

On the Extent and Source of Instability in Avian Nomenclature, as Exemplified by
North American Birds

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Among the proposals considered at meetings of the Standing Committee on Ornithological Nomenclature (SCON) held during the XIX International Ornithological Congress in Ottawa, June 1986, was one to create a separate set of rules of nomenclature for ornithology. The need for this originated in part from the debatable viewpoint that birds are "very well known globally, and most problems in their nomenclature have been solved with a resulting high level of stability" as opposed to "imperfectly known" invertebrate groups whose "nomenclature is still in a state of flux . . ." (W. J. Bock, SCON chairman, memorandum of 8 May 1986).

Although SCON stopped short of departing from the rest of zoology and decided it should work within the framework of the International Code of Zoological Nomenclature, the committee agreed at the outset to embrace a "Principle of Established Usage," because the fundamental principle of the International Code, the Law of Priority, was perceived as a threat to the stability of avian nomenclature.

In the first half of this century, most systematic ornithologists, at least in North America, were content to follow the law of priority, in conformance with the Code of Nomenclature as set forth by the A.O.U.

(1908: x): "the whole course of scientific nomenclature has shown that the *law of priority—lex prioritatis*—is the one great underlying principle." Dissenting viewpoints had been expressed previously, and attempts were made to set some sort of a statute of limitation in modification of the law of priority, or to adopt the nomenclature that had been used by the most previous authors, the so-called *auctorum plurimorum* principle. These efforts to abrogate the law of priority were rejected unequivocally by the A.O.U. Code (1908: xlvii): "The 'statute of limitation' principle is akin to the *auctorum plurimorum* rule; both are Utopian, and both radically set at defiance the *lex prioritatis*."

Later, however, a reaction again arose to the strict application of the law of priority, and further attempts were made to modify it (reviewed by Mayr et al. 1953: 215–220). This eventually led to the notorious Article 23b (the "fifty year rule") of the International Code of Zoological Nomenclature (ICZN 1964), a rule so contentious and unsatisfactory that it was changed in the next edition of the Code, although it was hardly improved. At present, all cases involving "unused" senior synonyms are supposed to be referred to the ICZN while "existing usage" is maintained. "Estab-

lished usage" has become the rallying cry of a number of influential ornithologists, but at this point it is fair to ask whether the main argument used in support of it, the supposed increase in stability of nomenclature, has any validity.

To determine whether the nomenclature of birds is in fact relatively stable and whether the application of the rules of nomenclature, including the law of priority, contributes significantly to such instability as may exist, I compared the 5th (A.O.U. 1957) and 6th (A.O.U. 1983) editions of the American Ornithologists' Union "Check-list of North American Birds." These were chosen for three reasons. First, the recency of A.O.U. 1983 should reflect the most current trends in nomenclatural practices in ornithology. Second, the North American avifauna has long been one of the most intensively studied in the world, so that stability in names might be expected to be greater; thus, the data should provide a *minimum* estimate of instability. Finally, there are few other geographical areas of sufficient size and avifaunal complexity for which comprehensive, single-volume lists of taxa exist that provide a relatively uniform standard for comparison through time.

Because the 6th edition (A.O.U. 1983) included Middle America, the West Indies, and the Hawaiian Islands, other sources were needed for comparison. I used Eisenmann (1955) for Middle America and Bond (1956) for the West Indies. These have the advantage of being practically contemporaneous with A.O.U. 1957, and thus allow analysis of changes over an equivalent period of time. For the Hawaiian Islands I compared the nomenclature in A.O.U. 1983 with that used by Berger (1972).

To assess the number of changes in names, I looked only at species binomina, i.e. the generic and specific name of a given species, and excluded subspecies and taxonomic categories above the genus. I did not consider the hypothetical lists in A.O.U. 1957 or A.O.U. 1983 unless a species was admitted as a valid record in one or the other publication, in which case the comparison was made. There were 71 species new to the expanded 1983 A.O.U. Check-list area, principally Old World vagrants and South American species found recently in eastern Panama; these were excluded. I also omitted the Estrildidae, all of which are introduced forms, mainly to the Hawaiian Islands and Puerto Rico, and for which there was no authoritative previous North American list. Minor modifications in spelling affected 16 names, mostly because of changes in gender. These binomina were considered to have remained the same. Eisenmann's (1955) use of *Centurus rubricornis* instead of *C. pygmaeus* was a lapsus that was corrected on an errata sheet, and I did not count this as a name change.

I calculated both the number of name changes and the number of binomina affected. Thus, the transformation of *Caracara cheriway* to *Polyborus plancus* was counted as two name changes, although only one

binomen was affected, whereas the merging of *Dendrocopos* with *Picoides* was counted as one name change that affected 7 binomina. I compared the number of name changes that were "necessitated by scientific progress" (Mayr et al. 1953: 213), i.e. subjective systematic judgments such as lumping *Speotyto* with *Athene*, with objective "changes dictated by the rules of nomenclature" (Mayr et al. 1953: 214), such as the substitution of *Psomocolax* for *Scaphidura* on grounds of priority.

The results showed that 98 genera were lumped and that in 5 other cases parts of one genus were transferred to another genus (counted as one name change in each instance) (Appendix 1); 11 genera were split off that had not been recognized in the previous lists (Appendix 2); 63 taxa were raised from subspecific to specific status (Appendix 3); 21 species in A.O.U. 1983 appeared in previous lists under different names because of subsequent lumping of species (Appendix 4); and 71 additional species that appeared in the previous lists were lumped in A.O.U. 1983 and disappeared completely (Appendix 5).

There was a total of 276 name changes, of which 259 (94%) arose for systematic reasons, as opposed to the mere 17 changes (6%) that arose for nomenclatural reasons (Appendix 6). Of the 372 binomina that changed, 344 were the result of systematic changes, vs. only 28 (7.5%) that changed for nomenclatural reasons (almost half of which resulted from the single switch from *Tanagra* to *Euphonia*). Of the 1,791 binomina in A.O.U. 1983 that were compared, 15% were changed for systematic reasons, as opposed to 1.5% for nomenclatural reasons. This excludes the 71 species names that disappeared altogether (Appendix 5). These data do not support the general impression in the scientific community of greater nomenclatural stability at the specific as opposed to the generic level. Of the above changes, 120 were in generic names and 166 in specific names.

It is instructive to scrutinize the 17 changes that came about for nomenclatural reasons. Three (*Tyrannus savana*, *Ammodramus lecontei*, and *Hemignathus munroi*) resulted from generic mergers that would have produced two species with the same specific name, so that change was unavoidable, as we could not have two species called *Tyrannus tyrannus*. These changes are therefore the direct result of systematic judgments and are not to be counted against such instability as arises for purely nomenclatural reasons (see Mayr et al. 1953: 214).

Changes attributable to so-called "misidentified" types, one of the particular concerns expressed during the SCON meetings, occurred in only 3 instances: *Fulmarus antarcticus* was considered to be unidentifiable, *Corvus tropicus* was based on a description that could not apply to the Hawaiian Crow, and the type specimen of *Amazilia verticalis* belonged to a species other than that to which the name had been applied traditionally. Only two names, *Tangara chrysophrys* and

Scaphidura, were resurrected solely on priority. One name, *Plautus*, was rejected because it appeared in a nonbinominal work. Another instance, that of *Falco rufigularis*, involved two names published simultaneously for the same species and was resolved ultimately by the first reviser principle.

Of the 7 remaining name changes, most required lengthy and involved applications to ICZN and were instigated or supported by some of the very systematists who have most vigorously supported "established usage" as a means of promoting stability. Thus, these authors were responsible for 50% of the instability arising for purely nomenclatural reasons in the observed sample.

Four of these 7 changes contravene the rules of nomenclature and upset what was then the "established usage" of A.O.U. 1957. The change from *Carcara* to *Polyborus*, following Amadon (1954), violates the type concept. The use of *Podiceps nigricollis* instead of *P. caspicus* violates the law of priority (Stresemann 1948). The change from *Capella* to *Gallinago* contravenes the rules for the establishment of genera because *Gallinago* Brisson, 1760, clearly was not proposed as a genus (Wetmore 1958), whereas *Capella* Frenzel, 1801, was (see Bull 1974: 242). The change from *Richmondena* to *Cardinalis*, instead of to *Pyrrhuloxia*, defies the rule of homonymy and originated in the fatuous reasoning that because the name would have to be changed from *Richmondena* in any event "it would appear advisable . . . to return to the well known name *Cardinalis*, rather than shift to the little known name *Pyrrhuloxia*" (Mayr et al. 1964: 134-135).

In these cases the concern was not to promote nomenclatural stability but to instate names that certain people happened to like better or regarded as more "familiar" than others. This only has the effect of introducing subjectivity into nomenclatural rule changes as well as systematic ones. The result is not just lack of stability for the names of the taxa involved, but loss of stability and universality of the rules of nomenclature themselves.

The preceding analysis shows that the claim for a "high level of stability" in avian nomenclature is greatly exaggerated. In fact, the degree of taxonomic instability in the class Aves is probably greater than in most other equivalent taxa, as suggested by Parkes (1978: 7). We have only to refer to the 4th edition of the A.O.U. Check-list (A.O.U. 1931) to find 56 more generic names that have been relatively recently abandoned (Appendix 7). Thus, much of the nomenclature of North American birds in use only 50 yr ago has become all but incomprehensible to any but a specialist. The notion of great stability in avian nomenclature is simply a delusion that has been perpetuated by those who somehow fancy ornithology to have risen superior to other branches of natural history.

There is no reason to believe that the future promises an increase in the stability of scientific names of

North American birds. Any avian systematist perusing A.O.U. 1983 will see numerous instances of additional genera that could have been merged and others that were probably incorrectly synonymized. In the past, too broad an application of the so-called "biological species" concept resulted in numerous valid species being demoted to subspecific status. A.O.U. 1983 reinstated 63 of these, and the trend is likely to continue.

Relatively few of the changes made in A.O.U. 1983, at least at the generic level, were founded on revisionary studies. Instead, they reflect changing philosophies as to the limits of genera and species, and in all likelihood these views will again be modified over time. While it is one thing to claim that birds are the best-known group of organisms, there is still no source to which one may turn to find diagnoses of the genera as now recognized by A.O.U. 1983. There are no keys or lists of morphological characters by which genera may be defined or even recognized. One may expect that the limits of many taxa will have to be redrawn, with consequent changes in nomenclature, when proper revisionary studies and diagnoses are attempted for birds.

The preceding factors will ensure that avian nomenclature will be at least as unstable in the future as it has been in the past. Moreover, the considerable instability observed in the past 30 yr arises almost entirely from systematic judgments ("scientific progress") and not from abuses of the rules of nomenclature. If the existing rules of nomenclature were applied strictly in every possible instance, the number of binomina that would change for purely nomenclatural reasons would still pale to insignificance compared with the massive changes that regularly take place because of subjective systematic judgments.

Advocates of a "Principle of Established Usage" contend that avian nomenclature is relatively stable and that name changes arising for nomenclatural reasons are destabilizing and confusing. As we have seen, however, avian nomenclature is quite unstable, and likely to remain so, yet nomenclatural rules, such as those governing priority and homonymy, contribute very little to the problem. Furthermore, those who use and rely on the scientific nomenclature of North American birds seem to be capable of accommodating and understanding a change for systematic reasons in more than 15% of the binomina they use over a 25-30-yr period without becoming unduly confused. Therefore, there is no rational basis for asserting that the tiny fraction of names that would be changed by strict application of the rules of nomenclature, especially priority, would be unacceptably confusing, and it is an altogether false argument that adherence to "established usage" would have any significant effect on the overall stability of avian nomenclature.

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- APPENDIX 1. Genera that were merged in A.O.U. 1983. In each instance the genus (or genera) that is no longer recognized is followed by the genus in which it was submerged; the number in parentheses indicates the number of affected binomina. In some instances (e.g. *Morus*, *Olor*) the suppressed genus was retained as a subgenus, but these are included

because the subgeneric name is not part of the standard binomen.

Adamastor/Procellaria (1); *Loomelania* and *Halocyptena/Oceanodroma* (2); *Morus/Sula* (1); *Heterocrax/Tigrisoma* (1); *Leucophoyx, Florida, Hydranassa*, and *Dichromanassa/Egretta* (4); *Nyctanassa/Nycticorax* (1); *Olor/Cygnus* (3); *Philactes/Chen* (1); *Casarca/Tadorna* (1); *Spatula* and *Mareca/Anas* (3); *Lamprolaima/Somateria* (1); *Oidemia/Melanitta* (1); *Hypomorhynchus* and *Heterospizias/Buteogallus* (2); *Cannichites/Dendragapus* (1); *Pediocetes/Tympanuchus* (1); *Lophortyx/Callipepla* (3); *Pennula* and *Porzana/Porzana* (2); *Belompterus/Vanellus* (1); *Squatarola/Fulvialis* (1); *Eupoda* and *Eudromias/Charadrius* (2); *Totanus/Tringa* (3); *Ereunetes, Erolia, Micropalama*, and *Crochetia/Calidris* (15); *Philohela/Scolopax* (1); *Lobipes* and *Steganopus/Phalaropus* (2); *Geolochidon, Hydroprogne*, and *Thalasseus/Sterna* (5); *Endomychura/Synthliboramphus* (2); *Lunda/Fratercula* (1); *Zenaidura/Zenaida* (2); *Scardafella* and *Columbigallina/Columbina* (4); *Spreotyto/Athene* (1); *Rhinopteryx/Asio* (1); *Otophanes/Nyctiphrynus* (2); *Sericotes/Eudampis* (1); *Papouasia/Lophornis* (2); *Popelaria/Discosura* (1); *Phalacrocorax/Phalacrocorax* (1); *Temnotrogon/Priotelus* (1); *Megasceryle/Ceryle* (2); *Nyctalus* and *Notharctus/Bucco* (4); *Asyndesmus* and *Centurus/Melanerpes* (14); *Dendrocopos/Picoides* (7); *Nesocercus* and *Chrysomitris/Colaptes* (2); *Phloeocastus/Campyphilus* (3); *Acrochordopus/Phylloscopus* (1); *Pipromorpha/Micropetes* (1); *Perisoreus/Myiozetetes* (1); *Aechmophorus/Xenotriccus* (1); *Nataliornis/Contopus* (1); *Muscivora/Tyrannus* (2); *Platyparis/Pachyrhamphus* (3); *Iridoprocne, Kalocichthya*, and *Callicheidon/Tachycineta* (4); *Petrochelidon/Hirundo* (2); *Psittorhinus* and *Cissilopha/Cyanocorax* (5); *Telmatodytes/Cistothorus* (1); *Horeites/Cettia* (1); *Hylodichthya* (part)/*Cathartes* (4); *Mimocichla/Turdus* (2); *Allenia/Margarops* (1); *Neochloe/Vireo* (1); *Smaragdolanus/Vireolanus* (2); *Vermivora* (part)/*Parula* (2); *Chamaethlypis/Geothlypis* (1); *Setophaga* (part)/*Myioborus* (1); *Ateledactylus/Controstrum* (1); *Pyrrhuloxia/Euphonia* (1); *Bangsia/Buthraupis* (1); *Phlogothraupis/Ramphocelus* (1); *Pyrrhuloxia/Cardinalis* (1); *Chlorura/Pipilo* (1); *Spodiornis/Haplospiza* (1); *Aimophila* (part)/*Amphispiza* (1); *Passerherbulus* and *Ammodramus* (4); *Rhyncophanes/Calcarius* (1); *Leistes/Sturnella* (1); *Cassidix/Quiscalus* (4); *Tangarus/Molothrus* (1); *Cassidix/Coccyzus* (1); *Zarhynchus* and *Gymnastinops/Psaltriparus* (3); *Acanthis, Spinus*, and *Luximistris/Carduelis* (10); *Hesperiphona/Coccothraustes* (2); *Loxops* (part)/*Hemignathus* (3).

APPENDIX 2. Genera that were split off in A.O.U. 1983 but not recognized in the earlier lists.

Tachybaptus ex *Podiceps* (1); *Colaptes* ex *Puffinus* (1); *Nesochen* ex *Branta* (1); *Hylodichthya* ex *Grallaria* (2); *Zimmerius* ex *Tyranniscus* (1); *Phaeothlypis* ex *Basileuterus* (1); *Telespiza, Rhodacanthis*, and *Chloridops* ex *Psittirostra* (5); *Oreomystis* and *Paroreomyza* ex *Loxops* (5).

APPENDIX 3. Species raised from subspecific status in A.O.U. 1983.

Pterodroma nigripennis ex *P. hypoleuca*; *Puffinus opisthomelas* ex *P. puffinus*; *Tigrisoma fasciatum* ex *T. lineatum*; *Aster brachyrhynchus* ex *A. fabalis*; *Buteogallus subtilis* ex *B. anthracinus*; *Oriolus cinereiceps* ex *O. garrula*; *Oriolus poliocephala* ex *O. vetula*; *Alcedo chukar* ex *A. graeca*; *Coturnix japonica* ex *C. coturnix*; *Jacana jacana* ex *J. spinosa*; *Catharacta macconnickii* ex *C. skua*; *Larus thayeri* ex *L. argentatus*; *Larus livens* ex *L. occidentalis*; *Sterna antillarum* ex *S. albifrons*; *Geotrygon mystacea* ex *G. chrysis*; *Aratinga strenua* ex *A. holochlora*; *Amazona oratrix* and *A. europallata* ex *A. ochrocephala*; *Coccyzus ferrugineus* ex *C. minor*; *Tyto glaucops* ex *T. alba*; *Otus kennicottii* ex *O. asia*; *Otus seductus* ex *O. vinacea* [= *O. kennicottii*]; *Chordeiles gundlachi* ex *C. minor*; *Caprimulgus otiosus* ex *C. rufus*; *Caprimulgus noctitherus* ex *C. vociferus*; *Campylorhynchus excellens* ex *C. curvipennis*; *Chlorostilbon assimilis* ex *C. canivellii*; *Amazilia decora* ex *A. amabilis*; *Eupherusa polioptera* ex *E. eximia*; *Lampornis sibilata* ex *L. viridipallens*; *Trogon melanocephalus* ex *T. citreolus*; *Trogon bairdi* ex *T. viridis*; *Nonnula ruficapilla* ex *N. frontalis*; *Melanerpes hoffmanni* ex *M. aurifrons*; *Sphyrapicus ruber* ex *S. varius*; *Scytalopus vicinior* ex *S. panamensis*; *Platyrinchus canrommus* ex *P. mystaceus*; *Empidonax alnorum* ex *E. traillii*; *Myiarchus panamensis* ex *M. ferox*; *Myiarchus nator*

and *M. oberi* ex *M. tyrannulus*; *Myiarchus sagrae* and *M. antillarum* ex *M. stolidus*; *Tyrannus couchii* ex *T. melancholicus*; *Progne sinaloae* ex *P. subis*; *Stelgidopteryx serripennis* ex *S. ruficollis*; *Colocitta colliei* ex *C. formosa*; *Certhia americana* ex *C. familiaris*; *Campylorhynchus yucatanicus* ex *C. brunneicapillus*; *Campylorhynchus gularis* ex *C. jocosus*; *Microcerculus marginatus* ex *M. philomela*; *Turdus obsoletus* ex *T. fumigatus*; *Basileuterus ignotus* ex *B. melanogenys*; *Cyanerpes caeruleus* ex *C. lucidus*; *Chlorospingus tacarcunae* ex *C. ophthalmicus*; *Arremonops chloronotus* ex *A. centrostris*; *Melospiza biarcuatum* ex *M. kieneri*; *Quiscalus major* ex *Q. mexicanus*; *Telespiza ultima* ex *T. cantans*; *Oreomystis bairdi*, *O. maui*, *Parorcomyza montana*, and *P. flammea* ex *Loxops maculatus*.

APPENDIX 4. Species in A.O.U. 1983 that appear under a different name in the earlier lists because of subsequent species-level lumping. The "lumped" species is first in each pair.

Butorides virescens/ *B. striatus*; *Sarkidiornis sylvicola*/ *S. melanotos*; *Anas carolinensis*/ *A. crecca*; *Elanus leucurus*/ *E. caeruleus*; *Geranospiza nigra*/ *G. caeruleus*; *Polyborus cheriway*/ *Polyborus plancus*; *Leptotila rufaxilla*/ *L. plumbeiceps*; *Aratinga astec*/ *A. nana*; *Dendrocopos arizonae*/ *Picoides stricklandi*; *Piculus colopterus* and *P. simplex*/ *P. leucolaemus*; *Acrochordopus zeledoni*/ *Phyllomyias burmeisteri*; *Sublegatus arenarum*/ *S. modestus*; *Onychorhynchus mexicanus*/ *O. coronatus*; *Cettia cantans*/ *C. diphone*; *Rhamphocelus rufiventris*/ *R. melanura*; *Geothlypis chiriquensis*/ *G. aequinoctialis*; *Coereba bahamensis*/ *C. flaveola*; *Rhamphocelus icteronotus*/ *R. flammigerus*; *Oryzoborus nuttalli*/ *O. maximiliani*; [*Leucosticte* 3 spp.]/ *L. arctoa*.

APPENDIX 5. Species that disappeared altogether from A.O.U. 1983 because of species-level lumping. This list was generated by checking the nomenclature of A.O.U. 1957 against that of A.O.U. 1983. The "lumped" species is first in each pair.

Puffinus auricularis/ *P. puffinus*; *Ardea occidentalis*/ *A. herodias*; *Branta nigricans*/ *B. bernicla*; *Chen caerulescens*/ *C. hyperborea*; *Anas diazi*/ *A. platyrhynchos*; *Melanitta deglandi*/ *M. fusca*; *Chondestes wilsoni*/ *C. uncinatus*; *Accipiter chionogaster*/ *A. striatus*; *Buteo harlani*/ *B. jamaicensis*; *Polyborus lutosus*/ *P. plancus*; *Colinus leucopogon*/ *C. cristatus*; *Columba chiriquensis*/ *C. ugrivostis*; *Leptotila wellsii*/ *L. rufaxilla*; *Otus vinaceus*/ *O. kennicottii*; *Chaetura richmondi*/ *C. vauxii*; *Anhinga herodias*/ *A. precastii*; *Thalassidroma janneyi*/ *T. colombica*; *Chalybura melanorhoa*/ *C. urochrysis*; *Lampornis cinereicauda*/ *L. castaneiventris*; *Selasphorus torridus* and *S. simoni*/ *S. flammula*; *Aulacorhynchus caeruleogularis*/ *A. prasinus*; *Rhamphastos ambiguus*/ *R. swainsonii*; *Piculus aeruginosus*/ *P. rubiginosus*; *Colaptes cafer* and *C. chrysoides*/ *C. auratus*; *Xiphorhynchus striatigularis*/ *X. flavigaster*; *Manacus aurtibianus* and *M. cerritus*/ *M. vitellinus*; *Psittorhinus mexicanus*/ *Cyanocorax morio*; *Parus atricristatus*/ *P. bicolor*; *Troglodytes brunneicollis* and *T. musculus*/ *T. aedon*; *Thryothorus zeledoni*/ *T. modestus*; *Thryothorus castaneus*/ *T. ugricapillus*; *Thryothorus albinucha*/ *T. ludovicianus*; *Thryothorus maculipe-*

lus/ *T. rutilus*; *Mimus magnirostris*/ *M. gilvus*; *Turdus confinis*/ *T. migratorius*; *Vireo flavoviridis*/ *V. olivaceus*; *Vireo perquisitor*/ *V. griseus*; *Hylophilus minor*/ *H. decurtatus*; *Parula graysoni*/ *P. pitayumi*; *Dendroica auduboni*/ *D. coronata*; *Geothlypis chapalensis*/ *G. trichas*; *Granatellus francescae*/ *G. venustus*; *Basileuterus delatrii*/ *B. rufifrons*; *Tanagra godmani*/ *Euphonia affinis*; *Chlorospingus zeledoni*/ *C. pileatus*; *Icterus fuertesi*/ *I. spurius*; *Icterus prothemelus*/ *I. dominicensis*; *Icterus graysonii* and *I. sclateri*/ *I. pustulatus*; *Icterus bullockii*/ *I. galbula*; *Carpodacus mcgregori* and *C. amplus*/ *C. mexicanus*; *Leucosticte tephrocotis*, *L. atrata*, and *L. australis*/ *L. arctoa*; *Ammaospiza relicta*/ *A. concolor*; *Atlapetes apertus*/ *A. brunneinucha*; *Atlapetes assimilis*/ *A. atricapillus*; *Pipilo macronyx* and *P. maculatus*/ *P. erythrophthalmus*; *Aimophila petenica*/ *A. bolteri*; *Passerculus princeps*/ *P. sandwicensis*; *Ammaospiza nigrescens* and *A. mirabilis*/ *A. maritima*; *Junco aikeni*, *J. oreganus*, and *J. caniceps*/ *J. hyemalis*; *Junco bairdi*/ *J. phaeonotus*.

APPENDIX 6. Names in A.O.U. 1983 that were changed for nomenclatural reasons.

Muscivora tyrannus to *Tyrannus savana*
Passerculus candacutus to *Ammodramus lecontei*
Hemignathus wilsoni to *H. munroi*
Fulmarus antarcticus to *F. glacialis*
Corvus tropicus to *C. havaiensis*
Amazilia verticalis to *A. violiceps*
Tangara guttata to *T. chrysophrys*
Psomocolax to *Scaphidura*
Falco albicularis to *F. ruficularis*
Plautus to *Alle*
Turdus musicus to *T. iliacus*
Tanagra euphonia (12 binomina affected)
Tanagra laeta to *Euphonia hirundinacea*
Caracara to *Polyborus*
Podiceps caspicus to *P. nigricollis*
Capella to *Gallinago*
Richmondia to *Cardinalis*

APPENDIX 7. Genera recognized in A.O.U. 1931 that do not appear in A.O.U. 1957 or in A.O.U. 1983.

Colymbus, *Thalassogeron*, *Thyelodroma*, *Guara*, *Sihenelides*, *Eunetta*, *Nettion*, *Querquedula*, *Nyroca*, *Glaucionetta*, *Charitonetta*, *Arctonetta*, *Eristomata*, *Nomonyx*, *Astur*, *Asturina*, *Urubitinga*, *Thalassoaetus*, *Ionornis*, *Pegolla*, *Oxyechus*, *Phaeopus*, *Rhyacophilus*, *Arquatella*, *Pisobia*, *Pelidna*, *Spilopelia*, *Melopelia*, *Oreopelia*, *Micropallas*, *Scotiaptex*, *Cryptoglaux*, *Anisotomus*, *Nephoceles*, *Micropus*, *Cephalocercus*, *Balanosphyra*, *Dryobates*, *Myiochanes*, *Otocoris*, *Chelidonaria*, *Xanthoura*, *Cyanocephalus*, *Penthestes*, *Baeolophus*, *Nannus*, *Helodytes*, *Arceuthornis*, *Cyanosylvia*, *Calliope*, *Acanthopneuste*, *Corthylia*, *Aethiopsar*, *Compsothlypis*, *Hedymeles*, *Oberholseria*.