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THE REVISED CLASSIFICATION FOR THE FOURTH EDITION OF THE A. O. U. CHECK-LIST

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WHEN a new committee, with Dr. Witmer Stone as Chairman, was appointed subsequent to the Pittsburgh meeting to continue the work of preparation of a fourth edition of the Check-List, the present writers were delegated to draft a revised classification in accordance with present day ideas. The labors of the subcommittee entrusted with this task are now complete, and it has seemed proper to offer a draft of the arrangement as far as sub-families that it may be available in advance to those interested.

In introduction it may be said that before the first edition of the A. O. U. 'Check-List' was issued in 1886 three individual lists that summarized the bird life of the area that we assume to be North American had been in current use. Baird in 1858 published such a list in quarto form, following it with an octavo edition in more convenient size in 1859. Coues published a check-list in 1873 as a synopsis of his 'Key to North American Birds', and issued a revised edition in 1882 to bring the matter down to date. In the meanwhile Ridgway in 1881 had issued a 'Nomenclature of North American Birds'.

As both Coues and Ridgway were members of the committee of five appointed at the first congress of the American Ornithologists' Union to revise the classification and nomenclature of the birds of North America it followed that their ideas were instrumental in molding the form of the new work. The committee, until the last moment, was unable to agree on the classification to be used and finally referred the entire question to Dr. L. Stejneger, serving with the committee by invitation, with instructions to follow the Coues-Ridgway arrangement where the two were agreed, and in other cases to use his judgment as to proper procedure. As through extensive studies his views were already crystallized he was able to complete the work in a single night.

Lists published prior to 1886 had begun with what was considered the highest group, and had continued down the line to end with those considered the lowest. The arrangement adopted in the work published in 1886 reversed this order so that the list began with the Grebes as lowest in rank of the families found on this continent and ended with the Thrushes which were held as the highest.

This first edition of the 'Check-List' at once was adopted as the universal standard for this country. Immediately following its appearance came the work of Fuerbringer, in 1888, that of Sharpe in 1891, and that of Gadow in 1893, the first and last based upon profound anatomical studies that revealed relationships hitherto unsuspected which indicated radical changes in existing systems of classification.

When the second edition of the A. O. U. 'Check-List' was prepared in 1895, the changes proposed by the authors mentioned were still too new to have been universally accepted, and no shift was made in the general arrangement. The matter was again considered in 1910, when Mr. Ridgway and Dr. Stejneger were asked to draft a new outline. At the last moment, however, the committee, mainly at the instance of Mr. William Brewster, decided to follow the old order on the grounds that proposed schemes differed widely indicating variance of opinion, and that a shift from the old order would cause confusion in the minds of those familiar with the arrangement in previous editions. An abstract of Gadow's arrangement, with the A. O. U. equivalents in brackets, was, however, given in the preface.

The arrangement of the 'Check-List' has been followed consistently in 'The Auk,' 'The Condor,' and the many popular works on ornithology that have appeared in recent years. At the same time standard technical works, such as Mr. Ridgway's 'Birds of North and Middle America,' have used a modern scheme so that confusion has resulted. As relationships indicated in the old list are in a number of cases wholly erroneous it has perpetuated false ideas from generation to generation, obviously improper procedure. Change in the present accepted order will no doubt occasion complaint but if we are to advance in our science we must assimilate modern ideas, otherwise our mechanism will assume the general utility of a stage coach in a time of automobiles and airships.

In preparing a revised classification we have taken Gadow's work as a basis and have incorporated in it various changes that

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have been made by later workers. In general we have accepted changes from the present order only when they appear to us definitely established on proper grounds. When doubt seems to attach to any suggestion we have followed the older classification. Our aim has been, so far as possible, to present established modern views in a conservative manner. In the few instances where we have not been in absolute agreement as to procedure the matters under dispute have been referred for decision to Dr. Stone as chairman of the committee as a whole.

In summary we propose to group North American birds in twenty orders, as against the seventeen found in previous editions of the 'Check-List.' The sequence followed is one that seems best to illustrate the advance of the different groups from an evolutionary standpoint with due reference to specialization and adaptation for peculiar modes of life.

In studying the present arrangement it must be borne in mind always that the different groups do not represent milestones along a direct road leading from highest to lowest, but that they are the modern terminals of diverging lines of evolution connected by common ancestors in a past more or less remote. It is not difficult to place them on a plane surface where their relationship to one another may be presented in terms of two dimensions, but it is another thing entirely to range them in a single line. For the last there must be careful weighing of characters to determine those of basic value and an allocation of rank that will not clash with facts. The problems involved are often difficult and in some cases can only be settled arbitrarily.

As a final word, those who maintain collections of eggs, identity of which is based on the present A. O. U. number pencilled on each specimen, will no doubt feel a rising antagonism against the proposed drastic changes on the ground of confusion that seems imminent if under the new arrangement new numbers are assigned to all our birds. Under the present plans of the Committee such confusion will be obviated as in the new edition of the 'Check-List' it is expected that each species will bear the same number as now assigned to it, placed in brackets as at present, and no other. An appendix will include a concordance where the list will be ranged in numerical order as formerly. This will be so arranged as to serve as an index to the position of each of the species in the present work. The old numbers will thus remain in force.

The magnitude of the task of assembling such a classification as is here given will be readily comprehended when it is remembered that it has necessitated consideration of all groups of birds, living and fossil, at present known, since our native species must be viewed on a comparative basis with the avifauna of the entire world.

In the list that follows fossil groups are omitted. Those extralimital to the A. O. U. list as at present constituted are given in brackets.

Class **AVES**

Subclass **NEORNITHES**

[Superorder PALAEOGNATHAE]

[Order Struthioniformes. Ostriches]

[Order Rheiformes. Rheas]

[Order Casuariiformes. Cassowaries]

[Order Apterygiformes. Apteryxes]

[Order Tinamiformes. Tinamous]

Superorder **NEOGNATHAE**

[Order Sphenisciformes. Penguins]

Order Gaviiformes. Loons

Family Gaviidae

Order **Colymbiformes**. Grebes Family Colymbidae

Order Procellariiformes. Tube-nosed Swimmers

Family Diomedeidae. Albatrosses

Family Hydrobatidae. Fulmars, Shearwaters and Petrels

Subfamily Puffininae

Subfamily Hydrobatinae

Family Oceanitidae. Long-legged Storm Petrels

Order Pelecaniformes. Totipalmate Swimmers

Suborder Phaëthontes

Family Phaëthontidae. Tropic-birds

Suborder Pelecani

Superfamily Pelecanides

Family Pelecanidae. Pelicans

Superfamily Sulides Family Sulidae. Gannets and Boobies Family Phalacrocoracidae. Cormorants Family Anhingidae. Darters Suborder Fregatae Family Fregatidae. Man-o'-war-birds Order Ciconiiformes. Herons, Storks, Ibises, etc. Suborder Ardeae Family Ardeidae. Herons and Bitterns Subfamily Ardeinae Subfamily Botaurinae Suborder Ciconiae Superfamily Ciconiides Family Ciconiidae. Storks and Wood Ibises Subfamily Ciconiinae Subfamily Mycteriinae Superfamily Threskiornithides Family Threskiornithidae. **Ibises and Spoonbills** Subfamily Threskiornithinae Subfamily Plataleinae Suborder Phoenicopteri Family Phoenicopteridae. Flamingoes Order Anseriformes. Screamers, Ducks, etc. Suborder Anhimae. Screamers] Suborder Anseres. Ducks, Geese and Swans Family Anatidae Subfamily Cygninae Subfamily Anserinae Subfamily Dendrocygninae Subfamily Anatinae Subfamily Fuligulinae Subfamily Erismaturinae Subfamily Merginae Order Falconiformes. Vultures, Hawks and Eagles, etc. Suborder Cathartae. American Vultures Family Cathartidae Suborder Falconi. Falcons, Hawks, Eagles, etc.

Superfamily Falconides

Family Accipitridae. Hawks, Eagles, etc. Subfamily Elaninae Subfamily Perninae Subfamily Milvinae Subfamily Accipitrinae Subfamily Buteoninae Subfamily Circinae Subfamily Pandioninae Family Falconidae. Falcons, Caracaras, etc. Subfamily Polyborinae Subfamily Falconinae Order Galliformes. Gallinaceous Birds Suborder Galli Superfamily Cracides. Curassows, Chachalacas, etc. Family Cracidae Subfamily Penelopinae Superfamily Phasianides. Pheasants, Grouse, Quails, etc. Family Tetraonidae. Grouse, etc. Family Perdicidae. Quails Subfamily Perdicinae Subfamily Odontophorinae Family Phasianidae. Pheasants Family Meleagridae. Turkeys [Suborder Opisthocomi. Hoatzins] Order Megalornithiformes. Cranes, Rails, etc. Suborder Mesoenatides. Mesites Suborder Turnices. Hemipodesl Suborder Megalornithes. Cranes, Rails, etc. Superfamily Megalornithides Family Megalornithidae. Cranes. Subfamily Megalornithinae Family Aramidae. Courlans Superfamily Rallides Family Rallidae. Rails, Coots and Gallinules Subfamily Rallinae Subfamily Gallinulinae

Subfamily Fulicinae

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[Suborder Heliornithes, Finfoots]

[Suborder Eurypygae. Sun Bitterns]

[Suborder Cariamae. Seriemas]

[Suborder Otides, Bustards]

Order Charadriiformes. Shore-birds, Gulls, Auks, etc. Suborder Charadrii

Superfamily Jacanides

Family Jacanidae. Jacanas

Superfamily Charadriides

Family Haematopodidae. Oystercatchers

Family Charadriidae. Plovers, Turnstones, etc.

Subfamily Vanellinae

Subfamily Charadriinae

Subfamily Aphrizinae

Subfamily Arenariinae

Family Scolopacidae. Snipes, Sandpipers, etc. Subfamily Scolopacinae

Subfamily Numeniinae

Subfamily Canutinae

Family Recurvirostridae. Avocets

Family Phalaropodidae. Phalaropes

Suborder Lari

Family Stercorariidae. Skuas and Jaegers

Family Laridae. Gulls and Terns

Subfamily Larinae

Subfamily Sterninae

Family Rynchopidae. Skimmers

Suborder Alcae

Family Alcidae. Auks, Murres, etc.

Subfamily Plautinae

Subfamily Alcinae

Subfamily Fraterculinae

Order Columbiformes. Pigeons, Doves, etc.

[Suborder Pterocletes. Sand Grouse]

[Suborder Columbae]

Superfamily Columbides

Family Columbidae. Pigeons and Doves Order **Psittaciformes**. Parrots, Macaws, etc.

[Auk July

Family Psittacidae. Subfamily Arinae Order Cuculiformes. Cuckoos, etc. [Suborder Musophagi. Plantain-eaters] Suborder Cuculi Family Cuculidae. Cuckoos, Anis, etc. Subfamily Cuculinae Subfamily Neomorphinae Subfamily Crotophaginae Order Strigiformes. Owls Family Tytonidae. Barn Owls Family Strigidae. Horned Owls, etc. Order Caprimulgiformes. Goatsuckers, etc. [Suborder Steatornithes. Oilbirds] Suborder Caprimulgi Family Caprimulgidae. Whippoorwills, Nighthawks, etc. Subfamily Caprimulginae Subfamily Chordeilinae Order Micropodiiformes. Swifts and Hummingbirds Suborder Micropodii Family Micropodidae. Swifts Subfamily Chaeturinae Subfamily Micropodinae Suborder Trochili Family Trochilidae. Hummingbirds Subfamily Trochilinae [Order Coliiformes. Colies] Order Trogoniformes. Trogons Family Trogonidae. Order Coraciiformes. King[†]shers, Rollers and Hornbills Suborder Alcedines Superfamily Alcedinides Family Alcedinidae. Kingfishers Subfamily Cerylinae [Suborder Coracii. Rollers] [Suborder Bucerotes, Hornbills] Order Piciformes. Woodpeckers and Jacamars

[Suborder Galbulae. Jacamars] Suborder Pici Family Picidae. Woodpeckers Subfamily Picinae Order Passeriformes. Perching Birds [Suborder Eurylaemi Broadbills] Suborder Tyranni Family Cotingidae. Cotingas Family Tyrannidae. Tyrant Flycatchers [Suborder Menurae. Lyre Birds] Suborder Oscines Family Alaudidae. Larks Family Hirundinidae. Swallows Family Corvidae. Crows and Javs Subfamily Garrulinae Subfamily Corvinae Family Paridae. Titmice Subfamily Parinae Subfamily Remizinae Subfamily Psaltriparinae Family Sittidae. Nuthatches Subfamily Sittinae Family Certhiidae. Creepers Subfamily Certhiinae Family Chamaeidae. Wren-Tits Family Cinclidae. Dippers Family Troglodytidae. Wrens Family Mimidae. Thrashers, Mockingbirds, etc. Family Turdidae. Thrushes, Bluebirds, etc. Family Sylviidae. Warblers, Kinglets and Gnatcatchers Subfamily Sylviinae Subfamily Polioptilinae Subfamily Regulinae Family Motacillidae. Pipits and Wagtails Family Bombycillidae. Waxwings Family Ptilogonatidae. Silky Flycatchers

Family Laniidae. Shrikes

Subfamily Laniinae

Family Sturnidae. Starlings

Family Vireonidae. Vireos

Subfamily Vireoninae

Family Coerebidae. Honey Creepers Subfamily Coerebinae

Family Mniotiltidae. Wood Warblers

Family Icteridae. Blackbirds, Orioles, etc.

Family Thraupidae. Tanagers

Subfamily Thraupinae

Family Fringillidae. Finches, Sparrows, etc. Subfamily Richmondeninae

Subfamily Passerinae

Subfamily Fringillinae

Subfamily Carduelinae

Subfamily Emberizinae