

Bird Species Index

All bird species names follow the IOC 2022 World Bird List

- Acanthis cabaret*. See *redpoll, lesser*
Acanthis flammea. See *redpoll, common*
accentor, alpine, 59, 60, 100, 105, 183
accentor, Siberian, 155
Accipiter gentilis. See *goshawk, northern*
Actitis hypoleuca. See *sandpiper, common*
Aegithalos concinnus. See *bush-tit, black-throated*
Aegolius funereus. See *owl, boreal*
Aerodramus vulcanorum. See *swiflet, volcano*
Alauda arvensis. See *skylark, Eurasian*
Alectoris chukar. See *partridge, chukar*
Alectoris graeca. See *partridge, rock*
Alectoris rufa. See *partridge, red-legged*
Anairetes alpinus. See *tit-tyrant, ash-breasted*
Anairetes nigrocristatus. See *tit-tyrant, black-crested*
Anairetes reguloides. See *tit-tyrant, pied-crested*
Anser indicus. See *goose, bar-headed*
Anthobaphes violacea. See *sunbird, orange-breasted*
Anthus gutturalis. See *pipit, alpine*
Anthus hodgsoni. See *pipit, olive-backed*
Anthus pratensis. See *pipit, meadow*
Anthus rubescens. See *pipit, buff-bellied*
Anthus spinoletta. See *pipit, water*
Anthus trivialis. See *pipit, tree*
Aptenodytes forsteri. See *penguin, emperor*
Apus pacificus. See *swift, Pacific*
Aquila chysaetos. See *eagle, golden*
Aquila nipalensis. See *eagle, steppe*
Asthenes maculicauda. See *canastero, scribble-tailed*
Attagis gayi. See *seed-snipe, rufous-bellied*
avocet, Andean, 350
avocetbill, mountain, 354
Bartramia longicauda. See *sandpiper, upland berrypecker, eastern crested*, 346, 352
blackbird, common, 300
blackeye, mountain, 108
bluebird, mountain, 209
bluetail, red-flanked, 155
bluethroat, 155
Bostrychia carunculata. See *ibis, wattled*
brambling, 184
Branta sandvicensis. See *nene*
Bubo scandiacus. See *owl, snowy*
bunting, ortolan, 301
bunting, Pallas's reed, 155
bunting, rock, 163, 184, 268
bunting, snow, 65, 184, 195, 207, 272
bush-tit, American, 97
bush-tit, black-throated, 58
Buteo lagopus. See *buzzard, rough-legged*
buzzard, rough-legged, 182
Calcarius lapponicus. See *longspur, Lapland*
Calcarius pictus. See *longspur, Smith's*
Calidris alpina. See *dunlin*
Calidris bairdii. See *sandpiper, Baird's*
Calidris canutus. See *knot, red*
Calidris maritima. See *sandpiper, purple*
Calidris ruficollis. See *stint, red-necked*
Calidris temminckii. See *stint, Temminck's*
Calidris tenuirostris. See *knot, great*
Calidris virgata. See *suffbird*
Calliope calliope. See *rubythroat, Siberian*
Callocephalon fimbriatum. See *cockatoo, gang-gang*
Calypte anna. See *hummingbird, Anna's*
canastero, scribble-tailed, 163
capercaillie, western, 271, 277, 281, 282
Cardellina pusilla. See *warbler, Wilson's*
Cardellina rubrifrons. See *warbler, red-faced*

408 · Bird Species Index

- Carduelis citrinella*. See finch, citril
Carpodacus sillemi. See mountain finch, Sillem's
Catharus bicknelli. See thrush, Bicknell's
Catharus minimus. See thrush, grey-cheeked
Catharus ustulatus. See thrush, Swainson's
Chaetops frenatus. See rockjumper, Cape
Chalcostigma olivaceum. See thornbill, olivaceous
Charadrius hiaticula. See ringed plover, common
Charadrius morinellus. See dotterel, Eurasian
 chat, moorland, 39
 chickadee, boreal, 275
 chickadee, mountain, 56, 209
Chloephaga melanoptera. See goose, Andean
 chough, red-billed, 184, 268, 282
 chough, yellow-billed, 38–40, 65
Chroicocephalus serranus. See gull, Andean
Cinclodes aricomae. See cinclodes, royal
Cinclodes fuscus. See cinclodes, buff-winged
Cinclodes oustaleti. See cinclodes, grey-flanked
 cinclodes, buff-winged, 154
 cinclodes, grey-flanked, 58
 cinclodes, royal, 98, 154
Cinloramphus macrurus. See grassbird, Papuan
Cinclus mexicanus. See dipper, American
Circus cyaneus. See harrier, hen
Cistothorus platensis. See wren, grass
Clangula hyemalis. See duck, long-tailed
 cockatoo, gang-gang, 107
Colaptes rupicola. See flicker, Andean
Columba albitorques. See pigeon, white-collared
Columba leuconota. See pigeon, snow
 condor, Andean, 39, 49, 274, 276, 349
 conebill, giant, 109, 110, 122, 154, 356
Conirostrum binghami. See conebill, giant
Contopus cooperi. See flycatcher, olive-sided
 coot, giant, 350, 356
 coot, horned, 356
Corapipo altera. See manakin, white-ruffed
Corvus albicollis. See raven, white-necked
Corvus corax. See raven, northern
Corvus corone. See crow, carrion
Corvus crassirostris. See raven, thick-billed
Corvus frugilegus. See raven
 cotinga, white-cheeked, 346, 355
 crag martin, Eurasian, 183, 194
 crane, black-necked, 105, 279
Crithagra ankoberensis. See serin, Ankober
 crossbill, red, 197, 209
 crow, carrion, 184, 272, 274
 cuckoo, common, 152, 160, 183
Cuculus canorus. See cuckoo, common
Curruca curruca. See whitethroat, lesser
Cyanochen cyanoptera. See goose, blue-winged
Cygnus cygnus. See swan, whooper
 dacnis, tit-like, 98, 355, 356, 358
Dendragapus fuliginosus. See grouse, sooty
Dendragapus obscurus. See grouse, dusky
Dendrocopos darjellensis. See woodpecker, Darjeeling
Dendrocopos hyperythrus. See woodpecker, rufous-bellied
Diglossa gloriosa. See flowerpiercer, Mérida
 dipper, American, 208, 280
 dotterel, Eurasian, 53, 182, 223, 308
Dryocopus martius. See woodpecker, black
 duck, Andean, 350
 duck, blue, 280
 duck, harlequin, 207
 duck, long-tailed, 182, 194, 195
 duck, torrent, 280
 dunlin, 182, 223, 242
 dunnock, 146, 152, 154, 159–162, 164, 240
 eagle, golden, 3, 208, 220, 268, 275, 276, 279, 281
 eagle, steppe, 102
Emberiza cia. See bunting, rock
Emberiza citrinella. See yellowhammer
Emberiza hortulana. See bunting, ortolan
Emberiza pallasi. See bunting, Pallas's reed
Empidonax flaviventris. See flycatcher, yellow-bellied
Empidonax hammondi. See flycatcher, Hammond's
Empidonax oberholseri. See flycatcher, American dusky
Ensifera ensifera. See hummingbird, sword-billed
Eremophila alpestris. See lark, horned
Falco peregrinus. See falcon, peregrine
Falco rusticolus. See gyrfalcon
Falco tinnunculus. See kestrel, common
 falcon, peregrine, 275
 finch, Cassin's, 196, 197, 209
 finch, citril, 55, 184
 finch, glacier, 16, 39, 40, 59, 68, 98, 122, 125, 357, 363
 finch, Przevalski's, 346
 finch, white-winged diuca. See finch, glacier
 flamingo, Chilean, 351
 flicker, Andean, 122, 351, 357
 flowerpiercer, Mérida, 98
 flycatcher, American dusky, 161, 208

- flycatcher, Hammond's, 208
 flycatcher, olive-sided, 208
 flycatcher, yellow-bellied, 275
 forest earthcreeper, Patagonian, 154
 francolin, moorland, 352
Fringilla montifringilla. See *brambling*
Fulica cornuta. See *coot, horned*
Fulica gigantea. See *coot, giant*
- Gallinago delicata*. See *snipe, Wilson's*
Gallinago gallinago. See *snipe, common*
Gallinago media. See *snipe, great*
Garrulus lanceolatus. See *jay, black-headed*
Geocolaptes olivaceus. See *woodpecker, ground*
Geositta tenuirostris. See *miner, slender-billed*
 godwit, bar-tailed, 39, 183
 goose, Andean, 351
 goose, bar-headed, 40
 goose, blue-winged, 352
 goshawk, northern, 301
 grandala, 38–40, 49, 104, 346
 grassbird, Papuan, 352
 grebe, Junin, 98
 grebe, Titicaca, 98
 greenshank, common, 146
 grosbeak, pine, 156, 197, 209
 ground tyrant, cinnamon-bellied, 65
 ground tyrant, white fronted, 16, 39, 68, 98, 122
 ground tyrant, white-browed, 122
 grouse, black, 159, 160, 163, 182, 223, 241, 244, 267, 268, 271, 277, 281, 300, 316
 grouse, dusky, 121, 208
 grouse, red, 220, 227, 277
 grouse, sooty, 65, 208
Grus nigricollis. See *crane, black-necked*
 gull, Andean, 350
 gull, short-billed, 208
Gypaetus barbatus. See *vulture, bearded*
Gyps fulvus. See *vulture, griffon*
Gyps rueppelli. See *vulture, Rüppell's*
 gyrfalcon, 182, 189, 208
- Haemorrhous cassinii*. See *finch, Cassin's*
 harrier, hen, 223, 278
Hirundo atrocaerulea. See *swallow, blue*
Histrionicus histrionicus. See *duck, harlequin*
 hummingbird, Anna's, 55
 hummingbird, broad-tailed, 97, 208, 224, 241
 hummingbird, calliope, 208
 hummingbird, giant, 346, 355, 356
 hummingbird, rufous, 64, 95
 hummingbird, sword-billed, 354
 hummingbird, volcano, 97
Hymenolaimus malacorhynchus. See *duck, blue*
- Ibidorhyncha struthersi*. See *ibisbill*
 ibis, Andean, 351
 ibis, puna, 351
 ibis, wattled, 352
 ibisbill, 346
Idiopsar speculifera. See *finch, glacier*
Ithaginis cruentus. See *pheasant, blood*
- jaeger, long-tailed, 95, 183, 207
 jay, black-headed, 56
 jay, Canada, 56, 66, 196, 197, 209
 jay, Siberian, 155
Junco hyemalis. See *junco, dark-eyed*
Junco vulcani. See *junco, volcano*
 junco, dark-eyed, 48–50, 61, 62, 67, 69, 70, 73, 154, 161, 196, 199, 208
 junco, volcano, 97
- kea, 278
 kestrel, common, 182
 knot, great, 103
 knot, red, 207
- Lafresnaya lafresnayi*. See *velvetbreast, mountain*
Lagopus lagopus. See *ptarmigan, willow*
Lagopus lagopus scoticus. See *grouse, red*
Lagopus leucura. See *ptarmigan, white-tailed*
Lagopus muta. See *ptarmigan, rock*
Lampornis clemenciae. See *mountain gem, blue-throated*
Lanius collurio. See *shrike, red-backed*
 lapwing, Andean, 351
 lapwing, spot-breasted, 352
 lark, horned, 18, 19, 39, 48, 53, 57–59, 63, 67–70, 73, 109, 110, 120, 125, 183, 199, 208, 220–223, 229
 lark, Tibetan, 39
Larus brachyrhynchus. See *gull, short-billed*
 laughingthrush, variegated, 147
Leptasthenura xenothorax. See *tit-spinetail, white-browed*
Leuconotopicus albolarvatus. See *woodpecker, white-headed*
Leucosticte arctoa. See *rosy finch, Asian*
Leucosticte atrata. See *rosy finch, black*
Leucosticte australis. See *rosy finch, brown-capped*
Leucosticte brandti. See *mountain finch, Brandt's*

410 · Bird Species Index

- Leucosticte tephrocotis*. See *rosy finch*, grey-crowned
- Limosa lapponica*. See *godwit*, bar-tailed
- Linaria cannabina*. See *linnet*, common
- Linaria flavirostris*. See *twite*
- linnet, common, 146, 159, 184, 194
- Lonchura montana*. See *mannikin*, western alpine
- Lonchura monticola*. See *mannikin*, eastern alpine
- longspur, Lapland, 18, 184
- longspur, Smith's, 207
- Lophophorus impejanus*. See *monal*, Himalayan
- Loxia curvirostra*. See *crossbill*, red
- Luscinia svecica*. See *bluethroat*
- Lyrurus tetrix*. See *grouse*, black
- manakin, white-ruffed, 223
- mannikin, eastern alpine, 39
- mannikin, western alpine, 39, 352
- Melanerpes lewis*. See *woodpecker*, Lewis's
- Melanocorypha maxima*. See *lark*, Tibetan
- Melospiza lincolni*. See *sparrow*, Lincoln's
- Merganetta armata*. See *duck*, torrent
- Microspingus alticola*. See *warbling finch*, plain-tailed
- miner, slender-billed, 122
- monal, Himalayan, 104, 110
- monal-partridge, Szechenyi's, 159
- Monticola saxatilis*. See *rock thrush*, common
- Montifringilla nivalis*. See *snowfinch*, white-winged
- Motacilla alba yarrelli*. See *wagtail*, pied
- mountain finch, Brandt's, 39, 65, 71
- mountain finch, Sillem's, 103
- mountain gem, blue-throated, 97
- Muscisaxicola albifrons*. See *ground tyrant*, white-fronted
- Muscisaxicola albilora*. See *ground tyrant*, white-browed
- Muscisaxicola capistratus*. See *ground tyrant*, cinnamon-bellied
- Myadestes obscurus*. See *omao*
- Myadestes townsendi*. See *solitaire*, Townsend's
- nene, 108
- Neophron percnopterus*. See *vulture*, Egyptian
- Nestor notabilis*. See *kea*
- night heron, black-crowned, 350
- nightjar, band-winged, 349
- Nucifraga caryocatactes*. See *nutcracker*, spotted
- Nucifraga columbiana*. See *nutcracker*, Clark's
- nutcracker, Clark's, 66, 197, 209
- nutcracker, spotted, 156
- nuthatch, pygmy, 209
- Nycticorax nycticorax*. See *night heron*, black-crowned
- Oceanites oceanicus*. See *storm petrel*, Wilson's
- Oenanthe oenanthe*. See *wheatear*, northern
- omao, 108
- Onychognathus tenuirostris*. See *starling*, slender-billed
- Onychostruthus taczanowskii*. See *snowfinch*, white-rumped
- Opisthoprora euryptera*. See *avocetbill*, mountain
- Oreortyx pictus*. See *quail*, mountain
- owl, boreal, 208, 302
- owl, snowy, 65, 183
- owl, tawny, 302
- owl, Ural, 302
- Oxyura ferruginea*. See *duck*, Andean
- Pagodroma nivea*. See *petrel*, snow
- Paramythia montium*. See *berrypecker*, eastern crested
- Pardirallus sanguinolentus*. See *rail*, plumbeous
- partridge, chukar, 279
- partridge, grey, 279
- partridge, red-legged, 279
- partridge, rock, 182, 267, 279
- Parus major*. See *tit*, great
- Passerculus sandwichensis*. See *sparrow*, Savannah
- Patagioenas fasciata*. See *pigeon*, band-tailed
- Patagona gigas*. See *hummingbird*, giant
- penguin, emperor, 16
- Perdix perdix*. See *partridge*, grey
- Perisoreus canadensis*. See *jay*, Canada
- Perisoreus infaustus*. See *jay*, Siberian
- petrel, Hawaiian, 108
- petrel, snow, 3
- Petroica archboldi*. See *robin*, Snow Mountain
- Petronia petronia*. See *sparrow*, rock
- phalarope, red-necked, 183
- phalarope, Wilson's, 351
- Phalaropus lobatus*. See *phalarope*, red-necked
- Phalaropus tricolor*. See *phalarope*, Wilson's
- pheasant, blood, 53
- Phegornis mitchelli*. See *sandpiper-plover*, diademed
- Phleocryptes melanops*. See *rushbird*, wren-like

- Phoenicopterus chilensis*. See flamingo, Chilean
Phoenicurus erythrogastrus. See redstart, Gúldenstädt's
Phoenicurus ochruros. See redstart, black
Phoenicurus phoenicurus. See redstart, common
Phylloscopus fuscatus. See warbler, dusky
Phylloscopus inornatus. See warbler, yellow-browed
Phylloscopus trochilus. See warbler, willow
Phylloscopus umbrovirens. See warbler, brown woodland
Picoides arcticus. See woodpecker, black-backed
Picoides dorsalis. See woodpecker, American three-toed
Picoides tridactylus. See woodpecker, Eurasian three-toed
 pigeon, band-tailed, 208
 pigeon, snow, 39
 pigeon, white-collared, 352
Pinarochroa sordida. See chat, moorland
Pinicola enucleator. See grosbeak, pine
 pipit, alpine, 39, 352
 pipit, buff-bellied, 18, 199, 208
 pipit, meadow, 183, 237
 pipit, olive-backed, 147, 164
 pipit, tree, 122, 159, 162, 301
 pipit, water, 19, 20, 68, 121–123, 183, 195, 237, 266, 301, 390
Plectrophenax nivalis. See bunting, snow
Plegadis ridgwayi. See ibis, puna
 plover, European golden, 182, 220, 224, 225, 227, 241
Pluvialis apricaria. See plover, European golden
Podiceps taczanowskii. See grebe, Junin
Poecile gambeli. See chickadee, mountain
Poecile hudsonicus. See chickadee, boreal
Prunella collaris. See accentor, alpine
Prunella modularis. See dunmock
Prunella montanella. See accentor, Siberian
Psaltriparus minimus. See bushtit, American
Pseudopodoces humilis. See tit, ground
 ptarmigan, rock, 3, 20, 100, 105, 121, 145, 182, 207, 220, 223, 224, 239, 241, 245, 267, 274, 277, 311, 316
 ptarmigan, white-tailed, 36, 39, 47, 53, 59, 65, 69, 73, 95, 121, 145, 178, 199, 204, 207, 220, 241, 242, 245, 277, 396
 ptarmigan, willow, 53, 54, 69, 121, 160, 162, 194, 207, 208, 220, 244, 282
Ptemistis nobilis. See spurfowl, handsome
Pterodroma sandwichensis. See petrel, Hawaiian
Ptyonoprogne rupestris. See crag martin, Eurasian
Puffinus huttoni. See shearwater, Hutton's
Pygochelidon cyanoleuca. See swallow, blue-and-white
Pyrgilauda ruficollis. See snowfinch, rufous-necked
Pyrrhonorax graculus. See chough, yellow-billed
Pyrrhonorax pyrrhonorax. See chough, red-billed
 quail, mountain, 208
 quail, Snow Mountain, 39, 352
 rail, plumbeous, 350
 rail, Rouget's, 352
Ramphomicron microrhynchum. See thornbill, purple-backed
 raven, northern, 65, 184, 272, 275
 raven, thick-billed, 352
 raven, white-necked, 39
Recurvirostra andina. See avocet, Andean
 redpoll, common, 184
 redpoll, lesser, 184
 redshank, common, 183
 redstart, black, 52, 183, 266, 272
 redstart, common, 183
 redstart, Gúldenstädt's, 100
 redwing, 152, 184
Rhea pennata. See rhea, lesser
 rhea, lesser, 349
 ring ouzel, 19, 56, 63, 156, 158, 161, 165, 184, 220, 224, 225, 228, 239, 244, 268, 270, 300, 315, 316
 ringed plover, common, 146, 182
 robin, American, 221
 robin, Snow Mountain, 39, 352
 rock thrush, common, 184, 268
 rockjumper, Cape, 225, 242
 rockwren, New Zealand, 107, 110
Rollandia microptera. See grebe, Titicaca
 rook, 272
 rosy finch, Asian, 102
 rosy finch, black, 39, 71, 199, 204, 207
 rosy finch, brown-capped, 39, 95, 199, 204, 207
 rosy finch, grey-crowned, 39, 53, 71, 204, 225
Rougetius rougetii. See rail, Rouget's
 rubythroat, Siberian, 155
 rush tyrant, many-coloured, 350
 rushbird, wren-like, 351

412 · Bird Species Index

- sandpiper, Baird's, 63, 95, 121
 sandpiper, common, 221, 225
 sandpiper, purple, 183
 sandpiper, solitary, 146
 sandpiper, upland, 208
 sandpiper, wood, 146
 sandpiper-plover, diademed, 346, 351, 363
 sapsucker, Williamson's, 208
Saxicola rubetra. See *whinchat*
Scleroptila psilolaema. See *francolin, moorland*
 seedsnipe, rufous-bellied, 39, 98
Selasphorus calliope. See *hummingbird, calliope*
Selasphorus flammula. See *hummingbird, volcano*
Selasphorus platycercus. See *hummingbird, broad-tailed*
Selasphorus rufus. See *hummingbird, rufous*
 serin, Ankober, 101
Setophaga castanea. See *warbler, bay-breasted*
Setophaga coronata. See *warbler, myrtle*
Setophaga graciae. See *warbler, Grace's*
Setophaga striata. See *warbler, blackpoll*
 shearwater, Hutton's, 107
 shelduck, ruddy, 39
 shrike, red-backed, 316
Sialia currucoides. See *bluebird, mountain*
Sicalis lutea. See *yellow finch, puna*
 siskin, pine, 197, 209
Sitta pygmaea. See *nuthatch, pygmy*
 skylark, Eurasian, 183, 220, 240, 268, 282, 316
 snipe, common, 182
 snipe, great, 39, 40
 snipe, Wilson's, 146
 snowcock, Altai, 103
 snowcock, Caucasian, 100
 snowfinch, rufous-necked, 120, 123
 snowfinch, white-rumped, 123
 snowfinch, white-winged, 19, 20, 58, 60, 65, 71, 100, 110, 119, 145, 184, 220, 224, 239, 241, 244, 267, 268, 272, 311, 312, 316, 381, 390
 solitaire, Townsend's, 209
 sparrow, American tree, 208
 sparrow, Brewer's, 156, 208
 sparrow, golden-crowned, 208
 sparrow, Lincoln's, 159, 208
 sparrow, rock, 68
 sparrow, rufous-collared, 61, 64, 97, 352
 sparrow, Savannah, 18, 67–70, 73, 125, 221, 223
 sparrow, white-crowned, 159, 161, 197, 208
Sphyrapicus thyroideus. See *sapsucker, Williamson's*
Spinus pinus. See *siskin, pine*
Spizella breweri. See *sparrow, Brewer's*
Spizelloides arborea. See *sparrow, American tree*
 spurfowl, handsome, 101
 starling, slender-billed, 24
Stercorarius longicaudus. See *jaeger, long-tailed*
 stint, red-necked, 75
 stint, Temminck's, 183
 storm petrel, Wilson's, 99
Strix aluco. See *owl, tawny*
Strix uralensis. See *owl, Ural*
 sunbird, orange-breasted, 101
 sunbird, scarlet-tufted, 65, 101, 122, 352
 surfbird, 95, 199, 207
 swallow, blue, 123
 swallow, blue-and-white, 122
 swan, whooper, 103
 swift, Pacific, 105
 swiftlet, volcano, 108
Sylvia borin. See *warbler, garden*
Synoicus monorhonyx. See *quail, Snow Mountain*
Systellura longirostris. See *nightjar, band-winged*

Tachuris rubigastria. See *rush tyrant, many-coloured*
Tadorna ferruginea. See *shelduck, ruddy*
Tarsiger cyanurus. See *bluetail, red-flanked*
 tattler, grey-tailed, 102, 146
 tattler, wandering, 196, 199, 207
Tetrao urogallus. See *capercaillie, western*
Tetraogallus altaicus. See *snowcock, Altai*
Tetraogallus caucasicus. See *snowcock, Caucasian*
Tetraophasis szechenyii. See *monal-partridge, Szechenyi's*
Theristicus branickii. See *ibis, Andean*
 thornbill, olivaceous, 38, 98
 thornbill, purple-backed, 354
 thrush, Bicknell's, 265, 275
 thrush, dusky, 155
 thrush, grey-cheeked, 154
 thrush, island, 352
 thrush, sooty, 97
 thrush, Swainson's, 275
 tit, great, 48, 62
 tit, ground, 57, 62, 65, 110, 119, 353, 374
 tit-spinetail, white-browed, 147
 tit-tyrant, ash-breasted, 58, 147

- tit-tyrant, black-crested, 55
 tit-tyrant, pied-crested, 55
Tragopan satyra. See *tragopan*, *satyr*
 tragopan, satyr, 243
Trichodroma muraria. See *wallcreeper*
Tringa brevipes. See *tattler*, *grey-tailed*
Tringa flavipes. See *yellowlegs*, *lesser*
Tringa glareola. See *sandpiper*, *wood*
Tringa incana. See *tattler*, *wandering*
Tringa nebularia. See *greenshank*, *common*
Tringa solitaria. See *sandpiper*, *solitary*
Tringa totanus. See *redshank*, *common*
Trochalopteron variegatum. See *laughingthrush*,
variegated
Troglodytes aedon. See *wren*, *house*
Troglodytes pacificus. See *wren*, *Pacific*
Troglodytes troglodytes. See *wren*, *Eurasian*
Turdus eunomus. See *thrush*, *dusky*
Turdus iliacus. See *reduwing*
Turdus merula. See *blackbird*, *common*
Turdus migratorius. See *robin*, *American*
Turdus nigrescens. See *thrush*, *sooty*
Turdus poliocephalus. See *thrush*, *island*
Turdus torquatus. See *ring ouzel*
 twite, 184

Upucerthia saturator. See *forest earthcreeper*,
Patagonian
Urocynchramus pylzowi. See *finch*, *Przevalski's*

Vanellus melanocephalus. See *lapwing*,
spot-breasted
Vanellus resplendens. See *lapwing*, *Andean*
 velvetbreast, mountain, 354
Vireo cassinii. See *vireo*, *Cassin's*
 vireo, Cassin's, 208
Vultur gryphus. See *condor*, *Andean*
 vulture, bearded, 182, 268, 278, 282, 284,
 317
 vulture, Egyptian, 278
 vulture, griffon, 279
 vulture, Rüppell's, 38–40

 wagtail, pied, 272
 wallcreeper, 22, 184, 189, 204, 346

 warbler, bay-breasted, 240
 warbler, blackpoll, 153, 275
 warbler, brown woodland, 352
 warbler, dusky, 155
 warbler, garden, 162
 warbler, Grace's, 209
 warbler, myrtle, 95, 154
 warbler, red-faced, 18
 warbler, willow, 184
 warbler, Wilson's, 159
 warbler, yellow-browed, 121, 155
 warbling finch, plain-tailed, 355
 wheatear, northern, 183, 266
 whinchat, 155, 163, 183, 237
 whitethroat, lesser, 146, 152, 154, 159, 160,
 162, 184
 woodpecker, American three-toed, 208
 woodpecker, black, 302
 woodpecker, black-backed, 208
 woodpecker, Darjeeling, 103
 woodpecker, Eurasian three-toed, 240
 woodpecker, ground, 123
 woodpecker, Lewis's, 208
 woodpecker, rufous-bellied, 104
 woodpecker, white-headed, 208
 wren, Eurasian, 159
 wren, grass, 163
 wren, house, 61
 wren, Pacific, 67, 73

Xenicus gilviventris. See *rockwren*, *New Zealand*
Xenodacnis parina. See *dacnis*, *tit-like*

 yellow finch, puna, 57
 yellowhammer, 301
 yellowlegs, lesser, 121

Zaratomis stresemanni. See *cotinga*,
white-cheeked
Zonotrichia atricapilla. See *sparrow*,
golden-crowned
Zonotrichia capensis. See *sparrow*, *rufous-collared*
Zonotrichia leucophrys. See *sparrow*,
white-crowned
Zosterops emiliae. See *blackeye*, *mountain*

Subject Index

- adaptations to high elevation
 behavioural, 55–60, 357, 374
 body mass, 47, 48, 356
 genetic, 60–62, 374
 life history, 68–74, 374
 physiological, 41, 50–55, 356, 374
 plumage colour and structure, 49, 50, 374
 seasonal movements. *See migration*
 wing morphology, 48, 356
- aeolian zone, 8, 50
- Africa, 12, 22, 24, 92, 96, 100–102, 114–118,
 123, 126, 156, 189, 191, 192, 219, 225,
 230, 232, 340, 373
- Alaska, 39, 54, 94, 201, 207, 223, 231, 277
- alpine habitat, definition, 91
- alpine zone, 2, 4, 9, 12, 15, 19, 20, 22, 24,
 50, 63, 99, 102, 106, 137, 142, 163,
 186, 377
- bird community, 121, 145, 151, 152,
 349–354, 356
- definition, 8, 91
- species richness, 148–150, 166
- tropical, 339–342
- vegetation. *See vegetation, alpine*
- Alps. *See European Alps*
- Altai Mountains, 102, 167
- Amazon, 119, 139, 338
- Andes, 7, 9, 16, 21, 22, 25, 26, 38, 39, 44,
 46, 48, 51, 57–59, 61, 64, 65, 68, 92,
 94–99, 109, 110, 114–120, 122, 125, 126,
 139, 143–147, 150–155, 158, 162, 163,
 165, 167, 191, 192, 219, 224, 227, 237,
 239, 243, 274, 280, 337, 340, 342,
 343, 345, 347–354, 359, 360, 362,
 375, 387, 397
- Antarctica, 2, 39, 90, 93, 111, 373, 387
- Arctic, 2, 9, 13, 63, 65, 75, 76, 92–95, 102,
 103, 115, 117, 166, 187, 226, 233, 373
- Asia, 12, 25, 38, 71, 96, 102, 105, 110, 116,
 117, 144, 152, 154, 189, 191, 218, 219,
 228, 261, 341, 346, 347, 352, 356, 359,
 373, 376, 387
- Atlas Mountains, 100
- Australia, 12, 13, 75, 96, 106, 115, 116, 154,
 265, 271
- avalanche, 124, 144, 218, 261
- birds as pollinators, 97, 354–355
- bofedales, 16, 97, 343
- Bolivia, 16, 57, 97, 147, 224, 340, 345, 358,
 361, 362
- breeding phenology, 66–68, 312. *See also*
climate change
- British Columbia, 9, 21, 40, 57, 64, 68–70,
 73, 94, 124, 142, 146, 149, 151–154,
 156, 167, 244, 382, 393
- Canada, 9, 10, 36, 48, 57, 63, 66, 67, 70,
 73, 92, 94, 121, 142, 153, 156, 166, 167,
 186, 199, 224, 239, 394
- Carpathians, 99, 219
- Caucasus, 99
- Chile, 10, 16, 58, 65, 94, 140, 152, 154, 167
- China, 12, 48, 50, 53, 104, 265, 341, 345,
 349, 350
- Citizen Science, 229, 307, 378, 385, 393
- climate change
 changes in breeding phenology, 68,
 220–222, 241, 388
 and conservation, 244–245, 321, 396, 398
 as a driver of treeline shifts, 126, 137, 145,
 157, 164, 226, 234, 362
 effects on prey availability, 223–225
 effects on snow. *See snow, timing of*
snowmelt
 glacier retreat, 17, 126, 218, 363
 impacts on breeding success, 222–227,
 242
 increase in extreme weather, 43, 218,
 227, 241

- refugia, 247, 382, 390, 396
 and species population shifts, 177, 192,
 201, 203, 225, 229–235, 240, 298, 302,
 378, 383
- competition, 15, 36, 118, 121, 122, 127, 222,
 228, 235, 274, 301, 375, 378, 380
- conservation
 management actions, 27, 157, 242–245,
 267, 271, 284, 321, 386, 391, 395–397
 planning, 243, 284, 296, 305, 315, 318,
 321, 377, 383, 385, 388, 390, 395, 397
 species conservation status, 17, 77, 98,
 189, 375, 377, 383, 390, 394
- Czechia, 160, 178, 179, 185, 190, 195, 201,
 226, 231
- demography, 127, 161, 166, 205, 219, 277,
 280, 285, 304, 312, 319, 378, 380, 384,
 385, 389, 391, 395
- disease, 37, 75, 222, 227, 240, 242
- diversification, 115, 154, 336–342, 349, 351,
 359, 361, 376
- diversity
 functional, 6, 151, 152
 habitat, 101, 112, 375
 phylogenetic, 151
 species, 5, 114, 296, 306–310, 337, 346,
 347, 353, 359, 373, 375, 376. *See also*
species richness
 species, and elevation, 14, 148, 150, 159,
 346, 349
 vegetation, 26, 158, 265
- eBird, 17, 392, 393
- ecosystem services, 1, 399
- Ecuador, 48, 120, 139, 191, 192, 227, 336,
 344, 397
- elevation gradient
 and temperature, 5, 7, 42, 217, 341
 variation in abiotic factors, 47, 374
 vegetation zones, 7–9, 14, 104
- endemism, 1, 4, 99, 100, 106, 154, 341, 373,
 376, 386–389, 392
- Ethiopia, 39, 94, 100, 191, 224, 341, 352
- European Alps, 8, 21, 25, 143–146, 150, 152,
 154, 156–163, 201, 217–219, 235, 239,
 244, 262, 274, 276–279, 282, 302, 311
- Fennoscandia, 99, 178, 180, 191, 193, 194,
 195, 201, 226, 381
- Finland, 146, 148, 155, 162, 168, 180, 226,
 243
- fire, 25, 106, 137, 141, 143, 147, 163, 164,
 177, 276, 339, 345, 362, 363
- forest, montane, 9, 15, 137, 139, 228, 233,
 260, 277, 283, 316, 340, 345, 362,
 373, 387
- bird community, 22, 103, 148, 152, 156,
 191–193, 208, 302, 355, 376
- cloud forest, 147, 155, 244, 339, 340,
 344, 346, 351, 354, 355, 357, 359, 363
- definition, 8
- deforestation, 25, 26, 162, 163, 276
- edge effects, 160, 162, 265, 268
- elfin forest, 156, 164, 343, 351, 352, 357
- encroachment, 26, 156, 163, 262
- species richness, 148, 150, 165, 166
- fox, Arctic, 226
- fox, red, 226, 242, 272, 381
- France, 4, 179, 180, 190, 231
- frugivores, 20, 309, 358
- generalist species, 1, 4, 15, 36, 47, 55, 64,
 67, 70, 109, 114, 153, 155, 179, 188,
 191, 192, 200, 202, 207, 220, 230, 233,
 236, 239, 247, 268, 375, 377, 379,
 381, 387, 390
- granivores, 192, 358
- grazing
 abandonment, 26, 99, 145, 163, 262
 creation of open habitat, 25, 144, 162,
 362, 396
 and treeline position. *See treeline ecotone*
 impacts on vegetation, 9, 100, 120, 157
 reindeer, 162
- Greenland, 3, 93, 387
- herbivores, 75, 121, 192, 339
- Himalayas, 8, 14, 15, 25, 38, 39, 46–48, 50,
 56, 58, 62, 64, 92, 104, 110, 115, 117,
 146, 147, 155, 167, 191, 192, 218, 237,
 243, 280, 341, 346, 349, 350, 360, 375
- hunting
 habitat modification, 25, 276, 279
 persecution, 278, 284
 population impacts, 276–278
- hydropower, 26, 264, 279, 280, 283
- hypoxia, 40, 45, 52, 54, 55, 61, 374, 385
- India, 104, 191, 192
- indicators, 181, 186, 188, 194, 195, 198, 201,
 202, 203, 206, 377
- insectivores, 22, 43, 45, 121, 192, 275, 309,
 351, 358

416 · Subject Index

- invertebrates, 225, 268, 269, 271, 280, 284
 availability and snowmelt, 43, 74, 121, 125
 effects of anthropogenic activities, 270, 273, 280
 seasonal availability, 20, 100, 224
 soil invertebrates, 157, 224–225, 241, 270, 271, 300, 316
 Italy, 179, 190, 201, 316
- juniper, 94, 100, 101, 103–105, 152, 164, 190, 228, 345
- livestock. *See grazing*
- Lobelia*, 24, 94, 101, 122, 343, 355
- Madagascar, 96, 100, 115, 116
 mass elevation effect, 9
 Mexico, 64, 94, 95, 340, 346
 micro-climate, 44, 46, 56, 57, 76, 92, 120, 217, 237, 298, 303, 304, 310, 312–314, 316, 320
 Mid-Domain Effect, 6
 migration, 19, 21, 22, 38, 62–64, 91, 100, 111, 114, 117, 282, 319, 378, 392
 mountains as barriers, 16, 46
 mountains as corridors, 16, 389
 stopovers, 19, 63, 90, 95, 102, 103, 383
 use of mountains by migrants, 10, 21, 36, 63, 149, 374
- migratory strategy
 altitudinal migrants, 19, 21, 22, 23, 42, 55, 62, 63, 65, 105, 109, 119, 177, 207, 356
 long-distance migrants, 19, 21, 66, 105, 111, 117, 177, 191, 221, 229, 230, 379
 residents, 15, 26, 42, 55, 62, 64, 65, 105, 107–109, 111, 117, 119, 280, 357, 373, 375, 377
 short-distance migrants, 19, 21, 111, 117, 191, 375
- modelling
 implications for conservation, 320–321
 issues of scale, 310–314
 joint species distribution models (jSDMs), 301, 311, 319, 378
 predicting future changes, 238–240, 311, 318–320, 380, 384, 395
 predictions vs observed patterns, 314–318
 species distribution models (SDMs), 296, 300, 302, 378
- Mount Kilimanjaro, 15, 126, 191, 192
 mountain bird definition, 10, 219
 mountain definition, 2–4
 mountain profile, 2, 235, 236, 299
 mountain research
 comparison with other habitats, 10–13
 priorities, 23, 27, 76, 145, 161, 166, 205, 240, 244, 283, 284, 318–320, 339, 391–392, 394–396, 397–398
 mountains and global biodiversity, 4, 337, 372
- nectarivores, 101, 192, 354, 355, 358
 nest failure, 18, 44, 53, 68, 69, 75, 159–162, 274
 nest site, 16, 23, 37, 56, 105, 109, 115–117, 120, 122, 123, 152, 267, 284, 350, 357
 burrow, 57, 105, 108, 118, 119, 123, 353, 357
 New Zealand, 94, 96, 106, 107, 110, 116, 154, 278, 280
 niche, 5, 25, 44, 46, 90, 92, 112, 118, 121, 122, 157, 177, 185, 189, 198, 202, 221, 229, 233, 268, 296, 298–300, 310, 318, 338, 359, 361, 373, 382, 390
 nival zone, 8, 9, 91, 101, 102, 106, 123, 339
 Norway, 180, 220, 267
- Oceania, 12, 13, 230
- páramo, 65, 68, 91, 96, 97, 106, 108, 120, 126, 147, 163, 340, 343, 344, 349, 354, 359
 parasitism, 36, 37, 75, 160, 177
 Peru, 16, 38, 55, 57, 63, 68, 97, 140, 147, 155, 167, 232, 244, 340, 344, 345, 349, 350, 355, 361, 362, 376
Polylepis, 9, 25, 58, 92, 97–99, 109, 110, 115, 117, 122, 139–143, 147, 154, 163, 244, 344, 345, 357, 362, 397
 precipitation. *See rainfall, snow*
 predation, 17, 36, 37, 75, 123, 225, 242, 375, 380, 381
 nest predation, 19, 53, 59, 68, 69, 120, 123, 126, 159, 161, 244, 274
 primary productivity, 5, 43, 237
 protected areas, 243, 244, 246, 321, 383, 386, 390, 391, 397
 puna, 16, 57, 63, 94, 97, 141, 147, 155, 343, 345, 351, 361
 Putorana Plateau, 102, 146, 148, 155, 168
Puya, 97, 120, 343, 344, 355
 Pyrenees, 8, 99, 224

- radiation, solar, 7, 35, 37, 46, 49, 53, 57, 217, 297, 299, 303, 342, 356, 362, 374, 385
- rainfall, 44
 effects on breeding success, 18, 223, 241, 244, 379
 effects on food availability, 22, 64, 225, 228
 effects on populations, 202, 230, 234, 244
 and migration/dispersal, 22, 56, 64, 357
- Rapoport's rule, 6
- recreational activities, impacts on mountain birds, 1, 262, 263, 272
 hiking, 274
 rock climbing, 275, 380
- renewable energy, 1, 127, 264, 279–283, 294, 397, 398
- rhododendron, 92, 100, 102, 104, 105, 107, 115, 147, 152, 164, 345, 353
- Rocky Mountains, 48, 66, 94, 143, 156, 159, 163, 180, 187, 196, 197, 207, 221
- Russia, 75, 146, 155
- Rwenzori Mountains, 101, 341
- Scotland, 227, 272, 274, 381
- Siberia, 9, 102, 121, 142, 163
- Sierra Nevada (Spain), 190
- Sierra Nevada (USA), 94, 159, 161, 180, 187, 196–200, 222, 230
- skiing
 associated infrastructure, 262, 263, 267, 272, 379
 disturbance, 271, 283, 381
 effects on food availability, 65, 268–272, 381
 habitat modification, 144, 162, 263, 265
 ski-piste management, 266, 267, 284, 397
- ski-pistes. *See* [skiing](#)
- sky islands, 62, 299, 340
- snow
 snow and prey availability, 44, 45, 74, 95, 121, 125, 224, 316
 snow burrows, 56
 snowfall and nest failure, 19, 44, 218
 timing of snowmelt, 19, 20, 36, 43, 57, 66, 119, 123–127, 157, 220, 224, 270
- soil moisture, 5, 20, 35, 44, 46, 125, 156, 224, 345
- Spain, 25, 122, 162, 180, 190, 237
- specialist mountain species, 4, 16, 19, 36, 41, 47, 55, 71, 95, 100, 103, 104, 107, 110, 111, 114, 115, 179, 185, 188, 191, 200, 204, 207, 235, 239, 242, 245, 284, 355, 375, 379, 381, 388
- treeline specialists, 152, 153–156, 375
- speciation, 4, 154, 306, 336, 360–362
- species of conservation concern. *See* [conservation](#), [species conservation status](#)
- species richness
 effects of climate, 4, 14, 108, 119, 236
 effects of vegetation characteristics, 15, 108, 120, 237
 impacts of disturbance, 261, 274, 363
 impacts of grazing, 120, 162, 163
 impacts of ski-pistes, 265, 266
 variation with elevation, 5, 6, 14, 147–150, 168, 228, 237, 306, 336
 variation with latitude, 5
- storm impacts on birds, 44, 63, 66, 68, 69, 118, 125, 126, 160, 223, 227, 357
- Sweden, 180, 186, 194, 206, 277
- Switzerland, 22, 156, 179, 190, 231, 271, 278, 315
- temperature
 direct and indirect effects, 14, 43, 314
 effects on breeding success, 161, 222, 227
 effects on populations, 202, 230, 312
 effects on prey availability, 224
 fluctuations, 24, 35, 43, 56, 91, 95, 217, 342, 363, 377
- Tibetan Plateau, 3, 56, 62, 65, 96, 102–104, 110, 119, 120, 341, 374
- timberline, 7, 8, 10, 25, 141, 142, 143, 156, 208, 277, 339, 342–346, 354, 362, 368
- topography, 4, 37, 42, 46, 92, 119, 124, 139, 144, 235, 236, 239, 246, 297, 303, 317, 320, 342, 362, 380, 382, 389
- torpor, 24, 37, 51, 55, 357
- tourism, 1, 127, 260, 262, 264, 275, 283, 379
- transhumance, 25, 26, 163
- treeline
 climatic determinants, 7, 92, 124, 139, 143, 217, 344
 definition, 8, 141
 elevational shifts. *See* [climate change](#)
- treeline ecotone
 bird community, 7, 65, 145–147, 151, 152, 165, 208, 375
 definition, 138
 effects of grazing, 93, 137, 142, 144, 156, 162

418 · **Subject Index**

treeline ecotone (cont.)

species richness compared to adjacent
habitats, 147–150, 166

vegetation structure, 158

tundra, 3, 75, 90, 92–95, 102, 105, 109, 111,
114, 115, 118, 123, 143, 146, 155, 160,
187, 207, 208, 226, 349, 353, 373, 375

United Kingdom, 178, 180, 181, 194, 201,

220, 226, 228, 229, 243, 272, 277, 278

Ural Mountains, 99, 153, 155, 168

USA, 94, 153, 178, 191, 199, 203, 230–233,
244, 275

vegetation

alpine, 8, 9, 35, 91, 94, 98, 100, 106, 340,
343

seasonal growth, 20, 43, 124, 126, 157,
304

structure, 9, 14, 20, 26, 42, 90, 92, 115,
119, 124, 147, 158, 161, 162, 226, 233,
314, 375

wetlands, 16, 21, 94, 97, 101, 103, 119, 124,

125, 146, 224, 242, 342, 349, 358, 363,
377

wind turbine collision risk, 280–283