

**AOS Classification Committee – North and Middle America**

**Proposal Set 2019-C**

**22 February 2019**

**(revised 18 March 2019)**

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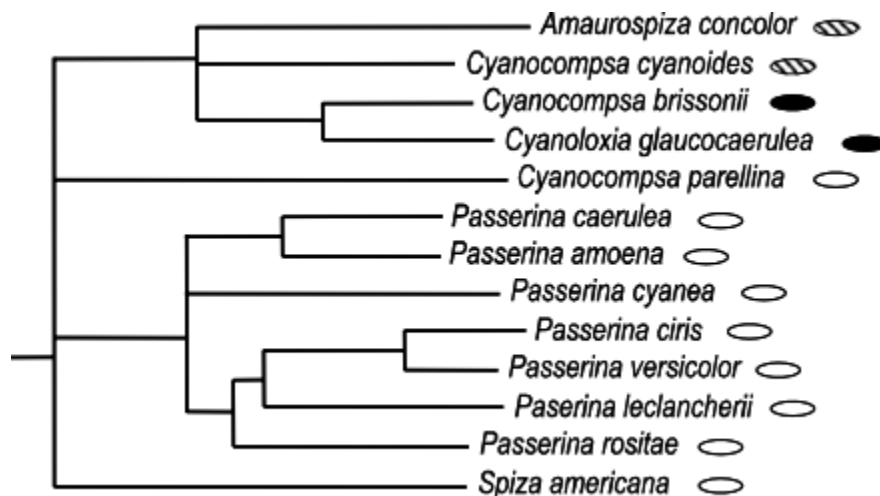
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**Transfer (a) Blue-black Grosbeak *Cyanocompsa cyanoides* to *Cyanoloxia* and (b) Blue Bunting *Cyanocompsa parellina* to *Passerina***

**Background:**

The blue buntings, seedeaters, and grosbeaks of the family Cardinalidae have often been placed in four genera: *Passerina* Vieillot 1816 (buntings; type species *cyanea*), *Amaurospiza* Cabanis 1861 (seedeaters; type species *concolor*), *Cyanocompsa* Cabanis 1861 (primarily grosbeaks; type species *parellina*), and *Cyanoloxia* Bonaparte 1851 (Glaucous-blue Grosbeak; type species *glaucocaerulea*), although some sources (e.g., Paynter 1970) have lumped *Cyanocompsa* and *Cyanoloxia* into *Passerina*. Only two of these genera, *Passerina* and *Cyanocompsa*, occur in the NACC area.

Klicka et al. (2007) sequenced 2281 bp of mtDNA for most species of these genera and concluded, based on their most “reliable” tree (see below), that these taxa form a clade with the Dickcissel *Spiza americana*, that *Cyanocompsa* is paraphyletic with respect to *Cyanoloxia*, and that the placement of the Blue Bunting *Cyanocompsa parellina* within the clade was uncertain:

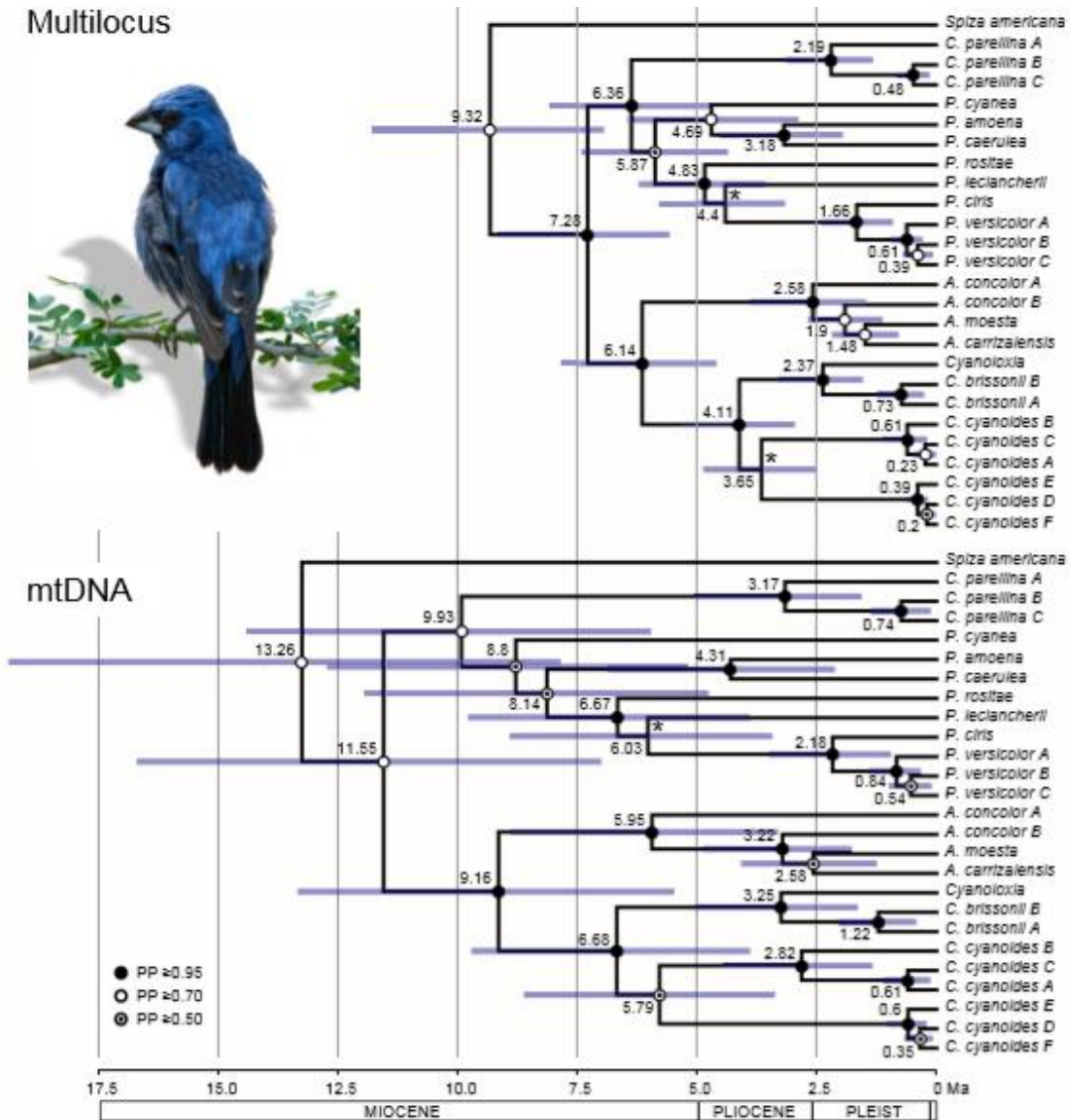


Klicka et al. (2007) recommended that *Amaurospiza* and *Cyanocompsa* be merged into *Cyanoloxia*, which has priority, but a SACC proposal to do so did not pass (<http://www.museum.lsu.edu/~Remsen/SACCprop457.htm>). Three of the seven species in these genera occur in the NACC area, but we did not consider a proposal to lump the three genera following the SACC vote.

**New Information:**

Bryson et al. (2014) sequenced 3193 bp from one mitochondrial and three nuclear genes for numerous individuals of all species of *Passerina*, *Amaurospiza*, *Cyanocompsa*, and *Cyanoloxia*, as well as individuals of *Spiza americana* and two more distantly related species. They found, as had Klicka et al. (2007), that most species of *Amaurospiza*, *Cyanocompsa*, and *Cyanoloxia*

formed a clade and that all species of *Passerina* formed part of a separate clade. The Bryson et al. (2014) tree also indicated that *Cyanocompsa* is paraphyletic with respect to *Cyanoloxia*. However, *Cyanocompsa parellina*, which was of uncertain affinities in the Klicka et al. study, was found to be sister to *Passerina*:



**Figure 3** Species tree reconstructions for blue cardinalids estimated from multilocus and mtDNA datasets using \*BEAST. Bars indicate the 95% highest posterior densities of divergence dates. The mean estimated dates above nodes and the scale bar are in millions of years ago (Ma). Bayesian posterior probability (PP) support for nodes is indicated by coded dots; nodes that received less than 0.50 support are marked with an asterisk. Pleist = Pleistocene. Photo of *Cyanocompsa brissonii* by Arjan Haverkam.

The sister relationship of *C. parellina* and *Passerina* received a reasonably strong posterior probability in the multilocus tree, although support in the mitochondrial tree was weaker.

In light of the paraphyly of *Cyanocompsa*, Bryson et al. (2014) recommended that *C. parellina* be lumped into *Passerina* and that the other two species of *Cyanocompsa* (*brissonii* and *cyanoides*) be transferred to *Cyanoloxia*, thereby eliminating *Cyanocompsa* from current usage.

SACC considered a proposal (SACC 724) to merge *brissonii* and *cyanoides* into *Cyanoloxia* (*parellina* does not occur in South America). This proposal passed but there was also some support on the committee for an option not formally proposed, which was to merge all species of *Amaurospiza*, *Cyanocompsa*, and *Cyanoloxia* into *Passerina*.

Our options on this are as follows:

(1) transfer *cyanoides* to *Cyanoloxia* (*brissonii* does not occur in our area) but retain *parellina* (the type species) in *Cyanocompsa*;

(2) follow the recommendation of Bryson et al. (2014) and transfer *cyanoides* to *Cyanoloxia* and *parellina* to *Passerina*;

Another formal option would be to transfer both species to *Passerina*, which based on the phylogeny of Bryson et al. (2014) would constitute a merger of *Amaurospiza*, *Cyanocompsa*, and *Cyanoloxia* into *Passerina*. However, because most species in these three genera are endemic to South America, I don't think we should consider this unless SACC takes action on it first.

#### **Recommendation:**

The option that represents the minimum change to current taxonomy is option 1, which would result in a single name change (*Cyanocompsa cyanoides* would become *Cyanoloxia cyanoides*). SACC voted for the least disruptive option in choosing to transfer *brissonii* and *cyanoides* to *Cyanoloxia*, and I recommend that we do the same. However, Option 2 is a reasonable alternative, given that *parellina* was always the atypical species among *parellina*, *brissonii*, and *cyanoides*, and, as borne out by the phylogeny, actually seems more similar to *Passerina*. Thus, I recommend a YES vote on (a) transferring *cyanoides* to *Cyanoloxia*, but a soft NO on (b) transferring *parellina* to *Passerina*.

#### **Literature Cited:**

- Bryson, R. W., J. Chaves, B. T. Smith, M. J. Miller, K. Winker, J. L. Pérez-Emán, and J. Klicka. Diversification across the New World within the 'blue' cardinalids (Aves: Cardinalidae). *Journal of Biogeography* 41:587-599.
- Klicka, J., K. J. Burns, and G. M. Spellman. 2007. Defining a monophyletic Cardinalini: a molecular perspective. *Molecular Phylogenetics and Evolution* 45:1014–1032.
- Paynter, R. A., Jr. 1970. Subfamily Cardinalinae. Pp. 216-245 in *Checklist of Birds of the World*, Vol. XIII. Museum of Comparative Zoology, Cambridge, Mass.

**Submitted by:** Terry Chesser

**Date of Proposal:** 14 December 2018

**Split extralimital Amazonian Grosbeak *Cyanocompsa (Cyanoloxia) rothschildii* from  
*C. cyanooides* (Blue-black Grosbeak)**

**Note:**

This proposal is a reworking of SACC Proposal 736, incorporating information both from the proposal authored by Natalia García and from the comments of the committee.

**Background:**

*Cyanocompsa rothschildii*, a species endemic to South America, was described by Bartlett in 1890 as *Guiraca rothschildii*, but was later subsumed into *C. cyanea* by Berlepsch and Hartert (1902). However, Hellmayr (1905) considered it a “decidedly distinct form from *G. cyanea*” and thought that it might actually be a southern representative of *C. cyanooides*. In Todd’s revision of *Cyanocompsa* (1923), he considered *rothschildii* to be a subspecies of *cyanooides*, although he noted that it was more brightly colored than other *cyanooides* and that it might be a distinct species.

**New Information:**

Bryson et al. (2014) analyzed data from nuclear and mitochondrial DNA and determined that *C. cyanooides* consists of two very distinct clades largely separated by the Andes, one (the *cyanooides* group of subspecies, which also includes *toddi* and *concreta*) in Central America and northwestern South America, extending to northwestern Venezuela, the other (subspecies *rothschildii*) widely distributed in lowlands east of the Andes as far south as Bolivia and Brazil (see their Fig. 3 in Proposal 2019-C-1 above). Time-calibrated analyses indicated that these clades diverged ca. 4-5.5 mya, well before the separation of the two species that constitute their sister clade (*C. brissonii* and *Cyanoloxia glaucocaerulea*), which diverged ca. 2.5-3 mya.

García et al. (2016) analyzed differentiation in phenotypic characters as well as mtDNA. Consistent with the results of Bryson et al. (2014), their genetic results indicated deep divergence between *rothschildii* and subspecies *cyanooides*, *toddi*, and *concreta*, which grouped together in their analyses (see Figure 1 below). In their phenotypic analyses, García et al. found diagnosable differences between *rothschildii* and the *cyanooides* group of subspecies in PC analyses of plumage color and bill measurements (Figure 2). Subspecies *rothschildii* was also the most divergent subspecies in PC analyses of body weight and song characteristics, although there was a small degree of overlap in these characters with members of the *cyanooides* group. Although no sonograms were included in the paper, recordings available online at xeno-canto and the Macaulay Library illustrate substantial differences in song (compare <https://www.xeno-canto.org/species/Cyanocompsa-rothschildii> with <https://www.xeno-canto.org/species/Cyanocompsa-cyanooides>). No playback experiments were conducted, but comments on SACC 736 included an anecdotal observation from Josh Beck, who, impressed by the vocal differences, played a song from an individual from Panama (*cyanooides*) to an individual in Amazonia (*rothschildii*) and received no response. In contrast, a song of *rothschildii* played to the same Amazonian bird elicited a strong response.

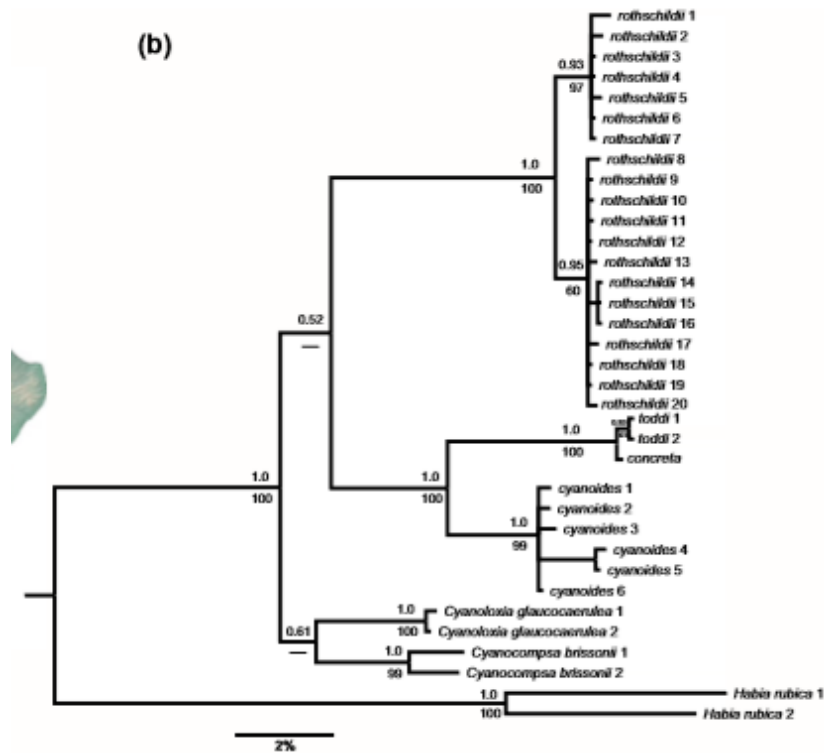


Figure 1. Relationships of *rothschildii*, *cyanooides*, *toddii*, and *concreta* based on sequences of the mitochondrial genes CO1 and cytochrome-b (from García et al. 2016).

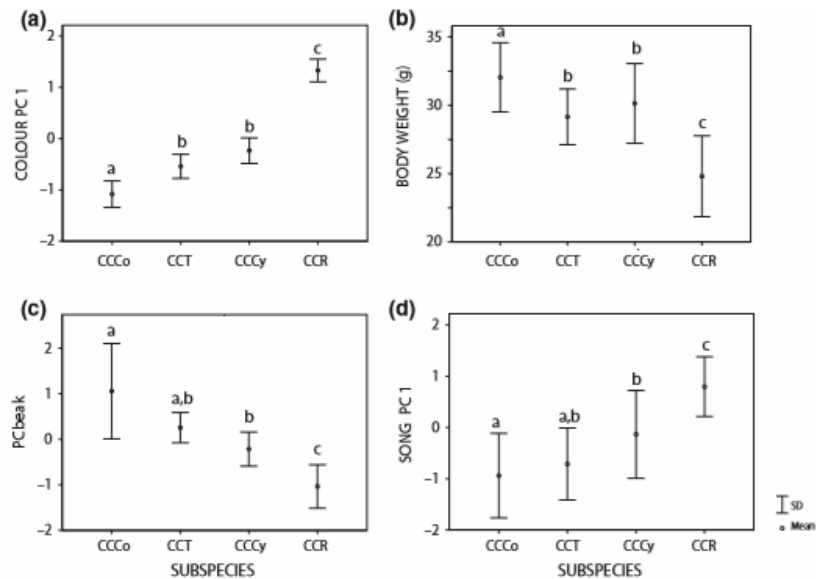


Figure 2. Plumage coloration, morphology and song analysis results. (a,c,d) Scores for Colour PC1, PCbeak and Song PC1 for each subspecies, respectively. (b) Body weight for each subspecies. Mean  $\pm$  sd are shown in all cases. Taxa that differed significantly after Tukey's contrast tests (or *post hoc* tests with Dunnett's T3 correction for PCbeak) are identified with different letters. CCCo, *Cyanocompsa cyanooides concreta*; CCCy, *C. c. cyanooides*; CCT, *C. c. toddii*; CCR, *C. c. rothschildii*.

Van Remsen's photos of specimens from LSU illustrate the differences in plumage color and bill. These are photos of male specimens (from top to bottom) of *brissonii*, *cyanoides*, and *rothschildii*. Ventral views:



and lateral views:



**Recommendation:**

SACC passed Proposal 736 largely on the basis of congruent data sets showing differences in plumage, morphometrics, voice, and genetics. Several of the votes in favor were tentative or reluctant because the data for reproductive isolation were not wholly convincing, although there was apparently only a single vote to reject the proposal. To some committee members, a vote for the split was considered to be the correction of an historical error that lumped *rothschildii* and *cyanoides* without strong evidence for doing so; under this view, the burden of proof was shifted to those who would consider them conspecific.

This is a close call based on the evidence. There are reasonable arguments for and against the split, but I recommend that we echo SACC's decision to split *rothschildii* from *cyanoides*, especially considering that *rothschildii* is extralimital to our area. SACC adopted the English name Amazonian Grosbeak and I recommend that we do the same.

**Literature Cited:**

- Bryson, R. W., J. Chaves, B. T. Smith, M. J. Miller, K. Winker, J. L. Pérez-Emán, and J. Klicka. Diversification across the New World within the 'blue' cardinalids (Aves: Cardinalidae). *Journal of Biogeography* 41:587-599.
- Berlepsch, H. von, and E. Hartert. 1902. On the birds of the Orinoco region. *Novitates Zoologicae* 9:1-135.
- García, N. C., A. S. Barreira, P. D. Lavinia, and P. L. Tubaro. 2016. Congruence of phenotypic and genetic variation at the subspecific level in a Neotropical passerine. *Ibis* 158, 844-856.
- Hellmayr, C. E. 1905. Notes on a collection of birds made by Mons. A. Robert in the district of Pará, Brazil. *Novitates Zoologicae* 12:269-305.
- Todd, W. E. C. 1923. A review of the genus *Cyanocompsa*. *Auk* 40:58-69.

**Submitted by:** Terry Chesser

**Date of Proposal:** 20 December 2018



**Transfer subspecies *cabanidis* from Lesser Violetear *Colibri cyanotus* to Mexican Violetear *C. thalassinus*, and delete Lesser Violetear from the North American list**

**Effect on NACC:**

This proposal would remove Lesser Violetear *Colibri cyanotus* from the North American checklist.

**Background:**

The "Green Violetear" complex currently consists of four taxa, two in Central America (*thalassinus* and *cabanidis*), and two in South America (*cyanotus* and *crissalis*). Early authors recognized two species in this group:

(1) a monotypic *Colibri thalassinus*, in northern Central America (from Mexico to Nicaragua), and

(2) a polytypic *Colibri cyanotus*, including *cabanidis* (Costa Rica and western Panama), *cyanotus* (Venezuela to Ecuador), and, eventually, *crissalis* (marginally distinct, and not described until 1942; Peru to northwestern Argentina)

This two-species classification is reflected in many standard references, such as Salvin (1892), Ridgway (1911), Cory (1918), Todd and Carriker (1922), and Todd (1942). Peters (1945), however, lumped these into a single species, followed by Zimmer (1950) and subsequent authors.

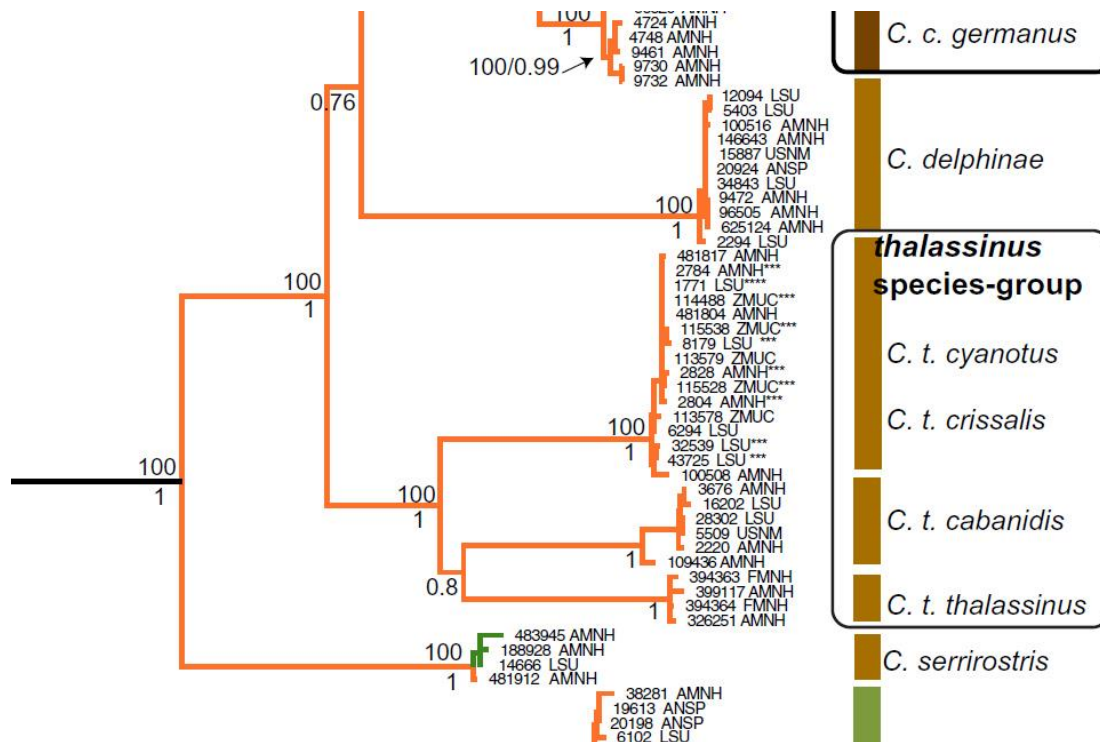
Remsen et al. (2015) advocated a return to the older two species classification, primarily based on considerations of plumage differences between nominate *thalassinus* (narrow band of blue across the chin, center of breast extensively blue) and the three remaining taxa (underparts, including chin and breast, entirely green). This split was proposed to AOS-NACC as Proposal 2016-C-10, and was accepted by the committee (Chesser et al. 2016).

**New information:**

Quintero and Perktas (2018) published a phylogenetic analysis of the trochilid genera *Doryfera*, *Schistes*, and *Colibri*, based on phylogenetic analysis of sequence data from two mitochondrial genes, cytochrome *b* and NADH dehydrogenase 2. In the big picture (monophyly of genera, relationships between genera), their results do not add much to what we already know (e.g., McGuire et al. 2014).

However, Quintero and Perktas (2018) do have much denser sampling within each taxon; for example, they have data from multiple specimens of each of the four subspecies in the "Green Violetear" complex. Per this mtDNA phylogeny, there are three lineages within the "Green Violetear" complex: one in South America (*cyanotus* and *crissalis*, which are very closely related); *cabanidis*; and nominate *thalassinus*. But *cabanidis* and *thalassinus*, although relatively

deeply divergent from each other, are sister taxa; and this conflicts with the treatment of *cabanidis* as conspecific with South American *cyanotus* and *crissalis*.



Perhaps this topology is not as surprising as it may seem. Ventral coloration in the "Green Violetear" complex – the original basis for the split – may not be as simple (binary, blue or green) as presented. A number of authors have claimed that *cabanidis* differs from *cyanotus* and *crissalis* by having "in the adult male a decided purplish tinge on middle of belly" (Bangs 1902) and by "having the under parts markedly brighter, more bluish, less yellowish green, with frequently a decided dark blue area on the middle of the breast" (Todd and Carriker 1922). Wetmore (1968) characterized the breast of *cabanidis* as "glossed with blue", and Stiles and Skutch (1989) described the male of "Green Violetear" in Costa Rica (*cabanidis*) as "throat and breast glittering green, breast tinged with blue". None of this is to say that *cabanidis* looks like *thalassinus*, with its conspicuous blue breast patch, but only that *cabanidis* clearly looks different than *cyanotus* + *crissalis*, and that it differs from the latter in ways that may approach the characters of *thalassinus*.

### Solution to the problem:

I don't have access to ample specimen material of the different taxa in the "Green Violetear" complex, so I can't properly evaluate geographic variation in the color of the underparts; and I don't know what taxonomic significance these plumage patterns may have in this group. Turning to the phylogeny, the topology of the relationships within the "Green Violetear" complex, as recovered by Quintero and Perktas (2018), is consistent with recognizing anywhere from one to three species. But under a two-species approach, which is the current NACC classification, then *cabanidis* should be classified as a subspecies of *thalassinus*, not of *cyanotus*.

## Recommendation:

I recommend voting Yes on this proposal, to transfer subspecies *cabanidis* from Lesser Violetear *Colibri cyanotus* to Mexican Violetear *Colibri thalassinus*. If accepted, this action would remove Lesser Violetear from the North American checklist. It also may be advisable to change the English name of Mexican Violetear, in view of its expanded geographic distribution.

## Literature Cited:

- Bangs, O. 1902. [On a second collection of birds made in Chiriqui, by W. W. Brown, Jr. Proceedings of the New England Zoological Club 3: 15-70.](#)
- Chesser, R.T., K.J. Burns, C. Cicero, J.L. Dunn, A.W. Kratter, I.J. Lovette, P.C. Rasmussen, J.V. Remsen, Jr., J.D. Rising, D.F. Stotz, and K. Winker. 2016. Fifty-seventh supplement to the American Ornithologists' Union Check-list of North American birds. *Auk* 133: 544-560. <https://bioone.org/journals/the- auk/volume-133/issue-3/AUK-16-77.1/Fifty-seventh-Supplement-to-the-American-Ornithologists-Unionbr-classbr/10.1642/AUK-16-77.1.full>
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- Peters, J.L. 1945. [Check-list of birds of the world. Volume V.](#) Harvard University Press, Cambridge, Massachusetts.
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- Ridgway, R. 1911. [The birds of North and Middle America. Part V. Bulletin of the United States National Museum 50, part 5.](#)
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- Stiles, F.G., and A.F. Skutch. 1989. A guide to the birds of Costa Rica. Cornell University Press, Ithaca, New York.
- Todd, W.E.C. 1942. [List of the hummingbirds in the collection of the Carnegie Museum. Annals of the Carnegie Museum 29: 271-370.](#)
- Todd, W. E.C., and M. A. Carriker, Jr. 1922. [The birds of the Santa Marta region of Colombia: a study in altitudinal distribution. Annals of the Carnegie Museum 14.](#)
- Wetmore, A. 1968. [The birds of the Republic of Panama. Part 2. Smithsonian Miscellaneous Collections volume 150, part 2.](#)
- Zimmer, J. T. 1950. Studies of Peruvian birds. Number 57. The genera *Colibri*, *Anthracothorax*, *Klais*, *Lophornis*, and *Chlorestes*. [American Museum Novitates number 1463.](#)

**Submitted by:** Tom Schulenberg, Cornell Lab of Ornithology

**Date of Proposal:** 24 January 2019

**Transfer Gray-capped Cuckoo *Coccyzus lansbergi* to the Main List****Background:**

Gray-capped Cuckoo *Coccyzus lansbergi* was previously included in Appendix 1 of the AOU Checklist, 7<sup>th</sup> Edition, on the basis of sight reports, including single birds at Tocumen Marsh in eastern Panamá Province on 10 February 1980, 7-8 January 1982, and 23 January 1985; and at Cana in Darién Province on 30 January 1985 (Braun and Wolf 1987).

**New Information:**

Two Gray-capped Cuckoos were seen and one photographed on 6 August 2015 at Aruza Arriba, Darién Province, by Domiciano Alveo, Theresa Bayoud (photographer), and Gabriel Leboff (van Dort and Komar 2017; however, North American Birds did not consider this a first record for North America, due to the sound recording noted below, and so did not publish a photograph). Two were seen (one photographed by Leboff) and another heard at the same locality on 12 August by the same observers. Photographs have been archived in the Macaulay Library (<http://macaulaylibrary.org/asset/51808651> and <http://macaulaylibrary.org/asset/51808661>) and are appended below. The dark gray cap, rich chestnut upperparts, and deep cinnamon underparts are diagnostic for the species among New World cuckoos.

In addition, an individual was recorded calling at Vista Alegre Emberá in Darién Province by Venicio Wilson on 29 July 2012 (sound recording posted on eBird: <http://ebird.org/ebird/view/checklist/S19187794>).

The species occurs from Venezuela and Colombia through Ecuador and northern Peru west of the Andes. Its breeding distribution and movements are poorly known. The presence of calling birds suggests the species may now be breeding in Panama, in common with many other species that have spread into eastern Panama from Colombia due to deforestation.

**Recommendation:**

Transfer Gray-capped Cuckoo *Coccyzus lansbergi* from the Appendix to the Main List.

**Literature Cited:**

- Braun, M. J., and D.E. Wolf. 1987. Recent records of vagrant South American land birds in Panama. *Bulletin of The British Ornithologists' Club* 107: 115--117.
- van Dort, J., and O. Komar. 2017. Fall migration: August through November 2015: Central America. *North American Birds* 70: 124-128.

**Submitted by:** George R. Angehr, Smithsonian Tropical Research Institute

**Date of proposal:** 7 February 2019



Gray-capped Cuckoo, photographed by Theresa Bayoud, 6 August 2015, Aruza Arriba, Darién, Panama.



Gray-capped Cuckoo, photographed by Gabriel Leboff, 12 August 2015, Aruza Arriba, Darién, Panama.

### Transfer Dwarf Cuckoo *Coccyua pumila* to the Main List

**Background:**

Dwarf Cuckoo *Coccyua pumila* was previously included (as *Coccyzus pumilus*) in Appendix 1 of the AOU Checklist, 7<sup>th</sup> Edition, on the basis of a sight report of a single bird at Tocumen in eastern Panamá Province on 9 January 1979 (Braun and Wolf 1987).

**New Information:**

A Dwarf Cuckoo was seen on 1 February 2016 in wetlands a few kilometers north of Yaviza, Darién Province, by Dorothy Wadlow and Ismael Quiroz, and photographed by Quiroz (van Dort and Komar 2018, which included one of the photographs).

Photographs have also been archived at the Macaulay Library ([http://macaulaylibrary.org/asset/24109711?\\_hstc=60209138.49f9ea76140599e4f6c868d495c26ef3.1460832484465.1489944891121.1489952670732.220&\\_hssc=60209138.6.1489952670732&\\_hsfp=1094270655](http://macaulaylibrary.org/asset/24109711?_hstc=60209138.49f9ea76140599e4f6c868d495c26ef3.1460832484465.1489944891121.1489952670732.220&_hssc=60209138.6.1489952670732&_hsfp=1094270655)) and are appended below. The gray crown, chestnut throat, cream lower underparts, and relatively short tail are diagnostic for the species among New World cuckoos.

The species occurs in Colombia and Venezuela. It is reported to be present year-round on territory in Colombia but is seasonal in savannas in Venezuela (Handbook of the Birds of the World vol. 4. p. 595). In Colombia, it “[f]avors drier areas but has recently expanded into humid and wet areas in forest clearings” (Hilty and Brown 1986).

**Recommendation:**

Transfer Dwarf Cuckoo *Coccyua pumila* from the Appendix to the Main List.

**Literature Cited:**

- Braun, M. J., and D. E. Wolf. 1987. Recent records of vagrant South American land birds in Panama. *Bulletin of the British Ornithologists' Club* 107: 115--117.
- Hilty, S. L., and W. L. Brown. 1986. *A Guide to the Birds of Colombia*. Princeton University Press, Princeton NJ.
- van Dort, J., and O. Komar. 2018. The winter season: December 2015 through February 2016: Central America. *North American Birds* 70: 237-240.

**Submitted by:** George R. Angehr, Smithsonian Tropical Research Institute

**Date of proposal:** 7 February 2019



Dwarf Cuckoo, photographed by Ismael Quiroz, 1 February 2016, near Yaviza, Darién Province, Panama.

### Revise generic limits in the Thraupidae

#### Effect on NACC:

If fully approved, this proposal would revise generic placement of seven species in the Thraupidae. Similar changes were previously passed by the SACC ([proposal #730](#)). The revisions in this proposal are as follows:

1. transfer *Tiaris bicolor* to *Melanospiza*
2. transfer *Tiaris canorus* to *Phonipara*
3. transfer *Tangara guttata* to resurrected genus *Ixothraupis*
4. transfer *Tangara palmeri* and *T. cabanisi* to new genus *Poecilostreptus*
5. transfer *Tangara cucullata* and *T. larvata* to new genus *Stilpnia*

An additional change, transferring *Tachyphonus luctuosus* to new genus *Islerothraupis*, is not proposed here pending resolution of questions concerning the new name.

#### Background and New Information:

The family Thraupidae includes a diverse assemblage of species that have been the subject of recent phylogenetic work (Burns et al. 2014). The phylogenies presented by Burns et al. (2014) are based on sampling two mitochondrial genes (cyt b and ND2) for every individual, as well as sparser sampling of the protein coding gene RAG1 and three introns: ACO1-19, MG-I2, and FGB-I5. The nuclear loci were sampled at roughly one individual per genus according to the taxonomy at the time of sampling. The authors used a variety of phylogenetic methods to generate phylogenies, including maximum likelihood analyses via RAxML and Bayesian inference via BEAST. This phylogeny prompted a major overhaul of generic limits within the family (Burns et al. 2016), many of which have been adopted by the SACC. These changes affect seven species that occur in the NACC area. We discuss each of the relevant changes below with reference to the phylogeny and supporting morphological characters:

1. transfer *Tiaris bicolor* to the genus *Melanospiza*.

*Tiaris* is polyphyletic under the current taxonomy, and the type species (*olivaceus*) is sister to a group of largely Caribbean and Galapagos genera, including all Galapagos finches. *Tiaris bicolor* is inferred as sister to *Melanospiza richardsoni* with strong support (Fig. 1), and their close evolutionary affinity is reinforced by similarity in leg color and dark, uniform plumage.

2. transfer *Tiaris canorus* to the genus *Phonipara*

Even after adopting the change above, *Tiaris* would still be polyphyletic unless *Tiaris canorus* is transferred to a different genus (Fig. 1). The genus *Phonipara* Bonaparte 1850 is available for this species, whose relationships are unresolved.

A key finding of Burns et al. (2014) was that *Tangara* in its long-recognized form was paraphyletic with respect to *Thraupis* (Fig. 2). Rather than lumping those two genera into a very broadly defined *Tangara*, Burns et al. (2016) recommended splitting up *Tangara* into smaller



genera. Although many may lament the loss of an iconic assemblage of species under *Tangara*, some previous classifications, such as that of Hellmayr (1936), also used narrower generic limits for *Tangara*. In dividing *Tangara*, Burns et al. (2016) proposed the following changes to species in the NACC area:

3. transfer *Tangara guttata* to resurrected genus *Ixothraupis*.

*Ixothraupis* was revived for a well-supported clade of five species similar in ventral plumage patterning: *guttata*, *xanthogastra*, *rufigula*, *varia*, *punctata* (Fig. 3).

4. transfer *Tangara palmeri* and *Tangara cabanisi* to new genus *Poecilostreptus*.

These two species form a well-supported clade (Fig. 3) and are also united by black spots on the foreparts forming a collar, black lores, and a black forehead. Although widely separated geographically, the two species also share similarities in habitat and voice (Isler & Isler 1999).

5. transfer *Tangara cucullata* and *T. larvata* to new genus *Stilpnia*.

This transfer would recognize shared characters among *T. cucullata*, *T. larvata* and other species in this clade, including a cap or hood that is set apart from the rest of the plumage. A black crown or cap is present in *S. cyanoptera*, *S. viridicollis*, *S. phillipsi*, *S. argyrofenges*, and *S. heinei*. These taxa are also united by multiple molecular synapomorphies identified by Burns et al. (2016) and form a reasonably well-supported clade (Fig. 3).

**Recommendation:** We recommend that all these changes be adopted to reconcile generic limits with phylogenetic relationships within the Thraupidae.

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**Submitted by:** Nicholas A. Mason, UC Berkeley; Kevin Burns, San Diego State University; Terry Chesser

**Date of proposal:** 13 February 2019

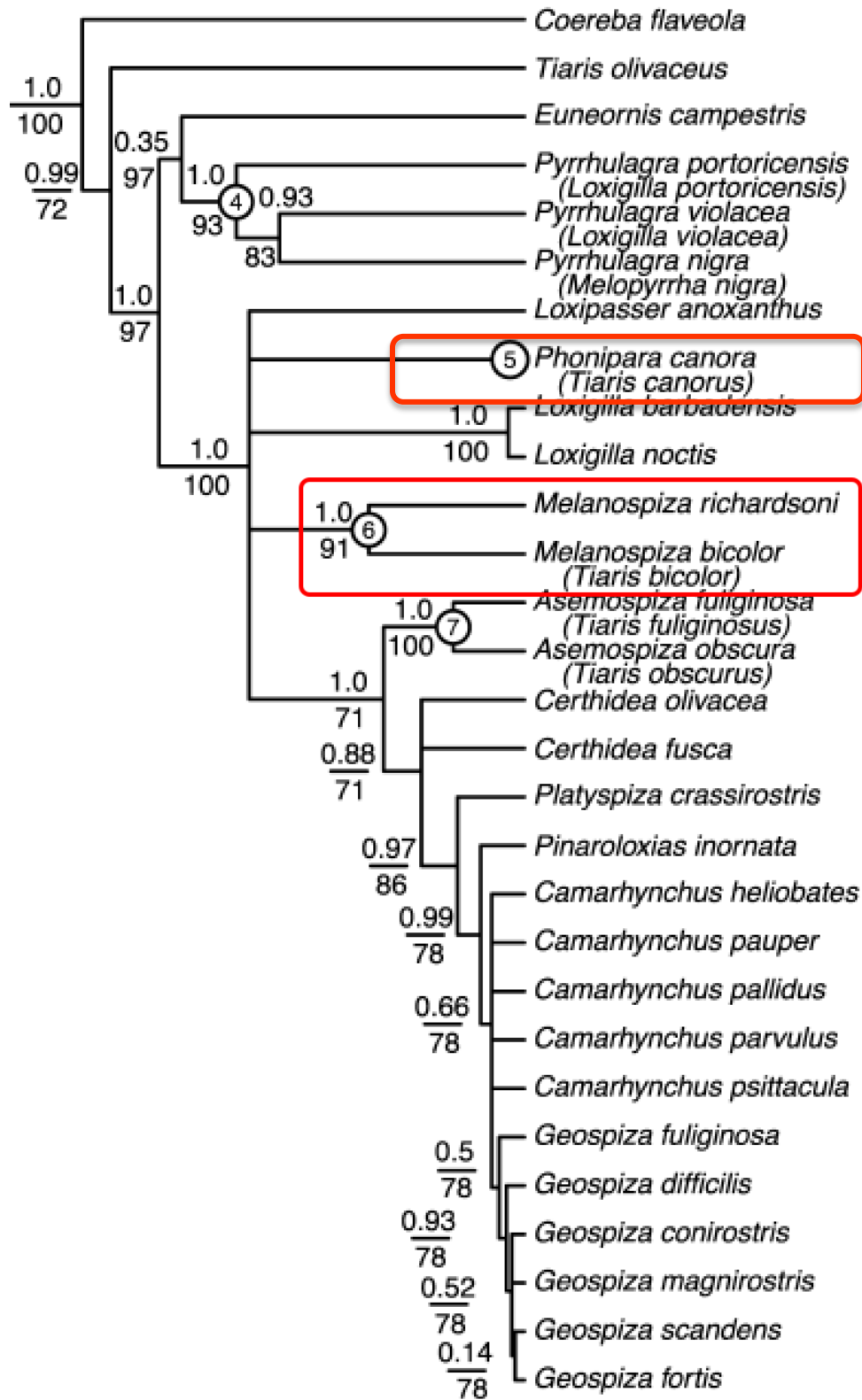


Figure 1: Phylogeny of the subfamily Coerebinae, showing the polyphyly of *Tiaris* (type species *olivaceus*) as previously constituted and the sister relationship between *Melanospiza richardsoni* and *Melanospiza bicolor*. Bayesian posterior probability is shown above with maximum likelihood values below.

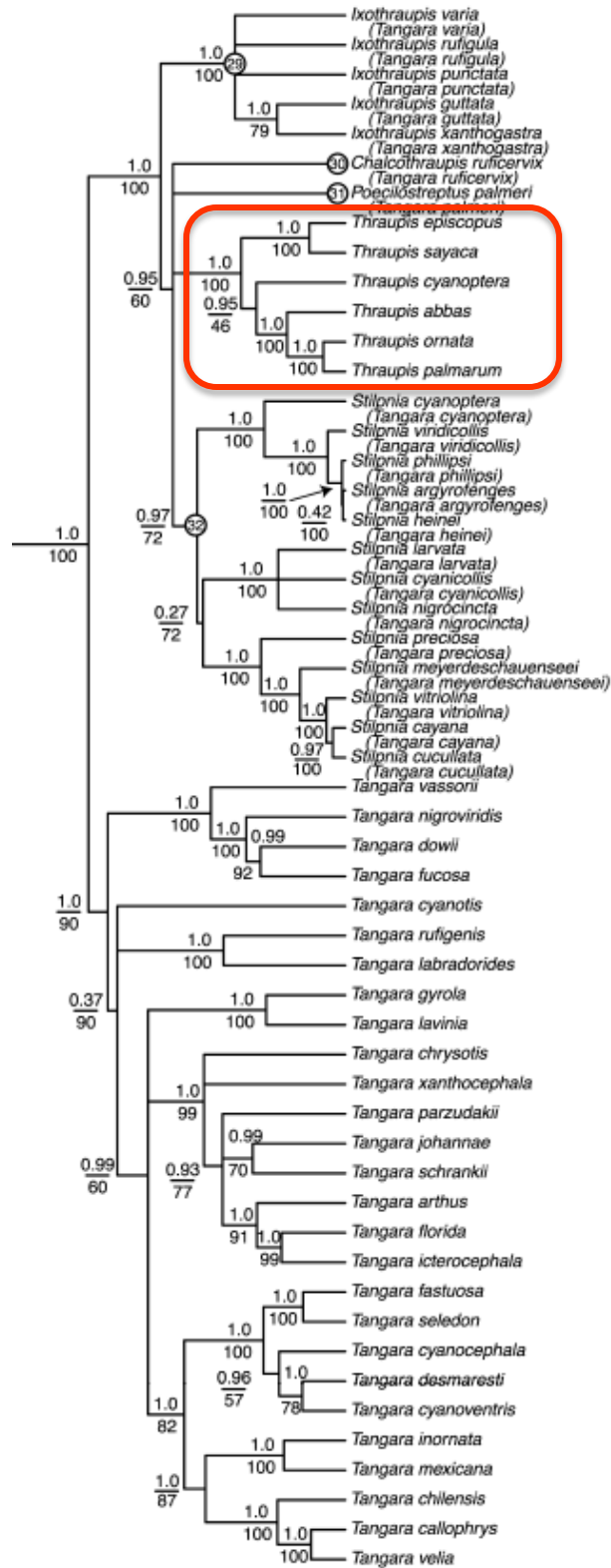


Figure 2: Phylogeny of a clade within the subfamily Thraupinae, showing the paraphyly of *Tangara* (as previously constituted) with respect to *Thraupis*. Bayesian posterior probability is shown above with maximum likelihood values below.

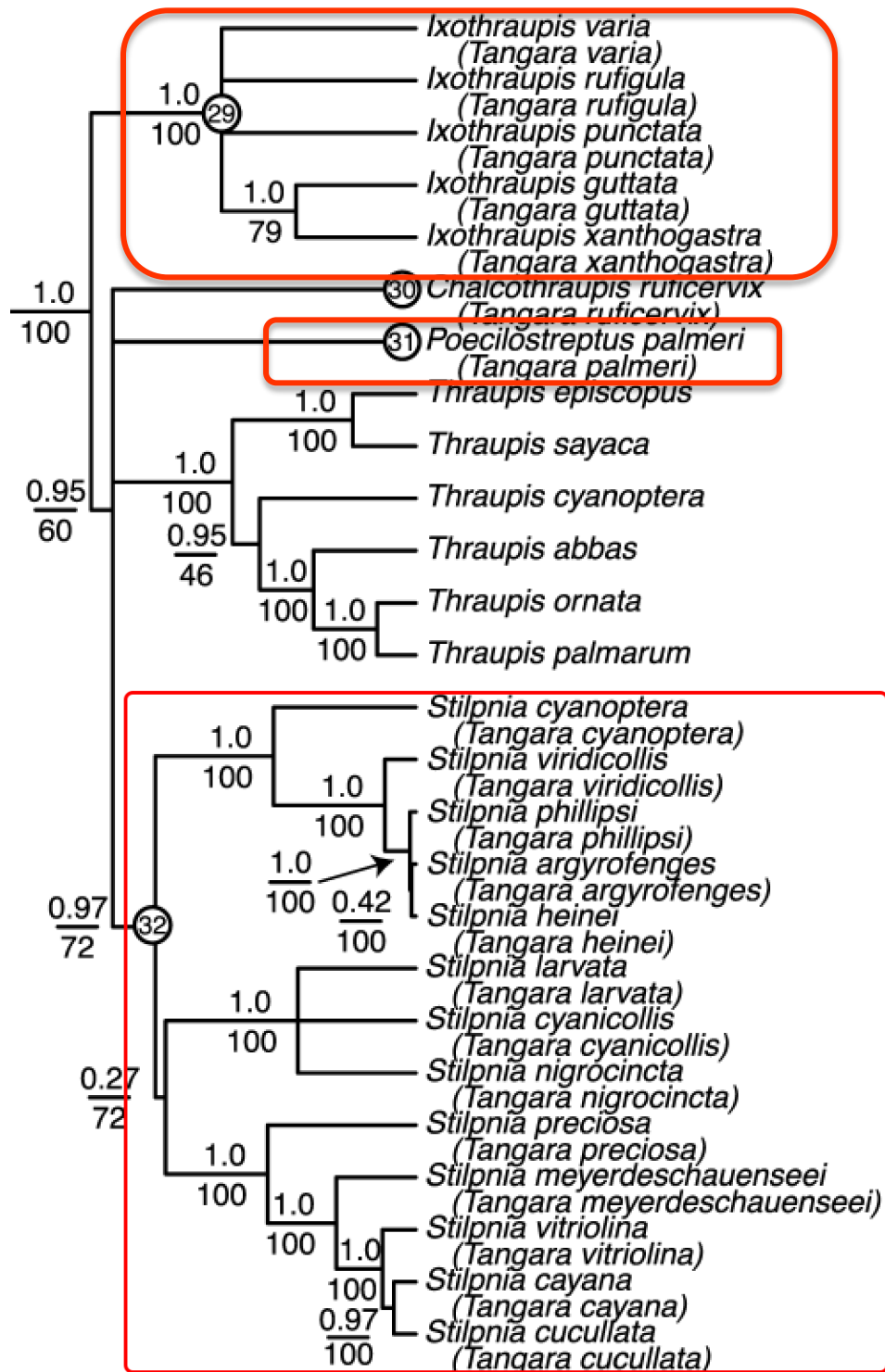


Figure 3: Phylogeny of a subclade of the taxa in Fig. 2, highlighting species formerly in *Tangara*, now proposed to be transferred to the resurrected genus *Ixothraupis* Bonaparte 1851, the new genus *Poecilostreptus*, and the new genus *Stilpnia*. Bayesian posterior probability is shown above with maximum likelihood values below.

## Split Yucatan Gnatcatcher *Polioptila albiventris* from White-lored Gnatcatcher *P. albiloris*

### Description of the problem:

The Polioptilidae is a notoriously challenging group with regard to species limits, due largely to the limited number of varying characters, seasonal variation in several taxa, and sexual variation. The White-lored Gnatcatcher *Polioptila albiloris* Sclater & Salvin, 1860, is a Middle American endemic with three (Atwood and Lerman 2019) to five (Deignan et al. 1964) subspecies, distributed on the Pacific slope from western Mexico through northwestern Costa Rica, except for outlying populations along the north shore of the Yucatan Peninsula and in northern Honduras.

Davis (1972) considered the Yucatan form *P. albiloris albiventris* Lawrence, 1885, specifically distinct, as the Yucatan Gnatcatcher *P. albiventris*, but noted that it has also been considered a subspecies of Tropical Gnatcatcher *P. plumbea* (Gmelin, 1788), among other past treatments. Although he gave a description of the voice of *albiventris*, Davis (1972) did not do likewise for the other taxa of *P. albiloris*. He (Davis 1972) considered that *albiventris* differs from other *albiloris* taxa in lacking a white jaw patch and grey wash on the breast, and in having a brownish wash to the primaries.

### New information:

Smith et al. (2018) sampled all 15 species and many subspecies in the first molecular phylogenetic and phylogeographic study of the Polioptilidae. Findings that affect the NACC region include:

- 1) *P. albiloris* is paraphyletic, with the broadly allopatric Yucatan subspecies *P. a. albiventris* being sister to, and rather shallowly diverged from, the Mesoamerican group of subspecies of *P. plumbea*.
- 2) *P. plumbea* is non-monophyletic, and the Mesoamerican subspecies belong within the *P. bilineata* (Bonaparte, 1850) group.
- 3) *Ramphocaenus melanurus* Vieillot, 1819, should probably be treated as at least two species, in which case the name of the NACC-region species would likely become *R. rufiventris* (Bonaparte, 1838).
- 4) The linear sequence will require minor changes in accordance with NACC criteria.

This proposal is limited to evaluating the species status of *P. albiloris albiventris*. Future proposals will be needed for the other matters outlined above.

I checked series at the BMNH (good series for nominate *albiloris* and *P. a. vanrossemi*, only four definite specimens of *albiventris*) and found little if any difference in the characters listed by Davis (1972); the *albiventris* have a paler gray breast than most *albiloris* and perhaps slightly more extensive black at the bill commissure in breeding plumage than *albiloris*. Photos on eBird show much variation in both breeding and non-breeding plumages and do not clearly

corroborate the putative differences mentioned by Davis (1972), but they do generally show a broader white supercilium in non-breeding *albiventris* than in *albiloris* and a more curving lower border of the black cap, which also generally appears to extend less onto the nape in *albiventris* than *albiloris*, but differences in position and angle affect the appearance of these characters. Although they usually called attention to notably distinct taxa, Howell and Webb (1995) did not mention species limits issues within *P. albiloris*.

Despite their phenotypic similarity, abundant recordings of nominate *albiloris* (the western Central American subspecies) and *P. a. vanrossemi* Brodkorb, 1944 (the western Mexican subspecies) now available on xeno-canto and eBird, along with a few recordings of *albiventris* on eBird [ML 103355, ML14235 and 14236 (the latter two incidentally by Davis, and thus likely the recordings described in his book) show major, striking differences both in song and calls between *albiventris* and the other taxa of *albiloris*.

The xeric woodland habitat of *albiventris* is more similar to that of *albiloris* than it is to the mesic forest and edge habitats of the Mesoamerican *bilineata* group of *plumbea*. The geographic range of *albiventris* is, however, encircled by (but probably allopatric from) that of the *bilineata* group.

Quick comparisons between sonograms of vocalizations of *albiventris* and the *bilineata* group show that some of the calls are similar but there are still striking differences in song. Also, unlike any of the *bilineata* group of *plumbea*, *albiventris* has strong seasonal changes in head pattern, as with *albiloris*. However, in non-breeding plumage *albiventris* more closely resembles the *bilineata* group in having a very broad white supercilium rather than the narrow supercilium of non-breeding *albiloris*.

There are three options for *P. albiloris albiventris*: 1) retain within *P. albiloris* pending further corroborating studies; 2) consider it a subspecies of *P. plumbea* (recognizing that this is a species complex that is likely to be split in the near future based on present data); and 3) consider it a monotypic species, *P. albiventris*.

### **Subsequent treatments:**

Smith et al. (2018) recommended splitting *albiventris* as well as several taxa of *plumbea*. Presumably on the basis of Smith et al. (2018), Clements et al. (2018) listed *albiventris* as a new group (Yucatan Gnatcatcher) within *P. albiloris*. Gill and Donsker (2019) made note of the findings of Smith et al. (2018) without yet enacting a split.

### **Effect on AOU-CLC area:**

A consensus for Option 3 would recognize a new species within the Check-list area. This would also be a new endemic species for Mexico.

### **Recommendation:**

I recommend Option 3, treating *P. albiloris albiventris* as a distinct species, *P. albiventris*, based on its obvious vocal and genetic distinctness from *P. albiloris*. I do not recommend Option 1

because, even if there were a problem with the sample used in the genetic analysis, the vocalizations of *albiventris* are so distinct that it can hardly be a subspecies of *albiloris*. Although it could plausibly be treated as a subspecies of *P. plumbea*, from which it is rather shallowly diverged, it is yet again vocally distinct from the Mesoamerican *bilineata* taxon group of *plumbea* (and more so in songs from South American taxa), and unlike these it has strong seasonal head plumage changes.

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**Submitted by:** Pamela C. Rasmussen, Michigan State University

**Date of proposal:** 14 February 2019

**Transfer Maroon-chested Ground-Dove *Claravis mondetoura* to new genus *Paraclaravis*****Effect on NACC:**

This proposal would revise the generic placement of one species in the family Columbidae. Specifically, *Claravis mondetoura* would be transferred to the new genus *Paraclaravis*.

**Background and New Information:**

A recent molecular phylogenetic study of the columbid subfamily Claravinae revealed the genus *Claravis* to be polyphyletic (Fig. 1). Sangster et al. (2018) estimated a mitochondrial phylogeny based on ND2, *cyt b*, COI, and ATP8 as well as a nuclear phylogeny based on beta-fibrinogen intron 7 (FIB7). Their analyses revealed that *Claravis mondetoura* and *C. geoffroyi* form a clade phylogenetically distinct from other genera in the subfamily (also see Sweet et al. 2017), but that this clade is not sister to the type species of *Claravis*, *C. pretiosa*. Maintaining these three species in *Claravis* would necessitate a merger of three other genera (*Columbina*, *Metriopelia*, and *Uropelia*) with *Claravis* (Fig. 1), a lump that would contradict widely recognized ecological and morphological differences, such as those between *Columbina* and *Metriopelia* (Gibbs et al. 2001; Sweet & Johnson 2015). Instead, Sangster et al. (2018) recommended transferring *C. mondetoura* and *C. geoffroyi* to a different genus. No name was available, so they described the new genus *Paraclaravis* for these two species, designating *mondetoura* as the type species. Apart from their molecular distinctiveness, *mondetoura* and *geoffroyi* are united by similarities in upperwing coverts and unmarked tertials, among other characters (Sangster et al. 2018).

**Recommendation:**

I recommend that the committee transfer *Claravis mondetoura* to *Paraclaravis*.

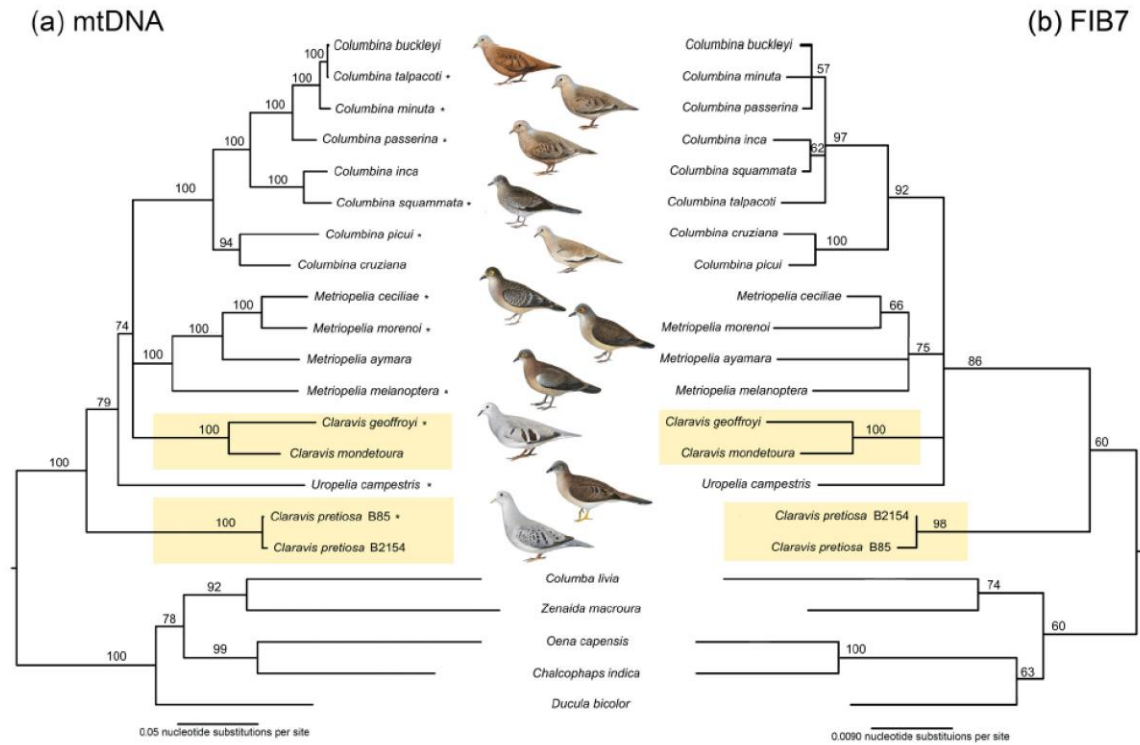
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Submitted by: Nicholas A. Mason, UC Berkeley

Date of proposal: 14 February 2019



**FIGURE 1.** 50% majority-rule consensus tree of Claravinae from (a) mitochondrial (COI, ND2, ATP8, CytB) and (b) nuclear (FIB7) DNA sequences. Bootstrap support values are indicated above the branches. Species traditionally classified in the genus *Claravis* are highlighted. Taxonomic names followed by an asterisk (\*) indicate species that are illustrated. All bird paintings are by Martin Elliott and Lyn Wells, reproduced with permission from *Handbook of the Birds of the World* (del Hoyo *et al.* 2017).

**Figure 1: Phylogeny of the subfamily Claravinae based on mtDNA (left) or nuDNA (right), both of which indicate polyphyly of the genus *Claravis*.**

**Treat Orange-bellied Trogon *Trogon aurantiiventris* as conspecific  
with Collared Trogon *T. collaris***

**Effect on NACC:**

This proposal would merge the species *Trogon collaris* and *T. aurantiiventris* into the single species *T. collaris* Vieillot 1817, which has taxonomic priority over *T. aurantiiventris* Gould 1856.

**Background:**

Current AOS taxonomy (AOU 1998) follows traditional classifications in recognizing the Collared Trogon (*Trogon collaris*) and the Orange-bellied Trogon (*Trogon aurantiiventris*) as separate species.

*Trogon collaris* ranges from tropical and subtropical central Mexico to NW Ecuador and E Brazil. Eight (Dickinson and Remsen 2013) to nine (Clements 2018) subspecies are recognized:

- |                               |  |
|-------------------------------|--|
| 1. <i>T. c. puella</i>        | Tropical and subtropical central Mexico to W Panama    |
| 2. <i>T. c. extimus</i>       | Subtropical E Panama                                   |
| 3. <i>T. c. heothinus</i>     | Eastern Panama (Darién)                                |
| 4. <i>T. c. virginalis</i>    | W Colombia to W Ecuador and NW Peru                    |
| 5. <i>T. c. subtropicalis</i> | Central Colombia                                       |
| 6. <i>T. c. collaris</i>      | E Colombia to Bolivia, Venezuela and the Guianas       |
| 7. <i>T. c. castaneus</i>     | Tropical E Colombia to NW Brazil, E Peru and N Bolivia |
| 8. <i>T. c. exoptatus</i>     | N Colombia, N Venezuela, Trinidad and Tobago           |
| 9. <i>T. c. eytoni</i>        | E Brazil   |

*Trogon aurantiiventris* ranges from NW Costa Rica to W Panama. Two (Dickinson and Remsen 2013) to three (Clements 2018) subspecies are recognized:

- |                                 |   |
|---------------------------------|---|
| 1. <i>T. a. underwoodi</i>      | Humid montane forests of NW Costa Rica                  |
| 2. <i>T. a. aurantiiventris</i> | Humid montane forests of central Costa Rica to W Panama |
| 3. <i>T. a. flavidior</i>       | W Panama (extreme E Chiriquí on Cerro Flores)           |

The reason for treating them as separate species is that *T. c. puella* and *T. aurantiiventris* are considered sympatric, although the latter may occur at somewhat lower elevations (400 m to at least 1900 m versus 700 m to 2500 m for the Collared, Ridgely 1976, Johnsgard 2000). Both inhabit the midstory of humid broadleaf forest and adjacent tall second-growth (Vallely and Dyer 2018), showing identical habitat and habits (Garrigues and Dean 2014).

Nevertheless, the status of *aurantiiventris* as a separate species has often been considered doubtful. The only phenotypic trait that separates the two groups is that the Orange-bellied Trogon has orange-yellow instead of red posterior underparts (Wetmore 1968, Stiles and Skutch 1989, Vallely and Dyer 2018), although sometimes darkening towards red (Collar 2019). Ridgely (1976) commented that some male *aurantiiventris* in western Panama (western Chiriquí) are so orange-red that field separation from *collaris* is difficult; but birds in central Panama (Cerro Campana) are definitely orange, where they are numerous and where *collaris* does not occur. The juveniles and the immatures of *T. aurantiiventris* were described as

seemingly indistinguishable from those of *T. collaris* (Johnsgard 2000). Moreover, Stiles and Skutch (1989) indicated that the voice of *T. aurantiiventris* is identical to that of *T. collaris*.

*T. a. underwoodi* differs from *T. a. aurantiiventris* in having orange-red rather than orange posterior underparts. The intermediate coloration of *underwoodi* has raised suspicions on the validity of *aurantiiventris* as a separate species, even when *T. a. underwoodi* is not sympatric with *T. c. puella* (Johnsgard 2000). As a result, natural hybridization has been inferred, possibly through an altitudinal contact zone, because *T. c. puella* occurs above *T. aurantiiventris* (McCarthy 2006).

Long ago, Salvin and Godman (1896) noted that *T. aurantiiventris* might be an aberrant form of *T. c. puella*, which led them to consider them conspecific. Bangs in 1902 (*vide* Wetmore 1968) noted that there were no observations of mixed pairs in the field. Ridgely (1976) suggested that *aurantiiventris* may be a partly localized color phase of *collaris*. However, based on the uncertainty of the relationship between the two forms, and the fact that the orange-yellow color of the breast and abdomen is unstable and fades with time (in museum specimens, even inside light-free cases), most authors have preferred to treat them as different species (Ridgway 1911, Wetmore 1968, Ridgely 1976). According to Johnsgard (2000), however, only tradition prevents taxonomists from merging *T. aurantiiventris* with *T. collaris*. In fact, Collar (2019) considered *T. aurantiiventris* an orange morph of *T. c. puella*.

#### **New Information:**

DaCosta and Klicka (2008) investigated the role of the Great American Interchange in shaping the phylogeographic history of the genus *Trogon* and generated a phylogeny of the genus *Trogon*. They (2008) analyzed 160 samples representing all 17 species, which made it the first study to focus exclusively on this Neotropical genus and to consider intraspecific variation. They included multiple samples from each species ( $n = 2-19$ ) to maximize geographical coverage. Representatives of all other genera in the family Trogonidae were used as outgroups. They sequenced the mitochondrial gene NADH dehydrogenase 2 (ND2), which consists of 1041 base pairs. They inferred a maximum likelihood phylogenetic tree for the complete data set using Treefinder, and of a trimmed data set including one sample from each lineage using PAUP\*. They also conducted a Bayesian inference, using MrBayes, to provide another measure of relationships and nodal support.

The phylogenetic analyses of the complete data set split *Trogon* into two major clades, and the 160 samples constituted 41 distinct mitochondrial lineages (Figs. 1, 2). The phylogeny showed four cases of nonmonophyly, one of them being *Trogon collaris*. Samples of *collaris* from Central America were more closely related to *aurantiiventris* than to samples of *collaris* from South America. Two samples, one *collaris* and one *aurantiiventris*, in western Panama had incongruent mtDNA haplotypes and morphology (belly color of specimens), suggesting hybridization in that area of sympatry.

#### **Recommendation:**

Given the information available, we recommend merging *T. aurantiiventris* with *T. collaris*. The phylogenetic tree clearly shows that *T. aurantiiventris* is nested within *T. collaris*. The voice is reported as identical for both forms, and the juveniles and immatures of *T. aurantiiventris* and *T. collaris* are indistinguishable. Undoubtedly, the fact that both forms share geographic ranges while maintaining some degree of morphological differentiation merits additional field research to clarify the situation. The contact zone between *underwoodi* and *puella* should be investigated

fully, but given current data, we think that the burden-of-proof falls on treating them as subspecies of separate species that show intermixing at the elevational contact zone.

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**Submitted by:** Rosa Alicia Jiménez & J. V. Remsen, Jr.

**Date of Proposal:** 14 February 2019

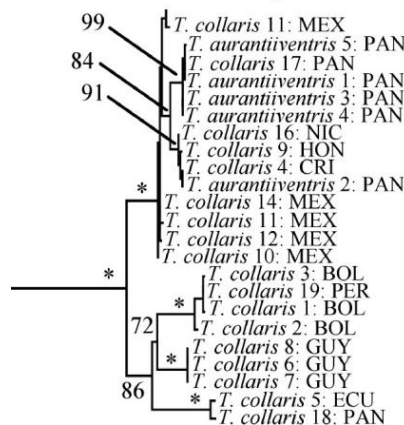


Figure 1. Maximum likelihood phylogeny of the complete *Trogon* dataset. Here, the complete phylogeny was trimmed to show the relationships of *T. collaris* and *T. aurantiiventris*.

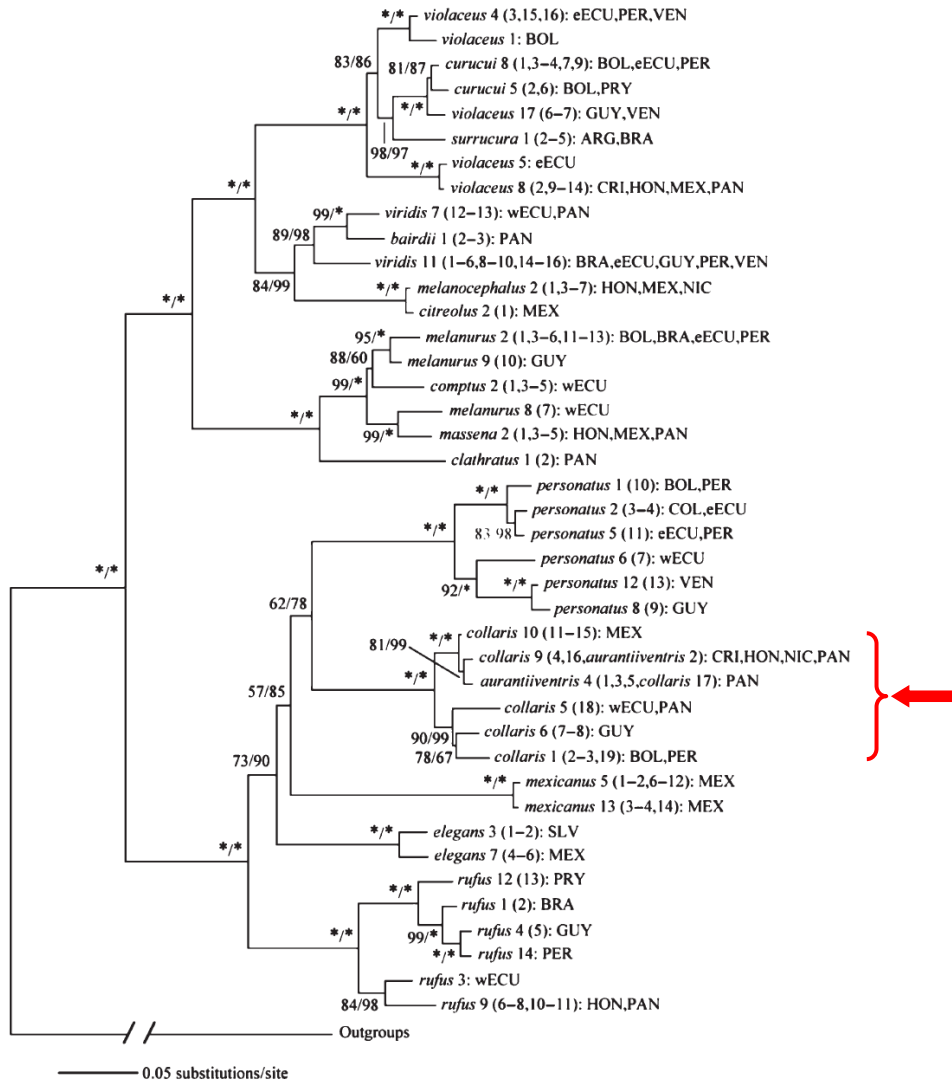


Figure 2. Maximum likelihood phylogeny of the trimmed *Trogon* data set.

**Split extralimital Monteiro's Storm-Petrel *Oceanodroma monteiroi* from  
Band-rumped Storm-Petrel *O. castro***

**Background and New Information:**

The Band-rumped Storm Petrel *Oceanodroma castro*, as currently recognized by the AOS Checklist, is distributed across the warmer sections of the world's oceans, with breeding colonies in the Atlantic and Pacific Oceans. Across at least five different archipelagos where Band-rumped Storm-Petrels breed, there are two distinct breeding seasons, one during the Northern Hemisphere warm season, and one during the Northern Hemisphere cool season, with different individuals breeding during these two different periods (Friesen *et al.* 2007). One particularly well-studied group of Band-rumped Storm-Petrel populations breeds in the Azores, where seasonal differences in breeding were first described by Monteiro *et al.* (1996). Additional research has shown differences between these seasonal populations in vocalizations, genetics, morphometrics, and timing of molt, as well as potential ecological divergence related to feeding (Monteiro and Furness 1998, Bolton 2007, Friesen *et al.* 2007, Smith *et al.* 2007, Bolton *et al.* 2008, Silva *et al.* 2016, Wallace *et al.* 2017).

In a detailed study of the Band-rumped Storm-Petrels on Praia Islet in the Azores, two distinct breeding seasons were discovered: one between October and February, corresponding to the cool season, and one between May and September, corresponding to the hot season (Monteiro *et al.* 1996, Monteiro and Furness 1998, Bolton *et al.* 2008; Fig. 1). Although there is some overlap in colony attendance by both hot and cool season breeding populations during July and August (cool season birds inspecting burrows before hot season chicks have fledged), there has only been a single example of a bird found during the "wrong" season out of 1339 recaptures. This single individual was originally banded as a nestling from the hot season population, and later recaptured as an adult during the cool season breeding season well after all other hot season birds had dispersed from the colony. That single individual, however, did not show evidence of breeding, so it may have just been visiting the colony (Bolton *et al.* 2008). In addition to differences in colony attendance and breeding season, Bolton *et al.* (2008) noted significant differences in morphometrics, with cool season birds being larger in terms of mass and head length, as well as having significantly longer and thicker bills and shorter tails (Monteiro and Furness 1998). The seasonal differences in breeding have also resulted in differences in molt schedule, which can help to identify birds around the breeding colony. In cool season birds, most primary molt begins in January and February. By the time cool season birds begin nesting and are prospecting nest sites in August and September, they have fresh, new primaries, whereas the primaries of hot season birds near the end of their breeding cycle are heavily worn and faded (Bolton *et al.* 2008). Hot season birds begin molting their primaries in August and continue at least through October (Bolton *et al.* 2008).

Important differences between the hot and cool season birds of Praia Islet are their vocal displays. Bolton *et al.* (2008) reported that all vocalizations given by hot season birds differentiate them from typical cool season Band-rumped Storm-Petrels. In addition, in a series of playback experiments, the hot season birds had a response to vocalizations of cool season storm-petrels that was not significantly different from their response to the control playback

(which were recordings of Cory's Shearwater *Calonectris diomedea*; Bolton 2007), whereas they showed significantly greater responses to recordings of hot season birds. Vocalizations have been hypothesized to be particularly important in species recognition and mate choice in Procellariiformes, so differences in the responses to hot and cool season birds suggests some level of pre-zygotic reproductive isolation (Bretagnolle 1996, Bolton 2007).

Genetic studies that compared hot and cool season storm-petrels from the Azores have documented significant divergence using microsatellites, mtDNA sequence data and nuclear sequence data (Friesen *et al.* 2007, Smith *et al.* 2007, Silva *et al.* 2016, Wallace *et al.* 2017; Fig. 2). Multiple studies have estimated that the hot season breeding population diverged from other populations of Band-rumped Storm-Petrel around the Azores between 70,000 and 350,000 years b.p., with most estimates between 70,000 and 85,000 years before present (Friesen *et al.* 2007, Smith *et al.* 2007, Silva *et al.* 2016). Smith *et al.* (2007) reported very little gene flow between hot and cool season breeding populations, estimating less than one female migrant per generation. They were unable to reject the null hypothesis that the migration rate between these two populations was 0. Compared to these sympatric breeding populations, allopatric colonies of Band-rumped Storm-Petrels that breed within the same season across the Azores had much higher rates of gene flow, ranging from 1.2 to 37.2 females per generation (Smith *et al.* 2007). This matches the data from banding recaptures, finding no evidence of active breeders switching breeding seasons (Bolton *et al.* 2008). Within the broader storm-petrel phylogeny, the hot season birds from Praia Islet appear to be sister to the cool season birds from Praia Islet (Friesen *et al.* 2007, Wallace *et al.* 2017). However, Silva *et al.* (2016), who sampled more genes, found the hot season birds to be sister to a somewhat larger clade of all other Band-rumped Storm-Petrel populations from the Azores (Fig. 2).

The two breeding populations on Praia Islet appear to have also diverged in their feeding ecology. Based on stable isotope data collected from the innermost primary, which is grown close to the breeding grounds, the hot season birds appear to forage at a higher trophic level than cool season birds, with pelagic prey items making up a greater proportion of the diet of hot season breeding birds (Monteiro *et al.* 1998, Bolton *et al.* 2008). Analysis of isotopes from secondary feathers, which are molted at a different time of year, also suggested that hot season birds remain relatively close to the Azores all year round, while cool season birds disperse far from the colonies (Bolton *et al.* 2008).

### **Recommendation:**

Following Bolton *et al.* (2008), I recommend recognizing the hot season breeding population of Band-rumped Storm-Petrel as a distinct species, described by Bolton *et al.* (2008) as Monteiro's Storm-Petrel *Oceanodroma monteiroi*. The cool season breeding birds appear to be conspecific with nominate *Oceanodroma castro* populations (Smith *et al.* 2007, Bolton *et al.* 2008, Silva *et al.* 2016). This new species breeds on only two small islets (Praia Islet and Baixo Islet) off the coast of a larger island, Graciosa, in the Azores. This split is recommended based on the many differences outlined above, notably differences in vocalizations and the responses to vocalizations between Monteiro's and Band-rumped Storm-Petrels breeding on Praia Islet (Bolton *et al.* 2007, 2008), genetic differentiation (Friesen *et al.* 2007, Smith *et al.* 2007, Silva *et al.* 2016, Wallace *et al.* 2017), molt differences (Bolton *et al.* 2008), morphometric differences (Monteiro and Furness 1998, Bolton *et al.* 2008), ecological divergence in feeding (Monteiro *et*

*al.* 1998, Bolton *et al.* 2008), and the overall lack of mixing between hot and cool season breeding seasons as assessed using banding recaptures and genetic data (Smith *et al.* 2007, Bolton *et al.* 2008, Silva *et al.* 2016). For these reasons, I believe that Monteiro's Storm-Petrel qualifies as a distinct species based on the biological species concept, and is reproductively isolated from typical, cool season breeding populations of Band-rumped Storm-Petrel. The holotype is designated as a bird collected from Praia Islet in 1903. It was collected from a rock crevice in late April, when Monteiro's Storm-Petrels should be prospecting nest sites, and when there should be no cool season birds around the colony. Originally identified as *Oceanodroma castro*, the holotype was classified as *O. monteiroi* based on measurements, which place it firmly within the range of the new taxon.

Outside of the Azores, the taxonomy and classification of Band-rumped Storm-Petrels is complex. It is likely that this large species complex comprises multiple species, as divergence between the North Atlantic group, which includes the Azores and Madeira, the Galapagos populations, Cape Verde Island populations, and the Japan populations is high (Friesen *et al.* 2007, Silva *et al.* 2016, Wallace *et al.* 2017). Vocal differences are likewise strong between these different groups, similar to the differences between Monteiro's Storm-Petrels and Band-rumped Storm-Petrels on Praia Islet (Bolton 2007). The population breeding on the Cape Verde Islands is particularly divergent genetically (Friesen *et al.* 2007, Wallace *et al.* 2017) and vocally (Bolton 2007) and has been recognized as the distinct species *O. jabejabe* by some global sources (e.g., Clements *et al.* 2018, IOC list), although not by others (Howard and Moore, HBW/Birdlife).

#### **Status in the AOU Region:**

Monteiro's Storm-Petrel appears to be extralimital to the AOS region. Bolton *et al.* (2008) speculated that Monteiro's Storm-Petrel remains near the breeding grounds all year round. In cases in which specimens collected away from the Azores have been identified to either hot or cool season breeding populations, all have been attributed to cool season birds, which remain Band-rumped Storm-Petrel *Oceanodroma castro* (Bolton *et al.* 2008). Although the two species differ in various measurements, identification of birds in the field will be challenging, if not impossible. Bolton *et al.* (2008) also noted that although the two differ in their molt schedules, caution must be taken in using molt pattern to identify birds away from the breeding colonies, as there are other, undifferentiated populations of hot season Band-rumped Storm-Petrels that presumably have a similar molt schedule to Monteiro's Storm-Petrels, as well as odd molt patterns in failed breeders or young birds.

#### **Effect on the AOS Checklist:**

The extralimital status of Monteiro's Storm-Petrel in the AOS region means that this split would result only in minor changes to the species account of Band-rumped Storm-Petrel *Oceanodroma castro*.

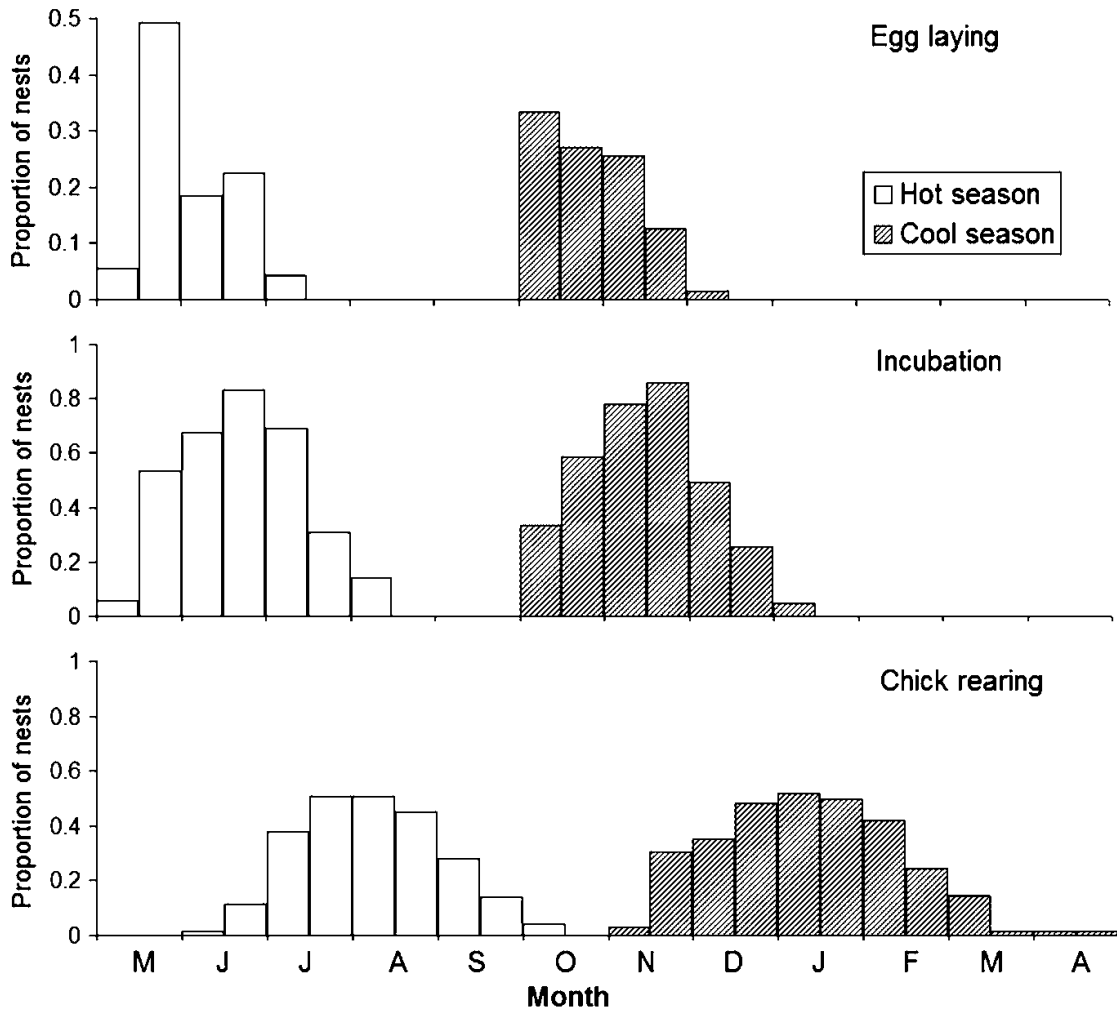


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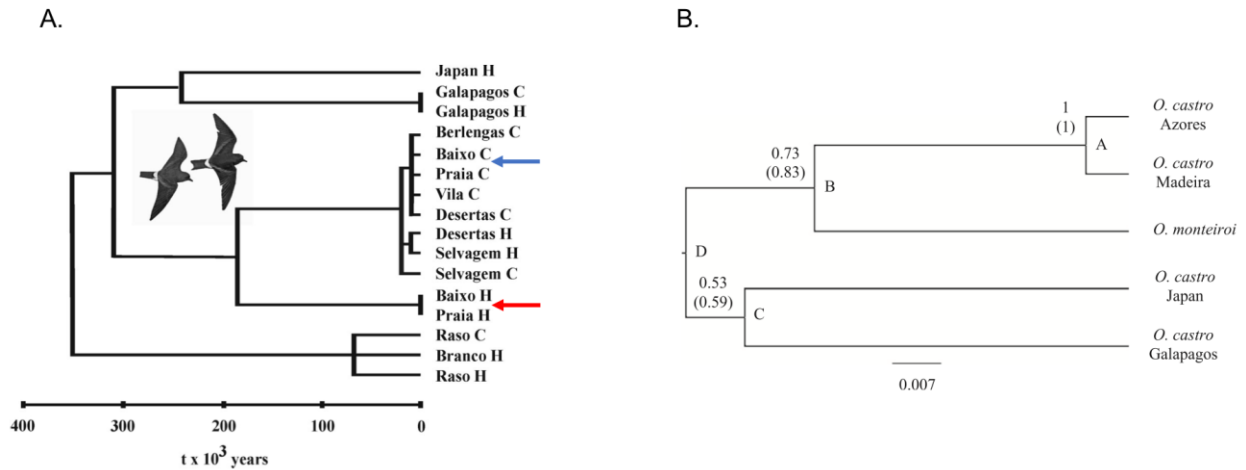
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**Submitted by:** Shawn M. Billerman

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**Figure 1.** Comparison of the timing of egg laying, incubation, and chick rearing in hot season (white bars) and cool season (gray bars) populations of storm petrels on Praia Islet. Note that there is absolutely no overlap in almost any breeding activity, with only some initiation of egg laying of cool season birds while some hot season birds are just finishing rearing chicks. From Bolton *et al.* (2008).



**Figure 2.** (A) Approximate timing of divergence based on mtDNA sequence variation. Cool season birds from Praia Islet (corresponding to *Oceanodroma castro*) indicated by the blue arrow, and hot season birds from Praia Islet (corresponding to *Oceanodroma monteiroi*) indicated by the red arrow. (B) Phylogenetic tree constructed from sequences of the mtDNA control region and 12 anonymous nuclear loci. Support figures at nodes are Bayesian posterior probabilities. Numbers within the parentheses are support values when excluding the mtDNA sequence data. Adapted from Friesen *et al.* (2007) and Silva *et al.* (2016), respectively.

**Transfer subspecies *approximans* from Thick-billed Vireo *Vireo crassirostris* to  
Mangrove Vireo *V. pallens***

**Background:**

Thick-billed Vireo *Vireo crassirostris* is a Caribbean species, with a distribution centered on the Bahamas and the Turks and Caicos Islands; there also are populations on islands just offshore from the north coasts of Cuba and Haiti, and on the Cayman Islands. Mangrove Vireo *V. pallens* is widespread in coastal areas (mangroves and scrub) from northwestern Mexico and the Yucatán Peninsula south to northwestern Costa Rica and eastern Nicaragua. Both species are small vireos with a prominent pale lores and two white wingbars.

Ridgway (1884) described a new species, *Vireo approximans*, from Isla de Providencia, off the east coast of Nicaragua. Ridgway considered *approximans* to be similar to *V. crassirostris*, and later (Ridgway 1904) he classified it as a subspecies of *V. crassirostris*. This arrangement was followed by most authors in subsequent decades (e.g., Blake 1968, AOU 1983). Hellmayr (1935) had a different take on this, however, classifying both *approximans* and *crassirostris* as subspecies of White-eyed Vireo *Vireo griseus*, with a comment that *approximans* was "extremely close to *V. g. crassirostris*, but perhaps distinguishable" from the latter.

AOS-NACC retains *approximans* in *Vireo crassirostris*, although as of the seventh edition (AOU 1998) it is recognized as a Group: "... [*approximans* group] on Providencia and adjacent Santa Catalina islands (in the western Caribbean Sea)".

*Vireo crassirostris* and *V. pallens*, along with Cozumel Vireo (*V. bairdi*) and White-eyed Vireo (*V. griseus*), are closely related (Slager et al. 2014), but there is no genetic data for *approximans*, nor for San Andres Vireo *V. caribaeus* of Isla de San Andrés, which is ca. 95 km southwest of Providencia.

**New information:**

Bond (1950) may have been the first to describe the song of *approximans*, noting that nominate "*crassirostris* and [*V. crassirostris*] *tortugae* have songs of the *griseus* type, while songs of *approximans* are of the chattering type and resemble those of *V. ("Lawrencia") nanus* [Flat-billed Vireo]". Later Bond (1961) described the song of *Vireo crassirostris* as "A sprightly *chik-wi-wae-chik* or *chin-chin-chi-guao*, with many variations, resembling songs of the White-eyed Vireo; but on Old Providence utters a simple chatter like that of a Mangrove Vireo".

As did Bond, Barlow (1990) continued to treat *approximans* as a subspecies of *Vireo crassirostris*, but he also drew attention to the striking difference in song between *approximans* and other populations of Thick-billed Vireo: "Except for the population of *V. c. approximans* (cut 19) on Providencia Island in the southwestern Caribbean, the song of the thick-bill closely resembles that of *V. griseus*. The Providencia thick-bill, the Mangrove (*V. pallens*, cut 20) and the Cozumel (*V. bairdii*, cut 21) vireos give "chatter" song, i.e., each song type consists of rapid

repetition of from 2-10 identical notes". A similar point was made by Donegan et al. (2015: 40-43).

Barlow reportedly came to consider *approximans* either a separate species ("differs in morphology and vocalizations"; Sibley and Ahlquist 1990) or as a subspecies of *Vireo pallens* (Kirkconnell and Garrido 1991). In Russell et al. (1979) it was listed as *V. crassirostris*, but that paper was concerned more with the population status of birds on Providencia, and does not mention anything about the song of *approximans*, much less anything on its taxonomic implications. I am not aware that Barlow published anything further on *approximans* or its taxonomy.

In recent years other authors have placed *approximans* with *Vireo pallens*, not *Vireo crassirostris* (Phillips 1991, Brewer and Orenstein 2010). These authors made little effort, however, to justify this change. Phillips (1991) said only "Because its bill is also large, sometimes lumped with *V. crassirostris*, as by Blake 1968 in 'Peters' and AOU 1983"; and Brewer and Orenstein (2010) reported that "*approximans* has been included by some authors in *V. crassirostris*; it is, however, morphologically and vocally distinctive, and may represent a further separate species; more study required". Nonetheless this change was adopted by Dickinson (1993) and Dickinson and Christidis (2014), and remains the classification of HBW/BirdLife International (del Hoyo and Collar 2016). Donegan et al. (2015) went even further, recognizing *approximans* as a species, Providencia Vireo, *Vireo approximans*: "... we prefer treating Providencia Vireo as a separate species in light of its vocal and plumage differences from other congeners". This approach also was taken by Gill and Wright (2006) and its successor, the [World Bird List](#).

Audio of these vireos can be heard here:

*Vireo crassirostris* (*crassirostris* group):

Macaulay Library:

[https://ebird.org/media/catalog?taxonCode=thbvir1&mediaType=a&sort=rating\\_rank\\_desc&q=Thick-billed%20Vireo%20\(Thick-billed\)%20-%20Vireo%20crassirostris%20%5Bcrassirostris%20Group%5D](https://ebird.org/media/catalog?taxonCode=thbvir1&mediaType=a&sort=rating_rank_desc&q=Thick-billed%20Vireo%20(Thick-billed)%20-%20Vireo%20crassirostris%20%5Bcrassirostris%20Group%5D)

xeno-canto: <https://www.xeno-canto.org/species/Vireo-crassirostris>

*Vireo pallens*

Macaulay Library:

<https://ebird.org/media/catalog?taxonCode=manvir1&mediaType=a&q=Mangrove%20Vireo%20-%20Vireo%20pallens>

xeno-canto: <https://www.xeno-canto.org/species/Vireo-pallens>

*approximans*

There are very few recordings of *approximans*. Barlow's original recordings are at Macaulay Library, but have not yet been digitized or archived. Therefore I am deeply appreciative of the efforts of Martha Fischer of ML, who stepped up in a major way (and on short notice!), locating Barlow's original field recordings from Isla de Providencia, and getting them online:

[https://search.macaulaylibrary.org/catalog?taxonCode=thbvir2&view=List&mediaType=a&sort=id\\_asc&q=Thick-billed%20Vireo%20\(Old%20Providence\)%20-%20Vireo%20crassirostris%20approximans](https://search.macaulaylibrary.org/catalog?taxonCode=thbvir2&view=List&mediaType=a&sort=id_asc&q=Thick-billed%20Vireo%20(Old%20Providence)%20-%20Vireo%20crassirostris%20approximans)

These recordings have only minimal commentary (on tape) by Barlow, so please note that whether one of these recordings is identified as "song" or "call" is not necessarily Barlow's word on the subject; I would have identified more as song than Martha did. One recording ([ML 2368800](#)) sounds to Martha and me like a bird in the hand; this is reasonable, since Barlow was mist netting during his visit (Russell et al. 1979). To orient everyone, then, the example of song of *approximans* that appears on Barlow (1990) is from [ML 236882](#), specifically from the section beginning at ca 03:27. Note, however, that what apparently is the same individual gives a somewhat different song on the first portion of this recording.

Otherwise, there are three recordings on xeno-canto:

<https://www.xeno-canto.org/species/Vireo-approximans>

All three of these recordings are listed as "call", but again at least two of these ([XC185550](#) and [XC391905](#)) sound to me more like song.

### **Recommendation:**

The population on Isla de Providencia is quite isolated both from *Vireo pallens* and from *Vireo crassirostris*: Providencia is ca. 240 km from the coast of Nicaragua (nearest *V. pallens*), and ca 675 km south of the Caymans (nearest *V. crassirostris*). Vireos are oscines, and so presumably there is a learned component to their songs; therefore, the songs of any very isolated population might come to differ over time from the songs of the source population. In the case of *approximans*, however, not only are the songs different from those of northern populations of *V. crassirostris*, but they also sound much like the songs of *V. pallens*, as described previously by Bond (1950, 1961), Barlow (1990), and Donegan et al. (2015). The most logical explanation of this pattern is that these songs carry a phylogenetic signal that *approximans* is an isolate of *V. pallens* and not of *V. crassirostris*. (This would be a direct refutation, by the way, of Bond 1950, who averred that "song is not always a good indication of relationship", and specifically cited the obvious folly of classifying the West Indian nighthawks *Chordeiles* as a separate species based on vocal differences.) Based on the available bioacoustic evidence, I recommend voting Yes on this proposal, to transfer subspecies *approximans* from Thick-billed Vireo *Vireo crassirostris* to Mangrove Vireo *Vireo pallens*. Further evidence might establish that *approximans* merits species rank, as suggested by some, but I have not yet seen a well articulated argument in support of this.

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