AOS Classification Committee – North and Middle America Proposal Set 2020-C 2 March 2020

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2020-C-1

N&MA Classification Committee

Remove "Scrub" from the English names of the scrub-jays

Background:

The treatment of English names for the *Aphelocoma coerulescens* complex has a long history. In the early 20th century, up to eight species of this complex were recognized by various authorities, as follows (for polytypic species, the practice of the time applied English names to subspecies instead of species):

Ridgway (1904) – 8 species:

- A. cyanea (now a synonym of A. coerulescens) = Florida Jay
- A. californica (no English name for the species)
 - *A. c. californica* = California Jay
 - *A. c. obscura* = Belding's Jay
 - *A. c. hypoleuca* = Xantus' Jay
- A. insularis = Santa Cruz Jay
- *A. woodhouseii* = Woodhouse's Jay
- A. cyanotis = Blue-cheeked Jay
- *A. sumichrasti* = Sumichrast's Jay
- *A. texana* = Texan Jay
- *A. grisea* = Blue-gray Jay

AOU 3rd edition (1910) – 6 species (note that species not occurring north of Mexico were not included prior to the 6th edition):

- *A. cyanea* = Florida Jay
- *A. woodhouseii* = Woodhouse's Jay
- *A. cyanotis* = Blue-eared Jay
- *A. texana* = Texas Jay
- A. californica (no English name for the species)
 - *A. c. californica* = California Jay
 - *A. c. obscura* = Belding's Jay
 - *A. c. hypoleuca* = Xantus's Jay
- A. insularis = Santa Cruz Jay

AOU 4th edition (1931) – 3 species:

A. coerulescens = Florida Jay

- A. californica (no English name for the species)
 - A. c. immanis = Long-tailed Jay
 - A. c. oocleptica = Nicasio Jay
 - A. c. californica = California Jay
 - A. c. obscura = Belding's Jay
 - A. c. hypoleuca = Xantus's Jay
 - *A. c. woodhouseii* = Woodhouse's Jay
 - A. c. texana = Texas Jay
- *A. insularis* = Santa Cruz Jay

A few years after AOU (1931) was published, Hellmayr treated the *A. coerulescens* complex as one species with common names provided for each subspecies listed in the work.

Hellmayr (1934) - 1 species:

A. coerulescens (no English name for the species)

- A. c. coerulescens = Florida Jay
- A. c. immanis = Long-tailed Jay
- A. c. oocleptica = Nicasio Jay
- *A. c. californica* = California Jay
- *A. c. obscura* = Belding's Jay
- *A. c. hypoleuca* = Xantus's Jay
- A. c. insularis = Santa Cruz Jay
- A. c. woodhouseii = Woodhouse's Jay
- *A. c. texana* = Texas Jay
- A. c. grisea = Blue-gray Jay
- *A. c. cyanotis* = Blue-cheeked Jay
- *A. c. sumichrasti* = Sumichrast's Jay

The English name Scrub Jay was adopted for the single species (*A. coerulescens*) by Pitelka in 1945: "Brief comment is also in order on the question of vernacular names. With almost every advance in our understanding of racial differentiation in *Aphelocoma coerulescens* and with almost every taxonomic change, the application of vernacular names to the various races has become increasingly confused. I propose in my own work to drop all subspecific vernaculars and to use only one name, that of "scrub jay," for the rassenkreis as a whole." Scrub Jay was also used for *A. coerulescens* in Pitelka (1951), his seminal work on the genus *Aphelocoma*.

Following Hellmayr and Pitelka, the *A. coerulescens* complex was treated as a single species by the AOU in 1957. It was also in 1957 that English names were no longer applied to subspecies. AOU 5th edition (1957) – 1 species:

A. coerulescens = Scrub Jay (no English names for subspecies) (ssp. listed were *coerulescens, texana, woodhouseii, nevadae, immanis, superciliosa, oocleptica, californica, cana, obscura, insularis, cactophila*, and *hypoleuca*)

The 6th edition (AOU 1983) retained the single species but included groups (rather than subspecies) and a note referring to the possible recognition of the groups as species. It also provided English names for these groups that followed the species or subspecies names from previous editions of the Check-list.

AOU 6th edition (1983) – 1 species:

A. coerulescens = Scrub Jay (no subspecies included although 4 groups mentioned: *coerulescens, californica, insularis,* and *woodhouseii*). Further in the Notes.- The four groups are considered by a few authors as distinct species, *A. californica* (Vigors, 1839) [CALIFORNIA JAY, 481], *A. insularis* Henshaw, 1886 [SANTA CRUZ JAY, 481.1], *A. woodhouseii* (Baird, 1858) [WOODHOUSE'S JAY, 480] and *A. coerulescens* [FLORIDA JAY, 479].

The AOU began the reversal of the 1957 lump in 1995 when it separated *A. californica* and *A. insularis* from *A. coerulescens* (AOU 1995). This returned the classification of these jays to what it was in 1931, which was the last checklist to recognize these three species. Rather than using the English names of *coerulescens* and *insularis* from 1931 (or 1983), however, the Committee established the hyphenated group name "scrub-jay" for these species and substituted "Island"

for "Santa Cruz," so that the English names became Florida Scrub-Jay and Island Scrub-Jay, respectively. The Committee also coined "Western Scrub-Jay" as the name for the species that encompasses subspecies *californica, woodhouseii, sumichrasti,* etc. Western Scrub-Jay was split in 2016, when *A. woodhouseii* (re-named Woodhouse's Scrub-Jay in keeping with the 1995 names) was separated from *A. californica,* which was re-named California Scrub-Jay (AOU 2016).

New information:

This proposal follows past proposals that simplified the common names of such species groups as the sharp-tailed sparrows (see 2008-A-4 at http://checklist.aou.org/assets/proposals/PDF/2008-A.pdf), and other proposals that avoided the creation of new compound names, such as for the sage sparrow group (see 2013-C-3 at http://checklist.aou.org/assets/proposals/PDF/2008-A.pdf). As stated in the latter proposal, which was for the adoption of new English names for *Artemisiospiza belli* and *A. nevadensis*, the usual rule for splits is "to coin new names for all daughters to prevent confusion between one of the daughters and the parental species, reserving the original name for reference to the combined daughters." This has now been formalized in paragraph C1 of the NACC's Guidelines for English Bird Names, which also states that NACC policy for naming daughter species is to strongly consider existing names in widely used older literature (e.g., Ridgway). Moreover, the NACC almost always adopts the group names previously used by the AOU as group names in the 6th and 7th editions. These policies had been long used prior to being formalized in 2019 (T. Chesser, pers. comm.).

Nevertheless, when *insularis* and *californica-woodhouseii* were split from *coerulescens* in 1995, the committee chose to retain the entire former species name in the English names of the daughter species. The reasoning behind the English names provided in the 40th supplement (AOU 1995) was: "We retain the familiar and informative group name "Scrub Jay" adopted by the AOU nearly 50 years ago, for species in this complex, with appropriate modifiers. Following standard AOU orthography (Parkes 1978, AOU 1983), the group name must be hyphenated to "Scrub-Jay." Treating the *californica* and *woodhouseii* groups together, as we do pending studies that may result in further splitting in the complex, requires a new modifier that does not preempt terms for smaller groups. Hence, our choice is "Western Scrub-Jay" for that complex. The name "Florida Scrub-Jay" has long been in use and has appeared in a substantial body of literature. "Island Scrub-Jay is a short form of the awkward "Santa Cruz Island Scrub-Jay, "the alternative "Santa Cruz Scrub Jay" being misleading." Unfortunately, the views of individual committee members appear not to have been recorded, so we do not have additional rationale for this decision (NACC files, T. Chesser pers. comm.).

Prior to publication of the split of *A. coerulescens*, input on English names for the new species was solicited via a post to the BirdChat online group (NACC files, T. Chesser pers. comm.). The posting listed four options for names for the "new" daughter species, two of which proposed using the existing names and two of which proposed using the "Scrub-Jay" names instead (extra names were included for *insularis* due to an objection about confusion with the city of Santa Cruz, where a different species of this complex occurs):

- A. Florida Jay, Scrub Jay, Santa Cruz Jay
- B. Florida Jay, Scrub Jay, Santa Cruz Island Jay
- C. Florida Scrub-Jay, Western Scrub-Jay, Santa Cruz Scrub-Jay
- D. Florida Scrub-Jay, Western Scrub-Jay, Santa Cruz Island Scrub-Jay

Options A and B, which are more in keeping with NACC policy ("Scrub Jay" being retained for by far the most widespread species, *californica*, under the exception for asymmetry of range size), received some 2/3 of the votes of those expressing an opinion (NACC files, T. Chesser pers. comm). Obviously this was not a scientific poll and the results were for information purposes only, but this does point out that names without "scrub" appeared to be preferred at least by this sector of the greater ornithological community.

Recommendation:

Rather than continuing use of the compound name established in 1995, I think this is a case in which the Committee could consider using the simpler traditional names, especially as the older names, California, Florida, Woodhouse's, and Santa Cruz, were available for consideration when the taxonomic change was made. This would also reserve the name "Scrub Jay" for the complex as a whole. The hyphenated name was more necessary when the Scrub Jay was first broken up in 1995, especially in anticipation of further splits within the Western complex, as noted in the 40th supplement. I believe the need to retain "scrub" for the complex seems unnecessary now that California and Woodhouse's Jays have been split and the relationship indicated by the hyphenated name does not seem significant enough to continue to highlight.

The name "scrub-jay" is not overly cumbersome, ugly, or unpopular, and admittedly not as cumbersome or unpopular as "sharp-tailed sparrow" or "rough-winged swallow." That being said, "jay" is certainly simpler than "scrub-jay." And with the split of the Western group still relatively fresh in our minds, I think it is a good time to revisit the vernacular names of these jays. As was the case with the sage sparrow split, the proposed alternate treatment of the scrub jay complex would also be a return to earlier taxonomic treatments for which English names were in use in much of the earlier literature. Some may question this change in that Florida Scrub-Jay and Island Scrub-Jay have been used for some 25 years now. But given the preference for stability in English names, the English names for these jays without "Scrub" had and have been used for much longer, and as recently as the 6th edition (AOU 1983).

I consistently hear birders continue to refer to these jays throughout the various species ranges as "Scrub Jay" and rarely do I hear the correct modifiers (California or Woodhouse's) being used. This can be especially confusing in areas where potential overlap or vagrancy may occur. I believe removing "scrub" from the official names will encourage birders to recognize that these are now separate species and to use the more correct and accurate modifiers rather than the group name when referring to jays in this complex.

I would also recommend that the Committee consider adopting Santa Cruz Jay as the English name for *A. insularis*. I feel that the argument about confusion with the city of Santa Cruz is a weak one, especially as the split is now 25 years old and everyone seeking the jay visits Santa Cruz Island. Santa Cruz is the traditional modifier for this species and more precise. There is another jay species confined to an island: *Garrulus lidthi* is known as the Amami Jay by several authorities including Handbook of the Birds of the World/Birdlife International (Madge, 2020). Santa Cruz would be more consistent with the name Amami and would better distinguish to which island jay one is referring.

Votes should be submitted for A or B below, and those voting for B should express a preference for option 1 or option 2:

A. Retain the compound English name "Scrub-Jay" for all members of the *A. coerulescens* complex.

- B. Adopt English names that do not include "scrub":
 - 1. Adopt Florida Jay for *A. coerulescens*, California Jay for *A. californica*, Woodhouse's Jay for *A. woodhouseii*, and Santa Cruz Jay for *A. insularis*.
 - 2. Adopt Florida Jay for *A. coerulescens*, California Jay for *A. californica*, Woodhouse's Jay for *A. woodhouseii*, and Island Jay for *A. insularis*.

I recommend that the Committee adopt the simplified English names proposed in either choice under B (preferably B1) as they are unique and memorable, restore tradition, and maintain stability.

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Submitted by: Alan J. Knue, Edmonds, Washington

Date of Proposal: 18 January 2020 (modified 21 February 2020)

2020-C-2

Add Common Kingfisher Alcedo atthis to the Appendix, Part 1

Background:

Rodriguez et al. (2005) published the following very short note in *Ornitologia Neotropical* (this is the entire text):

On 20 April 2003, Rodríguez obtained a Common Kingfisher (*Alcedo atthis*) within 2 km of Palo Alto, east of Júcaro, and south of Ciego de Ávila, Cuba. Three boys had killed the kingfisher with sling shots after a long pursuit through the local mangroves. Rodríguez prepared the specimen as a study skin, which now is in his private collection. The bird was an adult, based on the abundant abdominal and breast fat, as well as plumage characteristics. Measurements taken included: total length: 174 mm, wing chord: 71 mm, bill length: 36 mm, tarsus length: 24 mm, and tail length: 27 mm. The Common Kingfisher is widely distributed throughout Palearctic and Oriental regions, to New Guinea and the Solomon Islands (Clements 1978, Bruun & Singer 1980, Fry & Fry 1992). The specimen from Cuba constitutes the first record from the West Indies and, moreover, the Western Hemisphere. We do not know how it reached the Cuban coast, although we do not believe it was by human introduction.

New information:

I would not have thought that the genus *Alcedo* had much capacity for long overwater dispersal, but this is not true. A quick perusal of eBird and a few other online sources found the following for *A. atthis*: records from Iceland (August 2019, photographed:

https://ebird.org/checklist/S59132244), Madeira (photos February 2016,

https://ebird.org/checklist/S27317098; two sight reports), and the Cocos (Keeling) Islands in the central Indian Ocean (photo, https://ebird.org/australia/checklist/S26454276). Barcelos et al. considered it an occasional migrant to the Azores. Given these records, some crossing 1000+km of open water, it appears that the species may have the capacity to reach the West Indies as a natural vagrant.

Recommendation:

Given that the specimen is in a private collection and there are no published images, I recommend that we add it to Appendix 1 until its identity can be established via a published photograph or the accessioning of the specimen in a major museum collection.

Literature Cited:

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Submitted by: Andrew Kratter

Date of Proposal: 29 January 2020

2020-C-3 N&MA Classification Committee

pp.123, 681-683

Recognize four species as never established in Hawaii, resulting in (a) transfer of Redcheeked Cordonbleu *Uraeginthus bengalus* from the main list to the Appendix, and (b) removal of Helmeted Guineafowl *Numida meleagris*, Black-rumped Waxbill *Estrilda troglodytes*, and Tricolored Munia *Lonchura malacca* from the list of species known to occur in the US

Introduction:

Eight non-native species listed by the AOS as established in the US have not been accepted to the American Birding Association's (ABA's) Checklist by the ABA Checklist Committee (ABA-CLC), including four species considered established in Hawaii (Helmeted Guineafowl *Numida meleagris*, Red-cheeked Cordonbleu *Uraeginthus bengalus*, Black-rumped Waxbill *Estrilda troglodytes*, and Tricolored Munia *Lonchura malacca*) that were not accepted to the Hawaiian Islands Checklist by the Hawaii Bird Records Committee (HBRC) and are considered by the HBRC never to have been established in Hawaii (VanderWerf et al. 2017, 2018).

New Information:

In this proposal, we advocate removal of Hawaii from the distribution of the four species not accepted by the HBRC, resulting in the transfer of *Uraeginthus bengalus*, known from the AOS area only from Hawaii, from the main list to the Appendix, and the removal of *Numida meleagris*, *Estrilda troglodytes*, and *Lonchura malacca* from the list of species known to occur in the US. Below we provide details for each species; accounts for each species from Pyle and Pyle (2017), who documented population status for each species in the Hawaiian Islands as of 2016, or from the most recent HBRC report (VanderWerf et al. 2018); recommendations to the committee; and a list of supplementary materials, available on the NACC Google Drive folder, for the two species recently discussed by the HBRC.

(1) Red-cheeked Cordonbleu (*Uraeginthus bengalus*): Accepted by the AOS (AOU 1983, 1998) based solely on Hawaii populations. This species was reviewed by the HBRC and considered to never have been established in Hawaii. From VanderWerf et al. (2018):

"RED-CHEEKED CORDONBLEU *Uraeginthus bengalus*. Establishment of viable population not accepted (4/3, 4/3, 3/4; HI2017-002). Our review consisted of two parts, whether the species is currently established, and whether it ever was established. The committee voted unanimously that the species currently is not established, and, on the third round, voted 3/4 that it never was established. This escaped cagebird formerly bred on Oahu and Hawaii Island, especially the latter, where a small population, probably originating in 1972 with the release of birds from a local aviary (Giffin 2003), built up around Puu Waa Waa into the late 1980s. The number of birds declined rapidly after the turn of the 21st century, with the last sighting in 2006. The possibility that these populations may have been supplemented by continued releases of captive birds cannot be discounted, especially on Oahu, where the species still can be found in pet shops."

Red-cheeked Cordonbleu was included by Pyle and Pyle (2009) but removed from the Hawaiian Islands Checklist by Pyle and Pyle (2017) and VanderWerf et al. (2017). As the population of Red-cheeked Cordonbleu had already become extirpated it was never voted to be circulated by an ABA-CLC member during a review to add Hawaii species to the ABA Checklist in 2016-2017 (Pyle 2017) and it was not mentioned in any ABA-CLC Annual Report.

Recommendation to AOS: Remove Red-cheeked Cordonbleu from the main list and transfer it to the Appendix (Part 1, reason 3) as an introduced population that has failed to become established.

Supplementary materials: Comments file by HBRC members and all files submitted to HBRC for their review. These include the account from Pyle and Pyle (2017), database records for Hawaii from the R. L. Pyle database (through 2006) and eBird (2010-2016) that also include records of Black-rumped Waxbill (see below), and other relevant comments by HBRC members regarding the status of this species and Black-rumped Waxbill in Hawaii. Also papers by Pyle (2017) and VanderWerf et al. (2017, 2018) that discuss Red-cheeked Cordonbleu.

(2) Helmeted Guineafowl (*Numida meleagris*): Accepted by AOS (AOU 1983, 1998) based on established populations in the Hawaiian Islands ("...perhaps not well established") and on several islands or island groups in the West Indies. Helmeted Guineafowl has not been accepted for Hawaii by HBRC or Pyle and Pyle (2017) and has not been reviewed for the ABA area by the ABA-CLC. This species was accepted as possibly established in Hawaii by Pyle (1977) but removed from the Hawaii list by Pyle (1979). Current status in the Hawaiian Islands is described by Pyle and Pyle (2017)

http://hbs.bishopmuseum.org/birds/rlp-monograph/NonEstablished.htm as follows:

"Helmeted Guineafowl (*Numida melagris*). Poorly documented releases reported on private land on Kaua'i in 1874, Moloka'i in 1908, and Lana'i in 1914 (Caum 1933, Munro 1944, Swedberg 1967a, Berger 1981), failed to survive. Reported encountered on O'ahu in Waianae Range occasionally <1901 (*PoP* 14[7]:16). From 1929-1939 >23,000 of subspecies *N.m. galeata* documented released by HBAF from Mokapu Gamefarm facility (Northwood 1940, Swedberg 1967a; HBAF reports for years ending 1938 and 1939), probably more through 1941 that were not documented (*HFA* reports for 1922-1939, Schwartz and Schwartz 1949). Documented releases included 8408 on Kaua'i (1929-1939), 2256 on O'ahu (1930-1939), 3350 on Moloka'i (1930-1939), 7084 on Lana'i (1938-1939), 1427 on Maui (1929-1939), and 666 on Hawai'i I (1930-1939). Possibly established for short time (Walker 1967, Berger 1981, AOU 1998) but "not doing well" (Munro 1944) and declining through 1940s (Schwartz and Schwartz 1949). Included in Hawaii Checklist by Pyle (1977) but removed by R. Pyle (1979). Small flocks of feral individuals observed North Shore of O'ahu 1976-1977 and 1991-1998); Mauna Loa Strip Road, Hawai'i I (Feb 2005); Wiamanalo O'ahu 2006-2015; Olinda Maui Feb 2014; and Waiakea Pond, Hawai'i I in Dec 2016; many other singles and semi-domesticated birds reported."

The HBRC has concluded that it was never established in the Hawaiian Islands.

Recommendation to AOS: Indicate that this species was never established in the Hawaiian Islands and remove it from the US list. Inclusion on the main list should rest solely on population status in the West Indies.

Supplementary materials: None.

(3) Black-rumped Waxbill (*Estrilda troglodytes*): Accepted by AOS (AOU 1983, 1998) based on established populations in the Hawaiian Islands ("...small numbers...") and Puerto Rico. This

species was reviewed by the HBRC and considered to never have been established in Hawaii. From VanderWerf et al. (2018):

"BLACK-RUMPED WAXBILL *Estrilda troglodytes*. Establishment of viable population not accepted (4/3, 4/3, 3/4; HI2017-001). As with the Red-cheeked Cordonbleu (see above), our review consisted of two parts, with the committee voting unanimously that the species is not currently established, and 3/4 on the third round that it never was established. Black-rumped Waxbills were among a variety of small estrildids released on the slope of Diamond Head above Kapiolani Park, Oahu, in the mid-1960s. They built up a local population there into the 1970s, but subsequently died out (Pratt et al. 1987, Pyle and Pyle 2017). Subsequent reports of this species on Oahu probably resulted from confusion with the Common Waxbill (*E. astrild*; Ord 1982). On Hawaii Island, a small population built up around Puu Waa Waa (Giffin 2003), along with the Red-cheeked Cordonbleu, and remained steady until about 2006, then precipitously declined, the last report being in 2009 (Pyle and Pyle 2017). The crash coincided with the invasion of Hawaii Island by the Common Waxbill, but whether that caused the disappearance of the Black-rumped is not known. The latter was never reported far from Puu Waa Waa, the number of birds reported always was small, and the committee found insufficient evidence that it was ever totally self-sustaining."

Black-rumped Waxbill was included by Pyle and Pyle (2009) but removed from the Hawaiian Islands Checklist by Pyle and Pyle (2017) and VanderWerf et al. (2017). As the population of Black-rumped Waxbill had already become extirpated it was never voted to be circulated by an ABA-CLC member during a review to add Hawaii species to the ABA Checklist in 2016-2017 (Pyle 2017) and it was not mentioned in any ABA-CLC Annual Report.

Recommendation to AOS: Indicate that this species was never established in the Hawaiian Islands and remove it from the US list. Inclusion on the main list should rest solely on population status in Puerto Rico.

Supplementary materials: Comments file by HBRC members and all files submitted to HBRC for their review. These include the account from Pyle and Pyle (2017), database records for Hawaii from the R. L. Pyle database (through 2006) and eBird (2010-2016) that also include records of Red-cheeked Cordonbleu (see above), and other relevant papers and comments by HBRC members regarding the status of this species and Red-cheeked Cordonbleu in Hawaii. Also papers by Pyle (2017) and VanderWerf et al. (2017 and 2018) that discuss Black-rumped Waxbill.

(4) Tricolored Munia (*Lonchura malacca*): Tricolored and Chestnut (*L. atricapilla*) munias were split by the AOS in 2000 (AOU 2000); inclusion of Tricolored Munia on the Check-list was based on established populations in Hawaii and Puerto Rico. Chestnut Munia is well-established in Hawaii but there are only a handful of individual records of escaped Tricolored Munias. The split by the AOU (2000) was based on Restall (1996), who also stated that *malacca sensu stricto* was "established on Oahu." This statement is in error, however, because *L. atricapilla* is the only member of this complex established in Hawaii. Current status in Hawaii of Tricolored Munia

http://hbs.bishopmuseum.org/birds/rlp-monograph/NonEstablished.htm as follows:

"**Tricolored Munia** (*Lonchura malacca*). Formerly considered conspecific with <u>Chestnut Munia</u>; 1-4 reported with Chestnut Munias at Waipio Peninsula, O'ahu, Mar 1967-Oct 1969

(e.g. *E* 27:106, 30:38, 30:47) and one again in Mar 1977 (*E* 38:56). One reported several dates Waikiki Aquarium May 1970 (Berger 1972, 1981); illustrated by Berger (1977). Several tentatively identified near Wailuku. Maui, Nov 2009."

The HBRC has never considered this species for the Hawaiian Islands checklist.

Recommendation to AOS: Indicate that this species was never established in the Hawaiian Islands and delete it from the US list. Inclusion on the main list for now should rest solely on its population status in Puerto Rico. However, note that the ABA-CLC will be considering addition of Tricolored Munia to the ABA Checklist this year based on records of this species in southern Florida; these records have been accepted by the Florida Ornithological Society Records Committee as pertaining to vagrants from established populations on Cuba. Therefore, another option would be to maintain this species on the US list pending its addition to the ABA-CLC next year. If this were a case of deleting and potentially reinstating a species to the Checklist, then we would recommend not doing so, but the US list is currently a virtual list, not available on our website or elsewhere, meaning that this change is unlikely to be a source of widespread instability. Moreover, we consider it more informative to delete this species from the US list and correct the error regarding its status in Hawaii, and later to reinstate it based on the Florida records should these be accepted by the ABA-CLC, than to simply maintain it on the US list.

Supplementary materials: None.

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Submitted by: Peter Pyle, Chair, American Birding Association Checklist Committee, and Terry Chesser

Date of Proposal: 11 February 2020

2020-C-4 N&MA Classification Committee

pp. 116, 235, 681

(a) Adopt the ABA-CLC criteria for considering species to be established, and (b) reconsider the status of four species currently accepted as established in the US: Japanese Quail *Coturnix japonica*, Mitred Parakeet *Psittacara mitrata*, Lavender Waxbill *Estrilda caerulescens*, and Orange-cheeked Waxbill *E. melpoda*

Introduction:

Eight non-native species listed by the AOS as established in the US have not been accepted to the American Birding Association's (ABA's) Checklist by the ABA Checklist Committee (ABA-CLC), including four species (Japanese Quail *Coturnix japonica*, Mitred Parakeet *Psittacara mitrata*, Lavender Waxbill *Estrilda caerulescens*, and Orange-cheeked Waxbill *E. melpoda*) included on the Hawaiian Islands Bird Checklist (VanderWerf et al. 2017) and recently reviewed as part of adding the Hawaiian Islands to the ABA geographical area (Pyle 2017; Pyle et al. 2017, 2018). These species were rejected by the ABA-CLC using the criteria in Pranty et al. (2018), as detailed in the species accounts below, although two of them did receive substantial support from the ABA-CLC.

New Information:

Current AOS criteria for the establishment of introduced species are the following: "Species that have been introduced by humans, either deliberately or accidentally, are considered to have been established if there are persistent records for at least ten years and satisfactory evidence that they are maintaining a reasonably stable or increasing population through successful reproduction." (AOU 1998, p. xiii). In the first ABA Checklist (ABA 1975), the ten-year temporal criterion was also used, but the ABA later became concerned that too many species once considered established in the ABA area under this standard later became extirpated, resulting in the addition and deletion of several introduced species from the ABA list. Therefore, Pranty et al. (2008, pp. 12-16) adopted new criteria for considering a species established in the ABA area, including a 15-year temporal criterion, as follows:

The ABA Checklist Committee considers an exotic bird to be established in the ABA Area when the following eight criteria are met:

1) The species is recorded in the form of a published photograph or a specimen archived in an ornithological collection. This criterion ensures that species identification can be confirmed independently.

2) **The population has been present for at least 15 years**. The first CLC report (Robbins 1973) stated that a species was established if it was "reproducing for five or more years without benefit of additional introductions or assistance from man." This temporal criterion was changed to a period of 10 years in the first *ABA Checklist*, published in 1975. But 10 years is an insufficient period to judge the likelihood that an exotic will persist (e.g., Appendix, Part 1, pages 183–184). Accordingly, the persistence criterion has been increased to 15 years. The CLC readily acknowledges that 15 years may still represent an insufficient time to determine establishment for some species. Populations of many exotics follow a "boom and bust" cycle over several decades (e.g., Pranty 2001, 2002, 2007). The population of Crested Mynas at Vancouver Island became extirpated more than 100 years after its introduction. With long-lived species (e.g., *Amazona* parrots) or when gamebird populations are regularly subsidized, one could argue that persistence should be for 30 or more years for genuine trends in the population to become obvious. The point here is that like numerical criteria, no simple formula for the 13 number of years for persistence can apply to all species. Flexible persistence criteria ("at least 15 years") and lack of numerical criteria will allow Committee members to exercise their own judgment in potentially uncertain or

controversial cases, in the context of strong biological evidence and with the intention that the judgment be conservative.

3) There is a contiguous population of interacting or potentially interacting individuals, rather than a scattering of isolated individuals or pairs. Most exotics present within the ABA Area are limited to suburban and urban habitats. For persistence, it is vital that exotic birds in these areas occur in sufficient proximity to allow interaction and, therefore, gene flow. Some exotics are found in the ABA Area as a single interacting population, while others occur in several populations that are isolated from one another.

4) The population is large enough to survive a routine amount of mortality or breeding failure. We cannot provide a numerical threshold for determining when an exotic species is established. The reason for this should be obvious: No single number would be adequate for populations as varied as large, long-lived parrots with low reproductive output, and small, shortlived finches with high reproductive output. Demographic characteristics such as habitat preferences, lifespan, reproductive output, dispersal frequencies and distances, and genetic viability will be considered separately for each species. Members of the CLC will critically review each species based on the documentation provided and will make a judgment based on the best available evidence. Much attention will be given to factors such as population size, distribution. and, particularly, evidence of successful breeding. However, we recognize that some number of individuals is preferable as a baseline to judge when a species may be established. The FOSRC prefers that populations contain at least "several hundred individuals," and the CLC agrees that in almost all cases, populations numbering only dozens of individuals may be too small to be considered established. Additionally, information should be provided to indicate that ongoing releases play little or no role in population maintenance. For gamebirds or ornamental waterfowl with populations that are artificially supplemented from time to time, evidence should be provided that these releases are not necessary to maintain population size and persistence.

5) **Sufficient offspring are being produced to maintain or increase the population**. Such criteria will vary from species to species, according to factors affecting the population, both natural (e.g., competition from other species, effects of hurricanes) and artificial (e.g., recapture for the pet trade, culling by hunters). A species with an increasing population and an expanding range may be a better candidate for establishment than a species with a stable population and range. Species with 14 a declining population and/or contracting range should have a much greater evidentiary threshold to meet before being considered established.

6) The population is not currently, or is not likely to be, the subject of a control program in which eradication may succeed. Some exotics present a potential threat to native species or habitats, and/or to agriculture or commerce, and listing these species as established may create a conflict between birders and land managers. The Purple Swamphen (*Porphyrio porphyrio*) in Florida is being actively eradicated presently (with more than 1900 shot between October 2006 and January 2008), which may extirpate the species from the ABA Area before it meets other criteria for establishment.

7) **The population is not directly dependent on human support**. Although somewhat subjective, this criterion is meant to exclude from consideration those exotics that rely on direct human support for their ongoing persistence (reliance on bird feeders; periodic releases of additional individuals). For instance, the Monk Parakeet population in Chicago, Illinois is entirely dependent on birdseed to survive the winter months (Hyman and Pruett-Jones 1995), so this population would not be considered by the CLC as established.

8) A publication, ideally in a peer-reviewed journal or book, describes, how, when, and where the above criteria have been met. A publication will streamline the voting process by clearly presenting evidence of establishment. In the absence of a publication, the CLC may still vote on a motion to add an exotic to the *ABA Checklist* if such evidence has been gathered by a Committee member or other interested individual. In these instances, a detailed analysis of the issue should be published in a suitable scientific venue, or at least be available for inspection by others, if the species has been determined to be established.

The CLC has not mentioned any threshold for **geographic range** occupied in the ABA Area. Again, this will vary considerably among species, and the CLC will vote on each species on a case-by-case basis. As an example, during 2006, the CLC considered adding the Black-hooded Parakeet (*Nandayus nenday*) to the *ABA Checklist* based on a large and increasing population along the central Gulf coast of Florida. This species met all eight of the above criteria as an established exotic, but was nonetheless rejected because two CLC members were concerned that its geographic range (estimated at 150 square miles) was not sufficiently large to confirm establishment.

The CLC has chosen to "grandfather in" the 17 exotic species that appeared on the *ABA Checklist* prior to the ratification of the above criteria. These 17 species are the Mute Swan, Chukar, Himalayan Snowcock, 15 Gray Partridge, Ring-necked Pheasant, Rock Pigeon, Eurasian Collared- Dove, Spotted Dove, Budgerigar, Monk Parakeet, Green Parakeet, White-winged Parakeet, Red-crowned Parrot, Red-whiskered Bulbul, Spot-breasted Oriole, House Sparrow, and Eurasian Tree Sparrow. The European Starling is considered a natural vagrant based on a record from Labrador that preceded the introductions into New York City by 12–13 years (*Journal für Ornithologie* 30: 234). The Common Myna was added to the *ABA Checklist* in 2008, and therefore meets all of the above criteria. If a CLC member or any other person believes that one or more of these "grandfathered" species should be removed from the main part of the *ABA Checklist*, then data should be gathered and published so that the Committee can vote on a motion for removal. The CLC readily acknowledges that some exotics currently on the *ABA Checklist* do not meet one or more of the above eight criteria, and that these species likely would be rejected as established species should the new criteria be applied to them.

We advocate that the AOS adopt the ABA criteria for considering a species to be established. These criteria are more stringent than those currently used by the AOS and are more likely to recognize only those species that are truly established, meaning that we will avoid recognizing species as established that are later extirpated. These standards apply to species proposed to be added to the Checklist; whether they should also apply to species already on the list seems less clear, given that stability was a major argument for introducing the new criteria. It is perhaps significant that the ABA chose to "grandfather in" 17 non-native species already on the ABA list, many of which might not have met the new criteria.

Below we provide details on four species that were considered but rejected by the ABA-CLC when expanding the ABA geographical area to include Hawaii. Each of these species is on the Hawaiian Islands Bird Checklist (Vanderwerf et al. 2017, 2018) and each received votes for acceptance by the ABA-CLC, but in the end all were rejected by the ABA-CLC. The accounts that follow consist of information on the population status of each species in Hawaii, a recommendation to the committee, and a list of supplementary materials available on the NACC Google Drive folder. Of note among the supplementary materials are documents labeled "Discussions of Introduced Birds in Hawaii by the HBRC" and the votes and comments from the ABA-CLC for each round of voting for each species.

1) Japanese Quail (*Coturnix japonica*): Accepted by the AOS (AOU 1983, 1998) based solely on populations in the Hawaiian Islands. HBRC (VanderWerf et al. 2017) and Pyle and Pyle (2017) maintained this species on the primary checklist, despite its populations having declined substantially over the past 50 years, and HBRC has thus not specifically voted for continuance on or removal from the Hawaiian Islands Checklist. As documented by Pyle and Pyle (2017), small numbers currently persist on Kauai, despite large declines since the 1940-1970s, and there is also an interesting record of one photographed 40 miles southwest of Niihau Island in July 2017. Japanese Quail was not accepted by the ABA-CLC after three circulations, by votes of 6-2, 6-2 for acceptance, which results in non-acceptance by ABA rules (Pyle 2017, Pyle et al. 2017, 2018).

Recommendation to AOS: That6 of 8 members of the ABA-CLC voted to accept this species should give the AOS considerable pause before removing it from the Checklist. This species is difficult to detect and occurs in a little-visited habitat, providing considerable uncertainty as to

population estimates. For example, Niihau is a private island that has not been visited by ornithologists for years, and could currently host populations of Japanese Quail. It has declined to some extent but whether this means it is on the road to extirpation is unclear. The new criteria for established species were designed to make checklists more stable, and to actively remove this species from the AOS Checklist when its status is uncertain, and when most of the ABA-CLC voted for acceptance, would be a decision that well might need to be reversed. Moreover, the HBRC is soliciting local information about these and other introduced species, meaning that we may well have better information in the near future. Our inclination is to maintain this species on the Checklist pending future information concerning its population status.

Supplementary materials: Comments file by ABA-CLC members and all files submitted to ABA-CLC for their review. These include comments by HBRC members on the status of Japanese Quail populations, the account from Pyle and Pyle (2017), database records for this species from the R. L. Pyle database (through 2006) and eBird (2010-2016), and photographs of the bird documented off Niihau in 2017. Also the HBRC Checklist (VanderWerf et al. 2017) and ABA-CLC reports published in Birders Guide (Pyle 2017) and Birding (Pyle et al. 2017, 2018) that list or discuss Japanese Quail.

2) Mitred Parakeet (*Psittacara mitratus*): Accepted by the AOS in 2002 (AOU 2002) based on populations in Florida and California, and by the HBRC and Pyle and Pyle (2017) based on a population on Maui that was considered established from 1987 to present. The size of this population reached up to 200 individuals in the early 2000s but it has since been controlled as an agricultural pest, and in 2016 was down to "a handful" of individuals (Pyle and Pyle 2017). ABA-CLC has not reviewed this species. From Pranty and Garrett (2010):

Exotic populations in California, Florida, and New York appear to represent the newly described *A<u>[ratinga]</u> m. tucumana*, native to northwestern Argentina (Arndt 2006). The largest numbers of Mitred Parakeets in the ABA Area are found in the Los Angeles, California, region, where the population was estimated to contain 680 individuals by 1997 (Garrett 1997) and 1,000 by 2002 (Mabb 2002), with similar or greater numbers currently. In 2002, the AOU accepted the California population as established (Banks et al. 2002), but the ABA Checklist Committee prefers to wait until the California Bird Records Committee (CBRC) ratifies the species locally before voting to add the species to the *ABA Checklist*.

In 2017, the ABA-CLC reviewed Mitred Parakeet (based solely on Hawaii populations by the request of P.P.) and did not accept it to the ABA Checklist by a 1-7 vote. Comments on this species indicate that ABA-CLC would still like to await a decision by the CBRC before considering this species as an addition to the ABA Checklist.

Recommendation to AOS: We do not recommend that populations in Hawaii be considered as currently established; however, this requires no change to the Checklist because this species is on the main list based on populations in Florida and California. Although the latter populations have not been accepted as established by the ABA-CLC, the CBRC plans to consider adding this species to the California list in the near future, and this, if accepted, would be followed by consideration by the ABA-CLC. We recommend maintaining this species on the Checklist until that happens.

Supplementary materials: Comments file by ABA-CLC members and all files submitted to ABA-CLC for their review. These include the account from Pyle and Pyle (2017), database records for Hawaii from the R. L. Pyle database (through 2006) and eBird (2010-2016), and other papers (including Pranty and Garret 2010) and communications related to populations of Mitred Parakeet in Florida and California that were part of the ABA-CLC review as background materials.

3) Lavender Waxbill (*Estrilda caerulescens*): Accepted by the AOS (AOU 1983, 1998) based solely on small populations in the Hawaiian Islands. HBRC (VanderWerf et al. 2017) and Pyle and Pyle (2017) maintained this species on the primary checklist, despite current low population sizes, and HBRC has not specifically voted on it for continuance on or removal from the Hawaiian Islands Checklist. As documented by Pyle and Pyle (2017), small numbers currently persist on Hawaii Island. Lavender Waxbill was not accepted by the ABA-CLC after three circulations, by votes of 6-2, 4-4, 6-2 for acceptance, which results in non-acceptance by ABA rules (Pyle 2017, Pyle and Pyle 2017, 2018).

Recommendation to AOS: As was the case with Japanese Quail, the fact that 6 of 8 members of the ABA-CLC voted to accept this species should give the AOS considerable pause before removing it from the Checklist. This species also appears to be difficult to detect, much more so than other estrildids, and to occur naturally at lower population density, making population estimates uncertain. Whether the current population numbers suggest that it is trending towards extirpation is unclear. The new criteria for established species were designed to make checklist more stable, and to actively remove this species from the Checklist when its status is uncertain, and when most of the ABA-CLC considered it to be established, would be a decision that well might need to be reversed in the future. Again, the HBRC is soliciting local information about these and other introduced species, meaning that we may soon have better information. Our inclination is to maintain this species on the Checklist pending future information concerning its population status.

Supplementary materials: Comments file by ABA-CLC members and all files submitted to ABA-CLC for their review. These include comments by HBRC members on the status of Lavender Waxbill populations, the account from Pyle and Pyle (2017), and database records from the R. L. Pyle database (through 2006) and eBird (2010-2016). Also the HBRC Checklist (VanderWerf et al. 2017) and ABA-CLC reports published in Birders Guide (Pyle 2017) and Birding (Pyle et al. 2017, 2018) that list or discuss Lavender Waxbill.

4) Orange-cheeked Waxbill (*Estrilda melpoda*): Accepted by AOS (AOU 1983, 1998) as based on established populations in the Hawaiian Islands ("...small numbers..."), as well as Bermuda and Puerto Rico. Accepted by the HBRC and Pyle and Pyle (2017) based on populations on Maui and Oahu that were considered established at one time. Pyle and Pyle (2017) no longer considered this species as established on Oahu. Populations on Maui were first reported in 1989, had reached 50 in size by the early 2010s, but no more than 20 had been reported through 2016. P.P. believes that this population is no longer established on Maui, having been pushed out by expanding populations of Common Waxbill (*E. astrild*). Orange-cheeked Waxbill was not accepted by the ABA-CLC after two circulations, by votes of 5-3, 1-7 for acceptance, which results in non-acceptance to the ABA checklist (Pyle 2017, Pyle and Pyle 2017, 2018).

Recommendation to AOS: Indicate that Orange-cheeked Waxbill may have been but is no longer established in the Hawaiian Islands. Inclusion on the main list should rest solely on population status in Bermuda and Puerto Rico.

Supplementary materials: Comments file by ABA-CLC members and all files submitted to ABA-CLC for their review. These include the account from Pyle and Pyle (2017), and database records from the R. L. Pyle database (through 2006) and eBird (2010-2016). Also the HBRC Checklist (VanderWerf et al. 2017) and ABA-CLC reports published in Birders Guide (Pyle 2017) and Birding (Pyle et al. 2017, 2018) that list or discuss Lavender Waxbill.

Summary Recommendation:

(a) We recommend that the AOS adopt the ABA-CLC criteria for considering non-native species to be established, and thus for adding them to the Checklist. However, this does not mean that AOS needs to follow all ABA-CLC decisions regarding population establishment of non-native species.

(b) Concerning the four species under consideration, we recommend maintaining three of these species (Japanese Quail *Coturnix japonica*, Mitred Parakeet *Psittacara mitrata*, and Lavender Waxbill *Estrilda caerulescens*) on the Checklist pending future developments, and transferring Orange-cheeked Waxbill *E. melpoda* from the main list to the Appendix as a (possibly) formerly established species.

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Submitted by: Terry Chesser and Peter Pyle, Chair, American Birding Association Checklist Committee

Date of Proposal: 11 February 2020

2020-C-5 N&MA Classification Committee p. 515

Revise species limits in the Zosterops japonicus complex

Background:

White-eyes (*Zosterops* spp.) have been called "great speciators" for their extremely rapid diversification rates, which are among the highest reported in vertebrates (1.95 – 2.63 species per million years; Moyle et al. 2009). However, despite their rapid genetic diversification, white-eyes are all rather morphologically similar, making classification extremely challenging. Many traditional classifications have resulted in large, wide-ranging species with many named subspecies covering large portions of Southeast Asia. Given their rapid diversification rates, many of these large species groups may not be monophyletic once studied with DNA sequence data and phylogenetic techniques. Indeed, evidence already suggests that some species are not monophyletic, with different subspecies of the Oriental White-eye (*Z. palpebrosus*) found to be spread widely across the white-eye phylogeny (Moyle et al. 2009). Further, white-eye groups in other parts of the world have already been rearranged, and species limits have changed as a result of recent genetic studies (e.g., Cox et al. 2014).

The Japanese White-eye *Z. japonicus*, as currently recognized by the AOS, is one such species, with a wide distribution across East Asia, ranging from Japan and many offshore islands to mainland China, Vietnam, and Taiwan. Within the AOS region, Japanese White-eyes have been introduced to Hawaii, where now abundant and widespread (Van Riper 2000); more recently, Japanese White-eyes have been noted around Los Angeles, California (eBird 2020). White-eyes introduced to Hawaii are thought to be nominate *Z. j. japonicus* (Van Riper 2000), whereas birds in California are thought to be *Z. j. simplex*, although their identification is still uncertain.

New Information:

Recently, Lim et al. (2019) undertook the first genetic study of this massive complex, sampling many subspecies from the three large white-eye species groups of East Asia: Mountain White-eye (*Z. montanus*), Oriental White-eye (*Z. palpebrosus*), and Japanese White-eye (*Z. japonicus*). Using sequence data from two mitochondrial genes (ND2 and cytb), Lim et al. (2019) found strong support for paraphyly among these three widespread, polytypic species (Fig. 1).

The mitochondrial sequence data revealed extensive paraphyly of the Japanese, Oriental, and Mountain white-eye species complexes. Importantly for the AOS Checklist region, a deep split was identified in the Japanese White-eye complex between the predominantly mainland *simplex* subspecies group, and the nominate Japanese and island subspecies group (Fig. 1). This split between *simplex* and *japonicus* has also been suggested on the basis of morphological and vocal differences (van Balen 2020). Earlier genetic work also suggested a split between *simplex* and *japonicus* based on mitochondrial sequence data (Round et al. 2017).

In addition to the deep split identified between *japonicus* and *simplex*, Lim et al. (2019) also found that Mountain White-eye (*Z. montanus*), previously thought to be endemic to the Philippines, is either embedded within the traditional Japanese White-eye, or sister to it with low divergence. The deep split between *japonicus* and *simplex* shows that *simplex*, *Z. salvadorii*, and one subspecies of *Z. palpebrosus* form a well-supported group that is likely sister to Chestnut-flanked (*Z. erythropleurus*), Black-capped (*Z. atricapilla*), and Abyssinian White-eyes

(*Z. abyssinicus*; Fig. 1). The *japonicus* and *montanus* clade is either sister to the entire *simplex* clade, or to another group of white-eyes that includes Ashy-bellied White-eye (*Z. citrinella*) and to Indian (Oriental) White-eye (*Z. palpebrosus*; Fig. 1).



Figure 1. Phylogenetic tree based on ND2 (left) and cytb (right) mtDNA sequence data. Figure from Lim et al. (2019). Center names are the proposed new names, while the names closest to each tree are the traditional taxonomic treatments of these white-eye groups. Note in the ND2 tree, *Z. simplex* is sister to *Z. abyssinica, Z. erythropleura*, and *Z. atricapilla*, with *Z. japonicus sensu stricto* sister to this entire clade. In the cytb tree, relationships are different, but this is likely due to the inclusion of different taxa in each tree. Regardless, *Z. simplex* and *Z. japonicus sensu stricto* are not sister taxa in either scenario.

Morphologically, all of these white-eyes are very similar, and differ only subtly, contributing to the messy taxonomic situation. Van Balen (2020) noted that *simplex* differs from the nominate *japonicus* group in having a "distinctly yellow forehead and supraloral region." In addition to these very slight plumage differences, van Balen (2020) also noted vocal differences between nominate *japonicus* and *simplex*, both in song and call. Van Balen (2020) described the song of *simplex* as "not so attractive as [*japonicus*]." To my own ear, *simplex* sounds more repetitive, and not as complex as *japonicus*, based on recordings in Macaulay Library

(<u>https://www.macaulaylibrary.org/</u>). There have not been any comprehensive studies comparing these taxa morphologically or vocally.

Recommendation:

The IOC World Bird List (2020) and the Clements Checklist (2019) have split *Zosterops japonicus* based on the combination of morphological, vocal, and mitochondrial differences. I recommend that we also split *Z. japonicus* into two species, *Z. japonicus* and *Z. simplex*, and to adopt the English names already in use for these species:

Zosterops japonicus – Warbling White-eye Zosterops simplex – Swinhoe's White-eye

We currently recognize only the birds in Hawaii, which are *japonicus sensu stricto*, as established in our area. Thus, modifications to the species account of *Z. japonicus* would consist only of changes to the English name, distribution, and notes. If the white-eyes in southern California become established and are confirmed as *Z. simplex*, then we would consider adding this species to the Checklist.

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Submitted by: Shawn M. Billerman, Cornell Lab of Ornithology

Date of Proposal: 13 February 2020

2020-C-6 N&MA Classification Committee p. 425

Change the genus of White-crowned Manakin from *Dixiphia* to *Pseudopipra*

Effect on AOU-CLC area:

This proposal would replace one genus name (*Dixiphia*) with another (*Pseudopipra*), transferring *Dixiphia pipra* to *Pseudopipra*.

Description of the problem:

White-crowned Manakin, *Dixiphia pipra*, occurs from Costa Rica south to Amazonia, and also in southeastern Brazil. As with other small, short-tailed manakins in which the males are black with a contrastingly colored crown, this species formerly was classified in a broad genus *Pipra*. Phylogenetic analysis of syringeal characters and of DNA sequence data revealed that *Pipra* was polyphyletic (see citations in Chesser et al. 2013); as a result, *pipra* was reclassified in the monotypic genus *Dixiphia* by Prum (1992), a move followed by subsequent authors (e.g., Snow 2004, Kirwan and Green 2011, Chesser et al. 2013, Dickinson and Christidis 2014, and the AOS <u>South American Classification Committee</u>).

The genus *Dixiphia* is based on *Dixiphia* Reichenbach, 1850, specifically from <u>a figure on Plate</u> <u>LXIII</u>. Prum (1992) reported that the type species of *Dixiphia* is *Pipra leucocilla* Linnaeus, a junior synonym of [*Parus*] *Pipra* Linnaeus. Other references clarify that the designation of *leucocilla* as the type species stems from <u>Gray (1855: 55)</u> (Chesser et al. 2013, Dickinson and Remsen 2014).

But Kirwan et al. (2016) reported that this is all wrong: "However, *Dixiphia* of Reichenbach does not apply to the White-crowned Manakin. Reichenbach (1850) only represented it in a figure on Plate LXIII, under the generic name *Dixiphia* without any explanatory text or the allocation of any species. The illustration itself is not of a White-crowned Manakin". The bird depicted in the image instead, quite clearly, is a male White-headed Marsh Tyrant *Arundinicola leucocephala*. Kirwan et al. further pointed out that <u>Burmeister (1853: 166)</u> used the combination *Dixiphia leucocephala* and equated this with *Arundinicola leucocephala* d'Orbigny, thus fixing *Arundinicola leucocephala*, not *Pipra leucocilla*, as the type species of *Dixiphia*. Although it took almost 25 years for this issue to come to light, I am not aware of any controversy over this interpretation of the type species of *Dixiphia*.

Solution to the problem:

Kirwan et al. were unable to locate another available genus-group name for *pipra*. The only other identified contender is *Pythis* Boie 1826 (page 971): "Therein, Boie refers to Vieillot as author. Indeed, <u>Vieillot (1818a: 112)</u> lists *Pithys*, but with generic details alone. However, <u>Vieillot (1818b: 520)</u> later included the species *leucops* Vieillot, 1818 = *Pipra albifrons* Linnaeus, 1766 (= White-plumed Antbird *Pithys albifrons*) in *Pithys*, which accordingly becomes its type species by subsequent monotypy (ICZN 1999, Art. 69.3.). Therefore, as Boie attributed the name to Vieillot, *Pythis* Boie, 1826, is an incorrect subsequent spelling of *Pithys* Vieillot, 1818. Consequently, '*leucocilla* Gm.', the only species included by Boie, cannot be viewed as a type, but rather as an additional species, and, with *Pipra albifrons* Linnaeus as its type species, *Pithys* Vieillot cannot therefore apply to the White-crowned Manakin".

In the absence, then, of an available genus for *pipra*, Kirwan et al. (2016) proposed a new genus, *Pseudopipra*, with type species *Parus pipra* Linnaeus. The combination *Pseudopipra pipra* has been adopted by the <u>IOC World Bird List</u> and by del Hoyo and Collar (2016).

Kirwan et al. later learned that at least one correspondent, Murray Bruce, took issue with their dismissal of *Pythis* as an applicable name. Consequently they published a follow-up paper (David et al. 2017), in which they expanded on their case. This paper, which is short, perhaps should be consulted in full, but the heart of their argument is expressed here:

"The first thing to note is that Boie attributed '*Pythis*' to an author, in this case Vieillot, indicating at the very least that he considered that it had been introduced prior to his use of it in 1826. This is reinforced by the circumstantial evidence that new names introduced by Boie in the same paper carry no authorship. As a result, we concluded that '*Pythis* Vieil.' is an incorrect subsequent spelling of *Pithys* Vieillot, 1818. It was also treated as such by <u>G.R. Gray (1855: 42)</u>, Sherborn's *Index Animalium* (1929: 5348), Schulze et al.'s *Nomenclator Animalium* (1935: 2986), Neave's *Nomenclator Zoologicus* (1940: 1064) and <u>Richmond's Card Index</u> (Richmond, 1889–1932). In addition, neither <u>Peters (1951: 245)</u> nor <u>Snow (1979: 269)</u> listed '*Pythis*, Boie, 1826' in their respective synonymies. Consequently, '*Pythis*

Viell.', as cited by Boie (1826: 971), being an incorrect subsequent spelling of *Pithys*, Vieillot, 1818, is not an available name under Art. 19.1 (ICZN 1999). As a result, *Pseudopipra* Kirwan et al., 2016, remains the only Code-compliant genus-group name for *Parus pipra* Linnaeus, 1758.

"Furthermore, in our opinion any attempt to resurrect '*Pythis*, Boie, 1826' as anything other than an incorrect subsequent spelling of *Pithys*, Vieillot, 1818, would be highly controversial and lead to the potential destabilisation of two genus-group taxa."

Recommendation:

The name *Dixiphia* Reichenbach, 1850, clearly does not refer to White-crowned Manakin, and there appears to be long-standing consensus that *Pythis* Boie, 1826, is not an applicable name, as outlined by Kirwan et al. 2016 and (in more detail) by David et al. 2017. Therefore, I recommend replacing *Dixiphia* with the new name *Pseudopipra* Kirwan, David, Gregory, Jobling, Steinheimer, and Brito 2016.

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Submitted by: Tom Schulenberg, Cornell Lab of Ornithology

Date of Proposal: 14 February 2020

2020-C-7 N&MA Classification Committee pp. 197-198

Adopt West African Crested Tern as the English name for *Thalasseus albididorsalis*

We recently voted to split Royal Tern *Thalasseus maximus* into two species: *T. maximus*, which is distributed in North and South America, and *T. albididorsalis*, which occurs in west Africa (see Proposal 2020-A-9). The proposal advocated retaining the English name Royal Tern for the familiar and widely distributed *T. maximus* and adopting a new name only for the more narrowly distributed *T. albididorsalis*, in keeping with the exception in our English name guidelines for daughter species of disparate range size.

Although *T. albididorsalis* does not occur in our area, it will be mentioned in the notes of the new species account for *T. maximus*, so we need to decide on an English name for this newly recognized species. In Proposal 2020-A-9, it was noted that because "*albididorsalis* is sister to Lesser Crested Tern and that "crested tern" is associated with the genus *Thalasseus* (although admittedly "crested tern" does not designate a monophyletic group), we think African Crested Tern or West African Crested Tern (the name suggested at https://www.worldbirdnames.org/updates/proposed-splits/) would be appropriate English

https://www.worldbirdnames.org/updates/proposed-splits/) would be appropriate English names."

The latter name would appear to be a better name for this species. Two other species of crested tern occur elsewhere in Africa (Greater Crested Tern in E and S Africa and Lesser Crested Tern in winter in NW and E Africa), whereas *albididorsalis* occurs only in W Africa and is found moreor-less along the entire W African coast, making West African Crested Tern a particularly appropriate name. The IOC World Bird List has already adopted West African Crested Tern for this species.

Recommendation:

I recommend that we use the English name West African Crested Tern for *T. albididorsalis*.

Submitted by: Terry Chesser

Date of Proposal: 14 February 2020

2020-C-8	N&MA Classification Committee	p. 240
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Transfer Yellow-chevroned Parakeet Brotogeris chiriri from the Appendix to the main list

Yellow-chevroned Parakeet *Brotogeris chiriri* is currently included in the Appendix as an introduced species that has not become established. It had been introduced in both southern California and southern Florida and was replacing White-winged Parakeet *B. versicolurus* in both areas, but establishment was uncertain at the time of publication of the 7th edition (AOU 1998).

This species has now been accepted to the California state list by the California Rare Birds Committee and more recently to the ABA Checklist (Pyle et al. 2019), based on a wealth of information indicating that *B. chiriri* has become established in southern California (Benson et al. 2019; this unpublished report is in the NACC Google Drive folder). To quote from Pyle et al. (2019, p. 38):

The population of this species in Los Angeles, California, has greatly expanded over the past 30 years (Benson et al. 2019; Fig. 4). By 2019, an estimated population of 1,000 individuals was considered to be increasing, and the species had expanded in range throughout the Los Angeles Basin. Based on these increases, the California Bird Records Committee accepted the species to the state list (by an 8–1 vote), and the ABACLC followed by accepting it to the ABA Checklist. Benson et al. (2019) determined that the population was of pure individuals, not showing hybrid characters with the similar and formerly conspecific White-winged Parakeet, and that it was of the nominate subspecies of Yellow-chevroned Parakeet, *B. c. chiriri*. A naturalized population of up to a few hundred individuals also exists in the Miami, Florida, area (Pranty and Garrett 2011), but it has not yet been considered by the Florida Ornithological Society Records Committee.

Recommendation:

We recommend that the committee transfer *B. chiriri* to the main list, where it would follow its former conspecific *B. versicolurus* in the linear sequence.

Proposed species account:

Brotogeris chiriri (Vieillot). Yellow-chevroned Parakeet.

Psittacus chiriri Vieillot, 1817 (1818) Nouv. Dict. Hist. Nat. (nouv. ed.), 25: 359. (Paraguay, ex Azara.)

Habitat.—Urban and suburban residential areas and parks with diverse exotic tree plantings (palms, *Ceiba*, etc.); in South America, open woodlands, gallery forests, savannahs and towns.

Distribution.—Resident in South America from northern Bolivia and southern Amazonian Brazil south to Paraguay and northern Argentina.

Introduced and established in California (mainly urban coastal slope of Los Angeles County and adjacent western Orange County); introduced populations also present in Miami metropolitan region of Florida, and in the vicinity of Buenos Aires, Argentina.

Notes.—Formerly considered conspecific with *B. versicolurus* (the combined species known as Canary-winged Parakeet), which it has largely replaced in southern California; both species occur in southern Florida, although *chiriri* increasingly predominant.

Literature Cited:

Benson, T. A., K. L. Garrett, J. S. Feenstra, J. F. Garrett, K. N. Neslon, and A. J. Searcy. 2019. California Bird Records Committee proposal to add Yellow-chevroned Parakeet (*Brotogeris chiriri*) to the California State Bird List. Unpublished report, California Bird Records Committee, Camarillo.

Pranty, B., and K. L. Garrett. 2011. Under the radar: "Non-countable" exotic birds in the ABA Area. *Birding* 43 (5): 46–58.

Pyle, P., M. Gustafson, T. Johnson, A.W. Kratter, A. Lang, K. Nelson, M. W. Lockwood, and D. Sibley. 2019. 30th report of the ABA Checklist Committee, 2019. Birding 51(7): 36-42.

Submitted by: Terry Chesser and Kimball Garrett

Date of Proposal: 14 February 2020

2020-C-9 N&MA Classification Committee p. 445

Change the species name of Dwarf Jay from Cyanolyca nana to C. nanus

Current AOS taxonomy (AOU 1998) lists the Dwarf Jay as *Cyanolyca nana*. However, its original name was *Cyanocorax nanus* du Bus de Gisignies, 1847. A footnote in Dickinson and Christidis (2014) reads "Spelled *nana* in Dickinson (2003) but the original *nanus* is a noun and not variable".

Because *nanus* is a noun, Article 34.2.1 of the International Code of Zoological Nomenclature (ICZN 1999) applies. This article states that "If a species-group name is a noun in apposition its ending need not agree in gender with the generic name with which it is combined and must not be changed to agree in gender with the generic name." Therefore, the original spelling should be preserved.

Recommendation:

Follow the ICZN and change the scientific name to Cyanolyca nanus.

Literature Cited:

American Ornithologists' Union. 1998. Check-list of North American birds. 7th edition. Washington, D.C.: American Ornithologists' Union.

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Submitted by: Rosa Alicia Jiménez and Carla Cicero, Museum of Vertebrate Zoology

Date of Proposal: 18 February 2020

2020-C-10 N&MA Classification Committee

pp. 454-457

Rectify the linear sequence of *Progne* spp. (Hirundinidae)

Effect on NACC:

This proposal would revise the linear sequence of martins in the genus *Progne* to reflect evolutionary relationships within the genus.

Background:

Proposal 2019-B-3 altered the linear sequence of Hirundinidae to reflect new data regarding evolutionary relationships inferred through molecular phylogenetics. Unfortunately, errors in the linear sequence for the genus *Progne* went unnoticed. In this proposal, we rectify the linear sequence using the phylogenies of Sheldon et al. (2005) and Moyle et al. (2008) (Figs. 1, 2).

Our current linear sequence of the genus *Progne* is:

Common Name	Scientific Name	
Sinaloa Martin	Progne sinaloae	
Brown-chested Martin	Progne tapera	
Caribbean Martin	Progne dominicensis	
Purple Martin	Progne subis	
Cuban Martin	Progne cryptoleuca	
Gray-breasted Martin	Progne chalybea	
Southern Martin	Progne elegans	

and the proposed new linear sequence is:

Common Name	Scientific Name	
Brown-chested Martin	Progne tapera	
Purple Martin	Progne subis	
Southern Martin	Progne elegans	
Sinaloa Martin	Progne sinaloae	
Gray-breasted Martin	Progne chalybea	
Cuban Martin	Progne cryptoleuca	
Caribbean Martin	Progne dominicensis	

Two issues cropped up in converting the phylogenies to a linear sequence. First, *P. chalybea* is polyphyletic: South American individuals (from Bolivia, Peru, and Brazil) form a clade with *P. elegans*, whereas Central American individuals (from Panama and Costa Rica) form a clade with *P. sinaloae*, *P. cryptoleuca*, and *P. dominicensis*. In the proposed linear sequence, we grouped *chalybea* with *sinaloae*, *cryptoleuca*, and *dominicensis*, using the phylogenetic placement of the Central American populations (i.e., those that occur in our area). Individuals were not sampled close enough to the type locality of *chalybea*, which is "Cayenne", to determine with certainty which clade would retain the name *chalybea* if these were to be split.

The second issue concerns somewhat unresolved relationships among *chalybea* (Central America), *sinaloae*, *cryptoleuca*, and *dominicensis*. These taxa form a well-supported clade in both phylogenies, and *cryptoleuca* and *dominicensis* are well-supported sister species in both. Relationships of *chalybea* (C.A.) and *sinaloae*, however, are less clear. In Moyle et al. (2008), these two are weakly supported sister species that in turn are sister to *cryptoleuca-dominicensis*, but in Sheldon et al. (2005), *chalybea* (C.A.) is a poorly supported sister to the other species, and *sinaloae* a poorly supported sister to *cryptoleuca-dominicensis*. In making the linear sequence, we considered *chalybea*, *sinaloae*, and *cryptoleuca-dominicensis* to form a three-way polytomy, and placed *sinaloae* first because of its more northwesterly distribution.

Recommendation:

We recommend adopting this corrected linear classification for species of Progne.

Literature Cited:

- Moyle, R. G., B. Slikas, L. A. Whittingham, D. W. Winkler, and F. H. Sheldon (2008). DNA Sequence assessment of phylogenetic relationships among New World martins (Hirundinidae: *Progne*). The Wilson Journal of Ornithology 120:683–691.
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Submitted by: Nicholas A. Mason, MVZ, UC Berkeley, and Terry Chesser

Date of proposal: 19 February 2020



Figure 1: Phylogeny of Progne from Sheldon et al. (2005).



FIG. 1. Estimate of *Progne* phylogeny from cytb data. Numbers on branches are Bayesian/ML bootstrap support. The ML model is GTR + I + G; $-\ln L = 4020.2771$; base frequencies: A = 0.30, C = 0.37, G = 0.11, T = 0.22; rate matrix: A–C = 16.9964, A–G = 248.2475, A–T = 23.0512, C–G = 6.0181, C–T = 101.1734, G–T = 1.0000; proportion of invariable sites = 0.52; and gamma distribution shape parameter = 0.64.



2019-C-11

Transfer (a) Myrmeciza exsul to Poliocrania and M. laemosticta to Sipia, and (b) M. zeledoni to Hafferia

Background:

Myrmeciza has long been considered a heterogeneous genus (Isler et al. 2013), but a revision was only recently published. Following production of a comprehensive time-calibrated phylogeny of the Thamnophilidae (Bravo et al. 2012), Isler et al. (2013) analyzed the available morphological and vocal data in the context of the phylogeny and recommended transferring most species then placed in *Myrmeciza* to 11 other genera. These recommendations were considered in SACC Proposal 628 (<u>http://www.museum.lsu.edu/~Remsen/SACCprop628.htm</u>). Four species of *Myrmeciza* occur in the NACC area, three of which are affected by the proposed transfers.

New Information:

Bravo et al. (2012) concluded that species traditionally placed in *Myrmeciza* in fact form eight clades that, except for Clades G and H (which may or may not be sisters), are not sister to clades consisting of other *Myrmeciza* species (see tree on the next page). One NACC species, *M. longipes*, is the type species of *Myrmeciza*, but our other three species belong to unrelated clades: *exsul* and *laemosticta* to Clade D and *zeledoni* to Clade H.

Isler et al. (2013) recommended that Clade D, the well-supported clade containing *exsul* and *laemosticta*, be split into three genera, due principally to morphological and behavioral differences between *M. griseiceps* and the other members of this clade. Because *griseiceps* is sister to all other species in the clade except *exsul*, placing *griseiceps* in a monotypic genus would necessitate also placing *exsul* in a monotypic genus. Thus, they proposed that *exsul* be placed in the new genus *Poliocrania* and that *griseiceps* be placed in the new genus *Ampelornis*, and that all other species be transferred to *Sipia* Hellmayr 1924. They noted, as additional support for separating *exsul* from species in *Sipia* and *Ampelornis*, that *exsul* differs in nest architecture from the other species in this clade.

Clades G and H are sister taxa in the tree below, but this node is very weakly supported. Likewise, the nodes delineating the successive sister taxa to Clade G + H, which are *Percnostola* Cabanis and Heine 1860 and *Pyriglena* Cabanis 1847, are weakly supported. A reasonably well-supported node (bootstrap support >70%) is reached only by adding the sister to G + H + *Percnostola* + *Pyriglena*, which is *Gymnocichla* Sclater 1858. Various methods of dealing with this circumstance were proposed in the SACC proposal, including (1) transferring all species in the larger clade, including *Gymnocichla*, to *Pyriglena*; (2) transferring all species of *Myrmeciza* in G + H to *Percnostola*; and (3) placing all species in Clade G in *Akletos* Dunajewski 1948 and all species in Clade H in the new genus *Hafferia* Isler et al. 2013. Isler et al. (2013) recommended the latter (see second tree below), and their second choice was the second alternative above (the *Percnostola* option). They favored separate genera for G and H primarily because of the morphological dissimilarity of species in G and H relative to species of *Percnostola*.



Figure 1. Maximum likelihood tree showing paraphyly of *Myrmeciza*, from Isler et al. (2013). Circles at nodes represent bootstrap support: > 70% (black), 50-70% (gray), < 50% (white).



Figure 2. Time-calibrated tree showing recommended taxonomy for former members of *Myrmeciza*, slightly modified from Isler et al. (2013).

SACC passed, apparently by a 7-3 vote, the subproposal recognizing the three genera *Poliocrania, Ampelornis,* and *Sipia* for species in Clade D. The three votes against this arrangement, and in favor of a one-genus treatment, noted that all species in these genera had previously been considered part of *Myrmeciza* and did not consider them sufficiently distinct to warrant three genera.

Votes on the subproposal regarding Clades G and H were more varied. According to the information online, three members of SACC voted in favor of recognizing *Akletos* for Clade G and *Hafferia* for Clade H, whereas five members voted for the *Percnostola* option. Two other members voted for merging all species into *Pyriglena*. Somehow this resulted in the recognition of *Akletos* and *Hafferia*, a treatment that was subsequently adopted by the various global checklists (e.g., Howard & Moore, Clements, IOC, HBW).

Recommendation:

Clearly *Myrmeciza* is not monophyletic and cannot be maintained as is. There are reasonable arguments for each of the proposed taxonomic treatments involving NACC species, but I recommend that we follow SACC on transferring *exsul* to *Poliocrania* and transferring *laemosticta* to *Sipia*. I asked some time ago for clarification from SACC on the votes transferring *zeledoni* to *Hafferia* rather than to *Percnostola* (or *Pyriglena*), but unless we receive a definitive response revising their decision, I would also suggest transferring *zeledoni* to *Hafferia*, following SACC. Accordingly, *Myrmeciza exsul* would become *Poliocrania exsul*, *M. laemosticta* would become *Sipia laemosticta*, and *M. zeledoni* would become *Hafferia zeledoni*. Following the SACC linear sequence for these would result in this sequence:

Myrmeciza longipes Poliocrania exsul Sipia laemosticta Hafferia zeledoni

Please vote on (a) transferring *exsul* to *Poliocrania* and *laemosticta* to *Sipia*, and (b) transferring *zeledoni* to *Hafferia*.

Literature Cited:

Bravo, G.A. 2012. Phenotypic and niche evolution in the antbirds (Aves, Thamnophilidae). Ph.D. dissertation. Louisiana State University. Baton Rouge.

Isler, M. L., G. A. Bravo, and R. T. Brumfield. 2013. Taxonomic revision of *Myrmeciza* (Aves: Passeriformes: Thamnophilidae) into 12 genera based on phylogenetic, morphological, behavioral, and ecological data. Zootaxa 3717 (4): 469–497.

Submitted by: Terry Chesser

Date of Proposal: 20 February 2020
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Revise the taxonomy of Paltry Tyrannulet *Zimmerius vilissimus*: (a) elevate extralimital subspecies *improbus* and *petersi* to species rank, (b) elevate subspecies *parvus* to species rank, and (c) adopt new English names in accordance with these changes

Effect on NACC:

Subproposal (a) would elevate extralimital taxa *improbus* (incl. *tamae*) and *petersi* to species status, thereby removing them from *Zimmerius vilissimus*. This would follow the action of SACC and would require changes to the notes and distributional statement of *vilissimus*. Subproposal (b) would split largely Central American taxon *parvus* from *vilissimus*, elevating *parvus* to species status. Subproposal (c) concerns the adoption of English names for any new taxa recognized and a possible new English name for parental species *vilissimus*.

Background:

Paltry Tyrannulet (*Zimmerius vilissimus*) is a common and familiar bird of Central America and northwestern South America. It occurs in several disjunct populations that correspond to recognized subspecies as well as some populations that may require additional taxonomic recognition. The species account in AOU (1998) included three groups within *Zimmerius vilissimus*:

- *vilissimus* (Paltry Tyrannulet, monotypic) southeastern Mexico, southern Belize, much of Guatemala, and possibly northwestern Honduras
- *parvus* (Mistletoe Tyrannulet, monotypic) most of northern Honduras, eastern Nicaragua, Costa Rica, Panama, and a small part of Colombia bordering Panama; recent records also suggest occurs locally in s. Belize and se. Guatemala (see eBird)
- improbus, which includes three generally recognized subspecies:
 - *improbus* Mountain Tyrannulet or Specious Tyrannulet, Eastern Cordillera of Colombia and Mérida Cordillera of Venezuela
 - *tamae* Mountain Tyrannulet or Specious Tyrannulet, Tamá Paramo of Venezuela, Santa Marta Range of Colombia, Serranía de Perijá of Colombia and Venezuela *petersi* - Venezuelan Tyrannulet, coastal mountains of north-central Venezuela

and noted that *vilissimus* and *parvus* "differ in habitat (especially elevation) and size, and may represent distinct species." The map on the next page shows the distribution of these taxa (as well as that of the closely related *Z. albigularis*), although the map does not distinguish *tamae* from *improbus*.

These taxa have traditionally been treated as subspecies of *Z. vilissimus*. Cory and Hellmayr (1927) considered *vilissimus* a polytypic species with four subspecies (all of the above except *tamae*, which was not described until 1954) and the treatment in Peters (Traylor 1979) recognized the single species *vilissimus* and five subspecies. However, Fitzpatrick (2004) split *vilissimus* into two species based on differences in plumage, voice, and habitat: *vilissimus* (including *vilissimus* and *parvus*) and *improbus* (including *improbus*, *tamae*, and *petersi*).



It has long been known that *parvus*, although typically much smaller than *vilissimus*, exhibits considerable size variation. Ridgway (1907), for example, stated that "If all the birds of this species from Nicaragua. Costa Rica, and Panama are really of one subspecies the individual variation in size is very remarkable." He went on to note that "[s]ome specimens, even among those from Panama, are nearly as large as [specimens] from Guatemala; but all that I have seen are readily distinguished from the latter by the much paler and less extensive yellowish color of the sides and flanks." Traylor (1982) studied the morphology of parvus and vilissimus in detail and concluded that "this remarkable variation in size is not individual, but is due to an abrupt increase in size with altitude over a comparatively small geographic range." As shown in his Figure 1 on the next page, wings of *vilissimus* are typically much longer than those of most parvus, especially in those individuals in close proximity in Honduras and Nicaragua. However, wing length of individuals of parvus from the highlands of Costa Rica and Panama overlap to some extent with that of vilissimus from Guatemala. Traylor also noted that the large individuals of *parvus* are unlikely to be related to *vilissimus*, given that they are identical in plumage with other individuals of *parvus*, including those that approach closest geographically to *vilissimus* in northern Honduras. Traylor considered that the two forms had been on separate evolutionary trajectories for some time and had only recently come within close proximity of each other. He noted that the abrupt morphological change "suggests that they might well behave as distinct species if they were to come into contact", but suggested that vocal and behavioral data should also be brought to bear on the question of species status.



FIG. 1. Wing length of various populations of Zimmerius vilissimus. Wing lengths of nominate vilissimus are strikingly longer than those of parvus from adjoining Nicaragua and Honduras and from lowland Costa Rica and Panama. However, highland populations of parvus from Panama and Costa Rica approach vilissimus in wing length.

New information:

Molecular analyses

Rheindt et al. (2013) undertook a molecular analysis of the genus *Zimmerius*, with denser taxon-sampling within the *Z. vilissimus* complex. They obtained sequence from both mitochondrial DNA (ND2 plus some adjacent tRNA-Met) and nuclear DNA (Fib5), although their results were driven mainly by the mitochondrial data (the nuclear tree was largely unresolved). Their mtDNA and concatenated phylogenies are shown in their Figs. 1 and 3 (below).

Highlighted in red in Fig. 3 are the taxa currently included in *Z. vilissimus*, which consists of at least three non-sister taxa: *petersi*, *improbus*, and *parvus/albigularis/vilissimus*. Only one sample of *Z. v. petersi* was available, but it forms a distinct lineage that is sister to *Z. gracilipes*. Subspecies *Z. v. improbus* (incl. *tamae*) forms a separate clade sister to five other South American taxa (with strong support for *improbus* monophyly, but without significant support for the sister relationship). Finally, *Z. v. parvus* and *Z. v. vilissimus* are part of an unresolved polytomy together with *Z. albigularis*. Rheindt et al. (2013) noted that these three taxa were fairly divergent, differing by at least 4.5% in mtDNA.



Figure 1. Bayesian tree topology of the mitochondrial DNA (= ND2) dataset (outgroup not shown). Nomenclature sensu Remsen et al. (2012) [i.e. populations from San Martín (Peru) shown by Rheindt et al. (2008a) to belong to Zimmerius viridiflavus are here labelled 'Zimmerius chrysops' (south)]. Branch support is given in the order: parsimony bootstrap/ maximum likelihood bootstrap/Bayesian posterior probabilities. Only significant branch support is given, here defined as > 90 (for Bayesian) or > 85 (for parsimony/likelihood). A bold '100' indicates maximum branch support for all three analytical modes. Where only one nonbold number is given, it refers to Bayesian support and implies that likelihood and parsimony support were not significant.

The structure within the *Z. i. improbus / tamae* group was unclear; Samples of the *improbus / tamae* group formed three clades with the following distributions: (1) Norte de Santander, Colombia & Táchira, Venezuela: 4 samples; (2) Santa Marta Range of Colombia: 2 samples; (3) Serranía de Perijá of Colombia: 2 samples. This group needs additional clarification with molecular, song, and plumage analysis.



Figure 3. Bayesian tree topology of the concatenated dataset (outgroup not shown). Nomenclature is based on the taxonomic recommendations of the present study. The green vertical bar marks the former *Zimmerius chrysops* (*sensu* Remsen *et al.*, 2012). Taxa formerly subsumed under *Zimmerius vilissimus* are given in red. Branch support is given in the order: parsimony bootstrap/maximum likelihood bootstrap/Bayesian posterior probabilities. Only significant branch support is given, here defined as > 90 (for Bayesian) or > 85 (for parsimony/likelihood). A bold '100' indicates maximum branch support for all three analytical modes. Where only one nonbold number is given, it refers to Bayesian support and implies that likelihood and parsimony support were not significant.

Phenotypic comparison of parvus and vilissimus

The appearance of *vilissimus* and *parvus* is strikingly different—especially for *Zimmerius*—in field impressions, with size (see wing lengths above), plumage, and vocalizations giving the impression of utterly different taxa (MJI pers. obs.).

Plumage.—Following the recognition of *Z. vilissimus* and *Z. parvus* as separate eBird species in 2018, MJI undertook a comprehensive review of photos to help elucidate the ranges of the two species for eBird. These photos (along with more recently submitted ones) can be seen here:

- vilissimus: <u>https://ebird.org/media/catalog?taxonCode=paltyr2&mediaType=p&sort=rating_rank_desc</u>
- parvus: <u>https://ebird.org/media/catalog?taxonCode=paltyr3&sort=rating_rank_desc</u>

In addition to published differences in size and plumage, the following differences were evident in Macaulay Library photos and audio recordings from areas of the core range for each taxon:

	parvus	vilissimus
Iris color	gray (Panama) or dark brown	Dark or blackish
	(Costa Rica, Guatemaia)	
Supercilium above eye	Fairly narrow throughout,	Wide throughout, especially
	especially above eye, where 1/2 or	above eye, where $2/3$ to 1 eye
	less eye width	width; recalls Philadelphia Vireo
Ear coverts	Olive	Washed brownish
Tail	Medium	Long
Bill	Slightly decurved, with curved	Short, thick and straight, recalling
	culmen and slight curve to lower	small vireo (e.g., Philadelphia)
	margin of mandible, with a	(8, 1
	curved gape giving downcurved	
	appearance	
Yellow wing fringing	Medium broad, and always	Very narrow, and can be missed
	apparent	in distant views
Undernarts	Gravish and lightly streaked with	Whitish on throat with well-
	vellowish belly and/or undertail	defined vellowish flanks
Supercilium color	Faint yellow wash	Whitish
Forehead	Dark crown meets top of bill on	Supercilium continuing across
	forehead	forehead
Crown pattern	Dark center to crown feathers (in	Crown feathers without dark
*	close view) above bill	centers
Habitat	Atlantic lowlands (Honduras)	Highlands, Atlantic foothills,
	· · · · ·	Pacific foothills
Primary vocalization	Mourning piping, often two-noted	Finch-like single-noted 'plip',
-	and rising or falling at end.	recalling European Greenfinch or
	recalling Common Ringed Plover	Yellow-bellied Tyrannulet

Vocalizations.—The primary call of *parvus* is a 'pleee-ip' call that recalls Common Ringed Plover (MJI), or a loud plaintive "peeer", "peeeu" or "peeyup" notes uttered at intervals of several to many seconds (Fitzpatrick et al. 2020), as in the example below from Cerro de la Muerte, Costa Rica © David L. Ross Jr.: <u>https://macaulaylibrary.org/asset/205764</u>



However, it is sometimes less distinctly two-noted, as in the example below from Alajuela, Costa Rica © Juan D Astorga: https://macaulaylibrary.org/asset/140975421



The common primary contact call of *vilissimus* is completely different: a plaintive 'plip' or 'phewp' note with a finch-like quality similar to some calls of European Greenfinch (e.g., <u>https://macaulaylibrary.org/asset/189805791</u>) (MJI). Also described as "persistent series of downslurred whistled "pee-areet" or "pyeu" notes uttered at intervals of several to many seconds, similar to calls of *Ornithion semiflavum* (del Hoyo et al. 2020).



Reserva Los Tarrales, Guatemala (© Matt Medler): https://macaulaylibrary.org/asset/137699

Recordists on Xeno-canto (e.g., Richard Webster; <u>https://www.xeno-canto.org/335106</u>) have suggested that a two-noted vocalization may be the song of this taxon, with seven examples as of 21 February 2020. The lone example in Macaulay Library is below, from Cascadas de Don Juan, El Salvador (© Edwin Calderon): <u>https://macaulaylibrary.org/asset/27718991</u>



Note that the dawn song of *vilissimus* does not yet seem to have been described (Fitzpatrick et al. 2020, Jones 2020) and there do not appear to be any examples on Xeno-canto or Macaulay Library. Fitzpatrick et al. (2020) explicitly downplayed the significance of dawn songs in *Zimmerius*, suggesting they are similar across the genus.

Many published descriptions of "Paltry Tyrannulet" calls have not explicitly connected the descriptions to *parvus* or *vilissimus*. However, Del Hoyo et al. (2020) and Fitzpatrick et al. (2020) recognized each at the species level and reinforced the differences described above in their descriptions of the vocalizations of the two taxa:

parvus: Dawn song is a rather melancholy-sounding "yer-de-dee, yer-de-dee, pe-pe-pe" or "deeu deeu dee tee-a-weedy", which is sometimes followed by a faint rattle or trill. A loud plaintive "peeer", "peeeu" or "peeyup" notes uttered at intervals of several to many seconds; compared to formerly conspecific *Z. vilissimus*, the daytime calls are medium/long mellow flat whistles, frequently with an upward inflection at the end. (del Hoyo et al. 2020)

vilissimus: Persistent series of downslurred whistled "pee-areet" or "pyeu" notes uttered at intervals of several to many seconds, similar to calls of *Ornithion semiflavum*. Dawn song probably very similar to that of *Z. parvus* (and other congenerics). (Fitzpatrick et al. 2020)

Vocalizations of *parvus* and *vilissimus* sound completely different, so much so that they are unrecognizable as the same species to observers familiar primarily with one taxon (MJI pers. obs., Amy McAndrews pers. comm.).

Taxonomic treatments from other sources

Rheindt et al. (2013) suggested that four species be recognized: *Z. vilissimus*, *Z. parvus*, *Z. petersi*, and *Z. improbus*. In 2017, SACC (see SACC Proposal 741) voted unanimously to elevate subspecies *improbus* (as Spectacled Tyrannulet) and *petersi* (as Venezuelan Tyrannulet) to species rank but did not consider the split of *Z. parvus* due to its mainly North American distribution. Because of these splits, the English name of *vilissimus* was changed from Paltry Tyrannulet to Mistletoe Tyrannulet; however, note that this is the English name that AOU (1998) used for the *parvus* group.

Taxonomic arrangements from global lists, based largely on Rheindt et al. (2013), include:

Dickinson & Christidis (2014) – *Z. vilissimus* (Paltry Tyrannulet), *Z. improbus* (Mountain Tyrannulet), and *Z. petersi* (Venezuelan Tyrannulet)

Gill and Donsker (2019) – Z. vilissimus (Paltry Tyrannulet), Z. parvus (Mistletoe Tyrannulet), Z. improbus (Spectacled Tyrannulet), and Z. petersi (Venezuelan Tyrannulet)

- HBW Alive (2019) Z. vilissimus (Paltry Tyrannulet), Z. parvus (Mistletoe Tyrannulet), Z. improbus (Mountain Tyrannulet), and Z. petersi (Venezuelan Tyrannulet)
- Clements (2019) Z. vilissimus (Guatemalan Tyrannulet), Z. parvus (Mistletoe Tyrannulet), Z. improbus (Spectacled Tyrannulet), and Z. petersi (Venezuelan Tyrannulet)

Recommendation:

(a) It seems clear from the Rheindt et al. (2013) phylogeny that *petersi* and *improbus* are not closely related to *Z. vilissimus*. Therefore, we recommend that NACC follow SACC in splitting these taxa from *vilissimus*.

(b) The relationship of parvus and vilissimus was not well resolved in the Rheindt et al. (2013) phylogeny, and there is not enough to recommend a split based solely on this study. The data are equivocal in that the two taxa may or may not be sisters, and because their mitochondrial divergence is less than that between any other pair of sister species in this species complex; however, the mitochondrial divergence appears to be much greater than that within any other single species in the complex, and slightly greater than that separating Z. albigularis from both parvus and vilissimus. As to phenotype, the two taxa are easily distinguished by plumage, and differences in size are substantial where they approach each other near the Guatemala-Honduras border (and throughout their ranges except for small overlaps between vilissimus and high-elevation populations of parvus in distant Costa Rica and Panama, as detailed above). Vocal differences between parvus and vilissimus appear to be as great as those between parvus and petersi and greater than those between petersi and improbus/tamae, although with a very small sample size (n=2) for the latter (Boesman 2016). Vocalizations are good indicators of species limits in suboscines, so we give this significant weight, especially in conjunction with the structural and plumage differences. This is a close call, largely because the vocal data, although available online, are unpublished, but the combination of strong phenotypic and suggestive genetic data leads us to recommend that the committee split parvus from vilissimus.

(c) If (a) passes, we recommend using the SACC English names Venezuelan Tyrannulet (for *petersi*) and Spectacled Tyrannulet (for *improbus*) for any mention of these species in the revised species account for *vilissimus*. If (b) passes, we need to come up with new English names for *vilissimus* and *parvus*. We recommend that the name Mistletoe Tyrannulet, used in AOU (1998) as the name for the *parvus* group and now widely adopted for *Z. parvus*, be adopted as the English name for this species. As for *vilissimus*, most sources continue to use Paltry Tyrannulet for this species, in contradiction of our English name policy; however, Clements is using Guatemalan Tyrannulet, which seems like a reasonable name given that the heart of its distribution is in Guatemala, and we recommend following suit.

If (b) does not pass, the situation becomes murkier. SACC changed the name of *vilissimus* from Paltry Tyrannulet to Mistletoe Tyrannulet, based on the principle of not re-using the parental English name for a split species for any of the daughter species. However, the English name SACC used for *vilissimus* is the English name of the *parvus* group in AOU (1998). A case could be made for simply retaining Paltry Tyrannulet as an exception under our guidelines for English names, due to asymmetry of range size, and we would recommend that NACC do so, pending further data on a possible split of *parvus* from *vilissimus*.

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Submitted by: Terry Chesser, Marshall J. Iliff, and Andrew W. Jones

Date of Proposal: 21 February 2020

Comments from SACC on Proposal 741: Split *Zimmerius vilissimus* into two or three species: (A) split *improbus*, (B) split *petersi*

<u>Comments from Stotz</u>: "A YES. B YES. I would rather have more explicit description of the vocal differences here, but the fact that these taxa are all over the tree indicates to me that they should be fully split. There are a couple of English name issues. If we split up *vilissimus*, normally we would not use Paltry Tyrannulet for *vilissimus*, but would create a new name. I don't have a good alternative, but would be open to any ideas anybody else has (maybe Tom Schulenberg has an idea). For *improbus*, I would say Mountain. I have no idea what the theory behind Specious Tyrannulet as an English name is."

<u>Comments from Stiles</u>: "YES to A and B. The three S.A. taxa are nowhere near being sisters and differ considerably in plumage. Refer the *vilissimus-parvus* split to NACC."

<u>Comments from Zimmer</u>: "YES to A and B". It's pretty clear from looking at the tree that the three South American taxa are not sisters, and the three-way split makes more sense than any

other option. My memory of *petersi* is that it was vocally and morphologically a pretty different beast from the Central American populations that I was much more familiar with. I can't speak to differences between *improbus/tamae* and the others, but the tree tells me enough. I would argue that the four-species split favored by Rheindt et al (2013) is the even better path, but the split of *parvus* and *vilissimus* is out of our jurisdiction. As for English names: I think "Mistletoe Tyrannulet" for *parvus* and "Venezuelan Tyrannulet" for *petersi* should be baked in, and I have a definite preference for "Mountain Tyrannulet" over "Specious Tyrannulet" for *improbus/tamae*. If NACC does, indeed, end up splitting *vilissimus* and *parvus*, then I would think that a new name would be desirable for *vilissimus*. If NACC doesn't split those two, then I would actually suggest adopting "Mistletoe" as the modifier for the combined *vilissimus/parvus*."

<u>Comments from Jaramillo</u>: "YES – to A and B. Having recently returned from the Perijá Mountains after a visit to Guatemala, it is hard to fathom that *improbus* and *vilissimus* are considered sympatric. Not only are they quite different in plumage, the size and structure differences are easily visible. So, it is heartening to see the molecular data bear this out."

<u>Comments from Areta</u>: "YES to A and B. I wish there was more information available for *petersi*, but how little data is available on genetics and vocalizations is consistent with species level differentiation for *Zimmerius petersi*."

<u>Comments from Robbins</u>: "YES to both A and B, as the genetic data demonstrate that the three pertinent taxa to our committee aren't even sister taxa.?"

Comments from Claramunt:

"A YES. Z. *improbus* seems a well differentiated clade and separated from the trans-Andean clade.

"B YES. *Z. petersi* falls in a clade with *bolivianus* and *gracilipes* only in mtDNA but Bf5 strongly suggests affinities with *improbus*, which makes more biogeographical sense (note that the proposal is misleading in saying that analyses of the two genes produced the same topology). So, there's gene-tree incongruence here. But given the levels of gene divergence, the conflict seems an issue lineage sorting in ancestral populations, not ongoing gene flow. In addition, there are plumage differences (although I wouldn't say they are "strong") and songs seem also to differ drastically (two notes versus one note, if I'm interpreting well what is available on-line).

"Finally, note that two of the basal nodes in the mtDNA tree are not strongly supported and one of those conflicts with one strongly supported BF5 node. So, be cautious in reading the mtDNA tree. Some nodes may reflect just the stochasticity of gene genealogies rather than species relationships. For example, I would not be surprised if BF5 turns to be right in suggesting that *petersi* is sister to *improbus*."

<u>Comments from Pacheco</u>: "YES to A and B. In both cases, the data now available indicate that those involved taxa are not sisters."

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Split Dusky Thrush Turdus eunomus and Naumann's Thrush T. naumanni

Background:

The Dusky Thrush (*Turdus naumanni*), an Asian species that occurs in our area as a vagrant, was long treated as a polytypic species with two subspecies; in AOU (1998), we treated the two subspecies as groups under the species account for *T. naumanni* (*sensu lato*). Both subspecies breed in Russia, where subspecies *eunomus* breeds to the north of the nominate subspecies *naumanni*, and both winter in southeastern Asia. The two subspecies are readily distinguished: the back and rump of *eunomus* are dark brown, the face, breast, and flanks are black, and the upperwing (tertials, secondaries, coverts) is extensively rufous, whereas *naumanni* is pale brown on the head and back and reddish on the breast, flanks, rump, and underwing:



Dusky Thrush *Turdus eunomus* (left) and Naumann's Thrush *T. naumanni* (right) [photos © Alnus and M. Nishimura, respectively, from Wikimedia Commons].

Over the last two decades, most if not all Old World and global references have split Dusky Thrush, transferring the English name Dusky Thrush to *T. eunomus* and using Naumann's Thrush for *T. naumanni*. Dusky Thrush *sensu stricto* has occurred as a casual stray to Alaska, including the mainland (e.g., Anchorage area and southeast AK), as well as to the Yukon and British Columbia. Naumann's Thrush has been photographed at Gambell in spring (see Lehman 2019) and at St. Lawrence Island, and JLC believes that there are spring sight records for Attu Island in the Aleutians and St. Paul Island in the Pribilofs.

Murray (2009) discussed the taxonomy of these species in the BOU and BBRC's acceptance of the first record for the UK, summarizing a paper in Russian by Stepanyan (1993). Stepanyan split the two species, although he acknowledged that low levels of hybridization occur within the regions of sympatry. However, he argued that they displayed widespread reproductive isolation. He suggested that the hybridization occurs only at low levels in the limited areas where the two species overlap, that hybrids are genuinely rare, and that hybrids are unknown in some regions of sympatry, including the lower reaches of the Angara River, the Angara-Podkamennaya Tunguska catchment, and the upper reaches of the Nizhnyaya Tunguska River. Stepanyan noted that the collection in the Zoological Museum of Moscow University contains 81 specimens of undoubted *naumanni*, 62 of undoubted *eunomus*, and 27 showing mixed characters. He stated that typical hybrids looked like Dusky with some Naumann's characters, and that birds that looked like Naumann's only very rarely showed characters of Dusky. It was suggested that the frequency of hybrids in collections might reflect an interest in seeking such birds. Knox et al.

(2008), in their taxonomic recommendations for British Birds, recommended that the two be split, and the BOURC followed suit.

Clement (2000, p. 385) provided an interesting comment concerning the relative distributions of these largely allopatric taxa:

In addition to these overlap areas [those noted above], there is new evidence to show that in areas near the delta of the Lena and Olenek rivers (at about 73° N) small groups of naumanni are breeding (and doubtless elsewhere within the extensive areas of Yakutia, e.g. the upper reaches of the Kotuy River) (K. Mikhailov pers. comm.). This apparent range extension takes *naumanni* north of the more northerly breeding eunomus, which is apparently absent from these areas. In addition the definition of a regular breeding area for those birds, in areas so poorly known ornithologically, becomes further confused in that both naumanni and eunomus (together with other species, e.g. Brambling Fringilla montifringilla) breed erratically south of their 'normal' ranges in eastern Siberia and southeast Russia. In particular in years when poor weather delays northward migration Dusky Thrushes are known to wander in groups throughout May and early June in the Sikhote-Alin and Bikin areas of southern Amurland (where there are good areas of suitable breeding habitat) and occasionally or regularly breed up to 500 km south of the Stanovoi Range. In successive years a small and isolated population becomes temporarily established only for the area to be abandoned in years when there is no barrier to the entire population migrating further north to breed.

Perhaps these events cause periods of more frequent hybridization.

Recommendation:

The data in support of this split are not particularly strong, and the fact that nearly 18% of Moscow University specimens are hybrids gives one pause. Per Alström (pers. comm.) sent the following comments on these species:

I've seen lots of birds with intermediate plumage between *naumanni* and *eunomus* in the field as well as in museum collections. However, I can't know whether these are the result of interbreeding between these or just examples of strong individual variation. As far as I'm aware, there have been no comprehensive studies of their vocalisations, and the songs are extremely poorly known (but no consistent differences in voice are known, to the best of my knowledge). The situation on the breeding grounds is extremely poorly known, and reports of sympatry and lack of interbreeding probably need to be verified.

Whether *naumanni* and *eunomus* (and *T. atrogularis* and *T. ruficollis*) should be treated as con- or heterospecific is mainly a matter of taste, and I have no strong opinion.

Per also noted, based on the phylogeny, that "*naumanni* and *eunomus* are among the most recently diverged of all *Turdus* taxa that are currently treated as separate species."

Knox et al. (2008) reasoned that these two are very differently colored taxa that also differ in structure (Lars Svensson unpubl. data), that hybrids were poorly described, and that apparent hybrids are much rarer than would be expected if they were freely interbreeding. We're not sure how convincing these arguments are, but those were their published conclusions.

In our opinion, the strongest argument for separating these species is the fact that these are Old World vagrants to our area (i.e., not "our birds") and that NACC is an outlier in its treatment of these species. To maintain our current treatment, in our view, would require some justification. Therefore, despite the equivocal evidence, we recommend that the committee vote YES to split these species, and that we adopt the English names in widespread use, which were previously used for the two groups in AOU (1998).

Path forward:

If this motion passes, the Alaska Checklist Committee would consider the photographed record at Gambell, St. Lawrence Island, to determine whether *T. naumanni* should be added to the Alaska list. It was found and photographed by Rich Hoyer and seen by many late on 5 June 2015 (photo published in color on p. 268 *in* Lehman, 2019). If accepted, then it would be reviewed by the ABA-CLC, then by the NACC. It's complicated, but these are our standard procedures. Per Alström looked at the photo and description and thought that the identification was correct. I'll attach his comments to the record if and when the NACC is asked to endorse the Gambell record.

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Submitted by: Jon L. Dunn and Terry Chesser

Date of Proposal: 21 February 2020

Change the English name of Gymnasio nudipes to Puerto Rican Owl

In proposal 2020-B-9, the committee voted to remove Puerto Rican Screech-Owl from *Megascops* and place it in a monospecific *Gymnasio*. Given that Puerto Rican Screech-Owl is sister to Flammulated Owl, the committee also needs to consider a change to the English name of *nudipes* (or to that of *flammeolus*), because the group name "screech-owl" is no longer restricted to a monophyletic group. Options for making the group name monophyletic are as follows:

- 1. Change the English name of *nudipes* to something other than Puerto Rican Screech-Owl.
 - 1a. Change Puerto Rican Screech-Owl to Puerto Rican Owl. This is probably the cleanest option, because it maintains a 1-to-1 match between the group name "screech-owl" and the genus *Megascops* and is a fairly minor change. Although this species isn't the only owl on Puerto Rico, it is the only (extant) endemic owl; this is analogous to the situation with Jamaican Owl *Pseudoscops grammicus* on Jamaica.
 - 1b. Change Puerto Rican Screech-Owl to a different English name. I'm not aware of any other (currently usable*) English common names that have been applied to *G. nudipes.* However, the Puerto Rican Spanish name for the species Múcaro** (from the Taíno name for the species) could potentially be applied (as Mucaro) as an English common name. It wouldn't be the first bird in the Americas lacking the common name base of all its relatives (others include Sora, Jabiru, the two whippoor-wills and Chuck-will's-widow, several ducks, etc.), it wouldn't be the only owl species with a one-word common name (there's also Morepork), and it would be far from the only species in the Americas with an English name derived from Spanish. Mucaro is a unique, memorable name that's already in fairly widespread use for the species (albeit in a different language). However, it doesn't have any link to the current English name, which goes against the AOS's preference for stability in English names, and could be especially confusing with the simultaneous change to the scientific name. (Mucaro Owl isn't recommended, since it would essentially mean "[Puerto Rican Screech-Owl] Owl".)
 - *The historical common name Bare-legged Owl is off the table for *nudipes* because it is currently in use for *Margarobyas lawrencii*. Puerto Rican Bare-legged Owl has also been used (with Cuban Bare-legged Owl for *M. lawrencii*), but that doesn't seem like a good idea either now that it turns out the two aren't closely related. Simply dropping the hyphen from Puerto Rican Screech-Owl (changing the name to Puerto Rican Screech Owl) could cause considerable confusion; moreover, it just doesn't look right juxtaposed with all the screech-owls immediately following it in the linear sequence.
 - **Other names include Mucarito, Múcaro Común (in contrast to Múcaro Real, the Shorteared Owl), Mucarito de Puerto Rico, and so on. Just plain Múcaro seems like it's the most commonly-used vernacular name, but I'd be happy to be corrected on that.
- 2. Retain the name Puerto Rican Screech-Owl for *Gymnasio nudipes* and change Flammulated Owl to Flammulated Screech-Owl. This name has some historical precedent because *flammeolus* was called Flammulated Screech Owl on the AOU checklist through the 4th edition (for the 5th edition, the group name Screech Owl, previously applied to all

subspecies of *Otus asio*, *O. trichopsis*, and *O. flammeolus*, was restricted to *Otus asio* and "Screech" dropped from the names of the other taxa). It appears that the reason "screech" wasn't re-added to Flammulated Owl in the 6th edition is that the species was thought to be more closely related to scops-owls at the time, so in a way, changing Flammulated Owl to Flammulated Screech-Owl would be fixing a historical error. However, this option would remove the current one-to-one match between the name "screech-owl" and the genus *Megascops*.

Recommendation:

I recommend changing the English name of *nudipes* to Puerto Rican Owl. Other English names, as in option 1b, lack a connection to the previous English name for the species. Changing the English name of *flammeolus* to Flammulated Screech-Owl, an alternative to changing the English name of *nudipes*, would also restrict the group name "screech-owl" to a monophyletic group, but it would remove the one-to-one match between that group name and the genus *Megascops*. These recommendations are in keeping with the AOS' preference for stability in English names.

A YES vote would be to change the English name of *nudipes* to Puerto Rican Owl, continuing to use "screech-owl" only for species in *Megascops*. If voting NO on this, the preferred alternate option should be specified.

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American Ornithologists' Union (AOU) (1983). Check-list of North American Birds, 6th ed. American Ornithologists' Union, Lawrence, Kansas.

Submitted by: Max T. Kirsch

Date of Proposal: 22 February 2020

Treat Northwestern Crow Corvus caurinus as conspecific with American Crow C. brachyrhynchos

Background:

In the original species description for *Corvus caurinus*, Spencer F. Baird wrote: "In all essential features it is like the [American Crow]; so much so, indeed, that but for the slight difference in size it would be difficult to tell skins of the two apart", and "it is so much like the [American Crow] as to be only distinguishable by its inferior size and habits. Indeed, it is almost a question whether it be more than a dwarfed race of the other species" (Baird 1858).

Recognizing *Corvus caurinus* at the species level has been controversial ever since. Not long after Baird's hesitant description in 1858, other prominent authors considered *caurinus* to be conspecific with the American Crow (Cooper 1870, Coues 1873, Ridgway 1877, 1904; Rhoads 1893). One past edition of the AOU checklist (AOU 1931) also lumped *caurinus* with *brachyrhynchos*.

Interestingly, Baird's original description of *Corvus caurinus* used the common name "Northwestern Fish Crow". He remarked that "though not much like the eastern fish crow [*Corvus ossifragus*], [it] appears to possess its peculiar habits", referring to the idea that "they are maritime, feeding on the sea beach at low tide." He also mentioned that "the note, too, is said to be a little different." Thus, from the beginning, *Corvus caurinus* was considered to be a small crow of the coastal Pacific Northwest with a slightly different voice from the American Crow and a tendency to forage along the waterline. However, this has proven confusing to generations of thoughtful field observers, because crows in the Pacific Northwest range north and south along the coast and occur along the immediate shoreline, inland, and everywhere in between.

One vocal proponent for recognizing Northwestern Crow as a separate species was Major Allan Brooks. He claimed to be able to readily distinguish American and Northwestern crows in the field based on behavior and habitat. He further asserted that the two species bred assortatively in sympatry at Sumas Prairie, British Columbia, with *caurinus* occurring close to the lower Fraser River and *brachyrhynchos* away from the river (Brooks 1917, 1942).

In contrast to Brooks, who based his arguments largely on field observations, most museum researchers who measured series of American/Northwestern crow specimens found a cline of decreasing average body size northward along the Pacific coast, but with a considerable amount of individual variation at any given locality. For example, in 1893, Samuel N. Rhoads wrote, "extremes of the series, referable to *caurinus* on the one hand, and to [*brachyrhynchos*] on the other, are connected by an unbroken chain of intermediates exhibiting every possible phase of gradation, inhabiting promiscuously certain parts of the same breeding range, and that in three localities the extremes were found paired together" (Rhoads 1893).

The most thorough treatment to date using traditional methods was by David W. Johnston, who addressed the topic at length in a section called "The *'Corvus caurinus'* problem" in his book *The Biosystematics of American Crows* (Johnston 1961, pp. 27-37). Johnston carried out field work in Washington, noting voice and habitat choice, and measured a large number of specimens from along the Pacific coast. Johnston only analyzed breeding season specimens,

so as to not potentially include migrants from elsewhere at a given locality, and he also accounted for different age and sex classes. His conclusion was that:

All the data presented here--voice, habitat choice, measurements--clearly negate any hypothesis that crows of northwestern North America represent a distinct species. Rather, the evidence points to the existence of a zone of intergradation in southwestern Washington and restricted localities in British Columbia where crows from the northern and southern populations freely interbreed with one another. In the absence of clear-cut differences between the northern and southern populations and the absence of reproductive isolation, it follows that the Northwestern Crow is simply a well-marked ecologic subspecies of *C. brachyrhynchos*.

In his book, Johnston presented several box plots and data tables of measurements to back up this premise. In the "Summary and Conclusions" section of his book, Johnston concluded:

an intensive field and specimen study of the Northwestern Crow was undertaken to elucidate both morphologic and ecologic traits of this form, and it was concluded that it is a well-marked subspecies of the [American] Crow, being properly identified as *C. b. caurinus*. Evidence for this conclusion was forthcoming upon the discovery of a broad zone of intergradation in southwestern Washington where specimens intermediate in measurements and voice were noted. Thus, the range of the Northwestern subspecies extends from Alaska southward along coastal British Columbia to northwestern Washington, and at least in the Fraser River valley of British Columbia, it intergrades with the Western subspecies, *C. b. hesperis* (pp. 105-106).

Today, the American Ornithological Society recognizes American and Northwestern crows as separate species. Little new information has emerged in the half century since Johnston (1961).

New Information:

Slager et al. (2020) recently published a population genetic study of American and Northwestern crows using the mitochondrial DNA ND2 marker (n=259 individuals) and nuclear DNA SNP data (n=62 individuals). They found that American and Northwestern crows are represented by two 1.1%-divergent mtDNA clades and two nuDNA ancestry clusters, which are largely concordant with each other. However, they also found extensive hybridization, with geographic overlap of mtDNA clades and admixture of nuDNA across >900 km of coastal Washington and coastal British Columbia (Figs. 1, 2). The nuclear DNA and mtDNA clines had concordant widths and were both centered in southwestern British Columbia. Across most of the hybrid zone, they found that no "pure" individuals were present. Rather, they found evidence for a broad cline in which hybrid index is strongly correlated with latitude, matching well with the assessment of Rhoads (1893): "an unbroken chain of intermediates exhibiting every possible phase of gradation". Furthermore, Slager et al. reported that the broad hybrid zone consists of lategeneration hybrids and backcrosses, not recent (e.g., F1) hybrids, suggesting little to no selection against hybrids (Fig. 3).

Slager et al. (2020) noted that the >900 km-wide hybrid zone in American/Northwestern crows is quite wide, some >7 times wider than the average widths of several other avian hybrid zones in North America (130 ± 44 km, mean \pm SD, n=8; Hoffman et al. 1978, Rohwer and Wood 1998, Ruegg 2008, Irwin et al. 2009, Mettler and Spellman 2009, Brelsford and Irwin 2009, Toews et al. 2011, Seneviratne et al. 2012). The authors suggested that this broad hybrid zone is

consistent with a prominent role for neutral processes at the scale of the whole genome, i.e., little to no selection against hybrids.



Figure 1 from Slager et al. (2020). The bars at left indicate nuclear DNA ancestry proportions, and the adjacent circles indicate mtDNA haplotype for the same individuals. The map depicts proportions of mtDNA haplotypes within localities.

The authors pointed out that the extensive genomic admixture constitutes strong evidence against reproductive isolation, and that in light of their results, past claims of two distinct crow species breeding assortatively in sympatry (Brooks 1917, 1942) were perhaps overly ambitious, possibly arising from the misapplication of subjective identification criteria.

Slager et al. (2020) emphasized that the traditional phenotypic characters for distinguishing American and Northwestern crows, including size, ecology, and voice, were always controversial when subjected to scrutiny. They further suggested, in light of genomic results showing extensive admixture, that in hindsight it is easier to see why these characters were unreliable. Historically, Northwestern Crows were considered to be diagnostically smaller than American Crows (Baird 1858). In actuality, however, size variation in coastal crow populations is clinal, with northern birds averaging smaller, but with great overlap in measurements among individuals, especially near the range boundary (Rhoads 1893, Johnston 1961, D. L. Slager, unpublished data). Likewise, intertidal habitat use, once thought to be a distinguishing feature of Northwestern Crow (Baird 1858), might simply reflect adaptive responses to local food availability (Cooper 1870). Purported vocal differences (Baird 1858, Suckley and Cooper 1860, Brooks 1917, 1942; Hellmayr 1934) do not seem to correlate with size (Rhoads 1893) or habitat (Johnston 1961) near the range boundary, and individual birds have been observed giving typical vocalizations of both taxa (Johnston 1961). Moreover, crows are oscine passerines that learn vocalizations (Beecher and Brenowitz 2005), and individual crows can change vocalizations when joining a new social group (Brown 1985).



Figure 2 from Slager et al. (2020). The mtDNA and nuclear DNA clines along the Pacific coast are broad and largely concordant with each other.



Figure 3 from Slager et al. (2020). F1 hybrids and recent backcrosses are expected to fall within the upper half of the triangle.

Slager et al. (2020) noted that the broad genomic hybrid zone they uncovered corroborates other work documenting a continuous morphological cline in American/Northwestern crows along the Pacific Northwest coast (Rhoads 1893, Johnston 1961, D. L. Slager, unpublished data). Various authorities have been inconsistent regarding the southern range limit of Northwestern Crow, placing it anywhere from California (e.g., AOU 1895) to Oregon (e.g., AOU 1983) to Washington (e.g., Ridgway 1904, Verbeek and Butler 1999, Verbeek and Caffrey 2002, Clements et al. 2017). Slager et al. (2020) pointed out that these difficulties in identifying a discrete range boundary make sense given the existence of a broad genomic cline across a hybrid zone.

Recommendation:

I recommend a YES vote. *Corvus brachyrhynchos* Brehm, 1822 has taxonomic priority over *Corvus caurinus* Baird, 1858.

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Submitted by: David L. Slager, Department of Biology & Burke Museum of Natural History and Culture, University of Washington, Seattle, Washington, USA

Date of Proposal: 25 February 2020

2020-C-16 N&MA Classification Committee

p. 454

Revise species limits within Horned Lark Eremophila alpestris

Effect on NACC:

This proposal would elevate the North American subspecies of Horned Lark *Eremophila alpestris* to species rank.

Background:

Larks in the genus *Eremophila* are widespread and exhibit substantial geographic variation in coloration, plumage patterning, bill morphology, body size, and life history traits across their expansive distribution. Two species are currently recognized within the genus: Horned Lark *E. alpestris* and Temminck's Lark *E. bilopha*. As currently classified, *E. alpestris* is spread across five continents and includes over 40 subspecies with extensive phenotypic variation. In contrast, *E. bilopha* is monotypic and occurs in northern Africa and the Middle East. Within the past decade, a series of phylogeography studies has revealed that *E. alpestris* is paraphyletic as currently defined (Drovetski et al. 2014, Mason et al. 2014, Ghorbani et al. 2020), because *E. bilopha* is nested within *E. alpestris*. Furthermore, there is substantial phylogenetic structure that corresponds to phenotypically and biogeographically cohesive groups of subspecies. With this new phylogeographic information in hand, we reconsider evidence for species limits within the genus.

New information:

Building on the sampling of previous studies (Drovetski et al. 2014, Mason et al. 2014), a recent study (Ghorbani et al. 2020) increased our understanding of mitochondrial variation across the range of *E. alpestris*. Specifically, Ghorbani et al. (2020) included 40 samples not included in the previous studies and sequenced ND2 and cyt b of both New World and Old World populations (Fig 1.). Combined with the sampling from Drovetski et al. (2014), which included 286 samples (Fig. 1), a total of 326 individual horned larks have been sequenced for mtDNA to date. It is difficult to determine which subspecies are represented by these samples, in part because Drovetski et al. (2014) identified them by mitochondrial clade but not by subspecies. Furthermore, subspecies ranges are not well defined and there is clinal phenotypic variation across subspecies. Nonetheless, the results from Ghorbani et al. (2020) confirm the findings of previous studies (Fig 2; Drovetski et al. 2014, Mason et al. 2014). Drovetski et al. (2014) also sequenced two nuclear loci (ACO119 and RHOI1) which were largely uninformative (Fig. 3). None of these studies have yet been considered by the NACC with respect to their taxonomic recommendations. Here, we summarize the new evidence and its taxonomic implications.

Studies conducted to date have inferred between four and six well-supported, monophyletic lineages within *E. alpestris*. All studies have identified the *E. a. elwesi* (Tibetan Plateau) group as sister to the remaining in-group populations of *Eremophila*. Three major clades constitute the remaining taxa: (1) *E. bilopha* (Northern Africa, Middle East), (2) *E. a. penicillata* (Middle East, Morocco), and (3) *E. a. alpestris* (Northern Eurasia, New World). Within these three clades, the *E. a. penicillata* group is further subdivided into *E. a. penicillata* (Caucasus, western China) and *E. a. atlas* (Atlas Mountains). The *E. a. alpestris* group can also be further subdivided into a clade containing *E. a. flava* and *E. a. brandti* (northern Eurasia) as well as a clade containing all the New World populations of *E. alpestris* (Canada, United States, Mexico, Colombia). Drovetski et al. (2014) recommended recognizing seven species within *Eremophila* (Fig. 2), whereas

Ghorbani et al. (2020) suggested recognizing four species. The estimates of crown ages for *Eremophila* differed between the two studies (1.4 Ma; Drovetski et al. (2014) vs 3.3 Ma; Ghorbani et al. (2020)), but the most recent common ancestor of the genus as a whole is still relatively young across estimates.

Importantly, we still lack quantitative information on phenotypic differentiation, diagnosability, and pre-mating reproductive isolation (i.e., playback experiments) among the putative species proposed by Drovetski et al. (2014) and Ghorbani et al. (2020). Thus, any taxonomic changes based on the current data will be drawn largely from molecular phylogenetic analyses and qualitative or anecdotal assessments of phenotypic differentiation and diagnosability.



Figure 1: Chronogram, estimated by Bayesian analysis of concatenated sequences of the mitochondrial genes cytochrome *b* and ND2 (total of 2037 bp). The values above the branches are posterior probabilities. The labels A1–D2 represent clades discussed in the text. The names on clades A–D refer to the revised species taxonomy proposed here. Outgroups are not shown. Taken from Ghorbani et al. (2020).



Figure 2: Phylogenetic tree of mtDNA ND2 haplotypes (left) and the species tree based on ND2 sequences (right). Palearctic clades are identified by subspecific names. Nearctic clades are identified by letters (A - E) due to overlap of their ranges. Numbers next to branches show their posterior probability. Gray bars next to nodes indicate their 95% HPD (highest posterior density) interval for the node age. The scale below each tree indicates time in million years (Ma). Taken from Drovetski et al. (2014).



Figure 3: Haplotype networks and species trees inferred from (A) RHOI1 and (B) ACO119. Numbers next to branches show their posterior probability. Gray bars next to nodes indicate their 95% HPD (highest posterior density) interval for the node age. Scale below each tree indicates time in million years (Ma).

Based on these data, I see five possible options for defining species limits within *Eremophila*.

Option 1: Retain current taxonomy of *Eremophila*. Maintaining the status quo will continue to include a paraphyletic *E. alpestris* with *E. bilopha* nested within. The taxonomic revisions suggested below are almost entirely based on mtDNA evidence and are only partially supported by the very limited nuDNA data at hand. It is also important to note that mtDNA data are not necessarily reflective of species trees and that paraphyly is expected for some time when a narrowly distributed species (i.e., *E. bilopha*) splits from a widely distributed species (*E. alpestris*). Moreover, all other options necessitate decisions on splitting or lumping two or more Old World forms of *E. alpestris*. Therefore, some may prefer to maintain the current taxonomic treatment and wait for global references to consider splitting *E. alpestris*, or to wait for more genomic data, information on reproductive isolation, and data regarding phenotypic diagnosability of putative species before making a change.

Option 2: Recognize three species within *Eremophila*: *longirostris*, *bilopha*, and *alpestris* (incl. *penicillata*). This would constitute the fewest changes necessary to address the paraphyly of *E. alpestris* based on the Ghorbani et al. (2020) tree. However, the support values for uniting the *alpestris* and *penicillata* groups into a single species apart from *bilopha* and *longirostris* are extremely weak, and these relationships are unresolved in the Drovetski et al. (2014) tree, making this option less than satisfactory.

Option 3: Recognize four species within *Eremophila* (clades A-D in Figure 1). As suggested by Ghorbani et al. (2020), one possible treatment would be to recognize the following taxa. The

common names suggested by Ghorbani et al. (2020) are also included here as well as the subspecies that would be included in each of the newly elevated species. We also describe uniting characteristics with respect to phenotype, ecology, or other aspects of their biology.

(1) Himalayan Horned Lark (*Eremophila longirostris; including E. I. longirostris, E. I. deosaiensis, E. I. elwesi, E. I. khamensis, E. I. przewalskii, E. I. argalea, E. I. teleschowi, and E. I. nigrifrons*)

This group is united by white facial and throat patches (as opposed to yellow), These subspecies also share ecological and biogeographic similarities; these taxa are constrained to the plateaus of the Himalayas from China east to Pakistan. However, there is substantial overlap in morphological characters (i.e., wing length, tail length, bill length) between the *longirostris* group and the *penicillata* group (Ghorbani et al. 2020). Furthermore, it is unknown where or whether the *longirostris* group comes into contact with the *penicillata* group to the west or with the *flava* group to the north and what the outcome of such contact might be.

Xeno canto:

- <u>https://www.xeno-</u> canto.org/explore?query=eremophila%20alpestris%20khamensis
- (2) Temminck's Lark (*E. bilopha*: monotypic)

Already recognized as a distinct species that occupies rocky deserts inland from the coast of North Africa. Differs from other *Eremophila* in its smaller size; elongated 'horns'; much paler, pinker, less streaked upperparts; clearer white on throat and belly to vent; and structurally simpler, shorter, weaker song.

Xeno canto:

- https://www.xeno-canto.org/species/Eremophila-bilopha
- (3) Mountain Horned Lark Eremophila penicillata (E. p. penicillata, E. p. balcanica, E. p. bicornis, E. p. albigula, and E. p. atlas)

These larks are united by their preference for high-elevation habitat in the Caucasus and the Atlas Mountains. Furthermore, their cheek band is continuous with their breast patch (although some *atlas* show slight separation). They also share white throat and facial patches, although some faint yellow is present in some throat patches of *penicillata*.

Xeno canto:

- https://www.xeno-canto.org/explore?query=eremophila%20alpestris%20atlas
- <u>https://www.xeno-</u> canto.org/explore?query=eremophila%20alpestris%20penicillata
- (4) Common Horned Lark *Eremophila alpestris* (New World Larks, *E. a. flava, E. a. brandti*).

Nominate subspecies whose putative range would include northern Eurasia (*flava*), Mongolia (*brandti*) and the Americas (remaining subspecies including *alpestris*). The subspecies within this group are variable in morphology, facial and throat coloration, and dorsal coloration and patterning. Many of the subspecies within this group exhibit clinal variation in plumage and morphology. Various populations also differ in migratory behavior.

Xeno canto: <u>https://www.xeno-</u> canto.org/explore?query=eremophila%20alpestris%20cnt%3A%22United%20States %22

This revision would remedy the paraphyly issue with *E. alpestris* by recognizing four new species that are monophyletic as well as biogeographically and phenotypically coherent. Note that *E. a. longirostris* was not included in either study, but is assumed to be closely related to *elwesi* and has taxonomic priority among the subspecies included in that group. These proposed species are either allopatric or parapatric with respect to each other. For example, *E. p. atlas* and *E. bilopha* are separated into different elevational zones in the Atlas Mountains. Similarly, the high-elevation *E. p. penicillata* is separated from low-elevation *E. a. brandti.* Nonetheless, we lack information regarding reproductive isolation among these four proposed species.

Note that no one has analyzed variation among subspecies or populations with respect to vocalizations. Here, we have provided links to xeno canto so that committee members can examine variation, but note that any assessment of variation in song will be purely anecdotal and qualitative. In my listening to the various recordings that are available online, I do not notice any qualitative differences that are diagnostic of any of the subspecies groups. I find lark songs to be variable among individuals within a population and also among singing bouts by an individual. This is an area that needs further in-depth study before a quality assessment of vocal variation among subspecies and populations can be made.

Option 4: Recognize seven species within *Eremophila*. As suggested by Drovetski et al. (2014), one treatment would be to recognize the following taxa. Common names have not been suggested for these putative species and would need to be determined should this option receive support.

- (1) Eremophila longirostris (E. I. longirostris, E. I. deosaiensis, E. I. elwesi, E. I. khamensis, E. I. przewalskii, E. I. argalea, E. I. teleschowi, and E. I. nigrifrons)
- (2) Eremophila bilopha (monotypic)
- (3) Eremophila penicillata (E. p. penicillata, E. p. balcanica, E. p. bicornis, E. p. albigula)
- (4) Eremophila atlas (monotypic)
- (5) Eremophila flava (monotypic)
- (6) Eremophila *brandti* (monotypic)
- (7) Eremophila alpestris (New World larks)

This revision would also remedy the paraphyly issue with *E. alpestris* as currently defined by splitting *E. alpestris* into six species that are monophyletic as well as biogeographically and phenotypically concordant, albeit at a finer scale than Option 3.

Option 5: A last option would be to lump *E. bilopha* and *E. alpestris* into a single species, for which *E. alpestris* Linnaeus, 1758, has priority. Temminck's Lark (*E. bilopha*) has been recognized as a separate species from the Horned Lark (*E. alpestris*) for over five decades, at least since Peters (1960), based on differences in ecology and phenotype (*E. bilopha* is smaller

and occurs at lower elevation than neighboring *E. a. atlas*). The resulting single species of *Eremophila* would be an extreme outlier among avian species with respect to its geographic distribution and its degree of phenotypic and ecological differentiation.

Current treatments: Given that this is a widespread taxon with most populations extralimital to our geographical area, it is useful to know how other authorities treat *Eremophila*. As of the time of this proposal, IOC, Howard and Moore, Clement's Checklist, and HBW all consider *Eremophila* to include two species: *E. alpestris* and *E. bilopha*. Note that IOC indicates a 'possible split' for *Eremophila* in their comments column.

Recommendation:

Submit votes on the following subproposals, as applicable:

- (a) maintain the status quo (two species worldwide: *E. alpestris* & *E. bilopha*; Option 1 above). If voting NO on this subproposal, continue to (b).
- (b) split *E. alpestris* (Options 2-4) rather than lumping *E. alpestris* & *E. bilopha* (Option 5). If voting YES on this subproposal, continue to (c)
- (c) recognize three (Option 2), four (Option 3), or seven (Option 4) species within *E. alpestris*.

I recommend votes of (a) NO, (b) YES, and (c) four species (Option 3) to solve the issue of paraphyly in *Eremophila alpestris* as currently defined. The species included in Option 3 share a similar stem age, and each proposed species in this option is biogeographically and phenotypically coherent. Option 1 is less desirable because the problem of paraphyly in *E. alpestris* persists, while Option 2 lacks phylogenetic support for lumping *penicillata* and *alpestris*. Furthermore, I believe that Option 4 places too much emphasis on mtDNA monophyly alone without additional evidence to support splits between putative species. Finally, Option 5 would result in a single species with a far broader distribution and much higher degree of phenotypic differentiation than is found in other passerine species and monotypic genera.

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Date of proposal: 27 Feb 2020

2020-C-17 N&MA Classi

Split Unicolored Jay Aphelocoma unicolor, elevating A. u. concolor, A. u. oaxacae, and A. u. guerrerensis to species rank

Background:

Unicolored Jay *Aphelocoma unicolor* is a species unique among New World jays in its virtual lack of contrasting patterning or coloration in its uniform plumage, aside from dark lores and auriculars. Morphometrics and overall color differences were studied by Pitelka (1951), and more recent mitochondrial DNA research has shown that the five currently recognized subspecies correspond largely to distinct genetic lineages (McCormack et al. 2010). The color differences between lineages are subtle but noticeable, with a striking leapfrog pattern from north to south of powder-bluish *A. u. concolor* in Veracruz, darker purplish-blue *A. u. oaxacae* and *A. u. guerrerensis*, and then back to lighter blue *A. u. unicolor* on the south side of the Isthmus of Tehuantepec, and then purplish-blue *A. u. griscomi* further south (Fig. 1). Each genetic and morphologically distinct lineage corresponds to an allopatric population in the mountains of Mexico or northern Central America, with no known contact between lineages (Howell and Webb 1995).

Species limits in Unicolored Jays have been remarkably stable since the recognition of multiple subspecies, with only a single species recognized (Lepage 2003). In contrast, species limits in other members of the genus Aphelocoma have been regularly altered to reflect our increased understanding of morphological and behavioral evolution in the group. In assessing species limits in A. unicolor, a convenient vardstick with which to compare divergence is other cases of recently recognized species in Aphelocoma. The Transvolcanic Jay (A. ultramarina) was recently split from the Mexican Jay (A. wollweberi) based on ~5 million years of divergence, phenotypic diagnosability, and evidence for ancient (not modern) gene flow, but little evidence for niche divergence (McCormack et al. 2011; McCormack et al. 2008; McCormack et al. 2010; McCormack and Venkatraman 2013). The former Scrub Jay (A. coerulescens) was split into Western (A. californica) and Florida, then Western was split into Western and Island (A. insularis; Lepage 2003), and finally Western was split into California Scrub-Jay (A. californica) and Woodhouse's Scrub-Jay (A. woodhouseii). This most recent split was based primarily on evidence for reduced gene flow over a very narrow contact zone despite relatively recent divergence (~2 million years), phenotypic diagnosability, and significant niche divergence with a plausible adaptive corollary (Gowen et al. 2014; McCormack et al. 2011).

New information:

Independent genetic, morphological, and ecological niche analyses (Venkatraman et al. 2019) of all subspecies concurrently demonstrated that the Unicolored Jay contains at least four evolutionarily distinct lineages, each of which merits species status. Evidence also supports elevating *griscomi* but we cannot make this recommendation due to insufficient sample sizes.

Genetics

Venkatraman et al. (2019) recovered largely congruent phylogenies that separate all five subspecies into separate clades based on over 1.5 million bp of nuclear sequence data obtained using target enrichment of thousands of ultraconserved elements (UCEs; Fig. 2). This information supports the proposal to split Unicolored Jay into multiple species, but does not constitute sole justification to revise species limits. The nDNA phylogeny is further supported by a cyt *b* phylogeny using data extracted from the UCEs, which allowed for a molecular clock

estimate of the divergence time between each subspecies. The split between lineages across the Isthmus of Tehuantepec (*griscomi* + *unicolor* split from *concolor* + *guerrerensis* + *oaxacae*, Fig. 2) occurred approximately 3.3 million years ago, considerably deeper than the current split between California and Woodhouse's scrub-jays. For the lineages to the north of the isthmus, *A. u. concolor* split from *A. u. guerrerensis* + *A. u. oaxacae* approximately 2.4 mya, again deeper than current species limits in the genus. For the lineages *A. u. guerrerensis* and *A. u. oaxacae* the split is roughly 1 mya; although this is shallower than any species-level divergence in the genus, phenotypic and ecological differences make for a compelling case to split these distinct lineages. The birds in Guerrero are the most morphologically distinct of any of the subspecies, with deep purplish-blue plumage and relatively long tails. The birds in Oaxaca are noticeably smaller and less purplish than Guerrero birds (Fig. 1).

<u>Phenotype</u>

Venkatraman et al. (2019) quantified the phenotype of each of the five subspecies by measuring 182 museum specimens and using light spectroscopy to quantify feather hue and chroma. Using a Discriminant Function Analysis (DFA), they consolidated a suite of phenotypic variables into DF axes that show visual separation between the three subspecies west of the Isthmus of Tehuantepec (axes 1 & 2, Fig. 3A) and partial separation of the two subspecies east of the isthmus (axes 3 & 4, Fig. 3B). To test whether these visually apparent groups are statistically differentiated, Venkatraman et al. (2019) applied Normal Mixture Models, which predict the number of unique groups within a dataset without a priori assumptions about group assignment. For the three subspecies west of the isthmus, normal mixture models identified three unique phenotypic groups that correspond with >95% accuracy to subspecies identity (Fig. 3C). Diagnosability of each of these lineages meets or approaches 100%, considerably greater than the subspecies "rule" of 75% diagnosability. For the two subspecies east of the isthmus, normal mixture models prefer a model of one cohesive phenotypic group, although the less preferred model with two phenotypic groups corresponds ~85% to subspecies identity, indicating that these two subspecies are in the early stages of phenotypic differentiation (Fig. 3D).

Ecological niche

Venkatraman et al. (2019) used occurrence data from each subspecies (from GBIF) to quantify the overall ecological niche of Unicolored Jays, and then used their resolved phylogeny to compare niche divergence at different time-scales of genetic isolation (Figure 4). For each node in the phylogeny, they tested the distance between niche models from the observed occurrence points versus the distance from randomly drawn background points within the nearby available habitat for each population. Venkatraman et al. (2019) found that niche divergence increases with increased time and genetic isolation between lineages. Previous research has indicated that most taxa distributed across the lsthmus of Tehuantepec show niche conservatism. tracking similar habitat despite geographic isolation (Peterson et al. 1999). Because they accounted for background habitat availability, Venkatraman et al. (2019) were able to conduct a nuanced test indicating that the two main lineages across the Isthmus of Tehuantepec are tracking different environmental conditions despite inherently similar habitats (cloud forest). This relationship begins to break down as the amount of time in geographic and genetic isolation decreases (nodes 3 & 4), but the models still detect environmental axes where these populations inhabit significantly different niches compared to background expectation, indicating that they are likely in the early stages of niche differentiation and divergent ecological adaptation.

Summary

The four lineages of Unicolored Jay are 100% diagnosable in plumage color and morphology (Fig. 1, 3), are divergent in nuclear and mitochondrial genomes (Fig. 2), and have different

niches (Fig. 4). The genomic divergences are deeper than or comparable to those between lineages in *Aphelocoma* that are in secondary contact but have demonstrated selection against hybrids (Gowen et al. 2014). There is no known contact between any of the subspecies of Unicolored Jay.

Within the western clade we can make the strongest case for splitting *A. u. concolor*, given its ca. 2 million years of divergence, phenotypic differentiation from its sister clade (*oaxacae* + *guerrerensis*), and moderate evidence for niche divergence. At ~900,000 years old, *A. u. guerrerensis* is not as divergent from its sister lineage *A. u. oaxacae* relative to other recent *Aphelocoma* species-level splits, but it is strikingly phenotypically distinct. The centrally distributed lineage, *A. u. oaxacae*, is genetically, morphologically, and ecologically distinct from all other lineages, and thus should be split despite a relatively recent divergence time. Finally, the evidence weighs toward keeping *unicolor* and *griscomi* a single species for now, with their apparent overlap in some phenotypic traits, lack of firm knowledge about the full extent of variation within these little-studied lineages, and the lack of strong niche divergence. Together, they comprise a monophyletic group on the east side of the lsthmus, and thus could be examined in more detail and potentially split later.

Analyses of vocalizations would be an excellent addition to this integrative data set, but there are currently not enough samples in existing repositories to address this question quantitatively. Additionally, the vocalizations in this group of lineages are so complex and varied that analyses would be difficult (Webber and Brown 1994; Webber and Stotz 2019).

Recommendation:

We recommend splitting Unicolored Jay into four species:

Aphelocoma unicolor Du Bus, 1847

Type. An unsexed specimen in the Brussels Museum labeled from Tabasco; however, this species does not occur in the state of Tabasco (van Rossem 1942). The type locality was later designated as Ciudad de las Casas, Chiapas (Brodkorb 1944). The nominate subspecies, *A. u. unicolor*, occurs in the highlands of Chiapas, Mexico, and Guatemala. The larger-billed and generally more purplish *A. u. griscomi* is found in the highlands of Honduras and northern Nicaragua (Pitelka 1946).

Aphelocoma concolor Cassin, 1848

Type. An unsexed specimen, ANSP 3039, labeled S. America, later determined likely to have originated near Xalapa, Veracruz (Phillips 1986). This species is brighter blue than *oaxacae* and *guerrerensis* and has longer wings and tail than *oaxacae*. It is found in cloud forests from Hidalgo south to Veracruz (Pitelka 1946).

Aphelocoma oaxacae Pitelka, 1946

Type. Adult female, MLZ 39121, collected by M. del Toro Avilés at Moctum, Oaxaca, on 18 October 1941. This species is smaller than others in this group and is restricted to the state of Oaxaca (Pitelka 1946).

Aphelocoma guerrerensis Nelson, 1903

Type. Adult male, USNM 185539, collected by E. W. Nelson and E. A. Goldman at Omiltemi, Guerrero, on 19 May 1903. This species is a saturated, purplish blue and has a very long tail and large bill. It is endemic to the cloud forests of Guerrero (Pitelka 1946).

Recommended English names:

For *A. unicolor* we recommend replacing Unicolored Jay with the new name Amparo Jay. The definition of amparo blue is a strong blue to brilliant purplish blue. This name also has an ornithological connection. Amparo de Zeledón was a noted naturalist and researcher of orchids. Her husband, ornithologist Jose Zeledón, was the head of the Museo Nacional de Costa Rica and was great friends with Robert Ridgway. Ridgway named the color Amparo Blue for her in his color dictionary (D. Lewis, pers. comm.). For *A. concolor* we recommend Huasteca Jay, as this taxon is endemic to the region of Mexico know as La Huasteca. For *A. oaxacae* we recommend Oaxaca Jay, because this taxon is endemic to the state of Oaxaca. For *A. guerrerensis* we recommend Guerrero Jay, because this taxon is endemic to the state of Guerrero.

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Submitted by: James Maley, Devon DeRaad, and John McCormack, Moore Laboratory of Zoology, Occidental College, Los Angeles, CA

Date of proposal: 24 February 2020



Figure 1. (A) A Unicolored Jay (*Aphelocoma unicolor unicolor*) from Reserva de Biósfera Sierra de las Minas, Guatemala (Macauley Library ML85163771, photograph by Daniel Aldana). (B) Specimens representing *A. u. guerrerensis* (MLZ 45972), *A. u. concolor* (NMNH A9096), *A. u. oaxacae* (MLZ 33558), *A. u. unicolor* (MLZ 45360) and *A. u. griscomi* (AMNH 327521). (C) Distribution map of *A. unicolor* subspecies drawn from eBird observations. Reproduced from Venkatraman et al. (2019).



Figure 2. Phylogenies of *Aphelocoma unicolor* based on mitochondrial DNA (mtDNA) and ultraconserved elements (UCEs). For the Bayesian time-calibrated mitochondrial DNA phylogeny generated in BEAST, the mean estimated split dates are provided on the nodes, with the 95% highest probability density shown below in square brackets. For both phylogenies, nodes with perfect support are shown with black dots. Reproduced from Venkatraman et al. (2019).



Figure 3. Results of a discriminant function (DF) analysis and normal mixture models on all morphological and plumage traits. (A) Differences among all five *Aphelocoma unicolor* subspecies in the first two DF axes. (B) Differences between only the *A. u. unicolor* and *A. u. griscomi* subspecies in the third and fourth DF axes. (C and D) Results of normal mixture modelling to determine the objective number of phenotypic clusters among individuals west (C) and east (D) of the Isthmus of Tehuantepec, with inset showing the assignment of individuals to each cluster with respect to their *a priori* subspecies assignment. Reproduced from Venkatraman et al. (2019).


Figure 4. Results of tests for strong niche divergence on multivariate niche axes in relationship to the phylogeny. Boxes show whether each niche axis was more divergent than background divergence (diverged), more similar than background divergence (conserved), or was similar to background divergence and therefore failed to reject the null hypothesis (null). Percentages indicate the amount of variation explained by that axis. Reproduced from Venkatraman et al. (2019).