

Electronic Supplementary Material

Table S1. The 118 long-distance migratory bird species considered in the analysis and if they followed a clockwise (CW), counterclockwise (CCW), or intersecting (INT) migration trajectory and if the trajectory was transoceanic (Ocean).

Common	Scientific	Family	Class	Ocean
Acadian Flycatcher	<i>Empidonax virescens</i>	Tyrannidae	CW	X
Alder Flycatcher	<i>Empidonax alnorum</i>	Tyrannidae	CCW	X
American Golden-Plover	<i>Pluvialis dominica</i>	Charadriidae	CW	X
American Redstart	<i>Setophaga ruticilla</i>	Parulidae	CW	X
Baird's Sandpiper	<i>Calidris bairdii</i>	Scolopacidae	INT	X
Baird's Sparrow	<i>Ammodramus bairdii</i>	Emberizidae	INT	
Baltimore Oriole	<i>Icterus galbula</i>	Icteridae	CCW	X
Bay-breasted Warbler	<i>Setophaga castanea</i>	Parulidae	CW	X
Bicknell's Thrush	<i>Catharus bicknelli</i>	Turdidae	INT	X
Black Turnstone	<i>Arenaria melanocephala</i>	Scolopacidae	INT	
Black-and-white Warbler	<i>Mniotilta varia</i>	Parulidae	CW	X
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Cuculidae	CW	X
Blackburnian Warbler	<i>Setophaga fusca</i>	Parulidae	CW	X
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	Cardinalidae	INT	
Blackpoll Warbler	<i>Setophaga striata</i>	Parulidae	CW	X
Black-throated Blue Warbler	<i>Setophaga caerulescens</i>	Parulidae	INT	X
Black-throated Green Warbler	<i>Setophaga virens</i>	Parulidae	CW	X
Blue-headed Vireo	<i>Vireo solitarius</i>	Vireonidae	INT	
Blue-winged Warbler	<i>Vermivora cyanoptera</i>	Parulidae	CW	X
Bobolink	<i>Dolichonyx oryzivorus</i>	Icteridae	CW	X
Brown-chested Martin	<i>Progne tapera</i>	Hirundinidae	INT	
Brown-crested Flycatcher	<i>Myiarchus tyrannulus</i>	Tyrannidae	INT	
Buff-breasted Sandpiper	<i>Calidris subruficollis</i>	Scolopacidae	INT	X
Bullock's Oriole	<i>Icterus bullockii</i>	Icteridae	CW	
Calliope Hummingbird	<i>Selasphorus calliope</i>	Trochilidae	CW	
Canada Warbler	<i>Cardellina canadensis</i>	Parulidae	INT	X
Cape May Warbler	<i>Setophaga tigrina</i>	Parulidae	CW	X
Cassin's Vireo	<i>Vireo cassinii</i>	Vireonidae	CW	
Cerulean Warbler	<i>Setophaga cerulea</i>	Parulidae	CW	X
Chestnut-collared Longspur	<i>Calcarius ornatus</i>	Calcariidae	CCW	
Chestnut-sided Warbler	<i>Setophaga pensylvanica</i>	Parulidae	CW	X
Chimney Swift	<i>Chaetura pelagica</i>	Apodidae	CW	X
Cinnamon-bellied Ground-Tyrant	<i>Muscisaxicola capistratus</i>	Tyrannidae	INT	
Clay-colored Sparrow	<i>Spizella pallida</i>	Emberizidae	INT	
Common Nighthawk	<i>Chordeiles minor</i>	Caprimulgidae	INT	X
Connecticut Warbler	<i>Oporornis agilis</i>	Parulidae	CW	X
Crowned Slaty Flycatcher	<i>Empidonax aurantioatrocristatus</i>	Tyrannidae	INT	
Dark-faced Ground-Tyrant	<i>Muscisaxicola maclovianus</i>	Tyrannidae	INT	
Dusky Flycatcher	<i>Empidonax oberholseri</i>	Tyrannidae	INT	
Eastern Kingbird	<i>Tyrannus tyrannus</i>	Tyrannidae	INT	X
Eastern Wood-Pewee	<i>Contopus virens</i>	Tyrannidae	CW	X
Fork-tailed Flycatcher	<i>Tyrannus savana</i>	Tyrannidae	CW	
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	Emberizidae	CCW	
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	Parulidae	CW	X
Gray-cheeked Thrush	<i>Catharus minimus</i>	Turdidae	CW	X
Gray-crowned Rosy-Finch	<i>Leucosticte tephrocotis</i>	Fringillidae	INT	
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	Tyrannidae	CCW	X
Hammond's Flycatcher	<i>Empidonax hammondii</i>	Tyrannidae	INT	
Harris's Sparrow	<i>Zonotrichia querula</i>	Emberizidae	INT	
Hermit Thrush	<i>Catharus guttatus</i>	Turdidae	CCW	
Hermit Warbler	<i>Setophaga occidentalis</i>	Parulidae	INT	
Indigo Bunting	<i>Passerina cyanea</i>	Cardinalidae	CW	X

Common	Scientific	Family	Class	Ocean
Kentucky Warbler	<i>Geothlypis formosa</i>	Parulidae	INT	X
Lapland Longspur	<i>Calcarius lapponicus</i>	Calcariidae	CW	
Lazuli Bunting	<i>Passerina amoena</i>	Cardinalidae	INT	
Le Conte's Sparrow	<i>Ammodramus leconteii</i>	Emberizidae	CW	
Least Flycatcher	<i>Empidonax minimus</i>	Tyrannidae	INT	X
Least Seedsnipe	<i>Thinocorus rumicivorus</i>	Thinocoridae	INT	
Louisiana Waterthrush	<i>Parkesia motacilla</i>	Parulidae	INT	X
MacGillivray's Warbler	<i>Geothlypis tolmiei</i>	Parulidae	INT	
Magnolia Warbler	<i>Setophaga magnolia</i>	Parulidae	CW	X
Mourning Warbler	<i>Geothlypis philadelphia</i>	Parulidae	INT	X
Nashville Warbler	<i>Oreothlypis ruficapilla</i>	Parulidae	CW	
Nelson's Sparrow	<i>Ammodramus nelsoni</i>	Emberizidae	CW	
Northern Parula	<i>Setophaga americana</i>	Parulidae	CW	X
Northern Waterthrush	<i>Parkesia noveboracensis</i>	Parulidae	CCW	X
Ochre-naped Ground-Tyrant	<i>Muscisaxicola flavinucha</i>	Tyrannidae	INT	
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Tyrannidae	INT	X
Orange-crowned Warbler	<i>Oreothlypis celata</i>	Parulidae	CW	
Orchard Oriole	<i>Icterus spurius</i>	Icteridae	CCW	X
Ovenbird	<i>Seiurus aurocapilla</i>	Parulidae	CCW	X
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	Tyrannidae	INT	
Palm Warbler	<i>Setophaga palmarum</i>	Parulidae	CW	
Pectoral Sandpiper	<i>Calidris melanotos</i>	Scolopacidae	CW	X
Philadelphia Vireo	<i>Vireo philadelphicus</i>	Vireonidae	CW	X
Prothonotary Warbler	<i>Protonotaria citrea</i>	Parulidae	CW	X
Purple Martin	<i>Progne subis</i>	Hirundinidae	INT	X
Purple Sandpiper	<i>Calidris maritima</i>	Scolopacidae	INT	
Red-eyed Vireo	<i>Vireo olivaceus</i>	Vireonidae	CW	X
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	Cardinalidae	CW	X
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	Trochilidae	CCW	X
Rufous Hummingbird	<i>Selasphorus rufus</i>	Trochilidae	CW	
Rusty Blackbird	<i>Euphagus carolinus</i>	Icteridae	INT	
Scarlet Tanager	<i>Piranga olivacea</i>	Cardinalidae	CW	X
Scissor-tailed Flycatcher	<i>Tyrannus forficatus</i>	Tyrannidae	CW	X
Small-billed Elaenia	<i>Small-billed Elaenia</i>	Tyrannidae	CW	
Smith's Longspur	<i>Calcarius pictus</i>	Calcariidae	INT	
Solitary Sandpiper	<i>Tringa solitaria</i>	Scolopacidae	CW	X
Southern Martin	<i>Progne elegans</i>	Hirundinidae	INT	
Spot-billed Ground-Tyrant	<i>Muscisaxicola maculirostris</i>	Tyrannidae	INT	
Sprague's Pipit	<i>Anthus spragueii</i>	Motacillidae	INT	
Sulphur-bellied Flycatcher	<i>Myiodynastes luteiventris</i>	Tyrannidae	INT	
Summer Tanager	<i>Piranga rubra</i>	Cardinalidae	CW	X
Swainson's Thrush	<i>Catharus ustulatus</i>	Turdidae	CW	X
Tennessee Warbler	<i>Oreothlypis peregrina</i>	Parulidae	CW	X
Townsend's Warbler	<i>Setophaga townsendi</i>	Parulidae	INT	
Veery	<i>Catharus fuscescens</i>	Turdidae	CW	X
Violet-green Swallow	<i>Tachycineta thalassina</i>	Hirundinidae	INT	
Virginia's Warbler	<i>Oreothlypis virginiae</i>	Parulidae	INT	
Warbling Vireo	<i>Vireo gilvus</i>	Vireonidae	CCW	
Western Kingbird	<i>Tyrannus verticalis</i>	Tyrannidae	INT	
Western Tanager	<i>Piranga ludoviciana</i>	Cardinalidae	CCW	
Western Wood-Pewee	<i>Contopus sordidulus</i>	Tyrannidae	INT	
White-browed Ground-Tyrant	<i>Muscisaxicola albilora</i>	Tyrannidae	INT	
White-crested Elaenia	<i>Elaenia albiceps</i>	Tyrannidae	CW	
White-rumped Sandpiper	<i>Calidris fuscicollis</i>	Scolopacidae	CW	X
Willow Flycatcher	<i>Empidonax traillii</i>	Tyrannidae	CCW	
Wilson's Phalarope	<i>Phalaropus tricolor</i>	Scolopacidae	INT	X
Wilson's Warbler	<i>Cardellina pusilla</i>	Parulidae	CW	
Wood Thrush	<i>Hylocichla mustelina</i>	Turdidae	CW	X
Worm-eating Warbler	<i>Helmitheros vermivorum</i>	Parulidae	CW	X
Yellow Warbler	<i>Setophaga petechia</i>	Parulidae	CCW	

Common	Scientific	Family	Class	Ocean
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	Tyrannidae	INT	X
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Picidae	INT	
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Cuculidae	CW	X
Yellow-green Vireo	<i>Vireo flavoviridis</i>	Vireonidae	INT	
Yellow-rumped Siskin	<i>Carduelis uropygialis</i>	Fringillidae	INT	
Yellow-throated Vireo	<i>Vireo flavifrons</i>	Vireonidae	CW	X