AOU Classification Committee – North and Middle America

Proposal Set 2015-A
21 Jan 2015

2015-A-1 N&MA Classification Committee pp. 423-426

Revise the classification of the Pipridae

Background:

Our current classification of the Pipridae is as follows:

Corapipo altera
Chiroxiphia lanceolata
Chiroxiphia linearis
Xenopipo holochlora
Dixiphia pipra
Ceratopipra mentalis
Ceratopipra erythrocephala
Manacus candei
Manacus aurantiacus
Manacus vitellinus
Lepidothrix coronata

New information:

Ohlson et al. (2013) investigated relationships within the family using DNA sequence data from three nuclear introns and one mitochondrial gene (ND2). They sampled all genera and most species. I have pasted in a screen grab of their tree below.

Their results are largely consistent with those of previous studies except for the polyphyly of *Chloropipo*, members of which are in three parts of the tree. Because Ohlson et al. was the first study to include all five species in broadly defined *Xenopipo*, these results do not conflict with previous studies. McKay et al. (2010) included only *unicolor*, and Tello et al. (2009) included only *atronitens* and *uniformis*, which they found to be sisters, as in Ohlson et al. Support for almost all nodes is very strong. Their results add further support to changes previously adopted by SACC in terms of breaking up *Pipra* into several genera.

To reconcile classification with their phylogeny, they recommended the following changes at the genus level: (1) *Xenopipo* (reduced to type species *atronitens* and its sister species *X. uniformis*; (2) *Chloropipo* is resurrected for the two extralimital Andean species, *flavicapilla* and *unicolor*; and (3) a new genus (*Cryptopipo*) is described for *holochlora*, which is sister to *Lepidothrix* and thus not closely related to *Xenopipo* or *Chloropipo.*

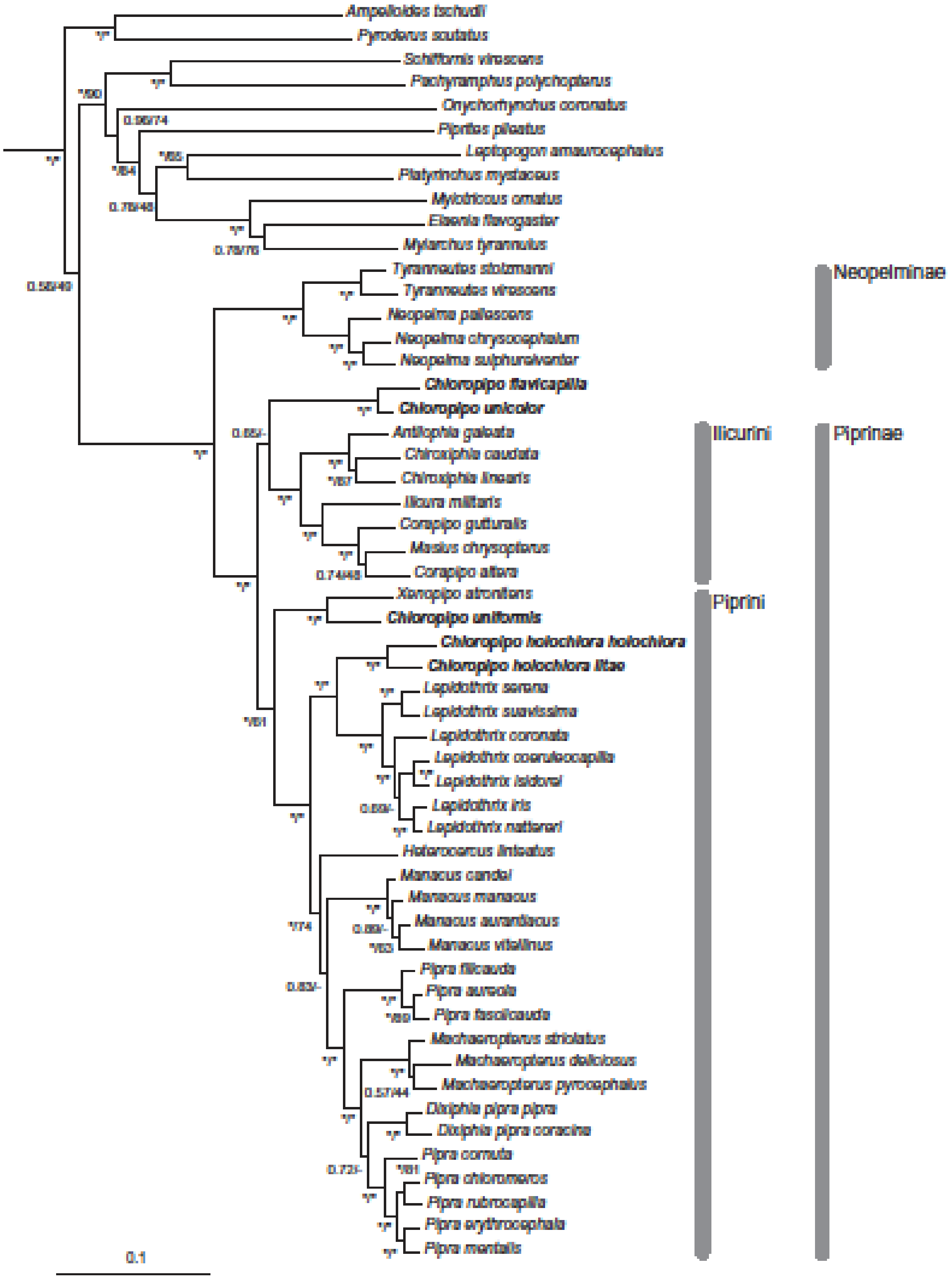

Fig. 1. Phylogeny of Pipridae, estimated by Bayesian analyses of the data set of concatenated sequences of G3P intron 11, myoglobin intron 2, ODC introns 6–7 and the mitochondrial ND2. Bayesian posterior probabilities (PP) and Maximum Likelihood bootstrap values (ML) are given at each node (PP/ML). An asterisk (*) denotes a PP value >97 or a ML value >89. *Chloropipo* species are in bold face.

Recommendation:

This proposal is in three parts. If adopted, this would (A) recognize the newly named genus *Cryptopipo* for *Xenopipo holochlora*, (B) revise the linear sequence of genera in the family, and (C) recognize two subfamilies within the family. An earlier version of this proposal (591) passed SACC in April.

A. Recognize *Cryptopipo*. I recommend a YES on this. The genetic data show clearly that *holochlora* is more closely related to *Lepidothrix* than to *Xenopipo* or *Chloropipo*, and to include it within *Lepidothrix* is the only other option given the data. That option was considered and rejected by Ohlson et al. because: "*it differs in so many aspects of morphology and behavior that we are reluctant to include it in that genus*". I agree with that statement. A NO vote would thus favor either inclusion of *holochlora* in *Lepidothrix* or retention of broadly defined *Xenopipo.*

B1. Revise linear sequence of genera.

Our current sequence is:

Corapipo
Chiroxiphia
Xenopipo
Dixiphia
Ceratopipra
Manacus
Pipra
Lepidothrix

To alter the sequence to conform to the Ohlson et al. tree, i.e., the addition of *Chloropipo* and *Cryptopipo*, the following changes are needed in red:

Corapipo
Chiroxiphia
Dixiphia
Ceratopipra
Manacus
Pipra
Cryptopipo
Lepidothrix

B2. Further revise linear sequence of genera.
However, some additional changes are advisable if we accept the Ohlson et al. tree as the best available data and use the conventions for sequencing genera, i.e., for sister taxa, least-diverse group first. For example, within the Piprini in the figure, support is strong for *Cryptopipo* + *Lepidothrix* as sister to the more diverse lineage (*Heterocercus* + *Manacus* + *Pipra* + *Machaeropterus* + *Dixiphia* + *Ceratopipra*). Within the latter group,

support varies from so-so to strong for the following relationship: *Heterocercus* (*Manacus* + ((*Pipra* + (((*Machaeropterus* + ((((*Dixiphia* + *Ceratopipra*))))))))). I have mixed feelings on whether an overhaul of the sequence is warranted. On the other hand, these are the best available data, and our previous rearrangement of the sequence hardly leaves our current one with much of an historical legacy. Therefore, I lean towards going all the way on the rearrangement at this point – as long as we're going to make some changes, might as well make all those indicated by the data, i.e.:

Chiroxiphia
Corapipo
Cryptopipo
Lepidothrix
Manacus
Pipra
Dixiphia
Ceratopipra

This is exactly the sequence recommended by Ohlson et al. (2013) except for the flip-flop of the groups (extralimital *Antilophia* + *Chiroxiphia*) and (extralimital *Ilicura* + ((extralimital *Masius* + *Corapipo*))).

C. Add subfamilies. Ohlson et al. (2013) found the same pattern as Tello et al. (2009) and McKay et al. (2010), namely a deep division within the family, with extralimital *Tyranneutes* and *Neopelma* forming one lineage, and the rest of the genera in the other. I support recognition of this major division with subfamily rank for the two lineages.

[Neopelminae (all extralimital)]
Piprinae
  Chiroxiphia
  Corapipo
  Cryptopipo
  Lepidothrix
  Manacus
  Pipra
  Dixiphia
  Ceratopipra

Literature Cited:

Mckay, B. D., F. K. Barker, H. L. Mays Jr., S. M. Doucet, AND G. E. Hill. 2010. A molecular phylogenetic hypothesis for the manakins (Aves: Pipridae). Molecular Phylogenetics and Evolution 55: 733-737.

Ohlson, J., J. Fjeldså, And P. G. P Ericson. 2013. Molecular phylogeny of the manakins (Aves: Passeriformes: Pipridae), with a new classification and the description of a new genus. Molecular Phylogenetics and Evolution 69: 796–804.

Tello, J. G., Moyle, R. G., D. J. Marchese, And J. Cracraft. 2009. Phylogeny and phylogenetic classification of the tyrant flycatchers, cotingas, manakins, and their allies (Aves: Tyrannides). Cladistics 25: 1-39.

Submitted by: Van Remsen
Date of Proposal: 6 May 2014

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SACC Comments

Comments from Stiles: “YES. The Ohlson et al. paper provides the most thorough and comprehensive genetic data set so far, and makes the description of *Cryptopipra* for *holochlora* necessary, and recognition of two subfamilies desirable. Their data do make me wonder if *Corapipo* and *Masius* ought to be merged? It looks like *Masius* makes *Corapipo* paraphyletic?”

Comments solicited from Jan Ohlson: “"I thank Van Remsen for so quickly bringing our proposals for changes of Pipridae classification to the SACC board. As might be expected, I fully endorse the proposals put forward by Van, and I am also strongly in favor of the alternative B2 regarding sequence of genera, as this best reflects the phylogenetic tree given the conventions accepted by the SACC".

Comments from Pacheco: “YES. Eu concordo com as recomendações – incluindo as adaptações propostas por Remsen – derivadas de dois amplos estudos.”

Comments from Zimmer: “YES on parts A, B and C, based largely on the data of Ohlson et al. (2013).”

Comments from Pérez-Emán: “YES to A and B2. The new phylogenetic study on Pipridae by Ohlson et al. (2013) found a paraphyletic *Chloropipo* (or *Xenopipo*) clearly requiring a new generic name for *C. holochlora* (*Cryptopipo*). This study also provides the basis for updating linear sequence in the family, considering the most comprehensive phylogenetic hypothesis currently known. I would vote NO for C, as I consider this taxonomic level should consider not only molecular data but also other characters that unambiguously show support for these taxonomic categories.”

Comments from Cadena: “591A. YES. Regarding Gary's comment on eventually lumping *Corapipo* and *Masius*, we should note that the relevant node is rather poorly supported (only 0.74 posterior probability and 48% bootstrap). This lack of resolution and the plumage differences between genera suggests we should be conservative for now.

“591C. NO. Not because I think the phylogenetic split is not strong, but rather based on a more philosophical point of view. As I have commented on other proposals before, I think we need to be consistent in our classification across the board. If we are going to recognize subfamilies (i.e. well supported clades within families), then we need to do this across all families, not haphazardly in those families for which someone happens to present a proposal. Do we want to do this for all families? This would be a lot of work, and I don't think we should. If we do, then where do we stop once we are done? If we recognize subfamilies, then why not tribes, suborders, etc.? I say we should stick to major taxonomic ranks; sure, they are arbitrary, but they are arguably more manageable in terms of number and in the degree of consistency that our taxonomy already has (e.g., we recognize families, but not subfamilies, in every order).”

Add Bicolored Wren *Campylorhynchus griseus* to the Main List

Background:

Bicolored Wren *Campylorhynchus griseus* has not previously been reported to occur in North America.

New Information:

The species has recently been found in easternmost Panama. On 23 December 2012, Euclides Campos Cedeño obtained diagnostic photos (see below) of two individuals at the village of Paya in eastern Darién, near the border with Colombia. On 24 December, he observed one at the same locality collecting nesting material, and on the following day flushed one from its nest. On 28 December, he detected another individual by voice at Boca de Cupe, Darién.

The species occurs in northwestern Colombia in disturbed habitat and is likely to have recently spread to Panama due to deforestation like several other species. The area near the Colombian border is rarely visited by ornithologists or other observers.

The record has been accepted unanimously by the Panama Records Committee (George Angehr, Robert Ridgely, Dodge Engleman, Darien Montanez, Jan Axel Cubilla).

The records and photos are documented in the following articles:

Jones, Lee, and Oliver Komar. Central America. [The Winter Season: December 2012 through February 2013]. North American Birds 67(2): 349-356 (photo 365)

Campos Cedeño, Euclides, and Andrew Vallely. First North American records of Bicolored Wren (*Campylorhynchus griseus*) and Dusky Pigeon (*Patagioenas goodsoni*) from Panama. North American Birds (accepted for publication).

Recommendation:

Add Bicolored Wren *Campylorhynchus griseus* to the main list as a breeding species.

Literature Cited:

Jones, Lee, and Oliver Komar. Central America. [The Winter Season: December 2012 through February 2013]. North American Birds 67(2): 349-356 (photo 365)

Campos Cedeño, Euclides, and Andrew Vallely. First North American records of Bicolored Wren (*Campylorhynchus griseus*) and Dusky Pigeon (*Patagioenas goodsoni*) from Panama. North American Birds (accepted for publication).

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

Date of proposal: 13 May 2014

Move Dusky Pigeon *Patagioenas goodsoni* from the Appendix to the Main List

Background:

Dusky Pigeon has previously been reported from the Checklist area from Panama on the basis of sight records, but has not been documented photographically, and appears in the Appendix (Part 1) as lacking sufficient documentation. According to Ridgely and Gwynne (1989), “Two were heard and seen in humid lowland forest near Pucuro in the middle Tuira River valley of eastern Darién on March 7, 1981 (Ridgely and V. Emanuel *et al.*; the latter obtained excellent tape recordings, but these were subsequently lost).”

New Information:

The species has recently been photographically documented (see below) in easternmost Panama. On 28 December 2012, Euclides Campos Cedeño heard a Dusky Pigeon calling near Hito Palo de las Letras on the Panama/Colombia border in eastern Darién. 20’ 40” E (Figure 1). Using playback of Dusky Pigeons recorded in South America, he was able to lure three Dusky Pigeons into view and obtained photographs and video recordings.

This area is remote and rarely visited by ornithologists or other observers, so the species may be of regular occurrence in the area.

The record has been accepted unanimously by the Panama Records Committee (George Angehr, Robert Ridgely, Dodge Engleman, Darien Montanez, Jan Axel Cubilla).

Note: An additional sight record, one reported from the trail to Cerro Pirre above Cana on 17 April 1992 by Dodge and Lorna Engleman (Angehr et al. 2006), is now believed to probably pertain to Plumbeous Pigeon *Patagioenas plumbea*. At the time of the report, the latter species was not known to occur in Panama, and there was confusion as to the eye color of both species.

The records and photos have been published in the following articles:

Campos Cedeño, Euclides, and Andrew Vallely. First North American records of Bicolored Wren (*Campylorhynchus griseus*) and Dusky Pigeon (*Patagioenas goodsoni*) from Panama. North American Birds (accepted for publication).

Jones, Lee, and Oliver Komar. Central America. [The Winter Season: December 2012 through February 2013]. North American Birds 67(2): 349-356 (photo 365)

Recommendation:

Move Dusky Pigeon *Patagioenas goodsoni* from Appendix 1 to the main list.

Literature Cited:

Angehr, George R., Dodge Engleman, and Lorna Engleman. 2006. Where to Find Birds in Panama: A Site Guide for Birders. Panama Audubon Society, Panama City, Panama.

Campos Cedeño, Euclides, and Andrew Vallely. First North American records of Bicolored Wren (*Campylorhynchus griseus*) and Dusky Pigeon (*Patagioenas goodsoni*) from Panama. North American Birds (accepted for publication).

Jones, Lee, and Oliver Komar. Central America. [The Winter Season: December 2012 through February 2013]. North American Birds 67(2): 349-356 (photo 365)

Ridgely, Robert S., and John A. Gwynne, Jr. 1989. A Guide to the Birds of Panama. Princeton University Press, Princeton NJ.

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

Date of proposal: 13 May 2014

Revise the classification of the Psittaciformes

This would recognize two families and four subfamilies within the Psittaciformes in the NACC area. This is a spinoff of SACC proposal 599, which you can consult to see comments. It is really only relevant to introduced Old World taxa, but the goal is to bring our classification in line with recent classifications.

Background:

Our current classification treats the Psittaciformes as containing a single family, Psittacidae, although we do not state this explicitly. AOU (1998) recognized only one family, but three subfamilies: Platycercinae (for Australian parrot group) and Psittacinae (for African and Asian parrots), and Arinae (for New World parrots).

I will not attempt a complete history of parrot classification, but it is safe to say that treatments have varied strongly in whether to recognize 1, 2, or more families, and which genera go in which families. Sibley & Monroe (1990) recognized only 1 family, for example. The Handbook of Birds of the World and Forshaw (1996, parrot identification guide) recognized only two, Cacatuidae and Psittacidae.

New information:

Joseph et al. (2012) synthesized all recent evidence, including molecular, paleontological, and morphological, to produce a consensus classification with formalized nomenclature (see tree on next page). Greatly improved taxon sampling over the last 5 years or so has led to a much better knowledge of the overall relationships of parrots at the genus level: very few genera have not been sampled. Joseph et al. (2012) divided the order into 3 superfamilies, further divided into 6 families: Strigopidae (for the Kakapo, *Strigops*, of New Zealand), Nestoridae (for the Kea and Kaka, *Nestor*, of New Zealand), Cacatuidae (cockatoos), Psittrichasidae (for *Psittrichas* and *Coracopsis*), Psittacidae (for African *Psittacus* and *Poicephalus* plus all New World parrots), and Psittaculidae (for all remaining Old World parrots, which thus includes our introduced *Psittacula*, *Melopsittacus*, and *Agapornis*):

Cracraft (2013) reduced this to four families: Strigopidae, Cacatuidae, Psittacidae, and Psittaculidae. Within the Psittacidae, Joseph et al. (2012) recognized two subfamilies, Psittacinae for the African genera and Arinae for the New World genera, and this was followed by Cracraft (2013) and implemented, therefore, by Dickinson & Remsen (2013). As for *Psittacula*, both classifications placed it in a separate family Psittaculidae, and in the subfamily Psittaculinae.

Discussion: The vast majority of the “problem” is extralimital to SACC. However, we are approaching outlier status in terms of implicit treatment of all parrots in the same family.

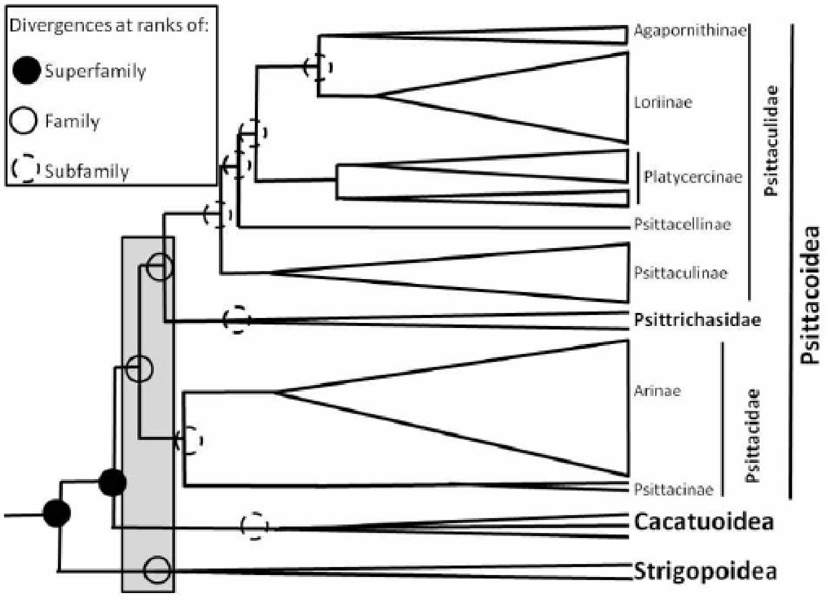


FIGURE 2. Tree of psittaciform relationships to show rationale we have used for assigning family-group ranks from superfamily to tribe in our recommended classification (see text). The tree is based on Figure 3b in Wright *et al*. (2008), which was built on a calibration at 82 mya of the basal divergence between New Zealand endemics *Nestor* and *Strigops*, here termed the Strigopoidea, and the remaining psittaciforms. Debate over this calibration does not affect the topology of the tree, which most readily conveys the basis for our choice of rankings. The topology has been updated according to Joseph *et al*. (2011), White *et al*. (2011) and Schweizer *et al*. (2011). Superfamily level divergences are indicated by solid circles (●) (note that one divergence event generates at least two taxa), empty circles with unbroken lines (○) indicate family level divergences, and circles with broken lines indicate divergences recognized at levels of subfamily. For clarity, divergences into tribes within subfamilies are omitted (see text and Table 1). The box emphasizes agreement in various studies that family level divergences across the phylogeny occurred rapidly.

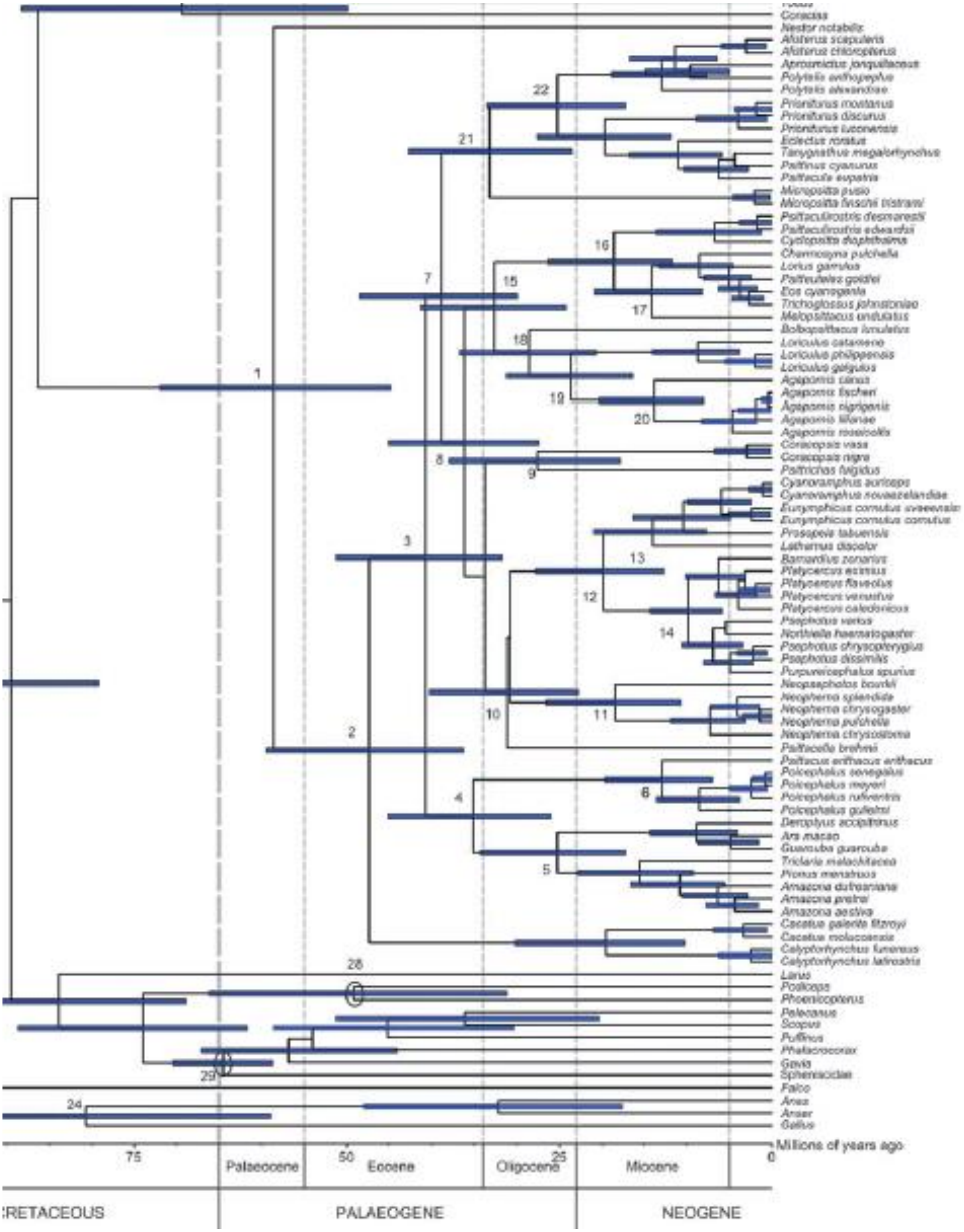
As you all know, there are not formal, objective criteria for ranking groups at higher levels, so this is all largely subjective. Psittaciformes have been around since the Eocene – Mayr (2014) places the fossils *Halcyornis* and *Messelastur* as the earliest representatives of crown-group Psittaciformes, and these are early Eocene, ca. 52 mya. Thus the Psittaciformes are as old as most lineages ranked as orders. Schweizer et al. (2011) found evidence for multiple transoceanic colonization events in Psittaciformes, and criticized the previously used 85 MYA calibration point, and dated the age of the lineage at ca. 58 MYA (Paleocene), which would make it one of the oldest orders of modern birds.

Although in my simplistic viewpoint, parrots are remarkably homogeneous in terms of core morphology and fundamental bill shape, for them to have such a wide distribution, it seems likely that they are a fairly old group. If, as the genetic data indicate, the African and New World groups are sisters, then that implies a fairly ancient connection, either a Europe to North America hard connection on the Atlantic side or a Beringia connection on the Pacific side, but the latter would also require a much less parsimonious explanation of presence of the African lineages in Asia followed by total extinction there. A European connection seems much more likely – lots of African vertebrate taxa were once known from Europe. Looking at continental drift maps (http://www.odsn.de/cgibin/make_map.pl), it looks like a crossing would get difficult starting at 40 MYA unless warm climates extended to at least 75 degrees N, but the hard connection between the two was gone by 15 MYA. So, that’s a huge range of potential separation dates between the two lineages, but the point is that the two have likely been separated for a “long time.”

The point (?) of my long-winded outburst of speculation is that the two groups likely diverged somewhere 15-40 MYA, and this is in the range of taxa typically ranked at the subfamily or family level. Obviously, the age of the deeper branches has to be even greater, and so these various lineages of parrots are old, as old as many groups ranked at the family level. Schweizer et al.’s (2011) dating of the divergence of parrot groups is pasted in on the following page (see below).

Their estimate of the separation between African and American lineages is at ca. 30-35 MYA, within the range of the rough calculation above. Therefore, the New World parrots are an old lineage, probably older than some nonpasserine groups ranked at the family level, and thus in my opinion worthy of formal taxonomic rank, at least subfamily, as we currently do (Arinae).

In my view, the only hope for having objective criteria for ranking higher-level taxa is to have some “age” guidelines, i.e., for a group to be ranked as a family, the estimate of the age of the lineage would have to fall within certain broad limits, say at least early Miocene or Oligocene for “Family”. Whatever pitfalls there might be in such a scheme, at least it provides objective criteria and testable hypotheses, in contrast to the current scheme, which is basically a set of traditional labels maintained largely by historical momentum. The good news is that almost all nonpasserine groups we traditionally label as orders or families have fossil records extending to Paleogene, or are sister groups to other groups with such fossils; see Mayr (2014). Therefore, the turbulence caused by such a criterion would be minimal. As molecular dating gets more sophisticated and as the fossil record improves, the hope for adoption of such a scheme improves (and I’m contemplating whether to publish a little paper on this). But for now, I think that broad use of comparative lineage ages should at least be taken into account. Therefore, I am in favor of adding families to the Psittaciformes, as well as maintaining the subfamily category.


Coracias
Nestor notabilis
Alisterus scapularis
Alisterus chloropterus
Aprosmictus jonquillaceus
Polytelis anthopeplus
Polytelis alexandrae
Prioniturus montanus
Prioniturus discurus
Prioniturus luconensis
Eclectus roratus
Tanygnathus megalorhynchus
Psittinus cyanurus
Psittacula eupatria
Micropsitta pusio
Micropsitta finschii tristrami
Psittaculirostris desmarestii
Psittaculirostris edwardsii
Cyclopsitta diophthalma
Charmosyna pulchella
Lorius garrulus
Psitteuteles goldiei
Eos cyanogenia
Trichoglossus johnstoniae
Melopsittacus undulatus
Bolbopsittacus lunulatus
Loriculus catamene
Loriculus philippensis
Loriculus galgulus
Agapornis canus
Agapornis fischeri
Agapornis nigrigenis
Agapornis lilianae
Agapornis roseicollis
Coracopsis vasa
Coracopsis nigra
Psittrichas fulgidus
Cyanoramphus auriceps
Cyanoramphus novaezelandiae
Eunymphicus cornutus uvaeensis
Eunymphicus cornutus cornutus
Prosopeia tabuensis
Lathamus discolor
Barnardius zonarius
Platycercus eximius
Platycercus flaveolus
Platycercus venustus
Platycercus caledonicus
Psephotus varius
Northiella haematogaster
Psephotus chrysopterygius
Psephotus dissimilis
Purpureicephalus spurius
Neopsephotus bourkii
Neophema splendida
Neophema chrysogaster
Neophema pulchella
Neophema chrysostoma
Psittacella brehmii
Psittacus erithacus erithacus
Poicephalus senegalus
Poicephalus meyeri
Poicephalus rufiventris
Poicephalus gulielmi
Deroptyus accipitrinus
Ara macao
Guaruba guarouba
Triclaria malachitacea
Pionus menstruus
Amazona dufresniana
Amazona pretrei
Amazona aestiva
Cacatua galerita fitzroyi
Cacatua moluccensis
Calyptorhynchus funereus
Calyptorhynchus latirostris
Larus
Podiceps
Phoenicopterus
Pelecanus
Scopus
Puffinus
Phalacrocorax
Gavia
Spheniscidae
Falco
Anas
Anser
Gallus
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22
24
28
29
75
50
25
0
Millions of years ago
Palaeocene
Eocene
Oligocene
Miocene
RETACEOUS
PALAEOGENE
NEOGENE

Recommendation:

For the limited involvement of NACC with higher-level parrot classification, I see no reason not to follow the consensus classification of the Psittaciformes that is based on solid genetic data and carefully reasoned out by experts on the family. I recommend that we follow Joseph et al. (2012) for the Psittaciformes. This paper takes the phylogenetic data published so far and integrates them into a classification with Code-compliant group names. Taking their proposed classification and applying it to NACC-area parrots would produce the following (linear sequence follows convention of least-diverse branches listed first at each node:

- Family Psittacidae
  - Subfamily Arinae
- Family Psittaculidae
  - Subfamily Psittaculinae (for introduced *Psittacula krameri*)
  - Subfamily Agapornithinae (for introduced *Agapornis roseicollis*)
  - Subfamily Loriinae (for introduced *Melopsittacus undulatus*)

Nothing really changes in terms of classification of our native New World parrots. The proposal adds an additional family, Psittaculidae, that includes the three Old World parrots that are considered established, and places them in 3 subfamilies. Our current classification places *Melopsittacus* in Platycercinae, and *Agapornis* and *Psittacula* in Psittacinae, which are incorrect using the classification of Joseph et al. (2012).

Literature Cited:

Cracraft, J. 2013. Avian higher-level relationships and classification: nonpasseriforms. Pp. xxi-xliii in The Howard and Moore Complete Checklist of the Birds of the World, 4th Edition, Vol. 1. Non-passerines (E. C. Dickinson & J. V. Remsen, Jr., eds.). Aves Press, Eastbourne, U.K.

Dickinson, E. C., and J. V. Remsen, Jr. (eds.). 2013. The Howard and Moore complete checklist of the birds of the World. Vol. 1. Non-passerines. Aves Press, Eastbourne, U.K., 461 pp.

Joseph, L., A. Toon, E. E. Schirtzinger, T. F. Wright, and R. Schodde. 2012. A revised nomenclature and classification for family-group taxa of parrots (Psittaciformes). Zootaxa 3205: 26-40.

Mayr, G. 2014. The origins of crown group birds: molecules and fossils. Palaeontology 57: 231–242.

Schweizer, M., O. Seehausen, and S. T. Hertwig. 2011. Macroevolutionary patterns in the diversification of parrots: effects of climate change, geological events and key innovations. Journal of Biogeography 38: 2176-2194.

Submitted by: Van Remsen

Date of Proposal: 20 May 2014

Split *Pterodroma heraldica* and *P. atrata* from Herald Petrel *P. arminjoniana*

This proposal would separate *Pterodroma arminjoniana* into three species; the two Pacific taxa, specifically *heraldica*, may occur in North American waters.

Background:

The genus *Pterodroma* holds some vexing issues with regards to their taxonomy. This particular case is one of the most problematic, because it is one of the few in which recent data confirms a certain level of hybridization in a situation of secondary contact, whereas in the rest of the distribution members of the complex appear not to hybridize even though sympatric! It is also problematic in that a relatively large number of taxa are involved in this complex of tropical and wide ranging *Pterodroma*. The taxa involved are: the Kermadec Petrel (*Pterodroma neglecta*) of the Pacific; the Herald Petrel (*Pterodroma arminjoniana heraldica*) of the Pacific; the "Trindade Petrel" (*Pterodroma arminjoniana arminjoniana*) of the Atlantic; the "Henderson Petrel" (*P. a. "atrata"*), which historically has been considered the dark morph of the Herald Petrel; and the Phoenix Petrel (*P. alba*), which is not usually treated as a taxon with any problematic issues, but is closely related to and sympatric with up to three of the taxa in the complex. The group has been considered a subgenus within *Pterodroma*, known as *Hallstroma* (Imber 1985). Murphy and Pennoyer (1952) in their review of the group lumped *heraldica* with *arminjoniana*; Imber (1985) separated them as species, and many authorities follow this treatment.

Sympatry and Natural History details:

1) These petrels are surface nesters; they do not nest in burrows, and colony visits occur mainly in the late afternoon into the evening. They are not strictly nocturnal as most *Pterodroma*.
2) In the Pacific, Herald Petrel (*P. a. heraldica*) and Kermadec Petrel (*P. neglecta*) are widely sympatric. There are no records of hybridization. The two are considered biological species by all modern authorities, including NACC.
3) Similarly, Phoenix Petrel (*P. alba*) is widely sympatric with Herald and Kermadec petrels, and there are no records of hybridization. It too is widely considered a separate biological species, although recent information suggests it is quite closely related to the Herald Petrel.
4) Vocalizations of Kermadec and Herald (*P. a. heraldica*) petrels are well known, and are quite different. Spectrograms available in Brown et al. (2010). Voices of all other members of the complex are similar to each other and to Herald Petrel.
5) Kermadec Petrel is the largest, most robust species of the ones treated here. It is also the only one that shows white primary shafts on dorsal side of wing, a feature easily visible in the field and in specimens.
6) Kermadec (*P. neglecta*) is polymorphic and highly variable with dark, pale, intermediate and white-headed (pale extreme) plumages.

7) Herald (*P. a. heraldica*) is polymorphic (dark and pale); but if "Henderson Petrel" – *P. atrata* is separated from it, *heraldica* becomes monomorphic based on current knowledge.
8) Trindade (*P. a. arminjoniana*) is polymorphic with pale, dark and intermediate plumages.
9) Trindade Petrel was named by Giglioli and Salvadori (1869) from waters near Trindade Island (Brazil). The type was a white bellied pale morph. Note that other names have been associated with this species, including "*trinitatis*" for the dark morph birds, and "*wilsoni*" for intermediate morph birds; see Murphy and Pennoyer (1952) for more details.
10) The taxon *heraldica* was named by Salvin in 1888, from a bird caught at sea near Chesterfield Island, NW of New Caledonia.
11) Nominate *arminjoniana* shows sexual dimorphism in size (males larger), whereas *heraldica* does not (Murphy and Pennoyer 1952).
12) The form *heraldica* is significantly smaller in measurements than *arminjoniana* (Murphy and Pennoyer 1952, Brooke and Rowe 1996).
13) In all plumages *arminjoniana* is separable in the hand and field from *heraldica* based on overall coloration, extent of white on underwing, and color of lores (dark vs. light), as well as different structure and size and bill proportions (Howell 2012) and of course size.
14) Imber (1985) treated *heraldica* and *arminjoniana* as separate based on differences in size, distribution (separate ocean basins), and species of *Halipeurus* feather lice.

New information - Henderson Petrel:

Murphy and Pennoyer (1952) were the first to note that the dark version of the *heraldica* is not evenly distributed through the Pacific but is clustered on Henderson Island, where an estimate of 40 dark to 1 light is given; in contrast, there were almost no dark birds as close as 200 miles away at Ducie Atoll. No other nesting area showed a preponderance of dark birds, and the distribution of morphs in Kermadec (*neglecta*) is much more evenly distributed. Brooke and Rowe (1996) studied nesting petrels on Henderson Island, and discovered that:

a) Individuals were dark or light; no intermediates occurred.
b) Dark and pale birds did not differ significantly in linear dimensions.
c) 19 pairs for which both males and females were captured mated assortatively by plumage darkness; the probability of this happening at random was low $P < 0.0001$).
d) Observations of displaying birds over the island were: 63 dark-dark, 21 light-light, and 2 mixed.
e) Three dark pairs studied raised dark offspring.
f) Voices are structurally similar: a series of "kyek" notes given quickly. However, dark birds call significantly faster, showing limited overlap. Pitch of notes is slightly but significantly lower in dark birds, although with much overlap.
g) No dark birds were observed on islands visited other than Henderson, including in the very large (10 – 100K popn.) Herald Petrel colony on Ducie.

h) 13 haplotypes (307 base pair sequence, cyt b) were found in 76 individuals; 5 haplotypes found only in light *heraldica*, and three only in the dark Henderson Island birds. These were mutually exclusive.
i) Of the 13 haplotypes, 3 were shared between *arminjoniana*, *heraldica*, and *alba*; two were exclusive to *heraldica*; and five were exclusive to *arminjoniana*. Note that *arminjoniana* samples are from Round Island and NOT the type locality of Trindade Island (see below for the significance of this).
j) Jaramillo et al. (2008) first reported Henderson Petrels on Rapa Nui, Chile, where *heraldica* is common. Ongoing monitoring has found that 3-4 nests of dark birds occur there, and nesting is always assortative (Pedro Lazo pers. comm.; Jaramillo unpublished data).
k) Brooke and Rowe (1996) resurrected the name *Pterodroma atrata* (Mathews 1912), type from Henderson Island (AMNH 191641) based on the above data clarifying species status for this population. They gave it the name English name Henderson Petrel.

New information – *heraldica* compared to *arminjoniana*:

In their study of Pacific Herald Petrels, Brooke and Rowe (1996) also summarized aspects of this pair of taxa. They found that:

a) Pacific *heraldica* is significantly smaller than *arminjoniana*, confirming the general assertion made by Murphy and Pennoyer (1952)..
b) At least on Round Island (no data available from Trindade Island), *arminjoniana* does not mate assortatively with respect to morph. Furthermore intermediate morphs occur in that form, these are known also from Trindade Island (previously given the name *wilsoni*).
c) There are mtDNA haplotype frequency differences between *arminjoniana* (from Round Island) and *heraldica*. Of the 13 haplotypes (see above Brooke and Rowe 1996 data), 3 were shared between *arminjoniana*, *heraldica* and *alba*, two were exclusive to *heraldica*, and five were exclusive to *arminjoniana*. Results suggest incomplete reproductive isolation or polymorphism that predates the divergence of the two forms (three including *alba*!). But see below regarding the complexity of Round Island.
d) Also - Voice data are few, but *arminjoniana* appears to call more quickly than *heraldica*; similar to the difference between *atrata* and *heraldica* (i.e. xeno-canto, Brooke et al. 2000). More data are needed, although voice is perhaps not as important in this group as in other *Pterodroma*, because these are diurnal visitors to the colony. Visual cues are likely of equal if not greater importance, such as dark coloration of *atrata* vs. sympatric nesting *heraldica*.
e) Imber (1985) treated *heraldica* and *arminjoniana* as separate species based on their radically different intestinal structure and different feather lice. Interestingly, shared intestinal structure, as well as shared feather lice, was found between *arminjoniana* and *neglecta* (Kermadec Petrel). The latter is widely sympatric with clear barriers to hybridization with *heraldica* throughout the Pacific.

New information – Round Island breeding *Pterodroma*:

Round Island is in the Indian Ocean, and *Pterodroma* petrels appear to have colonized recently, because the first definitive records of nesting petrels there were in the 1940s (Brooke et al. 2000, Brown et al 2010, 2011). Murphy and Pennoyer (1952) identified the Round Island petrels as *arminjoniana* based on size; they considered Round Island Petrels to be somewhat intermediate between *heraldica* and *arminjoniana*, and this is part of their basis for lumping the two taxa (although details of this intermediacy were not elaborated on). Brooke et al. (2000) surprisingly determined that Kermadec Petrels are also present on Round Island, based on voice, morphology and mtDNA; it is unclear when they arrived there, but they were not noted previous to the 1980s. In the 1990s a third phenotype was observed on Round Island, thought to be Pacific *heraldica*, and this eventually included a banded bird from Australia, which confirmed the identification (Brown et al. 2011).

Brown et al. (2011) studied the interaction of these three taxa in secondary contact: the Atlantic *arminjoniana* with the two Pacific *heraldica* and *neglecta* species, on Round Island. They sequenced a 995 base pair fragment of the cyt-b mitochondrial gene from 127 individuals, including Trindade Island *arminjoniana* (n=21), Round Island *arminjoniana* (n=26), intermediate birds (n=11), white-shafted (=*neglecta* type) birds from Round Island (n=8), as well as *neglecta, heraldica*, and *atrata* (Henderson Petrel) from Pacific breeding stations. This study produced the following results:

a) The 23 distinct haplotypes cluster out into four phylogroups, pertaining to *arminjoniana*, *heraldica*, *neglecta*, and *atrata*. The genetic dataset confirms the contribution of *arminjoniana*, *neglecta* and *heraldica* genes in the Round Island Petrel population.
b) The haplotype network shows Trindade *arminjoniana* haplotypes are restricted to one region of the network, as are Pacific *heraldica* and Pacific Kermadec Petrels; *atrata* (Henderson) haplotypes are not shared with any other group and are centrally located in the network, suggesting they could be ancestral in the group.
c) Trindade *arminjoniana* haplotypes are mutually exclusive from Pacific *heraldica*.
d) Birds from Round Island of various morphologies (dark-shafted, pale-shafted, intermediate) share haplotypes with various populations, suggesting gene flow here through hybridization.
e) Feather lice of Round Island petrels are *Halipeurus heraldicus*, whereas *H. kermadecensis* is found on Trindade *arminjoniana*. This suggests a host switch, most likely due to hybridization events there. Lice can move from bird to bird during direct contact.
f) Populations of Trindade *arminjoniana* and Pacific Kermadec petrels share no haplotypes; therefore, overlap of these haplotypes on Round Island is due to hybridization.
g) The single *heraldica* type bird (based on morphology and genetics) sampled from Round Island was breeding with a dark morph dark-shafted individual (dark *arminjoniana* type).
h) Of the 45 Round Island petrels sampled, only one was a *heraldica*, which is rare there.

i) This is a rare example of a multi-species hybridization event in nature, in secondary contact, because this island was previously not used as a breeding station by these petrels. It appears that habitat changes on the island have allowed for petrels to colonize.
j) Leakage of genes between species is occurring on this isolated island, but there is no evidence that gene flow is occurring in the main populations of these petrels. No hybridization is known between these forms, many of which are sympatric, anywhere else on earth.
k) Given the differences in phenotype, anatomy, calls and ectoparasites among these taxa, as well as the uneven distribution of haplotypes, it is highly unlikely that they represent a single polytypic species complex.

Perhaps initial hybridization events occurred due to the rarity of finding a suitable mate by the few initial scouts of the second species to venture to this island? Longer term tracking of the Round Island population may find that hybridization becomes rarer as the populations of the taxa there grow.

Summary:

This is a complex relationship muddied by a rare and unique situation, which is Round Island, where secondary contact and hybridization is ongoing, although no clear evidence of gene flow outside of this island has been found. That is to say that there is no introgression between Pacific and Atlantic populations of these taxa, introgression is restricted to a single island in the Indian Ocean. What we do know is the following:

1) In the Pacific, *heraldica*, *neglecta*, *alba* and *atrata* are usually sympatric with one or two members (sometimes all as in Easter Island) of the complex, and are reproductively isolated. They behave as clear biological species.
2) The mtDNA data suggests distinctness of *neglecta*, *heraldica*, *arminjoniana*, and *atrata*.
3) These diurnal *Pterodroma* display and vocalize over nesting islands; the voice of *neglecta* is very distinct. The voices of the remaining taxa are similar. Voice of *atrata* and *heraldica* are differ significantly in speed of delivery; these two similarly sounding forms are reproductively isolated and sympatric on at least two islands. The few recordings and spectrograms of *arminjoniana* suggest a speed difference between it and *heraldica* of the magnitude seen in *atrata-heraldica*.
4) Plumage and structure may be important in mate selection, as is suggested by the plumage difference between reproductively isolated and sympatric *heraldica* and *atrata*. On the other hand *arminjoniana* is polymorphic (like *neglecta*), and in this taxon coloration is likely not important in mate selection. In sympatry *neglecta* is larger and bulkier, has white primary shafts and different voice that differentiates it to *heraldica*. Atlantic *arminjoniana* have no other member of the complex breeding in the area, and may not have as well developed barriers to avoid hybridization due to their isolation from related forms. All things being equal, *heraldica* may avoid breeding with dark *arminjoniana* based on coloration, and possibly due to voice differences.

5) This is a messy situation with similar and closely related taxa involved. But if *heraldica*, *atrata* and *alba* are different species based on voice, coloration, lack of interbreeding in sympatry, and mtDNA haplotype distributions, then the allopatric *arminjoniana* should also be considered a species, not conspecific with *heraldica*. Otherwise it may be equally valid to lump *arminjoniana* with *atrata*, as opposed to *heraldica*! Or based on widespread hybridization with *neglecta* on Round Island, and their shared intestinal morphology, an argument could also be made for treating *neglecta* and *arminjoniana* as conspecific, although this conflicts with other data. Neither of these two latter options is satisfactory, and the most even-handed approach is to separate *arminjoniana* from *heraldica*, which makes for a much more even and logical treatment of this group, particularly given its complexities.
6) On Round Island most individuals are *arminjoniana* or Kermadecs, and these are the ones that interbreed freely. Kermadec is widely sympatric with *heraldica* in the Pacific, and the two are not known to hybridize anywhere in the Pacific. On Round Island there are few *heraldica*, and only one hybridization event has been documented with *arminjoniana*, although genetic work indicates that it has happened in years previous as well. Perhaps *heraldica* is a vagrant or so rare there that to consider that a population of it exists on Round Island may be a stretch. This is not detailed clearly in the papers.

Distribution in Nearctic:

Kermadec Petrel (*P. neglecta*) is likely an annual offshore visitor to the waters of Pacific Central America and Mexico. A controversial record from Pennsylvania (Heintzelman 1961) could in fact refer to a Trindade Petrel (*P. arminjoniana*), which breeds in the Atlantic islands of Trindade (Trinidade) and Martim Vas off Brazil. It ranges offshore to the north, including the Gulf Stream off the US Atlantic coast, where recorded annually. The status of *heraldica* in North American waters requires investigation.

English Names:

The form *atrata* is the easy one. It should be named Henderson Petrel, a name used already without any resistance. Although the composite species is named Herald Petrel, in this case leaving *heraldica* as the Herald Petrel makes sense for two reasons: (1) it matches the scientific name, and (2) the period in which *heraldica* and *arminjoniana* were considered conspecific has been brief; thus, Herald as restricted to *heraldica* has still been understood by many seabird researchers, is well entrenched and used widely, and for years now often meant only for the Pacific population. For *arminjoniana* it is a bit trickier, because the English name that is widely used is often misspelled or misused. The name Trindade Petrel has the most traction because it is the Portuguese name (= Trinity Island) of the main island where it breeds; however, it is sometimes erroneously listed as “Trinidad Petrel” (the island is sometimes known as “South Trinidad” Island), and an Anglicized version, “Trinidade”, has also been proposed. In my opinion (endorsed by SACC), the Portuguese and official international name of the island is “Trindade”, so the petrel should bear this name. Arminjon’s Petrel is an old name, but it was originally given only to the pale morph, and has little to no use currently. Similarly, Wilson's Petrel has been used in the past for intermediate looking birds; because it has little traction and is potentially confusing with the Wilson's Storm-Petrel, that name should be avoided.

Recommendation:

My recommendation is to split *Pterodroma arminjoniana* into three components, one of which (*arminjoniana sensu stricto*) is found in the Nearctic on a regular basis:

1) Trindade Petrel *Pterodroma arminjoniana* – Atlantic breeder
2) Herald Petrel *Pterodroma heraldica* – Pacific breeder.
3) Henderson Petrel *Pterodroma atrata* – Pacific breeder.

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Submitted by: Alvaro Jaramillo, in collaboration with Peter Harrison, George Armistead, Ned Brinkley, Brian Patteson, and Angus Wilson

Date of proposal: 5 June 2014

Transfer American Tree Sparrow *Spizella arborea* to *Spizelloides*

Background:

The genus *Spizella* contains seven species of small, slim North American sparrows. The American Tree Sparrow (*S. arborea*) has historically been placed in this genus, but careful observers have long noticed that the species' morphology, behavior, and vocalizations readily set it apart from the rest of that genus. Dodge *et al.* (1995) found that *Spizella* was polyphyletic, and more recent molecular evidence has consistently shown that *arborea* is not included in a monophyletic clade with the other *Spizella* (Carson and Spicer 2003, Barker et al. 2013, Klicka et al. 2014).

New Information:

New multilocus molecular evidence (e.g., Klicka et al. 2014) conclusively shows *Spizella* to be polyphyletic, with *S. arborea* grouping with *Passerella*, *Junco*, and *Zonotrichia* far from other species of *Spizella*. Slager and Klicka (2014) reviewed this molecular evidence and discussed the taxonomy of *S. arborea* in light of the evidence. They proposed that the American Tree Sparrow should be placed in a monotypic genus, arguing as follows:

> "Given the phylogenetic relationships described above, three options exist for the generic placement of *S. arborea*: 1) Place *S. arborea* in a monotypic genus, 2) merge *S. arborea* into *Passerella*, or 3) merge *S. arborea, Passerella*, *Zonotrichia*, and *Junco* into a single genus. The long branches subtending *S. arborea* and *Passerella iliaca* on the mtDNA tree indicate that these two lineages are relatively ancient. Merging both into *Passerella* (see Rising 2011) overlooks the morphological and genetic distinctiveness and long independent histories of these two taxa. Although the lumping of *Passerella* and *Zonotrichia* together with (Short & Simon 1965) and without (Paynter 1964) *Junco* has been proposed, such notions have never called for lumping *S. arborea* with these genera, and have always involved co-lumping them with *Melospiza* (Dickerman 1961), which is now known to be only distantly related (Klicka *et al.* 2014). Given that the strong phenotypic differences and deep phylogenetic divergence among these four groups are on par with divisions between other sparrow genera (Klicka *et al.* 2014), we feel that *Passerella*, *Zonotrichia*, and *Junco* should be retained and that placing *S. arborea* in a monotypic genus is warranted. *Spizella arborea* has been previously placed in seven other genera: *Emberiza*, *Fringilla*, *Passer*, *Passerella*, *Passerina*, *Spinites*, and *Zonotrichia* (Baird *et al.* 1901; Ridgway 1901; Hellmayr 1938; Rising 2011). However, *S. arborea* is not the type species of any of these genera (Baird *et al.* 1901; Ridgway 1901; American Ornithologists' Union 1998)."

Slager and Klicka (2014) went on to describe a new genus, *Spizelloides*, for *S. arborea*.

If this proposal is accepted the name *Spizelloides arborea* (Wilson) *comb. nov.*, American Tree Sparrow would appear in the revised check-list.

Recommendation:

We recommend that this change be adopted.

The linear sequence of sparrows awaits huge changes resulting from recent publications by the 9-primaried oscine phylogeny group. Thus, for the purposes of this more narrowly focused proposal it might be desirable to leave the linear sequence unchanged for the moment pending these eventual larger changes. Alternatively, a stop-gap solution better reflecting evolutionary relationships of species near *S. arborea* in the linear sequence might change the linear sequence to the following:

Xenospiza
Melospiza
Passerella
Spizelloides
Zonotrichia
Junco

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Submitted by: David L. Slager, University of Washington Department of Biology & Burke Museum of Natural History and Culture; Jim Rising, University of Toronto

Date of proposal: 3 July 2014

Split *Passerina pallidior* from Painted Bunting *P. ciris*

Background:

Passerina ciris, described by Linnaeus in 1758 as *Emberiza Ciris,* was considered by the 5th edition of the A.O.U. Checklist (1957) to consist of 2 subspecies : the nominate *ciris*, with a breeding range extending west from the southeast Atlantic Coast to about 96-97 degrees west longitude, and *P. c*. *pallidior* Mearns, 1911, with a breeding range in the United States from that line west to southeast New Mexico. The Texas and Oklahoma Breeding Bird Atlas maps (Bay 2004, Tweit 2007) do not show any change at 96-97 degrees. Currently, however, two breeding populations exist: one along the south Atlantic coast and the other primarily in Texas, Oklahoma, Louisiana, Arkansas, Kansas and northeast Mexico (Howell and Webb 1995, Sykes and Holtzman 2005, Sauer et al. 2014). These two allopatric populations are separated by a gap of about 550 km (Lowther et al. 1999). Texas, with 203 Breeding Bird Survey (BBS) routes on which this species has been detected, Louisiana with 85, and Oklahoma with 55 appear to contain a higher number of Painted Buntings than any other states, as their total of 343 is 69% of the 494 BBS routes in the United States on which this species was reported in 2012. Only Oklahoma and Texas have average relative abundances (buntings per route) as high as >10 buntings per 40 km route (Sauer et al. 2014).

Besides their allopatric breeding ranges, these two populations differ in several significant ways. The eastern population molts on the breeding grounds before flying south in late September to late October to winter in south Florida, the northern Bahamas, and Cuba. Birds of the western group migrate from Texas between June 30 and December 7 (peak late July – mid October) to fly to stop-over points in northwest Mexico to molt before resuming their migration to areas further south in Mexico and Central America (Oberholser 1974, Thompson 1991a, 1991b, Lowther et al. 1999). The 550 km gap between these two breeding areas and the differences in molt and migration strategies and winter ranges strongly support the reproductive isolation of these two populations and thus they deserve recognition as full species as proposed by Thompson (1991b) and Tweit (2007).

New information:

A recent study of 138 *Passerina ciris* individuals from 15 locations within the Atlantic coastal and interior breeding areas (Herr et al. 2011) shows the two populations described above to be evolving independently with no measurable gene flow between them. They apparently began diverging between 26,000 and 115,000 years ago from a common ancestor located within the present range of *P. pallidior.*

This additional information also redefines the species limits for these 2 populations from those proposed by Mearns (1911) as well as providing population estimates (41,000 for *P. ciris* and 1,500,000 for *P. pallidior* (Herr et al. 2011). A study of fall migrant *P. pallidior* individuals at a stop-over site in Sinaloa, Mexico (Rohwer 2013), explains the lengthy migration period. Most males apparently left the breeding grounds early in the fall cycle. In contrast, many females stayed in their breeding areas much longer to prepare a final brood for migration after their mates have departed (Rohwer 2013).

Recommendation:

Based on the data presented above, I propose *Passerina ciris* and *P. pallidior* be recognized as full species. Although these two taxa are still evolving genetically, as are all other species, the differences in breeding and winter ranges, molt strategies and migration tactics, bolstered by the lack of gene flow, prove these two species to be reproductively isolated.

I also propose the entries below for the checklist. The English names Eastern Painted Bunting and Western Painted Bunting were first given to these populations by Sibley and Monroe (1993).

Passerina ciris (Linnaeus). Eastern Painted Bunting.

Emberiza Ciris Linnaeus, 1758, Syst. Nat. (ed. 10) 1: 179. Based mainly on "The Painted Finch" Catesby, Nat. Hist. Carolina 1: 44, pl.. (in America = South Carolina).

Habitat.—Semi-open situations containing scattered pine or oak trees, low shrubby plants and grassy or needle-covered areas of coastal plains and barrier islands.

Distribution.—*Breeds* along the southeast Atlantic coastal plain and barrier islands from southeast South Carolina to north Florida. Two tiny additional areas are present on the coasts of North Carolina and the Florida Panhandle.

Winters in south Florida, the northern Bahamas and Cuba (Sykes and Holtzman 2005, Sykes et al. 2007).

Notes.—This species and *P. pallidior* were formerly considered conspecific under the name *P. ciris.*

Passerina pallidior (Mearns) Western Painted Bunting.

Passerina ciris pallidior Mearns, Proc. Biol. Soc. Wash. 1911. 24: 217-218 (Fort Clark [= Bracketville], Kinney County, TX.

Habitat.—*Breed*s from near sea level to 1400 m in semi-open country with scattered bushes and trees and also along roadsides or stream-sides with tall brush and patches of grasses and forbs. The species is scarce where trees are sparse or too dense (Oberholser 1974). Nesting territories in Oklahoma contain a tree or shrub for the nest, song perches and a grassy area with shrubs for feeding (Parmelee 1959).

Winters in Costa Rica in dense, brushy second growth, overgrown pastures, tall grass, or riverside stands of wild cane (Stiles and Skutch 1989).

Migration In Arizona, thick riparian brush adjoining weedy fields (Rosenberg and Stejskal 1999).

Distribution.—*Breeds* in south-central United States and northeastern Mexico, with most abundant United States breeding occurring in Texas and Oklahoma, the only states with average relative abundances of >10 buntings per 40 km Breeding Bird Survey route (Sauer et al. 2014). Other states are Arkansas, Louisiana, southwestern Mississippi, eastern Kansas, southern Missouri, southeastern New Mexico and the Mexican states of Chihuahua, Coahuila and Nuevo Leon. Small areas were occupied in Alabama, Illinois and Tennessee (Howell and Webb 1995, Bay 2004, Sykes and Holzman 2005, Tweit 2007, Sauer et al. 2014).

Winters in western and southern Mexico to western Panama (Stiles and Skutch 1989, Howell and Webb 1995**).**

Migration Individuals stop to molt in northwestern Mexico (Sonora and northern Sinaloa; Rohwer 2013) and rarely in southern Arizona (Rosenberg and Stejskal 1999), where most individuals present from late July to early October are brown juveniles**.**

Notes.—See note under *P. ciris.*

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Submitted by: Robert C. Tweit, PhD, R&J Associates

Date of proposal: 7 July 2014

Split *Toxostoma arenicola* from LeConte's Thrasher *T. lecontei*

Background:

Toxostoma lecontei was described by Lawrence in 1851 from a specimen taken along the California-Arizona border at the junction of the Gila and Colorado rivers (AOU 1998). The 5th edition of the *Check-list of North American Birds* (AOU 1957) recognized 2 subspecies: *T. l. lecontei*, found across much of the Mohave and Sonoran deserts, and *T. l. arenicola,* described by Anthony (1897) from a specimen taken at Rosalia Bay, Baja California Sur, and found in western Baja California. The 7th edition of the checklist (AOU 1998) described these 2 populations as groups under the names *Toxostoma lecontei* (Le Conte's Thrasher) and *Toxostoma arenicola* (Rosalia Thrasher) with the citation Zink et al. (1997). The latter name was first used in the 9th supplement to the checklist (AOU 1899).

A genetic study of the species limits of these two groups and the proposed subspecies *T. l. macmillanorum* (Zink et al. 1997) found that haplotypes of *T. l. arenicola* differed by 3.5% sequence divergence from those of *T. l. lecontei* and *T. l. macmillanorum* (well within the range of differences between related established species). This suggests that the subspecies *T. l. arenicola* is reproductively isolated. These results, combined with those of a colorimetric analysis, indicated to these researchers that *T. l. macmillanorum* was not a distinct taxon.

New information:

The Arizona breeding bird atlas (Corman 2005) showed that the range of *T. l. lecontei* had contracted to the west from that reported by Phillips et al. (1964). Patten (2008) provided a concise comparison of the relative Baja California ranges and plumages of these two groups, reporting *T. l. lecontei* to be resident in northeast Baja California and *T. l. arenicola* in west-central Baja California Sur (the Vizcaíno Desert). The plumage of *T. l. lecontei* is pale mouse-gray throughout, most noticeably pale on mantle and upper tail coverts, although the tail is fuscous, whereas *T. l. arenicola* is darker. The habitats of these 2 populations also differ; *T. l. lecontei* is found in saltbush and shadscale areas, whereas *T. l. arenicola* occurs in even more arid places, where plants such as cardon cactus, boojum, and elephant tree either have no leaves or leaf out only after rains (RCT, pers. obs.). Thus, these 2 allopatric populations differ in range, appearance, habitat and genetics, and deserve full species status.

Recommendation:

I propose that *Toxostoma arenicola* be given full species status and submit the following checklist entries:

Toxostoma lecontei Lawrence. Le Conte's Thrasher.

Toxostoma lecontei Lawrence, 1851, Ann. Lyc. Nat. Hist. N. Y. 5: 121. (California, near the junction of the Gila and Colorado rivers = Fort Yuma, California.)

Habitat.—Relatively barren, open desert scrub, particularly saltbush and shadscale (*Atriplex* spp.) and/or cylindrical cholla cactus (*Cylindropuntia* spp.), with dry, sandy washes (Sheppard 1996, A.O.U. 1998).

Distribution.—*Resident* in southern California (the Carrizo Plain of eastern San Luis Obispo County and the San Joaquin Valley desert from Fresno County south to Kern County); and from eastern California (east of the Sierra Nevada north to south Mono and Inyo counties), southern Nevada, southwest Utah, southwest Arizona (Yuma, La Paz, western Pima,, Maricopa, Pinal and central Mohave counties, Corman 2005) northeast Baja California and western Sonora, Mexico (AOU 1998).

Notes.—This species and *Toxostoma arenicola* were formerly considered conspecific under the name *T. lecontei.*

Toxostoma arenicola Anthony. Rosalia Thrasher.

Toxostoma arenicola Anthony, 1897, Auk 14 :164-168. (Rosalía Bay, Baja California Sur, Mexico).

Habitat.—The Vizcaino Desert of Baja California Sur, Mexico, an extremely arid area where much of the 5-15 cm average annual precipitation comes as fog. Cardon cactus, boojum, elephant tree, and ball moss are common plants.

Distribution.—Between 26-29 degrees N. latitude in west-central Baja California Sur.

Notes.—See note under *Toxostoma lecontei.*

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Submitted by: Robert C. Tweit, PhD, R & J Assoc.

Date of Proposal: 9 July 2014

2015-A-9 N&MA Classification Committee pp. 229, 299

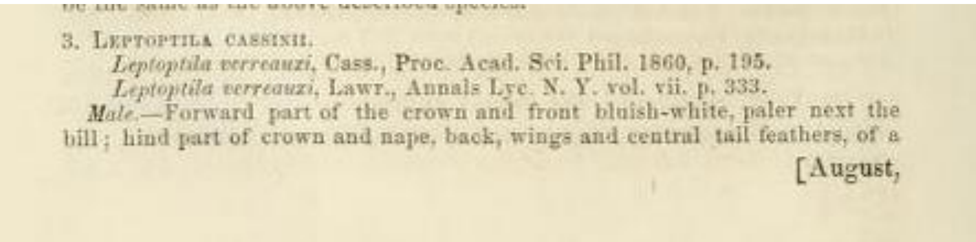
Correct the scientific names of (a) *Leptotila cassini* and (b) *Amazilia saucerrottei* based on evidence in the original descriptions

Background:

The AOU Check-list currently lists the names of these species as *Amazilia saucerrottei* and *Leptotila cassini*.

"New" Information:

(a) *Leptotila cassini* was described by Lawrence in 1867 in the *Proceedings of the Academy of Natural Sciences of Philadelphia*. The name was published as *Leptotila cassinii*, and was cited as such by Hellmayr and Conover (1942), but Ridgway (1916), and Peters (1937) cited it as *cassini,* and Sibley and Monroe (1990) flatly stated that "The correct original spelling is *cassini*, not *cassinii*." As can be seen from the beginning of Lawrence's description, however:



3. LEPTOPTILA CASSINII.

Leptoptila verreauxi, Cass., Proc. Acad. Sci. Phil. 1860, p. 195.

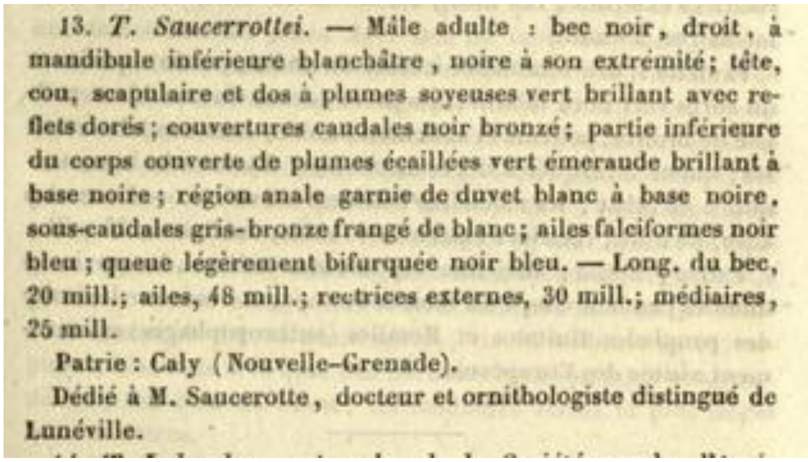
Leptoptila verreauxi, Lawr., Annals Lyc. N. Y. vol. vii. p. 333.

Male.—Forward part of the crown and front bluish-white, paler next the bill; hind part of crown and nape, back, wings and central tail feathers, of a

[August,

the correct original spelling is indeed *cassinii*, *contra* Ridgway, Peters, and Sibley and Monroe. Our spelling must be corrected accordingly, as has already been done by Dickinson and Remsen (2013) in the new *Howard and Moore* non-passerine volume.

(b) *Amazilia saucerrottei* was described by Delattre and Bourcier in 1846 in the *Revue Zoologique (Paris)* as *Trochilus Saucerrottei*. The species was named for Nicolas Saucerotte, a medical doctor and "ornithologiste distingué" from Lunéville, France. Saucerotte's name is spelled correctly (with a single "r") in the text of the description, but incorrectly (with a double "r") in the name of the species, as shown below:



13. *T. Saucerrottei.* — Mâle adulte : bec noir, droit, à mandibule inférieure blanchâtre, noire à son extrémité; tête, cou, scapulaire et dos à plumes soyeuses vert brillant avec reflets dorés; couvertures caudales noir bronzé; partie inférieure du corps couverte de plumes écaillées vert émeraude brillant à base noire; région anale garnie de duvet blanc à base noire, sous-caudales gris-bronze frangé de blanc; ailes falciformes noir bleu; queue légèrement bifurquée noir bleu. — Long. du bec, 20 mill.; ailes, 48 mill.; rectrices externes, 30 mill.; médiaires, 25 mill.

Patrie : Caly (Nouvelle-Grenade).

Dédié à M. Saucerotte, docteur et ornithologiste distingué de Lunéville.

According to Article 32.5.1 of the *Code of Zoological Nomenclature*, which covers spellings that must be corrected (incorrect original spellings), “If there is in the original publication itself, without recourse to any external source of information, clear evidence of an inadvertent error, such as a lapsus calami or a copyist’s or printer’s error, it must be corrected.” The example provided in the code concerns an author stating that a new species was being named for Linnaeus but publishing the name as *ninnaei*, which would be an incorrect original spelling to be corrected to *linnaei*. The case of *saucerrottei* is comparable, and this name, an obvious misspelling of Saucerotte, must be corrected to *saucerottei*, as has already been done by Dickinson and Remsen (2013).

Recommendation:

I recommend that we vote in favor of these corrections.

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Acknowledgements:

Thanks to Peter Kovalik for making a list of discrepancies between the new *Howard and Moore* and other checklists and to Tom Schulenberg for bringing the discrepancies to our attention.

Submitted by: Terry Chesser

Date of proposal: 17 July 2014

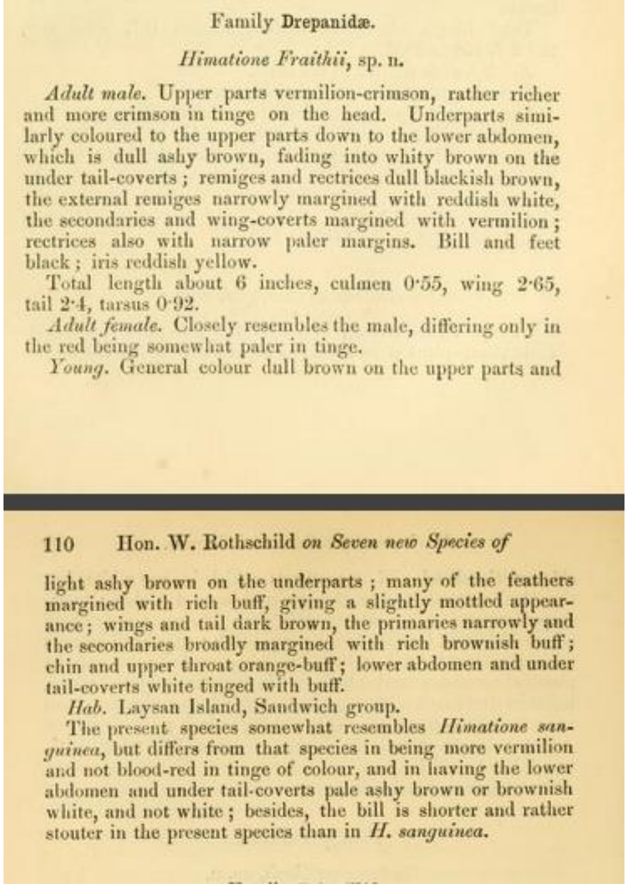
Split Laysan Honeycreeper from Apapane *Himatione sanguinea* and change its specific epithet to *fraithii*

Background:

The extinct Laysan Honeycreeper (currently the *freethi* group of *Himatione sanguinea*) was a Hawaiian honeycreeper (Carduelinae) endemic to Laysan in the Northwestern Hawaiian Islands (Pyle 2011). It was considered a separate species until lumped with the Apapane (*H. sanguinea*) by Amadon (1950), who has been followed by most subsequent authors. However, this now-extinct (1923; Ely and Clapp 1973, Olson 1996) form differs from the Apapane in many ways equivalent to species-level differences among other Hawaiian carduelines. Furthermore, its scientific nomenclature has been controversial, with four variants (*freethi*, *freethii*, *fraithi, fraithii*) used in various publications, and the current epithet is probably incorrect (Pyle 2011).

New information:

<u>*Nomenclature*</u>: *Himatione fraithii* was described by Rothschild in 1892. Although the species was named after George D. Freeth (Pyle 2011), his name was unfortunately misspelled in the scientific name and he was not mentioned at all in the description:



Family **Drepanidæ.**

Himatione Fraithii, sp. n.

Adult male. Upper parts vermilion-crimson, rather richer and more crimson in tinge on the head. Underparts similarly coloured to the upper parts down to the lower abdomen, which is dull ashy brown, fading into whity brown on the under tail-coverts; remiges and rectrices dull blackish brown, the external remiges narrowly margined with reddish white, the secondaries and wing-coverts margined with vermilion; rectrices also with narrow paler margins. Bill and feet black; iris reddish yellow.

Total length about 6 inches, culmen 0·55, wing 2·65, tail 2·4, tarsus 0·92.

Adult female. Closely resembles the male, differing only in the red being somewhat paler in tinge.

Young. General colour dull brown on the upper parts and

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light ashy brown on the underparts; many of the feathers margined with rich buff, giving a slightly mottled appearance; wings and tail dark brown, the primaries narrowly and the secondaries broadly margined with rich brownish buff; chin and upper throat orange-buff; lower abdomen and under tail-coverts white tinged with buff.

Hab. Laysan Island, Sandwich group.

The present species somewhat resembles *Himatione sanguinea*, but differs from that species in being more vermilion and not blood-red in tinge of colour, and in having the lower abdomen and under tail-coverts pale ashy brown or brownish white, and not white; besides, the bill is shorter and rather stouter in the present species than in *H. sanguinea*.

Rothschild published an emended name (*freethi*) in Part I of his *Avifauna of Laysan and the neighbouring islands* (1893), and introduced additional spellings in Parts II (*fraithi*) and III (*freethii*) of this work (Pyle 2011). Although Amadon (1950) and Pratt (2005) considered Rothschild's corrections to be covered under Article 32.5.1.1 of the *Code of Zoological Nomenclature*, it is clear that his *Avifauna of Laysan, etc.* was not "issued simultaneously with the original work" as required by the *Code* (Pyle 2011). Therefore, the original spelling *fraithii* is not correctable and *freethii* (as in AOU 1998) is an unjustified emendation.

<u>Species status</u>: Olson and James (1982, 1991) listed *H. fraithii* as a full species without comment. Olson and Ziegler (1995) considered its cranium sufficiently different from that of the Apapane to suggest separate species rank. Pratt and Pratt (2001) discussed many behavioral and ecological potential isolating mechanisms including distinctive song and song phenology (Rothschild 1893-1900); distinctive feeding behavior, including ground-foraging (Fisher 1903); distinctive nest placement and structure (Schauinsland 1899, Bailey 1956); and, of course, very different habitat. Pratt (2005) pointed out that the Laysan Honeycreeper lacks the peculiar squared-off primary tips that produce the characteristic "wing note" of the Apapane. Pratt and Pratt (2001) considered successful interbreeding by two such disparate birds to be "inconceivable". Given the broad spectrum of potential isolating mechanisms in multiple qualitatively different characters (Pratt 2010), the case for separate species status for *H. sanguinea* and *H. fraithii* seems overwhelming.

Recommendation:

We recommend that the scientific name *freethi* be corrected to *fraithii* and that *Himatione fraithii* be elevated to full species in the AOU Check-list under the English name Laysan Honeycreeper. This English name is the traditional and "official" (AOU 1998) one for this bird, but some recent popular writers have used Laysan Apapane, which, if adopted, would require a modifier for the Apapane (which we oppose). The latter is an example of modern retro-fitting of Hawaiian names to species whose Hawaiian names are either unknown or never existed (Parras and Kikiloi 2014), as in the case of Kiwikiu as a new vernacular name for the Maui Parrotbill, which the AOU rejected (2011-A-13). As far as anyone knows, Hawaiians never visited Laysan, which itself has no traditional Hawaiian name. We understand and support the reasons for the creation of Hawaiian neologisms for local use, but believe that the AOU should continue its practice of designating bird names in English, using loan-words where appropriate or necessary, but rejecting newly minted names in other languages. On a purely sentimental note, we think it would be appropriate for at least one member of the Hawaiian honeycreeper clade to retain the word "honeycreeper" in its vernacular name.

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Submitted by: H. Douglas Pratt, Research Curator of Birds, Emeritus, North Carolina Museum of Natural Sciences; Peter Pyle, Institute for Bird Populations; Reginald E. David, Rana Biological Consulting, Inc.

Date of Proposal: 18 July 2014

(a) Split Newell's Shearwater *Puffinus newelli* from Townsend's Shearwater *P. auricularis*

(b) consider Rapa Shearwater *P. myrtae* as a species separate from *P. newelli*

Background:

Newell's Shearwater was first described by Henshaw (1900) based on a specimen from Maui. It was long regarded as one of eight species comprising a worldwide Manx Shearwater complex (Murphy 1952), but the AOU (1983), apparently influenced by Jehl (1982), lumped it with Townsend's Shearwater based on general similarities of plumage and voice. That taxonomy remains in effect for the AOU (1998) checklist, but almost all other recent publications that are not tied to it have regarded Newell's as a full species (Pratt et al. 1987; Enticott and Tipling 1997; Ziegler 2002; Onley and Scofield 2007; Pyle and Pyle 2009; Howell 2012, del Hoyo and Collar 2014). The Birds of North America account (Ainley et al. (1997), considers the current taxonomy "problematic" because Newell's and Townsend's differ in morphology, breed at mutually exclusive times of the year, are very distantly allopatric in both breeding and marine ranges, and prefer different marine habitats (Newell's is highly pelagic whereas Townsend's is "semi-neritic"). Townsend's is unknown beyond the immediate vicinity of its breeding islands, but Newell's wanders widely with records from as far away as the Mariana Islands (Wiles 2005), American Samoa (Grant et al. 1994), and California (Unitt et al 2009).

New information:

Howell (2012:143) pointed out that the differences between Newell's and Townsend's shearwaters in plumage (Howell et al. 1994), morphology and breeding chronology (Ainley et al. 1997), and feeding ecology (Spear et al. 1995), "are comparable to or greater than those among other small shearwater species." Importantly, the ecological and seasonality differences are potential isolating mechanisms, suggesting that the two forms are separate biological species, phenotypical resemblances notwithstanding. Molecular data (Austin et al. 2004; Pyle et al. 2011) suggest that Newell's is not part of the Manx Shearwater complex, but instead belongs to a clade that includes Tropical Shearwater *P. bailloni* and Audubon's Shearwater *P. lherminieri* (Austin et al. 2004). Unfortunately, no DNA has been available from *P. auricularis,* so whether it, too, is allied with other Pacific black-and-white shearwaters is unknown, and it is not included in the Austin et al. (2004) study.

Unexpectedly, Austin et al. (2004) found *P. newelli* to be sister to the taxon *myrtae*, a small form that had previously been considered part of the Little Shearwater *P. assimilis* complex (Bourne 1959) and that is essentially endemic to Rapa, the southernmost island of Polynesia. Austin et al. (2004) noted that further study of this result was needed, but tentatively recommended that *myrtae* be considered a subspecies of *newelli*, a recommendation followed by Onley and Scofield (2007) and Gill and Donsker (2015). Dickinson and Remsen (2014) listed *myrtae* and *newelli* as subspecies of *auricularis*, but how they arrived at this classification is unclear. Morphologically, the two are very different, although *myrtae* shares *newelli*'s characteristic white "saddlebags" (Austin et al. 2004). Otherwise, *myrtae* apparently looks and behaves like the *assimilis* group, although it is a bit larger and longer tailed (Bourne 1959, Pratt et al. 1987). Considering that lumping these two is apparently based solely on genetic distance (which is not necessarily relevant within the BSC), and that they are very widely separated geographically and strikingly different phenotypically, our opinion is that the “default” position should be that *myrtae* and *newelli* are separate species (see Gill 2014), with the burden of proof lying with those who would consider them conspecific.

Recommendation:

(a) Because both phenotypic and molecular characters suggest that Newell’s Shearwater is best regarded as a separate species, not necessarily closely related to Townsend’s Shearwater, it should be split from that form and listed as a separate species next to Audubon’s Shearwater.

(b) To deal with the peripheral issue of the *newelli/myrtae* relationship, we recommend inclusion of the following or a similar sentence in the Notes for the new species account for *newelli*: The relationship of *newelli* to the extralimital form *myrtae* is unresolved, and we tentatively consider them separate species pending additional data. Note that the English name of *P. myrtae* should be Rapa Shearwater, not Rapa Island Shearwater (compare Maui Parrotbill, Hawaii Creeper, Bermuda Petrel, Socorro Dove, etc.).

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Correct the citation for *Pterodroma solandri*

Pterodroma solandri was recently transferred from the Appendix to the main list of the *AOU Check-list* (Chesser et al. 2013). The citation for this species, following Peters' *Check-list of Birds of the World* (Peters 1931, Mayr and Cottrell 1979) and numerous others, was Gould 1844a, a report published in the *Proceedings of the Zoological Society of London* in September 1844 (Sclater 1893). However, Alan Peterson has drawn my attention to McAllan (2004), who stated that the name (and the description of) *P. solandri* had been previously published in Gould 1844b, in the *Annals and Magazine of Natural History* in May 1844. Thus, the citation for this species should be corrected to the following:

Procellaria Solandri Gould, 1844, Ann. Mag. Nat Hist. 13: 363.

Although he discussed the probable type locality, McAllan did not directly address the issue of the citation of the type locality. Peters (1931) had listed the type locality as "Bass Strait" and Mayr and Cottrell (1979) as "no locality = Bass Strait, *fide* Gould, 1844, Ann. Mag. Nat. Hist. **13**, p. 363." The problem was that no type locality was provided in the description in the *PZSL*, although the title of the contribution was listed in the Table of Contents as "Exhibition of a series of birds from Australia, collected by Mr. Gilbert and himself." Instead, the type locality "Bass Strait" was taken from the paper in the *Annals*. We (Chesser et al. 2013, following AOU 1998) listed the type locality as "Australia = Bass Strait" – taking "Australia" from the Table of Contents of the *PZSL* and "Bass Strait" from the paper in the *Annals*.

Because the *Annals* paper is now known to be the correct citation, and McAllan (2004) confirmed that the type specimen was likely collected at the northeast entrance to Bass Strait, the type locality becomes less muddled. The verbatim type locality in the *Annals* paper is "Bass's Straits" so the type locality should probably be listed as "Bass's Straits = Bass Strait." Thus, the full citation would become:

Pterodroma solandri (Gould). Providence Petrel.

Procellaria Solandri Gould, 1844, Ann. Mag. Nat Hist. 13: 363. (Bass's Straits = Bass Strait.)

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Submitted by: Terry Chesser

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