

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 latest instalment includes: lumps in the Rufous-backed Stipplethroat complex; a possible split in Buff-browed Foliage-gleaner; a taxonomic puzzle in Black-and-white Becard; hints of splits (many splits) to come in Grey-breasted Wood-Wren; and a likely split in White-breasted Thrasher.

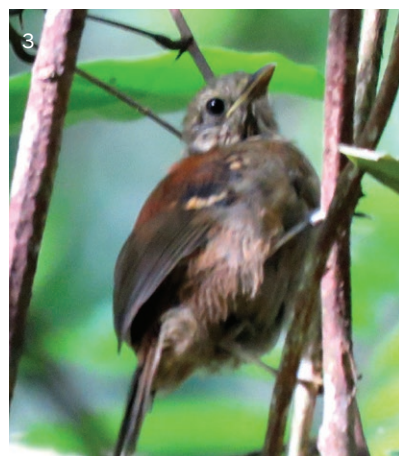
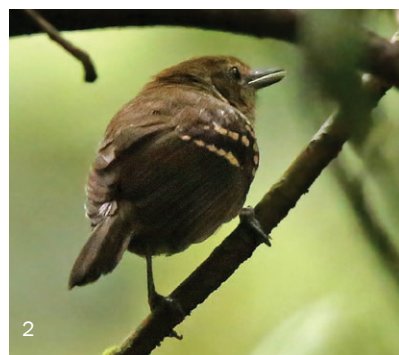
Some stipplethroats just slip away

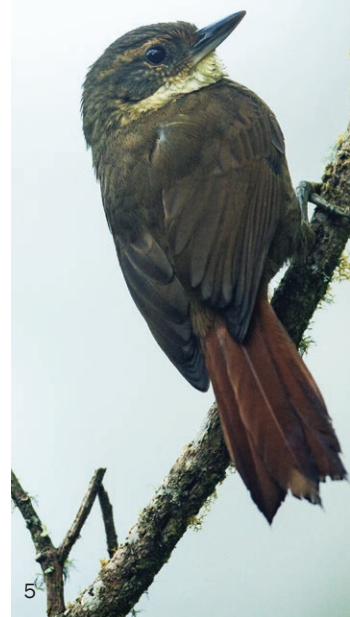
Stipplethroats are small antbirds that until recently were called antwrens; they also formerly were classified in *Myrmotherula*, but more recently have been given their own genus, *Epinecrophylla*. The ranks of the stipplethroats had been growing in recent years. First came the description of Brown-backed Antwren '*Myrmotherula*' *fieldsai* (Krabbe *et al.* 1999). More recently Whitney *et al.* (2013) named another new species, Roosevelt Stipple-throated Antwren *E. dentei*. In the same paper, based in part on a preliminary genetic analysis, they

also suggested splitting the widespread Stipple-throated Antwren *E. haematonota* into three species – Fulvous-throated *E. pyrrhonota*, Rufous-backed *E. haematonota*, and Rio Madeira *E. amazonica* stipplethroats – and further proposed that Brown-backed might be only a subspecies of Rufous-backed.

All four of these are very similar to one another. For example, Brown-backed and Rufous-backed differ solely (you guessed it) by the colour of the back; and to the extent that Fulvous-throated is distinguishable by plumage alone, the distinction is solely the absence of some dusky streaks on the throat of the female. The 2013 paper met a mixed reception: the South

New research casts doubt on the validity of certain stipplethroat *Epinecrophylla* species. The taxa formerly known as Brown-backed *E. fieldsai* and Fulvous-throated *E. pyrrhonota* stipplethroats have been demoted to subspecies of Rufous-backed Stipplethroat *E. haematonota*. **1** Rufous-backed Stipplethroat *E. haematonota pyrrhonota*, Tipishca, Sucumbíos, Ecuador, December 2014. **2** Rufous-backed Stipplethroat *E. haematonota fieldsai*, Shiripuno Lodge, Pastaza, Ecuador, July 2016 (both Roger Ahlman; pbase.com/ahlman). **3** Rufous-backed Stipplethroat *E. h. haematonota*, Reserva Natural Allpahuayo Mishana, Loreto, Peru, October 2016 (Fernando Angulo).





Buff-browed Foliage-gleaner *Syndactyla rufosuperciliata* may be two species, one in the Andes (4 subspecies *S. r. oleaginea*, Río Yalal, Jujuy, Argentina, September 2014) and another further east in the Atlantic Forest region (5 subspecies *S. r. rufosuperciliata*, Pico da Caledônia, Rio de Janeiro, Brazil, October 2012). Both photos by Nick Athanas/Tropical Birding (~ antpitta.com).

American Classification Committee (SACC) accepted Fulvous-throated, Rufous-backed and Rio Madeira as species, but retained Brown-backed as a full species, and considered *dentei* to be a subspecies of Rio Madeira. A paucity of genetic and vocal data for these antbirds was a major factor contributing to their taxonomic turmoil.

Now Isler & Whitney (2019) revisit the topic, armed with a much larger arsenal of audio recordings. Even the crackerjack ears of these experts – and their quantitative analysis of song spectrograms – fail to find vocal differences between Brown-backed, Rufous-backed and Fulvous-throated. (Note that the status of Rio Madeira Stipplethroat as a species is not under dispute, as it is more distinct both vocally and genetically.) A final nail in the coffin for Brown-backed is that it interbreeds with Rufous-backed where their ranges abut in northern Peru (Schmitt *et al.* 2017). Given that Brown-backed and Rufous-backed are so similar in song, genetics and behaviour, and do hybridise, one has to wonder how the plumage difference between them, minor as it may be, manages to be maintained. That's a question for another day, however: in the meantime, both Brown-backed and Fulvous-throated are lost to a lump.

One Buff-browed Foliage-gleaner, or two?

A recurring distributional pattern for montane species of central South America is that of a species with two broadly allopatric populations, one in the Andes and another further east in the Atlantic Forest region. In some cases these populations are considered to represent separate, but closely related, species, as with White-bellied *Myiornis albiventris* and Eared *M. auricularis* pygmy-tyrants; or both populations may be treated as a single species, as with Sharp-tailed Streamcreeper *Lochmias nematura*; or, not surprisingly, experts may disagree as to whether to recognise one species or two, as with Swallow-tailed *Phibalura flavirostris* and 'Apolo *P. boliviana*' cotingas (the latter not being recognised by SACC, for example).

The population structure of yet another widespread species exhibiting this pattern, Buff-browed Foliage-gleaner *Syndactyla rufosuperciliata*, was investigated by Cabanne *et al.* (2019); their approach was admirably thorough, with samples from throughout the entirety of the range of the species. They found that each population was monophyletic, that is to say, all of the Andean birds, from northern Peru to northern Argentina, were more closely related to each other

than any was to the Atlantic Forest population, and vice versa. This is not too surprising, given the current geographic gap between them, but is important in suggesting that the two populations have been isolated from each other for a relatively long time.

In contrast, Cabanne and colleagues found evidence of genetic introgression between the Atlantic Forest population of Buff-browed Foliage-gleaner and a related species, Russet-mantled Foliage-gleaner *S. dimidiata* of the Cerrado region. Rest assured that there is no rash talk here of lumping Russet-mantled and Buff-browed foliage-gleaners; instead they point to this pattern as yet another example of “genomic data ... revealing unexpected introgression between unquestioned good bird species” (whew!). In fact, Cabanne *et al.* would go further in the other direction, and

recommend a split between the Andean and Atlantic Forest populations of Buff-browed.

Unfortunately for twitchers, this proposal is based solely on the genetic evidence of no interbreeding between two geographically isolated populations; there is no accompanying assessment of plumage or vocal characters across the geographic break. Perhaps there isn't much to say anyway; these are foliage-gleaners, after all, so plumage differences are subtle, and to date no one seems to have pointed out any significant vocal differences either. File this one away as a potential split, just in case, but don't expect an easy armchair tick any time too soon.

***Pachyramphus* puzzles**

Historically, the major classification conundrum posed by becards (*Pachyramphus*) was what family

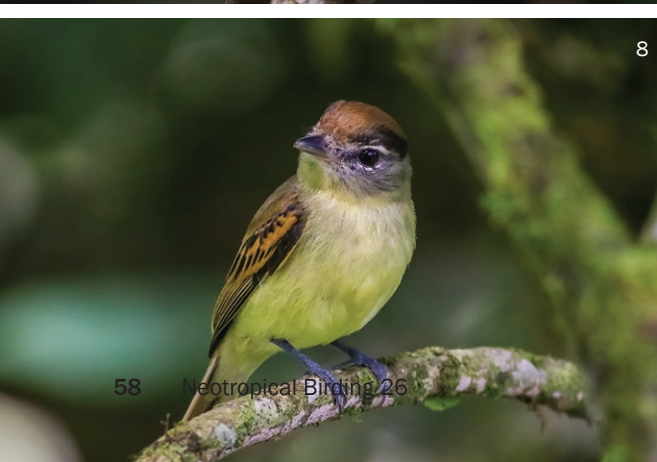
Becards are a taxonomically confusing bunch. Recent analysis suggests that most populations of Black-and-white Becard *Pachyramphus albogriseus* are sister to Grey-collared Becard *P. major*, yet one group (*guayaquilensis*) transpires to be related instead to White-winged Becard *P. polychropterus*. Despite this unexpected genetic diversity, Black-and-white Becards look remarkably similar across the range of the species: **6** nominate subspecies *albogriseus*, male, Parque Nacional Henri Pittier, Aragua, Venezuela, May 2019 (Margareta Wieser); **7** subspecies *guayaquilensis*, male, Bosque Protector Cerro Blanco, Guayas, Ecuador, March 2013 (Nick Athanas/Tropical Birding; antpitta.com); and **8** presumed subspecies *guayaquilensis*, female, Tandayapa–San Jorge Tandayapa, Pichincha, Ecuador, August 2016 (Stefan Hirsch).



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to place them in: Cotingidae, Tyrannidae, or some third possibility? (The current answer, of course, is 'C', the family Tityridae.) So at first blush it might seem that a phylogenetic investigation of the becards, as conducted by Musher & Cracraft (2018) and Musher *et al.* (2019), would not be particularly newsworthy. This project does touch on one known species-level issue, that of whether to recognise one, two, or even three species in the Green-backed Becard *Pachyramphus viridis* complex. But the genetic data don't really resolve the problem: as expected, the western populations ('Yellow-cheeked Becard', the *xanthogenys* group) are 'sister' to (i.e. most closely related to) 'true' Green-backed Becard of eastern South America; and the genetic divergence between the two groups is not so small as to suggest a lump, nor so large that a split is almost obligatory.

So that leaves us where we started: lumpers will stand with a single species, and splitters, swayed in part by the plumage differences between these populations, will argue that one is not enough. In the fine details, however, Musher *et al.* find that the 'Green-cheeked Becard', *griseigularis* of northern South America, is very close, genetically, to the *xanthogenys* group – rather than to the *viridis* group, which is where it usually is placed in a two-species arrangement (e.g. Ridgely & Tudor 2009). So splitting *griseigularis* as a third species, as in del Hoyo & Collar (2016), may be a valid option, but the close genetic affinities to 'Yellow-cheeked Becard' do complicate the story.

The real surprise coming out of this research is something else – something completely unexpected. Musher and colleagues find that most populations of Black-and-white Becard *P. albogriseus* are sister to Grey-collared Becard *P. major*, but one group of Black-and-white turns out to be related instead to White-winged Becard *P. polychopterus*. This is a pattern that they found with several different genetic markers, a very strong signal that this result is not an artefact (i.e., a peculiarity due to an odd pattern of inheritance of one particular gene), and that this group represents a separate species. This would be quite surprising, since the subspecies of Black-and-white Becard differ from one another in only the most minor of details – so if a species, it is a very cryptic species indeed. Musher and colleagues nonetheless blithely split this lineage as *P. guayaquilensis*, which is where the complications begin.

Their samples identified as *P. guayaquilensis* come not only from western Ecuador, the range generally attributed to that subspecies, but also from sites as far afield as the east side of the Andes, from southern Colombia to northern

Peru – regions from which 'true' Black-and-white Becard also occurs. Some observers (the late Paul Coopmans, in Ridgely & Greenfield 2001, and Dan Lane, in Schulenberg *et al.* 2010) have described two different songs of Black-and-white Becard. If there is any connection between song types and genetic groups, however, Musher *et al.* will not be the ones to tell us: they do not discuss the issue at all, much less point to any individual becards for which they have both an audio recording and a genetic profile. They leave us with a real headscratcher. Perhaps if we're lucky, some other researchers will return to this topic, and sort it all out for us.

Pardon me, how many *Henicorhina*?

A recurring theme in this column is that the savvy twitcher will never take any species for granted. Obviously you'll want to take in as many endemics and regional specialities as you can when you travel, but pay attention as well to the common widespread species: after all, as the pendulum swings ever more heavily in the direction of splitting, today's trash bird may be tomorrow's species complex. Nothing illustrates this better than recent research on Grey-breasted Wood-Wren *Henicorhina leucophrys* (Cadena *et al.* 2019).

This wood-wren is very widespread, occurring from the highlands of Mexico south to central Bolivia. It also is very common, but is something of a skulker; I'm here to tell you, however, to resist the temptation to pass this bird by just because you've seen it somewhere else, but instead assiduously try to twitch it at every opportunity. What's the fuss? Well, Daniel Cadena and colleagues conducted a genetic survey of this wood-wren from throughout its range, and uncovered a degree of divergence that, it's clear, surprised even them.

Their preliminary analysis suggests that Grey-breasted Wood-Wren in fact represents on the order of 35–38 (!) species – which is to say, many more presumptive species than there are currently recognised *subspecies* of Grey-breasted Wood-Wren. Cadena *et al.* are admirably cautious in interpreting these results, indeed they take pains to state that taxonomic revisions must wait for additional evidence from "studies examining other molecular markers, morphology, voices and behavior". And by mentioning "other molecular markers", they are admitting to one weakness of their study, in that it relies solely on an analysis of mitochondrial DNA (mtDNA). mtDNA is prized in the field because these genes evolve relatively rapidly, making mtDNA a good marker for



Recent research suggests that there may be more species of 'Grey-breasted Wren *Henicorhina leucophrys*' than exist currently recognised subspecies! The general appearance of the wood-wren is similar across its wide range, but genetic diversity is surprisingly high. Here are three individuals from different parts of the range of this 'species': **9** Reserva Buenaventura, El Oro, Ecuador, August 2013 (Nick Athanas/Tropical Birding; 📧 antpitta.com); **10** Camino La Cumbre, Oaxaca, Mexico, March 2017 (Nick Athanas/Tropical Birding; 📧 antpitta.com); and **11** Cock-of-the-Rock Lodge, Cuzco, Peru, September 2019 (Roger Ahlman; 📧 pbase.com/ahlman).



measuring the divergence between closely related populations – which is what they uncovered, many times over, in the wood-wrens. At times mtDNA can be less informative, however, in assessing whether populations are interbreeding or not.

But while recognition of multiple species in a Grey-breasted Wood-Wren complex isn't happening based on this one paper, splits are sure to follow. One tell is that two populations already recognised as species, Hermit Wood-Wren *H. anachoreta* and Munchique Wood-Wren *H. negreti*, are embedded within the many different genetic lineages of Grey-breasted Wood-Wren. For that matter, until recently Hermit Wood-Wren itself was considered a subspecies of Grey-

breasted, but it was split based on documentation that it was vocally and genetically different from a subspecies of Grey-breasted Wood-Wren that occurs at lower elevations below it (see Schulenberg 2016). In a parallel case, there already is considerable evidence that two other 'subspecies' of Grey-breasted in western Ecuador, *hilaris* and nominate *leucophrys*, also are behaving like separate species, with different songs and little interbreeding where their elevational ranges abut (again, see Schulenberg 2016). In other words, while it may be too early to know just how many species of Grey-breasted Wood-Wren there are, everything to date points to the final answer being much closer to 'a lot' than it will be to 'just one'.



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The deep genetic divergence found between two subspecies of White-breasted Thrasher *Ramphocinclus brachyrurus* found on adjacent islands in the Lesser Antilles – nominate *brachyrurus* on Martinique (12 Martinique, Lesser Antilles, August 2015; Frantz Delcroix/🐦 amazona-guadeloupe.com), and *sanctaeluciae* on St. Lucia (13 Dennerly, St. Lucia, Lesser Antilles, March 2019; Robert Curry) – suggests that the two may well be separate species

Two species of White-breasted Thrasher?

There are two subspecies of the globally Endangered White-breasted Thrasher *Ramphocinclus brachyrurus*, found on adjacent islands in the Lesser Antilles: nominate *brachyrurus* on Martinique, and *sanctaeluciae* on the next island to the south, St. Lucia. The population on St. Lucia originally was named as a species (granted, the same is true of almost every bird that was described in the 19th century). But for more than 85 years now *sanctaeluciae* has been classified as only a subspecies (Hellmayr 1934), although the notion that it may be a species after all remains under discussion (del Hoyo & Collar 2016).

That idea will get a big boost from a recent genetic survey of the Caribbean thrashers and tremblers (DaCosta *et al.* 2019). These researchers found that the two subspecies of White-breasted Thrasher are deeply, deeply genetically divergent – not only more divergent from one another than are, say, Brown Trembler *Cinlocerthia ruficauda* and Grey Trembler *C. gutturalis*, but in fact divergent at levels approaching those that separate other genera within this radiation.

The standard caveat applies in this case, which is that reproductive isolation is simply one of

several factors contributing to genetic distance, so it is risky to infer taxonomic rank solely from genetic divergence. That said, the geographic distance between Martinique and St. Lucia is not great, despite which they clearly have not been interbreeding for a long time now.

Furthermore, the deep genetic divergence between *brachyrurus* and *sanctaeluciae* stands in stark contrast to the very shallow levels of intraspecific genetic divergence that DaCosta and colleagues found between different subspecies in Brown Trembler, or between samples from different islands (but the same subspecies) of Scaly-breasted Thrasher *Alenia fusca*. One would think that DaCosta *et al.* (2019) alone might tip the balance back in favour of the split; if this is not yet enough, one of the authors of this paper apparently is conducting further research on genetic divergence within *Ramphocinclus*, so soon there may be yet more information on these thrashers.

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