

Appendix

Table A1. Summary information for 35 songbird species used in the analysis of window collision mortalities from the Fatal Light Awareness Program. Guild refers to the diet of the species and foraging height refers to the canopy height at which the species generally forages. Initial guild assignments from González and Salazar (2014) were simplified into three levels. Species are arranged alphabetically by Family and common name.

Species	Family	Species	Guild
Brown Creeper	Certhiidae	<i>Certhia americana</i>	Non-ground insectivore
American Redstart	Parulidae	<i>Setophaga ruticilla</i>	Non-ground insectivore
Bay-breasted Warbler	Parulidae	<i>Setophaga castanea</i>	Non-ground insectivore
Blackpoll Warbler	Parulidae	<i>Setophaga striata</i>	Non-ground insectivore
Black-throated Blue Warbler	Parulidae	<i>Setophaga caerulescens</i>	Non-ground insectivore
Black-throated Green Warbler	Parulidae	<i>Setophaga virens</i>	Non-ground insectivore
Chestnut-sided Warbler	Parulidae	<i>Setophaga pensylvanica</i>	Non-ground insectivore
Common Yellowthroat	Parulidae	<i>Geothlypis trichas</i>	Non-ground insectivore
Magnolia Warbler	Parulidae	<i>Setophaga magnolia</i>	Non-ground insectivore
Nashville Warbler	Parulidae	<i>Oreothlypis ruficapilla</i>	Non-ground insectivore
Orange-crowned Warbler	Parulidae	<i>Oreothlypis celata</i>	Non-ground insectivore
Ovenbird	Parulidae	<i>Seiurus aurocapilla</i>	Ground insectivore
Tennessee Warbler	Parulidae	<i>Oreothlypis peregrina</i>	Non-ground insectivore
Wilson's Warbler	Parulidae	<i>Cardellina pusilla</i>	Non-ground insectivore
Yellow-rumped Warbler	Parulidae	<i>Setophaga coronata</i>	Non-ground insectivore
American Tree Sparrow	Passerellidae	<i>Spizelloides arborea</i>	Granivore
Dark-eyed Junco	Passerellidae	<i>Junco hyemalis</i>	Granivore
Fox Sparrow	Passerellidae	<i>Passerella iliaca</i>	Granivore
Lincoln's Sparrow	Passerellidae	<i>Melospiza lincolnii</i>	Granivore
Song Sparrow	Passerellidae	<i>Melospiza melodia</i>	Granivore
Swamp Sparrow	Passerellidae	<i>Melospiza georgiana</i>	Ground insectivore
White-crowned Sparrow	Passerellidae	<i>Zonotrichia leucophrys</i>	Granivore
White-throated Sparrow	Passerellidae	<i>Zonotrichia albicollis</i>	Granivore
Golden-crowned Kinglet	Regulidae	<i>Regulus satrapa</i>	Non-ground insectivore
Ruby-crowned Kinglet	Regulidae	<i>Regulus calendula</i>	Non-ground insectivore
Winter Wren	Troglodytidae	<i>Troglodytes hiemalis</i>	Non-ground insectivore
Gray-cheeked Thrush	Turdidae	<i>Catharus minimus</i>	Ground insectivore
Hermit Thrush	Turdidae	<i>Catharus guttatus</i>	Ground insectivore
Swainson's Thrush	Turdidae	<i>Catharus ustulatus</i>	Non-ground insectivore
Veery	Turdidae	<i>Catharus fuscescens</i>	Ground insectivore
Eastern Phoebe	Tyrannidae	<i>Sayornis phoebe</i>	Non-ground insectivore
Least Flycatcher	Tyrannidae	<i>Empidonax minimus</i>	Non-ground insectivore
Blue-headed Vireo	Vireonidae	<i>Vireo solitarius</i>	Non-ground insectivore
Philadelphia Vireo	Vireonidae	<i>Vireo philadelphicus</i>	Non-ground insectivore
Red-eyed Vireo	Vireonidae	<i>Vireo olivaceus</i>	Non-ground insectivore

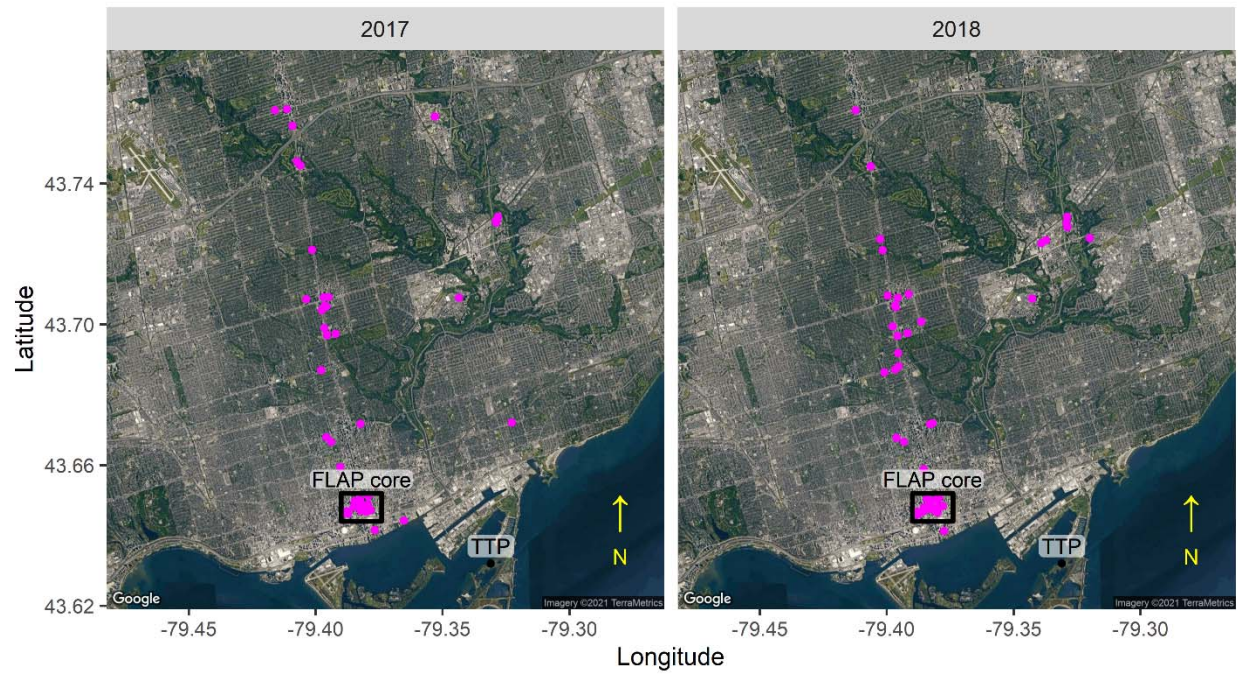


Figure A1. Location of aged carcasses from the Fatal Light Awareness Program in 2017 and 2018, Toronto, Canada.

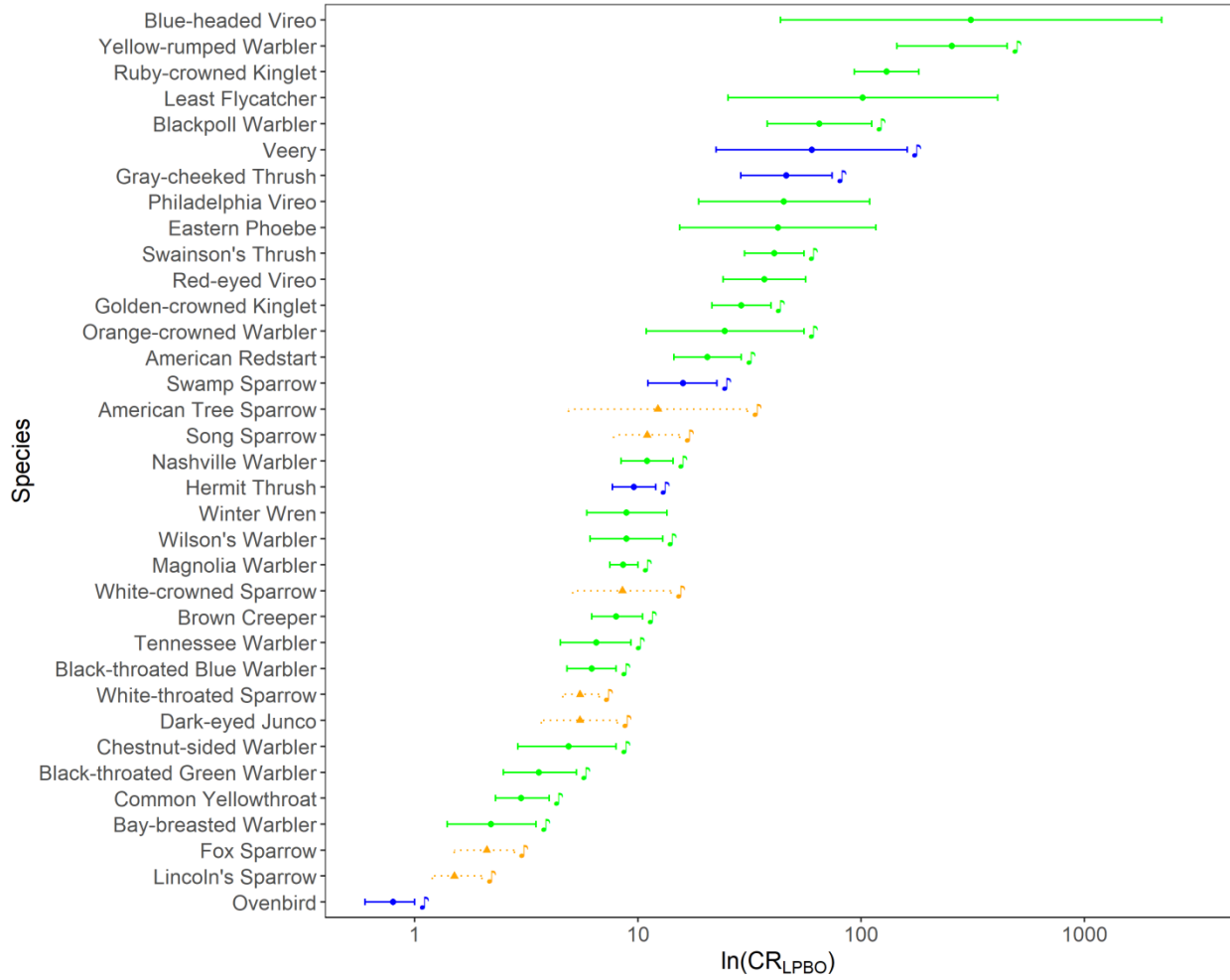


Figure A2. Catch ratios between Long Point Bird Observatory (LPBO) and the Fatal Light Awareness Program (FLAP) for 35 songbird species sorted from largest to smallest catch ratio. Catch ratios \pm 95% confidence intervals were log-transformed to facilitate plotting on the same axis. A large catch ratio means that relatively more of that species was caught at LPBO than FLAP. Trophic guild is indicated by orange triangles and dotted lines (granivore), blue circles and solid lines (ground insectivore), and green circles and solid lines (non-ground insectivore). Music notes indicate the use of nocturnal flight calls.

Table A2. Comparison of catches between Long Point Bird Observatory (LPBO) and the Fatal Light Awareness Program (FLAP). Shown are the total catches across all years by program (LPBO:FLAP), the catch ratio (CR_{LPBO}), and 95% confidence interval from the specific-specific generalized linear models. Species are sorted by CR_{LPBO} .

Species	LPBO:FLAP	CR_{LPBO}	95% CI
Blue-headed Vireo	434:1	311.0	43.5–2225.3
Yellow-rumped Warbler	8880:27	255.6	144.5–452.2
Ruby-crowned Kinglet	9805:55	130.0	93.4–181.1
Least Flycatcher	288:2	101.8	25.3–408.8
Blackpoll Warbler	2133:20	65.1	38.0–111.5
Veery	333:4	60.1	22.4–161.0
Gray-cheeked Thrush	1196:19	46.3	28.9–74.2
Philadelphia Vireo	325:5	45.1	18.7–109.2
Eastern Phoebe	267:4	42.4	15.4–116.3
Swainson's Thrush	3240:57	40.8	30.0–55.4
Red-eyed Vireo	1209:23	36.9	24.1–56.4
Golden-crowned Kinglet	6555:168	29.1	21.5–39.4
Orange-crowned Warbler	202:6	24.5	10.9–55.5
American Redstart	1526:52	20.5	14.5–29.1
Swamp Sparrow	705:32	15.9	11.1–22.6
American Tree Sparrow	108:6	12.3	4.9–31.0
Nashville Warbler	1278:87	11.0	8.4–14.4
Song Sparrow	883:56	11.0	7.8–15.4
Hermit Thrush	2882:223	9.6	7.7–12.0
Magnolia Warbler	2395:197	9.0	6.7–12.0
Winter Wren	523:41	8.9	5.9–13.5
Wilson's Warbler	368:30	8.9	6.1–12.9
White-crowned Sparrow	434:33	8.5	5.1–14.1
Brown Creeper	2078:175	8.0	6.2–10.5
Tennessee Warbler	381:41	6.5	4.5–9.3
Black-throated Blue Warbler	1259:165	6.2	4.8–8.0
White-throated Sparrow	4970:692	5.5	4.6–6.7
Dark-eyed Junco	1579:203	5.5	3.7–8.1
Chestnut-sided Warbler	193:30	4.9	2.9–8.0
Black-throated Green Warbler	220:44	3.6	2.5–5.3
Common Yellowthroat	963:236	3.0	2.3–4.0
Bay-breasted Warbler	199:42	2.2	1.4–3.5
Fox Sparrow	188:73	2.1	1.5–2.8
Lincoln's Sparrow	177:84	1.5	1.2–2.0
Ovenbird	390:401	0.8	0.6–1.0

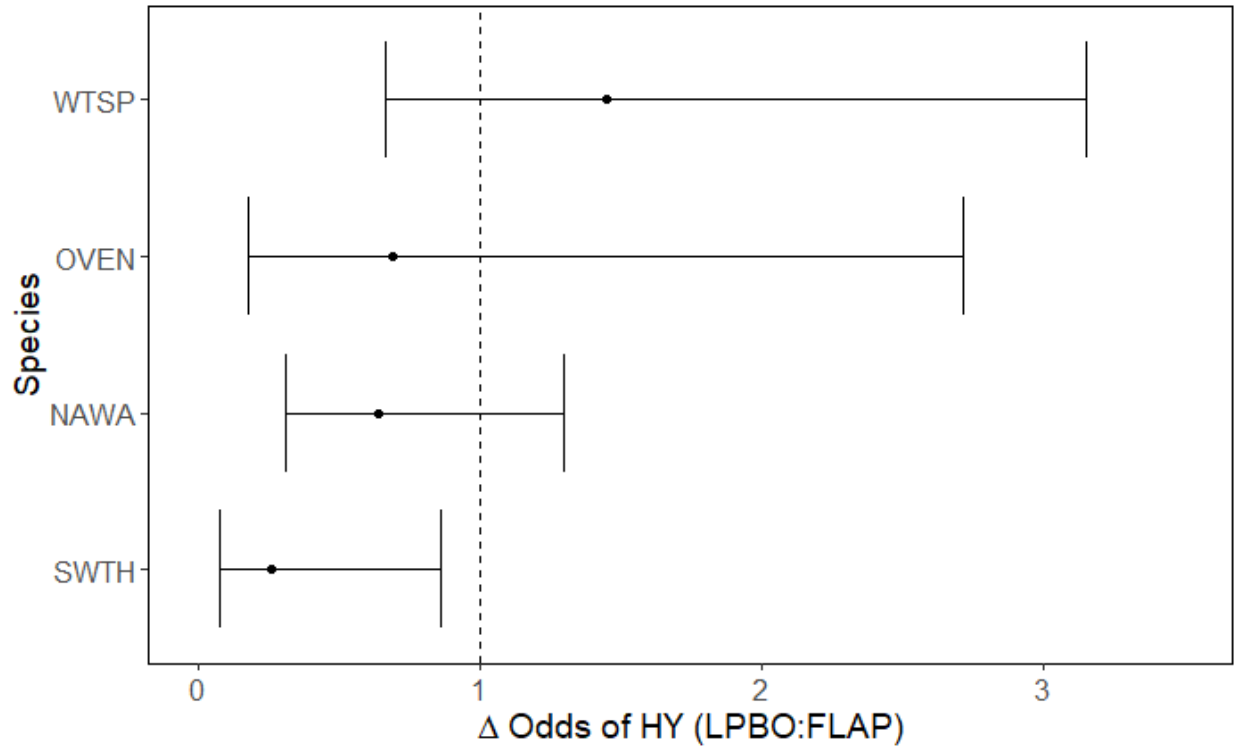


Figure S3. Change in odds of catching HY birds between Long Point Bird Observatory (LPBO) and the Fatal Light Awareness Program (FLAP) for four songbird species. Estimated changes in odds are represented by the points and the error bars are 95% confidence intervals. The vertical dashed line represents the null hypothesis where the HY log odds at LPBO is equal to the HY log odds at FLAP. Species with 95% confidence intervals that do not cross 1 have significantly different odds at LPBO and FLAP. NAWA = Nashville Warbler; OVEN = Ovenbird; SWTH = Swainson's Thrush; WTSP = White-throated Sparrow.

LITERATURE CITED

González-Salazar, C., E. Martínez-Meyer, and G. López-Santiago. 2014. A hierarchical classification of trophic guilds for North American birds and mammals. *Revista Mexicana de Biodiversidad* 85:931–941.