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

#### Proposal Set 2017-C

#### 15 March 2017

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2017-C-1

# Revise the linear sequence of genera in Fringillidae, and transfer Serinus mozambicus to Crithagra

#### Background:

In the past decade, several phylogenetic papers have elucidated relationships within the Fringillidae (Arnaiz-Villena et al. 2007, 2008, Nguembock et al. 2009, Lerner et al. 2011, Zuccon et al. 2012). NACC already has taken a series of actions (reviewed below) based on this research. Perhaps because these actions were undertaken more or less individually, the NACC sequence still does not reflect all the implications of these phylogenies, especially with respect to the linear sequence of genera within the family. To recap, Arnaiz-Villena et al. (2007, 2008) used mitochondrial DNA (cytochrome *b*) to investigate the affinities of carduelid finches. Their two phylogenies each had a somewhat different mix of species, but with broad representation, including 70-odd species of carduelids and related taxa. Important results were that drepanidids are embedded within carduelids, and that *Carduelis, Carpodacus*, and *Serinus* (all *sensu* AOU 1998) are not monophyletic (Arnaiz-Villena et al. 2007, 2008).

Nguembock et al. (2009) used both mitochondrial (ATPase 6 and ND3) and nuclear genes (c-mos) and introns (myoglobin intron 2 and transforming growth factor- ß2 intron 5) for a phylogenetic survey of carduelids. Their paper placed particular emphasis on the species-rich genera *Serinus* and *Carduelis*, sampling some 50 taxa. This paper did not focus on the relationships of the drepanidids, although they included one taxon from that group (*Drepanis*). Lerner et al. (2011) used both mitochondrial and nuclear genes (in brief, a complete mitochondrial genome of ca. 17 kb, and 13 nuclear loci totaling ca. 8.2 kb). As Lerner et al. (2011) was focused on the relationships of drepanidids, they included many more drepanidid taxa than did Arnaiz-Villena et al. (2007, 2008), but fewer other finch species.

Arguably the most comprehensive phylogeny of Fringillidae was produced by Zuccon et al. (2012), who surveyed two mitochondrial genes (ND2 and ND3) and several nuclear introns (intron 2 of the myoglobin intron 2, introns 6 and 7 of the ODC gene, and intron 11 of the GAPDH gene), for a total 3134 bp. Their taxon sampling was broad, encompassing 10 species of *Euphonia* and *Chlorophonia* (the only study under consideration here that included either genus), 3 drepanidids, two species of *Fringilla*, and 78 species of carduelids.

The results of all these studies (Nguembock et al. 2009, Lerner et al. 2011, and Zuccon et al. 2012) are broadly consistent with those of Arnaiz-Villena et al. (2007, 2008): drepanidids are embedded within carduelids; *Carpodacus* (*sensu* AOU 1998) is not monophyletic; *Serinus* is not monophyletic; and *Carduelis* (*sensu* AOU 1998) is not monophyletic.

The placement of drepanidids was already dealt with by NACC (2013-A-5, Move the Hawaiian honeycreepers (Drepanidinae) to subfamily Carduelinae), as have the

polyphyly of *Carpodacus* (2011-C-12, Transfer the three North American species of *Carpodacus* to *Haemorhous*) and the polyphyly of *Carduelis* (2008-A-09, Split *Carduelis* into two or more genera). Two additional proposals also resulted from these phylogenies: 2011-C-13 (Move genus *Pyrrhula* to follow *Pinicola* in the linear sequence), and 2013-B-5 (Change the linear sequence of *Haemorhous* finches).

#### New information:

Despite these actions, the current NACC sequence of genera:

Fringilla Euphonia Chlorophonia Leucosticte Pinicola Pyrrhula [drepanidids] Carpodacus Haemorhous Loxia Acanthis Spinus Carduelis Chloris Serinus Coccothraustes

conflicts in many ways with the available phylogenetic evidence. The phylogenies summarized above all differ in the details, not surprisingly, but the broad conclusions are congruent across the board. Below we reproduce one of these phylogenies, taken from Zuccon et al. (2012; their Figure 1, which in their paper is spread across two pages, with a different scale on each page), which had excellent taxon sampling. Specifically, we make the following recommendations:

1) Swap the relative positions of *Euphonia* (27 species) and *Chlorophonia* (5 species) to follow standard NACC convention ("species listed from the deepest node in the tree, beginning with the branch with the least number of species"). Note that according to Zuccon et al. (2012), *Chlorophonia* is embedded within *Euphonia* (or, one or more species of *Euphonia* belong in *Chlorophonia*). This merits further investigation, but for now, under the current composition of these two genera by both NACC and SACC (many species of *Euphonia*, few of *Chlorophonia*), their relative positions should be switched.

2) *Coccothraustes* forms a clade with two Old World genera, *Eophona* and *Mycerobas*; this clade is sister to all other carduelids, or at least is close to the base of carduelids (Arnaiz-Villena et al. 2007, Nguembock et al. 2009, Lerner et al. 2011, Zuccon et al.

2012; Figure 1). Following the NACC convention for listing genera in a linear sequence based on a well-resolved phylogeny, *Coccothraustes* thus should immediately follow *Euphonia* + *Chlorophonia*, rather than appearing at the end of the linear sequence.



Figure 1: Part of the phylogeny from Zuccon et al. (2012; their Figure 1). Note the position of *Coccothraustes* in relation to all other carduelids. Also note the separation between *Carpodacus* (*sensu stricto*) and *Haemorhous* (see next figure, below).

3) *Carpodacus*, represented in North America by the extralimital *Carpodacus erythrinus* (Common Rosefinch, vagrant or rare migrant to western Alaska, with one record from California), currently is placed by NACC next to *Haemorhous*. In fact, *Carpodacus* is separated from *Haemorhous* by multiple genera, including *Leucosticte*, *Pinicola*, and *Pyrrhula* (Arnaiz-Villena et al. 2007, Lerner et al. 2011, Zuccon et al. 2012; compare Figures 1 and 2). Consequently, *Carpodacus* should be placed between *Euphonia* + *Chlorophonia* / *Coccothraustes* and *Leucosticte* + *Pinicola* + *Pyrrhula*.



Figure 2: Part of the phylogeny from Zuccon et al. (2012; their Figure 1, second portion). Note the relative positions of *Pinicola* + *Pyrrhula* vs. *Leucosticte;* of *Carpodacus* (*sensu stricto*, from Figure 1) vs. *Haemorhous;* the position of *Chloris* in relation to *Acanthis, Carduelis, Spinus*, etc.; the polyphyly of *Serinus*; and the position of *Carduelis* in relation to *Serinus* and *Spinus*).

Note that a close reading of our Figure 1 reveals that *Carpodacus erythrinus* is separated from the remaining *Carpodacus* (*sensu stricto*) by two monotypic genera, *Haematospiza* and *Chaunoproctus*. There are two nomenclatural solutions to this situation. Zuccon et al. (2012) recommend transferring *erythrinus* to the monotypic genus *Erythrina* Brehm, 1828 (type species *Erythrina albifrons* Brehm, 1828 = *Loxia erythrina* Pallas, 1770 = *Carpodacus erythrina*). Paynter (footnote in Howell et al. 1968:

267) considered *Erythrina* to be a *nomen nudum*, but this name was adopted by Dickinson and Christidis (2014), so perhaps Paynter was in error on this point; we have not investigated the availability of this name any further. On the other hand, Tietze et al. (2013) suggested retaining *erythrinus* in *Carpodacus* ("We would prefer to avoid a renaming of the species that has the largest range and is the most well known"), and instead subsume *Haematospiza* and *Chaunoproctus* into *Carpodacus*. This is the approach adopted by the <u>IOC World Bird List</u> and by del Hoyo and Collar (2016). In the current proposal we do not advocate any action on *erythrinus*, so by default it is retained in *Carpodacus*, but a case can be made for separating *erythrinus* in a separate genus.

4) Swap the positions of *Leucosticte* and *Pinicola* + *Pyrrhula*. Viewed within the global fringillid radiation, *Pinicola* + *Pyrrhula* is sister to a larger clade of mostly Old World genera, within which *Leucosticte* is embedded (Arnaiz-Villena et al. 2008, Lerner et al. 2011, Zuccon et al. 2012; Figure 2). NACC conventions for linear sequencing, with all relevant genera in mind, dictate that *Leucosticte* should follow, not precede, *Pinicola* + *Pyrrhula*.

5) *Chloris*, represented in North America by the extralimital *Chloris sinica* (Oriental Greenfinch, vagrant or rare migrant to western Alaska), currently is placed between *Carduelis* and *Serinus*. *Chloris* is sister to the clade that includes goldfinches, siskins, and redpolls (Arnaiz-Villena et al. 2008, Nguembock et al. 2009, Lerner et al. 2011, Zuccon et al. 2012; see Figure 2); therefore, *Chloris* should precede, rather than follow, the genera *Loxia* through *Carduelis*.

6) Serinus, represented in North America by two extralimital exotics, Serinus mozambicus (Yellow-fronted Canary; established in Hawaii and Puerto Rico) and Serinus canaria (Island Canary; established in Hawaii and Bermuda), currently follows Loxia, Acanthis, Spinus, and Carduelis. This is fine with respect to Serinus canaria. The genus Serinus is polyphyletic, however, and mozambicus belongs to a group that is sister to the clade of Acanthis + Loxia + Carduelis + Serinus (sensu stricto) + Spinus (Arnaiz-Villena et al. 2007, 2008, Nguembock et al. 2009, Lerner et al. 2011, Zuccon et al. 2012; Figure 2). The available name for this clade is reported to be Crithagra Swainson 1827 (type species Loxia sulphurata Linnaeus, "Serinus sulphuratus") (Nguembock et al. 2009, Zuccon et al. 2012, Dickinson and Christidis 2014). Consequently, mozambicus should be placed in Crithagra, which should be placed between Chloris and the remaining genera of carduelids.

7) Swap the positions of *Loxia* (with at least four species usually recognized globally) and *Acanthis* (currently up to three species are recognized, but there is good evidence that there is only one), so that the branch with fewest species (*Acanthis*, no matter how you cut it) is at the beginning.

8) *Carduelis*, represented in North America by the extralimital *Carduelis carduelis* (European Goldfinch, established on Bermuda, and widely reported but not established elsewhere), is sister to the clade *Spinus* + *Serinus*. Following NACC conventions, *Carduelis* should precede, rather than separate, the genera *Spinus* and *Serinus*.

If all rearrangements outlined above are followed, the resulting sequence of genera would be:

Fringilla Chlorophonia Euphonia Coccothraustes Carpodacus Pinicola Pyrrhula Leucosticte [drepanidids] Haemorhous Chloris Crithagra Acanthis Loxia Carduelis Spinus Serinus

**Effect on AOU-CLC area:** This proposal would bring the NACC linear sequence into agreement with recent phylogenetic analyses of fringillid genera. It also would mean the recognition of an additional genus (*Crithagra*) within the region.

**Recommendation:** Because the weight of evidence from multiple independent phylogenetic surveys supports resequencing the fringillid genera, we recommend the following:

- 1) Moving Chlorophonia to precede Euphonia;
- 2) Placing Coccothraustes to follow Chlorophonia + Euphonia;
- 3) Placing of Carpodacus between Euphonia + Chlorophonia / Coccothraustes and Leucosticte + Pinicola + Pyrrhula;
- 4) Moving Leucosticte to follow Pinicola + Pyrrhula;
- 5) Moving Chloris to precede Loxia;
- 6) A) Placing Serinus mozambicus in Crithagra;B) If 6A is adopted, moving Crithagra mozambica to follow Chloris;
- 7) Placing Acanthis between Crithagra and Loxia;
- 8) Placing Carduelis s.s. to precede Spinus.

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## Split Brown Creeper (Certhia americana) into two species

#### Background:

There has long been confusion regarding the taxonomy of the entire family Certhiidae. Constrained by morphology, treecreepers have historically been lumped into species with extremely wide distributions, which often span recognized biogeographic zones. The first written account of the Brown Creeper came from Barton (1799). In this account of the birds of Pennsylvania, Barton first called the species *Certhia pinus*, but reconsidered his original name and concluded that the observed species must be *Certhia familiaris*, as originally described by Linnaeus (1758). Bonaparte (1836), in his formal comparison of New World and Old World birds, afforded the Brown Creeper species status, giving it the name *Certhia americana*. The Brown Creeper was again merged with *Certhia familiaris* by Ridgway (1873), a decision that was followed in the first edition of the Check-list (AOU 1886). AOU (1983) again recognized the species status of the Brown Creeper *C. americana*, based in part on data on vocalizations (Thielcke 1962, Baptista & Johnson 1982).

Substantial range-wide clinal variation in morphology and plumage has led to the description of more than a dozen subspecies of *C. americana* (Fig. 1), although the exact number recognized has varied by author (e.g., Webster 1986, Unitt & Rea 1997). The most substantial difference is between northern and southern subspecies: northern birds are generally larger, with lighter variations of brown on their backs and whites or grays on their underparts (e.g., breast). In Arizona, where northern and southern forms come into contact, Marshall (1956) described slight intergradation in plumage coloration across several isolated mountain ranges. The AOU (1983) currently classifies the Brown Creeper (*C. americana*) as a single species.

#### **New Information:**

Over the past six years, we (JDM, GMS) have worked on multiple genetic investigations into the evolutionary history of the Brown Creeper throughout its range. Our initial study used mitochondrial DNA to identify six geographically structured clades, with northern and southern lineages (split at roughly 32° N latitude in Arizona) showing ~4-5% sequence divergence (Fig. 1, Manthey et al. 2011a). The split occurs where the Sonoran and Chihuahuan Deserts divide pine-forested areas in Mexico from those in Arizona and New Mexico. This division is concordant with the distributional boundaries of many temperate and subtropical avifauna, and marks a transition zone between two



Figure 1. (Figures 1 & 2 from Manthey et al. 2011a). Breeding distribution of subspecies and sampling localities of the 341 samples of Brown Creeper from the mitochondrial DNA study. Symbols indicating position represent the assigned clade in the phylogeny (Fig. 2). Populations with asterisks (\*) indicate populations with individual haplotypes assigned to multiple clades. Different colors correspond to approximate breeding distribution of subspecies: (1) *alascensis* (red); (2) *occidentalis* (violet); (3) *zelotes* (magenta); (4) *montana* (orange); (5) *americana* (lime green); (6) *nigrescens* (yellow); (7) *albescens* (dark gray); (8) *alticola* (forest green); (9) *pernigra* (cyan); (10) *extima* (gold). *C. a. montana* range includes ssp. *leucosticta* and *C. a. occidentalis* includes ssp. *phillipsi*; in both instances ranges overlap. ssp. *nigrescens* overlaps with *americana* in eastern US (not shown). *C. a. stewarti*, resident of Queen Charlotte Island off of British Columbia, is not shown.

On right, the mitochondrial DNA phylogeny (based on 1041 bp of ND2, using ML and Bayesian phylogenetic analyses), where clade symbols correspond to sampling localities in the map.

well-defined North American forest types, the subtropical and temperate coniferous forests (Wade et al. 2003). This divergence is also concordant with the most pronounced difference in body size and plumage coloration observed within the Brown Creeper (Webster 1986).

In two subsequent studies, Manthey et al. (2011b, 2015), using nuclear genetic variation (20 neutral loci and ~16,000 SNPs, respectively), identified the same north-south split in

lineages, but lacked sampling where lineages may or may not have come into contact (Figs. 2 & 3). Most recently, breeding birds were investigated in the sky islands of Arizona, the region of putative contact between the two lineages (Manthey et al. 2016). In this study, which analyzed ~40,000 SNPs, there was no evidence of gene flow between lineages (Fig. 4), with sampling localities as close as ~50 km. Approximately 2% of the nuclear variation was fixed between lineages in the contact region (Fig. 4). Song recordings in Arizona showed local dialects across most sampling localities in the sky islands, but no differences specifically clustering northern or southern songs (Manthey et al. 2016).



Figure 2. (Figure 1 from Manthey et al. 2011b). Sampling localities and STRUCTURE hierarchical results using 20 neutral nuclear loci. Samples are coloured to match the highest level of structure (North = blue, South = red). Secondary structure population assignment is shown on far right. Southern k = 2 or 3 and northern k = 3 or 4. Inset shows cladogram of species-tree estimate; labels on branches are \*BEAST posterior probabilities (top), BEST posterior probabilities (bottom left) and concatenation bootstrap support (bottom right).



Figure 3. (Figure 1 from Manthey et al. 2015). Sampling map (a) and phylogeographic relationships (b) inferred from the SNP data set (~16,000 SNPs) inclusive of a minimum of 30% of individuals for each locus (i.e., 30% coverage data matrix). All asterisks at nodes in (b) indicate support >0.95 in SNAPP phylogenetic analyses for all SNP data sets. The asterisk with an arrow indicates a node supported strongly only by the 30% SNP data set (other data sets posterior probability = 0.85).

All STRUCTURE results identified hierarchical genetic structure for each data set, separating northern and southern populations with 100% assignment to either cluster. Secondary-level STRUCTURE results are shown below phylogeny (north k = 2, south k = 2 or 3), with each bar representing an individual.



Figure 4. (Figure 1 from Manthey et al. 2016). (A) Sampling map in Arizona, USA. Gray areas correspond to montane forest. Inset shows locations of parental populations (solid circles) used in this study. (B) STRUCTURE results for the 75% coverage matrix (75% CM) dataset. Each bar represents the probability of population assignment to northern (gray) or southern (white) lineages. All individuals sorted with population assignment values greater than 0.9. (C) Proportion of shared (white), private (gray), and fixed (black) polymorphisms in Arizona between the two lineages (based on genetic structure in part B). The 50% and 75% coverage matrices had ~44,000 and ~23,000 SNPs, respectively.

Based on the aforementioned studies, the breeding range of the southern lineage includes all populations of Brown Creeper in Honduras, Guatemala, and Mexico. The southern lineage reaches three mountain ranges in Arizona: the Huachuca, Santa Rita, and Chiricahua ranges. Although unsampled in the genetic studies, the Animas Mountains in southwestern New Mexico likely encompasses the southern lineage as well. The northern lineage breeding range encompasses all populations of the United States and Canada, excluding the four mountain ranges mentioned in southern Arizona and New Mexico. The boundaries of the two lineages match previously defined subspecific breaks (e.g., Fig. 1). As noted above, these ranges coincide with the break between temperate and subtropical coniferous forests (Wade et al. 2003), as demonstrated by the different environmental conditions occupied by each lineage in the region where they come into contact (Manthey et al. 2016).

Although the breeding ranges do not overlap, it is important to note that there is potential geographic overlap of the lineages in the non-breeding season in southern Arizona and New Mexico and possibly the sky islands of northern Chihuahua and Sonora because the northern lineage populations are somewhat migratory (e.g., specimen records in Phillips et al. 1964).

## **Recommendation:**

Based on a high degree of genetic differentiation in mtDNA (Fig. 1) and nuclear DNA (Figs. 2-4), different environmental conditions occupied by each lineage in the region where they come into contact (Manthey et al. 2016), and the prevalence of local dialect formation near the contact zone, we recommend that the northern and southern lineages of the Brown Creeper be treated as full species.

Split *Certhia americana* into two species: *Certhia americana* (Northern Lineage), common name: Nearctic Creeper *Certhia albescens* (Southern Lineage), common name: Brown Creeper

[Note from Chair: Alternate English names for the southern lineage, which would complement the suggested name for the northern lineage and would be in keeping with our policy of new names for both daughter species, would include Neotropical Creeper and Mesoamerican Creeper.]

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Date of Proposal: 18 February 2017

# Transfer Violet-bellied Hummingbird from Damophila to Juliamyia

# Background:

The Violet-bellied Hummingbird, *Damophila julie*, occurs from central Panama south through Colombia to western Ecuador and extreme northwestern Peru. Species *julie*, based on *Ornismya julie* Bourcier, long has been classified in the monotypic genus *Damophila* Reichenbach 1854; among the many authors using the combination *Damophila julie* are Salvin and Hartert (1892), Ridgway (1911), Cory (1918), Peters (1945), Meyer de Schauensee (1966), Dickinson (2003), and previous AOU check-lists (AOU 1983, 1998).

# **New Information:**

Özdikmen (2008) pointed out that *Damophila* Reichenbach 1854 is preoccupied by *Damophila* Curtis 1832, a genus of Lepidoptera, and proposed a new name, *Neodamophila*, to replace *Damophila* Reichenbach 1854. As noted by Dickinson and Remsen (2013), however, Özdikmen's action was unnecessary, because an available name already exists: *Juliamyia* Bonaparte 1854, type species *Juliamyia* typica Bonaparte 1854 = *Ornismya julie* Bourcier.

The combination *Juliamyia julie* has been used before by some authors (e.g., Simon 1921), and now is widely adopted (Dickinson and Remsen 2013, McGuire et al. 2014, <u>IOC World Bird Names</u>, and del Hoyo and Collar 2014).

As an aside, *julie* apparently is sister to *Chlorestes notata* (Blue-chinned Sapphire), a widespread South American hummingbird (McGuire et al. 2014); and together these two are embedded in a clade that includes species currently classified in the genera *Hylocharis* and *Amazilia*, both of which are polyphyletic (McGuire et al. 2009, 2014). An overhaul of the nomenclature of the emerald group (*sensu* McGuire et al. 2009, 2014) may be necessary in due course.

# **Recommendation:**

As the name *Damophila* Reichenbach 1854 is preoccupied, I recommend replacing it with the available name *Juliamyia* Bonaparte 1854.

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Submitted by: Tom Schulenberg, Cornell Lab of Ornithology

Date of Proposal: 20 February 2017

## Elevate Colaptes auratus mexicanoides to species rank

## Background:

*Colaptes auratus mexicanoides* Lafresnaye, 1844 (Guatemalan Flicker) is one of four subspecies groups of *C. auratus* currently recognized by the AOS, together with *auratus* (Yellow-shafted Flicker), *cafer* (Red-shafted Flicker), and *chrysocaulosus* (Cuban Flicker) (AOU 1998). *Colaptes chrysoides* (Gilded Flicker), formerly placed in that complex (Short 1965), was later recognized as a species separate from *C. auratus* (AOU 1995). Prior to Short's (1965) work, *mexicanoides* was treated as a subspecies of *cafer*, then considered a species (Peters 1948; Blake 1953; Eisenmann 1955; Miller et al. 1957). In recent years, mostly on the basis of its distinct plumage, some have advocated recognizing *mexicanoides* as a species (Howell and Webb 1995; Navarro-Sigüenza and Peterson 2004, del Hoyo et al. 2014; BirdLife International 2016).

*Colaptes a. mexicanoides* is readily diagnosable by plumage and vocalizations. Phenotypically, it is most like *cafer* and *chrysoides*, with a basically "brown" crown, a gray throat, a red malar patch in males, and like *cafer* generally reddish shafts, but it differs from them and other subspecies groups in a number of ways (Short 1967; Howell and Webb 1995; del Hoyo et al. 2014). The male's red malar stripe is often mixed with black, and that of the female cinnamon-rufous; the crown is deep rufous-chestnut in color; the bars on the back and wings are deeper and more numerous than in the other subspecies groups, and typically buff-bordered, imparting a unique tricolored effect to the cinnamon brown back; like *chrysocaulosus* it has rounded wings, broad bar-like breast markings, and a longer, less crescent-shaped breast patch (Short 1967). Its calls can readily be distinguished from those of the northern forms, and it has unique vocalizations that are not shared with any other member of the *Colaptes auratus* complex (Wetmore 1941; online vocalizations at Macaulay Library and Xeno-canto).

*C. a. mexicanoides* occupies open pine forests and pine-oak woodlands of the highlands of Central America from northern Chiapas, Mexico, south to north-central Nicaragua, making it the most habitat-restricted member of this complex. Populations of *mexicanoides* are physically separated from *cafer* by the Isthmus of Tehuantepec, a biogeographical barrier for many bird taxa (summarized in Manthey et al. 2017).

## **New Information:**

Manthey et al. (2017) recently completed a molecular study of the Northern Flicker

superspecies complex (*Colaptes auratus* and *C. chrysoides*) that included individuals from all 5 forms (n = 16 birds), including two individuals of the *mexicanoides* subspecies group. The authors examined both mitochondrial DNA and genomic DNA (restriction-site associated DNA sequencing). They found *mexicanoides* to be the most genetically distinct of all the forms in both mtDNA (ND2, 1041 bp; ~1.4% sequence divergence) and large single nucleotide polymorphism (SNP) panels. By comparison there was little genetic distinctiveness among the *auratus*, *cafer*, and *chrysoides* subspecies groups, with evidence of admixture and a lack of fixed differences. The A.O.S. (2017) continues to recognize *chrysoides* as a species.

The two *mexicanoides* individuals examined shared the same ND2 haplotype and were 15 mutational steps from the nearest non-*mexicanoides* individual in the haplotype network. In contrast, no individuals of *auratus, cafer* and *chrysoides* were more than four mutational steps from each other. With respect to the two SNP datasets (of different minimum sequence quality thresholds [Phred scores of Q10 and Q30], containing 1255 and 734 SNPs, respectively), only *mexicanoides* had more than a single fixed difference (Figure 3 below). Fst pairwise comparisons were



**Fig. 3.** Polymorphisms summary. Frequencies of fixed, shared, and private polymorphisms in the 75% coverage matrix (Q10) dataset. Note the log scale.

also highest for comparisons with *mexicanoides* (Table 2 below). Analyses of genetic structure found different genetic clusters, depending on datasets and analyses, but the strongest signal of genetic structure was between the *mexicanoides* group and all other groups (Figure 4 below), although some gene flow into *cafer* appeared likely. Finally, in

**Table 2.** Pairwise  $F_{ST}$  values for reduced and full datasets, above and below the diagonal, respectively. Individuals labelled as admixed in Table 1 were removed for the reduced dataset. Values are reported with the format: 75% coverage matrix Q10/Q30.

	auratus	cafer	chrysoides	mexicanoides
auratus	-	0.154/0.154	0.268/0.286	0.605/0.581
cafer	0.099/0.098	-	0.184/0.192	0.294/0.281
chrysoides	0.170/0.168	0.131/0.130		0.393/0.405
mexicanoides	0.338/0.308	0.173/0.165	0.291/0.285	-



**Fig. 4.** Genetic structure of morphological groups using SNP data. (A) STRUCTURE and DAPC results for the 75% coverage matrices (CMs; Q10 and Q30) with two to four genetic clusters (k = 2, 3, 4). Each row indicates probability of assignment to genetic clusters (STRUCTURE); next to each row is the genetic cluster assignment (small box) from DAPC analyses. Numbered labels (far right) refer to individuals in Table 1.

the phylogenetic analyses (TreeMix and SVDquartets) the *mexicanoides* group appeared as sister to all the other taxa in this superspecies, and the earliest offshoot of the Northern Flicker complex (Figure 5).



**Fig. 5.** Results of SVDquartets species tree analyses. Support on each branch is indicated for the 75% coverage matrices (Q10/Q30, respectively). The ingroup branch has no support label as *C. rubiginosus* was designated the outgroup to root the tree.

#### **Recommendation:**

Based on the unique plumage, vocalizations, habitat requirements, and genetic data, we recommend that *mexicanoides* be recognized as a species.

#### **Recommended English Name:**

Although "Guatemalan Flicker" has been used for this taxon, the name denotes only part of its distribution, thus we suggest "Mesoamerican Flicker" as the preferred English name for this species.

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# Submitted by:

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Date of proposal: 23 February 2017

## Split Nashville Warbler (Oreothlypis ruficapilla) into two species

## Background:

Western Oreothlypis ruficapilla ridgwayi (van Rossem, 1929) and eastern O. r. ruficapilla (Wilson, 1811) have long been treated (e.g., AOU 1957) as allopatric subspecies of the Nashville Warbler. Oreothlypis ruficapilla and O. virginiae are allopatric superspecies (Johnson 1976), and ruficapilla follows O. luciae and precedes virginiae in the AOU linear sequence (Chesser et al. 2011). Weir and Schluter (2004), using mtDNA, concluded that O. r. ridgwayi is genetically more closely related to O. virginiae than to O. r. ruficapilla.

#### New information:

Weir and Schluter (2004) reported genetic clustering of *ridgwayi* with *O. virginiae*, not nominate *O. ruficapilla*. Lovette et al. (2004), using mtDNA, concluded that eastern (nominate *ruficapilla*) and western (*ridgwayi*) subspecies are separated by a high magnitude of divergence and clustered as reciprocally monophyletic groups in the gene genealogy. Mila et al. (2005) also found mtDNA differences between eastern (= nominate) and western (= *ridgwayi*) samples of *O. ruficapilla*.

In a related paper using the same sample of breeding birds, Smith et al. (2005) commented that nominate *ruficapilla* and *ridgwayi* differ in morphology and plumage, that the western race is brighter in plumage and has a longer tail (see also Williams 1996; Dunn and Garrett 1997; Lowther and Williams 2011). Lovette et al. (2010), using genetic samples from *ridgwayi* only, grouped the species with a clade constituting *O. ruficapilla* (*ridgwayi*), *O. virginiae*, *O. crissalis* and *O. luciae*.

As stated above, *ridgwayi* is closer in mtDNA to *virginiae* than to nominate *ruficapilla*. In addition to differing genetically and morphologically from nominate *ruficapilla*, *ridgwayi* differs behaviorally by more frequently bobbing its tail than does *ruficapilla* (e.g., Dunn and Garrett 1997; field guides [e.g., Sibley). Morphologically, males of *ridgwayi* are brighter, with more white on belly, and have longer tails than nominate *ruficapilla*.

Vocalizations of *ridgwayi* and *ruficapilla* differ, including song (Sangster 2008, Fig. 1; field guides). Call notes of *ruficapilla*, compared to those of *ridgwayi*, are described by Dunn and Garrett (1997) as softer and less metallic.

## **Recommendation:**

Birds identified as *ridgwayi* are not as closely related in mtDNA to eastern *ruficapilla* as they are to other species of warblers. Furthermore, *ridgwayi* and *ruficapilla* differ in morphology, behavior, and vocalizations. Even if they were sympatric, behavior and vocalizations would likely be biological barriers for interbreeding. Because of these reasons, I recommend elevating *Vermivora ruficapilla ridgwayi* van Rossem, 1929, to *Oreothlypis ridgwayi*, a species distinct from *Oreothlypis ruficapilla*. The breeding range of *O. ridgwayi* should read as from line one in AOU 1998, p. 536, to line four just before the "and." The breeding distribution of *O. ruficapilla* should read from line 4 (after the "and") to line 12. Modify other ranges according to Lowther and Williams (2011).

The English name for *O. ridgwayi* should be Calaveras Warbler, a name often used for *ridgwayi*. To avoid confusion and muddling, the eastern species, *O. ruficapilla*, should **not** retain the name Nashville Warbler. I suggest Rusty-capped Warbler for the English name of *O. ruficapilla*. Although the name does not differentiate it from some other species, the name Nashville is even less useful.

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**Submitted by:** M. Ralph Browning (ret. Biological Survey at Division of Birds, Smithsonian)

Date of Proposal: 27 Feb. 2017

## 2017-C-6 N&MA Classification Committee p. 604

#### Adopt new English names for Melozone biarcuata and Melozone cabanisi

#### Background and Discussion:

With the passage of Proposal 2017-A-1, we voted to split Prevost's Ground-Sparrow *Melozone biarcuata* into two species. The proposal included suggested English names for the newly split species, and under ordinary circumstances the English names would have been settled as part of the original proposal, but there was enough difference of opinion within the committee and the situation is complex enough for us to take it up in a separate proposal. The authors of the original proposal suggested that Prevost's Ground-Sparrow be retained for *M. biarcuata* and that White-faced Ground-Sparrow be used for *cabanisi.* 

These species were formerly considered two species, and the English names used by Ridgway (1901) were as follows: Prevost's Ground Sparrow (*M. biarcuata*) and Cabanis's Ground Sparrow (*M. cabanisi*). However, by the time the AOU Checklist added Mexico and Central America in 1983, the two were generally considered a single species, e.g., by the Peters checklist (Paynter 1970). For some reason, the AOU (1983) adopted the name of one of the previously separate species, Prevost's Ground-Sparrow, as the English name of the combined species.

The relevant parts of our guidelines on English names (from AOU 1998) are: "When a species was [previously] divided into two or more distinct species, we have used former English names, if available, for the resultant taxa. In general, we have followed the policy that no English name should be used for both a combined species and one of the components (Groups)."

If following the first sentence above, we should return to the Ridgway names, but if following the second we should use a name for *biarcuata* other than Prevost's. The problem was that a new name was not devised when the species were combined. As for *cabanisi*, the name White-faced Ground-Sparrow, used in the original proposal, does not really seem to be appropriate, because *biarcuata* has a much more noticeable white face than does *cabanisi* (see the photos from the original proposal below). Jon suggested using the patronyms, but made additional suggestions if these are not used: White-faced for *biarcuata* and White-spectacled or White-lored for *cabanisi*. Note that there is already a White-eared Ground-Sparrow in this genus (*M. leucotis*), so also using "white" in both of the new names would be confusing, if you ask me.



Figure 1. Lateral views of specimens of (c) *biarcuata* and (d) *cabanisi* (from Sandoval et al. 2014).

The best options, in my view, are the following:

1. Follow the first sentence of the guidelines above and return to the Ridgway names: Prevost's Ground-Sparrow for *biarcuata* and Cabanis's Ground-Sparrow for *cabanisi*. The disadvantage of this is that Prevost's Ground-Sparrow has been used for the combined species, but this would be ameliorated somewhat by the fact that the range of *biarcuata sensu stricto* is larger than that of *cabanisi*. However, *biarcuata sensu stricto* is not nearly as widespread, nor is its scientific footprint nearly as extensive, as some other species for which this argument has been invoked (e.g., Red-winged Blackbird, King Rail).

2. Follow the second sentence of the guidelines above and use the following names: White-faced Ground-Sparrow for *biarcuata* and Cabanis's Ground-Sparrow for *cabanisi*. White-faced Ground-Sparrow is a well-established alternate name for *biarcuata* (e.g., see Peterson and Chalif 1973, Stiles and Skutch 1989, Howell and Webb 1995) and a very good descriptive name.

# **Recommendation:**

I recommend that we adopt one of the two options listed above. I don't have a strong preference for one over the other, but a slight preference for Option 2, which establishes names for the daughter species that both differ from that of the combined species.

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Stiles, F. G., and A. F. Skutch. 1989. A Guide to the Birds of Costa Rica. Cornell Univ. Press, Ithaca, NY.

Submitted by: Terry Chesser

Date of Proposal: 28 February 2017

## Lump Thayer's Gull (Larus thayeri) with Iceland Gull (Larus glaucoides)

## Background:

The question of whether to lump Thayer's Gull (*Larus thayeri*) with Iceland Gull (*Larus glaucoides*) has been hotly debated within the scientific and birding community for some three decades. We think that the reasons for lumping Thayer's with Iceland are compelling and that action by the NACC is long overdue. To the best of our knowledge, NACC has not voted on this issue since it first split Thayer's in 1973 (AOU 1973). For background, we currently treat the taxa involved as follows: Iceland Gull (*L. glaucoides*), with the subspecies *kumlieni* breeding in NE Canada and nominate *glaucoides* breeding in Greenland, and Thayer's Gull (*L. thayeri*), breeding from NW Greenland and NE Canada west to Banks and Victoria islands.

Before addressing the issues, a brief overview of the complex taxonomic history will be helpful. Pittaway (1999) presented a useful timeline of events from 1915 partway through 1999. Below we summarize the more pivotal events using Pittaway (1999) with only minor modifications and omissions.

- 1. W. S. Brooks (1915) described a new species of gull from a few specimens taken at Ellesmere Island and named it Thayer's Gull (*Larus thayeri*).
- 2. Dwight (1917) considered Thayer's Gull to be a subspecies of Herring Gull (*L. smithsonianus*). He based this on specimens he interpreted as intergrades between *thayeri* and *smithsonianus*.
- 3. In his classic study of gulls, Dwight (1925) again treated Thayer's as a subspecies of Herring. He regarded "Kumlien's" as a hybrid between Thayer's and Iceland Gull.
- 4. The AOU (1931) listed Thayer's as a subspecies of Herring, placing Kumlien's on the hypothetical list as a probable hybrid between Thayer's and Iceland Gull.
- 5. Taverner (1937) treated "Kumlien's" as a full species, but noted "much variation" in pattern of wing tips, at times almost suggesting *thayeri*.
- 6. Brooks (1937) predicted that Thayer's would prove to be a separate species from Herring.

- 7. Salomonsen (1950/1951) reported a small population of Thayer's Gulls in the Middle Thule District of northwest Greenland. He considered Thayer's the "High Arctic" form of Iceland Gull and that the "most natural explanation for *kumlieni*" is a "hybrid population between *glaucoides* and *thayeri*".
- 8. Macpherson (1961) demonstrated that *thayeri* must be treated as a separate species from Herring Gull because he found them breeding sympatrically without interbreeding. He also concluded that *thayeri* should be treated as a subspecies of Iceland Gull. He pointed out that Thayer's typically nests on cliffs in colonies, just like Iceland (and unlike *smithsonianus* Herring Gulls) and that they share a purplish orbital ring (in contrast to the yellow orbital ring in Herring). He also proposed that the specimens Dwight (1917) interpreted as intergrades between *thayeri* and *smithsonianus* might instead be pure Herring Gulls because Dwight was not then aware of the geographical variation within North America in *smithsonianus* namely that the dark pigmentation in the wing tips declines from west to east. Macpherson (1961) prophetically stated "A study of breeding behavior at one of the mixed colonies found in 1955 ("Iripaiyuk") has been undertaken recently by Mr. N.G. Smith, a graduate student at Cornell University, and it is expected that his observations will throw further light on this interesting problem."
- Godfrey (1966) treated Thayer's as a separate species from Herring based on Macpherson (1961). He also treated Thayer's as a separate species from Iceland based on personal communication with N. G. Smith, who reported that Thayer's and Iceland (subspecies *kumlieni*) breed sympatrically on Baffin Island. Godfrey had access to Smith's Ph. D thesis.
- 10. Smith (1966) published his now famous (infamous) study showing that *kumlieni* and *thayeri* were reproductively isolated. Pittaway (1999) pointed out that **no** subsequent researchers (boldface ours) have reached this same conclusion. Pittaway (1999) pointed out that Smith (1966) claimed that he induced formation of 55 Thayer's x Glaucous pair bonds merely by painting the orbital ring the same color in both species of birds that he caught. (Despite extensive sympatry between these two taxa and the well-known tendency of large *Larus* to hybridize, no natural hybrids between these two species have ever been reported.)
- 11. Sutton (1968) published a somewhat skeptical review of Smith's (1966) study. As quoted in Pittaway 1999) "Smith's findings considering 'super eye ringed' Thayer's Gulls perplex and discomfort me. In one breath he asks us to believe that the success of a gull's reproductive cycle depends on eyesight keen enough to keep it

from wasting effort on a gull of the opposite sex which does not have precisely the same eyelid colour as its own, and that the same gull will be fooled into considering a big black circle as an 'eyelid', an eye as a 'pupil', etc." He described Smith's findings as "intensely interesting to speculate upon whether they be considered conclusive or not." Reading between the lines, Sutton was almost certainly suspicious of Smith's alleged experiments.

- 12. AOU (1973) treated Thayer's as a full species based upon Smith's (1966) studies.
- 13. Weber (1981) in a taxonomic review concluded that the Iceland-Kumlien's-Thayer's complex formed a single polytypic species, thus agreeing with MacPherson and essentially dismissing Smith's results.
- 14. AOU (1983) maintained Thayer's as a full species stating that it is "now generally regarded as a distinct species," but added "that recent field studies indicate that *L. thayeri* and *L. glaucoides kumlieni* (once regarded as a separate species, *L. kumlieni* Brewster, 1883 [Kumlien's Gull]), interbreed in mixed colonies on Baffin Island, but the extent and nature of this interbreeding has not been determined (see Weber, 1981, Cont. Birdlife, 2, pp. 6-8)."
- 15. Gaston and Decker (1985) reported random interbreeding between Thayer's and Kumlien's phenotypes on South Hampton Island in northern Hudson Bay – "a mix of dark and dark eyed gulls, with varying amounts of wingtip pigmentation and patterns."
- 16. Godfrey (1986) in his revision of *Birds of Canada* treated *thayeri* and *kumlieni* as subspecies of Iceland and stated: "Two of the subspecies (*L. g. kumlieni* and *L. g. thayeri*) are individually highly variable and unstable, scarcely any two individuals exactly alike in the extent and intensity of wing tip and irides pigmentation." In a footnote he stated: "Studies made by Brian Knudson for the Natural Museum of Natural Sciences in summers of 1975 and 1976 at Home Bay, Baffin Island (where in 1961 *thayeri* and *kumlieni* were thought by N.G. Smith (1966. Ornithological Monographs No. 4), to breed sympatrically with no observed interbreeding) produced no evidence of assortative mating of the morphs but indicated instead an area of widespread interbreeding among phenotypes of these two taxa. Additional reasons for treating *thayeri* here as a subspecies of *L glaucoides* include abundant specimen evidence from widely separated localities that colour and pattern differences between *thayeri* and *kumlieni* are completely bridged by individual variation." Thus Godfrey had direct, albeit unpublished, evidence that contradicted Smith's findings.

- 17. Snell (1989, 1991) found non-assortative mating between Kumlien's and Thayer's Gull at Home Bay, Baffin Island. Snell (1989, 1991) questioned Smith's entire methodology and viewed his results as questionable and indicated that they should be viewed with caution.
- 18. Sibley and Monroe (1990) treated Thayer's as a subspecies of Iceland Gull. The late Charles C. Sibley was N.G. Smith's Ph. D supervisor at Cornell University, so by this time even his former major professor did not accept Smith's conclusions.
- 19. Snell and Godfrey (1991) presented their findings at the 1991 AOU meeting in Montreal. They analyzed 317 museum specimens of adults collected throughout the breeding range from Greenland west to Banks Island in the western Canadian Arctic Archipelago. They found that mantle melanism, primary feather melanism, primary pattern score, and bill size all varied clinally east to west, and that overlap was substantial in all characters among geographic regions. They concluded that there is no evidence that any of the three subspecies are morphologically distinct.
- 20. Smith (1991) replied to Snell (1989) and to the earlier review by Sutton (1968) and agreed that there were errors in his study, but claimed that they did not affect his findings and conclusions.
- 21. Snell (1991) responded to Smith (1991) in the same issue of *Colonial Waterbirds*, again questioning Smith's claimed protocols and methodology and concluded with "It is particularly regrettable that there seems to be no clear means, 30 years after Smith was in Home Bay, to unravel the events that occurred and to differentiate those data based on Smith's actual observations from those that Smith hypothesized."
- 22. AOU (1998) stated that Thayer's Gull "is now generally regarded as a distinct species," but also stated "However, it is treated as a subspecies of *L. glaucoides* by Godfrey (1986). Recent studies suggest that *L. thayeri* and *L. glaucoides kumlieni* interbreed on Baffin and Southampton islands (Gaston and Decker 1985, Snell 1989). Relationships of these populations require further study."
- 23. In Pittaway (1999) Michel Gosselin (*in litt.*) reviewed 80 adult breeding season specimens, plus additional winter adults of Thayer's-Kumlien's at the Canadian Museum of Nature. His review included measurements, primary pigmentation and pattern, and mantle color. His conclusion was that "given the great variability of Kumlien's Gull, its intermediate appearance, and the intermediate position of its

breeding and wintering grounds, I firmly believe that Kumlien's is an intergrade population between Iceland and Thayer's."

- 24. Banks and Browning (1999) responded to Pittaway (1999) and also to Howell's (1999) critique of the treatment of *thayeri* as a separate species from Iceland. Much of their information had been presented at a meeting of the Wilson Ornithological Society in 1990. Banks and Browning (1999) pointed out that they have "long had an intense interest in the systematic position and taxonomy of the Thayer's Gull complex and have done a great deal of research on it, which, unfortunately, we are not yet prepared to publish." They considered the post-Smith (1966) publications to be little more than a collection of opinions and concluded that "there has been nothing to instigate even serious discussion of Thayer's Gull by the committee, although the committee is aware that there is a problem and its treatment may be wrong. There are, in fact, a fair number of species in that category. The Committee may eventually change its position, but the reason will not be based on unfounded opinions of others." They then posed six questions of their own that they believed to be important in considering the taxonomic status of Iceland, Thayer's and Kumlien's gulls.
- 25. Snell's (2002) BNA Iceland and Thayer's Gull account is published in a single (No. 699) issue. He treated the two as separate species, following the AOU treatment, but stated in the account: "The taxonomy of Iceland and Thayer's Gulls is unsettled, and whether they should be treated as 1 or 2 species is disputed. These birds share a breeding habitat distinct from Herring Gull (*L. argentatus*). Breeding chronologies are similar. Morphological and plumage characters overlap broadly. My studies, heretofore unpublished, are suggestive of continuous phenotypic variation from darkest to lightest extremes in plumage of adults across the breeding range. Where breeding ranges of kumlieni and thayeri overlap (e.g. Baffin Island, e. Southampton Island, Digges Sound), there is no evidence of assortative mating: gulls as dark or darker than the type of *thayeri* bred with others much lighter than the type of *kumlieni*, including birds lacking visible wing-tip melanism. Based on this, I believe only 1 species should be recognized with all taxa placed under Iceland Gull. Where practical, discussions in this account combine the 3 taxa involved (nominate glaucoides, kumlieni, and thayeri) as a whole. The names "Iceland Gull" and "Thayer's Gull" are used when referring to the taxa as separate species following current classification by the American Ornithologists' Union (1998). Iceland and Thayer's Gulls are among the least known of all North American gulls, and few studies are dedicated to their natural history... Lack of basic knowledge relates to logistic difficulties of studying high-arctic cliff-nesting species, inaccessibility of northern wintering areas, and for Iceland Gull in

particular, infrequent occurrence in the south. Further studies are needed on almost all aspects of the biology of these intriguing and enigmatic gulls."

To summarize, Thayer's was described as a separate species in 1915, was treated as a subspecies of Herring by Dwight two years later, and that treatment was maintained until it was treated as a full species again by the AOU (1973), following Smith (1966). That treatment remains in effect today.

#### **Discussion:**

Banks and Browning (1999) prefaced their discussion on Thayer's Gull by pointing out that "The Committee on Classification and Nomenclature is a conservative group that is inclined to maintain the taxonomic status quo until there is sufficient published scientific evidence for us to consider and vote on a change." We agree fully with this opinion. The treatment of Thayer's Gull as separate from Herring is based on Macpherson (1961) and is not controversial. However, the entire foundation for Thayer's being treated as a separate species from the Iceland Gull complex (*glaucoides* and *kumlieni*) is based upon Smith (1966), a study that cannot be regarded as reliable, as meticulously detailed by Snell (1989, 1991). We fail to see how anyone reviewing Snell's arguments could reach any other conclusion than that Smith's research is highly questionable and must be completely disregarded.

We will not detail all of the issues that render Smith (1966) unreliable, but it is worth emphasizing that Snell visited Home Bay in 1985 in the hope of replicating Smith's studies. He was not able to find colonies where Smith reported them on the islets at the mouth of Home Bay; nor was he able to find even lichen growth indicating that there had been colonies. He did find colonies, however, where Smith did not report them. Perhaps the most incriminating evidence is that Smith in 1961 also conducted a detailed study of Ringed (Charadrius hiaticula) and Semipalmated plovers (Charadrius semipalmatus) and monitored numerous nests (Smith 1969a). Smith collected some 47 plover specimens, including chicks, all but seven of which were taken between 12 and 24 July 1961. These were at the heads of fjords, primarily perhaps all along Rocknoser Fjord. This was at the same time that Smith claimed he was also doing his gull protocols on islets some 30 km away. Snell (1989) included a photo reproduced from the collection of the National Air Photo Library showing ice conditions in three fjords (Rocknoser, Kangirlugag and Ekalugad), that shows them basically blocked with ice with various openings, in Snell's opinion essentially blocking access to the gull colonies at the mouths of these fjords. Snell (1989, 1991) concluded that even allowing for 24hour work days during the duration that Smith was there, and even allowing for seven day work weeks, there was not enough time for Smith to have completed the protocols

with the gulls and plovers he claims to have done. And this allows for ideal weather during the duration, whereas Smith's own account indicates the weather was far from ideal in summer 1961. Snell (1989) also pointed out the difficulty in accessing fjords other than Rocknoser because there were 3000' ice-covered ridges between them, and they could not have been reached by boat.

Snell's arguments (1989, 1991) are damning in our opinion, and Smith's (1991) defense actually digs his hole deeper. His seventh point (pp. 194-195) is worth presenting in full:

"The final point in Snell's paper is to me the most important. Given the bad weather conditions that prevailed in 1961, the rugged terrain, and the difficult ice conditions, how could I have worked on drugging and/or collecting gulls, climbed cliffs (Smith 1966b) and collected plovers over a relatively short period? The answer is simple. I did none of these things in the same time, or in the same place, or even in the same season. I never climbed a cliff such as the one shown in Snell (1989, Fig. 3) or the one photographed by me in Smith (1966b), but I did partially climb a number of cliffs like that shown in Fig. 9 (Smith 1966a) where the faulting in the rocks made partial ascent possible. The cliffs on southwestern Baffin Island and those on White Island were easier, those of Home Bay more difficult. Of course, the island colonies were the easiest, where the normally cliff-nesting Kumlien's and Thayer's Gulls behaved as if they were on ledges (Smith 1966b). Much of the data presented in Smith (1966b) did not require climbing to the ledges. Simple observation from above or from the side was sufficient.

"Snell's (1989) skepticism that I visited 668 nests spread over five colonies in Home Bay is justified. In Smith (1966b: 74, Table 3), the methods section above Table 3 and the heading labeled 'Eastern Baffin Island' are incorrect. The data are correct but the heading is not. These data should have been labeled 'White Island, 1960.' Smith (1966b: 75, Table 44) correctly represents the data from Home Bay, 1961. Snell (1989) is incorrect, however, in stating that his Fig. 4 indicates that I was isolated at the head of a fiord by the steep terrain of the fiords and the ice conditions. He suggested that the only way out, north or south, was over the relatively gentle valleys or passes at the western ends of the fiords. That was so, and I walked over those valleys. The fiords themselves were impossible to walk down, eastwards to Davis Strait after 12 July 1961. Using a rough commercial map of the coast and a simple compass, I drew my own maps of the area. When I wrote Smith (1969), I transferred my notes and rough drawings to a more modern map. What I interpreted as eight fiords was in error. They were diverticula of three or perhaps four fiords (Smith 1969:178 Fig. 1). I realized this error only in 1987 through correspondence with G. W. Wenzel (Dept. of Geography, McGill University) who was interested in old Eskimo settlements in that area. However, this geographic error does not affect analyses or conclusions in Smith (1969a). But this correction should aid researchers who may wish to examine those plover populations. I am uncertain how this error affected my gull colony locations, but it did not affect my conclusions.

"I have replied to the first research effort on the eastern Canadian arctic gulls since 1961. I have explained my rationale and methodology in different and perhaps more precise terms than in Smith (1966a, 1966b, 1969). I have made corrections to previously published information that in no way affect my conclusions. The thrust of this paper is to indicate the need for replication, and that such replication is entirely feasible. Researchers seeking current information on the eastern arctic *Larus* complex might start at White and Southampton Islands. That area is relatively easy to reach, the colonies are accessible and population levels were high. The drug Avertin technique (Smith 1967b) works well. My methodology and that of Snell's (1989) are, at least, now partially archaic. With the use of modern molecular techniques which do not require killing large numbers of birds, the question of gene exchange between these various populations may be answered unequivocally. Color transparencies of my gull work are available from VIREO (Visual Resources for Ornithology), Academy of Natural Sciences of Philadelphia."

The problem with Smith's response is that he just digs a deeper hole for himself, in our opinion. White Island is adjacent to the northwestern end of Southampton Island at the northern end of Hudson Bay, some 500 miles to the southwest of Home Bay, Baffin Island. Snell (1991) addressed this and stated that Smith (1966b: Table 3, bottom) detailed the reported first egg losses for 668 nests of the cliff-nesting *kumlieni* (N = 333) and *thayeri* (N = 335). Snell (1991) pointed out that Smith could not have collected data on *kumlieni* on either Southampton or nearby White Islands because Smith (1966a: 18, Fig. 1) reported observing no kumlieni on those two islands. It is Snell's (1991) view that Smith presumably went to Home Bay in 1961 with the intention of carrying out his third and final season of study of gulls in the high Arctic. Snell (1991) stated that Smith would not have encountered the melting ice conditions he experienced in 1961 during the previous two summers on southwestern Baffin Island (1959) and on Southampton and White Islands (1960). That Smith was at the head of Rocknoser Fjord in July 1961 is established by Smith's own "selfie" photo of himself there. Snell (1991) took the photo by Smith in 1961 (archived in Vireo) and the one he took on 16 July 1985 at the same location and published them side-by-side. Smith's photo was taken just before the ice in Rocknoser Fjord broke up. Snell believed that Smith was basically trapped there and could not reach the gull nesting islands some 30 km away. What gull studies, if any, that Smith accomplished at Home Bay, is unknowable, but Snell (1991) made a convincing case that Smith could not have accomplished anything close to what he claimed.
In summary, evidence suggests that Smith could not have accomplished the protocols he claimed to have done in that pivotal last year (1961) of study at Home Bay, Baffin Island. It seems entirely reasonable then to not rely on any of his data or conclusions. We agree strongly with Banks and Browning (1999) with their standard for AOU change requiring "sufficient published scientific evidence" before making a change (otherwise maintaining the "taxonomic status quo"). However, in this case the sole basis for the split was based on Smith's studies. The "status quo" now is based on a study the validity of which has been questioned. We further note that the conclusions from his plover studies, conducted simultaneously, have never been regarded as valid and have been basically ignored or disputed, including by the AOU. The AOU has allowed this "status quo" to stand for a quarter of a century since the back and forth between Snell (1989 and 1991) and Smith (1991).

We also note that the likely scientific misconduct by Smith is one of the three examples discussed by Montgomerie and Birkhead (2005) in their paper on the topic, as follows:

"Finally, in our own field, many questions have been raised about some influential publications by Neal G. Smith, a former staff scientist at the Smithsonian Tropical Research Institute (STRI) in Panama. Smith's PhD thesis on the evolution of arctic gulls was published as a well-cited monograph (Smith 1966) and an article in Scientific American (Smith 1967). At the time, Smith's work was widely regarded as a landmark study, eventually making its way into several textbooks as an outstanding example of experimental work on mate choice and isolating mechanisms (e.g., Futuyma 1979). Nonetheless, Smith's (1966) monograph was given a skeptical review by Sutton (1966), a very experienced and well-known arctic ornithologist, and was often rumored to be 'suspect' for the next two decades. Eventually, Richard Snell (1988, 1991) published the results of his attempts to replicate Smith's work, concluding that "much of Smith's (1963; 1966a, b; 1967a, b) 1961 data on gulls at Home Bay could not have been based on actual observations or experimentation. Other data on the composition of pairs of courting plovers (Smith 1969: table 2) in Home Bay were evidently not based on actual observations, as Smith had not yet arrived in Home Bay at the time those data were reportedly collected. Perhaps many of Smith's reported observations were projections of various biological scenarios that he sincerely felt to be correct." In a related, but unpublished manuscript on Smith's (1969) study of ringed plovers, V. C. Wynne-Edwards (1991) concluded that "the desire to produce credible statistics in so complicated a situation may explain why he found it necessary to incorporate a far larger sample than could be found at the head of any one fiord." In fairness, Smith (1991) did reply to Snell's (1988, 1991) criticisms, admitting that some mistakes had

been made (e.g., errors in transcribing data) but claiming that those mistakes did not affect his most important conclusions. The Smith case is particularly interesting in the context of this article for three reasons. First, Smith's gull and plover studies were conducted in very harsh environments, under difficult working conditions, involving specialized techniques and analyses. These features have made this work almost impossible to replicate despite repeated attempts by Snell and others. Second, while the work of Snell (1988, 1991) and the analysis by Wynne-Edwards (1991) seem to point to some serious misconduct, the reply by Smith (1991), while admitting some culpability, might leave some readers uncertain about the validity of the published allegations. Finally, despite the published and private reservations about these studies, we know of no formal attempts to investigate these issues further. Rather, citations of Smith's arctic research have largely disappeared from the textbooks and scientific literature."

Surprisingly, Montgomerie and Birkhead (2005) did not mention the disappearance from textbooks of Smith's other suspicious research, namely his studies of oropendolas, cowbirds, and botflies (Smith 1968), in which the complex and difficult field methods, conducted at night in Panama, have raised widespread suspicion similar to that directed at his Arctic studies. Finally, Smith (1969b) claimed that *Micrastur* forest-falcons make "spishing" noises to attract North American migrants to prey on them, but this has never been observed by any other field ornithologists.

#### **Conclusion and Recommendation:**

Disregarding Smith (1966) and reversing the AOU (1973) decision does not mean going back to treating Thayer's Gull as a subspecies of Herring Gull. Salomonsen (1950/51) and especially Macpherson (1961) demonstrated that Thayer's was not a subspecies of Herring, and all subsequent researchers support this conclusion. Both authors suggested that Thaver's is best treated as a subspecies of Iceland Gull. Macpherson (1961) concluded his thoughts with "Salomonsen's hypothesis that these forms are conspecific cannot be altered by the findings of the present study; on the contrary, it is strengthened by the additional evidence." Snell (2002), perhaps the world's authority on this group, is unequivocal in his recommendation that the Iceland Gull complex be considered a single polytypic species. We suggest following their conclusions by treating Thayer's Gull as a subspecies of Iceland Gull. It is worth pointing out that there were no AOU Supplements between the 31<sup>st</sup> Supplement in 1956 and the 32<sup>nd</sup> Supplement in 1973. If Supplements had been annual (as now) or even bi-annual, it seems reasonable to surmise that the AOU would have voted to remove Thayer's from Herring Gull and place it with Iceland Gull, following Macpherson (1960), although it is possible that Smith may have communicated thoughts to the contrary to committee

members after his summer at Home Bay in 1961. He did communicate with Godfrey at some point in the early 1960's.

One of the possibilities noted by some scientists and gull enthusiasts is that even if Thayer's is not a separate species from Kumlien's that both might be separate from nominate glaucoides from Greenland. Indeed Banks and Browning (1999) posed this as one of their six questions: "Even if interbreeding is regular and mixing is thorough, why is Kumlien's Gull, and therefore Thayer's, associated with Iceland Gull?" Snell (2002) detailed the appearance of nominate glaucoides and shows that they too show significant variation and that some are basically not separable from Kumlien's. He stated: "Although most southwest and east Greenland adults (i.e. well south of Thule region) lack wing-tip melanism, many nominate glaucoides possess gray wing-tips and light patterning on primary feathers. Two east Greenland chicks captured July 1964, and reared in captivity, had markings on inner and outer webs of P10 when fully adult; if viewed in the south as winter migrants, these birds would doubtless be considered kumlieni. Near Nuuk, southwest Greenland, birds with patterned wing-tips were relatively numerous in 2001; one documented on a nest in 2001." Note that nominate Iceland shares with "Kumlien's" and Thayer's the same gregarious cliff-nesting social behavior and evering color.

With an expanded Iceland Gull, the question emerges on how to treat the three taxa. Many authorities regard "Kumlien's" as a highly variable taxon that in adults exhibits wide variation in the amount of darkness in the primaries. Some are close to Thayer's, some are essentially not separable from nominate glaucoides, and most are inbetween. Any ten-minute visit to Quidi Vidi Lake at St. John's, Newfoundland, would demonstrate that variation vividly: in the parking lots around the lake are many hundreds of gulls, most of them Iceland, and they show the full range of variation – no two look alike. Many photos showing this individual variation are published in Zimmer (1991), demonstrating what other researchers had said (based on specimens) for decades previously. Dunn visited St. John's on some five occasions in mid-winter and can fully support these conclusions, as does Bruce Mactavish, who has decades of experience of gull-watching there. The geographic range of Kumlien's is large, but it seems best to regard it as an intergrade population. It is unlikely to approach a 75% rule in terms of a consistent set of characters. Not recognizing Kumlien's as a valid subspecies would partially restore the treatment by the AOU (1931), which stated under Kumlien's Gull (p. 371): "Now regarded as a hybrid between Larus leucopterus Faber and Larus argentatus thayeri Brooks (cf. Dwight, Bull. Amer. Mus. Nat. Hist., LII Art. 3, Dec. 31, 1925, 254), and transferred to the Hypothetical List." As for Thayer's, Snell (2002) indicated that west of the Bell Peninsula, eastern Southampton Island, there is a sharp demarcation among colonies in the frequency of various wing-tip patterns in

breeding adults; colonies farther west comprise mostly dark winged birds. He was unable to find such a demarcation line in the eastern Canadian Arctic from Baffin Island north to Ellesmere Island. Still, it seems reasonable to treat Thayer's as a subspecies of Iceland and treat the intergrade population of Kumlien's within the range of Iceland, but not as a valid subspecies by itself. Snell (2002) pointed out that there is gap of several hundred kilometers of glaciated coastline in western Greenland at Melville Bay, north of Upernavik, where neither *glaucoides* nor *thayeri* breeds. One wonders what will happen to this "no-gull's" breeding land with the increasing onset of climate change.

We fully agree with the call for further research (AOU 1983). So far, genetic studies on large *Larus* have failed to reveal consistent differences among taxa much less resolve their relationships, and so that effort awaits refinement of techniques. However, we think that enough data have been published to establish that there is evidence, both direct and indirect, for non-assortative mating between *kumlieni* and *thayeri* and that the burden of proof falls squarely on their continued treatment as separate species.

## **English names:**

Classifications that consider Thayer's and Iceland as conspecific (e.g., Godfrey 1986, Sibley & Monroe 1990, BOU) nonetheless refer to broadly defined *Larus glaucoides* as "Iceland Gull". Some will argue for a new name to refer to broadly defined *Larus glaucoides* to avoid confusion between treatments. However, we tentatively recommend retaining Iceland Gull for the broadly defined species because this follows the status quo for that treatment. Nonetheless, perhaps this should be addressed in a separate proposal.

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Submitted by: Jon Dunn and Van Remsen

Date of Proposal: 1 March 2017

Additional comments submitted by Joe Jehl and Ralph Browning.

## Change the spelling of the English names of Le Conte's Thrasher (*Toxostoma lecontei*) and Le Conte's Sparrow (*Ammodramus leconteii*)

#### **Background and Discussion:**

Le Conte's Thrasher was described as *Toxostoma Le Contei* Lawrence 1851 and Le Conte's Sparrow as *Fringilla caudacuta* Latham 1790, but because this specific name was preoccupied by *Oriolus caudacutus* Gmelin 1788, the species name derives from *Emberiza Le Conteii* Audubon 1844. Through the first four editions of the AOU Check-list (1886, 1895, 1910 and 1931), the AOU spelled the English names of these species as "Leconte's" (no space, small "c"). In the 5<sup>th</sup> edition (AOU 1957), the space appeared and the "c" became a capital letter (Le Conte's). We (with Daniel D. Gibson) have checked the eleven intervening supplements (19<sup>th</sup> through 31<sup>st</sup>) and we can find no explanation of the spelling change for either of these species.

Both species were apparently named for John Lawrence LeConte (1825-1883), a wellknown American entomologist who described thousands of beetle species and was a founding member of the Academy of Natural Sciences of Philadelphia. Mearns and Mearns' (1992) short biography details the naming of Le Conte's Sparrow by Audubon after he returned from his expedition along the Missouri River. The type specimen was collected by the well-known taxidermist from New York, John G. Bell, on 24 May 1843. Audubon made no entry in his journal that day, and Mearns and Mearns (1992) explain that his memory may have been affected because he nearly shot himself in the head when he borrowed a small double-barreled gun from his friend Edward Harris. The etymology of the name in his description of the species (in Birds of America, volume VII) is as follows: "I have named this interesting species after my young friend Doctor Le Conte, son of Major Le Conte, so well known among naturalists, and who is, like his father, much attached to the study of natural history."

Audubon provided no Christian names in his description, and this led to confusion as the extended LeConte family included five naturalists: in addition to John Lawrence and his father John Eatton (1784-1860), John Eatton's brother Louis (1782-1838) was a keen botanist, and his sons John (1818-1891) and Joseph (1823-1901) became famous in their respective fields of physics and geology. Gruson (1972) stated that the sparrow was named after John LeConte, the son of Louis. John LeConte had been in New York from 1838 to 1841 and may have known Audubon, but his father was not a major. Mearns and Mearns (1992) pointed out that only John Eatton, the father of John Lawrence, was a major. They also explained that although John Lawrence did not receive his medical degree until 1846, that at the time one could work as and be considered a doctor without a medical degree. This was undoubtedly noted by Jobling, who in the first edition of his book on bird names (Jobling 1991), wrote that the sparrow was named for John LeConte and the thrasher for John Lawrence LeConte, but in the later edition (Jobling 2010), wrote that both were named for John Lawrence LeConte and did not mention John LeConte.

John Lawrence was a keen naturalist who visited his distant relative, Spencer Fullerton Baird, at Carlisle, Pennsylvania, and he undertook various expeditions collecting birds and bugs. In 1844, his cousin Joseph joined him for a trip to the headwaters of the Mississippi River and on to Lake Superior. In 1850, he sailed via Panama to California, and then travelled to Arizona. On the way he stopped near the junction of the Gila and the Colorado rivers, where he shot a pale thrasher. He later gave the skin to George N. Lawrence, who named it after LeConte: "This species was obtained in California, near the junction of the Gila and Colorado rivers, by John L. Le Conte, M. D., whose name I wish it to bear, as a tribute to his deservedly high reputation for scientific acquirements."

Although Audubon and Lawrence spelled the name "Le Conte" in both their scientific and English names, LeConte's signature indicates that he spelled his name without a space. His name is consistently spelled "LeConte" in modern entomological literature and by such disparate sources as the American Entomological Society, the American Philosophical Society, and the Encyclopedia of Greater Philadelphia.

The need for a modification of the English names of these species was brought to our attention by Kenneth P. Able, who is editing Jay Sheppard's monograph on Le Conte's Thrasher for the Western Field Ornithologists. Jay, who spent many years researching the thrasher decades ago, wondered why the AOU used the spelling that it did and urged that a change be made.

#### **Recommendation:**

We recommend that the committee change the English names of the thrasher and the sparrow to the spelling used by LeConte, thus giving us LeConte's Thrasher and LeConte's Sparrow.

#### Literature Cited:

AOU. 1886. Check-list of North American Birds, 1<sup>st</sup> ed. Am. Ornithologists' Union, New York.

AOU. 1895. Check-list of North American Birds, 2<sup>nd</sup> ed. Am. Ornithologists' Union, New

York.

- AOU. 1910. Check-list of North American Birds, 3<sup>rd</sup> ed. Am. Ornithologists' Union, New York.
- AOU. 1931. Check-list of North American Birds, 4<sup>th</sup> ed. Am. Ornithologists' Union, Lancaster, PA.
- AOU. 1957. Check-list of North American Birds, 5<sup>th</sup> ed. Am. Ornithologists'. Union, Port City Press, Baltimore.
- AOU. 1983. Check-list of North American Birds, 6<sup>th</sup> ed. Am. Ornithologists' Union, Lawrence, KS.
- AOU. 1998. Check-list of North American Birds, 7<sup>th</sup> ed. Am. Ornithologists' Union, Washington, D.C.

Gruson, E. S. 1972. Words for Birds. Quadrangle Books, New York.

- Jobling, J. A. 1991. A Dictionary of Scientific Bird Names. Oxford Univ. Press, Oxford.
- Jobling, J. A. 2010. The Helm Dictionary of Scientific Bird Names. Christopher Helm, London.
- Mearns, B., and R. Mearns. 1992. Audubon to Xantus: the Lives of those commemorated in North American Bird Names. Academic Press, New York.

Submitted by: Jon Dunn and Terry Chesser

Date of Proposal: 3 March 2017

## Add Common Scoter (Melanitta nigra) to the Main List

## **Background:**

*Melanitta nigra* was included in the 5<sup>th</sup> edition of the Check-list (AOU 1957) as a polytypic species. Both subspecies (*americana* of North America and northeast Asia, and *nigra*, found from Iceland east to northeast Asia) were included, the latter on the basis of accidental occurrences from Greenland. The two species were later split by the AOU (Chesser et al. 2010), and *M. americana* (Black Scoter) became the sole representative on the Main List, Greenland having been deleted from the AOU area as of the 6th edition (AOU 1983) and species previously included solely on the basis of records from Greenland having been moved to Appendix B.

There have been two recent well-documented records (photos) of adult males from the Pacific Coast of North America, one from northwest California, and one from coastal Oregon (Lincoln County). The first was an adult male at Crescent City, Del Norte County, CA, 25 Jan.-13 Feb. 2015, and the other an adult male at Siletz Bay NWR, near Lincoln City, Lincoln County, OR, 13 Nov.- 6 Dec. 2016.

Boertmann (1994) detailed two specimen records of adult males (at ZMUC) from West Greenland. Three other records of pairs from Northeast and Southeast Greenland are sight records but are thought "probably" to refer to this species. No records of Black Scoter were listed for Greenland (Boertmann 1994), but the species is casual to Europe, and of course is known as a breeder in the Russian Far East as far west as the Yana River, Common Scoter breeds east in the Russian Far East east to the Olenek River, only a few hundred miles to the west of the western limit of Black Scoter at about the Yana River. Common Scoter is unknown from the northwest Pacific, even from wellbirded Japan, where Black Scoter is fairly numerous, yet there are now two records from the Pacific Northwest of North America. Because the species is unrecorded also from Alaska, how these birds reached OR and CA is a matter of conjecture, but it is possible that they came from the northeast rather than the northwest. Recall that there is also a well-documented record of a female Common Eider of the northwestern Atlantic ssp. dresseri from Crescent City (Able et al. 2014). Some have wondered if an aviculturist from WA or OR has released various Atlantic waterfowl, but there is no firm evidence of this. There was a recent rumor that someone in WA (I believe) lost a dresseri Common Eider, but I don't know whether this has progressed beyond the rumor stage.

The record from CA was well-detailed by Bouton and Fowler (2015) in North American

*Birds.* Seven color photos of the bird were published in the article. It was accepted by the California Bird Records Committee (and will be in the next CBRC report in Western Birds) and later by the ABA CLC (Pranty *et al.* 2016).

## **Recommendation:**

I recommend returning this species to the Checklist. There are now two welldocumented records from CA and OR, in addition to the specimens from Greenland that were the basis for its inclusion in the 5th edition (see Proposal 2017-C-15 below). The CA record was accepted by the CBRC, and the OR record will surely be accepted by the Oregon Birds Records Committee (OBRC).

The English name of Common Scoter is in widespread use.

## Literature Cited:

- Able, K.P., A. Barron, J. L. Dunn, K. E. Omland, and L. Sansone. 2014. First occurrence of an Atlantic Common Eider (*Somateria mollissima dresseri*) in the Pacific Ocean. Western Birds 45:90-99.
- Boertmann, D. 1994. An annotated checklist to the birds of Greenland. Meddelelser om Grønland, Bioscience 38:1-63.
- Bouton, W.A., and R. C. Fowler, Jr. 2015. First North American record of Common Scoter (*Melanitta nigra*). North American Birds 68:450-457.
- Chesser, R.T., R. C. Banks, F.K. Barker., C. Cicero, J.L. Dunn, A.W. Kratter, I.J.
  Lovette, P.C. Rasmussen, J.V. Remsen, Jr., J.D. Rising, D.F. Stotz, and K. Winker.
  2011. Fifty-first supplement to the American Ornithologists' Union Check-list of North American Birds. Auk 127:726-744.
- Pranty, B., J. Barry, M. Gustafson, T. Johnson, K. L. Garrett, A. Lang, M.W. Lockwood, R. Pittaway, P. Pyle, and D.A. Sibley. 2016. 27<sup>th</sup> Report of the ABA Checklist Committee 2016. Birding 48:30-37.

## **Draft Species Account:**

Melanitta nigra (Linnaeus). Common Scoter.

Anas nigra (Linnaeus). 1758. Syst. Nat. (ed. 10) 1:123 (in Lapponia, Anglia = Lapland and England.)

**Habitat**.—Lakes, bogs and slow moving streams during breeding season; in winter coastal bays and inshore marine waters.

**Distribution**.—*Breeds* in Iceland, Svalbard, Ireland, Scotland, and Fennoscandia east across Russia to Russian Far East, to about the Olenek River.

Migrates along coasts of northern Russia and Europe, uncommonly inland.

*Winters* in coastal regions of Fennoscandia, the Baltic, North Sea, and the United Kingdom and south in the North Atlantic to northwest Africa to the Río de Oro. Uncommon in the northwest Mediterranean. Rare in the Black Sea and interior Europe. Casual in the Middle East.

Casual in Greenland (one at Qaqortoq/Julianehåb: Nanortalik, Feb. 1902; and pair Alluitsoq Fjord, 9 May 1950, specimen; other "probable" records from Northeast and Southeast Greenland. All records detailed in Boertmann (1994).

Accidental in California (Crescent City, Del Norte County; 25 Jan.- 13 Feb. 2015; photos; Bouton and Fowler 2015) and in Oregon (near Lincoln City, Lincoln County; 13 Nov.- 6 December 2016; photos).

Notes.—See Notes under *M. americana*.

## Literature to add to the Check-list:

Boertmann, D. 1994. An annotated checklist to the birds of Greenland. Meddelelser om Grønland. Bioscience 38:1-63.

Bouton, W.A., and R. C. Fowler, Jr. 2015. First North American record of Common Scoter (*Melanitta nigra*). North American Birds 68:450-457.

Submitted by: Jon Dunn

Date of Proposal: 4 March 2017

#### Add Blyth's Reed Warbler (Acrocephalus dumetorum) to the Main List

#### Background:

Blyth's Reed Warbler (*Acrocephalus dumetorum*) has been recorded twice at Gambell, St. Lawrence Island, Alaska. The first record, on 9 September 2010, was documented with photos and published by Lehman and Ake (2011). This was published before the record was reviewed by the Alaska Checklist Committee, but upon review they placed the species on their "Unsubstantiated List" (Gibson et al. 2013). The primary reasons for this were reservations by the world's authority on this family, Peter Kennerley (see Kennerley and Pearson 2010), who stated (in litt., 2011): "To achieve acceptance, in my opinion, you would need crisp, sharp photographs and ideally the bird would need to be trapped, measurements taken, and feathers or blood sampled for comparative DNA evidence. As discussed above, and again in my opinion, I would not accept the record for a first for the USA and North America. It would need to be iron-clad in measurements and DNA and this would require trapping and examination in the hand." Given the lack of acceptance by the Alaska Checklist Committee, the record was not reviewed by the ABA CLC.

#### **New Information:**

In fall 2015, another bird was found at Gambell. This one was present 18-21 September 2015. This one was more cooperative, and very good photos were obtained, including in-flight ones that showed the emarginated primaries (Pranty et al. 2016). In correspondence with Paul Lehman (Alaska Checklist Committee files), Peter Kennerley stated: "No doubt about this one. It's a typical Blyth's Reed. In addition to the emargination on P4, the rump is concolorous with the mantle and the primary projection is shorter than half that of Reed and Marsh Warblers, all classic features of Blyth's Reed. Paddyfield is easily eliminated by lack of pale supercilium behind the eye, and by the lack of warm tones to the upperparts. Julian Hough commented: "I see this as a fairly typical Blyth's. Even on the ground the emarginations on the primaries fall level with the end of the tertial tips. The concolorous tertials lacking any contrast between the dark centre and a paler fringe and the head pattern, with a weak, post ocular super and loral 'bulge' area, all classic Blyth's features." The record was reviewed and accepted unanimously by the Alaska Checklist Committee for the Alaska Main List. and that decision will be published in their 4<sup>th</sup> Report of the Alaska Checklist Committee in Western Birds in 2018. It was also reviewed and accepted unanimously by the ABA

CLC (Pranty et al. 2016). The age was said to be a "juvenile", but perhaps hatch year might be more appropriate.

Although field identification of many of the small and medium sized plain-backed *Acrocephalus* is notoriously difficult, as evidenced by the non-acceptance of the first record, the subsequent bird remained longer and was better photographed, enough so that all, particularly the most critical European reviewers, signed on. Given the acceptance of the second bird, the earlier bird was also accepted, as even Kennerley believed that it was very likely Blyth's Reed Warbler.

## **Recommendation:**

Given the thorough review and subsequent acceptance by the Alaska Checklist Committee and the ABA CLC, I recommend that the species be added to the Main List. We could have added it earlier to the Appendix on the basis of the 2010 record, but apparently did not do so.

## Linear Position on the Check-list:

Dickinson and Christidis (2014) placed this species after *Acrocephalus orinus* (Largebilled Reed Warbler), fourth in the linear sequence of *Acrocephalus* species. In our sequence it would be placed after *Acrocephalus schoenobaenus* (Sedge Warbler). This would follow the BOU (on-line British List as of December 2016).

## Literature Cited:

- Dickinson, E.C. (Ed.). 2003. The Howard & Moore complete Checklist of the Birds of the World. 3<sup>rd</sup> Edition. Princeton University Press, Princeton and Oxford.
- Dickinson, E.C. and L. Christidis (Eds.). 2014. The Howard & Moore Complete Checklist of the Birds of the World. 4<sup>th</sup> ed., vol. 2, Aves Press.
- Gibson, D.D., L. H. DeCicco, R.E. Gill, Jr., S.C. Heinl, A.J. Lang, T.G. Tobish, and J.J. Withrow. 2013. Third Report of the Alaska Checklist Committee, 2008-2012. Western Birds 44:183-195.
- Kennerley, P., and D. Pearson. 2010. Reed and Bush Warblers. Christopher Helm, London.
- Lehman, P.E. and R. L. Ake. 2011. Blyth's Reed Warbler (*Acrocephalus dumetorum*). North American Birds 65:4-12.
- Pranty, B., J. Barry, M. Gustafson, T. Johnson, K.L. Garrett, A. Lang, M.W. Lockwood, R. Pittaway, P. Pyle, and D. Sibley. 2016. 27<sup>th</sup> Report of the ABA Checklist Committee 2016. Birding 48:30-46.

#### **Draft Species Account:**

#### Acrocephalus dumetorum Blyth. Blyth's Reed Warbler.

Acrocephalus dumetorum Blyth, 1849, Journ. Asiat. Soc. Bengal, 18, p. 815 – India.
 New name for Sylvia montana or Acrocephalus montanus of various Indian authors, preoccupied by Sylvia montana Wilson, 1812 = Motacilla virens Gmelin, 1789, and by Sylvia montana Horsfield, 1821.

**Habitat**.—Breeds in dry or slightly damp, open brushy habitats with dense undergrowth with a scattering of trees or tall bushes, not associated with marsh edges. Winters in dry scrub (often favors acacia), also found in town parks and gardens.

**Distribution**.—*Breeds* from northeastern Europe and Fennoscandia from Sweden and Poland east to eastern Siberia (Lake Baikal and south in the Trans Caspian region) to Kazakhstan and northwest Mongolia; a separate population breeds in the foothills of the western and northern Tian Shan Mountains west to eastern Uzbekistan and south to northern Afghanistan and eastern Iran.

*Winters* widely on the Indian Subcontinent from the foothills of the Himalayas south to Sri Lanka and east to western Myanmar.

Casual or accidental in migration to western Europe, including Iceland, the Middle East, Japan, eastern China, and Thailand.

Accidental to western Alaska (Gambell, St. Lawrence Island, 9 Sept 2010, photos (Lehman and Ake 2011) and 18-21 September 2015, photos (Pranty et al. 2016).

#### Literature to be added to the Check-list:

Lehman, P. E., and R. L. Ake. 2011. Blyth's Reed Warbler (*Acrocephalus dumetorum*). North American Birds. 65:4-12.

Pranty, B., J. Barry, M. Gustafson, T. Johnson, K. L. Garrett, A. Lang, M. W. Lockwood, R. Pittaway, P. Pyle, and D. Sibley. 2016. 27<sup>th</sup> Report of the ABA Checklist Committee 2016. Birding 48:30-36.

Submitted by: Jon Dunn

Date of Proposal: 6 March 2017

## Add Chatham Albatross (Thalassarche eremita) to the Main List

#### Background:

In the 55<sup>th</sup> Supplement (Chesser et al. 2014; p. 685) the species account for *Thalassarche eremita* (Chatham Albatross) reads in part: "It has been reported off the coast of central California (September 2000; photos; McKee and Erickson 2002; and July 2001; photos; Garrett and Wilson 2003). These records, probably of the same individual, were published as possible *T. cauta salvini* but were reidentified as *T. eremita* (Howell 2012) using the characters in Howell (2009). This species is placed in the Appendix pending reconsideration of these records by the California Bird Records Committee."

#### **New Information:**

The process of review is now complete. The CBRC accepted the photographic record from 27 July 2001 (Singer et al. 2016) over Bodega Canyon, 31 km west-northwest of Point Reyes, Marin County, CA. This bird was thought to be a second-cycle bird because it had extensive yellowish on the bill, including the sides. The bird the previous summer, thought to be a first-cycle Salvin's or Chatham albatross, reported in the same general area 20 July - 10 September 2000, was thought by Howell et al. (2014) to likely pertain to the same bird. Singer et al. (2016) indicated that the issue of the previous bird was still under consideration by the CBRC, but it was resolved at the annual meeting on 28 January 2017, when by a vote of 8-1 the CRBC decided *not* to follow Howell et al. (2014), instead preferring to consider the bird from the previous year as identifiable only as Salvin's/Chatham Albatross. First-cycle Chatham Albatrosses have dark bills (like Salvin's) and have the same underwing pattern.

Once the CBRC accepted the 2001 record as Chatham, the ABA CLC reviewed the record, and unanimously accepted the record (Pranty et al. 2016). Their annual report included a color photo by Dan W. Nelson of this bird, showing the extensive yellow color on the bill. The same photo was reproduced in Garrett and Wilson (2003) but in black-and-white.

#### **Recommendation:**

I recommend that Chatham Albatross be transferred from the Appendix to the Main List, but that we follow the CBRC and accept only the single date of occurrence in 2001.

Further, I suggest modifying our wording from the 55<sup>th</sup> Supplement indicating that all of the sightings in 2000 and 2001 were "probably of the same individual" to "sightings from the previous year (2000) "may have been the same individual as in 2001," but since it was a first-cycle bird, distinguishing it from Salvin's was not possible. I further recommend that we cite the Pranty reference in the species account as it includes the photo in color, and thus is identifiable as a Chatham Albatross, whereas the same photo published in black-and-white by Garrett and Wilson (2003) is identifiable only to Salvin's/Chatham.

## Literature Cited:

- Garrett, K.L., and J. C. Wilson. 2003. Report of the California Bird Records Committee: 2001 records. Western Birds 34:15-41.
- Howell, S.N.G. 2009. Identification of immature Salvin's, Chatham and Buller's albatross. Neotropical Birding 4:19-25.
- Howell, S.N.G. 2012. Petrels, Albatrosses and Storm-Petrels of North America: A Photographic Guide. Princeton University Press, Princeton, New Jersey.
- Howell, S.N.G., I. Lewington, and W. Russell. 2014. Rare Birds of North America. Princeton University Press, Princeton, New Jersey.
- McKee, T. and R. Erickson. 2002. Report of the California Bird Records Committee: 2000 records. Western Birds 33:175-2001.
- Pranty, B., J. Barry, M. Gustafson, T. Johnson, K.L. Garrett, A. Lang, M.W. Lockwood, R. Pittaway, P. Pyle, and D. Sibley. 2016. 27<sup>th</sup> Report of the ABA Checklist Committee.
- Singer, D. S., J. L. Dunn, L. B. Harter, and G. McCaskie. 2016. The 40<sup>th</sup> annual report of the California Bird Records Committee: 2014 Records. Western Birds 47:291-313.

#### Draft Species Account (revised from the Appendix):

Thalassarche eremita Murphy. Chatham Albatross.

*Thalassarche cauta eremita* Murphy, 1930. Amer. Mus. Novit. 419:4 (Pyramid Rock off Pitt Island, Chatham Islands.

Habitat.—Pelagic Waters; breeds on one islet.

**Distribution**.—Breeds only on Pyramid Islet ('The Pyramid'), Chatham Islands, off New Zealand.

*Ranges* at sea in the southern Pacific Ocean as far east as the west coast of South America and west to off southeast Australia.

Accidental off central California (Bodega Canyon, 31 km west-northwest of Point

Reyes, Marin County, CA; 27 July 2001; photos; Garrett and Wilson 2003; diagnostic color photo in Pranty et al. 2016). This probable second-cycle bird was identified as this species by Howell (2012), a record accepted by the California Bird Records Committee (Singer et al. 2016). A probable first-cycle bird recorded on several dates the previous year from the same general area has been considered as likely the same individual (Howell 2012), but the CBRC treated these records as only possibly the same bird and accepted the bird only as Salvin's/Chatham Albatross (Singer et al. 2016)

Submitted by: Jon Dunn

Date of proposal: 8 March 2017

#### 2017-C-12 N&MA Classification Committee p. 590

## Add Red-legged Honeycreeper (Cyanerpes cyaneus) to the U.S. list

#### Background and Discussion:

From 27 to 29 November 2014 a "first-year bird" was present and photographed at Estero Llano Grande State Park, Hidalgo County, Texas (Gustafson et al. 2015). The record was accepted unanimously by the Texas Bird Records Committee and was accepted 7-1 by the ABA CLC, the one negative vote concerned origin (Pranty et al. 2016). A very good color photo was published in Pranty (2016).

In addition to the Texas record, there are seven previous photographic records from southeastern Florida from 2003-2011, mostly of males in alternate plumage (Greenlaw et al. 2014, Pranty et al. 2016). However, these records were not accepted by the FOSRC because of origin issues (Greenlaw et al. 2014). These decisions could perhaps be questioned because the species is a widespread resident on Cuba, said to be have been introduced long ago. Raffaele et al. (1998) stated it "may have been introduced to Cuba." The AOU (1998) states: "Records from Cuba (where possibly established), Jamaica, and Bonaire are probably based on escaped caged birds." Speaking from personal experience, the species seems to be getting more numerous in my visits to Cuba over the years. I've yet to see one in a cage, but have seen other Cuban species in cages, including, sadly, Cuban Grassquit (*Tiaris canora*). I will have to ask Orlando Garrido about the history of this species on Cuba when I see him in a few weeks.

Howell and Webb (1995) indicated seasonal movements within Mexico, and it seems reasonable to conclude that the Texas record was likely a naturally occurring individual.

#### **Recommendation:**

I recommend that the species be added to the U.S. list as a naturally occurring species on the basis of the Texas record. If the FOSRC ultimately accepts the multiple records from south Florida, we could alter our wording regarding those records.

#### Literature Cited:

- American Ornithologists' Union. 1998. Check-list of North American Birds. 7<sup>th</sup> edition. American Ornithologists' Union, Washington, D.C.
- Greenlaw, J.S., B. Pranty, and R. Bowman. 2014. The Robertson and Woolfenden Florida Bird Species: An Annotated List. Special Publication No. 8, Florida Ornithological Society, Gainesville.
- Gustafson, M., R. Rangel, D. Anderson, T. Kersten, and J. Ychum. 2015. Red-legged Honeycreeper at Estero Llano Grande State Park, Weslaco. Texas Birds Annual 11:49.
- Howell, S.N.G., and S. Webb. 1995. A Guide to the Birds of Mexico and Northern

Central America. Oxford Univ. Press, New York.

- Pranty, B., J. Barry, M. Gustafson, T. Johnson, K.L. Garrett, A. Lang, M.W. Lockwood, R. Pittaway, P. Pyle, and D. Sibley. 2016. 27<sup>th</sup> Report of the ABA Checklist Committee. Birding 48:30-36.
- Raffaele, H., J. Wiley, O. Garrido, A. Keith, and J. Raffaele. A Guide to the Birds of the West Indies. 1998. Princeton University Press, Princeton, New Jersey.

## **Revision to Species Account:**

After the paragraph beginning "Casual on Cozumel Island," start a new paragraph that states:

Accidental in south Texas (Estero Llano Grande State Park, Hidalgo County, 27-29 November 2014; photos; Gustafson et al. 2015, Pranty et al. 2016). Seven photographed birds from south Florida have not been accepted because of questionable provenance (Greenlaw et al. 2014).

#### Literature to add to the Check-list:

- Gustafson, M., R. Rangel, D. Anderson, T. Kersten, and J. Yochum. 2015. Red-legged Honeycreeper at Estero Llano Grande State Park, Weslaco. Texas Birds Annual 11:49.
- Greenlaw, J.S., B. Pranty, and R. Bowman. 2014. The Robertson and Woolfenden Florida Bird Species: An Annotated List. Special Publication No. 8, Florida Ornithological Society, Gainesville.
- Pranty, B., J. Barry, M. Gustafson, T. Johnson, K.L. Garrett, A. Lang, M.W. Lockwood, R. Pittaway, P. Pyle, and D. Sibley. 2016. 27<sup>th</sup> Report of the ABA Checklist Committee. Birding 48:30-36.

Submitted by: Jon Dunn

Date of proposal: 8 March 2017

#### Add nine species recorded from Greenland to the Main List

#### **Background and Discussion:**

Greenland was not included in the geographic region covered by recent editions of the Checklist (AOU 1983, 1998) despite its inclusion in earlier editions, beginning with the first (AOU 1886). For the sixth edition (1983), species in the Checklist known only from Greenland were transferred to Appendix B, and then transferred to Part 1 of the Appendix when the appendices were reorganized for the seventh edition (1998). Here we propose to return six species currently in the Appendix to the Main List and to add three new species to the Main List as a result of records from Greenland.

The preface to the 6th edition provided little rationale for excluding Greenland, noting only that Greenland has no endemic bird species, that its avifauna includes "numerous species of otherwise entirely Old World distribution" that were on the AOU list solely because of Greenland records, and that two other publications, *The Birds of Greenland* (Salomonsen 1950-1951) and *The Birds of the Palearctic Fauna* (Vaurie 1959, 1965), covered the birds of Greenland. We consider these insufficient reasons for excluding from the *Check-list of North American Birds* a region that is geographically, physiographically, and tectonically part of North America, and we note parenthetically that Greenland is not included in European lists. This position was previously endorsed by the committee, which voted some years ago to include Greenland in the next edition of the checklist. We see no advantage, however, to waiting for the next edition, but instead advocate incorporating the Greenland species into the Main List now.

David Boertmann (1994) detailed the avifauna of Greenland in his very thorough *An Annotated Checklist to the Birds of Greenland.* His checklist included six species previously on our Main List (e.g., AOU 1957) and currently in the Appendix: Ruddy Shelduck (*Tadorna ferruginea*), Water Rail (*Rallus aquaticus hibernans*), Oriental Plover (*Charadrius veredus*), Rook (*Corvus frugilegus frugilegus*), Hooded Crow (*Corvus cornix*), and Meadow Pipit (*Anthus pratensis pratensis*). Three other species were not in AOU (1957) but are now listed for Greenland (Boertmann 1994): Blackcap (*Sylvia atricapilla atricapilla*), White's Thrush (*Zoothera dauma aurea*), and Lesser Redpoll (*Acanthis cabaret*). All of these will require new or heavily modified species accounts. Three of these species (Water Rail, Hooded Crow, and White's Thrush) have undergone fairly recent taxonomic revisions, and another (Lesser Redpoll) is covered in a current proposal (2017-B-7). The details of each are listed below. Most records are supported by specimens deposited in the Zoological Museum of Copenhagen (ZMUC), and others by specimens at Ilinniarfissuaq/the teachers college in Nuuk, Greenland. Unless otherwise noted, all specimens were prepared as skins.

This proposal consists of nine species accounts, three of which contain discussion of taxonomic issues. **Votes will be required on:** (a) adding the nine species to the Main List, (b) taxonomy and English name for what was Water Rail (*Rallus aquaticus*) in AOU 1998, (c) taxonomy for what was Hooded Crow (*Corvus cornix*) in AOU 1957 and Carrion Crow (*Corvus corone*) in AOU 1998, and (d) taxonomy for White's Thrush (*Zoothera dauma aurea* or *Zoothera aurea*).

## 1. Ruddy Shelduck (Tadorna ferruginea)

Four females collected in the summer of 1892, two in Upernavik, one in Ilulissat/Jakobshavn, and one from an unknown locality in Southwest Greenland (Winge 1898; ZMUC). As an aside, this species could have been placed on the Main List earlier based on six individuals photographed on 23 July 2000 at Southampton Island, Nunavut, Canada (Allard et al. 2001). However, the ABA CLC did not agree. Vinicombe and Harrop (1999) detailed records of vagrancy in Europe; apparently this species moves well out of its usual range (as far north as southeastern Europe) in years of European drought, having reached the United Kingdom, Iceland, and Greenland. Howell et al. (2014) also discussed this issue and accepted the Southampton Island birds as naturally occurring vagrants.

# **2. Western Water Rail (***Rallus hibernans***)** [Water Rail (*Rallus aquaticus*) in AOU 1998]

Four specimens, three from West Greenland: a first year bird from Qaqortoq town, Qaqortoq/Julianehab in October 1906 (Schiøler 1908), a first year bird from Qassiarsuk on 7 December 1942 (Salomonsen 1963; ZMUC), and a first year male from Qeqertarsuatsiaat/Fiskenaesset, Nuuk/Godthab, on 20 November 1928 (Oldenow 1933; skin at Ilinniarfissuaq). The sole record for Southeast Greenland was a first year bird at Kulusuk/kap Dan, Ammassalik-area, in the fall of 1902 (Schiøler 1908, Helms 2010; ZMUC). The Greenland specimens belong to the Icelandic ssp. *hibernans* (Salomonsen 1963).

**Taxonomy**: The Water Rail was formerly treated as a polytypic species with four subspecies: *R. a. hibernans* (Iceland), *R. a. aquaticus* (Europe, North Africa, and eastern Asia to the upper basin of the River Ob; winters south to North Africa and Turkmenistan), *R. a. korejewi* (Aral Sea and Lake Balkhash south to Iran, Kashmir and west-central China; winters patchily from Iraq to coastal eastern China), and *R. a* 

*indicus* (northern Mongolia and E Siberia (upper River Yenisey and middle River Lena) to Manchuria, Korea, Sakhalin and northern Japan; winters from eastern Bengal and Assam, Myanmar, northern Thailand and northern Laos and east to southeast China and Hainan, Taiwan and southern Japan) (del Hoyo et al. 1996). Although del Hoyo et al. (1996) referred to records of the western group in coastal China, all records from Hong Kong are of *indicus* and there is no mention of western subspecies in China by Carey et al. (2001).

More recently the species has been split into a western species (*Rallus aquaticus*) with three subspecies (nominate, *hibernans* and *korejewi*), and a monotypic eastern species (*Rallus indicus*). This split is based on multiple characters (summarized in Sangster et al. 2011). Phenotypic differences that distinguish *indicus* are a brown streak through the eye, a whiter chin, a brown tinge to the breast and sides, and more extensive wing barring (Taylor and van Perlo 1998, Sangster et al. 2011). Phylogenetic analysis of mitochondrial and nuclear DNA placed *indicus* in a separate clade from the clade containing nominate *aquaticus* and *korejewi* (Tavares et al. 2010). Sangster et al (2011) summarized the studies of vocalizations (deKroon et al. 2008) and wrote of nominate *aquaticus*, "two main call types: a long and complex call (the 'pig squeal') and a short and simple call, both repeated in a series," whereas for *indicus* "only a complex call type has been recorded, which is distinct from *R. a. aquaticus* (de Kroon et al. 2008)."

Sangster et al. (2011) proposed recognizing two species: Water Rail (polytypic with subspecies aquaticus and korejewi) and the monotypic Brown-cheeked Rail Rallus indicus (they did not mention hibernans). This split was followed by Dickinson and Remsen (2013), who adopted the English names of Western Water Rail (including hibernans, aquaticus, and korejewi) and Eastern Water Rail (aquaticus). Although Sangster et al. (2011) didn't seem to recognize hiberans as a valid subspecies, Taylor and van Perlo (1998) indicated that *hiberans* has: slightly warmer brown upperparts than aquaticus, with more restricted black centers to feathers; often a brown tinge to underparts and sides of head; less slate-blue gray underparts; dark sepia barred flanks, rather than black; slightly shorter bill; and denser feathering, especially in winter. Although largely confined to Iceland, hiberans "probably" also occurs in the Faeroes in winter (Taylor and van Perlo 1998). Rallus aquaticus was also split by Clements et al. (2016), del Hoyo and Collar (2016), and Gill and Donsker (2017), all of whom included hibernans as a subspecies of aquaticus. Although Clements et al. and Gill and Donsker adopted the English names Water Rail and Brown-cheeked Rail, del Hoyo and Collar followed Dickinson and Remsen in using Western Water Rail and Eastern Water Rail.

**We recommend** following the split of Water Rail and using the name Western Water-Rail for the species that has occurred in Greenland. Keeping the English name Water Rail for the western species just invites confusion: when one views the British List (2013) on-line, it is impossible to know that any taxonomic decision was made as the entry is just Water Rail *Rallus aquaticus* as it has always been. We have also seen no evidence for merging subspecies *hibernans* into *aquaticus*, and wonder whether its omission by Sangster et al. (2011) was a *lapsus*.

## 3. Oriental Plover (Charadrius veredus)

One remarkable record for West Greenland, an adult male collected at Narsaq, Qaqortoq/Julianehab, on 23 May 1948 (Salomonsen 1963; ZMUC). This species breeds in eastern Asia (primarily Mongolia) and winters in Australia. There is another exceptional record, this one from Finland.

## 4. Rook (Corvus frugilegus frugilegus)

One record for Southeast Greenland, an adult male at Kulusuk/Kap Dan, Ammassalikarea (Helms 1926; ZMUC).

## 5. Hooded Crow (Corvus cornix) [Carrion Crow (Corvus corone) in AOU 1998]

Two records for Southeast Greenland, an adult at Kulusuk/Kap Dan, Ammassalik-area, on 19 March 1897 (Helms 1926; ZMUC); and an adult at Sermilik Fjord, late May 1907 (Helms; ZMUC).

**Taxonomy:** These records were listed under Carrion Crow (*C. corone*) in Boertmann (1994) and are so listed in our Appendix, but were treated as Hooded Crow (*C. cornix*) in the Main List in the fifth edition of the Check-list (AOU 1957). The two taxa are distinctive morphologically but maintain a narrow hybrid zone across much of central and northern Europe. As reflected in AOU treatments, the two have been considered to be either subspecies of the single species *C. corone*, or the separate species *C. corone* and *C. cornix. Corvus corone*, whether or not *C. cornix* is considered conspecific, also includes the subspecies *orientalis* of central and East Asia. Generally recognized subspecies of *C. cornix* (included in *C. corone* if considered conspecific) include *pallescens, sharpii*, and *capellanus*.

Knox et al. (2002) recommended a split of Hooded from Carrion Crow based on slight differences in vocalizations, a striking deficiency of mixed pairs, and a strong prezygotic barrier to gene flow reinforced by fitness differences and parental hybrid phenotypes.

They concluded that Hooded and Carrion "be regarded as semispecies and treated as separate species," but indicated that a separate publication on the crows would be forthcoming, which was Parkin et al. (2003). Parkin et al. concluded that the two were best treated as separate species, reasoning as follows: "As well as the obvious differences in plumage between the two, there is good evidence for non-random mating and reduced fitness of hybrids between Carrion and Hooded Crows, which together provide sufficient evidence for them to be regarded as separate species under most species concepts. Differences in vocalisations and ecology support this distinction. It is therefore recommended that Carrion Crow and Hooded Crow be treated as separate species."

As for *corone orientalis*, they overlap locally with some *cornix sharpii* in Siberia with only limited hybridization, further suggesting that *corone* and *cornix* are separate species. On morphological grounds, *orientalis* is usually combined with *C. corone*; however, there is some evidence that nominate *corone* and *orientalis* may be less closely related to each other than nominate *corone* is to *cornix* (Eck 1984). Genetic data from eastern Asia (e.g., Chelomina et al. 1995) suggested a more complex situation, but a firm conclusion could not yet be reached about the taxonomic status of *orientalis*.

A recent study of the European hybrid zone (Poelstra et al. 2014) found "genome-wide introgression extending far beyond the morphological hybrid zone. Gene expression divergence was concentrated in pigmentation genes expressed in gray versus black feather follicles. Only a small number of narrow genomic islands exhibited resistance to gene flow. One prominent genomic region (<2 megabases) harbored 81 of all 82 fixed differences (of 8.4 million single-nucleotide polymorphisms in total) linking genes involved in pigmentation and in visual perception—a genomic signal reflecting color-mediated prezygotic isolation. Thus, localized genomic selection can cause marked heterogeneity in introgression landscapes while maintaining phenotypic divergence."

In a commentary published along with Poelstra et al. (2014), de Kniff (2014) discussed "the speciation of these two crow taxa" but allowed that "none of the currently formulated species concepts fully apply to these two crow taxa (unless one is willing [to] release some stringency in the various definitions)." Jerry Coyne, author of an influential book on speciation (Coyne and Orr 2004), published an insightful commentary on the Poelstra et al. paper on his website:

<u>https://whyevolutionistrue.wordpress.com/2014/07/24/a-tale-of-two-crows/</u>. He noted that this is a gray area between subspecies and species, but he considered *corone* and *cornix* to be subspecies, because "most of the genome is being exchanged between the hooded and carrion crows, so reproductive isolation is far from complete."

Nevertheless, most global and Old World references (e.g., Svensson et al. 2009, BOU 2013, Clements et al. 2016, del Hoyo and Collar 2016, Gill and Donsker 2017) now consider *corone* and *cornix* to be separate species, thus treating the black taxon of western Europe (*corone*) as conspecific with East Asian *orientalis*, but not with the geographically intervening gray Hooded Crow (consisting of *cornix*, *pallescens*, *sharpii* and *capellanus*). Dickinson and Christidis (2014), who treated the entire complex as a single species, acknowledged the two species treatment employed by others and argued that it seems "counterintuitive but a three species treatment deserves consideration."

Although the evidence is not particularly compelling, this is an Old World issue and **we recommend** that we follow the prevailing treatment of separating *C. cornix* from *C. corone*, thus returning to the treatment in AOU (1957). Another viable option would be to continue to treat *cornix* as a subspecies of *corone*, as in the seventh edition (AOU 1998).

## 6. Blackcap (Sylvia atricapilla atricapilla)

One record from Southeast Greenland, a first year male at Ammassalik town, Ammassalik-area, on 15 November 1916 (Salomonsen 1963; specimen preserved in alcohol in ZMUC).

## 7. White's Thrush (Zoothera dauma aurea or Zoothera aurea)

One record from West Greenland, a possible first-year bird at Daneborg, Wollaston Forland, in October 1954 (Salomonsen 1963; ZMUC). The Greenland specimen was identified as *aurea*, which was then considered a subspecies of *Zoothera dauma* (see below). This species has also occurred on at least three occasions in the fall on Iceland.

**Taxonomy:** A quagmire. Historically *Zoothera dauma* was considered a single species with numerous subspecies across much of Asia, including the Indian subcontinent and Sri Lanka, and east through Indonesia and Papua New Guinea and eastern Australia to Tasmania. By the late 20<sup>th</sup> century this concept was challenged, and additional species began to be recognized. Sangster et al. (1998) outlined the issues and suggested splitting the Asian forms into seven species: White's Thrush (*Z. aurea*), Scaly Thrush (*Z. dauma*), Amami Thrush (*Z. major*), Nilghiri Thrush (*Z. neilgherriensis*), Sri Lanka Thrush (*Z. imbricata*), Horsfield's Thrush (*Z. horsfield*), and Fawn-breasted Thrush (*Z. machik*).

Collar (2004) endorsed the elevation of *machiki* and *imbricata* to species status, but maintained that other splits in this complex often depended on "relatively minor

morphological characters coupled with vocal differences for which the evidence is notably incomplete or incompletely evaluated. For example, the song of *neilgherriensis* appears to be unknown (Clement 2000) while P.A.J. Morris (verbally 2004) reports that *major*, whose elevation to species status rests mainly on its very different song from *aurea* (Ishihara 1986, Brazil 1991), turns out to sing very similarly to *dauma*." Although Rasmussen and Anderton (2005) concurred that the song and calls of *neilgherriensis* were not known, they split the various taxa on the Indian subcontinent and argued that the "treatment of the three resident (and one presumed vagrant) 'scaly thrushes' in the region as races of *Z. dauma* appears untenable. The four forms are at least as distinct morphologically and (as far as known) vocally as extralimital forms that have elsewhere been given specific status (e.g. in Australia and Amani Is., Japan)." The two 'scaly thrushes' in Australia (*heinei* and *lunulata*) were found to be sympatric in parts of their range and are certainly valid biological species (Ford 1983).

Most global references now recognize 4-7 species among the Asian forms of this complex, whereas many regional references do not split the complex to the same extent. The important factor for us is the treatment and circumscription of aurea, the taxon that has occurred in Greenland. Dickinson and Christidis (2014) recognized aurea (and *major*) as species separate from *dauma*, but included a footnote that states "treatment [of dauma] as a species apart from Z. aurea and Z. major remains tentative." This reluctance to split Z. dauma is reflected more directly by Svensson et al. (2009), who listed dauma as the species of occurrence in Europe, thereby maintaining aurea as a subspecies of dauma; by the BOU (2013), which continued to list dauma for their records; and by the Ornithological Society of Japan (2012), which recognized major as a subspecies of *dauma*. In contrast, del Hoyo and Collar (2016), Clements et al. (2016), and Gill and Donsker (2017) now all recognize aurea as separate from both dauma and major, but differ in their circumscription of aurea, which Dickinson and Christidis, Clements et al., and Gill and Donsker regard as including only subspecies aurea and toratugumi, but which del Hoyo and Collar regard as containing additional subspecies iriomotensis, neilgherriensis, imbricata, and horsfieldi (Dickinson and Christidis considered these subspecies conspecific with dauma, whereas Gill and Donsker treat horsfieldi and iriomotensis as subspecies of dauma, and neilgherriensis and imbricata as species, and Clements et al. do the same but without recognizing *iriomotensis*). In their discussion of aurea and dauma, del Hoyo and Collar (2016) indicated that these taxa differ significantly in song, but that songs of *iriomotensis*, *imbricata*, and *horsfieldi* are similar to those of aurea (song of neilgherriensis is apparently unknown). Rasmussen and Anderton (2005), however, wrote that the song of *imbricata* is "[r]ather similar to White's (aurea) but mellower and more slurred" but that the call is "in timing like the song of Small-billed [dauma]" - so perhaps the vocalizations are not as similar to aurea as had been suggested (del Hoyo and Collar 2016). As noted above,

Rasmussen and Anderton (2005) considered the treatment of *dauma*, *aurea*, *neilgherriensis*, and *imbricata*, the four subspecies covered in their book, as races of a broader *Z*. *dauma* to be "untenable" and indicated that these four taxa were at least as distinctive as extralimital forms of this complex now universally treated as species.

This is a real mess. We seem to have two main options: (1) follow the prevailing global treatment, which would recognize *aurea* as a species separate from *dauma*, whether including only the nominate subspecies and *toratugumi*, or using the broader del Hoyo and Collar circumscription; or (2) adopt a broad dauma that includes aurea, which is the position of some European references. We recommend Option 1, which would bring us in line with most global references, and would reflect differences in vocalizations between aurea and dauma/major. We also recommend that we consider aurea to consist only of the nominate subspecies and toratugumi, thus including only the northern migratory forms breeding in Russia, Mongolia, Korea, and Japan and excluding the tropical forms resident primarily in south and southeast Asia and the Sundas. This is due in part to the data from Rasmussen and Anderton (2005), but it also aligns us with most global references and it makes good sense on biogeographic grounds. The English name in common use both for a broader dauma and for a split aurea is White's Thrush (e.g., in Rasmussen and Anderton 2005, Svensson et al. 2009, BOU 2013, Dickinson and Christidis 2014, del Hoyo and Collar 2016, and Gill and Donsker 2017), named after English naturalist Gilbert White, author of The Natural History of Selborne.

## 8. Meadow Pipit (Anthus pratensis)

Uncommon breeder in eastern Greenland, with one record (1844) from an unknown locality in western Greenland.

## 9. Lesser Redpoll (Acanthis cabaret)

One record from Southeast Greenland, an adult male at Kuummiit, Ammassalik-area, on 6 September 1933 (L. Svensson pers. comm. to D. Boertmann; ZMUC). Boertmann (1994) treated this redpoll as a subspecies of *Carduelis flammea* (= *Acanthis flammea*), but *cabaret* is now generally recognized as a separate species. The status of this species forms part of a current AOU proposal (2017-B-7).

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Submitted by: Jon Dunn and Terry Chesser

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#### Split Bell's Vireo (Vireo bellii) into two species

#### Background:

The current taxonomy of Bell's Vireo (*Vireo bellii*) recognizes four subspecies described on the basis of differences in plumage coloration and tail length (Ridgway 1904): The following information is excerpted from the *Birds of North America* account (Kus et al. 2010) to indicate general distributions and phenotypic differences:

**V. b. bellii** Audubon, 1844. Breeds from e. Colorado, S. Dakota, and ne. Iowa south to Arkansas, nw. Louisiana, and central Texas; likely winters in coastal sw. Mexico (south of Isthmus of Tehuantepec) south to nw. Nicaragua. Crown and nape grayish brown; mantle greenish olive; sides and flanks greenish yellow; undertail coverts and axillars sulphur-yellow.

*V. b. medius* Oberholser, 1903. Breeds from southwestern Texas south to n. Zacatecas and w. San Luis Potosí in central Mexico; winter range unknown, but it is probably along the central Pacific coast of Mexico. Like *V. b. bellii* but brown crown and nape grayer, olive mantle grayer, and yellow flanks paler; undertail coverts and axillars white or yellowish white; tail averages longer.

*V. b. arizonae* Ridgway, 1904. Breeds in e. California, s. Nevada, sw. Utah south and east to s. Sonora, w. Texas, and Chihuahua; likely winters in nw. Mexico. Like *V. b. medius* but crown, nape, and mantle brownish gray, flanks pale grayish yellow, and undertail coverts white; tail and legs average longer.

*V. b. pusillus* (Coues, 1866). Breeds from central California south to n. Baja California; winters in s. Baja California Sur. Like *V. b. arizonae* but dorsum largely gray, with only rump and uppertail coverts washed olive, and ventrum nearly white, with only faint yellow on flanks; wing and tail average longer.

The eastern subspecies (*V. b. bellii* & *V. b. medius*) and western subspecies (*V. b. arizonae* & *V. b. pusillus*) can be separated in the field based on plumage characters (Sibley 2014). In addition, tail length distinguishes western and eastern individuals, with western individuals ranging from 47 to 54 mm and eastern individuals ranging from 41 to 47 mm (Ridgway 1904). The two forms also differ in their behavior: western Bell's Vireos wag their tails side-to-side, similar to a gnatcatcher, but eastern Bell's Vireos flick their tails up and down like a Palm Warbler (*Setophaga palmarum*) (Greaves and Chadwick 2006; Sibley 2014). Although no quantitative analyses of song have been done, the BNA account (Kus et al. 2010) indicates that "field researchers subjectively report qualitative differences in songs in different regions."

Bell's Vireo is a species of conservation concern: *V. b. bellii* is state threatened in Minnesota; *V. b. medius* is state threatened in New Mexico; *V. b. arizonae* is state

endangered in California and state threatened in New Mexico; and *V. b. pusillus* is state endangered in California and federally endangered. Thus, any changes in taxonomic treatment will have conservation implications.

#### **New Information:**

Klicka et al. (2016) published the first genetic study of Bell's Vireo. The goals of this study were to re-assess the intraspecific classification of Bell's Vireo, and to evaluate concordance between genetic variation and morphologically-based subspecies. Klicka et al. (2016) analyzed tissues from 86 individuals sampled throughout the range (Figure 1). In addition to sequencing ND2 for all individuals, they obtained SNP data for 48 individuals (3 later removed from analysis because of missing data) using genotype-by-sequencing methods (GBS; 24,426 biallelic SNPs recovered). They also constructed niche models using 1709 occurrence records (after filtering) and 19 bioclimatic variables plus 4 non-climate variables (elevation, slope, aspect, terrain roughness).

Maximum Likelihood and Bayesian analyses of the ND2 data revealed two major clades that were 3% divergent (estimated divergence time of 1.11 to 2.04 mya). These clades corresponded to an east-west division: populations A-E (V. b. bellii + V. b. medius) versus F-J (V. b. arizonae + V. b. pusillus) on Figure 1. The GBS data were concordant with the ND2 data and also separated individuals into eastern and western clades, with 84% maximum likelihood bootstrap support for this division. Within the western clade, 8 individuals of V. b. pusillus were all grouped together with 87% bootstrap support. In the eastern clade, GBS data grouped V. b. bellii individuals together with 69% bootstrap support.

 $F_{ST}$  values for both the ND2 and GBS data were most significant between eastern and western populations. Further, both the ND2 and GBS data showed significant  $F_{ST}$  values between *V. b. pusillus* and *V. b. arizonae.* 

STRUCTURE analysis (Figure 2) largely separates eastern and western populations. However, some alleles are shared between western populations and some eastern populations. This may be due to ancestral polymorphism or admixture. Thus, this pattern could be the result of the longer coalescent time needed for nuclear markers, or limited gene flow.

A partial Mantel test was performed to examine the correlation between genetic distance and the presence of a barrier in New Mexico. This test produced a significant result, indicating that a barrier, rather than isolation by distance, explains the relationships between eastern and western individuals.

Niche modeling identified allopatric refugia corresponding to eastern and western populations of Bell's Vireo. In addition, the two clades correspond geographically and temporally with those found for other vertebrate species in this regions.

Although not included in the paper, a Discriminate Analysis of Principal Components

(DAPC) analyses (Fig. 3) also separated the eastern and western clades. DAPC maximizes distance between groups while minimizing variation within groups. This method can be sensitive to retaining too many principal components, resulting in overfitting of the data. Therefore, we examined DAPC results retaining a broad range of PC's (1-13) and all results showed a division between eastern and western individuals.



Figure 1. Sampling locations for Bell's Vireos in Klicka et al. 2016 (bottom), and median-joining network of ND2 haplotypes (top). Circles and letters represent population groupings for analysis. Black lines indicate approximate subspecies boundaries.



Figure 2. STRUCTURE analyses with admixture for all individuals (K = 2-4).

Niche models projected back to the Last Glacial Maximum identified eastern and western refugia for Bell's Vireos. These areas were geographically isolated, with intervening habitat (highlands of the Sierra Madre Occidental) characterized as unsuitable for Bell's Vireos.



Fig. 3. DAPC analysis for two clusters retaining three prinicple components. All western individuals are members of cluster 2 and all eastern individuals are in cluster 1.

Klicka et al. (2016) concluded that gene flow is restricted between eastern and western populations, and that genetic structure in Bell's Vireos is greater than that found in other sister species of birds (Johnson and Cicero 2004), and specifically in other vireos (e.g., *V. hypochryseus*, Arbeláez-Cortes et al. 2014). They also argued that concordance between ND2 and the GBS data, along with evidence of geographically isolated refugia from the niche models, supports evolutionary independence of the two clades. Thus, Klicka et al. (2016) recommend splitting the Bell's Vireo into two species based on genetic and genomic data, niche models, plumage data, tail morphology, and behavioral data. They propose the names *Vireo bellii* (Bell's Vireo) and *Vireo pusillus* (Least Vireo) for eastern and western populations, respectively. They recommended these common names because this usage returns to the original common names used for each group (Coues 1866, 1890).

**Subspecies.** Least Bell's Vireo samples (*V. b. pusillus*, n = 8) formed a clade in the GBS data of Klicka et al. (2016), which included individuals from distant parts of the distribution. These data support maintaining this subspecies and recognizing it as an evolutionary significant unit and distinct population segment. Furthermore, the data for all four taxa of Bell's Vireo support retaining their subspecific status.

#### **Recommendation:**

We recommend splitting Vireo bellii into two species, each with two subspecies.
Vireo bellii, Bell's Vireo Vireo bellii bellii Vireo bellii medius Vireo pusillus, Least Vireo Vireo pusillus arizonae Vireo pusillus pusillus

## Literature Cited:

- Klicka, L. B., B. E. Kus, P. O. Title, and K. J. Burns. 2016. Conservation genomics reveals multiple evolutionary units within Bell's Vireo (*Vireo bellii*). Conservation Genetics 17:455-471.
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- Ridgway, R. 1904. The birds of North and Middle America. Bulletin of the U.S. National Museum, no. 50, part 3.

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