered that if the Mallard was recorded in natural habitats then this might be grounds to change its

status (Remsen *et al*. 2018). We would contend that a species can be listed as introduced even if it occurs predominantly in urban habitats such as, in this case, city parks. However, we now have records of Mallard from several natural wetlands, humedales and paramos in Colombia.

We see no rationality in maintaining the pretence that these notoriously visible and numerous populations do not exist. Mallards are among the first species that many persons new to birdwatching in Colombia will observe in their local park. These birds are also of conservation concern, given the propensity of Mallards to hybridise with native Anatidae species or to displace them ecologically.

To simplify the checklist, we are eliminating the Int Obs category for species which may have records of wild origin as well as introduced records, and simply retain the species as "Int".

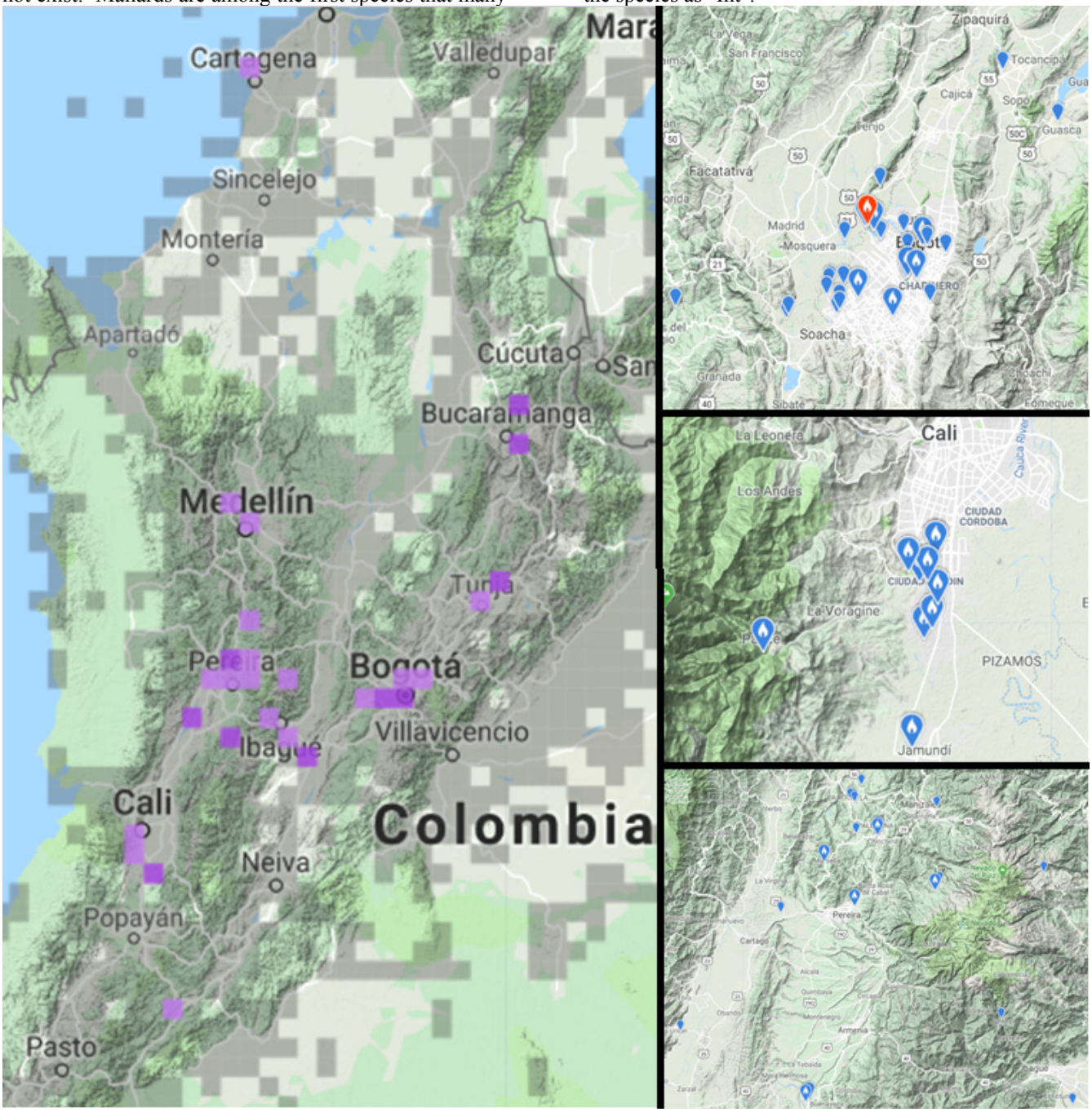

Figure 15. Maps showing distribution of Mallard *Anas platyrhynchos* in Colombia (left), with close ups showing localities in the three main centres in Bogotá (top right), area south of Cali (middle right) and eje cafetero or Central Andes (bottom right). Image provided by eBird (2018) (www.eBird.org), each created on 27 September 2018. Some records from literature and additional localities discussed in the text, including the llanos record in Donegan *et al*. (2013) not shown.

Figure 16. Frieze of some Mallard records, from across seven different departments of Colombia. Left column top: female, Rosamania, Tabio, Cundinamarca, 17 May 2012 © Todd A. Watkins (eBird 2018: S10777667). Left column centre: pair, Club Campestre de Cali, Valle del Cauca, 12 October 2017 © Luis Eduardo Camacho Legro (eBird 2018: ML81676051). Left column lower: male, Candilejas, Tolima, 7 May 2017 © Ronald Parra (eBird 2018: ML57130731). Middle column top: male, Club de Golf La Florida, Bogotá, 3 May 2018 © Estela Quintero-Weldon (eBird 2018: ML97987361). Middle column centre: pair, Pozo de Hunzahúa-río Farfacá, Boyacá, 7 October 2017 © Johana Zuluaga-Bonilla (eBird 2018: ML71125071). Middle column lower: male, Eco Hotel Los Lagos, Risaralda, 10 July 2018, © David Monroy Rengifo (eBird 2018: ML114671111). Right column top: nesting leucistic birds, together with an unbrooded nest with eggs, Centrochía, Chía, Cundinamarca, 3 January 2016 © T. Donegan. Right column lower: pair, Jardín Botánico de Medellín, Antioquia, 16 May 2016 © Harry Barney (eBird: ML28971111).

Feral Pigeon *Columba livia*

Listed by ACO as introduced but hypothetical (unconfirmed), citing ABO (2000) as the only record source, which is surprising for such a common species that features in so many published site checklists. This status might be explained due to the omission of the species from Hilty & Brown (1986). Salaman *et al*. (2001) first listed the species for Colombia without comment – given that it is one of the most widespread, familiar and common species in the country. All checklist editions since Salaman *et al*. (2007a) have listed it as confirmed for the country. There are numerous museum specimens collected in Colombia: Biomap Alliance Participants (2018) list 29 specimens in collections, from a variety of national and foreign museums. The coffee table literature for Colombia also reveals published photographs of city scenes including individuals that are unmistakably of this species (e.g. El Tiempo 2001, pp. 190-191 & 215 includes two photographs illustrating numerous Feral Pigeons in Bogotá and Cali, alongside buildings of architectural interest). We would be embarrassed to ask museum curators for photographs or confirmation on specimens of such a common bird, so instead include in Fig. 17 two photographs from central Bogotá including some Feral Pigeons (neither of which was originally taken for bird record documentation purposes). We identified these as Feral Pigeons and those in El Tiempo (2001) with

relative ease, owing to their size, intra-specific plumage variation but mostly greyish and wing bars and white rump on some birds, among other features. We retain this species as "confirmed" for the country.

Figure 17. Feral Pigeons *Columba livia* at Plaza de Bolivar, Bogotá, 24 December 2012. Above: flock in front of the Palacio de Justicia. Below: close-up in front of the Catedral Primada de Bogotá. © Thomas Donegan.

Red-billed Ground-Cuckoo *Neomorphus pucheranii*
Kirwan *et al*. (2015) described records of this species and included reference to an archived sound recording, which ACO cite as basis for treating this species as confirmed in Colombia. The recording was archived and the serial number was published, but no sonogram has been published three years later. The original record has not counted as confirmed for our list's purposes owing to lack of publication of the sonogram (Donegan *et al*. 2015). We have now reviewed the recordings in more detail in connection with this review. They only include sounds of bill-snapping, a noise that several Amazonian species make and which could indeed be reproduced mechanically. As a result, the sound recordings are not in our view objectively identifiable. We retain this species as a hypothetical sight record, although we do not doubt the record or the honesty of the observer. The identifiability of these materials at least falls below that available for other currently hypothetical species, such as Double-crested Cormorant. At least, a study of bill-clapping sonograms for regional species which engage in this behavior or better documentation would be necessary in order to accept this record as confirmed.

Rufous Potoo *Nyctibius bracteatus*
Blue-mantled Thornbill *Chalcostigma stanleyi*
Ruff *Calidris pugnax*
All these species are known or claimed in the country only from old "Bogotá" or "Colombia" specimens (Hilty & Brown 1986, Salaman *et al*. 2008), so they reside in our unconfirmed category of "Bog". The presence of *C. stanleyi* in the country is also supported by a sight record (Donegan *et al*. 2010). They are all, however, listed as confirmed species for Colombia by ACO. We retain them in our hypothetical "Bog" category.

Ruby-throated Hummingbird *Archilochus colubris*
Listed by McNish (2003) for San Andrés and Providencia, but with no locality or date in a work featuring a photograph from the USA, presumably for illustrative purposes only (Donegan *et al*. 2014a). Thomas McNish has now sadly passed away (Balcazar *et al*. 2013), precluding more information being published about these observations. However, he was a reliable observer and this is a plausible species for San Andrés. We therefore disagree with ACO's proposal to remove this species from Colombia's checklist and retain it as unconfirmed on San Andrés (SA(Obs)).

Pale-winged Trumpeter *Psophia leucoptera*
Van Leeuwen & Hoogeland (2004)'s record of *Psophia leucoptera* was discussed in Donegan *et al*. (2009) where we assessed the photograph as unacceptable as the basis for a confirmed record and the locality implausible for a wild record of a species that is heavily domesticated in Amazonia. We therefore treat this as an unconfirmed record of an escaped bird. ACO do not include a list of escaped species, but doubt the identification entirely, which seems over-zealous and unnecessary. We retain its status as both Esc and Obs.

American Avocet *Recurvirostra americana*
Previously included for Colombia based on sight records from two bird trip reports (Donegan *et al*. 2011). P. Florez (*in litt*. 2018) re-confirmed that he has no photographs or sound recordings. ACO listed the species as confirmed based on a photographic record, citing Donegan *et al*. (2011). However, that paper included no photographs of the species and referred to online birding trip reports. An unpublished online photograph by Diego Calderón on flickr.com and a video of the same bird on his facebook page in our view do not count as valid outlets for claiming a published first national photographic record. We have approached the observer about replicating his photographs in previous editions of these updates, but permission was not forthcoming. There are also recent online photographs from Providencia (eBird 2018), which we would encourage the observers to publish. We disagree with ACO's confirmed status for this species and retain our existing treatment of American Avocet as an unconfirmed species. We hope that the observers can rectify this status before too long.

Long-billed Curlew *Numenius americanus*
ACO list this species as hypothetical despite also citing a paper which includes an unmistakable published photograph from Colombia and correctly noting that it includes a photograph (de Bruin 2006). This appears to be in error and we therefore retain our treatment as a confirmed species, which has stood since Salaman *et al*. (2007a). Beckers & Flórez (2013, p. 64) also include a photograph of this species taken in Colombia.

Pink-footed Shearwater *Ardenna creatopus*
ACO confusingly list this seabird as "V" (vagrant) but only citing sight records (Obs) on the basis of Mangel *et al*. (2013)'s satellite tracking records report. Hilty & Brown (1986) also presented sight records. Relevant maps of the tracked individual recorded in Colombia were reproduced in Donegan *et al*. (2013). Other authorities, including Remsen *et al*. (2018) in the case of Ramírez *et al*. (2013)'s records of Fea's Petrel *Pterodroma feae deserta* (AOS-SACC Proposal 577), have treated satellite tracking records of marine birds as "confirmed" despite the lack of photographs being published of the individuals that were later tracked into South American waters.

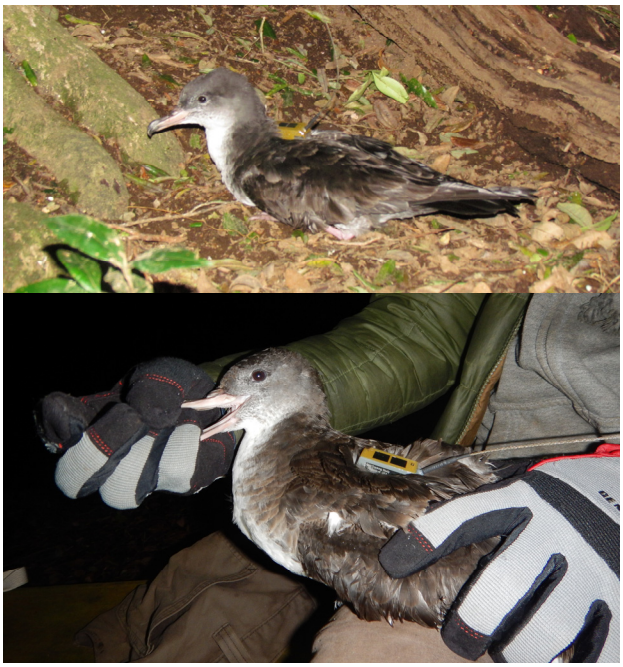

Figure 18. Two individuals of Pink-footed Shearwater during telemetry fitting fieldwork in 2011 and 2013 discussed in Mangel *et al*. (2013). © Oikonos / Valentina Colodro.

In order to further confirm this record, Valentina Colodro kindly provided photographs (Fig. 18) of Pink-footed Shearwaters that were captured and had a telemetry device fitted during the same studies which resulted in some birds being tracked through Colombian waters. Unfortunately, it is not possible to link particular photographs to particular telemetry serial numbers (V. Colodro *in litt*. 2018) but these photographs increase certainty over the identification of tagged birds from the same breeding colony. D. Ainley (*in litt*. 2018: see Appendix 1) separately provided details of two further sight records from the Colombian Pacific during May 1990. The occurrence of this species in Colombia is now well-established. We do not change our current confirmed treatment, which aimed to promote methodological consistency with other authorities.

Band-rumped Storm-Petrel *Oceanodroma castro*
ACO erroneously listed this species as hypothetical, overlooking photographic records in the Colombian Caribbean by Digby *et al*. (2015). D. Ainley (*in litt*. 2018: Appendix 1) reports the species to be quite common in Colombian Pacific territorial waters also (see further Spear & Ainley 2007), although there are not yet any confirmed records from the Pacific region. We retain its confirmed status. Band-rumped Storm-Petrel is currently regarded as monotypic but shows considerable genetic structure (Smith *et al*. 2007) and the tiny Azores population was recently subject of a new taxon description (Bolton *et al*. 2008). We note that Colombia's Pacific population is based only on unconfirmed records, but the Atlantic population is confirmed, should this become relevant to assessing future subspecies or species status following taxonomic revisions in this group.

Grey-backed Hawk *Pseudastur occidentalis*
ACO doubted the basis for including this species and did not include it on their list. Records from a checklist of birds of Nariño seen by Miles McMullan were mentioned in Donegan *et al*. (2010). The species is named in a draft checklist of the birds of Nariño that is being prepared by Jhon Jairo Calderón (*in litt*. 2018). The particular record was made by Jorge Orejuela Gartner, who studied the cloud forests of south-west Colombia and in particularly at La Planada, Ricaurte, Nariño (Orejuela-Gartner 2012). Although full observation details, precise dates and so on are yet to be forthcoming in a published work, we have no reason to doubt these records and so continue to list the species as hypothetical.

Santa Marta Screech-Owl *Megascops gilesi*
This widely observed and widely recognized species has now finally been formally described (Krabbe 2017). The name *gilesi* has been in widespread usage as a *nomen nudum* (including in Salaman *et al*. 2008b and McMullan *et al*. 2011 as well as tens of trip reports and other online publications) since Anon (2007) first used the name. To our knowledge, these and other publications prior to Krabbe (2017) consistently, but at times narrowly, fell short of requirements to make the name available for nomenclatural purposes. The name *gilesi* is now reinstated to the checklist, some 10 years after its first listing and 9 years since we listed it as "*Megascops* sp." (in Salaman *et al*. 2009 and subsequent editions).

Western Striolated-Puffbird *Nystalus obamai*
Cocha Antshrike *Thamnophilus praecox*
ACO considered both these species as confirmed, but known only from sound recordings. There are also published photographs of both species from Colombia in Williams (2016), which ACO nonetheless cited in each case and specimens at Universidad Nacional (F. G. Stiles *in litt*. 2018). We retain our present treatment for both species as confirmed. There is no need to publish sonograms here to confirm this.

Tatamá Tapaculo (formerly known as Alto Pisones Tapaculo) *Scytalopus alvarezlopezi*
This tapaculo has been widely observed, especially in ProAves' Las Tangaras reserve (e.g. Collazos-González & Cortes-Herrea 2015) and Montezuma, and often referred to as a presumed valid but undescribed species since Cuervo *et al*. (2003) first published details of its voice and their specimen, but without naming it. The species has featured in our checklist under "Alto Pisones Tapaculo *Scytalopus* sp." since Donegan & Avendaño (2008)'s review (in Salaman *et al*. 2009 and subsequent editions) and it is illustrated in the field guide literature (McMullan *et al*. 2010, 2011, 2018, McMullan & Donegan 2014). It has now finally been formally named (Stiles *et al*. 2017b) and so the scientific name is added to our checklist, replacing our previous denotion of "sp". We have changed its English name too, in line with the authors' wishes and global and regional checklist authorities.

White-bellied Spinetail *Mazaria propinqua*
ACO list this Amazonian riperine denizen as hypothetical based on the sight records of Pearman (1993). Salaman *et al*. (2001) first listed this citing the same publication and it was erroneously listed as confirmed since Salaman *et al*. (2007a). eBird (2018) includes a number of records for Colombia, from the Leticia and Puerto Leguizamo areas, usually close to major Amazonian rivers or on islands or to Colombia's southern border. These include the photographic records in Figs. 19-20 by Jurgen Beckers and Ottavio Janni. Some of these localities are very close to the national border which follows the same river in which the islands are located, but geo-referencing of the localities shows them to fall within Colombian territories (in one case, *contra* what is specified in eBird 2018). This species can therefore now certainly be treated as confirmed for Colombia.

Ecuadorian Tyrannulet *Phylloscartes gualaquizae*
ACO list this flycatcher of the equatorial East Andean slope as unconfirmed, based on Salaman *et al*. (2007b). It has been listed for Colombia since Salaman *et al*. (2001) on the basis of the same records, which were at the time unpublished. The photographs taken during the Colombia '98 and Colombian EBA Project '99 expeditions suffered a series of unfortunate mishaps. As stated by Salaman *et al*. (2007b, p. 33, but *contra* appendices of the same publication), Ecuadorian Tyrannulet "was mist-netted but not collected" at alto río Hornoyaco, Serranía de los Churumbelos, Cauca. No photographs of this species survive from that study, meaning that these records are indeed unconfirmed.

Since the 1990s, this species has been widely observed on the southern part of the East slope of the Colombian Andes. McMullan & Donegan (2014) referred to localities in dptos. Nariño and Putumayo. eBird (2018) includes numerous records from the same region of Colombia, several of which are backed up by photographs and sound recordings.

Excellent photographs on eBird (2018) by Rob Felix (Fig. 21) mean that the species may now be certainly treated as confirmed. This is not claimed to be a first national confirmed record, since other photographs and sound recordings exist, but it is one of the best photographs. It clearly shows all identification features for this species, including pale markings on the ear coverts and typically long bill and tail of a *Phylloscartes*, the faint hint of an eye stripe, thin eye ring, yellow underparts, white throat, grey crown and two pale wing-covert bars.

Southern Scrub-Flycatcher *Sublegatus modestus*
ACO list this species as a confirmed austral migrant. We have denoted it as "Obs", on account of uncertainty over records (Donegan *et al*. 2010). Hilty & Brown (1986) first reported the species as confirmed E of the Andes in Villavo and Puerto Umbria, west Putumayo. As noted by Donegan *et al*. (2010), Restall *et al*. (2006) considered the species "extremely unlikely [to have] occurred" in northern South America, suggesting that records of Amazonian Scrub-Flycatcher *S. obscurior* more likely to have been involved. Ridgely & Tudor (1994) did not map *S. modestus* as far north as Colombia, noting that it may overlap in the Austral winter with *S. obscurior* in Meta. However, Ridgely & Tudor (2009) presented a different map, including overshooting vagrants for eastern Colombia. Dickinson & Christidis (2014) did not specify Colombia as part of the range of *S. modestus*. Only one specimen of *S. modestus* is reported by BioMap Alliance Participants (2018), namely 1033728 of the Naturhistorisches Museum in Bern but this is a mounted specimen of White-throated Tyrannulet *Mecocerculus leucophrys*. *Sublegatus modestus* is morphologically very similar to *S. obscurior*, which is widespread in the Colombian Amazon region; the two are best identified from one another by voice. A careful review of specimens would be required to claim a confirmed

Figure 19. White-bellied Spinetail *Mazaria propinqua.* Putumayo river islands near vereda La Esperanza, Loreto, but within Putumayo, Colombia (03°13'42"S 59°56'18"W), 2 February 2016. ML24153391. © J. Beckers.

Figure 20. White-bellied Spinetail *Mazaria propinqua.* River island 9 km upstream from Puerto Leguizamo, Putumayo (00°14'16"S 74°51'35"W), 31 January 2017. ML50214381. © O. Janni.

Figure 21. Ecuadorian Tyrannulet *Phylloscartes gualaquizae*. Rob Felix, ML113025941 / eBird. Reserva La Isla Escondida, Putumayo. 17 December 2017.

record. We therefore omit to list this species as confirmed, as ACO and instead retain our present hypothetical treatment, based on Hilty & Brown (1986) and Ridgely & Tudor (2009). The genus is a strong candidate for a detailed review of specimens, with potential for either confirmation or indeed removal from Colombia's checklist.

Mangrove Swallow *Tachycineta albilinea*

This genus presents an interesting puzzle in Colombia, muddied by noteworthy and recently-discovered intra-specific plumage variation in White-winged Swallow *T. albiventer* (Donegan *et al*. 2009, 2010) that is presently under further review (Donegan MS). ACO only cited records in the family guide and field guide literature (Turner & Rose 1989; Restall *et al*. (2006) when doubting the records and de-listing the species. They omitted to cite the detailed published observations of Gochfeld *et al*. (1980), that in our view must stand as the basis for a hypothetical national record until a more detailed rebuttal or analysis is published (see Donegan *et al*. 2009, 2010). We maintain this as an unconfirmed species, at least for the time being.

Sooty-faced Finch *Arremon crassirostris*

We welcome the work of Renjifo *et al*. (2017) in placing the "confirmed" status of this species in Colombia and South America on a surer footing through publication of the relevant specimens. However, we already listed the species as confirmed, as do ACO.

Crimson-breasted Finch *Rhodospingus cruentus*

ACO listed this species as hypothetical, citing Ortiz von Halle (1990) who presented only sight records. Biomap Alliance Participants (2018) list a series of "Colombia or Ecuador" specimens, one of which is at the American Museum of Natural History and was verified by the curators (AMNH 155079) and the others of which appear to have been exchanged, including with the Peabody Museum, Yale (B. Bird *in litt*. 2018). The "Colombia or Ecuador" locality denotation was original and is specified in the museum's accession log. The Peabody museum has two specimens originally deposited at AMNH (Fig. 22), labelled "Colombia or Ecuador".

The specimens were all collected by William B. Richardson. According to Allen (1916, p. 114), "Mr. Richardson began work in Ecuador at Esmeraldas in October 1912, passing slowly down the coast with side trips into the interior at various points, completing his reconnaissance of the country in December 1913". The hand-written locality of "Colombia" or "Colombia or Ecuador" suggests that these specimens were taken close to, at or over the border. Historic "Colombia or Ecuador" specimens usually qualify for listing under our hypothetical "Bog" status (which ACO does not have).

However, this case differs in that we know the area where the specimen was collected, collector and date but cannot be sure exactly which side of the border the specimens were collected from. However, given that eBird (2018) includes several photographic records of Crimson-breasted Finch from dpto. Nariño (to be published shortly in B. Coral Jaramillo, C. Flórez Pai, V. Góngora Fuenmayor & D. Orozco Montoya MS) and there are other recent records as far north as dpto. Cauca (J. C. Luna *in litt*. 2018), we are reluctant to downgrade its status at this stage.

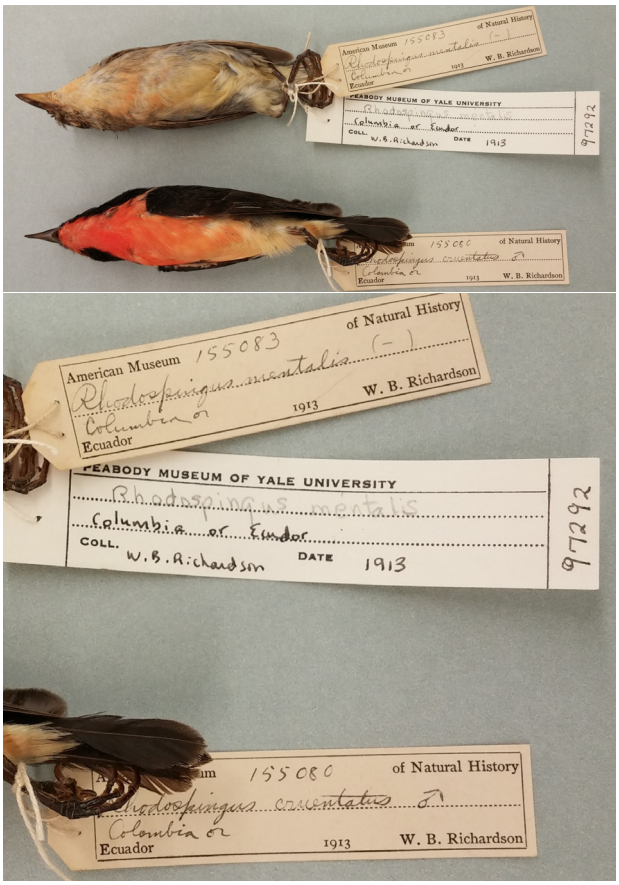

Figure 22. Two specimens of *R. cruentus*: Former YPM 97182 (former AMNH 155080, male) and YPM 97292 (former AMNH 155083, female), with close up showing the specimen labels. © Kristof Zyskowski, Yale University, Peabody Museum of Natural History.

Cape May Warbler *Setophaga tigrina*

Incorrectly listed by ACO as hypothetical. We have previously listed this species as confirmed for San Andrés and Providencia (since Salaman *et al*. 2007a) but unconfirmed for the mainland. The confirmed record was specimen no. 150892 in the Academy of National Sciences of Philadelphia (Fig. 23) reported by Bond & Meyer de Schauensee (1944), Bond (1950) and Biomap Alliance Participants (2018). Trevor Ellery has observed the species on San Andrés several times (e.g. Fig. 24). Pacheco Garzón (2012) enumerated 8 mist-net captures on San Andrés island, one of which is shown in Fig. 25. McNish (2003) listed the species for the island and there are several other more recent records of the species in eBird (2018) from both San Andrés and Providencia, where it seems to be annual and is scarce but not a rarity (T. Ellery pers. obs; Donegan & Huertas 2018 in this edition.). Hilty & Brown (1986) refer to sight records from Parque Nacional Tayrona on the mainland. It has also been observed at RNA Las Tangaras, Risaralda during a recent winter tour (T. Ellery). These records together mean that our present "Obs+SA" status is correct. ACO's hypothetical treatment is incorrect within the terms of their own system that counts specimen records on San Andrés island as confirmed national records. Immediately before going to press, Bayly (2018) published a photographic record from San Andrés, which was erroneously claimed as a first national record based on Avendaño *et al*. (2018).

Figure 23. ANSP150892. Cape May Warbler *Setophaga tigrina* specimen collected in Providencia, 1941. © Nathan Rice, Academy of Natural Sciences of Philadelphia.

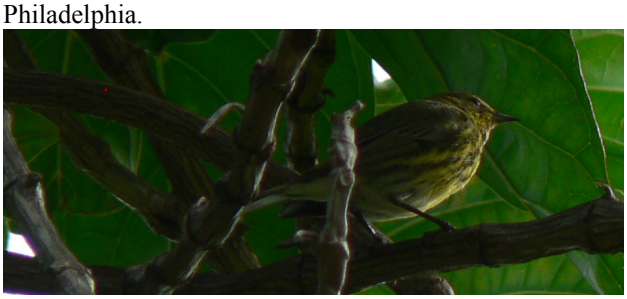

Figure 24. Cape May Warbler *Setophaga tigrina* on San Andrés island, 23 December 2010. © Trevor Ellery.

Figure 25. Cape May Warbler *Setophaga tigrina* on San Andrés island, 17 December 2008. © Andrea Pacheco

Yellow-faced Siskin *Spinus yarrellii*
ACO surprisingly listed this species as a naturally occurring confirmed vagrant. For the reasons discussed in Donegan *et al*. (2011) we maintain our position that the individual must be assumed to be an escaped cagebird. The species occurs in easternmost Brazil and there are no records for the Guianas or Venezuela (Ridgely & Tudor 2009). We are not aware of any evidence of vagrancy or seasonal wandering for this species nor of establishment of a viable population.

New records not accepted

Parra-Hernández *et al*. (2015) report **White-fronted Goose *Anser albifrons*** as an escaped species from Tolima, which would be a new record. However, relevant account contains no information on identification. It is possible that a partially leucistic Greylag Goose *Anser answer* could be involved. Feral *A. anser* is widespread in Colombia and individuals sometimes have a white front (e.g. Fig. 26). In contrast, White-fronted Goose *A. albifrons* is rare in captivity, even in its native Europe.

Figure 26. Greylag Goose *Anser anser* with leucistic frontal feathering. Mapachico, Pasto, Nariño, 30 October 2018. © M. McMullan.

The same authors also reported **Eurasian Collared-Dove *Streptopelia decacto*** based on two individuals observed in the urban area of Ibagué in September 2005 and September 2015 (Parra-Hernández *et al*. 2015). The species was previously reported by Baptiste *et al*. (2010), perhaps based on the same records. No information on identification was presented in either publication. Ringed Turtle-Dove *Streptopelia risoria* is an obvious confusion species. Pale morphs of the latter species have been recorded before (e.g. Donegan & Huertas 2002, Donegan *et al*. 2003, Donegan *et al*. 2007: Fig. 27). There is also a fawn morph of *S. risoria*, which is similar in plumage to *S. decaocto* and occurs in captivity in Colombia (e.g. Fig. 27) so must also escape. Eurasian Collared-Dove, in contrast to Ringed Turtle-Dove, is neither a common nor successful bird in captivity, whilst Ringed Turtle-Dove is widely held as a pet in Colombia. *Streptopelia decaocto* may spread to Colombia in the future, but escapes are relatively unlikely and require better documentation.

Figure 27. Ringed Turtle-Doves *Streptopelia risoria* in Colombia. Top left: pale bird, Bajo Cantagallos, mun. San Vicente de Chucurí, Serranía de los Yariguíes, Santander (January 2004). Top right: pale pair, La Playa, Norte de Santander (January 2002). Lower: birds in captivity, including two fawn birds (right), Río de Oro, Norte de Santander (January 2002). All, © T. Donegan.

Splits

Russet Antshrike *Thamnistes anabatinus*
Rufescent Antshrike *Thamnistes rufescens*
A split for populations east and west of the Andes, proposed by Isler & Whitney (2017).

Vermiculated Screech-Owl *Megascops guatemalae*
Choco Screech-Owl *Megascops centralis*
Krabbe (2017) supported this widely-proposed split (e.g. Hardy *et al*. 1989, König *et al*. 1999, Ridgely & Greenfield 2001, Freile & Castro 2013, Gill & Donsker 2018 and earlier editions thereof). We had delayed reviewing this case for arguably too long whilst Dantas *et al*. (2016) and Krabbe (2017) were developed, but now belatedly adopt this separation.

BirdLife International passerine splits and lumps
Due to the focus of this edition on records, a necessary consequence from publication of the ACO list, we pend further work on lumps and splits of del Hoyo & Collar (2016) for another update, publication or time.

Lumps / Taxonomic invalidity

Bogota Sunangel *Heliangelus zusii*
This "species" was described by Graves (1993). It is now shown to be an inter-generic hybrid between Tyrian Metaltail *Metallura tyrianthina* and Long-tailed Sylph *Aglaiocercus kingi* (Perez-Emán *et al*. 2018). We previously treated it in a hypothetical (Bog) status nationally, on account of being known only from a "Bogotá" specimen of unknown locality, and doubted its

validity in publications (e.g. McMullan & Donegan 2014). Two previous proposals were made to AOS-SACC to de-list this species, the first by F. Gary Stiles on grounds that the species may well be a hybrid (later proved correct, although perhaps under an unpredictable combination) and the second by one of us on grounds that it should at best reside on a hypothetical list until a confirmed locality is found. These two proposals were both rejected by Remsen *et al*. (2018). This species is now removed entirely from our list.

Colombian Screech-Owl *Megascops colombianus*
Rufescent Screech-Owl *M. ingens*
Dantas *et al*. (2016) and Krabbe (2017) imply that these have a similar basis.

Perija Starfrontlet *Coeligena consita*
Amazonian (Floodplain) Thrush *Turdus debilis*
Campina Thrush *T. arthuri*
See discussions below.

Subspecies occurrence and ranges

Verhelst & Salaman (2015), Verhelst (2018) and McMullan *et al*. (2018) presents new maps showing subspecies distributions for Colombia including several changes from McMullan & Donegan (2014). These works, rather than previous checklist iterations, should be used as a reference for preliminary subspecies lists for Colombia.

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.* (2018), are relevant to Colombia and adopted here. Proposal numbers and, where appropriate, key references supporting these changes are cited below:

579. Change the English names of *Chlorospingus* species from "Bush-Tanager" to "Chlorospingus" (J. V. Remsen).
628. Reassign species currently placed in *Myrmeciza* into 12 genera (except Part G thereof) (Isler *et al*. 2013, 2014).
696. Establish English names for newly split taxa in the *Epinecrophylla haematonota* complex (T. Schulenberg & J. V. Remsen).
701. Choose English names for splits from *Nystalus striolatus* (K. J. Zimmer).
717. Recognize the new genus *Mazaria* for "*Synallaxis*" *propinqua* (Claramunt 2014).
723. Revise the linear sequence of Orders (Jarvis *et al*. 2014, Burleigh *et al*. 2015, Prum *et al*. 2015).
724. Merge *Cyanocompsa cyanoides* and *C. brissonii* into *Cyanoloxia* (Bryson *et al*. 2014)
730.4 Merge *Tiaris bicolor* into (extralimital) currently monotypic *Melanospiza* and recognize newly named *Asemospiza* for *Tiaris obscurus* and *Tiaris fuliginosus.*
730.5 Recognize new genus *Islerothraupis* for *Tachyphonus cristatus*, *T. luctuosus*, and *T. rufiventer.*
730.7 Resurrect *Pseudospingus* for *Hemispingus xanthophthalmus* and *H. verticalis.*
730.9 Recognize newly named *Kleinothraupis* for four species of *Hemispingus* (*atropileus, calophrys, reyi,* and *parodii*).
730.10 Resurrect *Sphenopsis* for *Hemispingus melanotis* and *H. frontalis*.
730.11 Merge *Pyrrhocoma ruficeps* and *Hemispingus superciliaris* into *Thlypopsis*.
730.15 Merge *Oreomanes* into *Conirostrum*.
730.19 Resurrect *Ixothraupis* for *Tangara punctata, T. varia, T. rufigula, T. xanthogastra*, and *T. guttata.*
730.20 Recognize newly named *Poecilostreptus for Tangara palmeri* (and extralimital *T. cabanisi*); resurrect *Chalcothraupis* for *Tangara ruficervix*; and recognize newly named *Stilpnia* for *Tangara cyanoptera, T. larvata, T. nigrocincta, T. cyanicollis, T. preciosa, T. peruviana, T, meyerdeschauenseei, T. vitriolina, T. cucullata, T. cayana, T. viridicollis, T, phillipsi, T. argyrofenges,* and *T. heinei* (all above under proposal 730: Burns *et al*. 2014, 2016)
735. Modify linear sequences to reflect new phylogenetic data in nonpasserines:

A. Placement of *Anthocephala* in Trochilidae (McGuire *et al*. 2014).
B. Sequence of families in Suliformes (Prum *et al*. 2015).
C. Sequence of species and genera in Cathartidae (Johnson *et al*. 2016).
D. Sequence of genera in Rallidae (García *et al*. 2014).
E. Sequence of species in *Fulica* (García *et al*. 2014).
F. Sequence of species in *Charadrius* (dos Remedios *et al*. 2015)
G. Invert Laridae and Rynchopidae (Prum *et al*. 2015).
H. Sequence of species in *Megascops* (Dantas *et al*. 2016).
I. Sequence of families in Coraciiformes (Prum *et al*. 2015).
J. Sequence of species in *Chloroceryle* (Moyle *et al*. 2006).
K. Sequence of genera in Picidae (Benz *et al*. 2006).
L. Sequence of species in *Forpus* (Smith *et al*. 2013).

736. Elevate *Cyanoloxia cyanoides rothschildii* to species rank (García *et al*. 2016).
743. Establish an English name for *Henicorhina anachoreta* (T. S. Schulenberg).
758. Elevate *Thamnistes anabatinus rufescens* to species rank (Isler & Whitney 2017).
770. Treat *Megascops colombianus* as a subspecies of *M. ingens* (Dantas *et al*. 2016, Krabbe 2017).

Table 3. Summary of changes resulting in changes of numbers of species in particular categories and new species total. For key to codes used in header, see Donegan *et al.* (2016b).

Change	Species	Conf.	Obs.	Obs Bog	SA	SA Obs	Obs+	Obs & SA Obs	Bog	Ext	Int	Esc	Esc Obs	Total
	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 *Phoenicopterus chilensis*	+1												
	Red-tailed Tropicbird *Phaethon rubricauda*		+1											
	Juan Fernandez Petrel *Pterodroma externa*		+1											
	White-chinned Petrel *Procellaria aequinoctialis*		+1											
	Tahiti Petrel *Pseudobulweria rostrata*		+1											
	Gould's Petrel *Pterodroma leucoptera*		+1											
	Antshrike *Thamnophilus* sp.	+1												
	Yellow-crowned Elaenia *Myiopagis flavivertex*	+1												
	Ochraceous Wren *Troglodytes ochraceus*	+1												
	Red-crested Finch *Coryphospingus cucullatus*	+1												
	Lincoln's Sparrow *Melospiza lincolnii*		+1											
	Common Quail *Coturnix coturnix*											[+1]		
Splits	Rufescent Antshrike *Thamnistes rufescens*	+1												
	Choco Screech-Owl *Megascops centralis*	+1												
Species removed	South American Tern *Sterna hirundinacea*		-1											
	Christmas Shearwater *Puffinus navitatis*		-1											
	White-bellied Storm-Petrel *Fregetta grallaria*		-1											
	Bluish-fronted Jacamar *Galbula cyanescens*	-1												
	Black-necked Araçari *Pteroglossus aracari*	-1												
	Undulated Antshrike *Frederickena unduliger*		-1											
	Chestnut-shouldered Antwren *Euchrepomis humeralis*	-1												
	Painted Tody-Flycatcher *Todirostrum pictum*	-1												
	Roraiman Flycatcher *Myiophobus roraimae*	-1												
	Couch's Kingbird *Tyrannus couchii*					-1								
	Dotted Tanager *Tangara varia*	-1												
Lumps	Bogota Sunangel *Heliangelus zusii*								-1					
	Perija Starfrontlet *Coeligena consita*	-1												
	Colombian Screech-Owl *Megascops colombianus*	-1												
	Amazonian (Floodplain) Thrush *Turdus debilis*	-1												
	Campina Thrush *T. arthuri*	-1												
Changes of status	Imperial Snipe *Gallinago imperialis*			+1					-1					
	Belcher's Gull *Larus belcheri*	+1	-1											
	Galapagos Penguin *Spheniscus mendiculus*	-1	+1											
	Antillean Nighthawk *Chordeiles gundlachii*	-1				+1								
	Little Woodstar *Chaetocercus bombus*	-1	+1											
	Black Nunbird *Monasa atra*	-1	+1											
	Pacific Parrotlet *Forpus coelestis*	+1	-1											
	Beautiful Treerunner *Margarornis bellulus*			+1					-1					
	Buff-throated Tody-Tyrant *Hemitriccus rufigularis*	+1	-1											
	Short-tailed Field Tyrant *Muscigralla brevicauda*	+1	-1											
	White-throated Kingbird *Tyrannus albogularis*	+1	-1											
	Foothill Schiffornis *Schiffornis aenea*	+1	-1											
	Gray-chested Greenlet *Hylophilus semicinereus*	-1	+1											
	Guianan Gnatcatcher *Polioptila guianensis*	-1	+1											
	Pirre Chlorospingus *Chlorospingus inornatus*	-1	+1											
	Palm Warbler *Setophaga palmarum*	-1				+1								
	Pine Warbler *Setophaga pinus*					-1		+1						
	Island Canary *Serinus canaria*											[+1]	[-1]	
	Zebra Finch *Taeniopygia guttata*											[+1]	[-1]	
Overall Change since 2016 Checklist		-5	+2	+2	-	-	-	+1	-3	1	-	[+3]	[-2]	
New totals per category 2018		1,854	48	3	11	7	3	1	2	1	4	[12]	[5]	[1,951]
Less escaped species														[-17]
TOTAL FOR COLOMBIA														**1,934**

771. Break up *Megascops guatemalae* into several species (II) (Dantas *et al*. 2016, Krabbe 2017).
776. Treat New World *Circus* (*c*.) *hudsonius* as a separate species from Old World *Circus cyaneus* (Etherington & Mobley 2016).
783. Establish English names for *Machaeropterus regulus* splits (C. Caldwell).
787. Revise the generic classification and linear sequence of *Anas* (Gonzales *et al*. 2009, Sun *et al*. 2017).
789. Establish an English name for *Cyanoloxia rothschildii* (C. Caldwell).
791. Establish English names for species in the *Zimmerius vilissimus* complex (T. S. Schulenberg).

The following pending or passed SACC proposals are addressed in more detail above in this paper where their concept was accepted:
745. Add *Troglodytes ochraceus* to the Main List (Renjifo *et al*. 2017).
769. Add newly described *Megascops gilesi* to the SACC list (Krabbe 2017).
803. Recognize the newly described *Scytalopus alvarezlopezi* (Stiles & Cadena 2018).

The following SACC proposals have already been considered and previously addressed in our prior checklist update papers and several of them were indeed first proposed by us, such they do not need addressing further here:
741. Split *Zimmerius vilissimus* into three species (Donegan *et al*. 2010, Rheindt *et al*. 2013)
746. Move *Arremon crassirostris* from Hypothetical List to Main List (Renjifo *et al*. 2017).
774. Split *Schistes geoffroyi* into two species (del Hoyo & Collar 2014, Donegan *et al*. 2015).
775. Split *Urochroa bougueri* into two species (del Hoyo & Collar 2014, Donegan *et al*. 2015).
752. Split *Sclerurus mexicanus* into multiple species (Cooper & Cuervo 2017, Donegan *et al*. 2014a)
754. Elevate 13 taxa to species rank based on playback experiments (Freeman & Montgomery 2017)
B. Elevate *Automolus virgatus* to species rank (see Donegan *et al*. 2012).
L. Elevate *Atlapetes tricolor crassus* to species rank (see Sanchez-Gonzalez *et al*. 2015, Donegan *et al*. 2016a).

The following proposals currently being considered by AOS-SACC are pended for a future checklist update:
702. Change hyphenated group-names within the genera *Pseudotriccus*, *Euscarthmus*, *Myiornis*, *Lophotriccus*, *Oncostoma*, *Atalotriccus*, and *Hemitriccus* (K. J. Zimmer).
730. Revise generic limits in the Thraupidae:
730.1 Resurrect *Rhopospina* for *Phrygilus fruticeti.*
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 (all, Burns *et al*. 2014, 2016).
751. Revise species limits in *Polioptila guianensis* complex (Smith *et al*. 2018).
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).
759. Treat *Pyriglena* (Thamnophilidae) as consisting of five species (Isler & Maldonado-Coelho 2017).
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*. 2017c).
781. Change the generic classification of the Trochilinae (part 2) (Stiles *et al*. 2017c).
790. Change species limits within *Ramphocaenus melanurus* (Smith *et al*. 2018).
792. Establish English names for *Thamnistes* species (J. V. Remsen).
796. Recognize *Colibri cyanotus* as a separate species from *C. thalassinus* (Remsen *et al*. 2015).
797A. Split extralimital *Aramides albiventris* from *Aramides cajaneus* (Marcondes & Silveira 2015).
797B. Change English name of *Aramides cajaneus* from Gray-cowled Wood-Rail (Marcondes & Silveira 2015).
798. Split the storm-petrels (Hydrobatidae) into two families (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. Remsen).
801. Establish English names for *Grallaricula ferrugineipectus* split (J. Beck).
802. Revise familial limits and the linear sequence of families within the nine-primaried oscines (Barker *et al*. 2013).
804. Reorganize the taxonomic ranks within Accipitridae (Nagy & Tokolyi 2014)
805. Recognize family rank for Herpetotheridae, Polyboridae and Falconidae within the order Falconiformes (Fuchs *et al*. 2012).

Taxonomy of ACO

Annex 3 to ACO's checklist includes a list of 36 species reported in Colombia which they did not accept, with short notes. This effectively enumerates instances where the ACO checklist deviates from ours. Twenty of these instances refer to bird records or status issues. All of them (and others) are addressed separately in the text above. Sixteen of them relate to splits which we recognize but ACO do not accept.

We previously (in Donegan *et al*. 2015a) split Amazonian (Floodplain) Thrush *Turdus debilis* and Campina Thrush *T. arthuri* following Cerqueira *et al*. (2016). We now reverse that in light of Avendaño *et al*. (2017b), which suggests that the 2016 phylogeny was compromised by inadequate sampling of Colombian populations. We also, following del Hoyo & Collar (2014), previously split both Golden Starfrontlet *C. eos* and Perija Starfrontlet *C. consita* from Golden-bellied Starfrontlet *C. bonapartei* (also in Donegan *et al*. 2015a). The more recent molecular study of Palacios *et al*. (2018) implies splitting *C. eos* but not *C. consita*, so we now also row back on that split (in part).

A number of further taxonomic changes that we accept but ACO do not are listed in Table 4. As can be seen from Table 4, of ACO's 16 rejected splits, six of them have subsequently been accepted by preferred "rigorous" and "up-to-date" taxonomic reference point (AOS-SACC: Remsen *et al*. 2018) between the date of publication of ACO's list and this paper. Three of those are based in part on this series of papers (Donegan *et al*. 2009, 2015a) and two of them are based on papers co-authored by ACO committee member (D'Horta *et al*. 2013, Cooper & Cuervo 2017). One of them has been accepted by AOS-SACC's North American counterpart the AOS-NACC (Chesser *et al*. 2016), indeed over a year prior to publication of ACO's list.

Table 4. Splits accepted by us but rejected by ACO, and their current treatment by global major checklist authorities.

Split accepted in 2016 but not accepted by ACO (2017)	Reference	Subsequently adopted by AOS-SACC	Accepted by AOS-NACC	Accepted by IOC	Accepted by HBW Alive / BirdLife / IUCN	Accepted by Clements
White-throated Wedgebill *Schistes albogularis*	Del Hoyo & Collar (2014), Donegan *et al*. (2015)	YES		YES	YES	YES
White-tailed Hillstar *Urochroa leucura*	Del Hoyo & Collar (2014), Donegan *et al*. (2015)	YES		YES	YES	YES
Green Inca *C. conradii*	Del Hoyo & Collar (2014), Donegan *et al*. (2015)	No proposal		NO	YES	NO
Santa Marta Screech-Owl *Megascops gilesi*	Krabbe (2017)	YES		YES	YES (as sp.)	YES
Double-banded Puffbird *Hypnelus bicinctus*	Del Hoyo & Collar (2014), Donegan *et al*. (2015)	No proposal		YES	YES	NO
Splendid Woodpecker *Campephilus splendens*	Del Hoyo & Collar (2014), Donegan *et al*. (2015)	No proposal		NO	YES	NO
Pacific Parrotlet *Pyrrhura pacifica*	Del Hoyo & Collar (2014), Donegan *et al*. (2015)	No proposal		NO	YES	NO
Upper Magdalena Parakeet *P. chapmani*	Donegan *et al*. (2015)	No proposal		NO	NO	NO
Andean Leaftosser *Sclerurus andinus*	D'Horta *et al*. (2013), Donegan *et al*. (2014a), Cooper & Cuervo (2017).	YES		NO	NO	NO
Dusky Leaftosser *Sclerurus obscurior*		YES		YES	NO	NO
Western Woodhaunter *Automolus virgatus*	Ridgely & Tudor (1994). Donegan *et al*. (2012).	Second attempt at proposal pending	No proposal	YES	YES	NO
Venezuelan Tyrannulet *Zimmerius improbus*	Donegan *et al*. (2010). Rheindt *et al*. (2013).	YES		YES	YES	YES
Coopmans' Tyrannulet *Zimmerius minimus*	Rheindt *et al*. (2013). Donegan *et al*. (2012).	No proposal		YES	NO	NO
Perija Brush-Finch *Atlapetes nigrifrons*	Donegan & Huertas (2006). Donegan *et al*. (2014b).	No proposal		YES	YES	NO
Choco Brush-Finch *Atlapetes crassus*	Sanchez-Gonzalez *et al*. (2015). Donegan *et al*. (2016a).	Proposal pending		YES	YES	NO
Tacarcuna Warbler *Basileuterus tacarcunae*	Gutiérrez-Pinto *et al*. (2012). Donegan (2014). Donegan *et al*. (2014a).	No proposal	YES	YES	NO	YES

Table 5. Analysis of differences between our list, proposed changes in Avendano *et al*. (ACO: 2017) and their correctness.

Changes made here unrelated to ACO list or based on new information herein or therein	**ACO was correct or more correct. We changed our list to reflect their proposal**	**ACO was incorrect or less correct. We retain our current treatment and encourage ACO to revisit their approach.**	**ACO apply more liberal standards to old specimens (they treat as confirmed; we treat in hypothetical "Bog" category)**
Chilean Flamingo *Phoenicopterus chilensis*	Juan Fernandez Petrel *Pterodroma externa*	Puna Teal *Anas puna*	Imperial Snipe *Gallinago imperialis*
White-faced Storm-Petrel *Pelagodroma marina*;	White-chinned Petrel *Procellaria aequinoctialis*	Mallard *Anas platyrhynchos*	Beautiful Treerunner *Margarornis bellulus*
Gould's Petrel *Pterodroma leucoptera*;	Tahiti Petrel *Pseudobulweria rostrata*	Pale-winged Trumpeter *Psophia leucoptera*	Rufous Potoo *Nyctibius bracteatus*
White-bellied Storm-Petrel *Fregetta grallaria*;	Galapagos Penguin *Spheniscus mendiculus*	Antillean Nighthawk *Chordeiles gundlachii*	Blue-mantled Thornbill *Chalcostigma stanleyi*
Yellow-crowned Elaenia *Myiopagis flavivertex*	Little Woodstar *Chaetocercus bombus*	Ruby-throated Hummingbird *Archilochus colubris*	Ruff *Calidris pugnax*
South American Tern *Sterna hirundinacea*	Bluish-fronted Jacamar *Galbula cyanescens*	Feral Pigeon *Columba livia*	
Belcher's Gull *Larus belcheri*	Black-necked Araçari *Pteroglossus aracari*	Pink-footed Shearwater *Ardenna creatopus*	
Bogota Sunangel *Heliangelus zusii*	Undulated Antshrike *Frederickena unduliger*	Band-rumped Storm-Petrel *Oceanodroma castro*	
Antshrike *Thamnophilus* sp.	Chestnut-shouldered Antwren *Euchrepomis humeralis*	American Avocet *Recurvirostra americana*	
Roraiman Flycatcher *Myiophobus roraimae*	Painted Tody-Flycatcher *Todirostrum pictum*	Long-billed Curlew *Numenius americanus*	
Red-crested Finch *Coryphospingus cucullatus*	Short-tailed Field Tyrant *Muscigralla brevicauda*	Red-billed Ground-Cuckoo *Neomorphus pucheranii*	
Lincoln's Sparrow *Melospiza lincolnii*;	Couch's Kingbird *Tyrannus couchii*	Grey-backed Hawk *Pseudastur occidentalis*	
Common Quail *Coturnix coturnix*	Gray-chested Greenlet *Hylophilus semicinereus*	Western Striolated-Puffbird *Nystalus obamai*	
Island Canary *Serinus canaria*	Guianan Gnatcatcher *Polioptila guianensis*	Black Nunbird *Monasa atra*	
Zebra Finch *Taeniopygia guttata*	Pine Warbler *Setophaga pinus*	Cocha Antshrike *Thamnophilus praecox*	
	Pirre Chlorospingus *Chlorospingus inornatus*	Southern Scrub-Flycatcher *Sublegatus modestus*	
[In the following four cases, ACO applied lower standards for documentation but the gap was closed through new information published in this paper. These fall more under this column than others.]	***[In the following three cases, ACO were correct or more correct, but new information published here requires ACO to revert to our previous treatment. These fall more under this column than others.]***	Mangrove Swallow *Tachycineta albilinea*	
Pacific Parrotlet *Forpus coelestis*	White-bellied Spinetail *Mazaria propinqua*;	Palm Warbler *Setophaga palmarum*	
Foothill Schiffornis *Schiffornis aenea*	Ecuadorian Tyrannulet *Phylloscartes gualaquizae*	Cape May Warbler *Setophaga tigrina*	
Buff-throated Tody-Tyrant *Hemitriccus rufigularis*	White-throated Kingbird *Tyrannus albogularis*	Yellow-faced Siskin *Spinus yarrellii*	
Ochraceous Wren *Troglodytes ochraceus*			

Ten of the other eleven splits that we have adopted are all accepted by other leading taxonomic committees at global level (Table 4). Upper Magdalena Parakeet *P. chapmani* is the sole exception, but is in our view necessary (Donegan *et al*. 2016a) if one adopts other arrangements for the genus proposed by del Hoyo & Collar (2014).

We note that ACO itself deviated from AOS in their non-recognition of Bogota Sunangel (discussed above) and splitting Providencia Vireo *V. approximans* (questionably treated as a subspecies of Thick-billed Vireo by AOU-NACC: see Donegan *et al*. 2015a). We also accept both of these splits, as do many other authorities, but these are not listed in Table 4.

Species listed by ACO and differences from our list

Despite Avendaño *et al*. (2017) arguing that they did not know with precision how many species occurred in Colombia based on our work, this major revision of our list to take into account ACO's work resulted in an overall change of just three fewer species for Colombia's checklist (0.15%). This number belies the number of species which switched between different categories as a result of the revision. We therefore further analysed the changes or non-changes in this paper individually in light of whether they were drawn to our attention by ACO or not and whether or not we agreed with the changes of ACO, in Table 5.

In total, 16 changes in this update paper are based on novel findings unrelated to the publication of ACO's list. In one of these cases (Belcher's Gull), a question mark may exist over the accuracy of our prior status, but the change is made for other reasons and in an opposite direction to the status in ACO's list. In four further instances, we align with ACO but only through publication of new information that was not previously available for review, such as published sonograms, photographs or details of specimens.

As further detailed in the second column of Table 5, we found exactly the same number of instances (16) of situations where ACO's list was correct or more correct, and we have changed our list accordingly. Approximately half of these involve errors of commission or omission on our part and in the other instances, the error was elucidated through additional research and follow-up described in this paper or is revealed as a result of novel information presented in Avendaño *et al*. (2017a). In three further cases, ACO correctly took a conservative approach to status and we were arguably incorrect, but new information presented here means that ACO's treatment now requires updating to align with ours.

The next category, comprising 20 species, involves situations where ACO are in our view either incorrect, less correct or acted prematurely. In each case, retain our current treatment and encourage ACO to amend theirs.

Of these, six relate to unconfirmed but plausible sight records which we have accepted but ACO do not. Four involve sometimes surprising decisions by ACO on introduced or escaped species. Three involve more liberal treatments by ACO of unpublished records which we treat as hypothetical. The others appear to be errors of commission or omission. One hawk involves a poorly-documented new species record and remains arguable either way, perhaps with different starting points in the two lists.

We will look forward to adding Puna Teal to the checklist in due course. Two species that we continue to list, Mangrove Swallow and Southern Scrub-Flycatcher, were unrecognized and treated as confirmed by ACO but are both listed here as unconfirmed and are candidates for a more in-depth revision of status than that which was possible here.

Five further differences result from ACO's more liberal approach towards historical "Bogotá" specimens, which we place in a hypothetical category but ACO do not. Finally, Crimson-breasted Finch *Rhodospingus cruentus* could be argued to fall in more than one of the groupings discussed above so is omitted from all categories.

In a fauna of over 1900 species, we now disagree with ACO in 22 instances for records or status issues and, assauming that they merely track AOS-SACC in future, ten instances for taxonomy (<2%). To put the differences further into perspective, the differences are similar to the 20 changes made in this update as a result of non-ACO-related new information. The differences between out lists are also considerably less than the extent of error that is generally accepted for standard confidence intervals in science (5%), calling into question some of the stated rationale for producing ACO's list and their dismissive statements and conclusions about our checklist in their abstract and introduction (see introduction for relevant quotes).

Proposal to unify Colombia's checklists

At the recent International Ornithological Congress meeting in Vancouver, Canada, a round-table event took place involving several authors of major world checklists referred to in the introduction, with a view to consolidating taxonomic content (Gill & Christidis 2018). We welcome these steps, since several differences between our list and ACO's concern different choices for local implementation of international taxonomic standards.

Some co-authors of this article have previously offered to contribute the AOS-SACC Colombia checklist prior to ACO's list being published. We believe that it would also be optimal to unify Colombia's bird checklist by combining our checklist with ACO's. We believe that as a result of this paper, any differences based on record status issues should be capable of being resolved expeditiously. This would leave the only differences being in taxonomy and nomenclature. A combined list could either be based on a compromise taxonomy (as ours is, and indeed as is ACO's) or could alternatively involve separate IOC, H&M, Clements, BirdLife and AOS-SACC aligned versions for Colombia, based on the same baseline record set.

Any such initiative would require participation of co-authors of both existing lists and an agreement on processes, governance and publication protocols. A first step towards any such consolidation would involve the alignment of methodologies and status categories (set out above here for our list and separately by Avendaño *et al*. 2017a) and the identification of any differences. It would also need to be considered whether this current series of papers in *Conservación Colombiana* and related papers on records, such as those presented in this journal, should be continued, or whether ACO's more academic approach is preferable operationally. We believe that these issues and others would need discussion but that it should be relatively straightforward to reach an arrangement.

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Appendix 1: records of Colombian seabirds (D. Ainley database)

Date	Latitude (°N)	Latitude ('N)	Longitude (°W)	Longitude ('W)	Species	No. of birds
14 May 1980	4	35	85	1	Markham's Storm-Petrel	2
14 May 1980	4	35	85	1	Pink-footed Shearwater	1
14 May 1980	4	35	85	1	White-faced Storm-Petrel	1
14 May 1980	4	35	85	1	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	4	35	85	1	Markham's Storm-Petrel	1
14 May 1980	4	35	85	1	Markham's Storm-Petrel	1
14 May 1980	4	28	85	7	White-faced Storm-Petrel	1
14 May 1980	4	28	85	7	Markham's Storm-Petrel	3
14 May 1980	4	28	85	7	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	4	28	85	7	Swallow-tailed Gull	1
14 May 1980	4	28	85	7	Markham's Storm-Petrel	1
14 May 1980	4	28	85	7	Markham's Storm-Petrel	1
14 May 1980	4	21	85	13	Markham's Storm-Petrel	3
14 May 1980	4	21	85	13	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	4	21	85	13	Galapagos Petrel	2
14 May 1980	4	21	85	13	Markham's Storm-Petrel	1
14 May 1980	4	21	85	13	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	4	21	85	13	(Harcourt/Leach's) Storm-Petrel	1
14 May 1980	4	13	85	20	Markham's Storm-Petrel	1
14 May 1980	4	13	85	20	White-faced Storm-Petrel	1
14 May 1980	4	13	85	20	Swallow-tailed Gull	1
14 May 1980	4	13	85	20	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	4	13	85	20	Markham's Storm-Petrel	2
14 May 1980	4	13	85	20	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	4	13	85	20	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	4	13	85	20	Galapagos Petrel	1
14 May 1980	4	13	85	20	Galapagos Petrel	1
14 May 1980	4	13	85	20	Markham's Storm-Petrel	1
14 May 1980	4	13	85	20	Markham's Storm-Petrel	2
14 May 1980	4	7	85	25	(Harcourt/Leach's) Storm-Petrel	1
14 May 1980	4	7	85	25	White-faced Storm-Petrel	1
14 May 1980	4	7	85	25	Wedge-rumped (Galapogas) Storm-Petrel	3
14 May 1980	4	7	85	25	Markham's Storm-Petrel	1
14 May 1980	4	0	85	31	Pink-footed Shearwater	1
14 May 1980	4	0	85	31	Band-rumped (Harcourt's) Storm-Petrel	1
14 May 1980	4	0	85	31	Markham's Storm-Petrel	1
14 May 1980	4	0	85	31	(Harcourt/Leach's) Storm-Petrel	1
14 May 1980	4	0	85	31	Waved Albatross	1
14 May 1980	4	0	85	31	Galapagos Petrel	1
14 May 1980	4	0	85	31	White-faced Storm-Petrel	1
14 May 1980	4	0	85	31	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	3	52	85	36	Markham's Storm-Petrel	1
14 May 1980	3	52	85	36	Markham's Storm-Petrel	1
14 May 1980	3	52	85	36	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	3	52	85	36	Band-rumped (Harcourt's) Storm-Petrel	1
14 May 1980	3	48	85	43	Markham's Storm-Petrel	1
14 May 1980	3	48	85	43	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	3	48	85	43	Band-rumped (Harcourt's) Storm-Petrel	1
14 May 1980	3	48	85	43	Leach's Storm-Petrel	1
14 May 1980	3	48	85	43	Markham's Storm-Petrel	1
14 May 1980	3	48	85	43	Wedge-rumped (Galapogas) Storm-Petrel	6
14 May 1980	3	48	85	43	Eliot's Storm-Petrel	1
14 May 1980	3	48	85	43	Band-rumped (Harcourt's) Storm-Petrel	2
14 May 1980	3	35	85	48	Markham's Storm-Petrel	1
14 May 1980	3	35	85	48	Band-rumped (Harcourt's) Storm-Petrel	1

Date	Latitude (°N)	Latitude ('N)	Longitude (°W)	Longitude ('W)	Species	No. of birds
14 May 1980	3	35	85	48	Leach's Storm-Petrel	1
14 May 1980	3	35	85	48	Unidentified storm petrel	1
14 May 1980	3	35	85	48	Band-rumped (Harcourt's) Storm-Petrel	1
14 May 1980	3	35	85	48	Unidentified storm petrel	1
14 May 1980	3	35	85	48	Sooty Shearwater	1
14 May 1980	3	35	85	48	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	3	35	85	48	Markham's Storm-Petrel	1
14 May 1980	3	35	85	48	White-faced Storm-Petrel	1
14 May 1980	3	27	85	54	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	3	27	85	54	Markham's Storm-Petrel	1
14 May 1980	3	27	85	54	Galapagos Petrel	1
14 May 1980	3	27	85	54	Wedge-rumped (Galapogas) Storm-Petrel	2
14 May 1980	3	19	86	0	Galapagos Petrel	1
14 May 1980	3	19	86	0	Wedge-rumped (Galapogas) Storm-Petrel	1
14 May 1980	3	19	86	0	Band-rumped (Harcourt's) Storm-Petrel	3
14 May 1980	3	19	86	0	Markham's Storm-Petrel	1
14 May 1980	3	15	86	6	Band-rumped (Harcourt's) Storm-Petrel	1
14 May 1980	3	15	86	6	Markham's Storm-Petrel	1
14 May 1980	3	15	86	6	(Harcourt/Leach's) Storm-Petrel	1
15 May 1980	1	43	87	23	Galapagos Petrel	2
15 May 1980	1	43	87	23	(Harcourt/Leach's) Storm-Petrel	1
15 May 1980	1	43	87	23	Galapagos Petrel	1
15 May 1980	1	43	87	23	Unidentified storm petrel	1
15 May 1980	1	43	87	23	Wedge-rumped (Galapogas) Storm-Petrel	1
15 May 1980	1	43	87	23	Band-rumped (Harcourt's) Storm-Petrel	1
15 May 1980	1	43	87	23	Galapagos Petrel	4
15 May 1980	1	43	87	23	Leach's Storm-Petrel	1
15 May 1980	1	38	87	26	(Harcourt/Leach's) Storm-Petrel	1
15 May 1980	1	38	87	26	Galapagos Petrel	1
15 May 1980	1	38	87	26	Galapagos Petrel	1
15 May 1980	1	38	87	26	Band-rumped (Harcourt's) Storm-Petrel	1
15 May 1980	1	38	87	26	(Harcourt/Leach's) Storm-Petrel	1
15 May 1980	1	38	87	26	(Harcourt/Leach's) Storm-Petrel	1
15 May 1980	1	38	87	26	Waved Albatross	1
15 May 1980	1	38	87	26	Galapagos Petrel	1
15 May 1980	1	38	87	26	Wedge-rumped (Galapogas) Storm-Petrel	1
15 May 1980	1	31	87	33	Galapagos Petrel	3
15 May 1980	1	31	87	33	Band-rumped (Harcourt's) Storm-Petrel	1
15 May 1980	1	31	87	33	Swallow-tailed Gull	1
15 May 1980	1	31	87	33	Swallow-tailed Gull	1
15 May 1980	1	31	87	33	Band-rumped (Harcourt's) Storm-Petrel	1
15 May 1980	1	31	87	33	Galapagos Petrel	1