Revision of the status of bird species occurring or reported in Colombia 2016 and assessment of BirdLife International's new parrot taxonomy

Revisión del estatado de las especies de aves que han sido reportadas para Colombia en el 2016 y evaluación de la nueva taxonomía para loros de BirdLife Internacional

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Abstract

Rufous-headed Woodpecker *Celeus spectabilis*, Western Striolated Puffbird *Nystalus obamai*, Orinoco Softtail *Thripophaga cherriei* and Cocha Antshrike *Thamnophilus praecox* are each newly added to the Colombian bird checklist, based on photographic records. Foothill Schiffornis *Schiffornis aenea* and Buff-throated Tody-Tyrant *Hemitriccus rufigularis* are added based on archived sound recordings. Little Chachalaca *Ortalis motmot* is added as unconfirmed based on sight records only. Beautiful Treerunner *Margarornis bellulus* is added based on a "Bogotá" specimen. White-winged Dove *Zenaida asiatica*, which is common on San Andrés island, is now also treated as confirmed on the mainland of Colombia, following recent records there. Specimen and photographic records of Fiery-throated Fruiteater *Pipreola chlorolepidota* and Capuchinbird *Perissocephalus tricolor* result in their elevation to confirmed status. Various records of subspecies new to Colombia are discussed. We analysed taxonomic proposals by del Hoyo & Collar (2014) in parrots (Psittaciformes), based on new studies of specimens, our own fieldwork data and published molecular studies. We adopt the following proposed splits, specimens relating to which are all illustrated: Turquoise-winged Parrotlet *Forpus spengeli* of northern Colombia from Blue-winged Parrotlet *F. xanthopterygius* of Amazonia (or Green-rumped Parrotlet *F. passerinus* of northern South America); Pacific Parakeet *Pyrrhura pacifica* of south-western Colombia from Maroon-tailed Parakeet *P. melanura* of Amazonia; Scarlet-fronted Parakeet *Psittacara wagleri* of the Colombian and Venezuelan Andes from Cordilleran Parakeet *P. frontatus* of southern Ecuador and Peru; Northern Festive Parrot *Amazona bodini* of the Amazon drainage from Southern Festive Parrot *A. festiva* of the Orinoco; Red-lored Parrot *Amazona autumnalis* of western Colombia from Lilacine Amazon *A. lilacina*, which may occur in extreme south-west Colombia; and Southern Mealy Parrot *Amazona farinosa* of South America to western Panama from Northern Mealy Parrot *A. guatemalae*, which is found elsewhere in Central America. We go further in also splitting Upper Magdalena Parakeet *Pyrrhura chapmani* from *P. melanura*. We propose re-evaluating subspecies ranges within Cordilleran Parakeet, with subspecies *minor* apparently occurring north into Ecuador and nominate *frontatus* better restricted to coastal Peru (as set forth in the original description of *minor*). We also split: the Santa Marta Wood-Wren *Henicorhina anachoreta* from Grey-breasted Wood-Wren *H. leucophrys*; Black-billed Thrush *Turdus ignobilis* into three species and Lesser Elaenia *Elaenia chiriquensis* into two species, based on periodical literature. Several amendments to genus and species names, English names and linear order are made, following recent publications. The Colombian checklist increases again to 1,937 species (excluding escapes), of which 1,859 are documented by "confirmed" records on the mainland.

Keywords: Species limits, new records, parrotlet, parakeet, Amazon, Psittacidae.

Resumen

Las especies *Celeus spectabilis*, *Nystalus obamai*, *Thripophaga cherriei* y *Thamnophilus praecox* se agregan al listado de aves de Colombia, todas basadas en registros fotográficos. *Schiffornis aenea* y *Hemitriccus rufigularis* se agregan basadas en grabaciones archivadas. *Ortalis motmot* se agrega como una especie sin confirmar, solamente basada en registros visuales. *Margarornis bellulus* se agrega basado en un especimen de "Bogotá". *Zenaida asiatica*, una especie común en la isla San Andrés, se confirma en la región continental de Colombia siguiendo registros recientes allí reportados. Registros de especimenes y fotografías de *Pipreola chlorolepidota* y *Perissocephalus tricolor* son ahora elevados al estado de 'especies confirmadas'. Se discuten varios registros de subespecies nuevas para Colombia. Se discuten las propuestas taxonómicas del Hoyo & Collar (2014) en los loros (Psittaciformes), considerándose estudios de especímenes, observaciones en el campo y las conclusiones de estudios moleculares realizados por otros autores. Se separan: *Forpus spengeli* del norte de Colombia de *Forpus xanthopterygius* de la Amazonia (o *Forpus passerinus* del norte de Suramérica); *Pyrrhura pacifica* del suroccidente de Colombia de *P. melanura* de la Amazonia; *Psittacara wagleri* de los Andes de Colombia y Venezuela de *P. frontatus* del sur de Ecuador y Peru; *Amazona bodini* del drenaje del rio Amazonas de *A.*

festiva del rio Orinoco; *Amazona autumnalis* del occidente de Colombia de *A. lilacina*, que podría ocurrir en el extremo suroccidente de Colombia; y *Amazona farinosa* de Suramérica hasta el occidente de Panamá de *A. guatemalae*, que se encuentra en otras partes de Centroamérica. Separamos también *Pyrrhura chapmani* de la parte superior del valle del rio Magdalena, de *P. melanura* del oriente colombiano. Proponemos una re-evaluación de las distribuciones de las subespecies dentro de *Psittacara frontatus*, con la subespecie *P. f. minor* presente desde el norte de Perú hasta el sur de Ecuador y la subespecie nominal *P. f. frontatus* restringida a la costa de Perú (como se propone en la descripción original de *minor*). También hemos separado: *Henicorhina anachoreta* de Santa Marta de *H. leucophrys*; *Turdus ignobilis* en tres especies y *Elaenia chiriquensis* en dos especies, basados en publicaciones científicas recientes. Finalmente, se realizaron varias modificaciones a los nombres de géneros y especies, nombres en inglés y el orden linear del listado. Nuevamente, el listado de aves de Colombia aumentó a 1,937 especies (excluyendo especies exóticas que no han establecido poblaciones) de las cuales 1,859 han sido documentadas a través de registros confirmados en el área continental.

Palabras clave: Límites de especie, nuevos registros, cotorras, periquitos, Psittacidae.

Introduction

This is the 15th year of the national checklist of the Birds of Colombia, published in four printed editions (Salaman *et al.* 2001, 2008b, 2009, 2010), used as the basis for three field guides (McMullan *et al.* 2010, 2011, McMullan & Donegan 2014) and which is now available online (Donegan *et al.* 2015b, 2016). Various annual updates discussing new records, evaluating older ones and incorporating taxonomic changes have been published as part of this work (Salaman *et al.* 2008a, Donegan *et al.* 2009, 2010, 2011, 2012, 2013, 2014, 2015a). This paper sets out details of new records, taxonomic changes and other updates to the Colombian list since our last publication in December 2015. In Donegan *et al.* (2015a), we analysed in detail many of the new taxonomic proposals by del Hoyo & Collar (2014) which are relevant to Colombia. In this paper, we consider splits for Parrots (Psittaciformes), which were pended in Donegan *et al*. (2015a).

Species added

Little Chachalaca *Ortalis motmot*

Sight records by F. Gary Stiles in Stiles & Beckers ([2016]) date from 25 March 1998. This species was not previously considered to occur west of the Venezuelan border. It is added in category "Obs" owing to the lack of photographic or other confirmation. Further records would be welcome, given that chachalacas are sometimes held in captivity. However, this species seems more likely than not to represent a wild population based on the authors' accounts and the observation localities.

Rufous-headed Woodpecker *Celeus spectabilis*

Carantón Alaya *et al.* (2016) and Williams (2016) have each published details of this species' occurrence in Colombia. The first authors found the species at Piamonte, Cauca, providing photographs. The latter author included photographs of this species taken by Carlos Ferney Castro Fuentes near Puerto Guzmán, Putumayo, Colombia. The photographs are, in each case, unmistakeable. This species is known from close to the Colombian border in Ecuador. With no concerns around escapees, it can be added to Colombia's list as confirmed.

Western Striolated Puffbird *Nystalus obamai*

Various records are reported for Colombia by Williams (2016), including sound recordings since 9 September 2015 and a photograph on 29 February 2015 from "Fin del Mundo", near Mocoa, Putumayo. Video recordings of this species using a soil cavity, apparently for nesting, have been made available online. Observers who contributed to these records include Jean David Ramírez, Margarita Nieto, Daniel Piedrahita, Rodrigo Gaviria, Luis Miguel Renjifo and Julian Pantoja. The published photograph is unmistakeable. This species is recently described (Whitney *et al.* 2013) and a welcome addition to Colombia's checklist. With no concerns around escapees, it can be added as a confirmed species.

Orinoco Softtail *Thripophaga cherriei*

Stiles & Beckers ([2016]) have published two photographs of this species from Colombia, one of which clearly shows the diagnostic orange chin. The first record was on 2 March 2012 by Jurgen Beckers and subsequent observations were made on 6 January 2013 by Pablo Flórez, near Matraca on the border of the río Guaviare. Recent birding trips have also recorded the species (T. Ellery *in litt*. 2016). Orinoco Softtail is a threatened species, known only from the region of the type locality on the opposite side of the río Orinoco in Venezuela and other localities nearby in Venezuela (Lentino *et al.* 2007). Confirmation of its occurrence in Colombia is expected (Hilty & Brown 1986) and there can be no doubts as to provenance of the birds; its occurrence some distance to the south of Venezuelan records is welcome news for conservation.

Beautiful Treerunner *Margarornis bellulus*

A Bogotá specimen is reported by Verhelst-Montenegro (2015), which allows the species to be added to Colombia's checklist under denotion "Bog". It likely occurs on the border with Panama, but there are no recent records. Although Panama used to be part of Colombia, other species are included on the list on an unconfirmed basis based on plausible "Bogotá" or "Colombia" specimens and there is no reason that this species should be an exception.

Cocha Antshrike *Thamnophilus praecox*
Williams (2016) published details of records made by Ottavio Janni, Jurgen Beckers and Flor Peña of at least three birds at río Caucayá, Puerto Leguizamo, Putumayo on 30 January 2016. A photograph of the monochrome black male is presented, showing its only diagnostic mark – the off-black post-ocular bare skin. Sound recordings are also available on xeno-canto.org (XC302791). We accept this as the first confirmed record for Colombia. Like the previous species, Cocha Antshrike has a small range in Amazonian Ecuador (Ridgely & Greenfield 2001) and is a near-threatened species, so its discovery in Colombia is most welcome.

Foothill Schiffornis *Schiffornis aenea*
Williams (2016) reports sound recordings by Juan David Ramírez, Margarita Nieto, Paul Betancur, Daniel Piedrahita, Rodrigo Gaviria, Luis Miguel Renjifo (=LMF? [*sic*]) and Julian Pantoja on 29 February 2016 near Fin del Mundo, Mocoa, Putumayo (sound recording XC306626). This follows the taxonomic revision of the species in Donegan *et al.* (2011). In that paper, we noted that *aenea* might already have been recorded in Colombia: "*it may occur at the east base of the East Andes in Colombia. However, there are no known specimens to date reported on Biomap and the sole Putumayo specimen (FMNH 287276: San Antonio, Valle del Guamuéz) is identified as of amazonum. Salaman et al. (2002)'s record was not identified to subspecies.*" Whilst that FMNH specimen still requires verification, the species can now be considered present in Colombia. We hope that the authors will publish more details of their observations in due course. Until publication of a sonogram, which we do not wish to prejudice here, the species is treated as unconfirmed.

Buff-throated Tody-Tyrant *Hemitriccus rufigularis*
As reported by Copete (2016a) and on Colombia Birding's facebook page, individuals observed and sound recorded by Diego Calderón and Brayan Coral Jaramillo at Nuevo Mundo, Resguardo Indígena Jardín de la Sierra, Orito, Putumayo (XC322164-6, 322779) on 22 May 2016 represent the first records for Colombia. As above, we hope that the authors will publish more details of their records in due course. Until publication of a sonogram, which we do not wish to prejudice here, the species is treated as unconfirmed.

Changes of status

White-winged Dove *Zenaida asiatica*
Strewe *et al.* ([2016]) have published details of observations from the Santa Marta region of Colombia, including a diagnostic photograph. This dove is common on San Andrés island, but previous records for continental Colombia (Hilty & Brown 1986) were considered incorrectly identified (Donegan *et al.* 2009). The species can now be considered confirmed on mainland Colombia, moving from category "SA" to the main Colombian list. This was also the first confirmed record for South America and is doubtless a result of a range expansion for a species which thrives in open areas.

Fiery-throated Fruiteater *Pipreola chlorolepidota*
Previously known in Colombia from a series of sight records, some of them our own (e.g. Salaman *et al.* 1999, 2002). Two specimens reported by Gómez-Bernal *et al.* (2016) and a black-and-white photograph in the same publication mean that this species can now finally be treated as confirmed for Colombia.

Notes on other species

Capuchinbird *Perissocephalus tricolor*
Observations and a published photograph from Sabanita, Inirida 2012 by Jurgen Beckers (Stiles & Beckers [2016]) were rightly claimed as the first confirmed records for Colombia. This species had been included on the checklist since Salaman *et al.* (2001) based on sight records of Kingston *et al.* (1992) and Newman (2008), although erroneously without denotion of its hypothetical status. Online photographs (on www.surfbirds.com) by Pablo Flórez in Guania were also taken in October 2014.

Both this species and *P. chlorolepidota* were previously recorded in Colombia by separate Cambridge University expeditions in the 1990s, to what were then largely unstudied regions. Both species have now been reconfirmed by field researchers and birding tours to regions which have more been "out of bounds" for a long time.

Yellow-throated Tanager *Iridisornis analis*
In Donegan *et al.* (2015a), a photographic record by Delgado-C. *et al.* (2014) was accepted as the first confirmed record for Colombia. However, similar to Capuchinbird, it had wrongly been treated as confirmed and not "Obs".

Newly added subspecies

Foothill Elaenia *Myiopagis o. olallai*
As noted by Copete (2016b), the nominate subspecies of this flycatcher has been reported for the first time in Colombia, documented through sound recordings by Diego Calderón and Brayan Coral Jaramillo at Nuevo Mundo, Resguardo Indígena Jardín de la Sierra, Orito, Putumayo (XC322164-6, 322779) on 21-24 May 2016. These follow the discovery of a population in the Central Andes and Perijá range (Cuervo *et al.* 2008a, b) and Serranía de San Lucas, and the recent description of some of these northern populations as subspecies *coopmansi* (Cuervo *et al.* 2014).

Cocoa Thrush *Turdus fumigatus orinocensis*
Stiles & Beckers ([2016]) report Colombia's first record of this subspecies, again near Matraca on the border of the río Guaviare. There is a published photograph but no dates for the records are specified. Biomap Alliance Participants (2016) also report several specimens.

New subspecies records based on museum specimen data
Verhelst-Montenegro (2015) reported the following new subspecies for Colombia based on the museum specimen data of Biomap Alliance Participants (2016), although without *ex post facto* verification of the specimens concerned or studies of geographical variation. As a result of this method, a number of records are flagged for further investigation, whilst others where relevant records must presumably be of the subspecies concerned are accepted.

The following are accepted as subspecies present in Colombia (although not necessarily with the full distribution specified on specimen labels reported in the paper):
- Crested Bobwhite *Colinus cristatus barnesi*;
- Marbled Wood-Quail *Odontophorus gujanensis medius*;
- Squirrel Cuckoo *Piaya cayana circe*;
- Common Nighthawk *Chordeiles minor chapmani*;
- Blue–chinned Sapphire *Chlorestes notata obsoleta*;
- White-plumed Antbird *Pithys albifrons albifrons*;
- Rufous–capped Antthrush *Formicarius colma nigrifons*;
- Streaked Tuftedcheek *Pseudocolaptes boissonneautii orientalis*;
- Rusty-winged Barbtail *Premnornis guttuliger venezuelanus*;
- Black–billed Treehunter *Thripadectes melanorhynchus melanorhynchus*;
- Rusty-backed Spinetail *Cranioleuca vulpina apurensis*;
- Pale-breasted Spinetail *Synallaxis albescens josephinae*;
- Pale-eyed Pygmy–Tyrant *Atalotriccus pilaris venezuelensis*;
- Red–eyed Vireo *Vireo olivaceus solimoensis*;
- Campina Thrush *Turdus (ignobilis) arthuri* (see below); and
- White-eared Conebill *Conirostrum leucogenys cyanochroum.*

The following subspecies reported for Colombia in the same study were not considered valid by Dickinson & Remsen (2013) and Dickinson & Christidis (2014), respectively:
- Barn Owl *Tyto alba hellmayri*; and
- Streaked Tuftedcheek *Pseudocolaptes boissonneauii oberholseri.*

The following subspecies were considered new records in Verhelst-Montenegro (2015) but have been considered to occur in Colombia by authors of other recent texts including data on subspecies distibutions in Colombia:
- Red-rumped Woodpecker *Veniliornis kirkii continentalis* (McMullan & Donegan 2014);
- White-crested Elaenia *Elaenia albiceps chilensis* (see McMullan & Donegan 2014, Dickinson & Christidis 2014);
- Common Bush-Finch *Chlorospingus flavopectus phaeocephalus* (McMullan & Donegan 2014);
- Hooded Tanager *Nemosia pileata nana* (McMullan & Donegan 2014);
- Ruddy-breasted Seedeater *Sporophila minuta centralis* (Dickinson & Christidis 2014); and
- Palm Warbler *Setophaga palmarum palmarum* (McMullan & Donegan 2014).

McMullan & Donegan (2014)'s subspecies maps represent only a preliminary attempt at depicting the textual subspecies range descriptions of the *Handbook of the Birds of the World* series, Dickinson & Remsen (2013), Dickinson & Christidis (2014) and other authors. Despite this, the following reported new subspecies require further study of specimens and geographical variation prior to acceptance for Colombia on account of previously reported subspecies distributions:
- Lesser Nighthawk *Chordeiles acutipennis micromeris*;
- White-collared Swift *Streptoprocne zonaris albicincta*;
- Brown Jacamar *Brachygalba lugubris obscuriceps*;
- Barred Forest-Falcon *Micrastur ruficollis concentricus*;
- Black-faced Antthrush *Formicarius analis zamorae*;
- Chestnut–crowned Antpitta *Grallaria ruficapilla nigrolineata*;
- Ocellated Tapaculo *Acropternis orthonyx infuscatus*;
- Bar–bellied Woodcreeper *Hylexetastes stresemanni stresemanni*;
- Fork-tailed Flycatcher *Tyrannus savana circumdatus*;
- Short–crested Flycatcher *Myiarchus ferox australis*; and
- White-necked Thrush *Turdus albicollis spodiolaemus.*

BirdLife Checklist Splits and Lumps: the Parrots

As discussed in Donegan *et al.* (2015a), del Hoyo & Collar (2014) split or lumped a number of non-passerine species based on the "species scoring system" of Tobias *et al.* (2010). In our last paper, we considered most of these new taxonomic proposals in detail for species occurring in Colombia. In light of criticisms of del Hoyo & Collar (2014)'s taxonomy (Remsen 2015, Bakker 2015, Sangster 2015), rather than adopt all the changes

wholesale, we considered proposed splits or lumps for various species which occur in Colombia in detail. Parrots (Psittaciformes) were pended until this year, owing to the large number of new taxonomic proposals that needed considering. These were also pended due to the difficulty of mist-netting this group, which limits our own personal data and photographic records, and a wish on our collective part to carry out a more in-depth study of specimens, which was done at the American Museum of Natural History, New York, USA (hereafter, AMNH).

In the accounts below, the diagnostic features of species recognised by del Hoyo & Collar (2014) are denoted by referring to the scores given in their assessments. Further information on the scoring system should be reviewed in Tobias *et al.* (2010) and del Hoyo & Collar (2014).

Initial observations on parrot taxonomy and comparator sympatric groups

In our previous study, we concluded that bird species in some families show different levels of within-species and between-species variation to others (Donegan *et al.* 2015a), meaning that Tobias *et al.*'s (2010) universal test of species may not always be apt. In parrots, particularly, voice is a less useful character. Human experience of domesticating parrots has demonstrated voice to be learned, not innate, and potentially highly variable even within an individual (never mind a species). There are relevant molecular studies published in relation to three of the groups split by del Hoyo & Collar (2014) which we consider here (Russello & Amato 2004, Wenner *et al.* 2012, Smith *et al.* 2013). Other molecular studies to date on Neotropical species have focused on higher level taxonomy (de Kloet & de Kloet 2005, Tavares *et al.* 2004, 2006, Wright *et al.* 2008, Schirtzinger *et al.* 2012), different genera to those studied here (Eberhard & Bermingham 2005, Kirchman *et al.* 2012) or species limits and population level issues in different species (e.g. Eberhard & Bermingham 2004, 2005, Ribas *et al.* 2005, 2006, 2007, 2009, Ribas & Miyaki 2004, 2007). As a result, a detailed review of specimens seemed in order.

All the parrot species newly recognised by del Hoyo & Collar (2014) and discussed here are allopatric. It is not possible to test in the field whether they interbreed. For such populations, it is important to consider the differentiation observed between other parrot species pairs which occur in sympatry. If the differences observed between such species are equivalent to those between allopatric populations, then the allopatric populations can confidently be split (cf. Helbig *et al.* 2002, Remsen 2005). This was the approach we adopted in Donegan *et al.* (2015a) to the non-passerine groups assessed therein. Among the least-perceptible differences between sympatric

Figure 1. Specimens of male Blue-winged Parrotlet *F. xanthopterygius* (left two birds) and Dusky-billed Parrotlet *F. modestus* (right two). (i) AMNH 819833 (Luisiana, río Apurimac, dpto. Cuzco, Peru); (ii) AMNH 781785 (as above); (iii) AMNH 145928 (Astrillero, SE Peru); (iv) AMNH 185214 (San José abajo, Ecuador).

Figure 2. Specimens of female Blue-winged Parrotlet *F. xanthopterygius* (left two birds) and Dusky-billed Parrotlet *F. modestus* (right two). (i) AMNH 308984 (Santo Isidoro, Brazil); (ii) AMNH 281453 (Rosarinho, Rio Madeira, Brazil); (iii) AMNH 310240 (rio Negro, Brazil); (iv) AMNH 18525 (San José abajo, Ecuador).

Neotropical parrot species occur in the genus *Forpus*. In Amazonia, the Blue-winged Parrotlet *F. xanthopterygius* and Dusky-billed Parrotlet *F. modestus* occur in broad sympatry (Erize *et al.* 2006, Schulenberg *et al.* 2007, Von Perlo 2009). The former was widely referred to as *F. crassirostris* in the past, until Whitney & Pacheco (1999), although Smith *et al.* (2013) suggest that *crassirostris* may require splitting once more.

Figures 1-2 show differences between specimens of these sympatric *Forpus* species. Males differ in the shade and extent of blue on the rump, the shade of green on the underparts, upper mandible coloration and the yellower face of *F. xanthopterygius*. Females differ principally in the more extensive yellow wash on the face of *F. modestus*, with very minor green shading differences also evident.

Another sympatric pair of parrots are the Scarlet Macaw *Ara macao* and Red-and-Green Macaw *Ara chloropterus*, which are (or used to be) sympatric over much of lowland South America. These differ principally in the yellow versus green wing coverts, speckled versus unspeckled face and overall shading of the red plumage.

In this section, we consider the plumage differences of parrots proposed for split treatment by del Hoyo & Collar (2014) in light of whether or not they exceed the differences shown between these sympatric populations in plumages.

Turquoise-winged Parrotlet *Forpus spengeli*
Blue-winged Parrotlet *Forpus xanthopterygius*

Having started with *Forpus* as a comparator, we first consider del Hoyo & Collar (2014)'s proposal (and that of Bocalini & Silveira 2015) to separate the morphologically distinctive northern Colombian population *spengeli* from the Blue-winged Parrotlet *Forpus xanthopterygius* of Amazonia. This proposal has been accepted by Gill & Donsker (2016) but was rejected by Dickinson & Remsen (2013) and is yet to be considered by Remsen *et al.* (2016).

The Turquoise-winged Parrotlet had an interesting early history, being described twice by independent contemporaneous authors (Hartlaub 1885, Ridgway 1887). Both of them ranked what we now call *spengeli* as a species and neither of them considered it close enough to *F. crassirostris* or *F. xanthopterygius* to bear any discussion of its differences from these taxa in the diagnosis or discussion. Hartlaub (1885) instead noted that the wing coloration was close to that of Green-rumped Parakeet *Forpus passerinus* (then referred to as *passerina*) whilst the rump colour resembles that of Mexican Parrotlet *F. cyanopygius*. Ridgway (1887) distinguished his "*Psittacula exquisita*" again from *F. cyanopygius* and also from *guianensis* (which is now treated as a subspecies or synonym of *passerinus*). Species rank for *spengeli* was retained by Ridgway (1916, who recognised the synonymy of *exquisita*), Cory (1918) and other authors. Peters (1937) apparently first lumped *spengeli* with *xanthopterygius*. Other authors to have followed Peters (1937) in treating *spengeli* as a subspecies of Amazonian *xanthopterygius* or *crassirostris* include Hilty & Brown (1986), Forshaw (1989), Dunning (1987), Rodner *et al*. (2000), Salaman *et al.* (2001, 2008, 2009, 2010), Rodriguez-Mahecha & Hernández-Camacho (2002), Dickinson (2003), Restall *et al.* (2006), Erize *et al.* (2006), McMullan *et al.* (2010, 2011) and McMullan & Donegan (2014).

Alternative taxonomic proposals have arisen in more recent literature. Juniper & Parr (1998) suggested again that *spengeli* may be more closely related to *F. cyanopygius* or may be a different species. Smith *et al.* (2013) found *spengeli* to be embedded in their phylogeny within Green-rumped Parakeet *Forpus passerinus*, apparently being most closely related to Jamaican populations of that species in an mtDNA phylogeny and unrelated to *F. xanthopterygius*. However, these authors were unable to extract nuclear markers or therefore confirm the results with a different molecular marker and it is noteworthy that their molecular and combined trees for other taxa differed from the mtDNA tree in several respects. It is possible that *passerinus* and *spengeli* are closely related and recently diverged or that there has been relatively recent insertion of mtDNA between the two populations, owing to rare incidents of hybridisation and the proximity of their distributions. Further molecular research involving nuclear markers is needed. Lumping *spengeli* with *passerinus*, as done by Dickinson & Remsen (2013), would revert to a treatment previously adopted by Meyer de Schauensee (1964).

Figure 3. Male specimens of Turquoise-winged Parrotlet *Forpus spengeli* (left two birds) and Blue-winged Parrotlet *Forpus xanthopterygius* (right two birds). (i) AMNH 474924 (formerly a captive bird, Tring aviary, UK); (ii) AMNH 133024 (La Playa, Baranquilla, Colombia); (iii) AMNH 208980 (Santo Isidoro, Brazil); (iv) AMNH 474872 ("Camp. wood", Peru).

Figure 4. Female specimens of Turquoise-winged Parrotlet *Forpus spengeli* (left two birds) and Blue-winged Parrotlet *Forpus xanthopterygius* (right two birds). (i) AMNH 833893 (Calamar, Colombia); (ii) AMNH 44610 (Cartagena, Colombia); (iii) AMNH 308983 (Santo Isidro, Ecuador); (iv) AMNH 279076 (Rio Madeira, Brazil).

Figure 5 (left). Male specimens of Green-rumped Parakeet *F. passerinus* (left two birds) and Turquoise-winged Parrotlet *Forpus spengeli* (right two birds). (i) AMNH 474938 (plain of Cumaná, Venezuela), (ii) AMNH 150195 (El Cuji, Lara, Venezuela); (iii) AMNH 133023 (La Playa, Baranquilla, Colombia); (iv) AMNH 133024 (as previous).

Figure 6 (above). Female specimens of *F. passerinus* (left two) and *F. spengeli* (right two). (i) AMNH 474946 (Altagracia, Venezuela); (ii) AMNH 474945 (as previous); (iii) AMNH 44610 Cartagena; (iv) AMNH 833893 (Calamar, Colombia).

Males of *spengeli* differ strikingly from *xanthopterygius* in the shade of blue on the wings and rump, the extent of blue on the wings (restricted to the coverts in *spengeli*) and minor differences in green shading (Fig. 3). Females differ, similarly to *modestus* versus *xanthopterygius*, in the extent of yellow on the face and shade of green on the body (Figs. 4, 7). Del Hoyo & Collar (2014) scored

rump coloration (3), wing coloration (2) and the yellow head of the female (2), which is conservative. Additional scores could be considered for some of the other differences highlighted here. These differences are in similar features to those by which sympatric *F. modestus* and *F. xanthopterygius* differ from one another, but the extent of differentiation in the shade and pattern of blue feathering in males is more dramatic. In terms of habitat usage, *Forpus spengeli* is restricted to more arid habitats near the coast, whilst *F. xanthopterygius* is a humid Amazonian forest species. Finally, molecular data (Smith *et al.* 2013) demonstrate no sister relationship between *spengeli* and *xanthopterygius*. As a result, the separation of *spengeli* from *F. xanthopterygius* is supported by multiple lines of evidence.

Figure 7. Close-up showing differences in female head coloration between Turquoise-winged Parrotlet *Forpus spengeli* (AMNH 833893, left) and Blue-winged Parrotlet *Forpus xanthopterygius* (AMNH 279076, right).

More difficult to evaluate as an alternative to species rank is the recent proposal to treat *spengeli* as a subspecies of Green-rumped Parakeet *F. passerinus* of the Guajirá peninsula in Colombia and Venezuela eastwards (Smith *et al.* 2013, Dickinson & Remsen 2013).

The differences in male plumages, particularly the rump and to a lesser extent wing coloration (Fig. 5), are striking. Comparing specimens of Venezuelan populations attributed to subspecies *viridissima*, which were available for direct comparison, differences are not just in rump coloration. There are also differences in the shade of green on the crown and sides of the head, which is yellower in *spengeli*, the base coloration to the underparts, which is greyer in *spengeli*, the wing markings, which are more extensively marked in *spengeli* and bluer, as well as the tail, which is paler green below the blue rump in *spengeli*, and the carpal and underwing, which are bluer in *spengeli*. Females are similar to one another, but *spengeli* has more extensive yellow feathering in the face, particularly in the region proximate to the lower mandible (Figs. 6, 8).

These populations are close to sympatric with respect to one another in northern Colombia. Todd & Carriker (1922) and Hilty & Brown (1986) considered *spengeli* to occur east to the western Santa Marta region, with *passerinus* replacing this species on the southern and eastern flanks of Santa Marta. A specimen of *spengeli* from Sevillano, Cienaga, Magdalena (Museum of Comparative Zoology no. 141863), near the west base of Santa Marta, appears normal for *spengeli*. Darlington (1931) set out details of observations of *F. spengeli* from the semi-arid plains of Ciénaga and Aracataca to the west of Santa Marta and the species was also reported at Cienaga by Moreno-Bejarano & Álvarez-León (2006). These observations are supported by specimens (Carnegie Museum 3545: Darwin Alliance Participants 2016). Specimen data suggests that *F. passerinus* have also been collected in Ciénaga municipality (Darwin Alliance Participants 2016) and there is another series from Fundación, Magdalena (all at the Carnegie Museum), but these seem to be misidentified based on Todd & Carriker (1922). Darlington (1931) noted the preference of *spengeli* for open woodland and shrubs, as did Todd & Carriker (1922) as regards *passerinus*.

Figure 8. Turquoise-winged Parrotlet *Forpus spengeli*. January 2015, south dpto. Magdalena. Trevor Ellery.

Darlington (1931) further noted that as one enters into the Santa Marta range, *spengeli* becomes rarer in the more humid and dense forests there. This is consistent with our observations. *Forpus spengeli* is most frequently found in the Cienega "hinterlands" – San Bascilio and to the west. It seems to prefer arid, dry savannah habitats inland from the Cienega and is rare on the coastal strip. It can sometimes occur near the coast but Orange-chinned Parakeet *Brotogeris jugularis* and Brown-throated Parakeet *Aratinga pertinax* dominate there. Several other bird species distributions seem to peter out in the region just west of Santa Marta. For example, Bronze-brown Cowbird *Molothrus armenti* is not seen east of Salamanca and Chestnut-winged Chachalaca *Ortalis garrula* has not been seen far east of Santa Marta. *Forpus spengeli* seems to occur south and east of Baranquilla and Cienega but not actually near Baranquilla itself or to the west.

Forpus passerinus in contrast does seem to occur along the dryer coastal strip east of Santa Marta towards Tayrona National Park, but peters out some way to the east of there. It is common in the Guajira peninsula but becomes less common as the humid zone takes over west along the coast. What is more interesting is the situation around Valledupar – many Guiarja birds occur all the way down the valley to Valledupar, including *Forpus passerinus*. The dry savannah habitat that these parrots prefer extends east to west pretty much consistently from Cartagena to south of Valledupar. However, these habitats to the south-west of the Santa Marta mountains have not been studied, either historically or recently to our knowledge. Clearly *spengeli* could occur well to the east and a contact zone is possible. It is certainly not clear what ecological barriers would separate the species in the areas south of the Sierra and to the south of Valledupar.

Todd & Carriker (1922) reported Colombian subspecies *cyanophanes* to have more extensive blue markings on the wing than *passerinus* and that Fundación specimens of *spengeli*, from near the south-western foothills of Santa Marta, have reduced blue on the wing compared to those from Cienaga, which is <50 km away. Todd & Carriker (1922) refer only to *spengeli*'s slightly smaller size; any female *Forpus* is doubtfully separable in the field (Hilty & Brown 1986). The results of the mitochondrial DNA study could be explained by rare gene flow between the *cyanophanes* subspecies of *passerinus* and *spengeli*, perhaps to the south of the Santa Marta mountains, where known populations are distributed at most 50 km from one another, a short distance for strong-flying birds like *Forpus*. Perhaps some hybridisation occurs eventually, but to date there are no photographs or specimens from the region where the two may come into contact. What we do know is that *passerinus* and *spengeli* maintain their plumage differences despite a lack of obvious barriers to their sympatry.

The near-sympatry in northern Colombia and striking male plumage differences (clearly on a par with that shown between sympatric *Forpus*) make us reluctant to lump *spengeli* with *passerinus*. We therefore provisionally accept this proposed split, although we appreciate that those who place a greater emphasis on molecular rather than morphological characters and distributions may disagree with this approach.

Chocó Parakeet *Pyrrhura pacifica*
Maroon-tailed Parakeet *P. melanura*
Upper Magdalena Parakeet *Pyrrhura chapmani*

Chocó Parakeet *P. pacifica* occurs in the Colombian and Ecuadorian Chocó. Under del Hoyo & Collar (2014)'s arrangement, Maroon-tailed Parakeet *P. melanura* occurs in Amazonia and the upper Magdalena valley. Historically, (e.g. Cory 1918) *pacifica* has been lumped with *melanura*, including since the original description, although other forms such as *souancei* and *berlepschi* were described as species and treated as such by Cory (1918). Several previous authors have attempted to split these species, e.g. Juniper & Parr (1998), Salaman *et al.* (2001) and Restall *et al.* (2006). Ridgely & Greenfield (2001) noted that *pacifica* "may deserve species status", considering it to be "very distinct" in its shorter tail and grey, not white, eye ring. Rodner *et al*. (2000) also noted that this and some other forms may represent separate species, citing Juniper & Parr (1998). However, most authors lump them with *melanura* (Hilty & Brown 1986, Fjeldså & Krabbe 1990, Rodriguez-Mahecha & Hernández-Camacho 2002, McMullan *et al.* 2010, 2011, Dickinson 2003, Dickinson & Remsen 2013, McMullan & Navarrete 2013, McMullan & Donegan 2014, Gill & Dinkser 2016, Remsen *et al.* 2016). Neither Dunning (1987) nor Erize *et al.* (2006) mapped the range of *pacifica*, but they had no separate account for it, whilst Salaman *et al.* (2008, 2009, 2010) omitted subspp. *pacifica* and *chapmani* due to errors in adding subspecies when lumping previously split taxa to follow Remsen *et al.* (2016). Previous molecular studies (Ribas *et al.* 2006) have only sampled Amazonian populations.

Remsen *et al.* (2016, Proposal 2016) rejected a proposal to split *pacifica*, although apparently largely motivated by semantic issues related to commentary on biogeographical and geological matters in the proposal. Donegan in Remsen *et al.* (2016) provided provisional data available to us, commenting that "*pacifica* is geographically isolated from other populations and separated by the Andes in one of its highest parts. It occurs only in southwestern Colombia and is not found in the Cauca or Magdalena valleys. Most of the rest of the group occurs east of the Andes. However, … subspecies *chapmani* … occurs in the southern Central Andes (so 'west of the Andes') but close to the Amazonian distribution of *melanura* and subspecies *souancei* of the Colombian east slope … at higher elevations than *melanura*. The distribution and plumages of this group in

Figure 9, first part. Photographs of specimens of (left to right) three Pacific Parakeets *Pyrrhura pacifica*, two Upper Magdalena Parakeets *Pyrrhura chapmani* and three Maroon-tailed Parakeets *P. melanura*. For details, see below caption.

Figure 9, cont'd. Photographs of specimens of (left to right) three Pacific Parakeets *Pyrrhura pacifica*, two Upper Magdalena Parakeets *Pyrrhura chapmani* and three Maroon-tailed Parakeets *P. melanura*. (i) AMNH 156769 (Huilca, Ecuador); (ii) AMNH 117617 (Buenavista, Nariño, Colombia, paratype); (iii) AMNH 117616 (as previous); (iv) AMNH 115770 (La Candela, Huila, Colombia, paratype), (v) AMNH 115772 (as previous); (vi) AMNH [full no. not noted, starts 4340] (rio Vaupés, Colombia) (subsp. *melanura*), (vii) AMNH [full no. not noted, ends 878] (Amazonas, Ecuador) (subsp. *souancei*); (viii) AMNH 474719 (Loreta, Peru) (subsp. *berlepschi*, paratype).

Colombia are well-summarised in [Rodriguez & Hernandez (2002)]. Subspecies *melanura* has extensive mottling on the upper breast; *pacifica* has much reduced speckling, and in *chapmani* the speckling extends to a nuchal collar. The plate in [Restall *et al.* 2006] somewhat exaggerates the darkness of the orbital ring of *pacifica*, as can be seen in photos from the … ProAves database. … Any consideration of this group probably needs also to consider the correct placement of other subspecies, particularly *chapmani* … [A] more detailed analysis including a consideration of voice, biometrics and molecular data of the whole group is needed to take this one forwards, in light of the lack of vocal differences and puzzling distributions. The proposal to split *pacifica* may well be correct as part of dealing with this group, but such a treatment may be an incomplete and overly simplified approach."

Del Hoyo & Collar (2014) noted that *P. pacifica* differs from *P. melanura* in its blackish vs white eyering (3); green vs blackish forehead (2); shorter wing and much shorter tail, albeit based on n=3 in AMNH (mean 96 vs 118) (allow 2).

We examined the series of *Pyrrhura* at AMNH, including the specimens shown in Fig. 9. We concur with the description of differences between *pacifica* and *melanura* set out in del Hoyo & Collar (2014). We also noted one further difference: *pacifica* has greener primaries than some other populations in Colombia and Ecuador (although Peruvian Amazon populations veer towards *pacifica* somewhat in this respect).

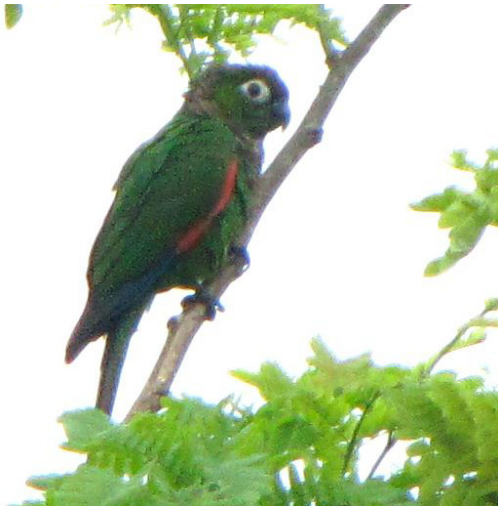

Figure 10. Maroon-tailed Parakeet *P. melanura*. San José del Guaviare, Meta. Oswaldo Cortés.

The Huila population, *chapmani*, emerges as an even stronger candidate for species rank from our review of specimens, based on plumage differences. It has the bluest primaries of all *melanura* group populations (2), a darker head than all the other populations (2), a more extensive buffy nuchal region (3) and more extensive mottling on the breast (ns1). Ridgely & Robbins (1989) also noted that *chapmani* is the largest of all forms of the broader *melanura* (allow 2 for wing length and 2 for tail length). Subspecies *chapmani* occupies different habitats to the other taxa, at high elevations in the less humid upper Magdalena valley (at 1600-2800 m elevation: Ridgely & Robbins 1989, Rodriguez-Mahecha & Hernández-Camacho 2002) rather than (principally) low elevations in humid forest and adjacent upslope regions (2). The plumage differences between *chapmani* and other taxa in our view exceed those between *pacifica* and *melanura*, as do biometric differences, mandating species rank for *chapmani* under the Tobias *et al.* (2010) scoring system. This represents a partial return to the taxonomy of Juniper & Parr (1998) and Salaman *et al.* (2001), who split both *pacifica* and *chapmani* (although these authors also split *souancei*) and is consistent with Ridgely & Robbins (1989)'s findings that *chapmani* and *pacifica* represent distinctive populations, whilst other subspecies in this group are weakly differentiated.

Illustrations of subspecies in del Hoyo & Collar (2014) appear to be somewhat misleading, with *chapmani* showing an orange (not buffy) cheek patch and primaries which are too green. In contrast, *berlepschi* is shown as being more different than it really is, with more grey on the head than shown in specimens we have studied, and differences in mantle coloration, when no members of the *melanura* group seem to differ in this aspect. The illustration in Schulenberg *et al.* (2007) is more accurate. Pacific Parrotlet is moreover depicted as having darker base coloration, when this is really just an artefact of its less extensive mottling (Figs. 9, 11).

This is the sort of group where the species scoring system of Tobias *et al.* (2010) is probably well-suited to dealing with a taxonomic controversy – in a group like parrots where voice is unhelpful and there are substantial but borderline plumage differences. The differences between *pacifica*, *chapmani* and *melanura* seem just about sufficient in the context of sympatric parrots and this genus in particular. We therefore propose the following new sequence for these birds:

1. Pacific Parakeet *Pyrrhura pacifica.* Monotypic. Chocó of Ecuador and Colombia
2. Upper Magdalena Parakeet *Pyrrhura chapmani*. Monotypic. Upper Magdalena valley in Huila.
3. Maroon-tailed Parakeet *P. melanura* (including subspecies *souancei* and *berlepschi*) of Amazonia.

Newly recognised *chapmani* should become a conservation priority, as it is restricted to forest across a small range that has undergone significant deforestation. While it is known from just a few localities, thankfully there are recent records in xeno-canto from two nature reserves in Huila.

Figure 11. Pacific Parakeet *P. pacifica*. RNA Pangan, Paul Salaman.

Scarlet-fronted Parakeet *Psittacara wagleri*
Cordilleran Parakeet *P. frontatus*

Scarlet-fronted Parakeet *Psittacara wagleri* is found in the Colombian Andes, Santa Marta mountains, the Venezuelan Andes and other mountains in Venezuela. The Cordilleran Parakeet *P. frontatus* does not occur in Colombia, being found in the Andes of southernmost Ecuador and Peru, so this split would involve separating an extralimital population for Colombia. Cordilleran Parakeet has historically been considered a separate species (e.g., Cory 1918, Carriker 1933). Some authors (Sibley & Monroe 1990, Rodner *et al*. 2000, Ridgely & Greenfield 2001, Restall *et al.* 2006) have mooted a possible split, the latter noting that *frontatus* (with *minor*) "is perhaps better regarded as a full species". However,

Figure 12. Scarlet-fronted Parakeet *Psittacara wagleri* (left three) and Cordilleran Parakeet *P. frontatus minor* (right three). (i) AMNH 474367 (Camaná, Venezuela) (subspecies *transilis*); (ii) AMNH 108752 (Palmira, Cauca, Colombia); (iii) AMNH 133010 (Alto Bonito, Antioquia, Colombia) (*wagleri*); (iv) AMNH 803056 (Peru); (v) AMNH 170919 (Loja, Ecuador); (vi) AMNH 156318 (San Lucas, Ecuador).

it was treated as conspecific by Peters (1937) and this has been widely followed, including by the authors cited above and others (e.g. Meyer de Schauensee 1964, Hilty & Brown 1986, Forshaw 1989, Fjeldså & Krabbe 1990, Rodriguez-Mahecha & Hernández-Camacho 2002, Dickinson 2003, Erize *et al.* 2006, Restall *et al.* 2006, Schulenberg *et al.* 2007, Remsen *et al.* 2016, McMullan *et al.* 2010, 2011, Dickinson & Remsen 2013, McMullan & Navarrete 2013, McMullan & Donegan 2014, Gill & Donsker 2016, Remsen *et al*. 2016).

Cordilleran Parakeet was considered by del Hoyo & Collar (2014) to differ from Scarlet-fronted Parakeet in its "large white vs fairly small dull grey periorbital patch (3); pale grey vs dark brownish iris (2); red on crown running from just above commissure (so including lores) back to meet periorbital ring vs running from above green lore back to above periorbital ring (leaving supercilium green) (2); more red on carpal area (ns[2]); considerably larger size (even when including the smaller *minor*) (on basis of published values [in Forshaw 1989] at least 2); habitat consisting of dry forest and open country vs moist and humid forest (1) [Forshaw 1989]. " The two are allopatric, with a distribution gap from southern Colombia to southern Peru. This is indicative of two populations with different habitat or ecological requirements. These differences are supported by our study and are striking, even when comparing the smaller of the *frontatus* subspecies (Fig. 12).

Further study is needed in relation to the ranges of the two currently recognised subspecies of *P. frontatus* which result from this re-arrangement. Widespread errors are evident from the literature, based on our brief review of AMNH specimens. These subspecies differ considerably from one another in size (Fig. 13), as discussed further by Carriker (1933) in the description of *minor*. According to Forshaw (1989), Fjeldså & Krabbe (1990), Ridgely & Greenfield (2001), Dickinson & Remsen (2013) and del Hoyo & Collar (2014), *minor* occurs in inter-Andean valleys of North and South-Central Peru, whilst the nominate form occurs from Loja in Ecuador south to Tacna in South Peru. However, specimens at AMNH include smaller individuals, best referred to as *minor*, from Loja in Ecuador. Specimens at AMNH attributable to the larger nominate form *frontatus* are from Huaricanga on the coast north of Lima. Carriker (1933) compared *frontatus* specimens only from the Pisco valley (Dept. Ica) and upper Santa valley (Libertad), treating *frontatus* as a species of the "coastal valleys". His type locality for *minor* was in the Marañon valley of Peru. These two taxa seem more likely to replace one another on a N/S basis, with *frontatus* restriced to the coastal range of Peru. The status of inter-Andean populations in Cuzco was not investigated here.

Figure 13. Cordilleran Parakeet *P. frontatus* subspecies (left two: subsp. *minor*; right two: nominate subsp.). (i) AMNH 803056 (Peru); (ii) AMNH 170919 (Loja, Ecuador); (iii) AMNH 461750 (Huaricanga, Pativilca valley, Peru); (iv) 461571 (as above).

Figure 14. Scarlet-fronted Parakeet *Psittacara wagleri*. RNA El Dorado, Santa Marta, Colombia. Oswaldo Cortés.

Red-lored Amazon *Amazona autumnalis*
Lilacine Amazon *A. lilacina*
[Diademed Amazon *A. diadema*]
Proposed split *lilacina* occurs in the Ecuadorian Chocó, including close up to the border in Colombia. Widespread *autumnalis* is the only species confirmed to occur in Colombia. There are no records of *lilacina* in Reserva Natural de Aves Pangan, for example (Salaman *et al.* 2010). It might occur in the mangroves and lowland forests south of the coastal city of Tumaco in Nariño and should be searched for there, but no records exist to date to our knowledge.

Subspecies *lilacina* and *diadema* were both originally described as separate species and considered separate species from *Amazona autumnalis* by several early authors (e.g., Cory 1918), but Peters (1937) treated them as conspecific. This lump has been widely followed (Meyer de Schauensee 1964, Hilty & Brown 1986, Sick 1993, Dunning 1987, Forshaw 1989, Ridgely & Gwynne 1989, Howell & Webb 1995, Rodner *et al*. 2000, Rodriguez-Mahecha & Hernández-Camacho 2002, Dickinson 2003, Russello & Amato 2004, Erize *et al.* 2006, Van Perlo 2009, Dickinson & Remsen 2013, McMullan & Navarrete 2013). Ridgely & Greenfield (2001) referred to *diadema* as a separate species but did not provide any detailed justification for this and did not split *lilacina*, so this may have been just a typo. Collar (1997) and Restall *et al.* (2006) noted that *lilacina* and *autumnalis* may represent different species, but they have not been split in a recent publication until Del Hoyo & Collar (2014).

Russello & Amato (2004) sampled *lilacina* and *autumnalis*, finding these to have strong support as sisters, with low differentiation (*c*.0.002 substitutions/site), but they did not sample *diadema*.

Del Hoyo & Collar (2014) considered *lilacina* to differ from *autumnalis* in its "all-black upper mandible (2), red of forecrown continuing over the eye (2); lilac of crown not extending onto nape (2); paler, clearer green cheek (ns[1]); possibly no red on chin (ns[1]); narrow, sharp edges of wing-coverts and flight-feathers (ns[1]); retiring, non-aggressive behaviour (quite different at least from *autumnalis*) (ns[1]); smaller bill (… 1)." An unpublished recent taxonomic study included in a PhD thesis (Pilgrim 2010) also apparently supports species rank.

According to del Hoyo & Collar (2014), the isolated Brazilian Amazon population *diadema* differs in having nares which are covered in red feathers (not naked), with the rest of the red patch on its face sharply delineated to form a distinct rectangle, allowing extension of blue from the crown (3), powdery dorsum, like *farinosa* (1), lower mandible black but upper mandible pale below nares (2), with head flatter and longer in lateral profile (1).

Figure 15. Red-lored Parrots. From left to right: Diademed Parrot *A. diadema*, Lilacine Parrot *A. lilacina* and three Red-lored Parrots *A. autumnalis*. (i) AMNH 475284 (Brazil); (ii) AMNH 475281 (no locality data); (iii) AMNH 133039 (subsp. *salvini*, Antioquia, Colombia); (iv) AMNH 44629, (subsp. *salvini*, Panama); (v) AMNH 326039 (subsp. *autumnalis*, Honduras).

Fig. 15 cont'd. Red-lored Parrots. From left to right: Diademed Parrot *A. diadema*, Lilacine Parrot *A. lilacina* and three Red-lored Parrots *A. autumnalis*. (i) AMNH 475284 (Brazil); (ii) AMNH 475281 (no locality data); (iii) AMNH 133039 (subsp. *salvini*, Antioquia, Colombia); (iv) AMNH 44629, (subsp. *salvini*, Panama); (v) AMNH 326039 (subsp. *autumnalis*, Honduras).

We concur that *A. lilacina* is a quite different bird from both *diadema* and *autumnalis* (Fig. 15). It has virtually no blue on the crown but extensive yellowish-green plumage on the face and throat, carpal edgings and vent and a dark bill.

The split of *diadema* from *autumnalis* is less clear-cut. The more extensive blue scaling on the mantle of *diadema* is a noteworthy feature (Fig. 15), but the head patterning and overall coloration is more similar to *autumnalis*. The difference in nare feathering can be seen in online photographs of live birds but was not obvious in specimens we inspected. Differences in the shape of the red patch on the lores are less impressive when one considers variation in this feature both within *autumnalis* and between the nominate subspecies and *salvini*. It is not necessary for us to express any view on the rank of *diadema*, as it is extralimital as regards Colombia.

Northern Festive Parrot *Amazona bodini*
Southern Festive Parrot *A. festiva*

These are two riparian parrots. The northern form, *bodini*, is found in the Orinoco drainage, including in eastern Colombia. The more familiar *festiva* occurs in the Amazon drainage, including in eastern Colombia and along the Río Negro. The two taxa appear to be allopatric.

Northern *bodini* was originally described as a separate species from *A. festiva* (Finsch 1873) and treated specifically by several authors (Cory 1918), until Peters (1937) lumped them. Conspecific treatment has been widespread and essentially unchallenged subsequently (Meyer de Schauensee 1964, Hilty & Brown 1986, Dunning 1987, Forshaw (1989), Rodner *et al*. 2000, Salaman *et al.* 2001, 2008, 2009, 2010, Rodríguez-Mahecha & Hernández-Camacho 2002, Dickinson 2003, Restall *et al.* 2006, Erize *et al.* 2006, McMullan *et al.* 2010, 2011, Dickinson & Remsen 2013, McMullan & Donegan 2014, Remsen *et al*. 2016, Gill & Donsker 2016).

Del Hoyo & Collar (2014) cited *bodini*'s "green (not royal blue) outer vanes of primaries (3), powder-blue vs emerald green cheeks (2), multicolored crown beginning red and mottling to violet-blue and green vs red-fronted emerald-green crown with strong blue postocular patch (distribution of colours well-marshalled) (2)". This description rather understates and low-scores the differences in head and face plumage. The shade of green on the mantle and sharpness of supercilium can be added to the listed features (Fig. 16). Forshaw (1989) also reports 12 mm on average longer tails in male *bodini*. The differences between these birds are overall so impressive that we feel quite comfortable accepting this split based on plumage.

Figure 16. Males of (left) Northern Festive Amazon *A. bodini* (AMNH 475307, Altagracia, Orinoco, Venezuela) and (right) Southern Festive Amazon *A. festiva* (AMNH 230926, Puerto Inidiana, río Amazonas, Ecuador).

Southern Mealy Parrot *Amazona farinosa*
Northern Mealy Parrot *A. guatemalae*

These parrots have been widely lumped since Ridgway (1916), for example in Cory (1918), Meyer de Schauensee (1964), Hilty & Brown (1986), Dunning (1987), Forshaw (1989), Ridgely & Gwynne (1989), Howell & Webb (1995), Rodriguez-Mahecha & Hernández-Camacho (2002), Dickinson (2003), Restall *et al.* (2006), Erize *et al.* (2006) and Dickinson & Remsen (2013). Del Hoyo & Collar (2014) suggested separating Mealy Parrots across a divide in western versus eastern Panama. Colombian and other South American populations would remain known as *A. farinosa*. This split was previously proposed by Wenner *et al.* (2012)'s molecular study, who considered these populations to be 3.5–5.4% distinct in mtDNA and mutually monophyletic. This builds on the findings of Russello & Amato (2004), who also found considerable molecular differentiation between these populations. Gill & Donsker (2016) are among authors to have accepted this split.

Del Hoyo & Collar (2014) noted the following differences of *guatemalae*: "yellow vs red lower carpal edge (2); blue-suffused (or blue) crown with broader, more heavily streaked nape feathers forming frequently or usually ruffled ruff or cape [compared to a yellow crown in *farinosa*] (3); blackish vs pale bill (2); black bristles on nares more extensive, and black shaft streaks on face (lores to below eye) (ns[1]); less powdery plumage (ns[1]); more oblong, less circular and slightly less broad white eye-patch (mensural score: allow 1) ".

In light of the molecular study and these differences, we accept this split.

Decisions pended

Del Hoyo & Collar (2014) split Sinu Parakeet *Pyrrhura subandina*, Perija Parakeet *P. caeruleiceps* and other taxa from Painted Parakeet *P. picta*. We have been unable as yet to make direct comparisons of specimens of these taxa, but note that these recommendations were based on those of Joseph (2002) and Joseph & Stockwell (2002).

Del Hoyo & Collar (2014) further split Black-legged Parrot *Pionites xanthomerius* (which occurs in Leticia, Amazonas) from Yellow-tailed Parrot *P. xanthurus* and Green-thighed Parrot *P. leucogaster*. These are currently lumped under *P. leucogaster*, which following this split would be restricted to southern and eastern Amazonia. As this species is so poorly known in Colombia, we make no comment.

Other splits

Santa Marta Wood-Wren *Henicorhina anachoreta*
Grey-breasted Wood-Wren *H. leucophrys*

We support this long-overdue split, based on Caro *et al.* (2013), Burbridge *et al.* (2015) and Cadena *et al.* (2015). Remsen *et al.* (2016) and Gill & Donsker (2016) have both accepted this taxonomic separation.

Figure 17. Santa Marta Wood-Wren *Henicorhina anachoreta*. Reserva Natural de Aves El Dorado. Oswaldo Cortés.

It would be good to see a broader revision of Colombian *Henicorhina*, involving molecular and vocal analyses. Clearly, White-breasted Wood-Wren *H. leucosticta* comprises multiple species in Colombia, with populations of the northern Chocó, western lowlands and eastern Colombia each doubtless ultimately requiring treatment in different species (Smith *et al*. 2014). Grey-breasted Wood-Wren *Henicorhina leucoprhys* itself includes at least one other strong candidate for species rank in Colombia (*brunneiceps*, which is near-sympatric with respect to the nominate subspecies in the West Andes: Salaman *et al.* 2003) and includes other undescribed subspecies (Donegan & Salaman 2014).

Lesser Elaenia *Elaenia chiriquensis*
Coopmans' Elaenia *E. brachyptera*
We recognize the split of *E. brachyptera*, which occurs on Andean slopes close to the equator in the Chocó and east slope, from widespread lowland *E. chiriquensis*, which occurs in eastern and northern Colombia. This is based on Rheindt *et al.* (2015). Remsen *et al.* (2016) and Gill & Donsker (2016) have each already accepted this split also.

Black-billed Thrush *Turdus ignobilis*
Campina Thrush *Turdus arthuri*
"Varzea Black-billed Thrush" *Turdus debilis*
We confidently split these three species, based on the convincing analyses of Cerqueira *et al.* (2016). All three species are considered to occur in Colombia by these authors, with *T. ignobilis* widespread in the Andes, *T. arthuri* rare in easternmost Colombia and *T. debilis* in southern Amazonia. The form *arthuri* is known from ten specimens in Colombia (Verhelst-Montenegro 2015). Cerqueira *et al.* (2016) understate the range of *ignobilis*, which extends north to Serrania de San Lucas (Donegan 2012). Gill & Donsker (2016) have proposed "Amazonian Thrush" or "Hellmayr's Thrush" for *debilis*. We prefer the former. As other species are named "Varzea Thrush" and "Black-billed Thrush", Cerqueira *et al.* (2016)'s proposed name of "Varzea Black-billed Thrush" for *debilis* is confusing and better avoided.

Figure 18. Black-billed Thrush *T. ignobilis*. Soatá, Santander. September 2010. Oswaldo Cortés.

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.* (2016), are relevant to Colombia and adopted here. Proposal numbers and, where appropriate, key references supporting these changes are cited below:

648B. Revise the classification of the Phalacrocoracidae: linear sequence (Remsen) (Kennedy & Spencer 2014).

675. Change South American siskins from the genus *Sporagra* to the genus *Spinus* (Beckman & Witt 2015).

683. Change the English name of *Gallinago jamesoni* (J.V. Remsen).

685. Modify linear sequence of (A) genera and (B) species in Conopophagidae (Batalha-Filho *et al.* 2014).

688. Rearrange linear sequence of species in *Celeus* (Picidae) (Benz & Robbins 2011).

703. Elevate Steatornithidae and Nyctibiidae to rank of Order (Prum *et al.* 2015).

705. Correct the scientific names of (A) *Leptotila cassini* and (B) *Amazilia saucerrottei* based on evidence in the original descriptions (R. T. Chesser).

706. Change the linear sequence of genera in the family Odontophoridae (Hosner *et al.* 2015).

713. Merge *Pseudoscops clamator* into *Asio* (Wink *et al.* 2009).

725. Change the spelling of *Porphyrio martinicus* to *Porphyrio martinica* (Schodde & Bock 2016).

Table 1. 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.* (2016).

Change	Species	Conf.	Obs.	Obs Bog	SA.	SA Obs	Obs+	Bog	Ext	Int	Int Obs	Esc	Esc Obs	Total
Feb 2016 Checklist totals		**1,845**	**44**	**1**	**12**	**7**	**3**	**4**	**1**	**3**	**1**	**[9]**	**[7]**	**[1,937] 1,921**
Species added	Little Chachalaca *Ortalis motmot*		+1											
	Rufous headed Woodpecker *Celeus spectabilis*	+1												
	Western Striolated Puffbird *Nystalus obamai*	+1												
	Orinoco Softtail *Thripophaga cherriei*	+1												
	Beautiful Treerunner *Margarornis bellulus*							+1						
	Cocha Antshrike *Thamnophilus praecox*	+1												
	Foothill Schiffornis *Schiffornis aenea*		+1											
	Buff-throated Tody-Tyrant *Hemitriccus rufigularis*		+1											
Splits	Turquoise-winged Parrotlet *Forpus spengeli*	+1												
	Maroon-tailed Parakeet *Pyrrurha melanura*	+1												
	Upper Magdalena Parakeet *Pyrrurha chapmani*	+1												
	Northern Festive Parrot *Amazona bodini*	+1												
	Santa Marta Wood-Wren *Henicorhina anachoreta*	+1												
	Coopmans' Elaenia *Elaenia brachyptera*	+1												
	Campina Thrush *Turdus arthuri*	+1												
	Amazonian Thrush *Turdus debilis*	+1												
Changes of status	White-winged Dove *Zenaida asiatica*	+1			-1									
	Fiery-throated Fruiteater *Pipreola chlorolepidota*	+1	-1											
Overall Change since 2014 Checklist		**+14**	**+2**	-	**-1**	-	-	**+1**	-	-	-	-	**-**	
New totals per category 2015		**1,859**	**46**	**1**	**11**	**7**	**3**	**5**	**1**	**3**	**1**	**[9]**	**[7]**	**[1,953]**
Less escaped species														**[-16]**
TOTAL FOR COLOMBIA														**1,937**

The following proposals are already addressed in other sections of this paper:

679. Recognize *Nystalus obamai* as a species (Whitney *et al.* 2013).
686. Treat *Elaenia brachyptera* as a separate species from *Elaenia chiriquensis* (Rheindt *et al.* 2015).
700. Elevate *Henicorhina leucophrys anachoreta* to species rank (Cadena *et al.* 2015).
701. Choose English names for splits from *Nystalus striolatus* (K. Zimmer).
708. Add *Zenaida asiatica* (White-winged Dove) to main SACC list (Strewe *et al.* [2016]).

The following were accepted or proposed in Donegan *et al.* (2011, 2009 and 2015), respectively:

695. Add *Bangsia arcaei* to the Main List (Ruiz-Ovalle & Hurtado-Guerra 2010, 2014).
704. Transfer *Saltator* and *Saltatricula* from Incertae Sedis to Thraupidae (Burns *et al.* 2014).
707. Treat Caribbean Coot *Fulica caribaea* as conspecific with American Coot *F. Americana*.

The following more controversial or recent proposals are pended:

628. Reassign species currently placed in *Myrmeciza* into 12 genera (Isler *et al.* 2013) (part G only).
702. Change hyphenated group-names within the genera *Pseudotriccus*, *Euscarthmus*, *Myiornis*, *Lophotriccus*, *Oncostoma*, *Atalotriccus*, and *Hemitriccus* (K. Zimmer).
716. Change the spelling of *Theristicus caerulescens* to *Theristicus coerulescens* and that of *Cyanocorax caeruleus* to *Cyanocorax coeruleus* (David & Dickinson 2016).
717. Recognize the new genus *Mazaria* for "*Synallaxis*" *propinqua* (Claramunt 2014).
720. Treat White-breasted Wood-Wren *Henicorhina leucosticta* as two or more species (Smith *et al.* 2014).
723. Revise the linear sequence of Orders (Prum *et al.* 2015).
724. Merge *Cyanocompsa cyanoides* and *C. brissonii* into *Cyanoloxia* (Bryson *et al.* 2014).

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