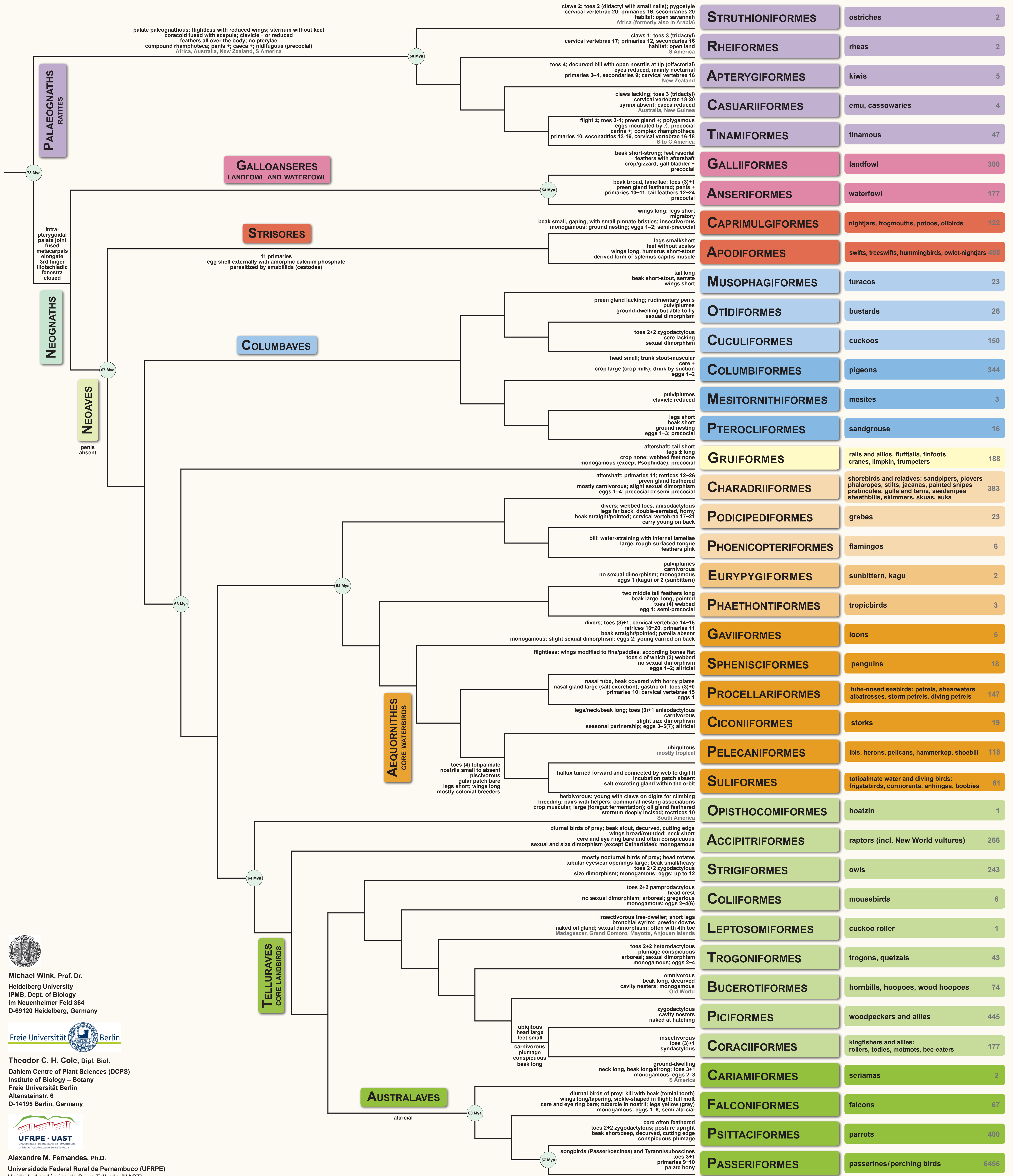


Tree of Birds

Avian Phylogeny (Neornithes, Aves), Systematics and Classification



STRUTHIONIFORMES	ostriches	2
RHEIFORMES	rheas	2
APTERYGIFORMES	kiwis	5
CASUARIIFORMES	emu, cassowaries	4
TINAMIFORMES	tinamous	47
GALLIFORMES	landfowl	300
ANSERIFORMES	waterfowl	177
CAPRIMULGIFORMES	nightjars, frogmouths, potoos, oilbirds	122
APODIFORMES	swifts, treeswifts, hummingbirds, owl-nightjars	405
MUSOPHAGIFORMES	turacos	23
OTIDIFORMES	bustards	26
CUCULIFORMES	cuckoos	150
COLUMBIFORMES	pigeons	344
MESITORNITHIFORMES	mesites	3
PTEROCLIFORMES	sandgrouse	16
GRUIFORMES	rails and allies, flufftails, finfoots cranes, limpkin, trumpeters	188
CHARADRIIFORMES	shorebirds and relatives: sandpipers, plovers phalaropes, stilts, jacanas, painted snipes pratincoles, gulls and terns, seedsnipes sheathbills, skimmers, skuas, auks	383
PODICIPEDIFORMES	grebes	23
PHOENICOPTERIFORMES	flamingos	6
EURYPYGIFORMES	sunbittern, kagu	2
PHAETHONTIFORMES	tropicbirds	3
GAVIIFORMES	loons	5
SPHENISCIFORMES	penguins	18
PROCELLARIFORMES	tube-nosed seabirds: petrels, shearwaters albatrosses, storm petrels, diving petrels	147
CICONIIFORMES	storks	19
PELECANIFORMES	ibis, herons, pelicans, hamperkop, shoebill	118
SULIFORMES	totipalmate water and diving birds: frigatebirds, cormorants, anhingas, boobies	61
OPISTHOCOMIFORMES	hoatzin	1
ACCIPITRIFORMES	raptors (incl. New World vultures)	266
STRIGIFORMES	owls	243
COLIIFORMES	mousebirds	6
LEPTOSOMIFORMES	cuckoo roller	1
TROGONIFORMES	trogons, quetzals	43
BUCEROTIFORMES	hornbills, hoopoes, wood hoopoes	74
PICIFORMES	woodpeckers and allies	445
CORACIIFORMES	kingfishers and allies: rollers, todies, motmots, bee-eaters	177
CARIAMIFORMES	seriamas	2
FALCONIFORMES	falcons	67
PSITTACIFORMES	parrots	400
PASSERIFORMES	passerines/perching birds	6456

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WINK M, COLE TCH, FERNANDES AM (2020) TREE OF BIRDS
 AVIAN PHYLOGENY (Neornithes, Aves), Systematics, Classification, Features

- hypothetical tree based on phylogenetic data (as of 2020)
- branch lengths deliberate, not reflecting true time spans; figures at nodes are approx. divergence times (shaded circles: x Mya = million years ago) from Prum et al. (2015)
- features at nodes (incomplete) do not necessarily apply to all members of a group
- this poster presents an overview of the 40 orders currently accepted by the IOC
- classification and species numbers (in gray) according to IOC World Bird List, Vers. 10.1 (2020)
- tree topology based on Prum et al. (2015), differing from Sui et al. 2015/16 who argue for a polytomy at the level of Neoaves, i.e., there is uncertainty of relationships in that part of the tree
- features from Sibley & Ahlquist (1990) Phylogeny and Classification of Birds, Yale Univ. Press and Billerman et al. (eds.) (2020) Birds of the World, Cornell Lab. of Ornithology, Ithaca, NY