

Appendix 1. Bird species codes, common names, and scientific names.

Code	Common Name	Binomial Name
ALFL	Alder Flycatcher	<i>Empidonax alnorum</i>
AMCO	American Coot	<i>Fulica americana</i>
AMCR	American Crow	<i>Corvus brachyrhynchos</i>
AMGO	American Goldfinch	<i>Spinus tristis</i>
AMKE	American Kestrel	<i>Falco sparverius</i>
AMPI	American Pipit	<i>Anthus rubescens</i>
AMRE	American Redstart	<i>Setophaga ruticilla</i>
AMRO	American Robin	<i>Turdus migratorius</i>
AMWI	American Wigeon	<i>Mareca americana</i>
ATTW	American Three-toed Woodpecker	<i>Picoides dorsalis</i>
BAEA	Bald Eagle	<i>Haliaeetus leucocephalus</i>
BANS	Bank Swallow	<i>Riparia riparia</i>
BARS	Barn Swallow	<i>Hirundo rustica</i>
BAWW	Black-and-white Warbler	<i>Mniotilta varia</i>
BBMA	Black-billed Magpie	<i>Pica hudsonia</i>
BBWA	Bay-breasted Warbler	<i>Setophaga castanea</i>
BBWO	Black-backed Woodpecker	<i>Picoides arcticus</i>
BCCH	Black-capped Chickadee	<i>Poecile atricapillus</i>
BEKI	Belted Kingfisher	<i>Megaceryle alcyon</i>
BHCO	Brown-headed Cowbird	<i>Molothrus ater</i>
BHVI	Blue-headed Vireo	<i>Vireo solitarius</i>
BLJA	Blue Jay	<i>Cyanocitta cristata</i>
BLPW	Blackpoll Warbler	<i>Setophaga striata</i>
BLTE	Black Tern	<i>Chlidonias niger</i>
BOCH	Boreal Chickadee	<i>Poecile hudsonicus</i>
BOGU	Bonaparte's Gull	<i>Chroicocephalus philadelphia</i>
BRBL	Brewer's Blackbird	<i>Euphagus cyanocephalus</i>
BRCR	Brown Creeper	<i>Certhia americana</i>
BTNW	Black-throated Green Warbler	<i>Setophaga virens</i>
BUFF	Bufflehead	<i>Bucephala albeola</i>
BWHA	Broad-winged Hawk	<i>Buteo platypterus</i>
BWTE	Blue-winged Teal	<i>Spatula discors</i>
CAGU	California Gull	<i>Larus californicus</i>
CAJA	Canada Jay	<i>Perisoreus canadensis</i>
CANG	Canada Goose	<i>Branta canadensis</i>
CANV	Canvasback	<i>Aythya valisineria</i>
CAWA	Canada Warbler	<i>Cardellina canadensis</i>

CCSP	Clay-colored Sparrow	<i>Spizella pallida</i>
CEDW	Cedar Waxwing	<i>Bombycilla cedrorum</i>
CHSP	Chipping Sparrow	<i>Spizella passerina</i>
CLSW	Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
CMWA	Cape May Warbler	<i>Setophaga tigrina</i>
COGO	Common Goldeneye	<i>Bucephala clangula</i>
COGR	Common Grackle	<i>Quiscalus quiscula</i>
COLO	Common Loon	<i>Gavia immer</i>
COME	Common Merganser	<i>Mergus merganser</i>
CONI	Common Nighthawk	<i>Chordeiles minor</i>
CONW	Connecticut Warbler	<i>Oporornis agilis</i>
CORA	Common Raven	<i>Corvus corax</i>
CORE	Common Redpoll	<i>Acanthis flammea</i>
COYE	Common Yellowthroat	<i>Geothlypis trichas</i>
DCCO	Double-crested Cormorant	<i>Phalacrocorax auritus</i>
DEJU	Dark-eyed Junco	<i>Junco hyemalis</i>
DOWO	Downy Woodpecker	<i>Picoides pubescens</i>
EAGR	Eared Grebe	<i>Podiceps nigricollis</i>
EAKI	Eastern Kingbird	<i>Tyrannus tyrannus</i>
EUST	European Starling	<i>Sturnus vulgaris</i>
EVGR	Evening Grosbeak	<i>Coccothraustes vespertinus</i>
FOTE	Forster's Tern	<i>Sterna forsteri</i>
FRGU	Franklin's Gull	<i>Leucophaeus pipixcan</i>
GADW	Gadwall	<i>Mareca strepera</i>
GBHE	Great Blue Heron	<i>Ardea herodias</i>
GCKI	Golden-crowned Kinglet	<i>Regulus satrapa</i>
GGOW	Great Grey Owl	<i>Strix nebulosa</i>
GHOW	Great Horned Owl	<i>Bubo virginianus</i>
GLSA	Northern Flying Squirrel	<i>Glaucomys sabrinus</i>
GRJA	Gray Jay	<i>Perisoreus canadensis</i>
GRSC	Greater Scaup	<i>Aythya marila</i>
GRYE	Greater Yellowlegs	<i>Tringa melanoleuca</i>
GWFG	Greater White-fronted Goose	<i>Anser albifrons</i>
GWTE	Green-winged Teal	<i>Anas crecca</i>
HAWO	Hairy Woodpecker	<i>Dryobates villosus</i>
HAWO	Hairy Woodpecker	<i>Picoides villosus</i>
HERG	Herring Gull	<i>Larus argentatus</i>
HETH	Hermit Thrush	<i>Catharus guttatus</i>
HOGR	Horned Grebe	<i>Podiceps auritus</i>
HOLA	Horned Lark	<i>Eremophila alpestris</i>
HOME	Hooded Merganser	<i>Lophodytes cucullatus</i>

KILL	Killdeer	<i>Charadrius vociferus</i>
LALO	Lapland Longspur	<i>Calcarius lapponicus</i>
LCSP	LeConte's Sparrow	<i>Ammodramus leconteii</i>
LEFL	Least Flycatcher	<i>Empidonax minimus</i>
LEOW	Long-eared Owl	<i>Asio otus</i>
LESA	Least Sandpiper	<i>Calidris minutilla</i>
LESC	Lesser Scaup	<i>Aythya affinis</i>
LEYE	Lesser Yellowlegs	<i>Tringa flavipes</i>
LISP	Lincoln's Sparrow	<i>Melospiza lincolni</i>
MALL	Mallard	<i>Anas platyrhynchos</i>
MAWA	Magnolia Warbler	<i>Setophaga magnolia</i>
MAWR	Marsh Wren	<i>Cistothorus palustris</i>
MERL	Merlin	<i>Falco columbarius</i>
MOBL	Mountain Bluebird	<i>Sialia currucoides</i>
MOWA	Mourning Warbler	<i>Geothlypis philadelphia</i>
NAWA	Nashville Warbler	<i>Oreothlypis ruficapilla</i>
NHOW	Northern Hawk Owl	<i>Surnia ulula</i>
NOFL	Northern Flicker	<i>Colaptes auratus</i>
NOHA	Northern Harrier	<i>Circus hudsonius</i>
NOPI	Northern Pintail	<i>Anas acuta</i>
NOSH	Northern Shoveler	<i>Spatula clypeata</i>
NOWA	Northern Waterthrush	<i>Parkesia noveboracensis</i>
NSHO	Northern Shoveler	<i>Spatula clypeata</i>
OCWA	Orange-crowned Warbler	<i>Oreothlypis celata</i>
OSFL	Olive-sided Flycatcher	<i>Contopus cooperi</i>
OVEN	Ovenbird	<i>Seiurus aurocapilla</i>
PAWA	Palm Warbler	<i>Setophaga palmarum</i>
PBGR	Pied-billed Grebe	<i>Podilymbus podiceps</i>
PHVI	Philadelphia Vireo	<i>Vireo philadelphicus</i>
PISI	Pine Siskin	<i>Spinus pinus</i>
PIWO	Pileated Woodpecker	<i>Dryocopus pileatus</i>
PUFI	Purple Finch	<i>Haemorhous purpureus</i>
RBGR	Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
RBGU	Ring-billed Gull	<i>Larus delawarensis</i>
RBNU	Red-breasted Nuthatch	<i>Sitta canadensis</i>
RCKI	Ruby-crowned Kinglet	<i>Regulus calendula</i>
RECR	Red Crossbill	<i>Loxia curvirostra</i>
REDH	Redhead	<i>Aythya americana</i>
REVI	Red-eyed Vireo	<i>Vireo olivaceus</i>
RLHA	Rough-legged Hawk	<i>Buteo lagopus</i>
RNDU	Ring-necked Duck	<i>Aythya collaris</i>

RNGR	Red-necked Grebe	<i>Podiceps grisegena</i>
RTHA	Red-tailed Hawk	<i>Buteo jamaicensis</i>
RUBL	Rusty Blackbird	<i>Euphagus carolinus</i>
RUDU	Ruddy Duck	<i>Oxyura jamaicensis</i>
RUGR	Ruffed Grouse	<i>Bonasa umbellus</i>
RWBL	Red-winged Blackbird	<i>Agelaius phoeniceus</i>
SACR	Sandhill Crane	<i>Antigone canadensis</i>
SAVS	Savannah Sparrow	<i>Passerculus sandwichensis</i>
SEWR	Sedge Wren	<i>Cistothorus platensis</i>
SMLO	Smith's Longspur	<i>Calcarius pictus</i>
SNBU	Snow Bunting	<i>Plectrophenax nivalis</i>
SNOW	Snowy Owl	<i>Bubo scandiacus</i>
SORA	Sora	<i>Porzana carolina</i>
SOREX	Sorex Sp.	<i>Sorex sp.</i>
SOSA	Solitary Sandpiper	<i>Tringa solitaria</i>
SOSP	Song Sparrow	<i>Melospiza melodia</i>
SPGR	Spruce Grouse	<i>Falcapennis canadensis</i>
SPSA	Spotted Sandpiper	<i>Actitis macularius</i>
SSHA	Sharp-shinned Hawk	<i>Accipiter striatus</i>
STGR	Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>
SUSC	Surf Scoter	<i>Melanitta perspicillata</i>
SWSP	Swamp Sparrow	<i>Melospiza georgiana</i>
SWTH	Swainson's Thrush	<i>Catharus ustulatus</i>
TAMI	Least Chipmunk	<i>Tamias minimus</i>
TEWA	Tennessee Warbler	<i>Oreothlypis peregrina</i>
TRES	Tree Swallow	<i>Tachycineta bicolor</i>
TUSW	Tundra Swan	<i>Cygnus columbianus</i>
TYPH	Sharp-tailed Grouse	<i>Tympanuchus phasianellus</i>
VESP	Vesper Sparrow	<i>Pooecetes gramineus</i>
WAVI	Warbling Vireo	<i>Vireo gilvus</i>
WCSP	White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
WETA	Western Tanager	<i>Piranga ludoviciana</i>
WEWP	Western Wood-Pewee	<i>Contopus sordidulus</i>
WIPT	Willow Ptarmigan	<i>Lagopus lagopus</i>
WISN	Wilson's Snipe	<i>Gallinago delicata</i>
WIWA	Wilson's Warbler	<i>Cardellina pusilla</i>
WIWR	Winter Wren	<i>Troglodytes hiemalis</i>
WTSP	White-throated Sparrow	<i>Zonotrichia albicollis</i>
WWCR	White-winged Crossbill	<i>Loxia leucoptera</i>
YBFL	Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>
YBSA	Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>

YEWA

Yellow Warbler

Setophaga petechia

YHBL

Yellow-headed Blackbird

Xanthocephalus xanthocephalus

YRWA

Yellow-rumped Warbler

Setophaga coronata
