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Splits, lumps and shuffles

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This series focuses on recent taxonomic proposals—descriptions of new taxa, splits, lumps or reorganisations—that are likely to be of greatest interest to birders. This update includes a surprising proposal on the relationships of Blue-headed Quail-Dove; (yet another) proposal to split Emerald Toucanet and support for splits in White-throated Thrush and Blue-black Grosbeak; news that there is more than meets the eye in Vermilion Flycatcher; and evidence that Yellow-green Chlorospingus/Bush Tanager/Bush Finch/whatever is a tanager after all.

The quail-dove of Oz?

Life used to be simple in the quail-dove department: there was a raft of more or less dull brown species, some large, some small, but all included in a single genus, *Geotrygon*; and there was the rather ornate Blue-headed Quail-Dove of Cuba, classified in its own genus, *Starnoenas*. Evidence from the current gold-standard, DNA-sequence data resulted in *Geotrygon* being split into three different genera. But these genetic analyses failed to include a sample of Blue-headed Quail-Dove: big mistake! Olson & Wiley (2016) approach the Blue-headed Quail-Dove from a different perspective. They argue—from a wealth of evidence derived from plumage, structure, and behaviour—that *Starnoenas cyanocephala* is more closely related to doves of far-away Australasia than it is to other quail-doves, or indeed to any other pigeon or dove native to the Western Hemisphere.

Their analysis is not explicitly phylogenetic—that is, Olson and Wiley do not identify a specific genus or species of Australasian dove that is the closest relative of Blue-headed Quail-Dove—but instead they present a long catalogue of features, each of which is shared between Blue-headed Quail-Dove and one or more Australasian species, but that is absent in New World doves. Olson and Wiley's analysis ought to result in renewed attention to this rare and enigmatic species from the molecular folks. And how, you might wonder, would an Australasian dove have ended up in the Caribbean in the first place? Olson and Wiley admit that “The presence of *Starnoenas* in Cuba defies explanation in our current state of knowledge.” Your guess, in other words, is as good as theirs.

Proposed splits (again) in Emerald Toucanet: the time has come?

The Emerald Toucanet *Aulacorhynchus prasinus* group is the most widespread of the toucans, with 14–17 recognised forms, distributed in montane areas from Mexico south to Bolivia. All Emerald Toucanets are basically similar, but there is noticeable variation in features such as throat colour and bill colour/pattern. As a result, there have been frequent attempts to split Emerald Toucanet into as many as seven or eight species (Navarro S. *et al.* 2001, Puebla-Olivaeres *et al.* 2008, Bonaccorso *et al.* 2011). Other experts have been much more cautious, however, and retain all Emerald Toucanets in a single species (e.g. Short & Horne 2002, Donegan *et al.* 2015). As noted by Donegan *et al.* (2015), for example, all members of the group appear to be vocally very similar, and such differences as there are seem “unimpressive” compared to vocal differences shown in other cases by sympatric species of *Aulacorhynchus* toucanets.

Undeterred, Winker (2016) jumps into the fray with yet another analysis of the complex, based on coloration (head and bill pattern) as well as morphometrics (subtle variations in shape between different populations). Winker's conclusion is that five species of Emerald Toucanet should be recognised, which perhaps counts these days as a middle of the road approach: *A. wagleri* (Wagler's Toucanet) of southwestern Mexico; *A. prasinus* (Northern Emerald Toucanet, including subspecies *prasinus*, *warneri*, *virescens* and *volcanius*) from Mexico to Nicaragua; *A. caeruleogularis* (Blue-throated Toucanet,



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Olson & Wiley (2016) present evidence that **1** Blue-headed Quail-Dove *Starnoenas cyanocephala* (Cueva de los Peces, Zapata Peninsula, Matanzas, Cuba, February 2016; Dušan Brinkhuizen/www.sapaoya.com) is more closely related to doves of far-away Australasia, such as **2** Spinifex Pigeon *Geophaps plumifera* (Kings Canyon, Northern Territory, Australia, March 2012; Chris Watson/www.chriswatson.com.au) than it is to other quail-doves, or indeed to any other pigeon or dove native to the Western Hemisphere, such as **3** Olive-backed Quail-Dove *Leptotrygon veraguensis* (Playa de Oro, Esmeraldas, Ecuador, February 2013; Dušan Brinkhuizen/www.sapaoya.com).

Left and facing page: A sea of green (well, emerald). In the light of new research, Emerald Toucanet *Aulacorhynchus prasinus* may finally be split. Here are some of the taxa involved.

4 'Blue-throated' group, taxon *caeruleogularis*, Cinchona, Alajuela, Costa Rica, May 2014 (Yamil Saenz; www.flickr.com/photos/ysaenz/).



5 'Black-throated' group, taxon *atroregularis* or *dimidiatus*, Tres Chimbadas Lake, Tambopata NR, Madre de Dios, Peru, September 2012 (Roger Wasley; www.flickr.com/photos/rogerwasley).

6 'Black-throated' group, taxon *cyanolaemus*, Florida, Amazonas, Peru, January 2014 (Robert Lewis; www.flickr.com/photos/boblewis).

7 'Emerald' group, taxon *prasinus*, Antigua Guatemala, Sacatepequez, Guatemala, February 2016 (Robert Lewis; www.flickr.com/photos/boblewis).

8 'Emerald group', taxon *virescens*, Parque Nacional Cañón del Sumidero, Chiapas, Mexico, April 2016 (Patrick Van Thull/birdseye.photo).

9 'Pale-throated' group, taxon *albivitta*, San Isidro, Cosanga, Ecuador, July 2010 ((Robert Lewis; www.flickr.com/photos/boblewis).

10 'Pale-throated' group, taxon *lautus*, Cincinati, Santa Marta, Magdalena, Colombia, February 2013 (Robert Lewis; www.flickr.com/photos/boblewis).

11 'Wagler's', taxon *wagleri*, Pluma Hidalgo, Oaxaca, Mexico, March 2011 (John Kendall; www.flickr.com/photos/jckendall).

including subspecies *caeruleigularis* and *cognatus*) of Costa Rica and Panama; *A. albivitta* (Southern Emerald Toucanet, including subspecies *lautus*, *griseigularis*, *phaeolaemus* and *albivitta*) of Colombia, Venezuela, and northern Ecuador; and *A. atrogularis* (Black-throated Toucanet, including subspecies *cyanolaemus*, *atrogularis*, and *dimidiatus*) of southern Ecuador, Peru, and Bolivia. ‘Northern’ and ‘Southern’ Emerald Toucanet are rather clunky names, by the way: in my view, plain ole ‘Emerald Toucanet’ remains a fine option for *A. prasinus*, and ‘Greyish-throated’ or ‘Pale-throated’ would work well for *A. albivitta*.

Winker acknowledges the point, made by Donegan *et al.* (2015), that vocal variation is slight across the Emerald Toucanet complex, but holds out the hope that “differences may be apparent with increased sample sizes”—time will tell on that score. Most of these proposed species are allopatric, but Winker pointed to evidence of hybridisation between two distinctive subspecies, *cyanolaemus* (blue throated) and *atrogularis* (black throated) of Black-throated Toucanet; and between two of his species, Southern Emerald (Pale-throated) Toucanet and Black-throated Toucanet. Finally, Winker concedes that there are some conflicts between his proposal for five species, based on colour and morphometrics, and suggestions based on DNA sequence data (Puebla-Olivares *et al.* 2008). These conflicts are not insurmountable, but they also lend support to earlier suggestions (Navarro S. *et al.* 2001, Puebla-Olivares *et al.* 2008, Bonaccorso *et al.* 2011) that *cognatus* (of Winker’s Blue-throated Toucanet) and *griseigularis* (of Winker’s Southern Emerald Toucanet) might each also be split as a species. Perhaps the tide finally will turn towards recognition of a multiplicity of Emerald Toucanets? Keep your lists at the ready!

Fifty shades of Vermilion?

The male Vermilion Flycatcher *Pyrocephalus rubinus* is unabashedly gaudy, and easily attracts attention with its contrasting black and vermilion plumage. But it is also very widespread, breeding from the southwestern United States south to central Argentina, and is very common throughout most of its range. It would be all too easy, then, for the traveling birder to dismiss Vermilion Flycatcher as a ‘background’ (or ‘trash’) bird, in the all-absorbing quest for the next lifer. In a theme familiar to regular readers of this column, however, Neotropical listers will be well served by paying close attention to even the commonest and most widespread species.

Carmi *et al.* (2016) investigated the relationships of all recognised subspecies of Vermilion Flycatcher, using a phylogenetic analysis based on DNA-sequence data, and they also took into consideration aspects of behaviour, such as the song and migratory habits. The upshot is that Carmi and colleagues propose recognising no fewer than four species!

These are the widespread Vermilion Flycatcher *P. obscurus*, which occurs from North America to northern and western South America, and which, apart from the northernmost populations, is resident; the highly migratory ‘Austral Vermilion Flycatcher’ *P. rubinus*, which breeds from southern Brazil to central Argentina, but which winters in the Amazon; ‘Galápagos Vermilion Flycatcher’ *P. nanus*, resident on the Galápagos Islands (other than San Cristóbal Island) of Ecuador; and ‘San Cristóbal Vermilion Flycatcher’ *P. dubius*, which is resident on San Cristóbal. Or, rather, the latter *was* resident on San Cristóbal: it has not been reported in almost 30 years.

If the San Cristóbal species indeed is extinct, as seems likely, then this would represent the first known extinction of a bird species endemic to the Galápagos. For that matter, ‘Vermilion Flycatcher’ populations on some other Galápagos Islands are greatly reduced or extirpated, and so Carmi *et al.* describe the conservation status of Galápagos Vermilion Flycatcher as “dire”. From the point of view of field identification, it is fortunate that these four species of vermilion flycatcher are allopatric: all males are very similar, and would be difficult (or impossible) to identify in field under many conditions. Females are a bit more distinctive, and in particular, the female of the highly migratory *rubinus* has very white underparts, lacking the pale red or pale yellow lower belly and undertail coverts of other females in the complex.

Observers in the southern United States now will have a reason to give extra scrutiny to vagrant or out of season ‘Vermilion Flycatchers’: although not yet detected in North America, *rubinus* is highly likely to occur there from time to time, as do so many other species of migratory Southern American tyrannids. Finally, I again would recommend shorter, simpler English names over the ones proposed by Carmi *et al.*, such as ‘Scarlet Flycatcher’ for *P. rubinus* (as used by Hellmayr 1927), ‘Darwin’s Flycatcher’ for *P. nanus*, and ‘San Cristobal Flycatcher’ for *P. dubius*.

Support for Dagua Thrush

White-throated Thrush *Turdus assimilis* is a rather drab thrush. Surprisingly, however, up to 14

subspecies are recognised across its range, from northern Mexico south to western Ecuador. Some of these subspecies can be characterised as “very similar” to others (Clement 2000) and perhaps are not worthy of recognition, but the southernmost population, from easternmost Panama to Ecuador, is sufficiently distinctive that it sometimes is recognised as a separate species, Dagua Thrush *T. daguae*. Indeed, Ridgely & Greenfield (2001) suggested that the vocalisations of *daguae* were more similar to those of White-necked Thrush *T. albicollis* of South America east of the Andes than to other populations of White-throated Thrush.

Núñez-Zapata *et al.* (2016) bring a molecular perspective to bear on the relationships of these thrushes, comparing White-throated (including *daguae*) and White-necked thrushes using mitochondrial DNA. The genetic data indicates that Dagua Thrush is more closely related to White-throated Thrush than to White-necked Thrush, despite the vocal similarities between Dagua and White-necked. That said, although Dagua Thrush is ‘sister’ to White-throated Thrush, these two have ‘highly distinct’ genetic profiles and ‘clear phenotypic differences’, leading Núñez-Zapata and colleagues to support recognition of Dagua Thrush as a species. Twitchers will hope that this argument convinces the sceptics!

A wayward bush tanager finds a home

The birds formerly known as bush tanagers—the speciose genus *Chlorospingus*—have yielded unexpected surprises in recent years. First came the news, revealed by genetic studies, that bush tanagers were not tanagers (Thraupidae) at all, but instead were tanager-like members of the sparrow and bunting family, Emberizidae (Klicka *et al.* 2007, 2014). One consequence of this was a change to the English name of these birds: some now refer to them as ‘bush finches’ (McMullan & Donegan 2014) or ‘tanager finches’ (Dickinson & Christidis 2014), although others (including the South American Classification Committee, whose taxonomy & nomenclature are followed by the Neotropical Bird Club) just throw up their hands and use ‘chlorospingus’ as the group name (Remsen *et al.* 2016).

The story does not end there, however. The poorly known Yellow-green *Chlorospingus C. flavovirens* of the Pacific slope of Colombia and Ecuador turns out to be quite different from all other *Chlorospingus*. Genetic evidence shows that this species not only is a true tanager, but that *flavovirens* is a member of the genus *Bangsia*,

and is ‘sister’ to Blue-and-gold Tanager *B. arcae* (Avedaño *et al.* 2016). This greatly simplifies the question of an English name for this species: Yellow-green Tanager becomes the obvious choice!

Further support for a split in the blue grosbeaks

Blue-black Grosbeak *Cyanocompsa cyanoides* is a fairly common and widespread bird of the understorey of the Neotropical lowland forests, found from southern Mexico to the Amazon Basin. As part of a broader survey of the relationships of New World buntings (Passerina) and grosbeaks, based on DNA sequence data, Bryson *et al.* (2014) made an interesting discovery: they reported that the populations of Blue-black Grosbeak from Central and northern South America were more closely related to other species (Glaucous-blue Grosbeak *Cyanoloxia glaucoerulea* and Ultramarine Grosbeak *Cyanocompsa brissonii*) than they were to the Amazonian *rothschildi* subspecies of *cyanoides*.

This has two implications: that *Cyanocompsa* should be merged into the genus *Cyanoloxia*; and, more crucially for the lister, *rothschildi* clearly merits recognition as a separate species (‘Rothschild’s’ or ‘Amazonian’ Grosbeak). Not to be outdone, García *et al.* (2016) also reviewed geographic variation within the blue grosbeak complex, incorporating data from genetics, morphology, colour and song. Their genetic data—which were more limited than that of Bryson *et al.*—was somewhat at variance with the earlier research, in that they found Rothschild’s to be ‘sister’ to Blue-black, rather than distinctly different. On the other hand, García *et al.* document that Rothschild’s is strongly divergent in measurements, colour and song, and so they arrive at the same point: Rothschild’s Grosbeak fully deserves recognition as a separate species. Another armchair tick for some?

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Vermilion Flycatcher *Pyrocephalus rubinus* looks set to be split. Females of the taxa involved look quite different.

12 Female 'Galápagos Vermilion Flycatcher' *P. (r.) nanus*, Puerto Villamil, Isla Isabela, Galápagos Islands, Ecuador, June 2010 (Antonio J. Quezon/www.tonyqandsuzanne.com).

13 Female Vermilion Flycatcher *P. (r.) obscurus* of the taxon *piurae*, Chaparrí Reserve, Lambayeque, Peru, February 2012 (Nick Athanas/www.antpitta.com).

14 Female 'Austral Vermilion Flycatcher' *P. (r.) rubinus*, Colonia Carlos Pellegrini, Corrientes, Argentina, November 2007 (James Lowen/www.jameslowen.com).

15 'Dagua' Thrush *Turdus (assimilis) daguae* (Río Canandé Reserve, Esmeraldas, Ecuador, January 2014; Nick Athanas/www.antpitta.com) may be a good split from **16** White-throated Thrush *Turdus assimilis* (Fortuna, San Carlos, Alajuela, Costa Rica, February 2014; Luis Guzmán: www.flickr.com/photos/lguzmancr).



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17 It appears that Yellow-green Chlorospingus *Chlorospingus flavovirens* (La Unión, Esmeraldas, Ecuador, May 2013; Nick Athanas/www.antpitta.com) is not only a true tanager, but a *Bangsia* to boot. **18** This genus includes Gold-ringed Tanager *B. aureocincta*, Colombia, November 2014 (Allan Drewitt; www.flickr.com/photos/allandrewitt/).

19 Blue-black Grosbeak *Cyanocompsa cyanooides* of the northern group, which ranges from Mexico to northern Colombia and northwest Venezuela. El Tapir garden, PN Braulio Carrillo, Costa Rica, January 2016 (Soham Mehta; tinyurl.com/Soham_Mehta). This group appears more closely related to Ultramarine Grosbeak *Cyanocompsa brissonii* than it is to the Amazonian *rothschildi* subspecies of *cyanooides*.



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