A SYSTEMATIC CLASSIFICATION FOR THE BIRDS OF THE WORLD

BY
ALEXANDER WETMORE
Assistant Secretary, Smithsonian Institution

(Publication 3592)

CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
OCTOBER 10, 1940
A SYSTEMATIC CLASSIFICATION FOR THE BIRDS OF THE WORLD

BY

ALEXANDER WETMORE
Assistant Secretary, Smithsonian Institution

(PUBLICATION 3592)
A SYSTEMATIC CLASSIFICATION FOR THE BIRDS OF THE WORLD

BY ALEXANDER WETMORE
Assistant Secretary, Smithsonian Institution

The steady demand for a systematic arrangement for the birds of the world has exhausted the edition of the revision issued in 1934 so that the classification is reprinted herewith, with relatively few changes based on subsequent findings.

The order Caenagnathiformes, family Caenagnathidae, has been included as a new group under the superorder Palaeognathae. Caenagnathus collinsi, the species on which this proposal is based, is known from a nearly complete mandible described in 1940 by Raymond M. Sternberg, from the Upper Cretaceous of Alberta, Canada. It is not absolutely certain that this is avian, but it is accepted as a bird pending further information.

A separate family, the Baptornithidae, has been listed for the Upper Cretaceous Baptornis adventus, since on a review of what is known this seems warranted. Apatornis celer also is placed in a distinct family, the Apatornithidae.

Another fossil family, the Paranyrocidae, has been included for a curious fossil Anseriform described by A. H. Miller and L. V. Compton from the Rosebud formation of the Lower Miocene of South Dakota.

The fish-hawks, or ospreys, are given under a separate family, the Pandionidae, placed in the superfamily Falconoidea. The peculiarities of the ospreys, long recognized, have been established definitely through recent researches by L. V. Compton, who has in fact proposed to transfer Pandion to the suborder Cathartae. The present writer feels, however, that such action is not warranted under present information, as he considers the resemblances to the New World vultures alleged to be due more probably to convergence than to actual genetic relationship. The Cathartae seem to stand quite alone.

During the preparation of volume 3 of J. L. Peters' Check-list of Birds of the World (published in 1937) Mr. Peters and I considered

---

again the characters of the various groups of parrotlike species with
the result that it did not seem possible to give the lories more than
subfamily rank. This extends the limits of the family Psittacidae to
coincide with those of the order.

The only other changes are the use of Acanthisittidae for Xenicidae,
and of Tersinidae for Procniaatidae, because of current nomenclatural
decisions.

It may be repeated that arrangement of the various passeriform
families in linear sequence, particularly in the suborder Passeres, or
song birds, is a matter of difficulty, since the problem is one of three-
dimensional relationship that must be represented in a single column.
Obviously, the treatment in some instances must be arbitrary and
subject therefore to individual opinion. Without going too deeply
into the matter, it has been suggested that such specialized families
of the fringilline series as the Coerebidae and Icteridae should come
at the end of the list in place of the Fringillidae. In considering the
evolution of this assemblage, it appears to me that the more specialized
families have been derived by modification from the Fringillidae, while
the latter family has retained and carried along more general char-
acters from which further specialization may take place, if with
civilized man's disturbance of natural conditions on our earth con-
tinuation of evolution among birds is possible. The Coerebidae and
Icteridae, to take these as examples, are specialized branches that are
assumed now to be more or less static and fixed and therefore should
stand at the side. The Fringillidae, representing the central group
through which further progress may be expected, should be placed
as the terminus of the central stem at the end.
Class Aves, Birds.

Subclass Archaeornithes, Ancestral Birds.
   Order Archaeopterygiformes, *Archaeopteryx, Archaeornis*.

Subclass Neornithes, True Birds.

Superorder Odontognathae, New World Toothed Birds.
   Order Hesperornithiformes, Hesperornithes.
   Order Ichthyornithiformes, Ichthyornithes.
      Apatornithidae, *Apatornis*.

Superorder Palaeognathae, Struthious Birds and Allies.
   Order Caenagnathiformes, Caenagnathus.
      Family Caenagnathidae, *Caenagnathus* (fossil).
   Order Struthioniformes, Ostriches.
      Family Struthionidae, Ostriches.
   Order Ratiteformes, Rheas.
      Family Rheidae, Rheas.
   Order Casuariiformes, Cassowaries, Emus.
      Family Casuariidae, Cassowaries.
         Dromiceidae, Emus.
         Dromornithidae, *Dromornis* (fossil).
   Order Dinornithiformes, Moas.
      Family Dinornithidae, Moas (fossil and extinct).
   Order Aepyornithiformes, Elephant-birds.
   Order Apterygiformes, Kiwis.
      Family Apterygidae, Kiwis.
   Order Tinamiformes, Tinamous.
      Family Tinamidae, Tinamous.

---

2 Position provisional. Lambrecht, Handbuch der Palaeornithologie, 1933, pp. 255-261, unites the Baptornithidae with this group, which he considers closely related to the loons and grebes.

* This interesting genus is listed tentatively in the above superorder since its affinities are not as yet fully known.
Superorder Impennes, Penguins.
  Order Sphenisciformes, Penguins.
    Family Spheniscidae, Penguins.
      Cladornithidae, *Cladornis* (fossil).
Superorder Neognathae, Typical Birds.
  Order Gaviiformes, Loons.
    Family Gaviidae, Loons.
  Order Columbiformes, Grebes.
    Family Columbidae, Grebes.
  Order Procellariiformes, Albatrosses, Shearwaters, Petrels, and Allies.
    Family Diomedeidae, Albatrosses.
      Procellariidae, Shearwaters, Fulmars.
      Hydrobatidae, Storm Petrels.
      Pelecanoididae, Diving Petrels.
  Order Pelecaniformes, Tropic-birds, Pelicans, Frigate-birds, and Allies.
    Suborder Phaethontes, Tropic-birds.
      Family Phaethontidae, Tropic-birds.
    Suborder Pelecani, Pelicans, Boobies, Cormorants, Snake-birds.
    Superfamily Pelecanoidea, Pelicans and Allies.
      Family Pelecanidae, Pelicans.
        Cyphornithidae, *Cyphornis, Palaeochenöides* (fossil).
    Superfamily Suloidae, Boobies, Cormorants, and Allies.
      Family Pelagornithidae, *Pelagornis* (fossil).
      Sulidae, Boobies, Gannets.
      Phalacrocoracidae, Cormorants.
      Anhingidae, Snake-birds.
    Suborder Fregatae, Frigate-birds.
      Family Fregatidae, Frigate-birds.
    Suborder Odontopteryges, *Odontopteryx, Pseudodontornis* (fossil).
      Family Odontopterygidae, *Odontopteryx* (fossil).

* Position not certain; see Lambrecht, Handbuch der Palaeornithologie, 1933, pp. 305-308.
Order Ciconiiformes, Herons, Storks, and Allies.
   Suborder Ardeae, Herons, Bitterns.
      Family Ardeidae, Herons, Bitterns.
         Cochleariidae, Boat-billed Herons.
   Suborder Balaenicipites, Whale-headed Storks.
      Family Balaenicipitidae, Whale-headed Storks.
   Suborder Ciconiæ, Storks, Ibises, Spoonbills.
      Superfamily Scopoidea, Hammerheads.
         Family Scopidae, Hammerheads.
      Superfamily Ciconioida, Storks.
         Family Ciconiidae, Storks, Jabirus.
      Superfamily Threskiornithoidea, Ibises.
         Family Threskiornithidae, Ibises, Spoonbills.
   Suborder Phoenicopterii, Flamingos.
      Family Agnopteridae, Agnopterus (fossil).
         Scaniornithidae, Scaniornis, Parascaniornis (fossil).
      Phoenicopteridae, Flamingos.
Order Anseriformes, Screamers, Ducks, Geese, Swans.
   Suborder Anhimæ, Screamers.
      Family Anhimidae, Screamers.
   Suborder Anseres, Ducks, Geese, Swans.
      Family Paranyrociæ, Paranyroca (fossil).
         Anatidae, Ducks, Geese, Swans.
Order Falconiformes, Vultures, Hawks, Falcons.
   Suborder Cathartæ, New World Vultures.
      Family Cathartidae, New World Vultures.
         Teratornithidae, Teratornis, Cathartornis (fossil).
   Suborder Falcones, Secretary-birds, Hawks, Falcons.
      Superfamily Sagittarioidea, Secretary-birds.
         Family Sagittariidae, Secretary-birds.
      Superfamily Falconoidea, Hawks, Falcons, and Allies.
         Family Accipitridae, Hawks, Old World Vultures, Harriers.
            Pandionidae, Ospreys.
            Falconidae, Falcons, Caracaras.
Order Galliformes, Megapodes, Curassows, Pheasants, Hoatzins.
   Suborder Galli, Megapodes, Curassows, Grouse, Pheasants.
      Superfamily Cracoidæ, Megapodes, Curassows.
         Family Megapodiidae, Megapodes.
            Gallinuloididae, Gallinuloides (fossil).
            Cracidae, Curassows, Guans, Chachalacas.
Superfamily Phasianoidea, Grouse, Pheasants, Turkeys.
   Family Tetraonidae, Grouse.
   Phasianidae, Quails, Pheasants, Peacocks.
   Numididae, Guinea-fowl.
   Meleagrididae, Turkeys.
Suborder Opisthocoeni, Hoatzins.
   Family Opisthocomidae, Hoatzins.
Order Gruiformes, Cranes, Rails, and Allies.
Suborder Mesoenatides, Roatels, Monias.
   Family Mesoenatidae, Roatels, Monias.
Suborder Turnices, Bustard-quails, Hemipodes.
   Family Turnicidae, Bustard-quails.
   Pedionomidae, Collared Hemipodes.
Suborder Grues, Cranes, Limpkins, Trumpeters, Rails.
Superfamily Gruoidea, Cranes, Limpkins, Trumpeters.
   Family Geranoididae, Geranoidae (fossil).
   Eogruidae, Eogrus (fossil).
   Gruidae, Cranes.
   Aramidae, Limpkins.
   Psophiidae, Trumpeters.
Superfamily Ralloidea, Rails.
   Family Orthocnemidae, Orthocnemus, Elaphrocnemus (fossil).
   Rallidae, Rails, Coots, Gallinules.
Suborder Heliornithes, Sun-grebes.
   Family Heliornithidae, Sun-grebes.
Suborder Rhynocheti, Kagus.
   Family Rhynochetidae, Kagus.
Suborder Eurypygae, Sun-bitterns.
   Family Eurypygidae, Sun-bitterns.
Suborder Phororhaci, Phororhacos and Allies.
   Family Phororhacidae, Phororhacos, Pelecyornis, and Allies (fossil).
   Brontornithidae, Brontornis, Liornis, and Allies (fossil).
   Opisthodactylidae, Opisthodactylus (fossil).

* Includes the quails, formerly recognized as the family Perdicidae.
Suborder Cariamae, Cariamas and Allies.
  Family Bathornithidae, Bathornis (fossil).
    Hermosiorhithidae, Hermosiornis, Procariana (fossil).
    Cariamidae, Cariamas.

Suborder Otides, Bustards.
  Family Otididae, Bustards.

Order Diatrymiformes, Diatryma, Omorhamphus, and Allies.
  Family Diatrymidae, Diatryma (fossil).
    Gastornithidae, Gastornis, Remiornis (fossil).

Order Charadriiformes, Shore-birds, Gulls, Auks.
  Suborder Charadrii, Shore-birds.
    Superfamily Jacanoidea, Jaçanas.
      Family Jacanidae, Jaçanas.
    Superfamily Charadriioidea, Plovers, Sandpipers, and Allies.
      Family Rostratulidae, Painted Snipe.
        Haematopodidae, Oyster-catchers.
        Charadriidae, Plovers, Turnstones, Surf-birds.
        Scolopacidae, Snipe, Woodcock, Sandpipers.
        Recurvirostridae, Avocets, Stilts.
        Presbyornithidae, Presbyornis (fossil).
        Phalaropodidae, Phalaropes.
    Superfamily Dromadoidea, Crab-plovers.
      Family Dromadidae, Crab-plovers.
    Superfamily Burhinoidea, Thick-knees.
      Family Burhinidae, Thick-knees.
    Superfamily Glareoloidea, Pratincoles, Coursers.
      Family Glareolidae, Pratincoles, Coursers.
    Superfamily Thinocoroidea, Seed-snipe.
      Family Thinocoridae, Seed-snipe.
    Superfamily Chionoidea, Sheath-bills.
      Family Chionidae, Sheath-bills.

Suborder Lari, Gulls, Terns, Skimmers.
  Family Stercorariidae, Skuas, Jaegers.
    Laridae, Gulls, Terns.
    Rynchopidae, Skimmers.

Suborder Alcae, Auks.
  Family Alcidae, Auks, Auklets, Murrels.

Order Columbiformes, Sand-grouse, Pigeons, Doves.
  Suborder Pterocebites, Sand-grouse.
    Family Pteroclidae, Sand-grouse.
Suborder Columbae, Pigeons and Doves.
Family Raphidae, Dodos, Solitaires.
Columbidae, Pigeons, Doves.

Order Psittaciformes, Lories, Parrots, Macaws.
Family Psittacidae, Lories, Parrots, Macaws.

Order Cuculiformes, Plantain-eaters, Cuckoos.
Suborder Musophagi, Plantain-eaters.
Family Musophagidae, Plantain-eaters.
Suborder Cuculi, Cuckoos, Roadrunners, Anis.
Family Cuculidae, Cuckoos, Roadrunners, Anis.

Order Strigiformes, Owls.
Family Protostrigidae, Protostrix (fossil).
Tytonidae, Barn-owls.
Strigidae, Owls.

Order Caprimulgiformes, Oil-birds, Goatsuckers.
Suborder Steatornithes, Oil-birds.
Family Steatornithidae, Oil-birds.
Suborder Caprimulgi, Frogmouths, Goatsuckers.
Family Podargidae, Frogmouths.
Nyctibiidae, Potoos.
Aegothelidae, Owlet-frogmouths.
Caprimulgidae, Goatsuckers.

Order Micropodiformes, Swifts, Hummingbirds.
Suborder Micropodi, Swifts.
Family Aegialornithidae, Aegialornis (fossil).
Micropodidae, Swifts.
Hemiprocnidae, Crested Swifts.

Suborder Trochili, Hummingbirds.
Family Trochilidae, Hummingbirds.

Order Coliiformes, Colies.
Family Coliidae, Colies.

Order Trogoniformes, Trogons.
Family Trogonidae, Trogons.

Order Coraciiformes, Kingfishers, Bee-eaters, Rollers, Hornbills.
Suborder Alcedines, Kingfishers, Todies, Motmots.
Superfamily Alcedinoidea, Kingfishers.
Family Alcedinidae, Kingfishers.

Superfamily Todoidea, Todies.
Family Todidae, Todies.

\(^1\) Placed here provisionally. See Lambrecht, Handbuch der Palaeornithologie, 1933, pp. 623-624.
Superfamily Momotoidea, Motmots.
  Family Momotidae, Motmots.
Suborder Meropes, Bee-eaters.
  Family Meropidae, Bee-eaters.
Suborder Coracii, Rollers, Hoopoes.
  Family Coraciidae, Rollers.
     Leptosomatidae, Cuckoo-rollers and Ground-rollers.
     Upupidae, Hoopoes.
     Phoeniculidae, Wood-hoopoes.
Suborder Bucerotes, Hornbills.
  Family Bucerotidae, Hornbills.
Order Piciformes, Jacamars, Barbets, Toucans, Woodpeckers.
Suborder Galbulae, Jacamars, Barbets, Toucans.
  Superfamily Galbuluoidea, Jacamars, Puff-birds.
     Family Galbulidae, Jacamars.
      Buccoconidae, Puff-birds.
  Superfamily Capitonoidae, Barbets, Honey-guides.
     Family Capitonidae, Barbets.
      Indicatoridae, Honey-guides.
  Superfamily Ramphastoidae, Toucans.
     Family Ramphastidae, Toucans.
Suborder Pici, Woodpeckers.
  Family Picidae, Woodpeckers, Piculets.
Order Passeriformes, Perching Birds.
Suborder Eurylaimi, Broadbills.
  Family Eurylaimidae, Broadbills.
Suborder Tyranni, Ovenbirds, Tyrant Flycatchers, and Allies.
  Superfamily Furnarioidae, Ovenbirds, Wood-hewers, and Allies.
     Family Dendrocolaptidae, Wood-hewers.
      Furnariidae, Ovenbirds.
      Formicariidae, Ant-thrushes.
      Conopophagidae, Ant-pipits.
      Rhinocryptidae, Tapaculos.
  Superfamily Tyrannoidea, Tyrant Flycatchers, Pittas, and Allies.
     Family Cotingidae, Cotingas.
      Pipridae, Manakins.
      Tyrannidae, Tyrant Flycatchers.
      Oxyruncidae, Sharp-bills.
Phytotomidae, Plant-cutters.
Pittidae, Pittas.
Acanthisittidae, New Zealand Wrens.
Philepittidae, Asities.

Suborder Menurae, Lyre-birds.
Family Menuridae, Lyre-birds.

Atrichornithidae, Scrub-birds.

Suborder Passeres, Song Birds.
Family Alaudidae, Larks.
Hirundinidae, Swallows.
Campephagidae, Cuckoo-shrikes.
Dicruridae, Drongos.
Oriolidae, Old World Orioles.
Corvidae, Crows, Magpies, Jays.
Paradiseidae, Birds of Paradise.
Paradoxornithidae, Parrot-bills, Suthoras.
Paridae, Titmice.
Sittidae, Nuthatches.
Hyposittidae, Coral-billed Nuthatches.
Certhiidae, Creepers.
Chamaeidae, Wren-tits.
Timaliidae, Babbling Thrushes.\(^{10}\)
Pycnonotidae, Bulbuls.
Cinclidae, Dippers.
Troglodytidae, Wrens.
Mimidae, Thrashers, Mockingbirds.
Turdidae, Thrushes.\(^{11}\)
Zeledoniidae, Wren-thrushes.
Sylviidae, Old World Warblers.
Regulidae, Kinglets.
Muscicapidae, Old World Flycatchers.
Prunellidae, Accentors, Hedge-sparrows.
Motacillidae, Wagtails, Pipits.
Bombycillidae, Waxwings.
Ptilogonatidae, Silky Flycatchers.
Dulidae, Palm-chats.

\(^{8}\) Position not fully established.
\(^{9}\) Includes the bower-birds, sometimes recognized as the family Ptilinorhynchidae.
\(^{10}\) Frequently written *Timeliidae* but formed from the generic name *Timalia*.
\(^{11}\) Includes the group of fork-tails placed by some in the family Enicuridae.
Artamidae, Wood-swallows.
Vangidae, Vanga Shrikes.
Laniidae, Shrikes.
Prionopidae, Wood-shrikes.
Cyclarhidae, Pepper-shrikes.
Vireolaniidae, Shrike-vireos.
Sturnidae, Starlings.
Melithreptidae, Honey-eaters.
Nectariniidae, Sun-birds.
Dicaeidae, Flower-peckers.
Zosteropidae, White-eyes.
Vireonidae, Vireos.
Coerebidae, Honey-creepers.
Drepanididae, Hawaiian Honey-creepers.
Compsothlypidae, Wood Warblers.
Ploceidae, Weaver-finches.
Icteridae, Blackbirds, Troupials.
Tersinidae, Swallow-tanagers.
Thraupidae, Tanagers.
Catamblyrhynchidae, Plush-capped Finches.
Fringillidae, Grosbeaks, Finches, Buntings.

11 Includes the glossy starlings or Graculidae of various authors.