

A SYSTEMATIC CLASSIFICATION FOR THE BIRDS OF THE WORLD

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Since preparing a classification of North American birds¹ in collaboration with the late W. deW. Miller, of the American Museum of Natural History, for use in the fourth edition of the official Checklist of the American Ornithologists' Union, now in course of publication, the writer has continued investigations in this interesting subject, with the result that he here offers an arrangement of the known birds of the world, living and fossil, in accordance with his present understanding of their relationships. The work of Hans Gadow has been taken as a starting point, and such changes have been incorporated as seem justified from personal research or from the investigations of others. In general, only such variations from the current order have been accepted as seem to be firmly established. Where doubt seems to attach to any proposition, the older classification has been followed; so the following scheme presents a conservative arrangement so far as possible. The list is complete for all categories down to families. Attempt has been made to follow a definite terminology for the various groups, so that there may be no misunderstanding of their proper rank.

Class Aves.

Subclass Archaeornithes.

Order Archaeopterygiformes.

Family Archaeopterygidae, *Archaeopteryx*, *Archaeornis* (fossil).

Subclass Neornithes.

Superorder Odontognathae.

Order Hesperornithiformes.

Family Hesperornithidae, *Hesperornis*, *Hargeria* (fossil).

Baptornithidae, *Baptornis* (fossil).

Enaliornithidae,² *Enaliornis* (fossil).

Order Ichthyornithiformes.

Family Ichthyornithidae, *Ichthyornis* (fossil).

¹ See *Auk*, 1926, 337-346.

² Position provisional.

Superorder Palaegnathae.

Order Struthioniformes.

Family Struthionidae, Ostriches.

Order Rheiformes.

Family Rheidae, Rheas.

Order Casuariiformes.

Family Casuariidae, Cassowaries.

Dromiceiidae, Emus.

Dromornithidae, *Dromornis* (fossil).

Order Dinornithiformes.

Family Dinornithidae, Moas (extinct).

Order Æpyornithiformes.

Family Æpyornithidae, *Æpyornis* (extinct).

Order Apterygiformes.

Family Apterygidae, Kiwis.

Order Tinamiformes.

Family Tinamidae, Tinamous.

Superorder Neognathae.

Order Sphenisciformes.

Family Spheniscidae, Penguins.

Cladornithidae, *Cladornis* (fossil).

Order Gaviiformes.

Family Gaviidae, Loons.

Order Colymbiformes.

Family Colymbidae, Grebes.

Order Procellariiformes.

Family Diomedeidae, Albatrosses.

Procellariidae, Shearwaters, Fulmars.

Hydrobatidae, Small Petrels.

Pelecanoididae, Diving Petrels.

Order Pelecaniformes.

Suborder Phaëthontes.

Family Phaëthontidae, Tropic-birds.

Suborder Pelecani.

Superfamily Pelecanides.

Family Pelecanidae, Pelicans.

Cyphornithidae, *Cyphornis*, *Palaeochenoides*
(fossil).

Superfamily Sulides.

Family Pelagornithidae, *Pelagornis* (fossil).

Sulidae, Boobies, Gannets.

Phalacrocoracidae, Cormorants.

Anhingidae, Snake-birds.

Suborder Fregatae.

Family Fregatidae, Man-o'war Birds.

- Suborder Odontopteryges.
 - Family Odontopterygidae, *Odontopteryx* (fossil).
- Order Ciconiiformes.
 - Suborder Ardeae.
 - Family Ardeidae, Herons, Bitterns.
 - Cochleariidae, Boat-billed Herons.
 - Suborder Balaenicipites.
 - Family Balaenicipitidae, Shoe-bills.
 - Suborder Ciconiae.
 - Superfamily Scopides.
 - Family Scopidae, Hammerheads.
 - Superfamily Ciconiides.
 - Family Ciconiidae, Storks, Jabirus.
 - Superfamily Threskiornithides.
 - Family Threskiornithidae, Ibises, Spoonbills.
 - Suborder Phoenicopteriformes.
 - Family Phoenicopteridae, Flamingos.
- Order Anseriformes.
 - Suborder Anhimae.
 - Family Anhimidae, Screamers.
 - Suborder Anseres.
 - Family Anatidae, Ducks, Geese, Swans.
- Order Falconiformes.
 - Suborder Cathartae.
 - Family Cathartidae, New World Vultures.
 - Teratornithidae, *Teratornis* (fossil).
 - Suborder Falcones.
 - Family Sagittariidae, Secretary-birds.
 - Accipitridae, Hawks, Old World Vultures, Harriers, Ospreys.
 - Falconidae, Falcons, Caracaras.
- Order Galliformes.
 - Suborder Galli.
 - Superfamily Cracides.
 - Family Megapodidae, Megapodes.
 - Gallinuloididae, *Gallinuloides* (fossil).
 - Cracidae, Curassows, Guans, Chachalacas.
 - Superfamily Phasianides.
 - Family Tetraonidae, Grouse.
 - Perdidae, Quails.
 - Phasianidae, Pheasants, Peacocks.
 - Numididae, Guinea-fowl.
 - Meleagridae, Turkeys.
 - Suborder Opisthocomi.
 - Family Opisthocomidae, Hoatzins.

Order Gruiformes.

Suborder Mesoenatides.

Family Mesoenatidae, Roatelos, Monias.

Suborder Turnices.

Family Turnicidae, Bustard-Quails.

Pedionomidae, Collared Hemipodes.

Suborder Grues.

Superfamily Gruides.

Family Gruidae, Cranes.

Aramidae, Limpkins.

Psophiidae, Trumpeters.

Superfamily Rallides.

Family Rallidae, Rails, Coots, Gallinules.

Suborder Heliornithes.

Family Heliornithidae, Sun-Grebes.

Suborder Rhynocheti.

Family Rhynochetidae, Kagus.

Suborder Eurypygae.

Family Eurypygidae, Sun-Bitterns.

Suborder Phororhaci.

Family Phororhacidae, *Phororhacos* (fossil).

Suborder Cariamae.

Family Hermosiornidae, *Hermosiornis* (fossil).

Cariamidae, Cariamas.

Suborder Otides.

Family Otididae, Bustards.

Order Diatrymiformes.

Family Diatrymidae, *Diatryma* (fossil).

Order Charadriiformes.

Suborder Charadrii.

Superfamily Jacanides.

Family Jacanidae, Jacanas.

Superfamily Charadriides.

Family Haematopodidae, Oyster-catchers.

Charadriidae, Plovers, Turnstones, Surf-birds.

Scolopacidae, Snipe, Woodcock, Sandpipers.

Recurvirostridae, Avocets, Stilts.

Presbyornithidae, *Presbyornis* (fossil).

Phalaropodidae, Phalaropes.

Superfamily Dromades.

Family Dromadidae, Crab-plovers.

Superfamily CEdicnemides.

Family CEdicnemidae, Thick-knees.

- Superfamily Glareolides.
 - Family Glareolidae, Pratincoles, Coursers.
- Superfamily Thinocorides.
 - Family Thinocoridae, Seed-snipe.
- Superfamily Chionides.
 - Family Chionidae, Sheath-bills.
- Suborder Lari.
 - Family Stercorariidae, Skuas, Jaegers.
 - Laridae, Gulls, Terns.
 - Rynchopidae, Skimmers.
- Suborder Alcae.
 - Family Alcidae, Auks, Auklets, Murres.
- Order Columbiformes.
 - Suborder Pterocletes.
 - Family Pteroclididae, Sand-Grouse.
 - Suborder Columbae.
 - Family Raphidae, Dodos, Solitaires.
 - Columbidae, Pigeons, Doves.
- Order Cuculiformes.
 - Suborder Musophagi.
 - Family Musophagidae, Plaintain-eaters.
 - Suborder Cuculi.
 - Family Cuculidae, Cuckoos, Roadrunners, Anis.
- Order Psittaciformes.
 - Family Loriidae, Lories.
 - Psittacidae, Parrots, Macaws.
- Order Strigiformes.
 - Family Tytonidae, Barn-owls.
 - Strigidae, Owls.
- Order Caprimulgiformes.
 - Suborder Steatornithes.
 - Family Steatornithidae, Oil-birds.
 - Suborder Caprimulgi.
 - Family Podargidae, Frogmouths.
 - Nyctibiidae, Potoos.
 - Ægothelidae, Owlet-Frogmouths.
 - Caprimulgidae, Goatsuckers.
- Order Micropodiformes.
 - Suborder Micropodii.
 - Family Micropodidae, Swifts.
 - Macropterygidae, Crested Swifts.
 - Suborder Trochili.
 - Family Trochilidae, Hummingbirds.
- Order Coliiformes.
 - Family Coliidae, Colies.

- Order Trogoniformes.
 - Family Trogonidae, Trogons.
- Order Coraciiformes.
 - Suborder Alcedines.
 - Superfamily Alcedinides.
 - Family Alcedinidae, Kingfishers.
 - Superfamily Todides.
 - Family Todidae, Todies.
 - Superfamily Momotides.
 - Family Momotidae, Motomots.
 - Suborder Meropes.
 - Family Meropidae, Bee-eaters.
 - Suborder Coracii.
 - Family Coraciidae, Rollers.
 - Leptosomatidae, Ground-rollers.
 - Upupidae, Hoopoes.
 - Phoeniculidae, Wood-hoopoes.
 - Suborder Bucerotes.
 - Family Bucerotidae, Hornbills.
- Order Piciformes.
 - Suborder Galbulae.
 - Superfamily Galbulides.
 - Family Galbulidae, Jacamars.
 - Bucconidae, Puff-birds.
 - Superfamily Capitonides.
 - Family Capitonidae, Barbets.
 - Indicatoridae, Honey-guides.
 - Superfamily Rhamphastides.
 - Family Rhamphastidae, Toucans.
 - Suborder Pici.
 - Family Picidae, Woodpeckers, Piculets.
- Order Passeriformes.
 - Suborder Eurylaimi.
 - Family Eurylaimidae, Broadbills.
 - Suborder Tyranni.
 - Superfamily Furnariides.
 - Family Dendrocolaptidae, Wood-hewers.
 - Furnariidae, Ovenbirds.
 - Formicariidae, Ant-thrushes.
 - Conopophagidae, Ant-pipits.
 - Rhinocryptidae, Tapaculos.

Superfamily Tyrannides.

Family Cotingidae, Cotingas.

Pipridae, Manakins.

Tyrannidae, New World Flycatchers.

Oxyruncidae, Sharp-bills.

Phytotomidae, Plant-cutters.

Pittidae, Pittas.

Xenicidae, New Zealand Wrens.

Philepittidae, Asities.

Suborder Menuræ.

Family Menuridae, Lyre-birds.

Atrichornithidae, Scrub-birds.

Suborder Oscines.

Family Alaudidae, Larks.

Palaeospizidae, *Palaeospiza* (fossil).

Hirundinidae, Swallows.

Campephagidae, Cuckoo-shrikes.

Dicruridae, Drongos.

Oriolidae, Old World Orioles.

Corvidae, Crows, Magpies, Jays.

Ptilinorhynchidae, Bower-birds.

Paradiseidae, Birds of Paradise.

Paridae, Titmice.

Sittidae, Nuthatches.

Hyposittidae, Coral-billed Nuthatches.

Certhiidae, Creepers.

Chamaeidae, Wren-tits.

Timeliidae, Babbling Thrushes.

Pycnonotidae, Bulbuls.

Cinclidae, Dippers.

Troglodytidae, Wrens.

Mimidae, Thrashers, Mockingbirds.

Turdidae, Thrushes.

Zeledoniidae, Wren-thrushes.

Paramythiidae, *Paramythia*.

Sylviidae, Old World Warblers.

Regulidae, Kinglets.

Muscicapidae, Old World Flycatchers.

Motacillidae, Wagtails, Pipits.

Enicuridae, Fork-tails.

Bombycillidae, Waxwings.

Ptilonotidae, Silky Flycatchers.

Dulidae, Palm-chats.

Artamidae, Wood-swallows.

Family Vangidae, Vanga Shrikes.
Laniidae, Shrikes.
Prionopidae, Wood-shrikes.
Aërocharidae, Helmet-birds.
Cyclarhidae, Pepper-shrikes.
Vireolaniidae, Shrike-Vireos.
Sturnidae, Starlings.
Graculidae, Glossy Starlings.
Meliphagidae, Honey-eaters.
Nectariniidae, Sun-birds.
Dicaeidae, Flower-peckers.
Zosteropidae, White-eyes.
Vireonidae, Vireos.
Coerebidae, Honey-creepers.
Drepanididae, Hawaiian Honey-creepers.
Mniotiltidae, Wood Warblers.
Ploceidae, Weaver-finches.
Icteridae, Blackbirds, Troupials.
Procnatiidae, Swallow-Tanagers.
Thraupidae, Tanagers.
Catamblyrhynchidae, Plush-capped Finches.
Fringillidae, Grosbeaks, Finches, Buntings.

SUPPOSED FOSSIL FAMILIES OF UNCERTAIN SYSTEMATIC POSITION

Gastornithidae, *Gastornis*.
Opisthodactylidae, *Opisthodactylus*.