

At the end of the road: Lessons learned
from comparing spatially explicit models
and the Partners in Flight approaches to
estimate population sizes of boreal birds
in Alberta, Canada - Appendix: Species
Results

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Supporting material for the manuscript ‘At the end of the road: Lessons learned from comparing model- and design-based approaches to estimate population sizes of boreal birds in Alberta, Canada’ by Peter Solymos et al.

We provide the following information for each of the 81 species used in the study:

- pixel (PIX) and PIF based population size estimates with 95% confidence intervals (millions of individuals),
- the metrics used for the calculations and AUC as a measure of classification accuracy,
- average density in each land cover type, and by age category for forest stands (bar vs. line indicates fire vs. harvest originated stands),
- maps: detections aggregated in 10 km x 10 km units (full study area), mean density and 95% confidence interval range as a measure of uncertainty (BCR 6 prediction area),
- land cover level average densities and percent of the total population found in each land cover type within the BCR 6 prediction area.

Common and scientific names of the species used in the paper, including species codes used in the figures, and population size estimates for Bird Conservation Region 6 in Alberta based on the pixel-based (Npix) and Partners in Flight (Npif) estimators with 95% confidence limits in parentheses. Population sizes are in millions of individuals. Species names follow the Chesser et al. 2018.

We present the following metrics:

- estimates of on-road (Y1) and off-road (Y0) bird densities were based on model predictions;
- Partners in Flight time adjustment (Tadj) and maximum detection distances (MDD, in m) were based on Stanton et al. (2019);
- average probability of availability given a 3-minutes point count (p3) was estimated based on dates and times in our Bird Conservation Region (BCR) 6 Boreal Taiga Plains / Alberta data set and removal-model estimates from Solymos et al. (2018b);
- effective detection radius (EDR, in m) was based on land-cover and forest cover in our BCR 6 / Alberta data set and distance-sampling estimates from Solymos (2016);
- the habitat representation component (h1) was based on empirical estimates of bird densities, and availability and roadside sampling probabilities from Table 1;
- the time adjustment (T), detection distance adjustment (A), roadside count (R), and habitat representation (H) log ratio components are calculated as described in the Methods.

Mourning Dove (*Zenaida macroura*; MODO)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.0069	1e-04	0.4042	0.0513	0.0214	0.0992

Metrics used to calculate log ratio components and AUC:

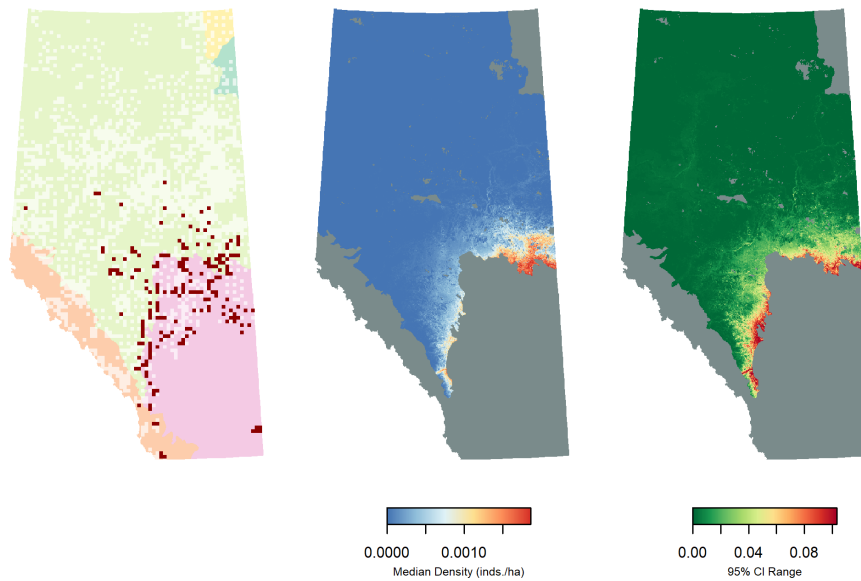
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0067	0.0033	2.6033	1.3722	0.8284	200	112.4501	0.9273

Log ratio components:

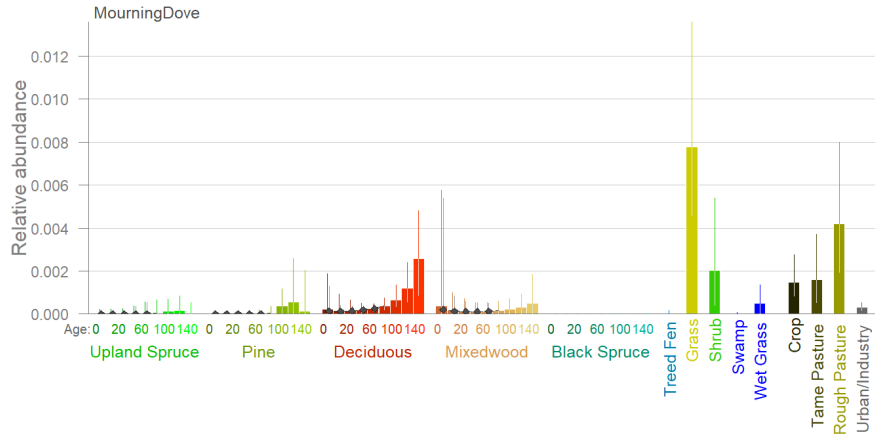
T	A	R	H
-0.1282	1.1516	0.4931	-0.9568

Distribution and density map:

Mourning Dove
(*Zenaida macroura*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0002	0.0002	0.0003	0.0001	0.00	0.0001	0	0.00	0	0
Percent	4.0400	30.5300	4.1000	2.9800	0.01	1.9900	0	0.66	0	0
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0	0.0002	0.001	0	0.0002	0	0.0006	0		
Percent	0	2.3000	2.910	0	1.2000	0	49.2800	0		

Yellow-bellied Sapsucker (*Sphyrapicus varius*; YBSA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.2907	2.5243	4.2688	1.5623	0.8935	2.5694

Metrics used to calculate log ratio components and AUC:

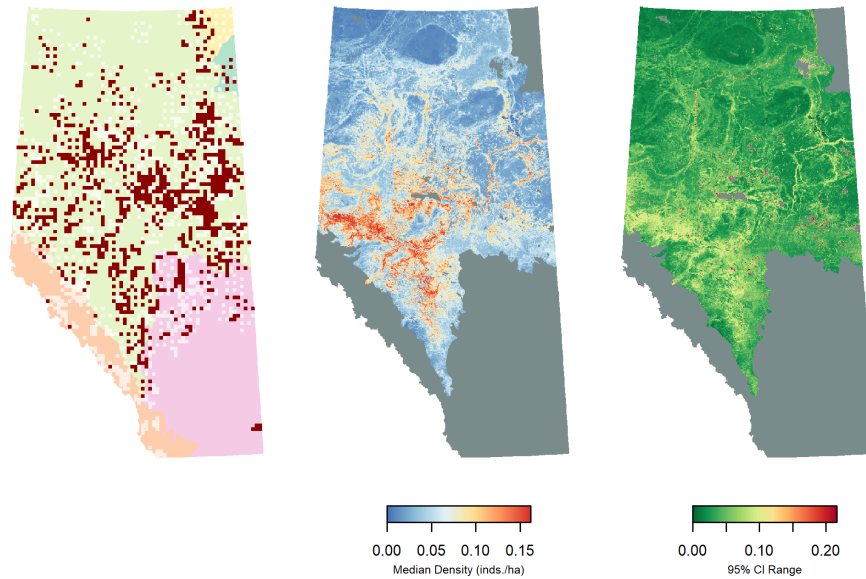
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0266	0.0279	1.1715	1.6576	0.4583	125	89.9458	0.7461

Log ratio components:

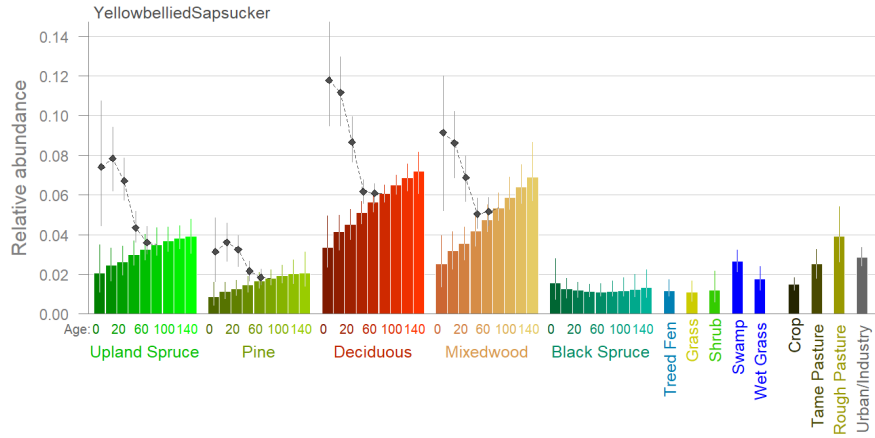
T	A	R	H
0.2747	0.6582	1.0477	-0.1583

Distribution and density map:

Yellow-bellied Sapsucker
(*Sphyrapicus varius*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1834	0.1436	0.1342	0.1572	0.0476	0.0557	0.111	0.1063	0.0282	0.0243
Percent	9.1400	33.9400	3.7600	8.4800	3.3800	3.3500	4.030	5.4400	2.5200	2.7300
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0247	0.0281	0.0461	0.0541	0.0305	0.0562	0.0602	0.0774		
Percent	4.3600	0.5300	0.2500	1.4600	0.4000	6.1000	8.7800	1.3700		

Downy Woodpecker (*Dryobates pubescens*; DOWO)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.533	0.2411	2.4168	0.1938	0.1049	0.3106

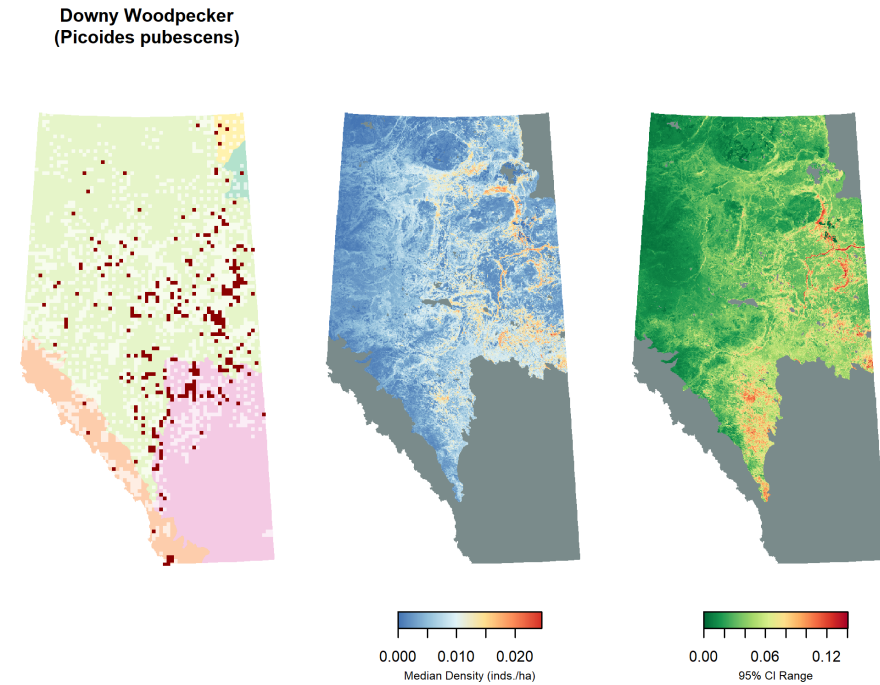
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0075	0.0072	1.1486	1.3469	0.2778	125	80.2428	0.6688

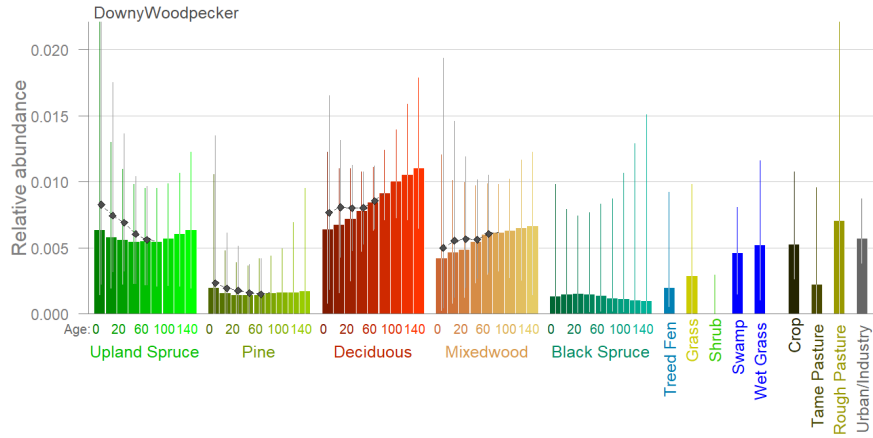
Log ratio components:

T	A	R	H
0.9829	0.8865	0.9616	-0.1386

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0185	0.0241	0.0145	0.0227	0.0062	0.0051	0.0171	0.0161	0.0042	0.0026
Percent	5.9600	36.8400	2.6200	7.9300	2.8600	1.9800	4.0200	5.3500	2.4300	1.9000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0027	0	0	0	0.0206	0.0156	0.009	0.0333		
Percent	3.1400	0	0	0	1.7300	10.9300	8.500	3.8100		

Hairy Woodpecker (*Dryobates villosus*; HAWO)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.1468	0.6241	27.181	0.3551	0.1969	0.5515

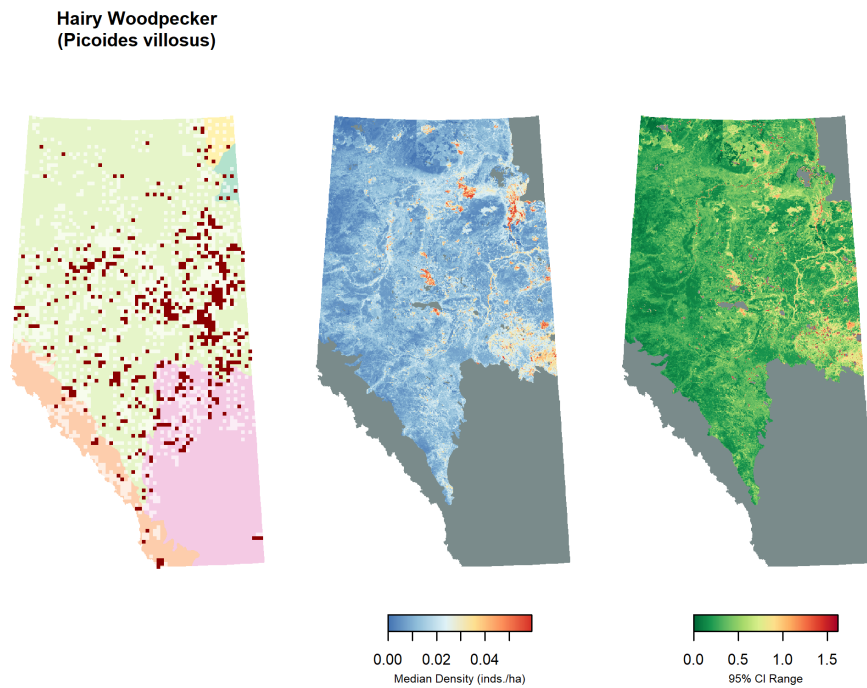
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0168	0.0142	1.0806	1.2831	0.3294	125	72.2969	0.7089

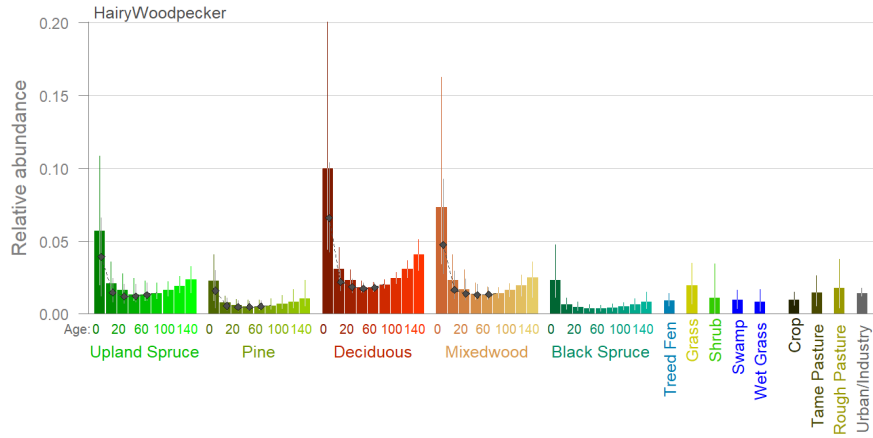
Log ratio components:

T	A	R	H
0.8612	1.0951	0.8482	-0.0775

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0822	0.0467	0.0513	0.0337	0.0193	0.0172	0.0382	0.0488	0.0209	0.0143
Percent	10.6500	28.6900	3.7400	4.7200	3.5600	2.7000	3.6100	6.5100	4.8700	4.1800
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0235	0	0.0252	0.007	0.0128	0.0215	0.0208	0.0158		
Percent	10.8000	0	0.3500	0.490	0.4300	6.0600	7.9000	0.7300		

Northern Flicker (*Colaptes auratus*; NOFL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.2535	0.8132	1.8941	0.358	0.1959	0.6128

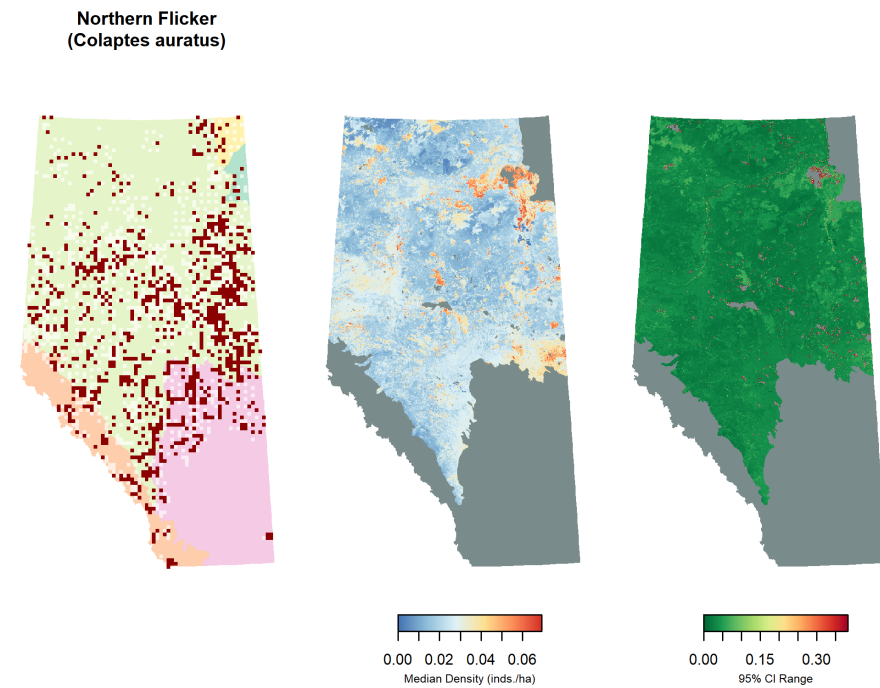
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0304	0.0198	1.2047	1.301	0.3227	200	110.1172	0.6693

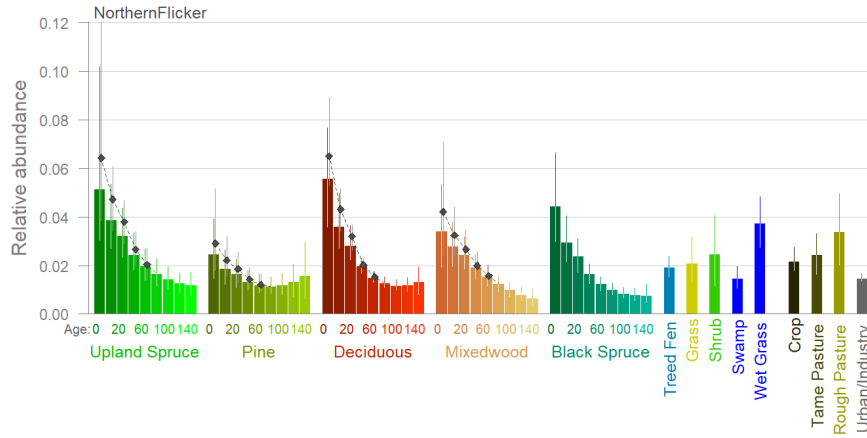
Log ratio components:

T	A	R	H
0.868	1.1935	0.6516	-0.1863

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0705	0.0255	0.0458	0.0207	0.0275	0.0242	0.0565	0.0237	0.0326	0.0137
Percent	8.6200	14.8200	3.1400	2.7400	4.7900	3.5800	5.0400	2.9800	7.1700	3.7700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0349	0.0283	0.0293	0.0586	0.0708	0.0187	0.0394	0.0298		
Percent	15.1400	1.3100	0.3900	3.8900	2.2600	4.9800	14.0900	1.2900		

Pileated Woodpecker (*Dryocopus pileatus*; PIWO)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.3616	0.2006	0.6374	0.0406	0.0227	0.0691

Metrics used to calculate log ratio components and AUC:

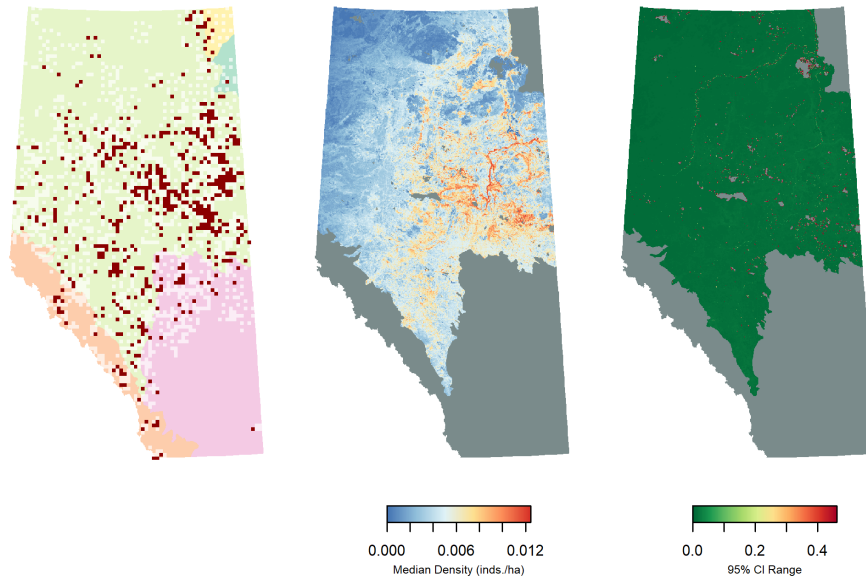
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0031	0.0043	0.9913	1.7008	0.3069	300	137.5968	0.7476

Log ratio components:

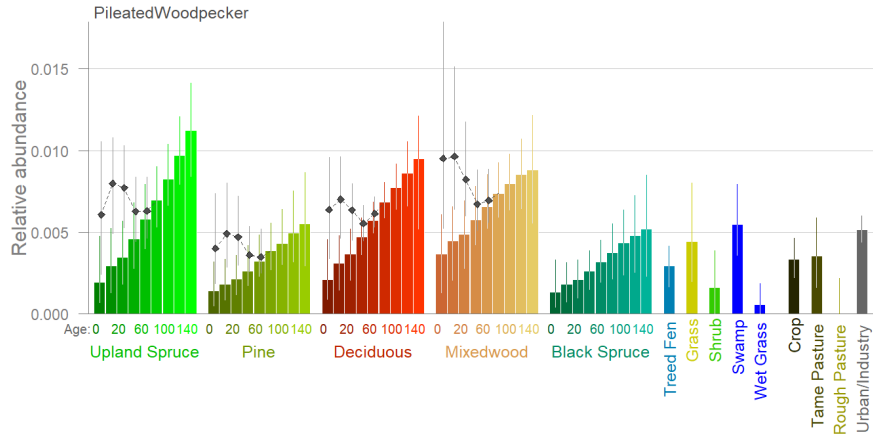
T	A	R	H
0.6502	1.5589	1.3717	0.0087

Distribution and density map:

Pileated Woodpecker
(*Dryocopus pileatus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0103	0.0119	0.0122	0.0163	0.0062	0.0106	0.0094	0.0198	0.0048	0.0099
Percent	4.3400	23.8800	2.8800	7.4500	3.7300	5.4100	2.8800	8.5800	3.6700	9.3900
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0048	0.0032	0.014	0.0018	0	0.0105	0.0067	0.0076		
Percent	7.1500	0.5100	0.640	0.4100	0	9.6600	8.2800	1.1400		

Eastern Kingbird (*Tyrannus tyrannus*; EAKI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.2967	0.0101	1.0286	0.1781	0.0764	0.3191

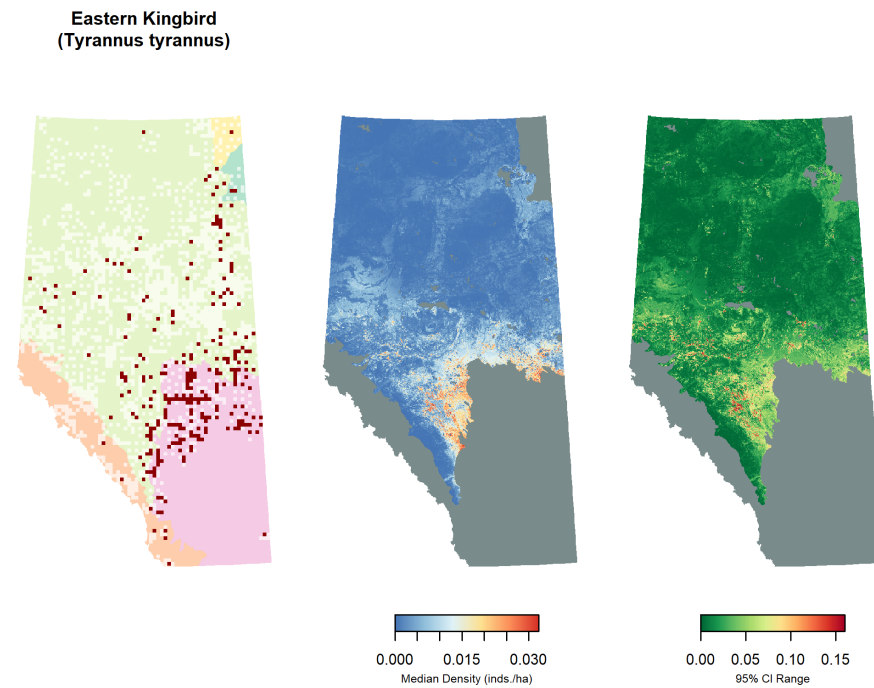
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0119	0.0084	2.0334	1.1555	0.5185	125	84.2346	0.8194

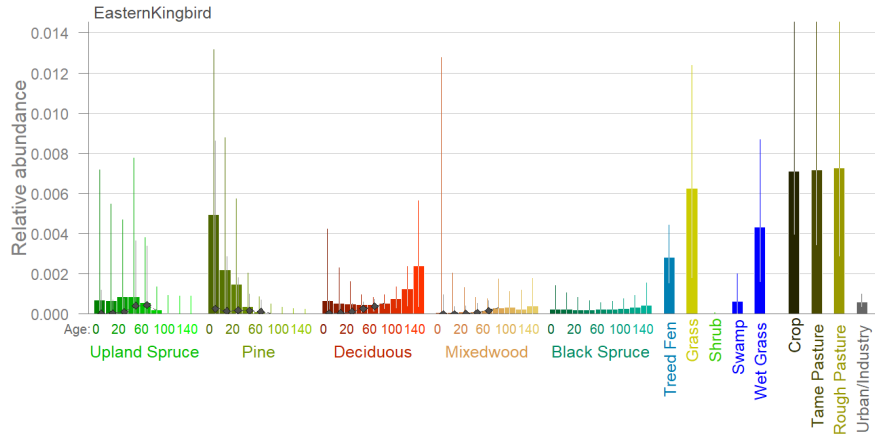
Log ratio components:

T	A	R	H
0.5122	0.7894	0.7072	-0.7097

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0018	0.0021	3e-04	0.0023	0.0055	0.00	0.0031	0.0002	0.0006	0.0012
Percent	1.1100	6.1800	1e-01	1.5300	4.8800	0.02	1.4100	0.1200	0.7200	1.7200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0132	0	0.0076	0.0096	0.0099	0.0026	0.0223	0.0138		
Percent	29.4000	0	0.5200	3.2500	1.6200	3.5100	40.8500	3.0500		

Olive-sided Flycatcher (*Contopus cooperi*; OSFL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
2.2349	0.912	210.572	0.0177	0.0077	0.0338

Metrics used to calculate log ratio components and AUC:

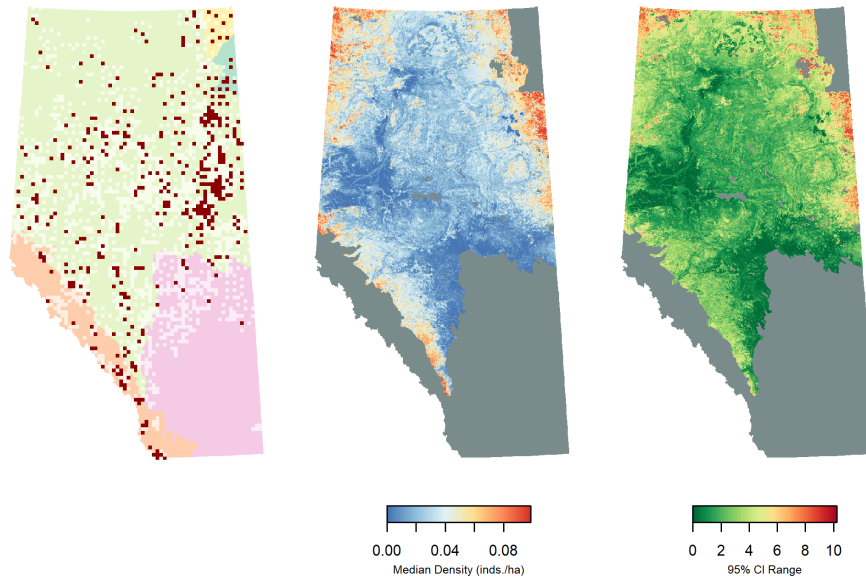
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0036	0.0072	0.4717	1.1156	0.5691	300	104.0234	0.8241

Log ratio components:

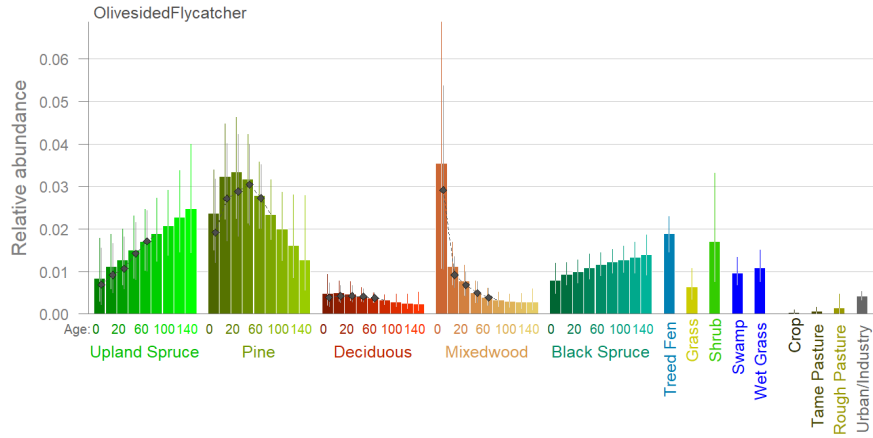
T	A	R	H
0.4543	2.1183	2.0013	0.7513

Distribution and density map:

**Olive-sided Flycatcher
(*Contopus cooperi*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0234	0.0223	0.0694	0.0274	0.1334	0.1077	0.0551	0.1228	0.0599	0.0757
Percent	1.4900	6.7400	2.4800	1.8900	12.0800	8.2800	2.5500	8.0300	6.8600	10.8600
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.1081	0.0161	0.0235	0.0933	0.0777	0.0625	0.003	0.0016		
Percent	24.4200	0.3900	0.1600	3.2200	1.2900	8.6600	0.550	0.0400		

Western Wood-Pewee (*Contopus sordidulus*; WEWP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.6504	2.1391	6.0681	0.2208	0.1104	0.376

Metrics used to calculate log ratio components and AUC:

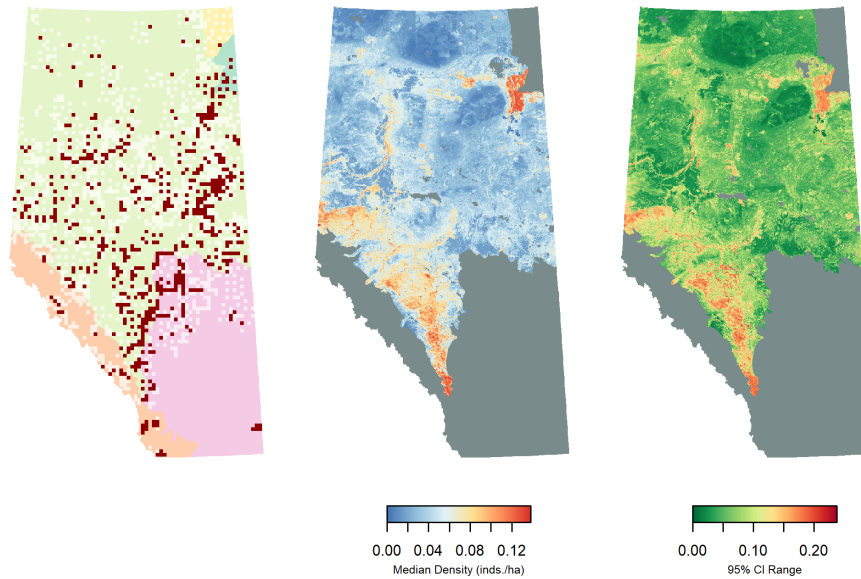
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0187	0.0176	0.8907	1.1209	0.6008	200	78.9432	0.6893

Log ratio components:

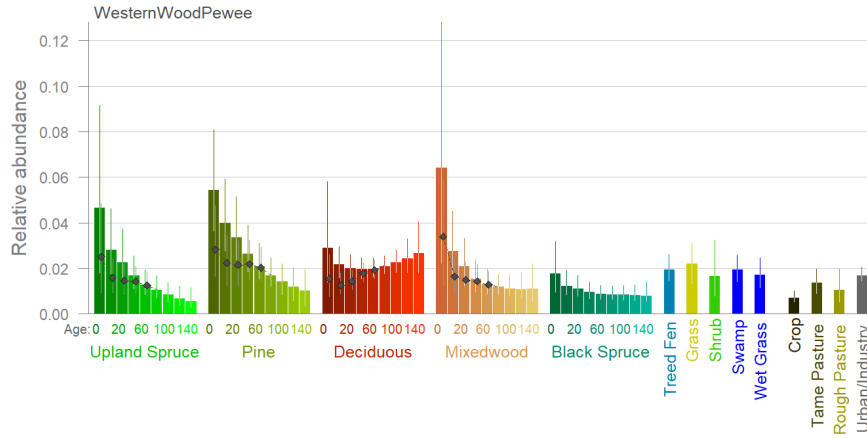
T	A	R	H
0.3953	1.8592	0.9453	0.1158

Distribution and density map:

**Western Wood-Pewee
(*Contopus sordidulus*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0889	0.126	0.1193	0.0962	0.167	0.0885	0.1059	0.0401	0.0527	0.0395
Percent	3.8300	25.760	2.8900	4.4900	10.250	4.6100	3.3300	1.7800	4.0900	3.8400
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.108	0.0229	0.0288	0.052	0.0791	0.0908	0.0507	0.069		
Percent	16.530	0.3700	0.1300	1.220	0.8900	8.5300	6.4000	1.050		

Yellow-bellied Flycatcher (*Empidonax flaviventris*; YBFL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
2.5641	1.5419	4.4507	0.0606	0.0149	0.1331

Metrics used to calculate log ratio components and AUC:

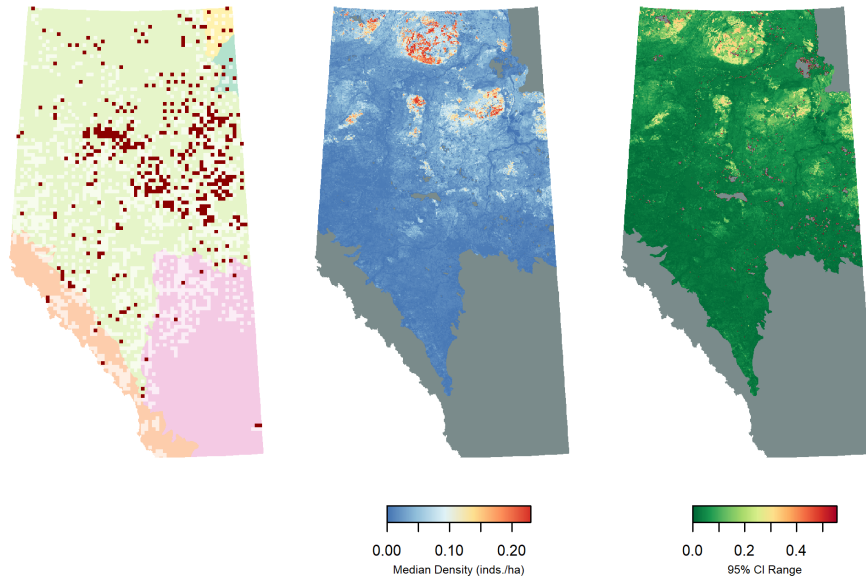
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0031	0.0081	0.7241	1.198	0.545	125	71.8664	0.8603

Log ratio components:

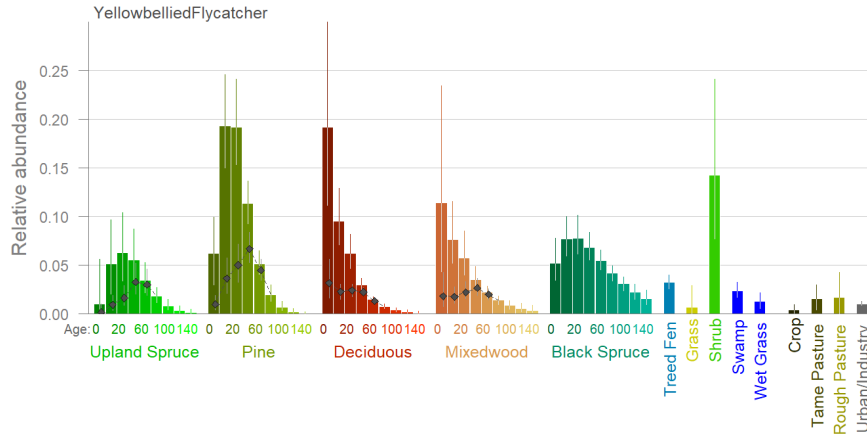
T	A	R	H
0.4263	1.107	2.6128	0.3228

Distribution and density map:

Yellow-bellied Flycatcher
(*Empidonax flaviventris*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1236	0.0212	0.0841	0.0257	0.1526	0.0358	0.0399	0.0159	0.161	0.0808
Percent	6.8300	5.5600	2.6100	1.5400	12.0100	2.3900	1.6100	0.9000	16.020	10.0700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0745	0.555	0.0735	0.0447	0.0647	0.0642	0.0232	0.0012		
Percent	14.6400	11.590	0.4400	1.3400	0.9300	7.7400	3.7500	0.0200		

Alder Flycatcher (*Empidonax alnorum*; ALFL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
4.4884	3.4559	9.5312	3.2685	2.2366	4.6753

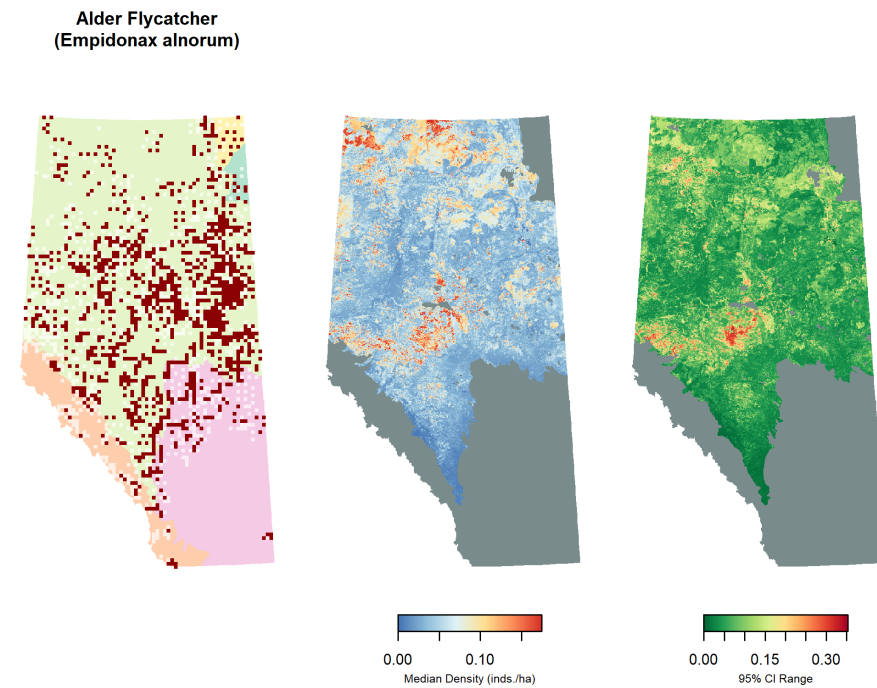
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0649	0.0413	0.82	1.3222	0.5816	125	83.6876	0.7733

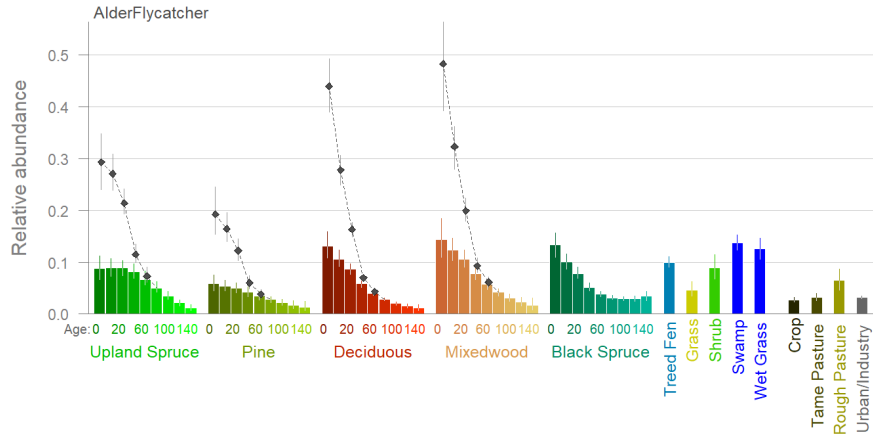
Log ratio components:

T	A	R	H
0.2626	0.8024	0.6356	0.1984

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2273	0.0405	0.3079	0.0452	0.1082	0.0335	0.2309	0.0428	0.1078	0.0486
Percent	8.0900	6.8400	6.1600	1.7400	5.4800	1.4400	5.9800	1.5700	6.9000	3.9000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.161	0.172	0.0749	0.1753	0.2868	0.2017	0.0527	0.1437		
Percent	20.330	2.310	0.2900	3.3800	2.6600	15.6300	5.4900	1.8100		

Least Flycatcher (*Empidonax minimus*; LEFL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
13.2092	10.456	15.9695	3.6241	2.33	5.2219

Metrics used to calculate log ratio components and AUC:

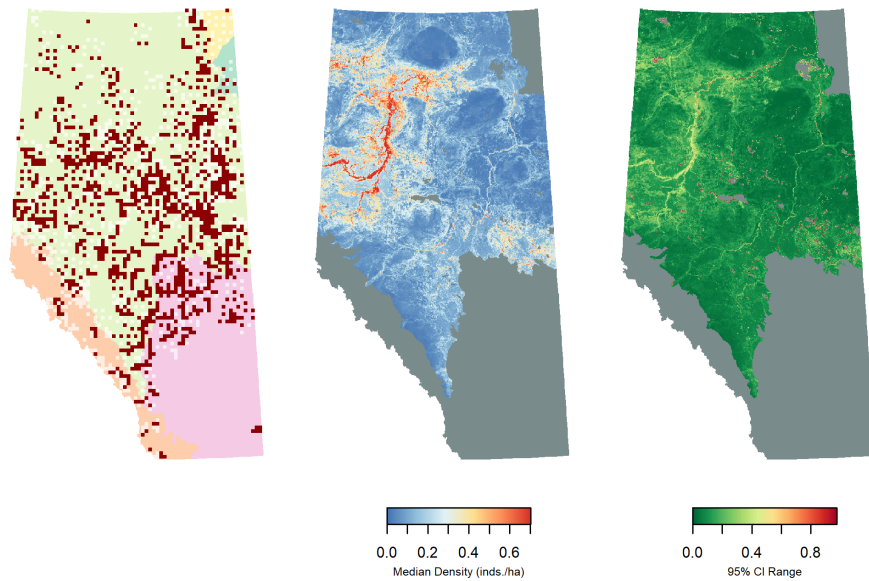
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1484	0.142	1.1931	1.091	0.7035	125	65.9086	0.7298

Log ratio components:

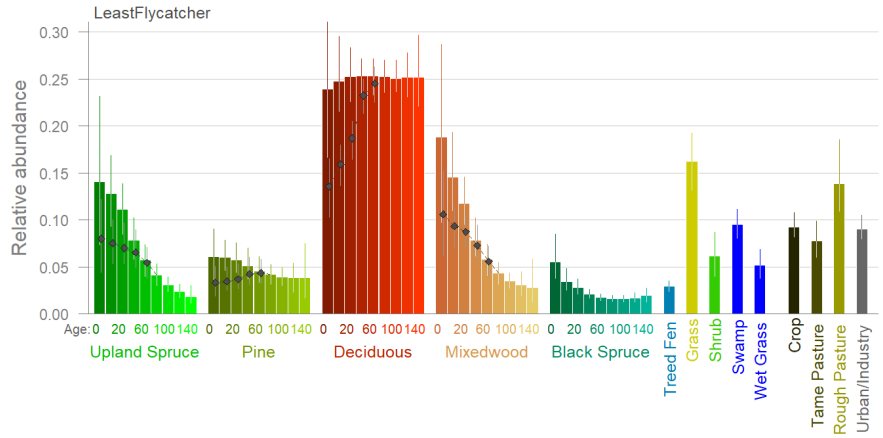
T	A	R	H
0.2646	1.2801	0.9571	-0.1765

Distribution and density map:

Least Flycatcher
(*Empidonax minimus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.7971	0.8989	0.3728	0.1529	0.1615	0.1428	0.2837	0.1294	0.0965	0.0598
Percent	9.1300	48.8200	2.4000	1.8900	2.6300	1.9800	2.3700	1.5200	1.9900	1.5400
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.1045	0.178	0.4158	0.1392	0.3031	0.3191	0.2776	0.2856		
Percent	4.2500	0.770	0.5200	0.8700	0.9100	7.9600	9.3000	1.1600		

Blue-headed Vireo (*Vireo solitarius*; BHVI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
6.1629	4.4153	8.9472	0.8508	0.3598	1.6866

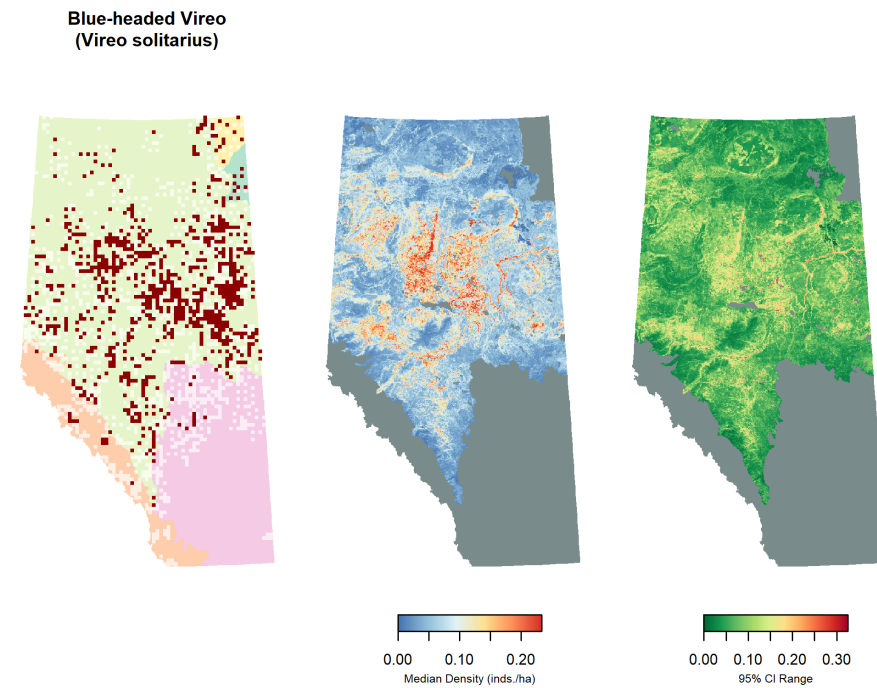
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0235	0.0278	0.8555	1.2113	0.4936	125	72.0221	0.7837

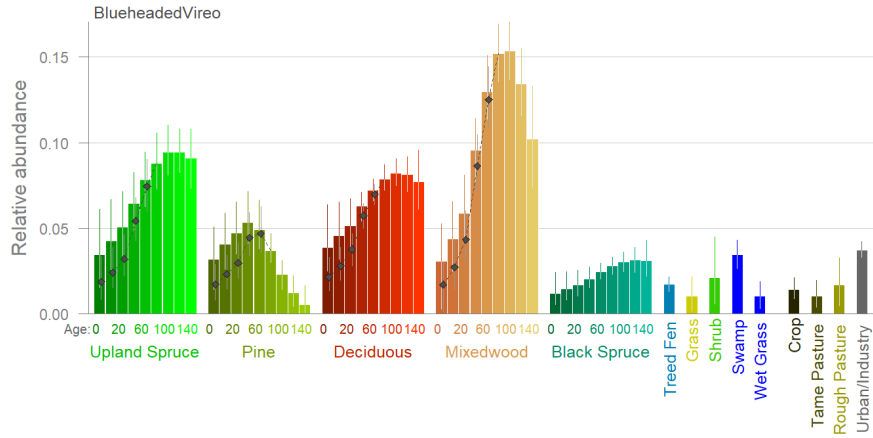
Log ratio components:

T	A	R	H
0.5143	1.1027	1.1819	0.1561

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1199	0.251	0.1283	0.5333	0.1092	0.0785	0.1184	0.3328	0.08	0.1146
Percent	3.2200	31.970	1.9400	15.5000	4.1800	2.5500	2.3200	9.1900	3.86	6.9400
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.068	0.1013	0.0234	0.0194	0.0496	0.1055	0.0441	0.0511		
Percent	6.490	1.0300	0.0700	0.2800	0.3500	6.1700	3.4700	0.4900		

Philadelphia Vireo (*Vireo philadelphicus*; PHVI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.8673	0.8927	4.5917	0.2644	0.1225	0.4781

Metrics used to calculate log ratio components and AUC:

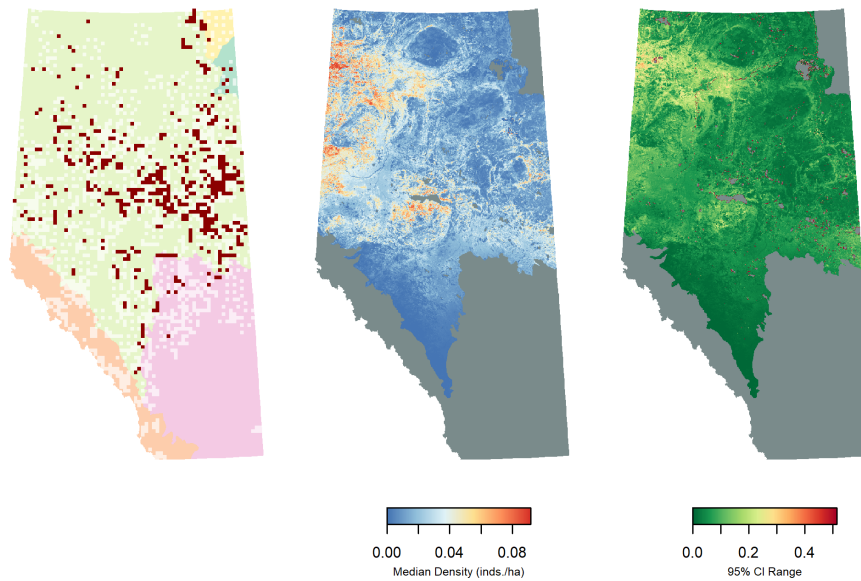
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0104	0.0168	1.2795	1.1961	0.7556	125	59.1755	0.8225

Log ratio components:

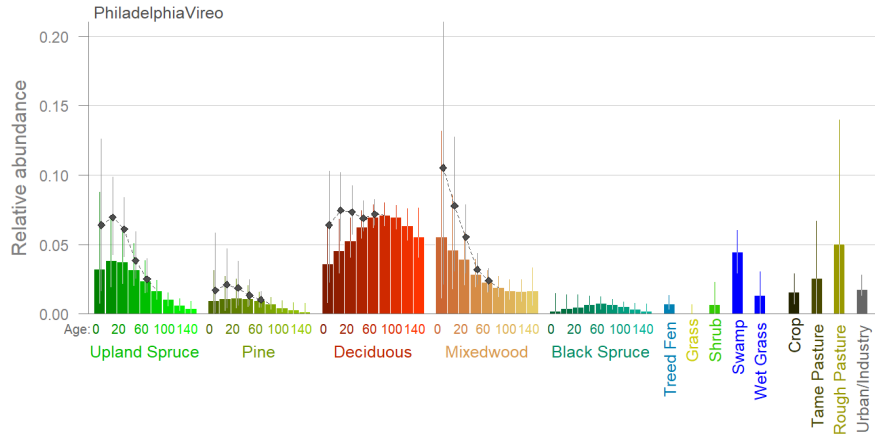
T	A	R	H
0.1012	1.4956	1.6224	-0.2465

Distribution and density map:

Philadelphia Vireo
(*Vireo philadelphicus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1025	0.1053	0.0973	0.0321	0.0219	0.0052	0.0777	0.0048	0.0094	0.0072
Percent	7.9800	38.8700	4.2500	2.7000	2.4200	0.4900	4.4000	0.3800	1.3200	1.2700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0144	0.0262	0	0	0.0908	0.0855	0.0555	0.0783		
Percent	3.9800	0.7700	0	0	1.8500	14.5000	12.6400	2.1600		

Warbling Vireo (*Vireo gilvus*; WAVI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.7544	2.7719	5.6307	2.1074	1.1482	3.4803

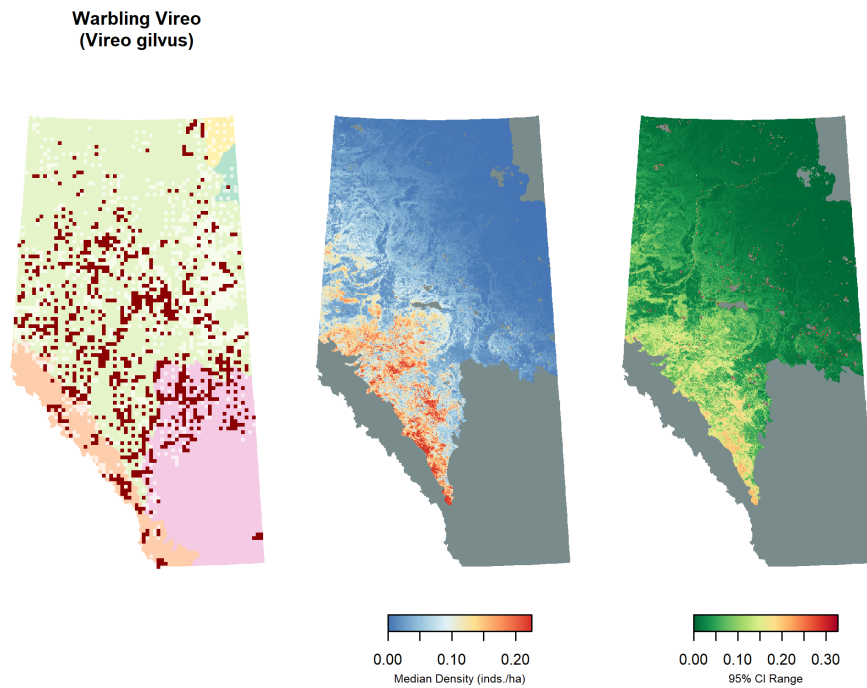
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0663	0.0905	1.0442	1.2591	0.6318	125	75.0157	0.7768

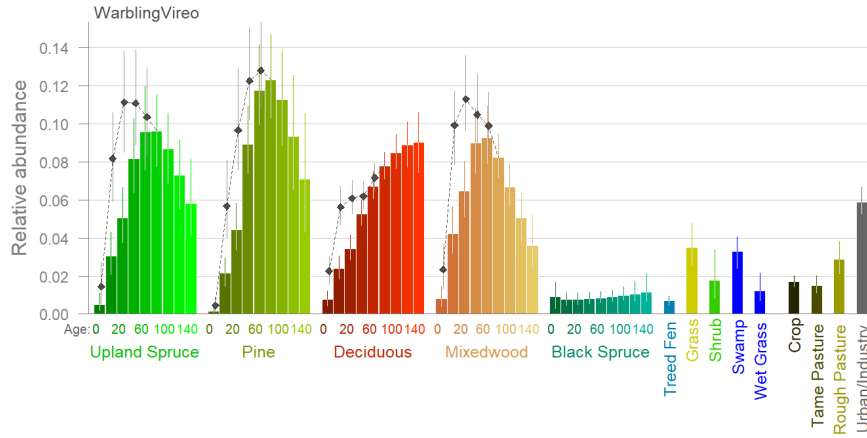
Log ratio components:

T	A	R	H
0.2288	1.0212	1.3649	-0.0433

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1509	0.1676	0.193	0.1845	0.1206	0.2134	0.1715	0.1365	0.0217	0.0229
Percent	6.1300	32.2800	4.400	8.1100	6.9700	10.4700	5.0700	5.7000	1.5800	2.0900
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0177	0.0164	0.0525	0.0025	0.0729	0.0621	0.0409	0.205		
Percent	2.5600	0.2500	0.2300	0.0500	0.7700	5.5000	4.8700	2.950		

Red-eyed Vireo (*Vireo olivaceus*; REVI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
9.5956	8.1495	14.1119	8.8725	5.9809	12.6774

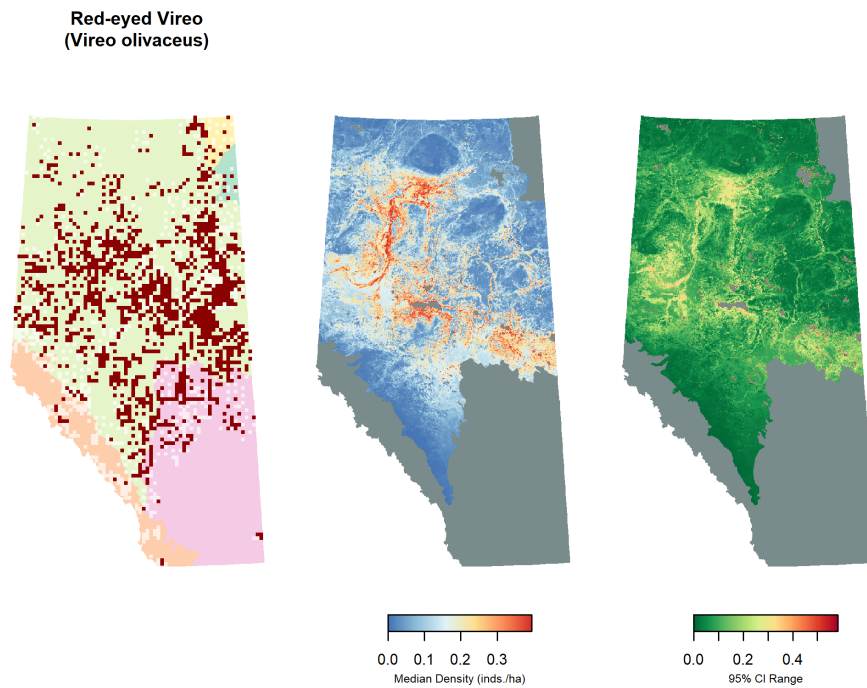
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1055	0.081	1.4178	1.2847	0.7299	125	92.1158	0.7939

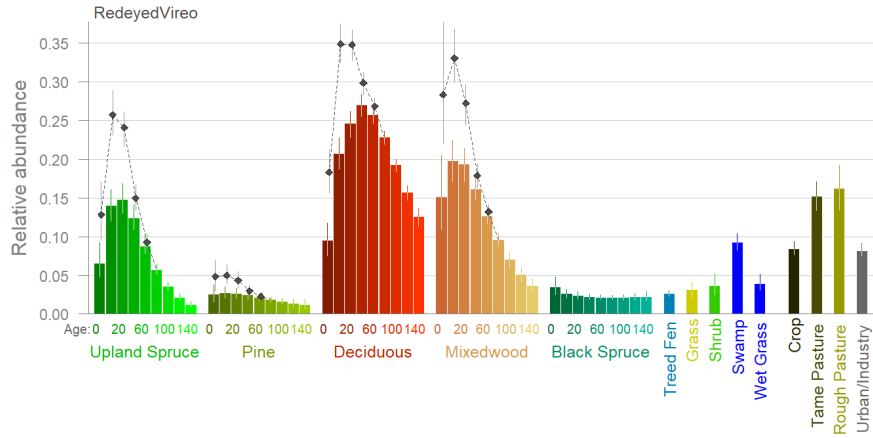
Log ratio components:

T	A	R	H
0.0643	0.6105	0.7679	-0.3491

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.6442	0.5395	0.5598	0.2109	0.0731	0.0391	0.3388	0.0698	0.0559	0.0419
Percent	10.2100	40.5600	4.9800	3.6200	1.6500	0.7500	3.9100	1.1400	1.6000	1.5000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.062	0.1245	0.1699	0.1144	0.1638	0.2229	0.3225	0.2201		
Percent	3.490	0.7500	0.2900	0.9800	0.6800	7.6900	14.9600	1.2400		

Canada Jay (*Perisoreus canadensis*; GRAJ)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
13.0035	9.1616	16.8075	0.6859	0.3497	1.173

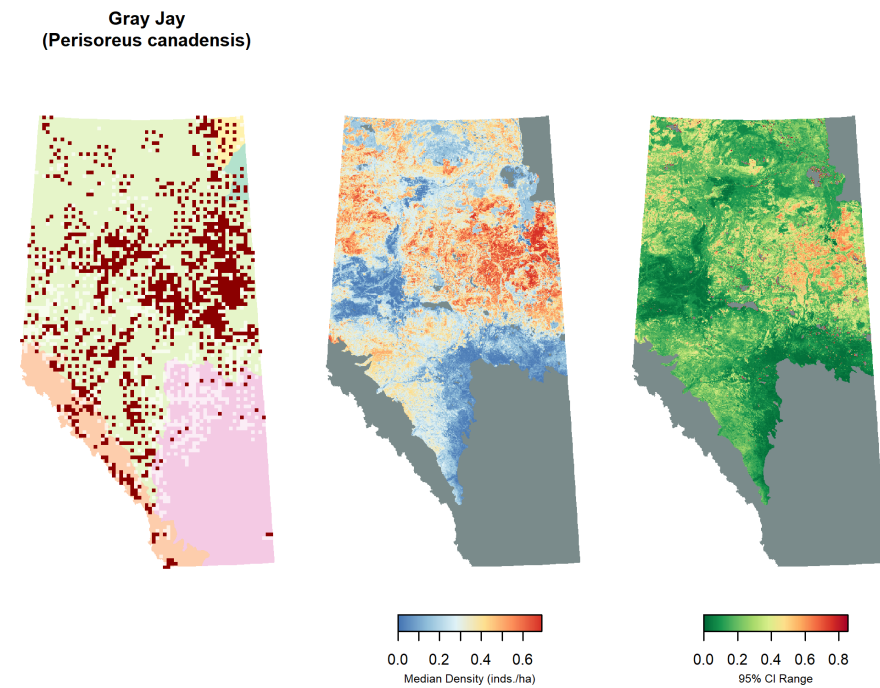
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0697	0.0689	0.5537	1.2288	0.3711	125	68.9538	0.8182

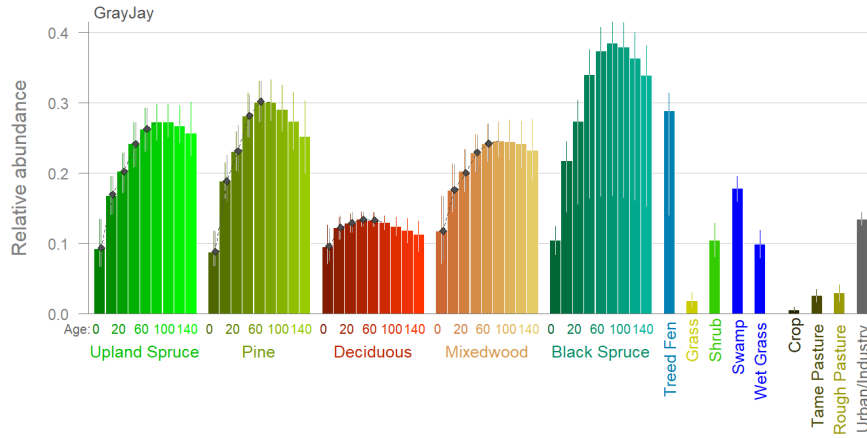
Log ratio components:

T	A	R	H
0.7852	1.1898	0.9887	0.5911

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1888	0.2415	0.2769	0.4288	0.3361	0.4641	0.2831	0.4444	0.4608	0.5964
Percent	2.2700	13.7600	1.8700	5.5800	5.7500	6.7400	2.4800	5.4900	9.9600	16.1600
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.4239	0.1692	0.0376	0.1816	0.1643	0.2964	0.0267	0.153		
Percent	18.0900	0.7700	0.0500	1.1800	0.5200	7.7600	0.9400	0.650		

Blue Jay (*Cyanocitta cristata*; BLJA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.2455	0.0413	0.7068	0.0672	0.0334	0.1211

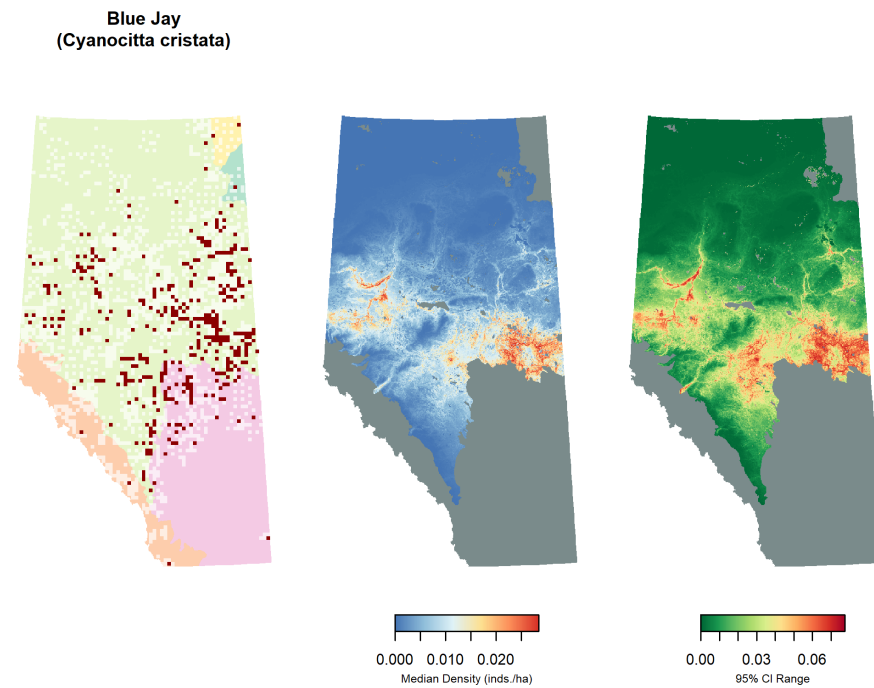
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0296	0.0209	1.6743	1.2168	0.1968	200	131.3802	0.746

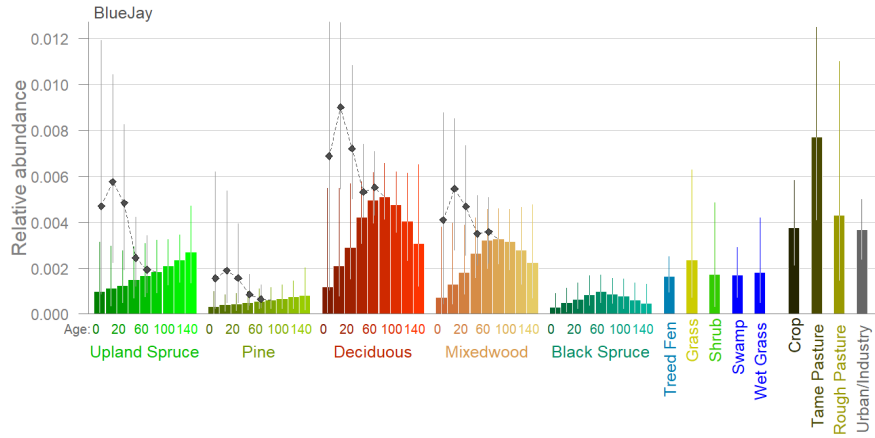
Log ratio components:

T	A	R	H
1.4292	0.8404	0.7056	-0.5154

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0136	0.0105	0.0062	0.0062	0.0027	0.0015	0.0055	0.0049	0.0012	0.0012
Percent	9.2200	33.6800	2.3400	4.5500	2.6000	1.2000	2.6900	3.3800	1.4100	1.8000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0029	0.0015	0.0082	0.0009	0.0023	0.0025	0.0112	0.0115		
Percent	6.8700	0.3800	0.6000	0.3400	0.4100	3.6500	22.1000	2.7500		

Black-billed Magpie (*Pica hudsonia*; BBMA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.0609	0.0229	0.6779	0.817	0.4767	1.3295

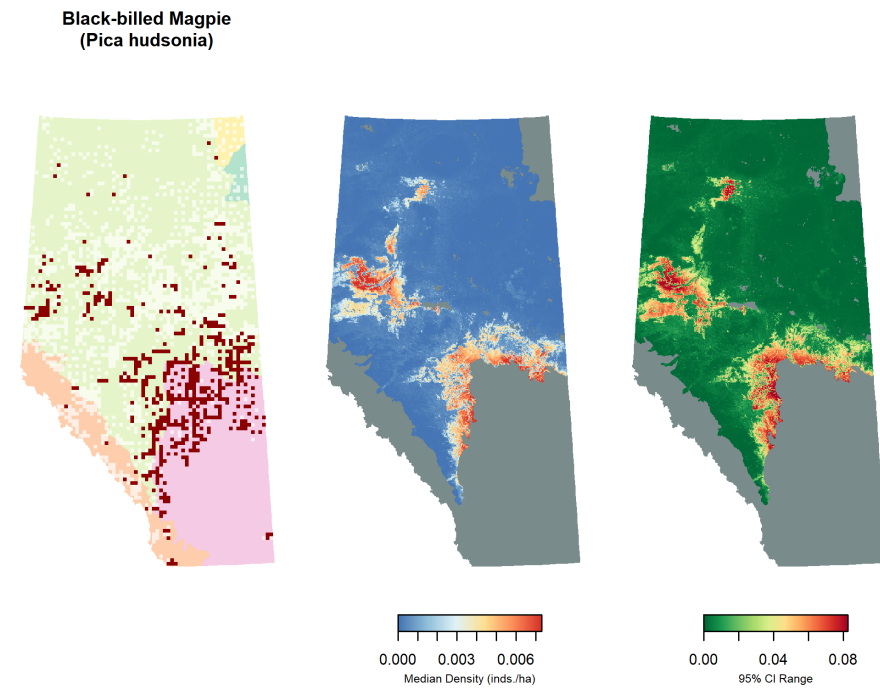
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0879	0.0341	3.4518	1.266	0.3371	300	201.1492	0.9043

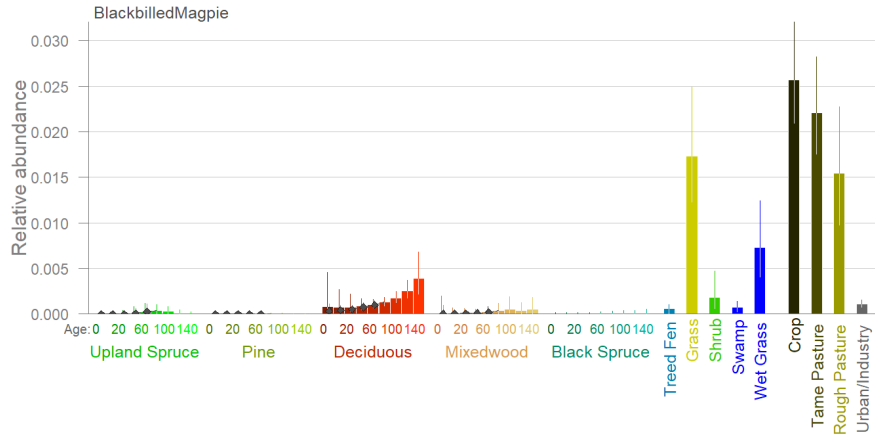
Log ratio components:

T	A	R	H
0.8516	0.7995	0.3877	-1.2389

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0006	0.0007	1e-04	0.0002	0	0	0.00	0.0001	0.00	0.00
Percent	1.4600	8.2300	9e-02	0.4500	0	0	0.09	0.2300	0.07	0.25
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0004	0.0003	0.0041	0	0.0056	0.0004	0.0102	0.0028		
Percent	3.3900	0.3300	1.1300	0	3.7400	2.1600	75.8500	2.5500		

American Crow (*Corvus brachyrhynchos*; AMCR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.3584	0.2382	0.5693	1.3044	0.8668	1.9567

Metrics used to calculate log ratio components and AUC:

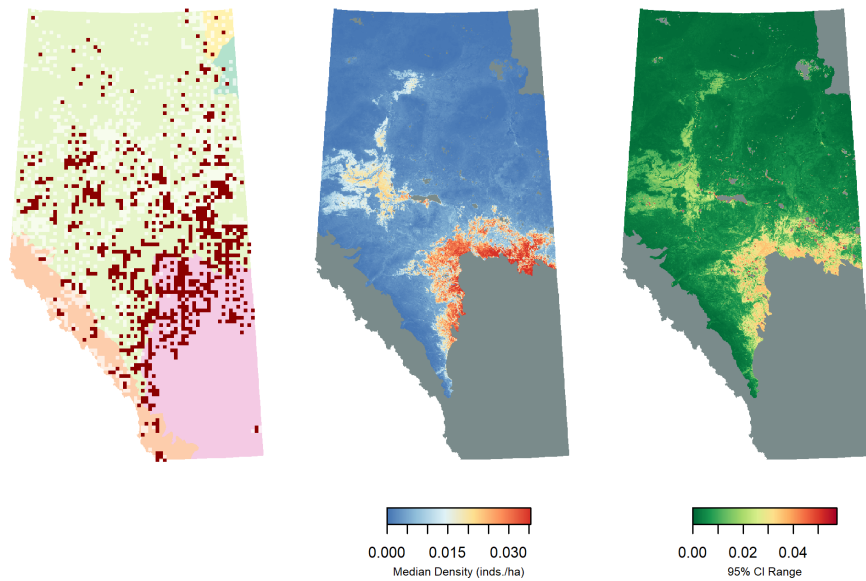
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0878	0.0402	2.8499	1.6643	0.7062	400	184.5382	0.8749

Log ratio components:

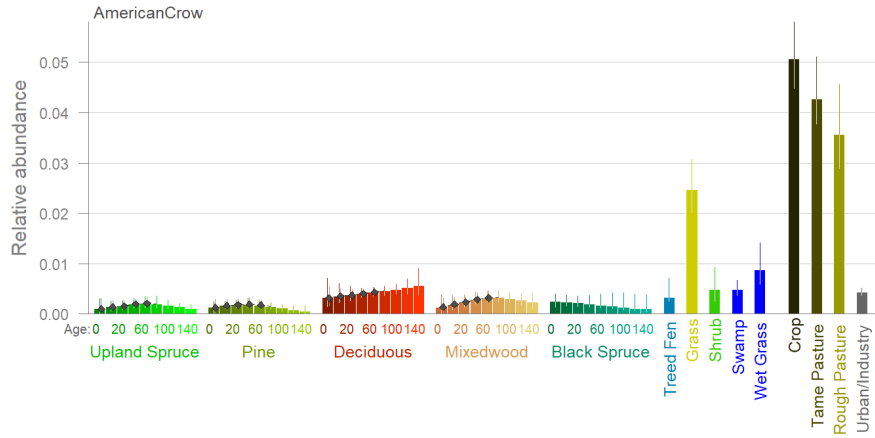
T	A	R	H
-0.1616	1.5472	0.4581	-1.0473

Distribution and density map:

American Crow
(*Corvus brachyrhynchos*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0056	0.0054	0.0031	0.0045	0.0026	0.0015	0.0019	0.0018	0.0029	0.0014
Percent	2.4000	10.9400	0.7500	2.1000	1.5600	0.7600	0.6000	0.8000	2.2100	1.3600
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0038	0.0038	0.0166	0.0038	0.0143	0.0057	0.0476	0.014		
Percent	5.7100	0.6100	0.7700	0.8800	1.6000	5.3000	59.5500	2.120		

Common Raven (*Corvus corax*; CORA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.82	0.6311	1.0685	0.4098	0.2631	0.6171

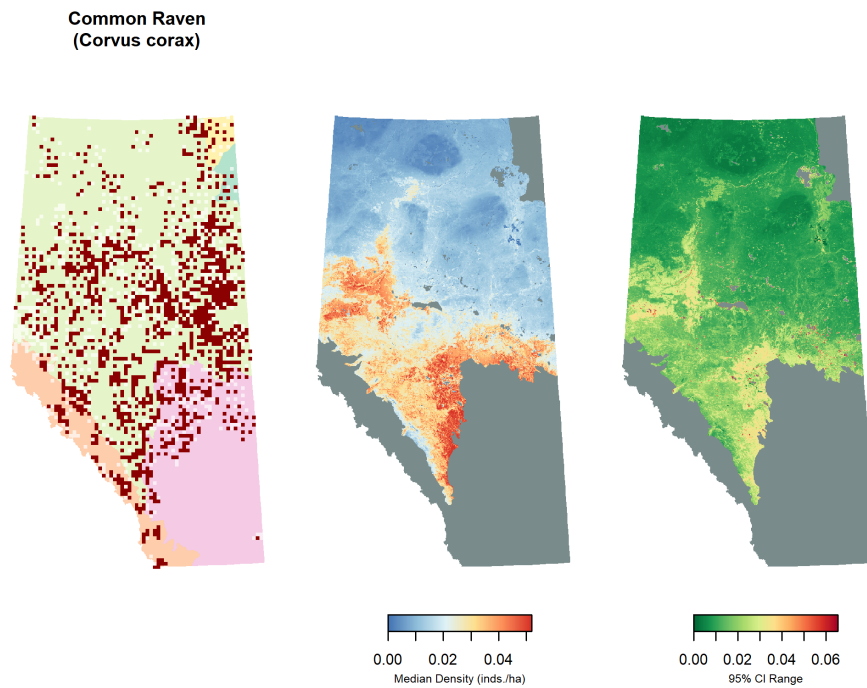
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0417	0.0304	1.6363	1.3811	0.3302	400	155.0036	0.671

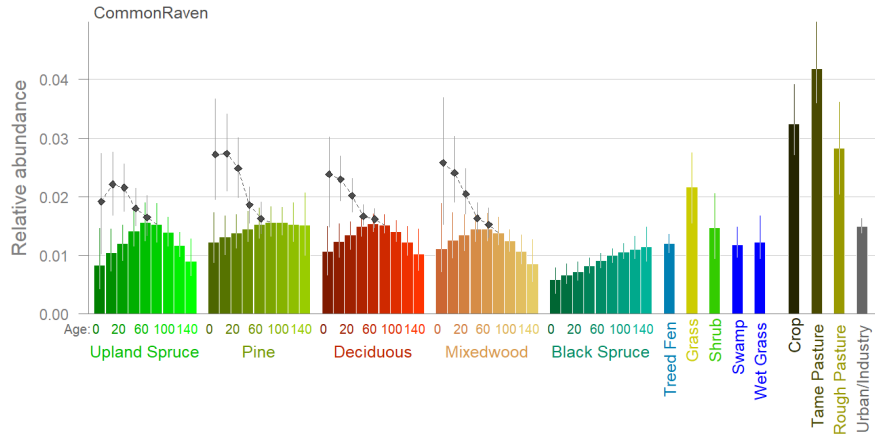
Log ratio components:

T	A	R	H
0.7852	1.896	0.728	-0.4924

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0251	0.0179	0.0249	0.0181	0.0233	0.0192	0.0215	0.0153	0.0089	0.0128
Percent	4.9200	16.6300	2.7400	3.8400	6.4900	4.5300	3.0700	3.0900	3.1300	5.6600
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0139	0.0159	0.0223	0.0124	0.0184	0.012	0.0453	0.0181		
Percent	9.6600	1.1800	0.4700	1.3100	0.9400	5.140	25.9500	1.2500		

Horned Lark (*Eremophila alpestris*; HOLA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.0496	7e-04	0.4823	0.0039	2e-04	0.0103

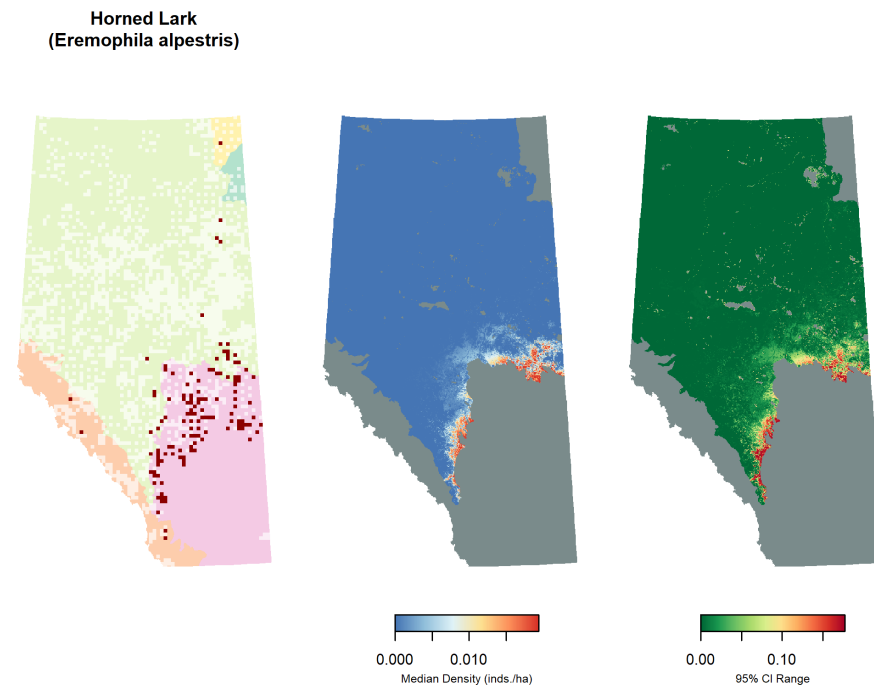
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0057	0.009	4.0689	1.3765	0.6017	200	96.1653	0.9697

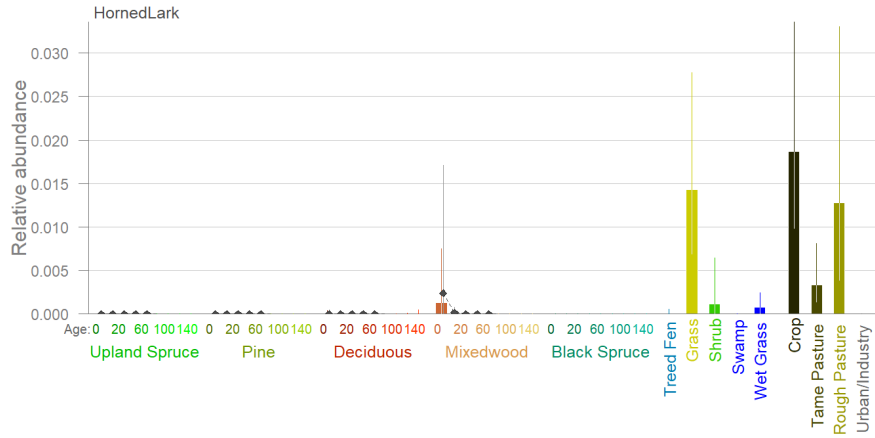
Log ratio components:

T	A	R	H
0.1885	1.4645	1.5805	-1.4034

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0	0	0.0023	0	0	0	0	0	0	0
Percent	0	0	3.1500	0	0	0	0	0	0	0
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0	0.0002	0.0082	0	0.0007	0	0.0131	0.0006		
Percent	0	0.1900	2.1700	0	0.4100	0	93.5600	0.5200		

Tree Swallow (*Tachycineta bicolor*; TRES)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.6411	0.0028	1.3937	1.3672	0.7138	2.3152

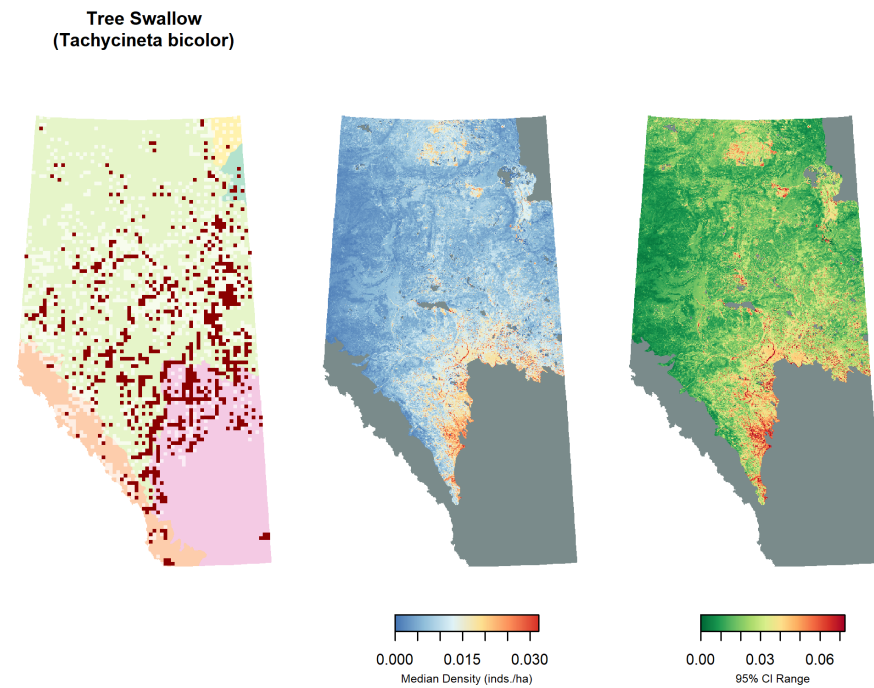
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1334	0.0498	1.255	1.1457	0.5294	200	93.9821	0.795

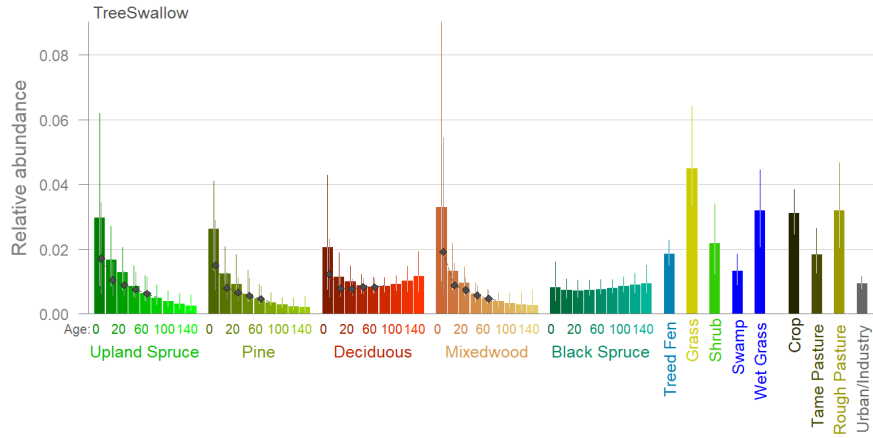
Log ratio components:

T	A	R	H
0.5	1.5104	0.3732	-0.2271

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.014	0.0085	0.0122	0.0032	0.0171	0.0047	0.0162	0.0052	0.0096	0.0121
Percent	3.660	10.5100	1.8000	0.9100	6.3800	1.4800	3.0900	1.4000	4.5500	7.1400
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0226	0.027	0.0261	0.0155	0.0361	0.0151	0.0239	0.0325		
Percent	21.0400	2.670	0.7400	2.2000	2.4700	8.6100	18.3000	3.0200		

Barn Swallow (*Hirundo rustica*; BARS)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.0959	0	29.0841	0.5044	0.2882	0.8707

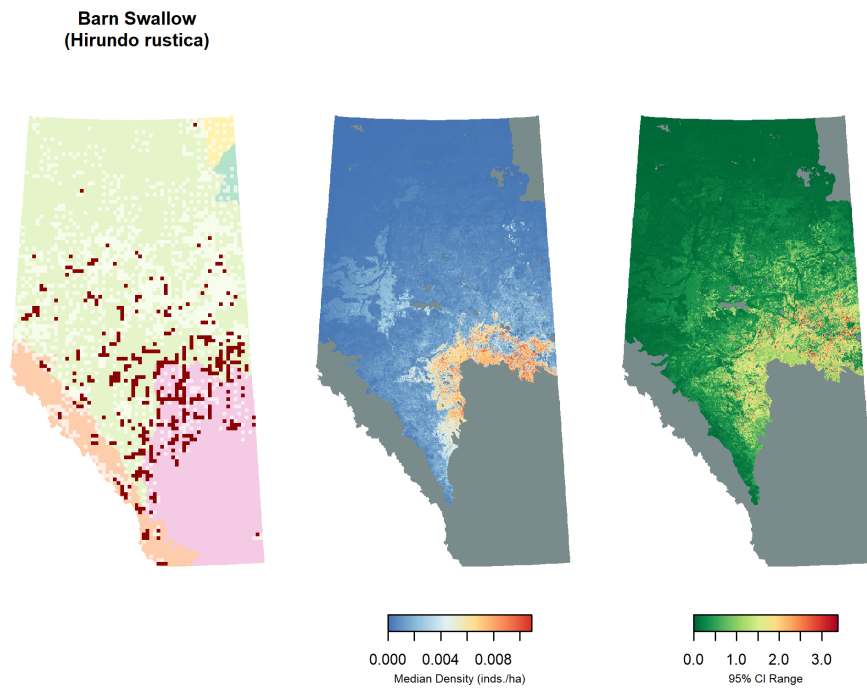
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0709	0.0128	2.6485	1.334	0.3145	200	89.2582	0.8595

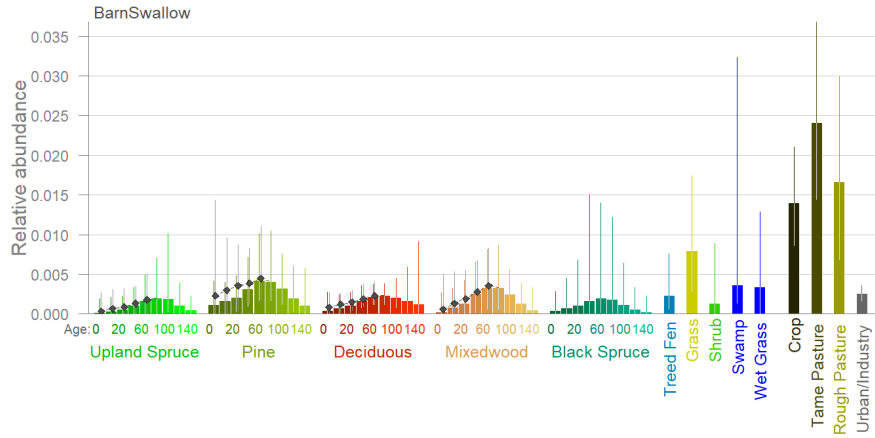
Log ratio components:

T	A	R	H
0.8685	1.6136	0.1813	-0.974

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0006	0.0008	0.0003	0.0004	0.0022	0.0017	0.0004	3e-04	0.0004	0.0005
Percent	1.2500	7.3400	0.3100	0.9700	6.3500	4.1400	0.5900	7e-01	1.4300	2.2700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0009	0	0.0031	0	0.0023	0.0016	0.0088	0.0096		
Percent	6.4100	0	0.6700	0	1.2300	7.1600	52.2500	6.9100		

Black-capped Chickadee (*Poecile atricapillus*; BCCH)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
7.2456	4.6956	10.5209	2.6927	1.799	3.8496

Metrics used to calculate log ratio components and AUC:

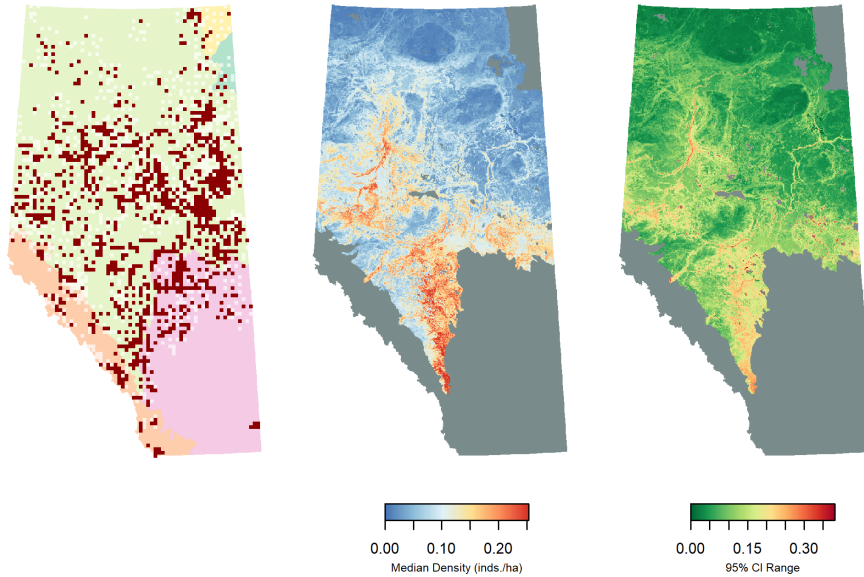
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1015	0.0749	1.3471	1.4603	0.3916	125	72.3759	0.6626

Log ratio components:

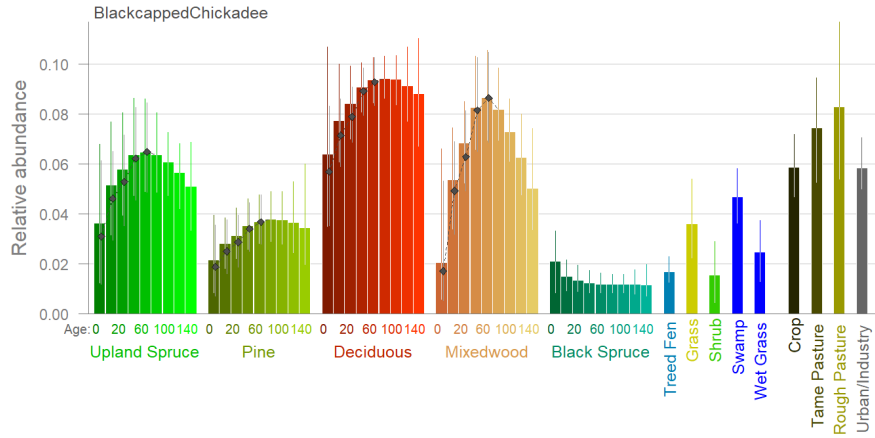
T	A	R	H
0.5589	1.0929	0.7378	-0.2979

Distribution and density map:

Black-capped Chickadee
(*Poecile atricapillus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2898	0.3357	0.173	0.3028	0.0943	0.1411	0.1518	0.2071	0.0444	0.0368
Percent	6.5300	35.8900	2.190	7.3900	3.0200	3.8400	2.4900	4.8000	1.8000	1.8700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0603	0.0383	0.0989	0.0441	0.0991	0.1477	0.2166	0.2657		
Percent	4.8200	0.3300	0.2400	0.5400	0.5800	7.2500	14.2900	2.1200		

Boreal Chickadee (*Poecile hudsonicus*; BOCH)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
11.5291	7.0352	18.7077	0.4747	0.2343	0.8648

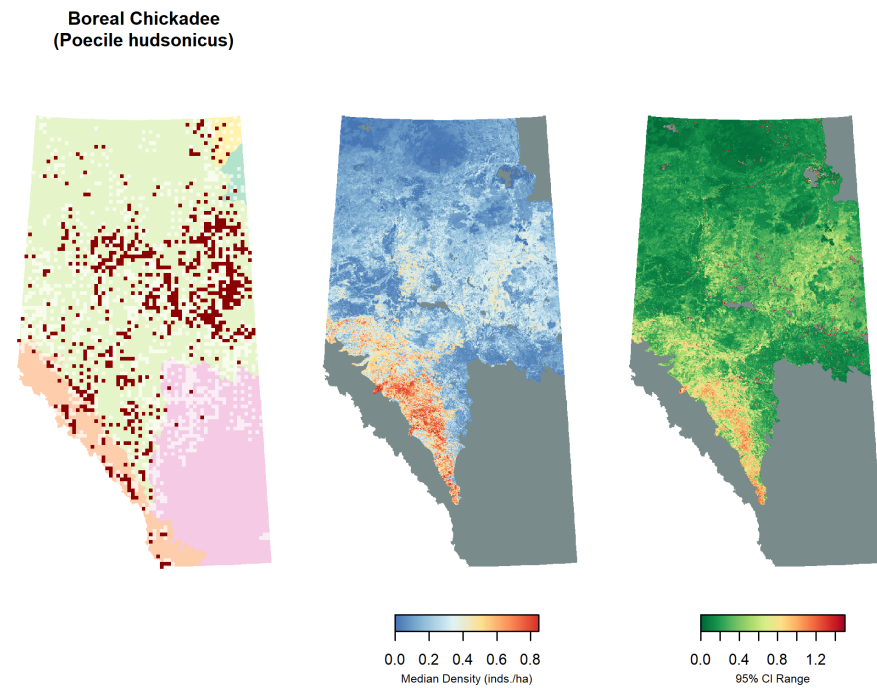
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.037	0.0564	0.5929	1.1316	0.2498	80	46.5002	0.8175

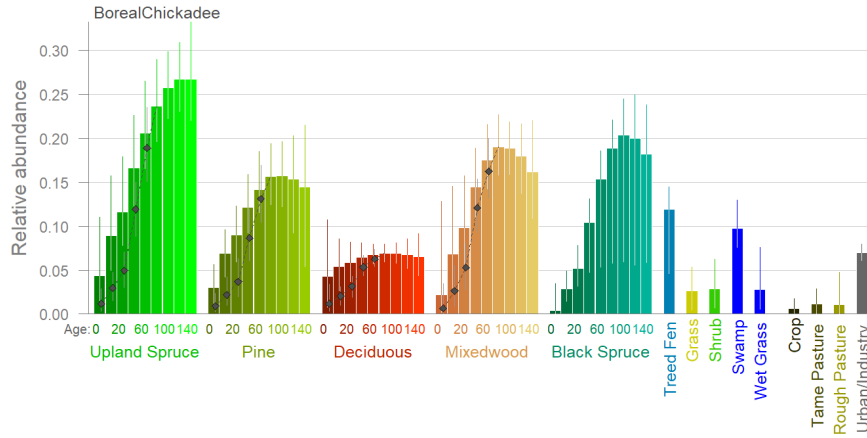
Log ratio components:

T	A	R	H
1.2633	1.0851	1.5238	0.5227

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1181	0.206	0.1685	0.6554	0.2091	0.5048	0.2636	0.8218	0.2125	0.4485
Percent	1.6700	13.840	1.3400	10.0500	4.2200	8.6400	2.7200	11.9700	5.4200	14.3200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.3241	0.0505	0.0878	0	0	0.2495	0.0308	0.0258		
Percent	16.3000	0.2700	0.1300	0	0	7.7000	1.2800	0.1300		

Red-breasted Nuthatch (*Sitta canadensis*; RBNU)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.7202	2.743	4.8928	0.827	0.4757	1.312

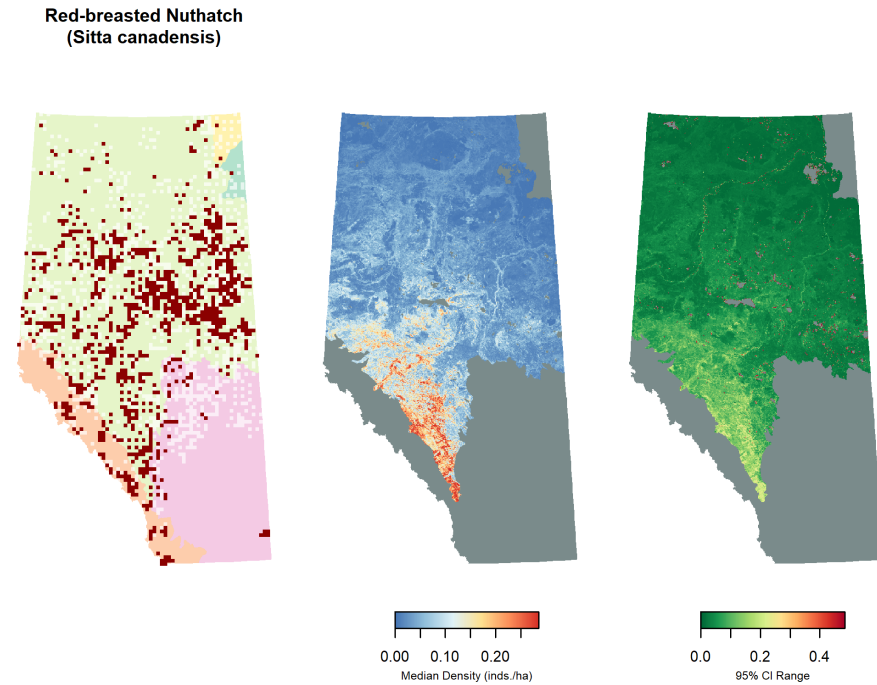
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0538	0.0705	0.9406	1.2441	0.3812	125	82.6645	0.8101

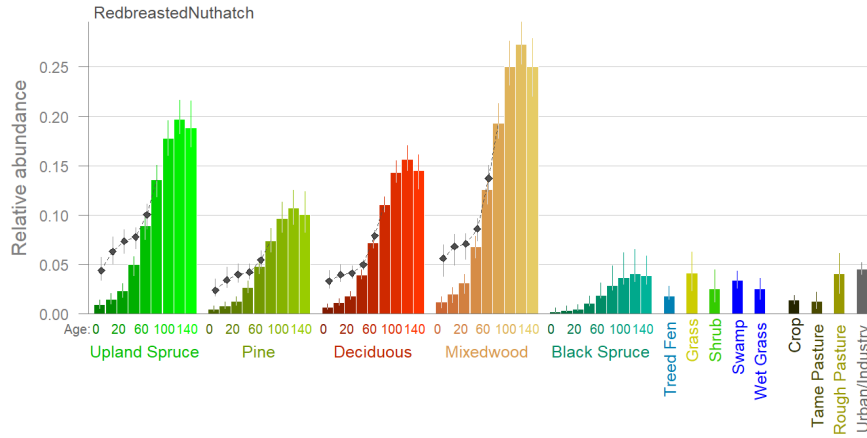
Log ratio components:

T	A	R	H
0.7461	0.827	1.3111	0.0612

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0652	0.1528	0.0973	0.3678	0.0595	0.1854	0.0981	0.2768	0.0199	0.0548
Percent	2.6200	29.1500	2.2000	16.0100	3.4100	9.0100	2.8700	11.4400	1.4400	4.9700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0298	0.0231	0.0671	0.0168	0.0524	0.0461	0.0271	0.2694		
Percent	4.2600	0.3500	0.2900	0.3700	0.5500	4.0400	3.1900	3.8400		

Brown Creeper (*Certhia americana*; BRCR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
5.7168	2.5923	12.9441	0.0057	0	0.022

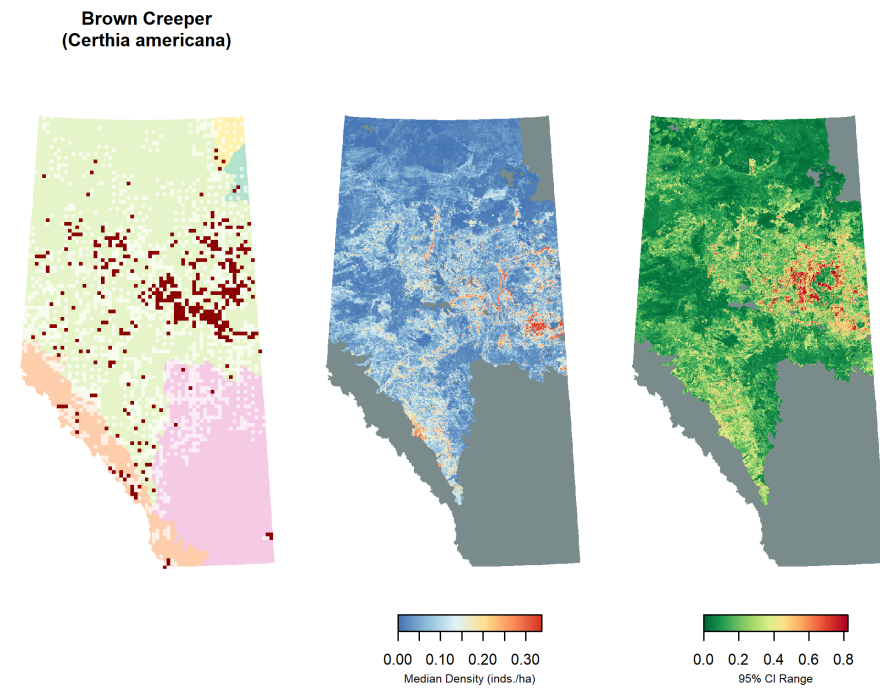
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0048	0.0282	0.8168	1.3879	0.4026	80	49.2424	0.8817

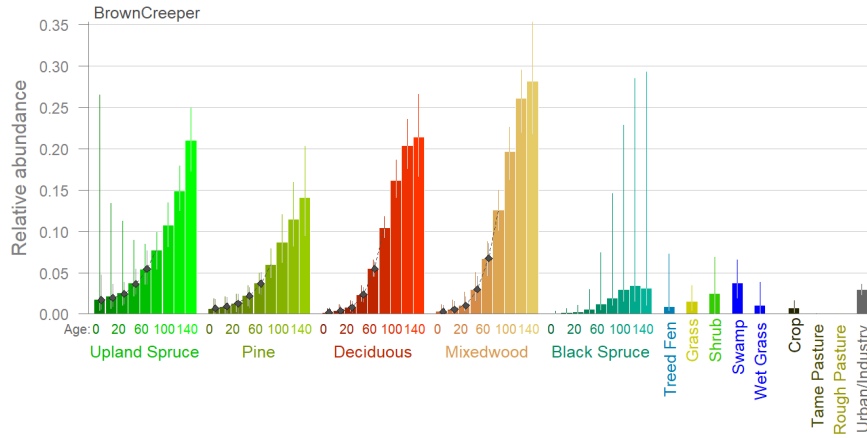
Log ratio components:

T	A	R	H
0.582	0.9705	5.9146	0.2023

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0261	0.2702	0.0229	0.4849	0.0567	0.2546	0.0669	0.3866	0.027	0.097
Percent	0.8000	39.5100	0.4000	16.1700	2.4900	9.4800	1.5000	12.2500	1.500	6.740
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0343	0.0447	0	0.0141	0	0.0251	0.0124	0.1703		
Percent	3.7500	0.5200	0	0.2400	0	1.6800	1.1200	1.8600		

House Wren (*Troglodytes aedon*; HOWR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
2.398	0.1284	3.2501	3.9612	2.2964	6.1153

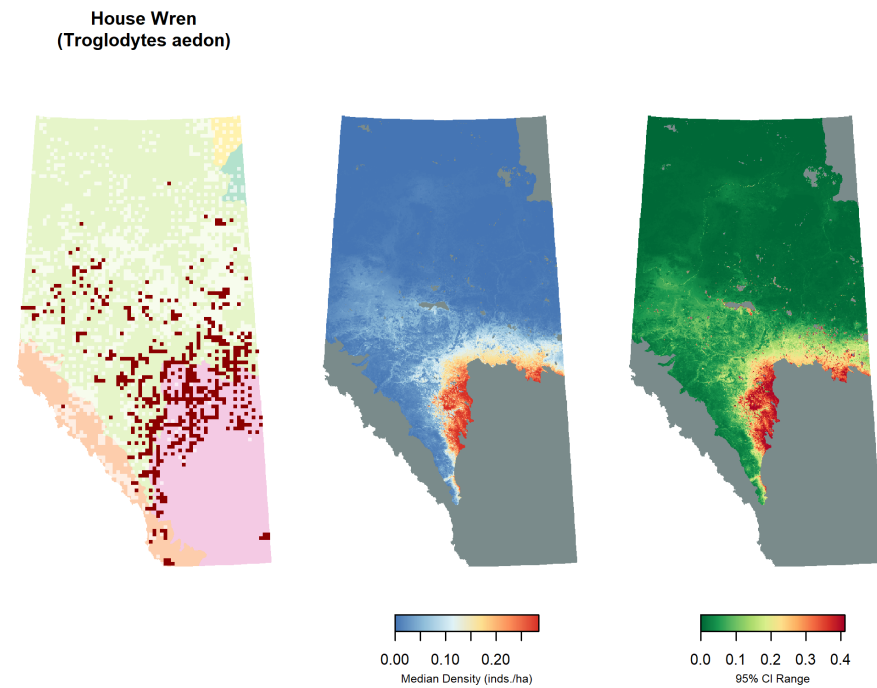
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1257	0.1061	2.5901	1.1705	0.7221	125	87.5477	0.9136

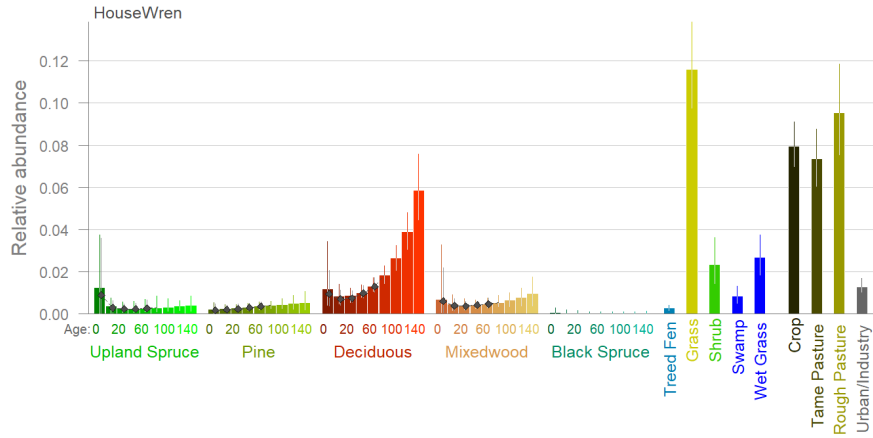
Log ratio components:

T	A	R	H
0.1682	0.7123	0.8442	-0.9517

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0659	0.0788	0.0173	0.0262	0.0155	0.0223	0.004	0.009	0.0013	0.0018
Percent	4.4700	25.3800	0.6600	1.9200	1.4900	1.8200	0.200	0.630	0.1600	0.2700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0128	0.0329	0.1411	0.0073	0.0753	0.0303	0.2496	0.0971		
Percent	3.0900	0.8400	1.0400	0.2700	1.3400	4.4800	49.5800	2.3400		

Winter Wren (*Troglodytes hiemalis*; WIWR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.8259	1.3914	2.7092	0.0546	0.0133	0.1233

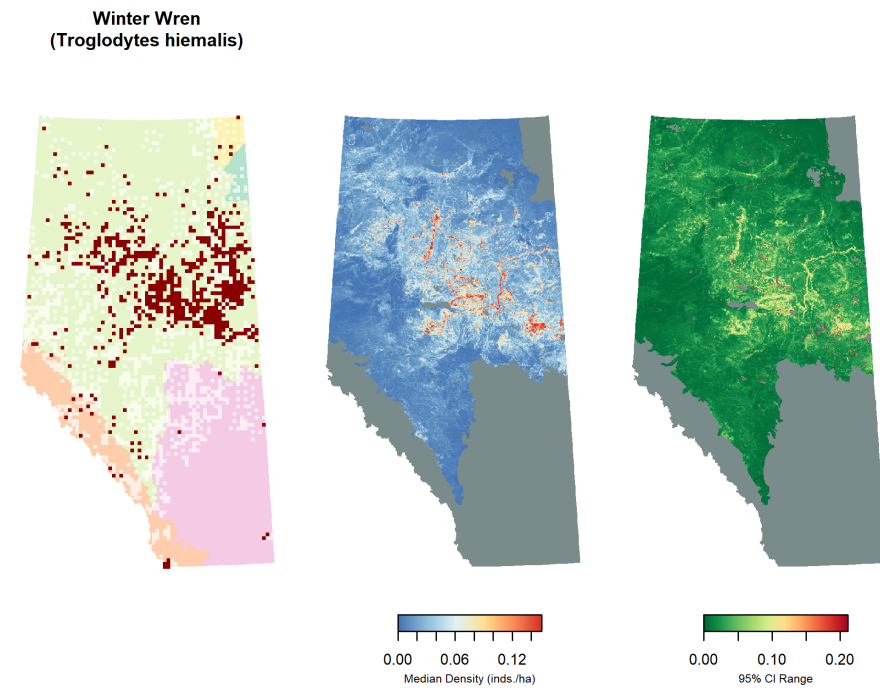
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0028	0.0094	0.7285	1.5692	0.7774	200	103.8063	0.8775

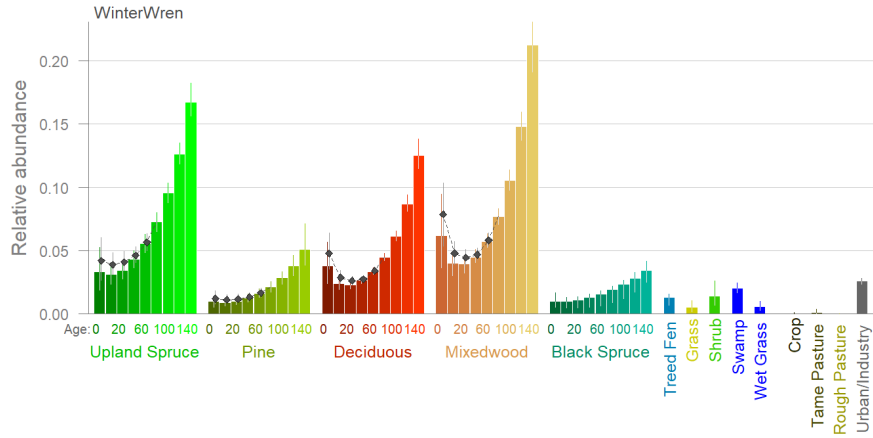
Log ratio components:

T	A	R	H
-0.1988	1.3116	3.3963	0.3167

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0514	0.0734	0.0586	0.1557	0.0247	0.0402	0.0529	0.1999	0.0234	0.041
Percent	4.2100	28.5000	2.6900	13.7900	2.8700	3.9700	3.1500	16.8100	3.4400	7.570
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0221	0.0214	0.0092	0.0011	0.0076	0.0278	0.001	0.0155		
Percent	6.4100	0.6600	0.0800	0.0500	0.1600	4.9500	0.240	0.4500		

Golden-crowned Kinglet (*Regulus satrapa*; GCKI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
9.0955	5.6049	13.6136	1.6743	0.4876	4.3303

Metrics used to calculate log ratio components and AUC:

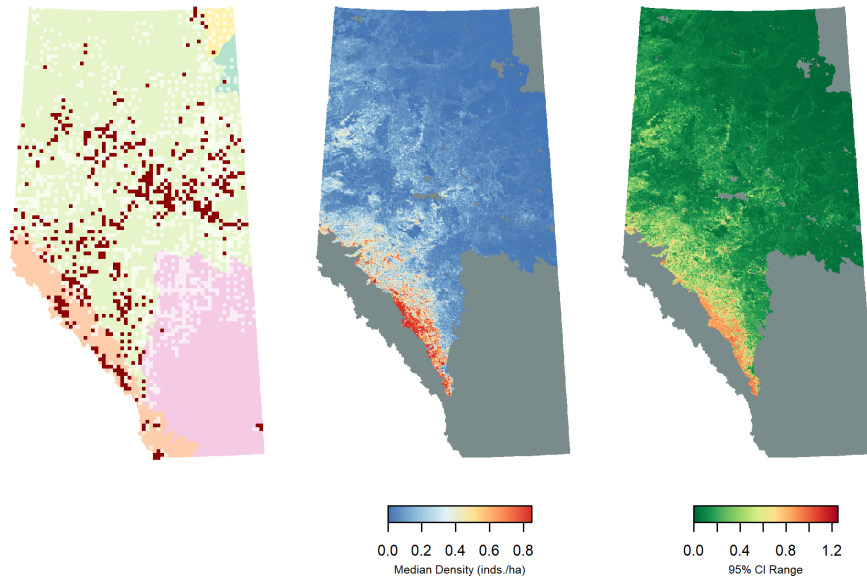
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0368	0.1161	0.7383	1.221	0.3265	50	44.1776	0.8906

Log ratio components:

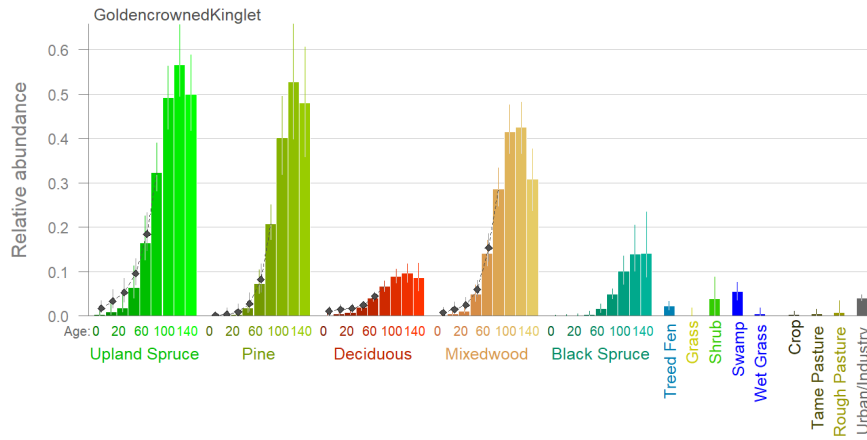
T	A	R	H
0.9195	0.2476	3.1527	0.3033

Distribution and density map:

**Golden-crowned Kinglet
(*Regulus satrapa*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0383	0.1812	0.0407	0.9296	0.0677	0.984	0.1928	1.0164	0.028	0.259
Percent	0.6700	14.9600	0.4000	17.5100	1.6800	20.690	2.4400	18.1900	0.880	10.170
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0649	0.0533	0	0.0182	0	0.1374	0.0158	0.3031		
Percent	4.0100	0.3500	0	0.1700	0	5.2100	0.8000	1.8700		

Ruby-crowned Kinglet (*Regulus calendula*; RCKI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
13.0182	11.8729	21.1093	2.2791	1.1243	4.0192

Metrics used to calculate log ratio components and AUC:

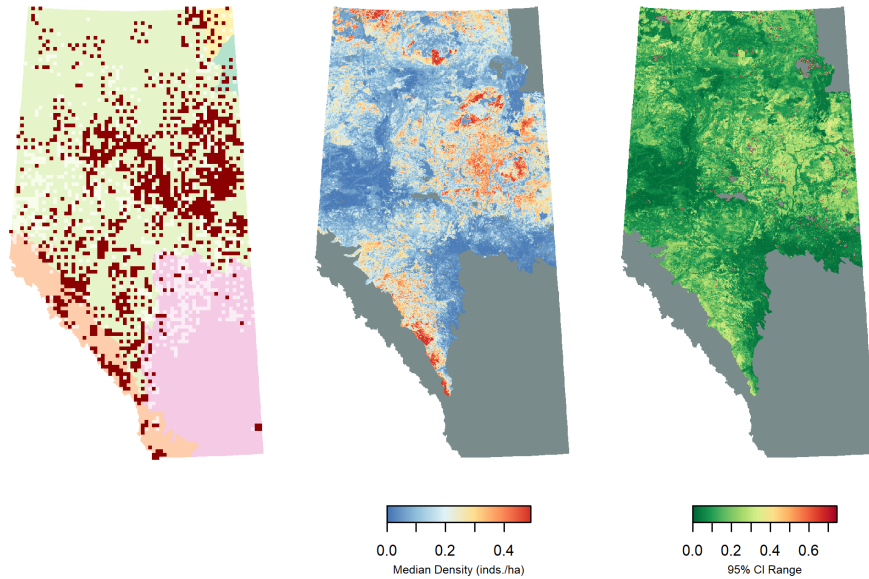
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1001	0.1171	0.4631	1.1455	0.5808	125	82.1671	0.83

Log ratio components:

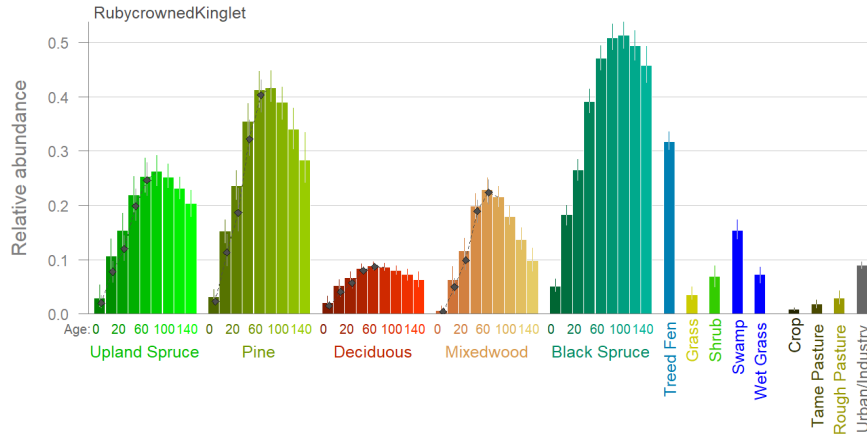
T	A	R	H
0.4076	0.8391	1.1701	0.7698

Distribution and density map:

**Ruby-crowned Kinglet
(*Regulus calendula*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.081	0.1426	0.1348	0.306	0.3337	0.6311	0.1867	0.3482	0.5213	0.8187
Percent	0.970	8.1100	0.9100	3.970	5.6900	9.1300	1.6300	4.2900	11.2400	22.1100
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.5109	0.1022	0.0541	0.1283	0.1171	0.2838	0.0264	0.0391		
Percent	21.7300	0.4600	0.0700	0.8300	0.3700	7.4100	0.9300	0.1700		

Veery (*Catharus fuscescens*; VEER)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.0671	4e-04	0.7996	0.0069	9e-04	0.0181

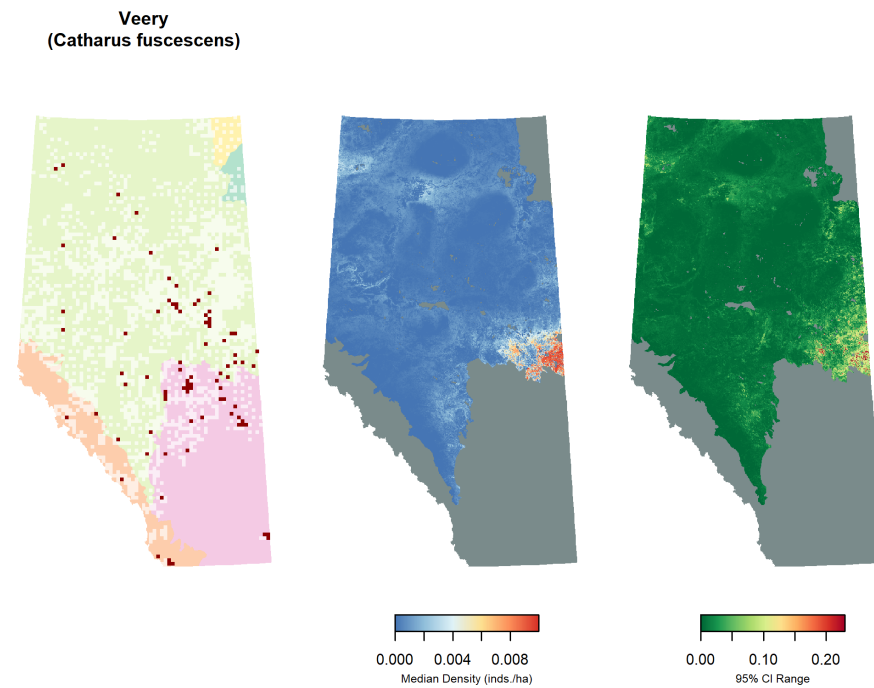
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0019	0.002	0.9533	1.622	0.5773	200	110.5423	0.9302

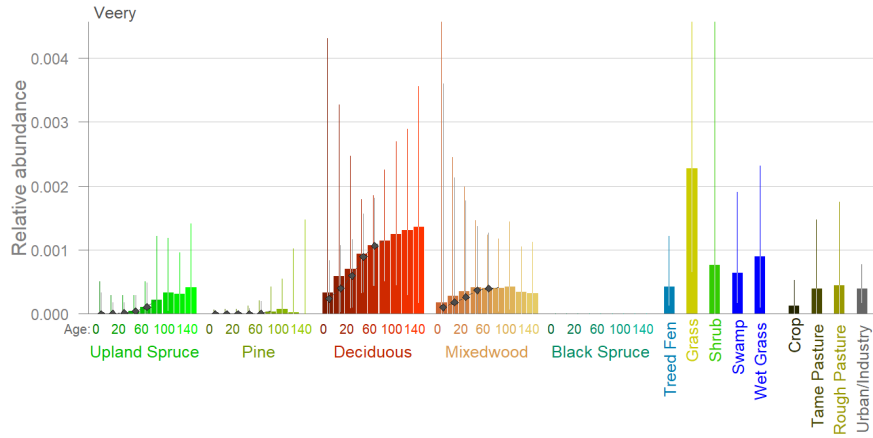
Log ratio components:

T	A	R	H
0.0658	1.1858	1.022	0.0478

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0054	0.0032	0.0022	0.0009	0	0	0.0001	0.0003	0	0
Percent	15.0000	42.6500	3.3600	2.6200	0	0	0.2500	0.8500	0	0
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0017	0.00	0.0005	0.0006	0.0016	0.0022	0.0003	0		
Percent	16.8000	0.02	0.1500	0.8800	1.1900	13.4800	2.7500	0		

Swainson's Thrush (*Catharus ustulatus*; SWTH)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
29.1102	25.9882	152.4331	2.7614	1.3894	4.7276

Metrics used to calculate log ratio components and AUC:

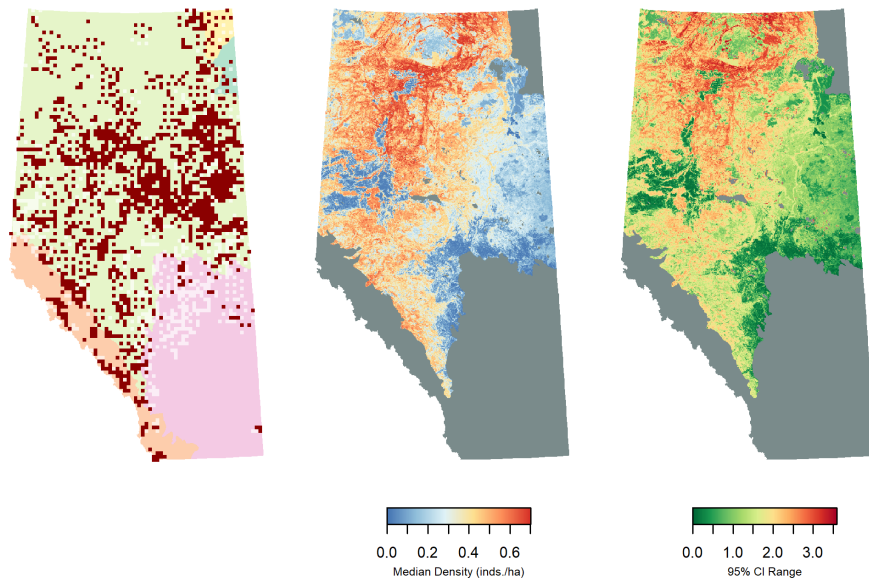
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1094	0.1571	0.6804	1.6761	0.5537	200	86.4139	0.7757

Log ratio components:

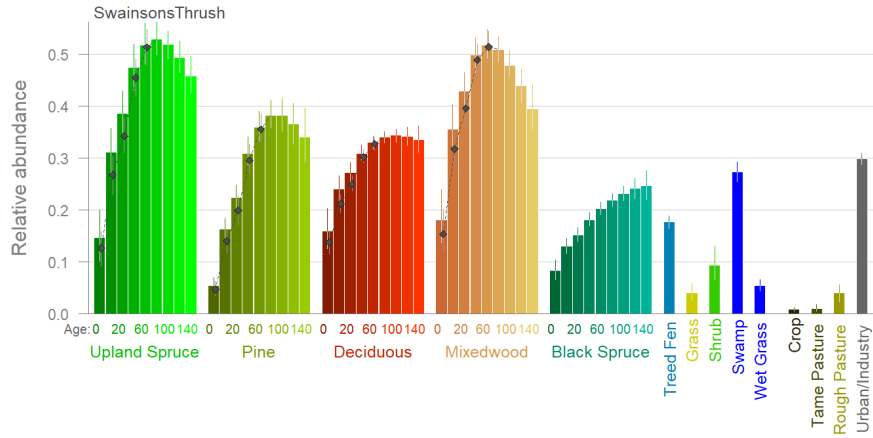
T	A	R	H
0.0747	1.6783	1.4357	0.3851

Distribution and density map:

Swainson's Thrush
(*Catharus ustulatus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.7265	1.0816	0.9235	1.2946	0.5841	1.1082	0.9501	1.3063	0.5133	0.7192
Percent	3.8800	27.3600	2.7700	7.4700	4.4300	7.1400	3.6900	7.1600	4.9300	8.6500
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.5181	0.2842	0.1712	0.2361	0.1589	0.8811	0.0425	0.1282		
Percent	9.8100	0.5700	0.1000	0.6800	0.2200	10.2300	0.6600	0.2400		

Hermit Thrush (*Catharus guttatus*; HETH)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
7.5814	6.2382	8.2624	1.9055	0.992	3.4355

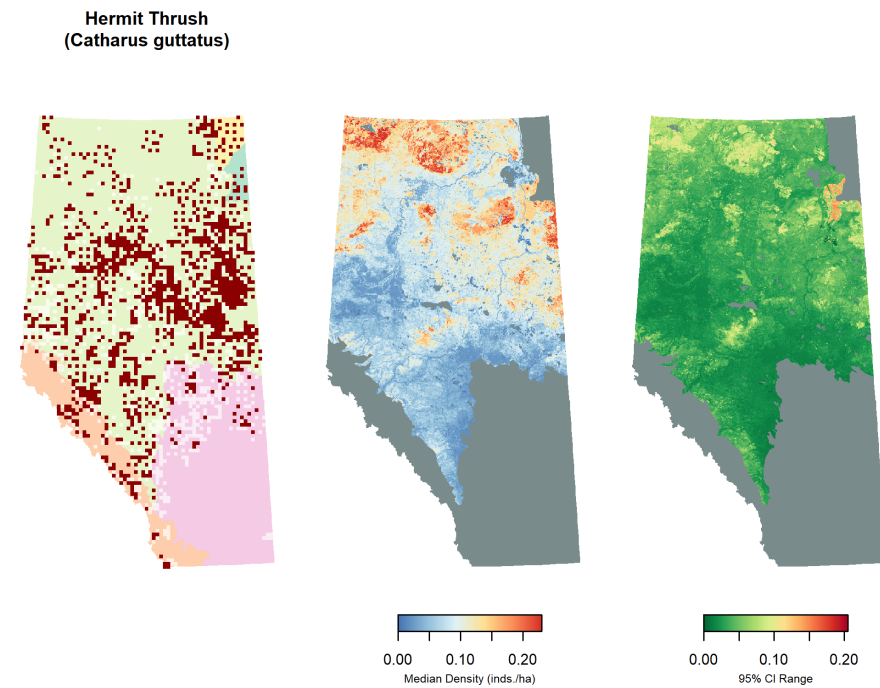
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0408	0.0433	0.7254	1.4175	0.5653	200	106.4613	0.7379

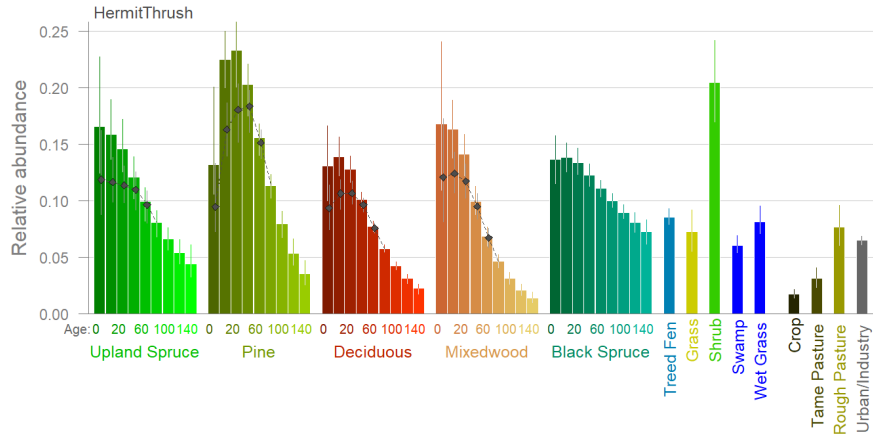
Log ratio components:

T	A	R	H
0.2215	1.2611	1.0601	0.3211

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2215	0.1364	0.2609	0.0812	0.339	0.1844	0.2452	0.1252	0.3157	0.221
Percent	4.7000	13.7200	3.1100	1.8600	10.230	4.7200	3.7800	2.7300	12.0400	10.560
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.1981	0.4129	0.1463	0.1807	0.2205	0.1312	0.0611	0.1141		
Percent	14.9100	3.3000	0.3400	2.0800	1.2200	6.0600	3.7900	0.8600		

American Robin (*Turdus migratorius*; AMRO)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
7.7135	3.859	44.051	10.1473	6.1627	15.8506

Metrics used to calculate log ratio components and AUC:

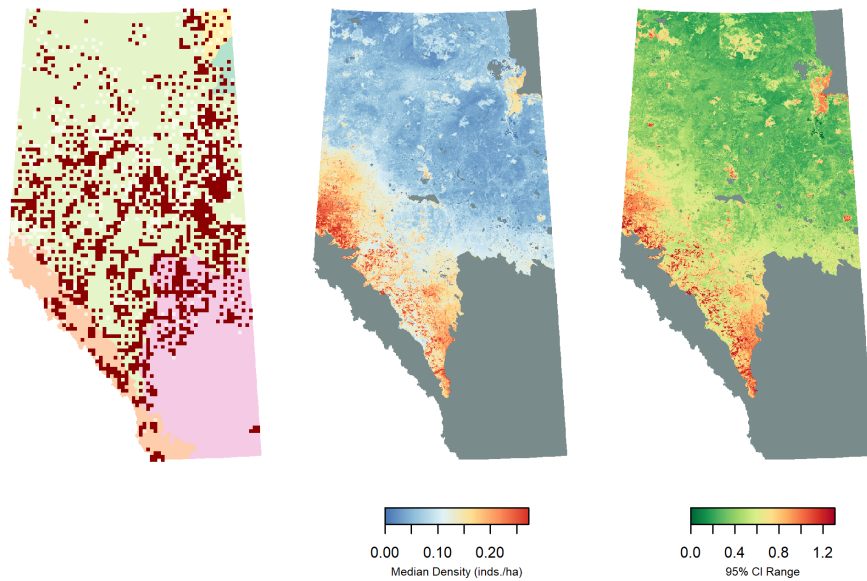
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.2983	0.1228	1.3306	2.2633	0.4519	200	93.8049	0.7243

Log ratio components:

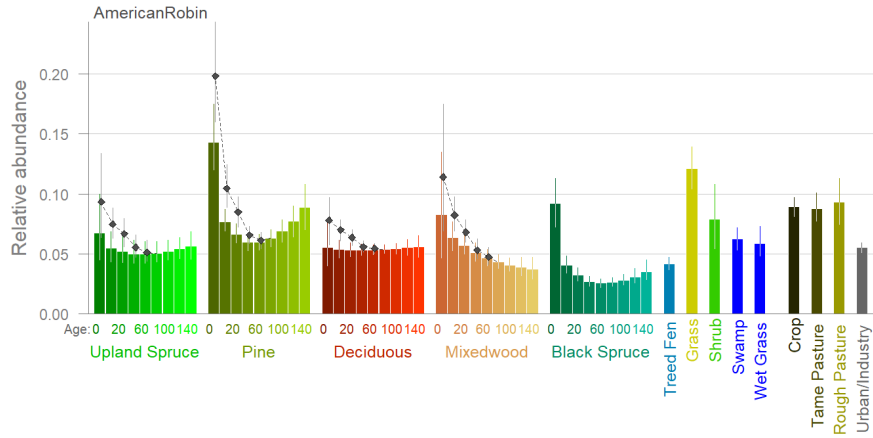
T	A	R	H
-0.0224	1.5142	0.4115	-0.2856

Distribution and density map:

American Robin
(*Turdus migratorius*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2117	0.1693	0.252	0.1564	0.3054	0.1824	0.2012	0.1324	0.1191	0.0837
Percent	4.6100	17.4700	3.080	3.6800	9.4600	4.7900	3.1900	2.9600	4.6600	4.1100
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.147	0.1158	0.2319	0.1461	0.1073	0.1503	0.271	0.3152		
Percent	11.350	0.9500	0.5500	1.7300	0.6100	7.1200	17.260	2.4300		

Varied Thrush (*Ixoreus naevius*; VATH)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.2301	0.1068	111904.8	0.0849	0.0112	0.2373

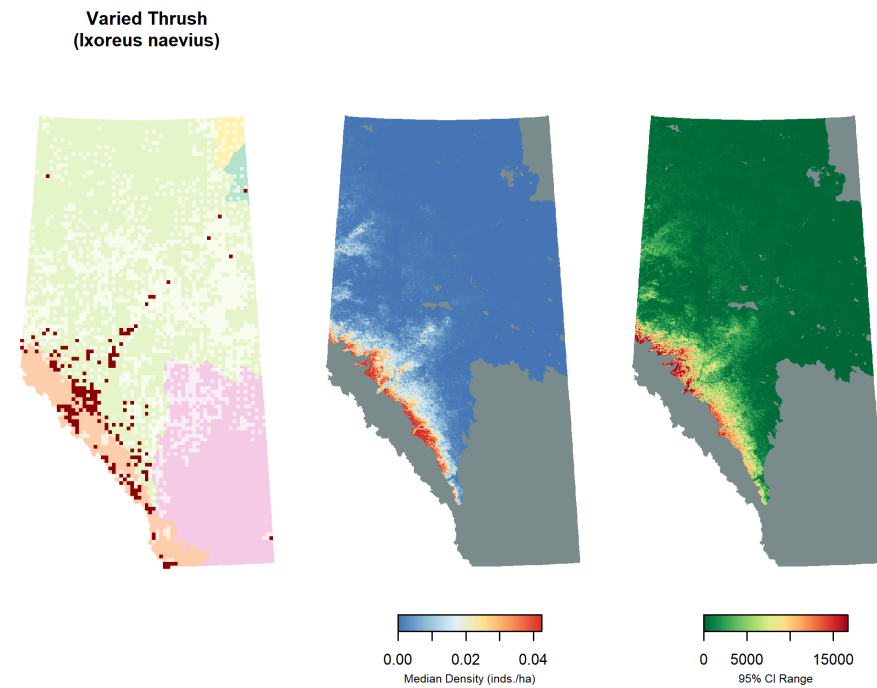
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0147	0.0221	0.6275	2.3094	0.4751	200	117.1166	0.9674

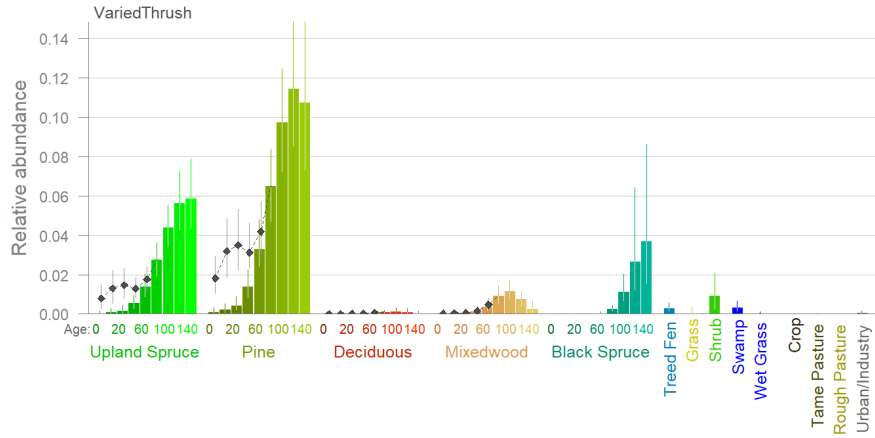
Log ratio components:

T	A	R	H
-0.0928	1.0703	1.5052	0.4659

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0003	0.001	0.0011	0.0085	0.0181	0.0389	0.0105	0.0209	0.0004	0.0082
Percent	0.1800	3.050	0.3900	6.0000	16.9000	30.7800	5.0000	14.0400	0.4200	12.0900
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0034	0.0007	0	0	0	0.0012	0	0.0064		
Percent	7.8300	0.1800	0	0	0	1.6500	0	1.4900		

Gray Catbird (*Dumetella carolinensis*; GRCA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.1516	1e-04	0.4234	0.0836	0.041	0.1439

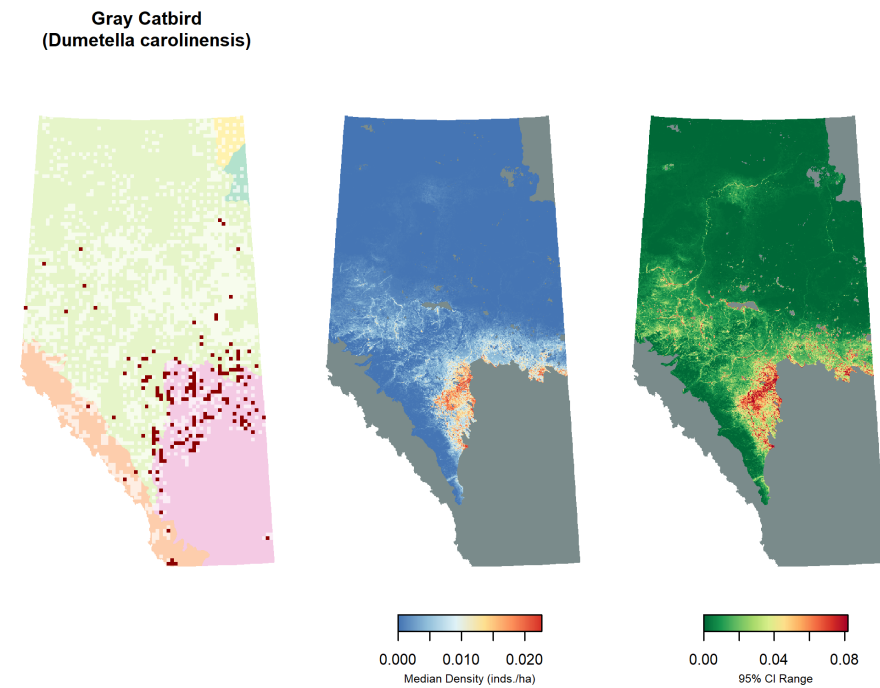
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0086	0.0044	2.1677	1.5291	0.4715	125	77.8336	0.909

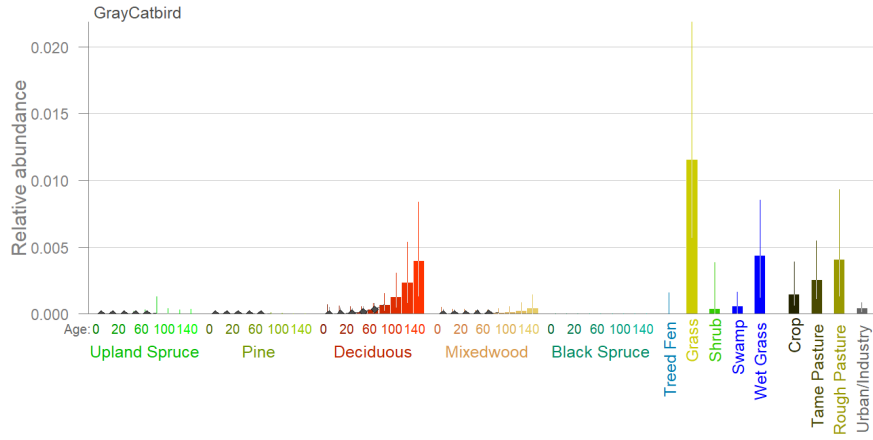
Log ratio components:

T	A	R	H
0.3271	0.9475	0.5085	-0.7737

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0012	0.0054	0.0002	0.0017	0	0	0	1e-04	0	0
Percent	1.4400	32.0100	0.1400	2.2900	0	0	0	7e-02	0	0
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0	0	0.0208	0	0.0153	0.0054	0.0109	0.0046		
Percent	0	0	2.8100	0	4.9700	14.5700	39.6900	2.0100		

Cedar Waxwing (*Bombycilla cedrorum*; CEDW)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
4.1484	2.3901	5.8857	1.741	1.1014	2.5858

Metrics used to calculate log ratio components and AUC:

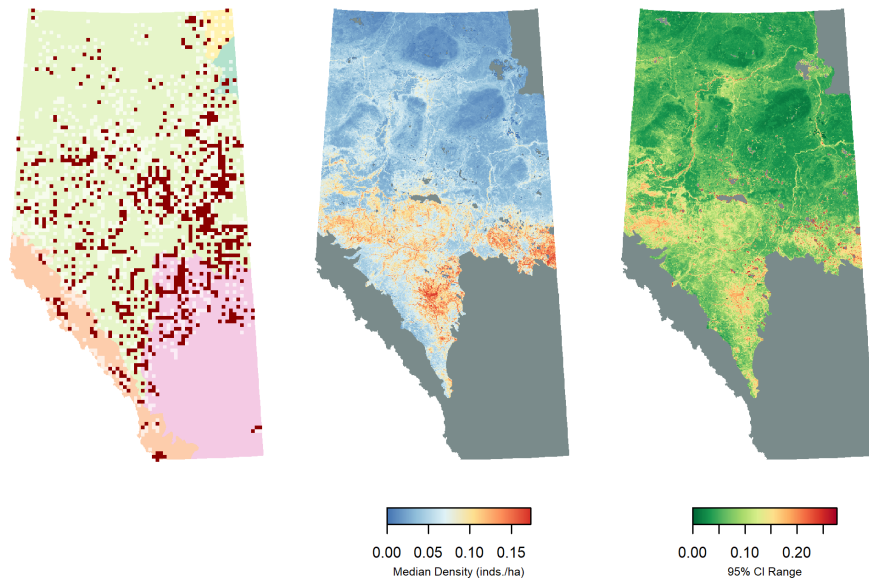
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1251	0.0817	1.1092	1.2858	0.2902	100	62.0471	0.6965

Log ratio components:

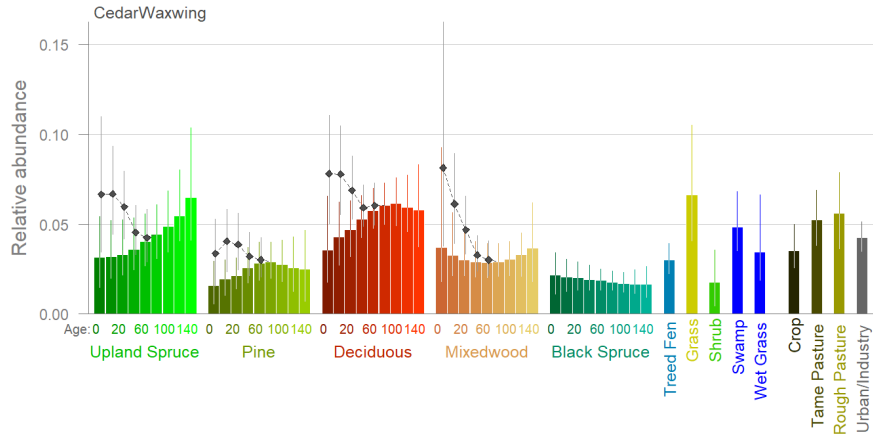
T	A	R	H
0.9857	0.9546	0.653	-0.1036

Distribution and density map:

**Cedar Waxwing
(*Bombycilla cedrorum*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1674	0.1457	0.1437	0.0859	0.0735	0.0653	0.1471	0.1123	0.0509	0.0502
Percent	6.7100	27.7000	3.2400	3.7200	4.1900	3.1600	4.2900	4.6300	3.6700	4.5400
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0656	0.0342	0.0975	0.0521	0.0777	0.109	0.0829	0.1887		
Percent	9.3300	0.5200	0.4200	1.1300	0.8100	9.520	9.7300	2.6800		

Evening Grosbeak (*Coccothraustes vespertinus*; EVGR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.4234	0.1378	2.5352	0.1378	0.0264	0.3229

Metrics used to calculate log ratio components and AUC:

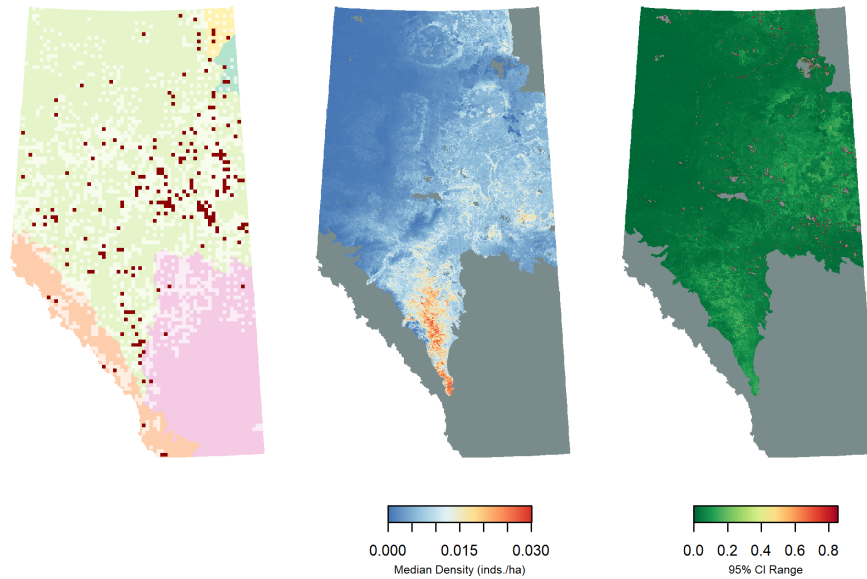
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0029	0.0044	0.9004	1.2869	0.4183	125	79.757	0.7584

Log ratio components:

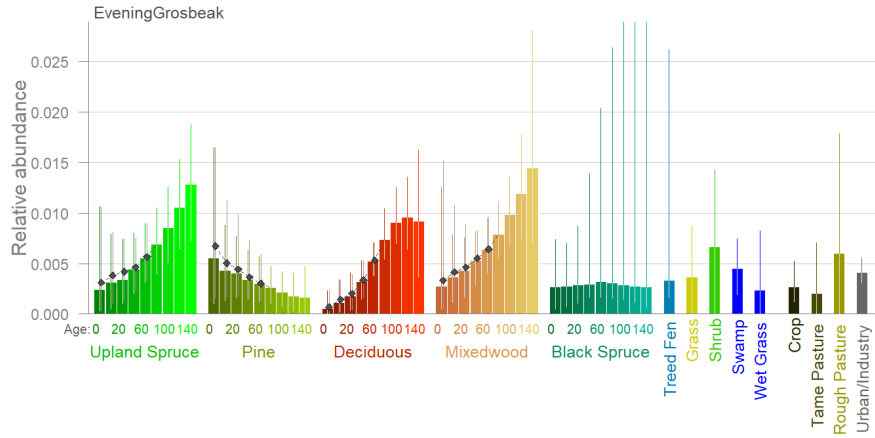
T	A	R	H
0.6192	0.8987	1.4894	0.1049

Distribution and density map:

Evening Grosbeak
(*Coccothraustes vespertinus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0047	0.0148	0.0076	0.0221	0.01	0.008	0.0085	0.0292	0.0085	0.009
Percent	1.5700	23.6600	1.4300	8.0600	4.79	3.260	2.0800	10.1100	5.1500	6.800
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0108	0.0263	0.0209	0	0.0095	0.0097	0.0082	6e-04		
Percent	12.9300	3.3400	0.7600	0	0.8300	7.1000	8.0700	7e-02		

Purple Finch (*Haemorhous purpureus*; PUFI)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.0436	0	1.5927	0.1748	0.0952	0.2891

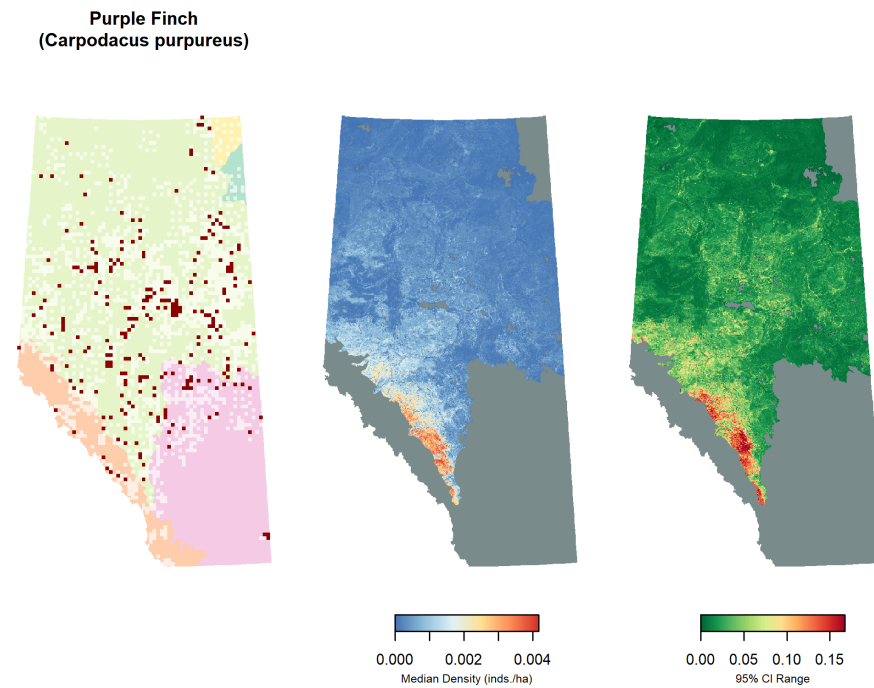
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.005	0.0035	0.9973	1.2318	0.3618	125	79.2496	0.6959

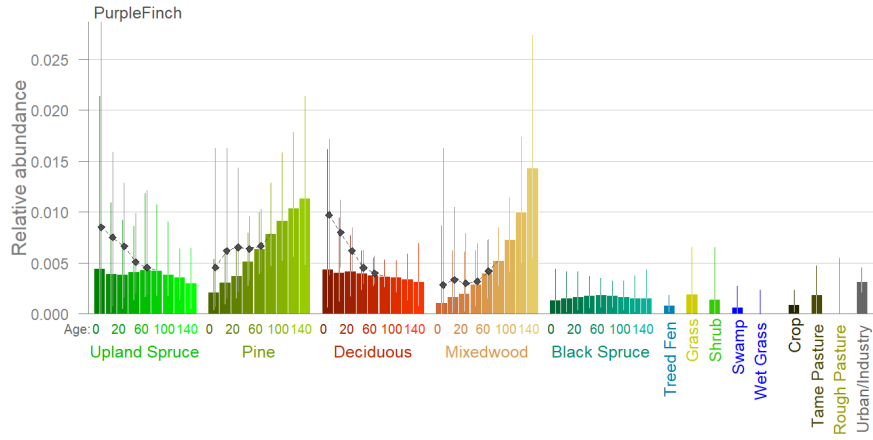
Log ratio components:

T	A	R	H
0.8082	0.9114	0.6949	0.0027

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0023	0.001	0.0004	0.0014	0.0026	0.0037	0.0011	0.0005	0.0006	0.0005
Percent	10.4700	21.790	0.9200	6.6800	16.3600	20.1300	3.7100	2.4200	4.6500	5.1300
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0002	0	1e-04	0	0	0.00	0.0002	0.0015		
Percent	2.9900	0	3e-02	0	0	0.02	2.2800	2.4300		

White-winged Crossbill (*Loxia leucoptera*; WWCR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
2.7886	1.0825	5.0373	0.3013	0.0971	0.6051

Metrics used to calculate log ratio components and AUC:

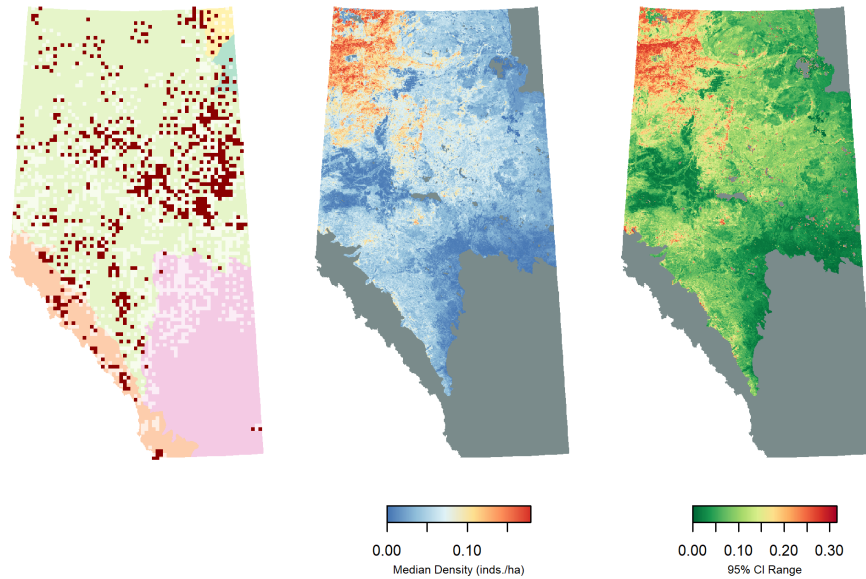
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1116	0.0958	0.5612	1.3716	0.2336	125	75.1979	0.8294

Log ratio components:

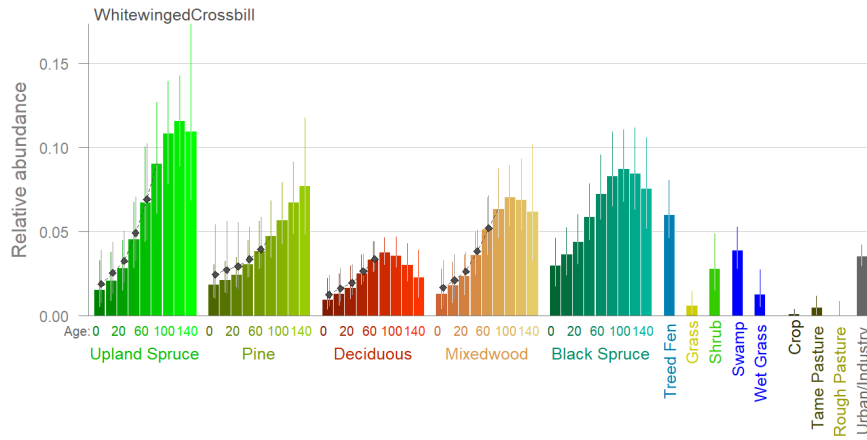
T	A	R	H
1.1382	1.0164	0.8578	0.5777

Distribution and density map:

White-winged Crossbill
(*Loxia leucoptera*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0225	0.0697	0.0414	0.108	0.0407	0.0751	0.0497	0.1801	0.1016	0.1364
Percent	1.2500	18.2800	1.2900	6.460	3.2000	5.0200	2.0000	10.2300	10.1100	17.0100
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0681	0.0645	0.0141	0.0097	0.0098	0.0676	0.0056	0.0443		
Percent	13.3800	1.3500	0.0800	0.2900	0.1400	8.1400	0.9100	0.8700		

American Goldfinch (*Spinus tristis*; AMGO)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.1556	0	0.5232	0.8999	0.5293	1.4157

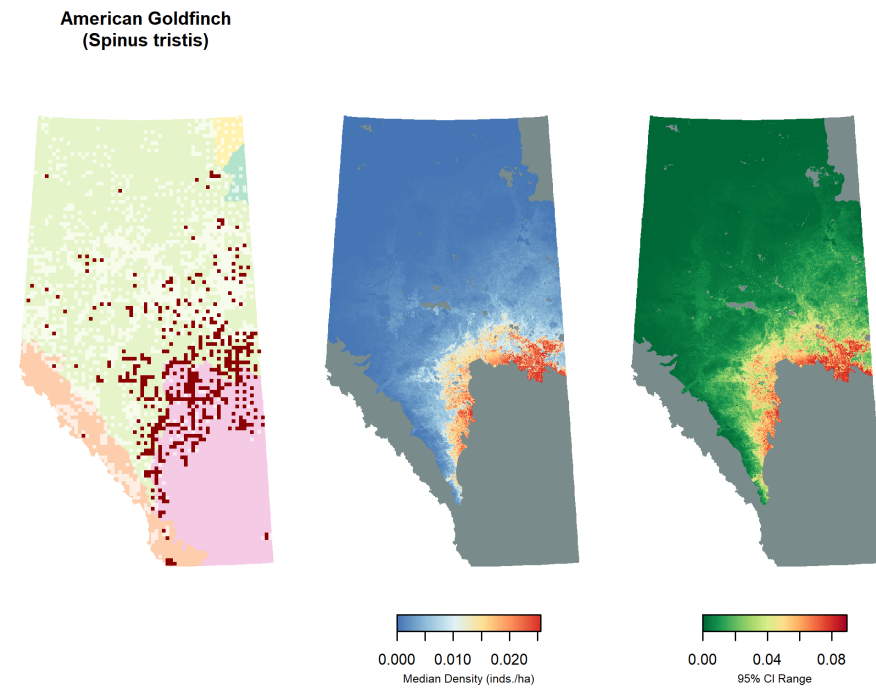
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1061	0.0594	2.399	1.3652	0.2888	125	79.2224	0.8874

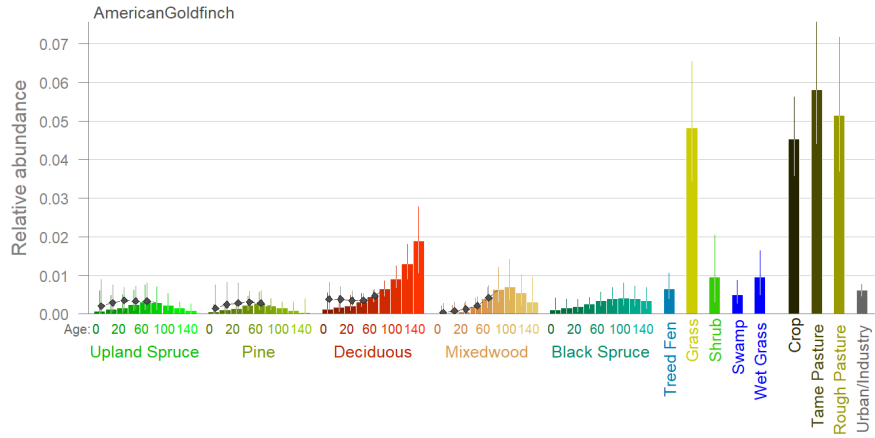
Log ratio components:

T	A	R	H
0.9309	0.9121	0.56	-0.8751

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0018	0.0025	0.0004	0.0031	0.0015	0.0008	0.0012	0.0007	0.0012	0.0017
Percent	1.8900	12.6600	0.2700	3.5700	2.2500	1.0900	0.9100	0.7400	2.3100	4.0100
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0032	0.0018	0.0087	0.0008	0.0033	0.0022	0.0155	0.0039		
Percent	12.1200	0.7400	1.0100	0.4600	0.9300	5.0800	48.4700	1.4700		

Chipping Sparrow (*Spizella passerina*; CHSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
24.364	22.3928	437.6964	9.7954	6.8224	13.5724

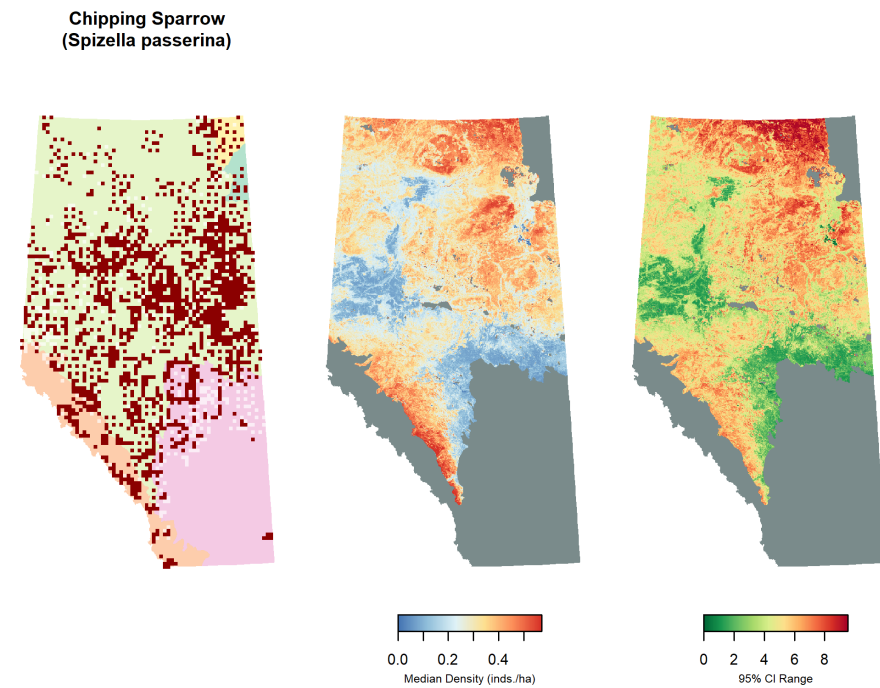
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.2359	0.202	0.6302	2.0043	0.6156	125	71.0287	0.7089

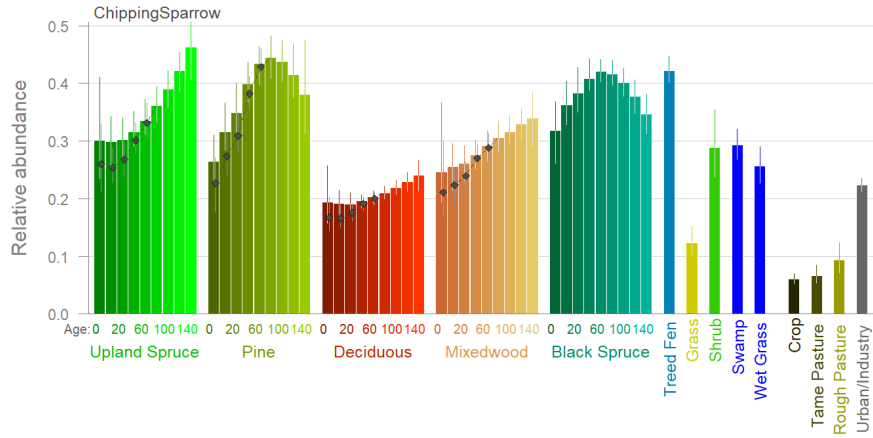
Log ratio components:

T	A	R	H
-0.2102	1.1305	0.8566	0.4617

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.3384	0.451	0.4718	0.6412	0.634	0.9043	0.5883	0.8656	0.8122	0.8177
Percent	2.1300	13.490	1.6700	4.3700	5.690	6.8900	2.7000	5.6100	9.2200	11.6200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.8562	0.5004	0.2248	0.7286	0.5411	0.6259	0.1433	0.6581		
Percent	19.1700	1.1900	0.1500	2.4900	0.8900	8.5900	2.6400	1.4700		

Clay-colored Sparrow (*Spizella pallida*; CCSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.5537	2.6699	4.8245	15.3798	10.3238	22.074

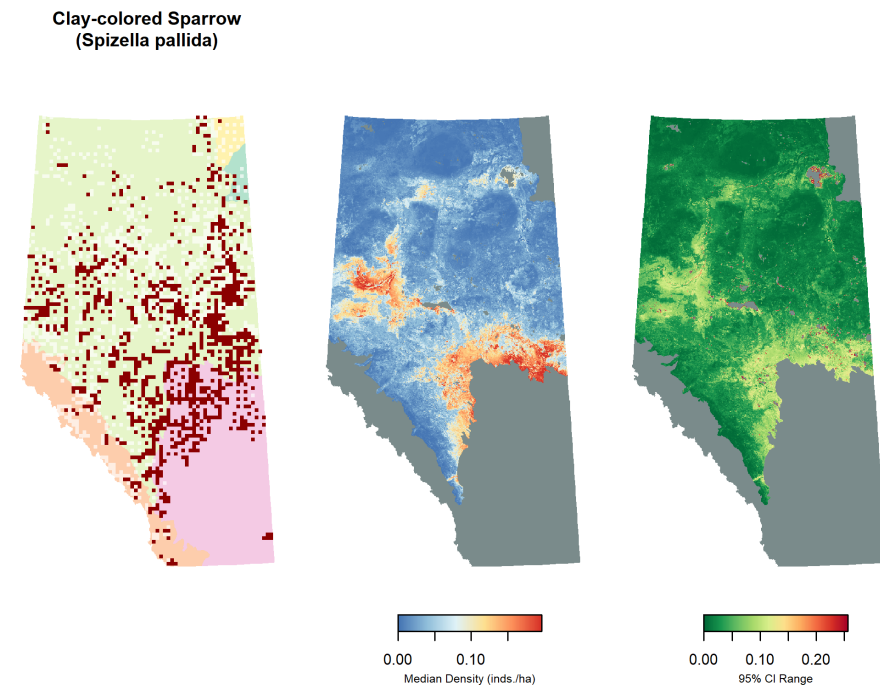
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.3239	0.223	2.1259	1.4906	0.7062	125	67.1205	0.8613

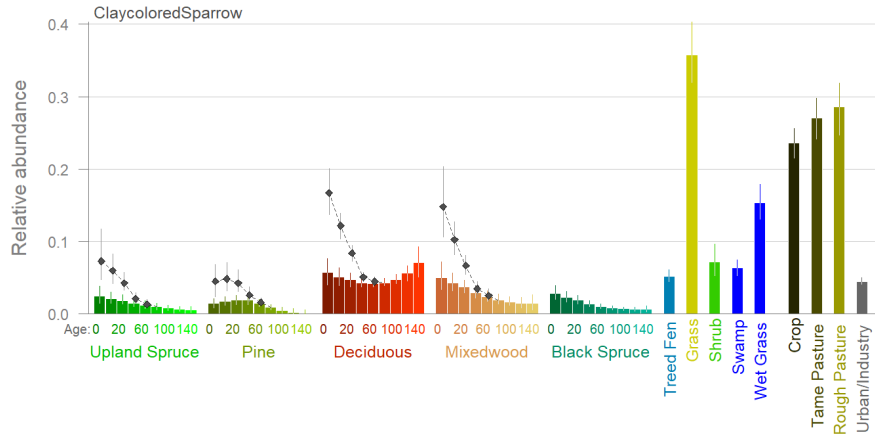
Log ratio components:

T	A	R	H
-0.0514	1.2436	0.6885	-0.7542

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1232	0.066	0.1124	0.0227	0.0399	0.0049	0.05	0.0088	0.0205	0.0093
Percent	5.4100	13.750	2.7700	1.0800	2.4900	0.2600	1.60	0.4000	1.6200	0.9200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0642	0.0661	0.3305	0.2122	0.2173	0.0842	0.3068	0.1311		
Percent	10.0000	1.1000	1.5700	5.0600	2.4900	8.0500	39.4000	2.0400		

Vesper Sparrow (*Pooecetes gramineus*; VESP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.2806	0.1111	0.7618	1.4405	0.6521	2.7294

Metrics used to calculate log ratio components and AUC:

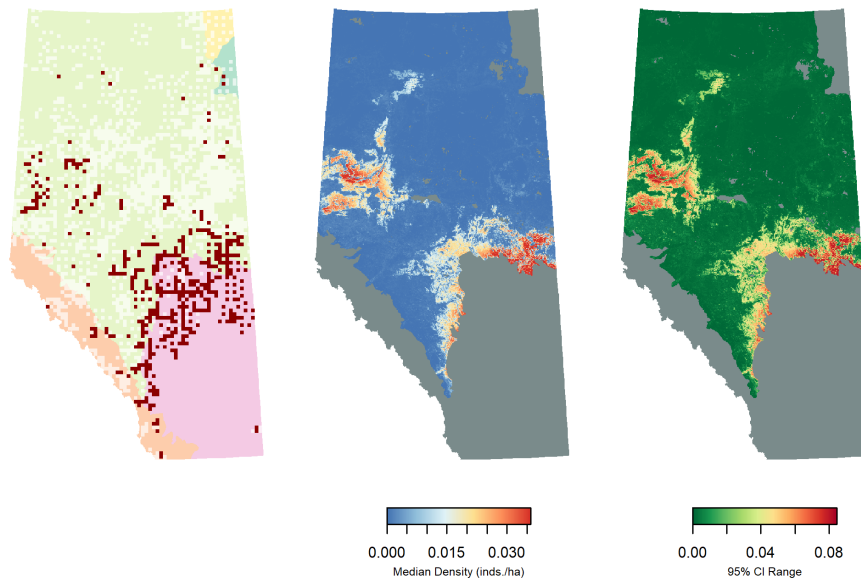
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.038	0.0438	3.712	1.4851	1	200	112.3386	0.9234

Log ratio components:

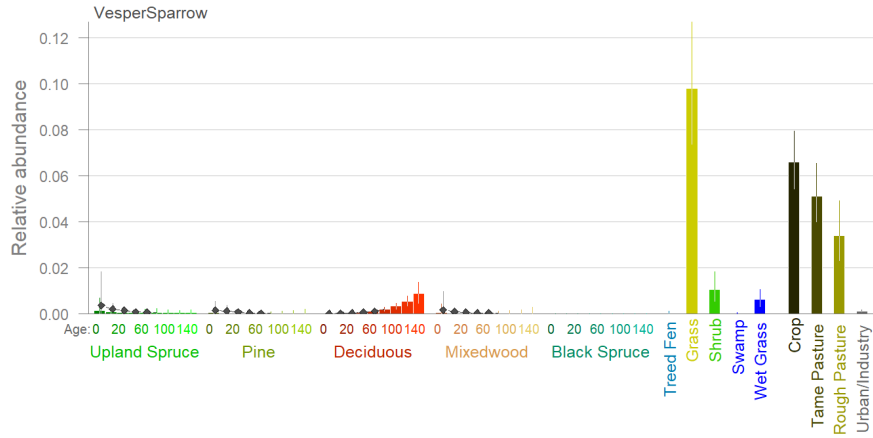
T	A	R	H
-0.3955	1.1536	1.1534	-1.3116

Distribution and density map:

Vesper Sparrow
(*Pooecetes gramineus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0006	0.0026	0.0014	0.0003	0.0007	0	0.0028	0.0004	0	0
Percent	0.3500	6.6100	0.4300	0.1500	0.5100	0	1.1200	0.2200	0	0
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0005	0.0067	0.0373	0.0015	0.0076	2e-04	0.0528	0.0025		
Percent	0.9800	1.3800	2.1900	0.4500	1.0800	2e-01	83.8500	0.4900		

Savannah Sparrow (*Passerculus sandwichensis*; SAVS)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.8337	2.1166	5.8243	11.1548	7.2725	16.0753

Metrics used to calculate log ratio components and AUC:

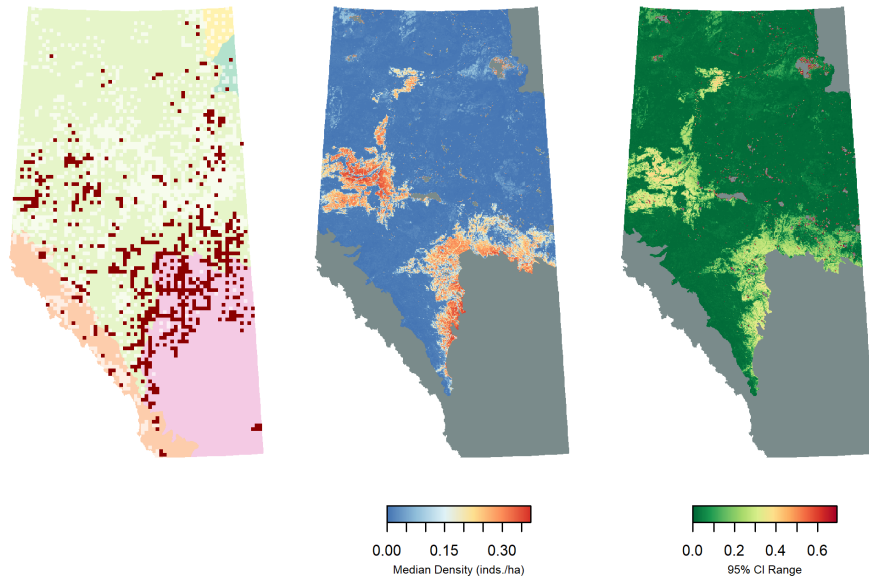
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.2319	0.1895	3.0476	1.4291	0.6574	125	91.33	0.9131

Log ratio components:

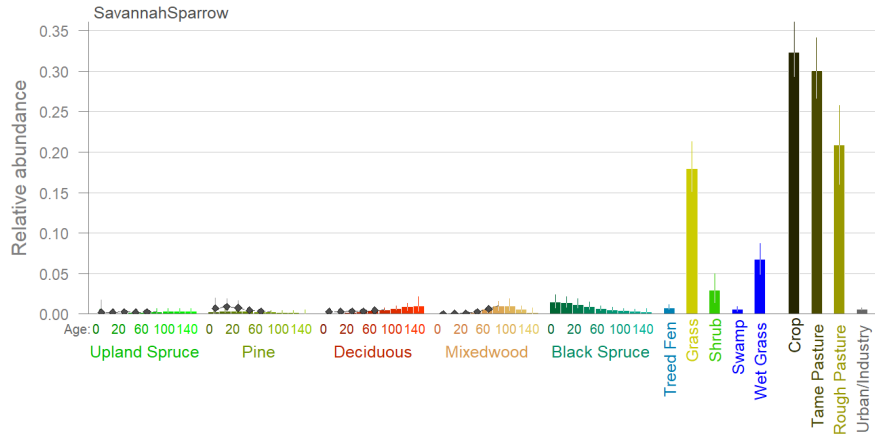
T	A	R	H
0.0624	0.6277	0.8172	-1.1143

Distribution and density map:

Savannah Sparrow
(*Passerculus sandwichensis*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0068	0.0199	0.002	0.0304	0.0166	0.0035	0.0066	0.0128	0.0271	0.0075
Percent	0.2000	2.7300	0.030	0.9500	0.6800	0.1200	0.1400	0.3800	1.4100	0.4900
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0343	0.0891	0.404	0.4965	1.0513	0.0188	0.7852	0.3785		
Percent	3.5200	0.9700	1.260	7.7800	7.9300	1.1800	66.3500	3.8800		

LeConte's Sparrow (*Ammospiza leconteii*; LCSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.5695	0	7.4833	1.6207	0.9824	2.4447

Metrics used to calculate log ratio components and AUC:

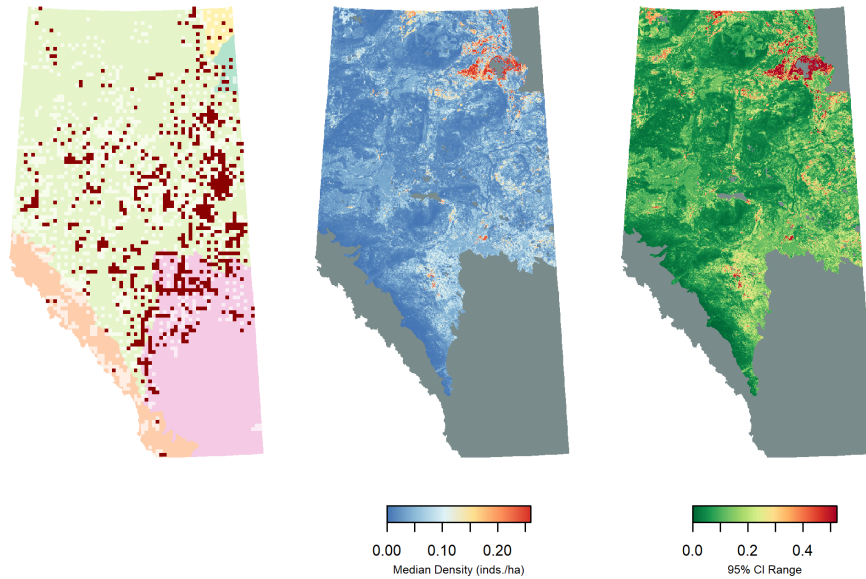
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0238	0.0304	1.0586	2.0257	0.9887	125	70.8072	0.8804

Log ratio components:

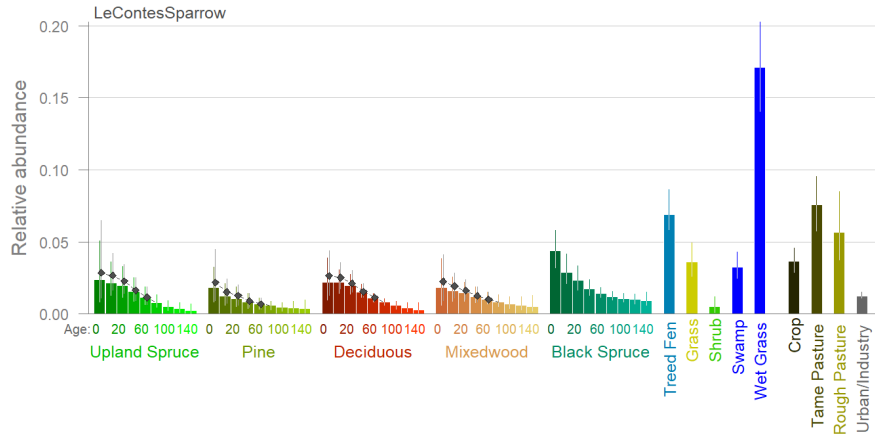
T	A	R	H
-0.6945	1.1367	1.2778	-0.0569

Distribution and density map:

Le Conte's Sparrow
(*Ammospiza leconteii*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0316	0.0177	0.0277	0.0206	0.0255	0.0115	0.0397	0.0106	0.0459	0.0241
Percent	1.4300	3.7900	0.7000	1.0100	1.6400	0.6200	1.3000	0.4900	3.7200	2.4500
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.2013	0	0.1056	0.6921	0.3316	0.0938	0.1366	0.1253		
Percent	32.2300	0	0.5200	16.9400	3.9100	9.2100	18.0300	2.0000		

Fox Sparrow (*Passerella iliaca*; FOSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.8075	0.8342	4.4228	0.0223	0.005	0.0512

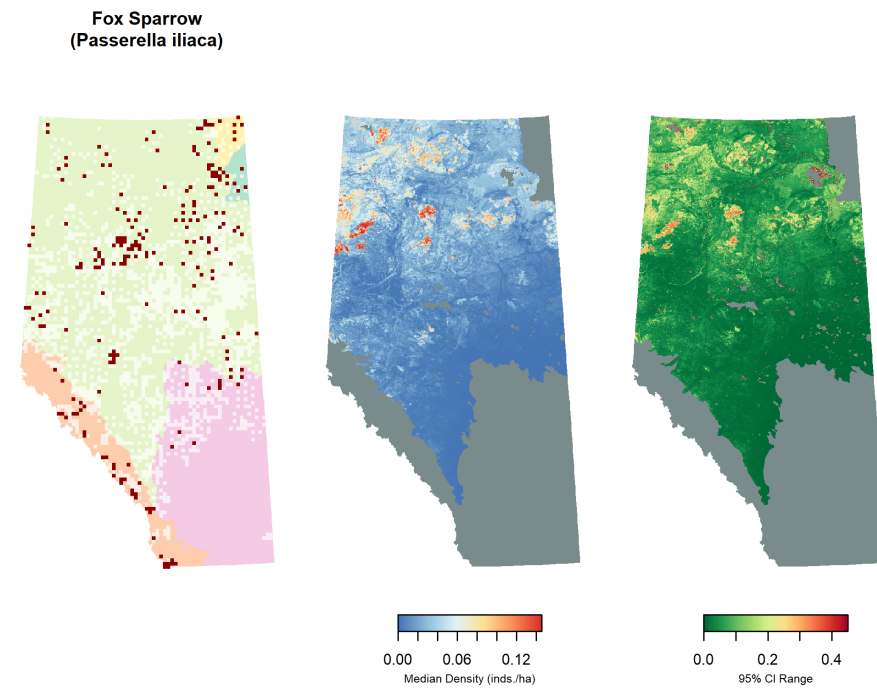
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0024	0.0033	0.5467	1.0928	0.4491	200	115.3083	0.9043

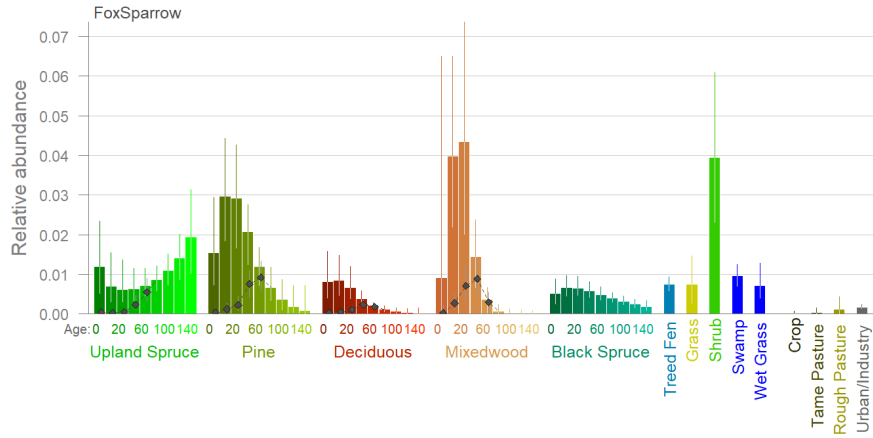
Log ratio components:

T	A	R	H
0.7118	1.1014	1.3977	0.6039

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0333	0.0153	0.1636	0.0114	0.1104	0.0296	0.03	0.0396	0.0655	0.0391
Percent	2.6200	5.7100	7.2200	0.9700	12.3400	2.8000	1.72	3.2000	9.2600	6.9200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0757	0.1683	0.0681	0.0825	0.0831	0.0805	0.0054	0.0104		
Percent	21.1200	4.9900	0.5800	3.5200	1.7100	13.7800	1.2500	0.2900		

Song Sparrow (*Melospiza melodia*; SOSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
2.2299	1.3177	3906.952	7.7151	4.9601	11.2975

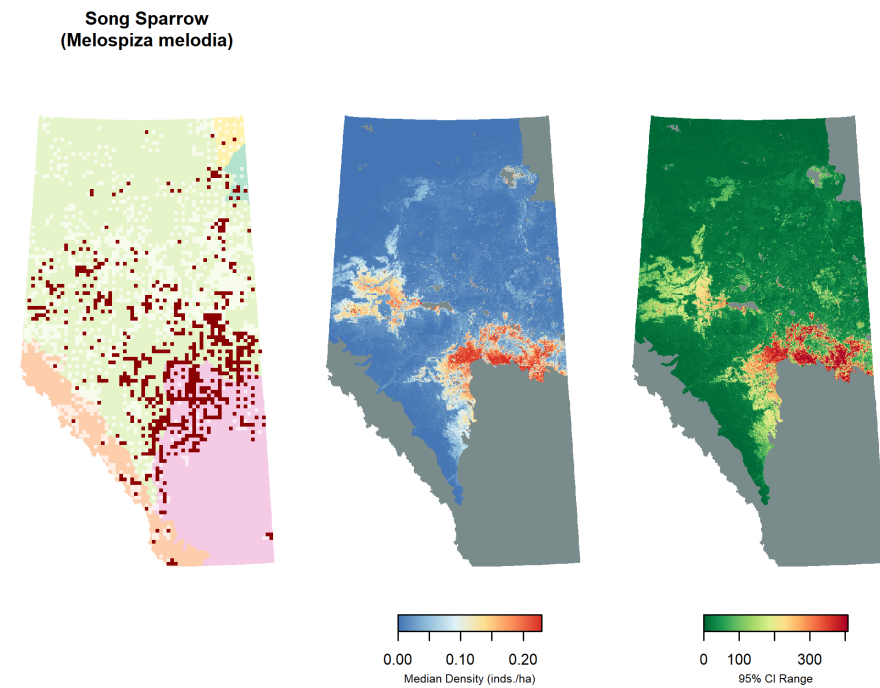
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.133	0.0747	3.0614	1.4592	0.5826	125	88.0866	0.8771

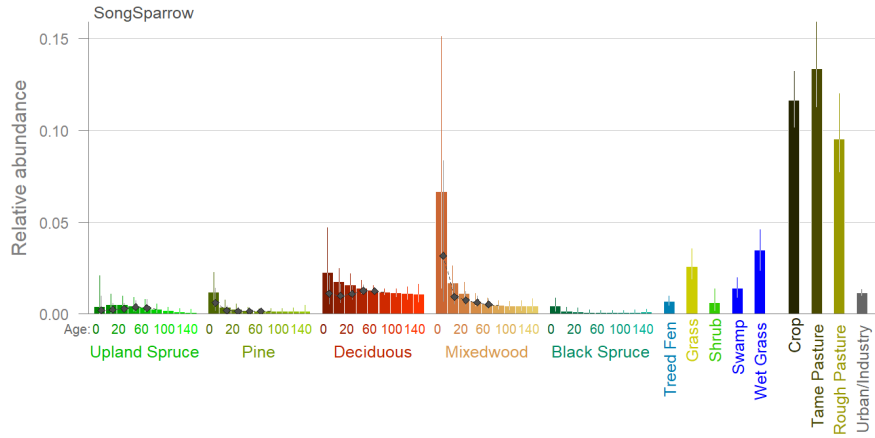
Log ratio components:

T	A	R	H
0.1624	0.7	0.5614	-1.1189

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0309	0.0297	0.0378	0.0148	0.0073	0.0025	0.0064	0.0044	0.0045	0.0022
Percent	2.0200	9.1900	1.3900	1.0400	0.6800	0.1900	0.3000	0.2900	0.5300	0.3300
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0186	0.0116	0.0816	0.0999	0.1571	0.0312	0.3418	0.1304		
Percent	4.3000	0.2900	0.5800	3.5300	2.6800	4.4300	65.2200	3.0100		

Lincoln's Sparrow (*Melospiza lincolnii*; LISP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
12.4118	10.8975	17.129	9.2669	5.7911	13.7897

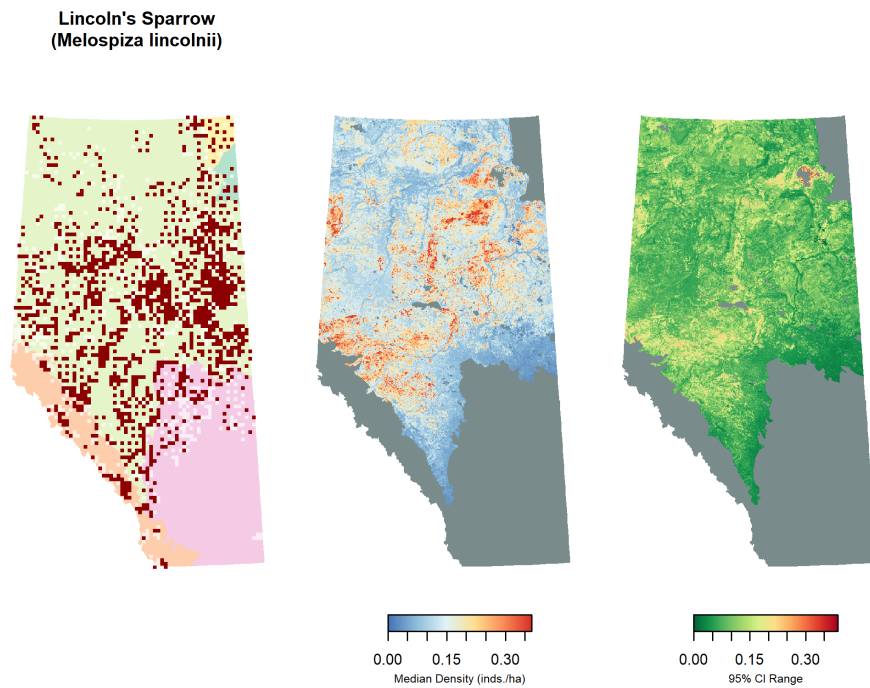
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1019	0.067	0.7442	1.9172	0.5253	125	70.8032	0.7549

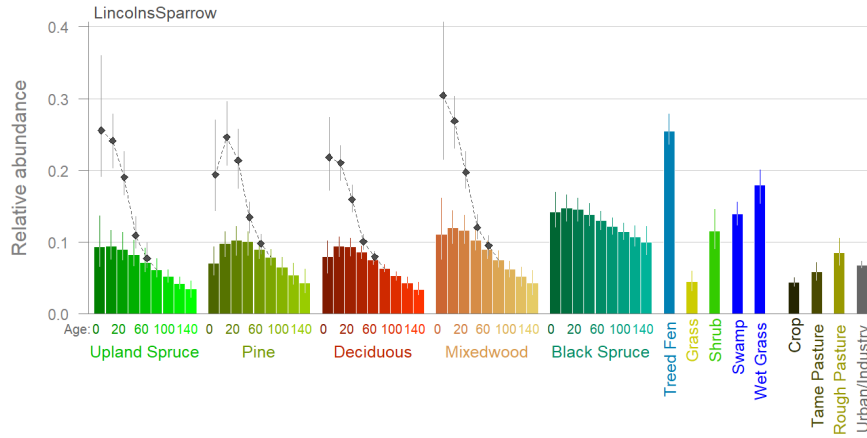
Log ratio components:

T	A	R	H
-0.007	1.1368	0.6582	0.2954

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2879	0.1434	0.4335	0.1432	0.3006	0.1305	0.3491	0.1112	0.3303	0.2671
Percent	3.7500	8.8500	3.1700	2.0200	5.5700	2.0500	3.3100	1.4900	7.7400	7.8400
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.6192	0.3233	0.1976	0.6605	0.3741	0.3433	0.1737	0.3189		
Percent	28.6100	1.5900	0.2800	4.6700	1.2700	9.7300	6.6100	1.4700		

Swamp Sparrow (*Melospiza georgiana*; SWSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
8.7945	2.8569	19.1427	0.5735	0.3198	0.9385

Metrics used to calculate log ratio components and AUC:

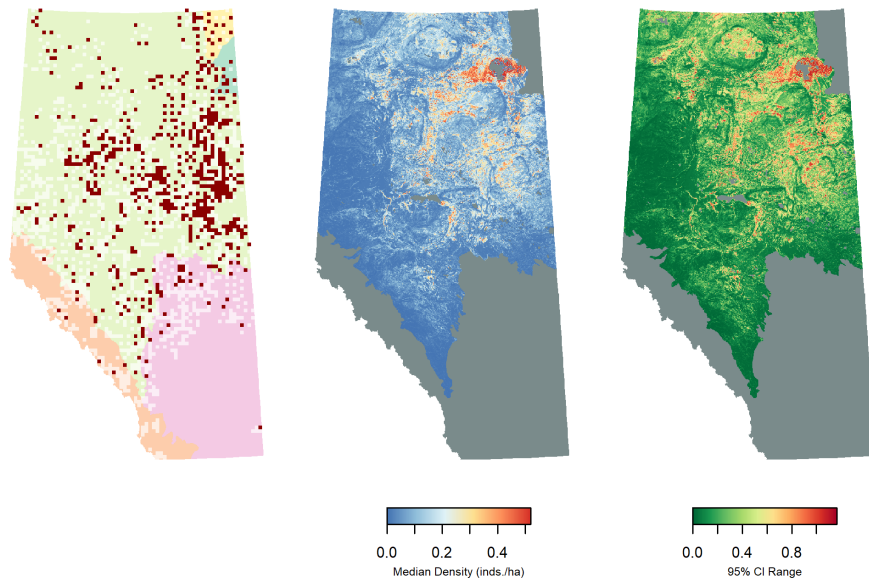
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0105	0.009	0.3578	1.6577	0.9507	125	83.7747	0.8216

Log ratio components:

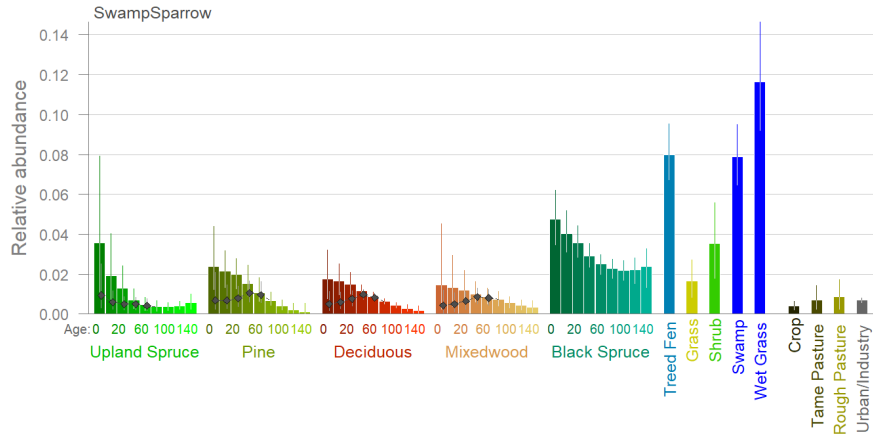
T	A	R	H
-0.4549	0.8004	0.8551	1.0277

Distribution and density map:

Swamp Sparrow
(*Melospiza georgiana*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0285	0.0318	0.0251	0.0362	0.0636	0.0356	0.0381	0.0404	0.1841	0.1387
Percent	0.5600	2.9800	0.2800	0.7700	1.7900	0.8500	0.5500	0.8200	6.5500	6.1800
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.5666	0.2063	0.0463	0.809	0.8415	0.5041	0.0285	0.1202		
Percent	39.7800	1.5400	0.1000	8.680	4.3500	21.7100	1.6500	0.8400		

White-throated Sparrow (*Zonotrichia albicollis*; WTSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
24.2417	22.0419	27.1066	10.0363	5.7264	16.9161

Metrics used to calculate log ratio components and AUC:

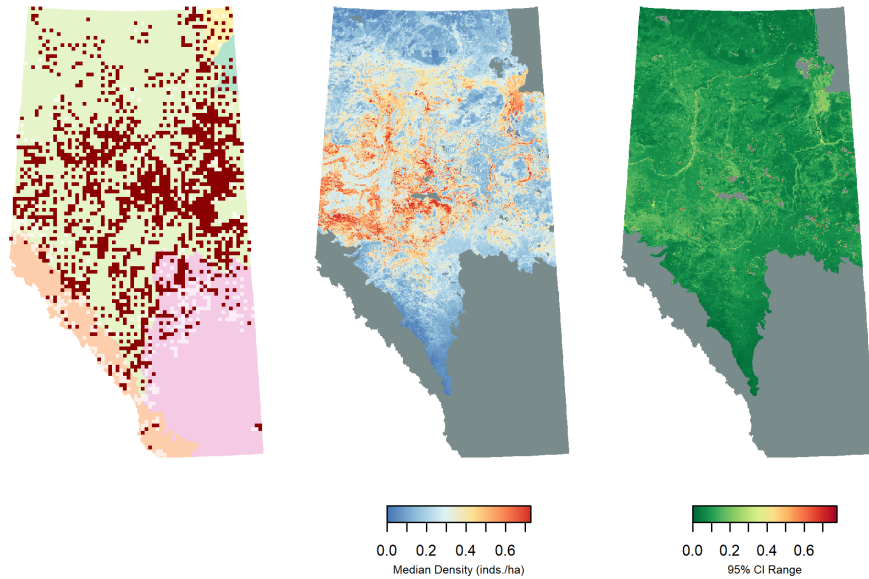
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1496	0.1422	1.1015	2.2483	0.5876	200	102.1667	0.7667

Log ratio components:

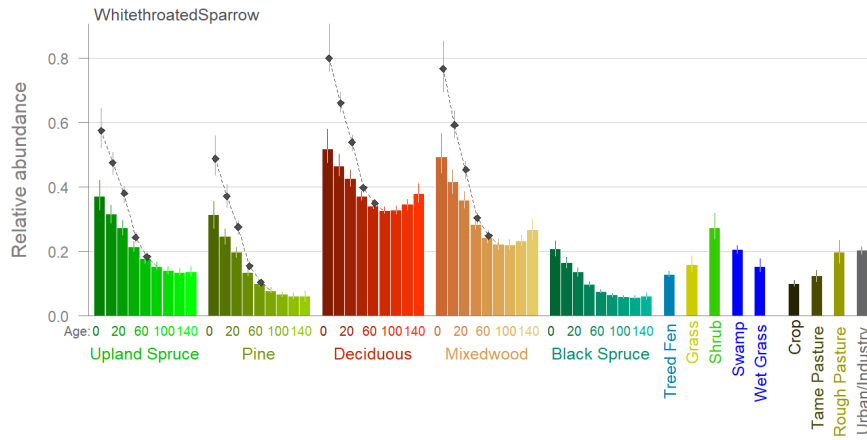
T	A	R	H
-0.2784	1.3434	0.9504	-0.0967

Distribution and density map:

White-throated Sparrow
(*Zonotrichia albicollis*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	1.3458	0.9587	1.2338	0.7142	0.6546	0.1806	0.7979	0.4731	0.3164	0.1707
Percent	8.9400	30.2000	4.6000	5.1300	6.1900	1.4500	3.8600	3.2300	3.7800	2.5600
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.3532	0.7812	0.5157	0.3129	0.6117	0.5265	0.416	0.6403		
Percent	8.3300	1.9600	0.3700	1.1300	1.0600	7.6200	8.090	1.5100		

White-crowned Sparrow (*Zonotrichia leucophrys*; WCSP)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.1047	0.043	92146.05	0.1267	0.0066	0.3821

Metrics used to calculate log ratio components and AUC:

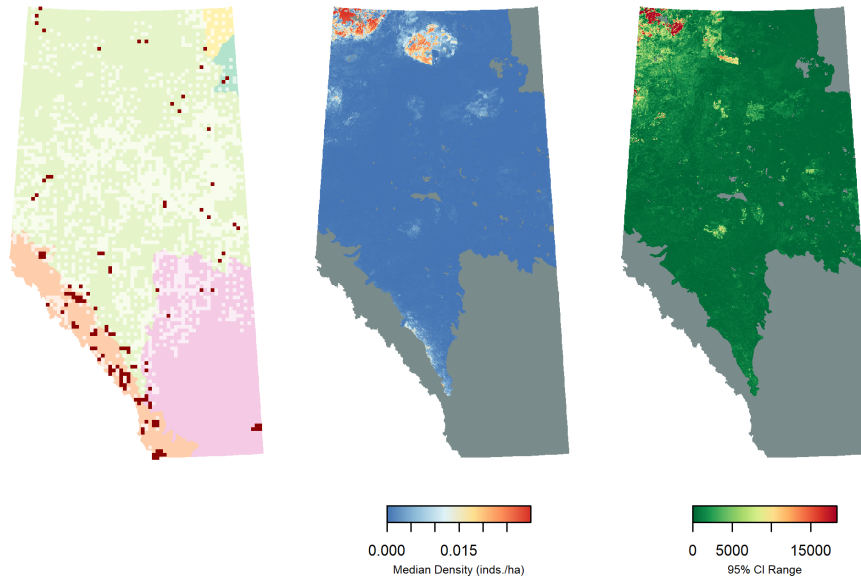
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0157	0.0135	0.3933	2.0872	0.5492	200	106.838	0.9688

Log ratio components:

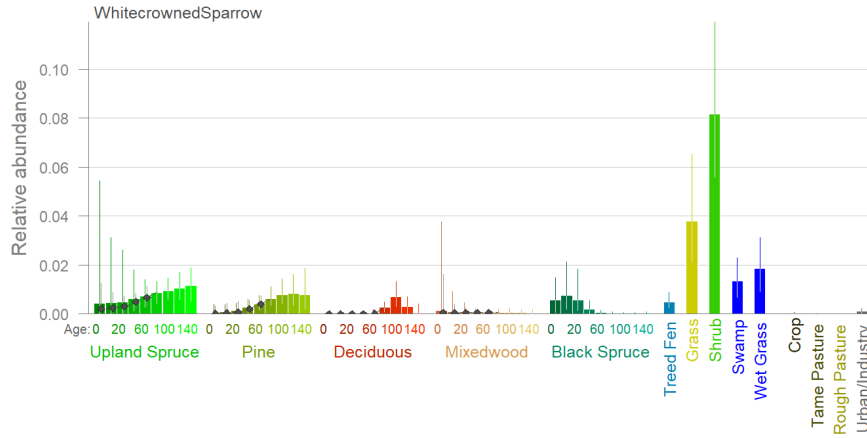
T	A	R	H
-0.1366	1.254	0.8585	0.9333

Distribution and density map:

White-crowned Sparrow
(*Zonotrichia leucophrys*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0	0.0005	0.0008	0.0005	0.0003	0.0013	0.0093	0.0021	0.0077	0
Percent	0	2.9200	0.5900	0.6300	0.5800	1.9800	8.5700	2.7400	17.4700	0
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0029	0.0335	0.0033	0.0153	0.0171	0.0067	0.00	0.0005		
Percent	13.0600	16.0100	0.4500	10.5300	5.6500	18.4300	0.17	0.2100		

Dark-eyed Junco (*Junco hyemalis*; DEJU)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
17.0752	14.4133	411.5262	3.2599	1.7921	5.5417

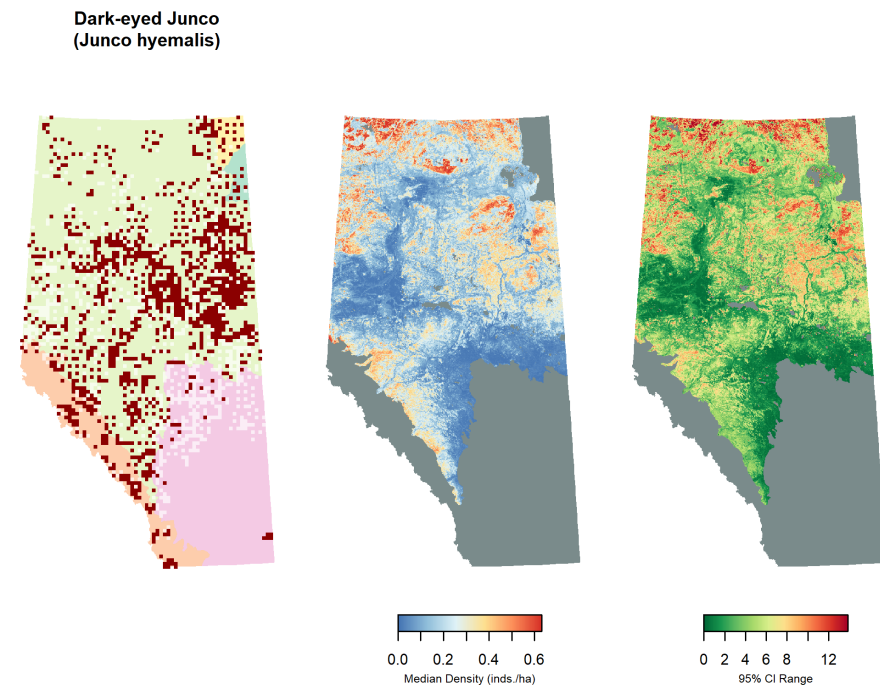
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1329	0.1247	0.4637	1.7188	0.4273	125	67.2695	0.7858

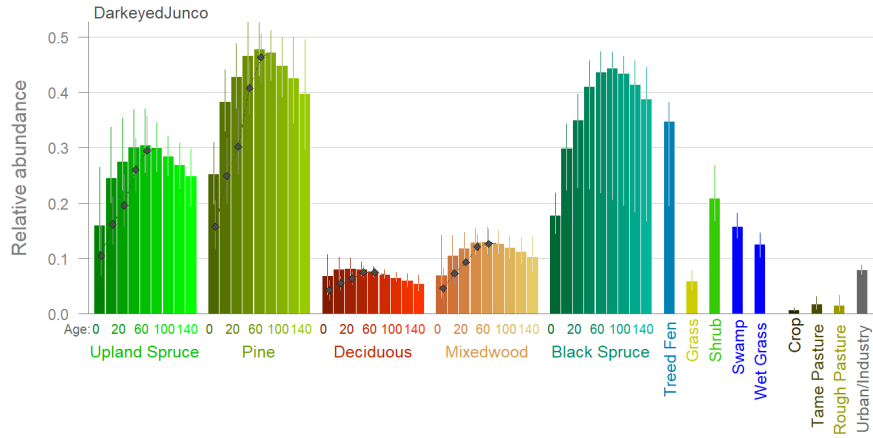
Log ratio components:

T	A	R	H
0.3087	1.2392	0.9385	0.7685

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1179	0.1467	0.1549	0.2269	0.5725	0.772	0.3507	0.4818	0.7765	0.9445
Percent	1.0700	6.3300	0.7900	2.2300	7.4100	8.480	2.3200	4.5000	12.7100	19.3700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.6914	0.2635	0.0644	0.3028	0.2957	0.374	0.0286	0.3474		
Percent	22.3300	0.9000	0.0600	1.4900	0.7000	7.410	0.7600	1.1200		

Baltimore Oriole (*Icterus galbula*; BAOR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.1391	0.0225	0.8737	0.2397	0.1242	0.404

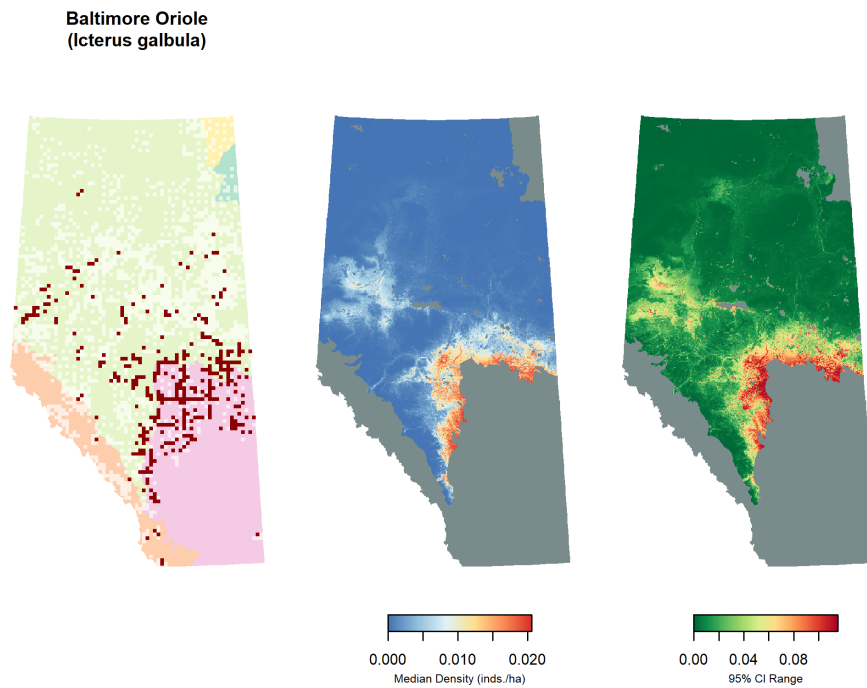
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0301	0.0233	2.9823	1.1519	0.4873	125	83.691	0.8957

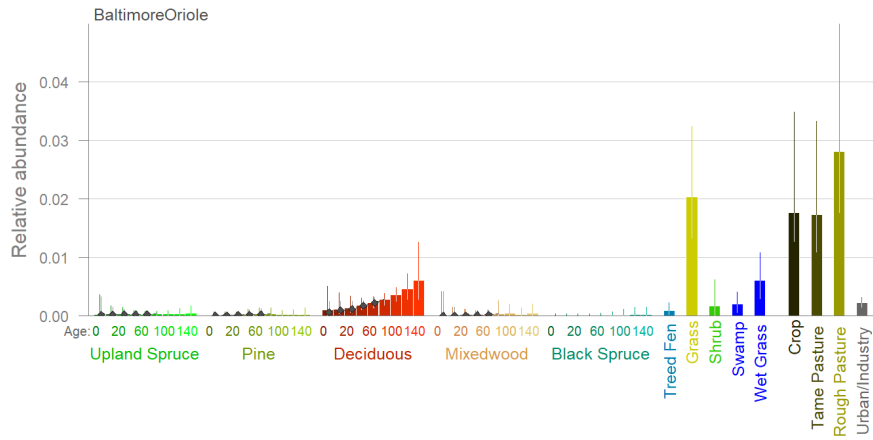
Log ratio components:

T	A	R	H
0.5775	0.8024	0.7746	-1.0927

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0026	0.0027	0.0002	0.0007	0	0	0.0004	0.0005	0	0.0002
Percent	2.8900	13.9900	0.1400	0.8100	0	0	0.3500	0.5800	0	0.3900
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0011	0.0004	0.0144	0	0.0107	0.0027	0.0191	0.0073		
Percent	4.3300	0.1700	1.7400	0	3.1000	6.4900	62.1500	2.8700		

Red-winged Blackbird (*Agelaius phoeniceus*; RWBL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.1257	0.739	3.3186	3.5005	1.8712	6.2118

Metrics used to calculate log ratio components and AUC:

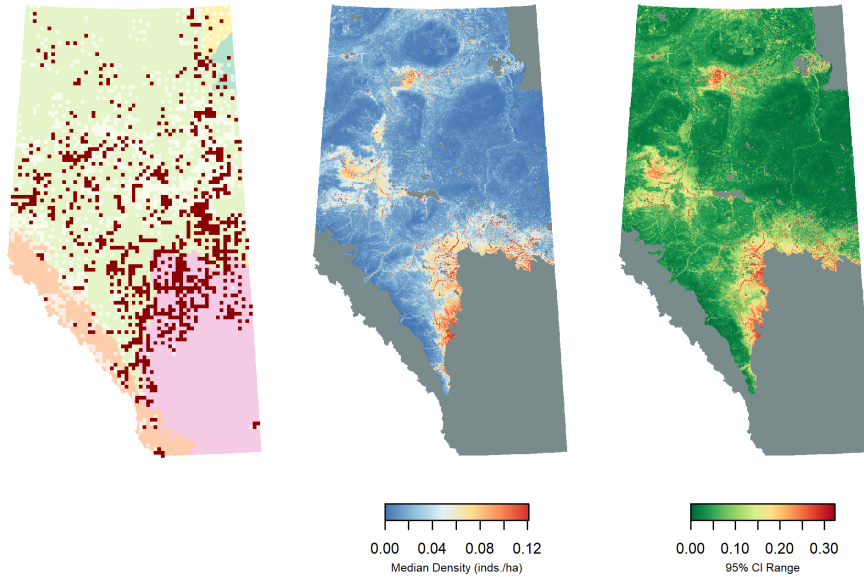
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.2426	0.1105	1.9764	1.3428	0.6004	200	99.7265	0.8045

Log ratio components:

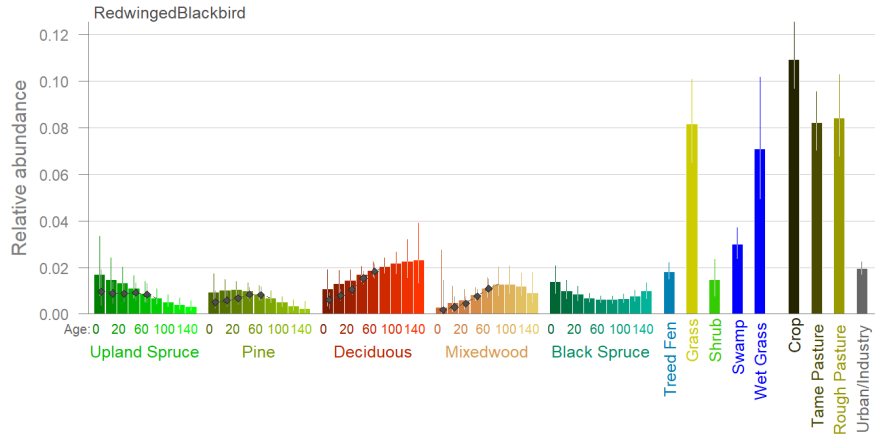
T	A	R	H
0.2154	1.3918	0.4554	-0.6813

Distribution and density map:

Red-winged Blackbird
(*Agelaius phoeniceus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0142	0.0219	0.0062	0.021	0.01	0.009	0.0138	0.009	0.0121	0.011
Percent	1.9200	14.0300	0.4700	3.060	1.91	1.470	1.3600	1.250	2.9300	3.340
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0251	0.0116	0.0503	0.0352	0.0644	0.0354	0.0944	0.0506		
Percent	11.9900	0.5900	0.7300	2.5800	2.2700	10.4100	37.2600	2.4200		

Brown-headed Cowbird (*Molothrus ater*; BHCO)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.3025	0.7109	64.1317	2.7895	1.6839	4.1449

Metrics used to calculate log ratio components and AUC:

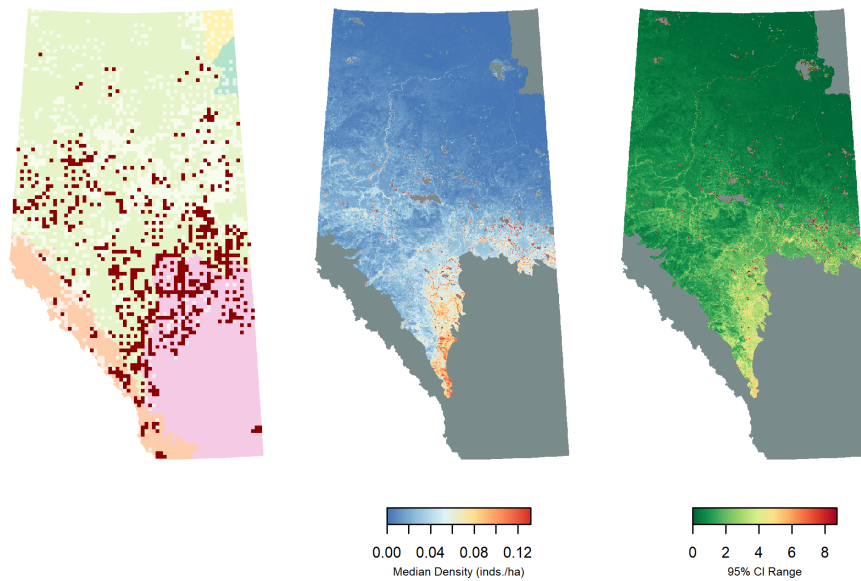
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1722	0.0875	1.3464	1.217	0.4525	125	64.9834	0.8435

Log ratio components:

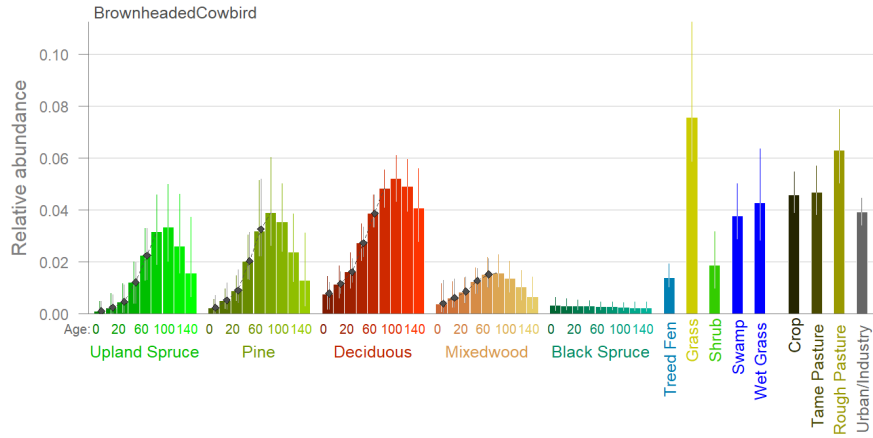
T	A	R	H
0.5965	1.3084	0.5078	-0.2974

Distribution and density map:

**Brown-headed Cowbird
(*Molothrus ater*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0432	0.0643	0.0204	0.0296	0.0233	0.0409	0.0167	0.0323	0.0066	0.0051
Percent	4.1600	29.3500	1.1000	3.0800	3.1900	4.7500	1.1700	3.1900	1.1400	1.1100
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.027	0.0149	0.055	0.0595	0.0597	0.0611	0.0607	0.0853		
Percent	9.230	0.5400	0.570	3.1100	1.5000	12.8000	17.0800	2.9100		

Rusty Blackbird (*Euphagus carolinus*; RUBL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.578	0	3.1003	0.0133	0	0.0426

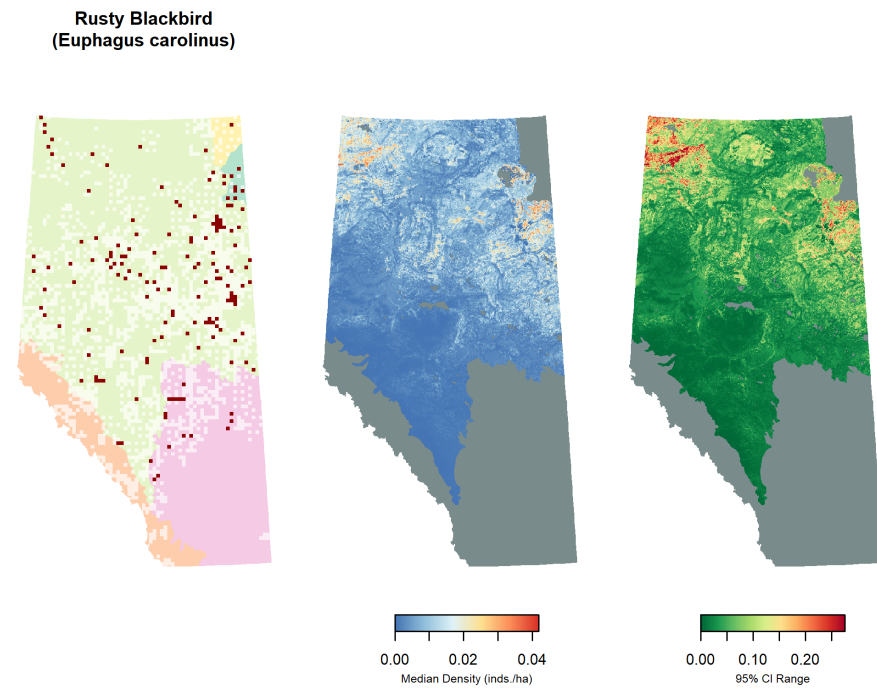
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0016	0.0017	0.566	1.4269	0.3754	125	83.4212	0.8775

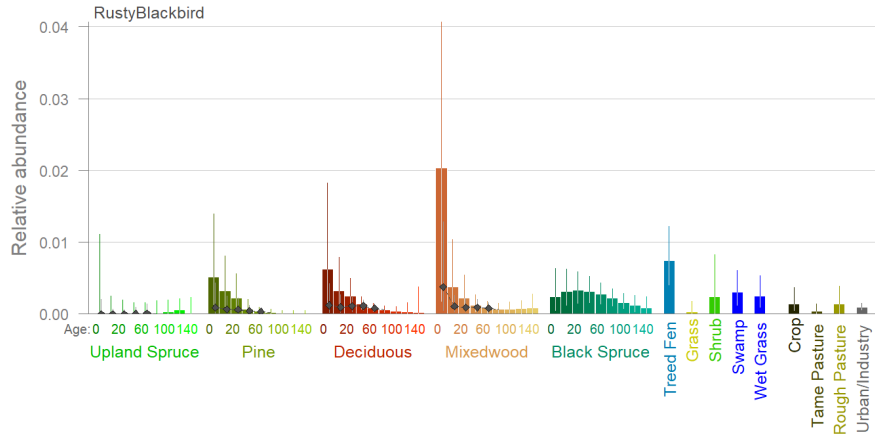
Log ratio components:

T	A	R	H
0.6242	0.8088	1.0352	0.5691

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.01	0.0027	0.0135	0.0047	0.0069	0.0003	0	0.0005	0.015	0.0099
Percent	3.50	4.4100	2.6300	1.7800	3.4200	0.1400	0	0.1700	9.420	7.7300
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0365	0.0122	0	0.0226	0	0.0142	0.0048	0.0019		
Percent	45.0600	1.6100	0	4.2700	0	10.7400	4.8900	0.2400		

Brewer's Blackbird (*Euphagus cyanocephalus*; BRBL)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.1825	0.0141	5.6649	0.6774	0.3396	1.2023

Metrics used to calculate log ratio components and AUC:

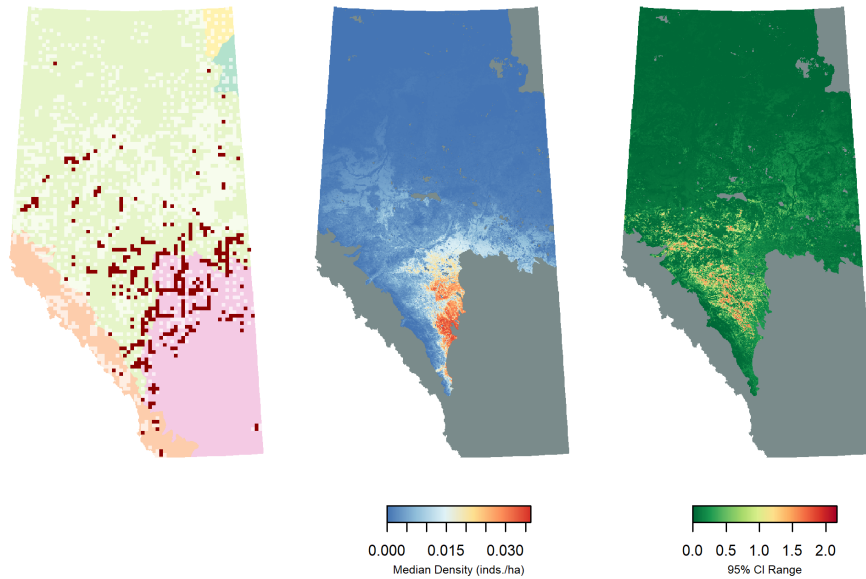
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.121	0.0147	2.5133	1.3299	0.3165	200	109.2381	0.8769

Log ratio components:

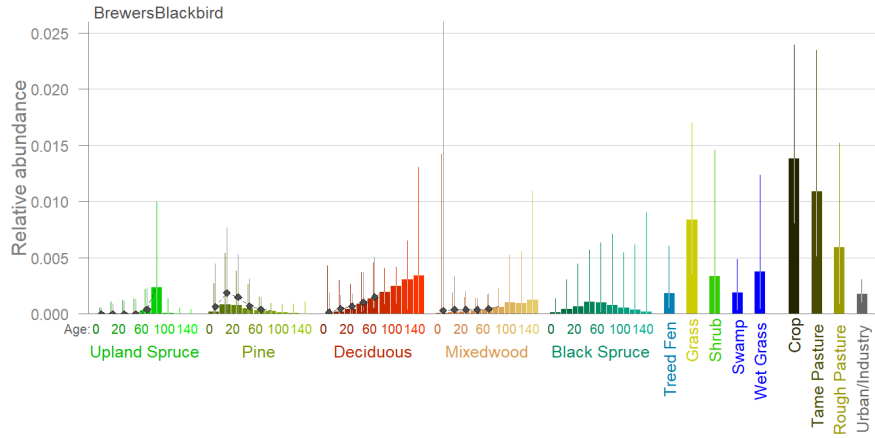
T	A	R	H
0.8653	1.2096	0.1219	-0.9216

Distribution and density map:

Brewer's Blackbird
(*Euphagus cyanocephalus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0012	0.0023	0.0007	0.0002	0.0026	0.0006	0.0006	0.0011	0.001	0.0014
Percent	1.2000	11.2100	0.3900	0.2400	3.7700	0.7800	0.4700	1.1600	1.910	3.1200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0033	0.0022	0.0067	0	0.0048	0.0028	0.0172	0.0118		
Percent	11.7000	0.8500	0.7300	0	1.2600	6.1100	50.8400	4.2400		

Ovenbird (*Seiurus aurocapilla*; OVEN)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
26.0405	23.2128	29.5197	1.6279	0.8526	2.9506

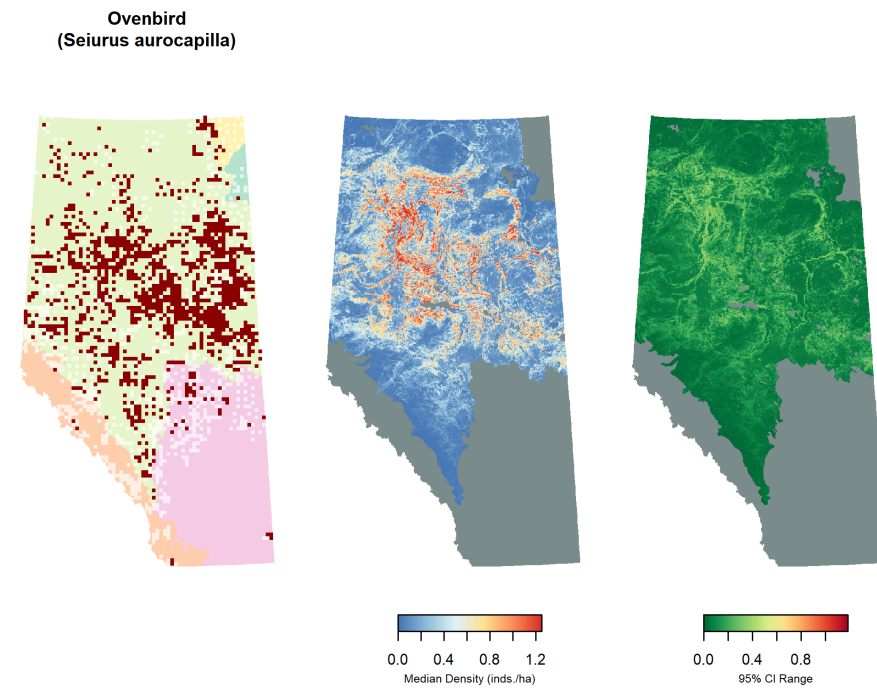
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0563	0.1034	0.9844	1.2391	0.7868	200	93.4817	0.892

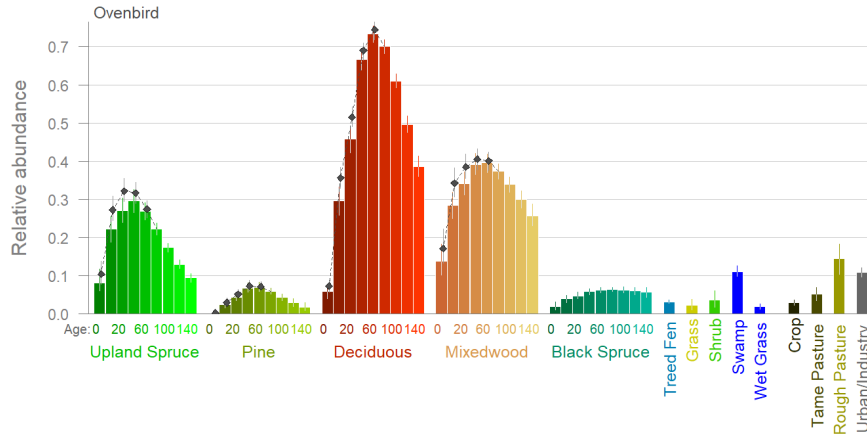
Log ratio components:

T	A	R	H
0.0254	1.5211	1.8349	0.0157

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	1.091	2.1718	0.8423	1.1334	0.1247	0.1465	0.5963	0.3865	0.1447	0.1786
Percent	6.550	61.8700	2.8400	7.3700	1.0700	1.0600	2.6100	2.3900	1.5600	2.4200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0851	0.1438	0.1773	0.047	0.038	0.3343	0.1728	0.1827		
Percent	1.8100	0.3300	0.1200	0.150	0.060	4.3700	3.0400	0.3900		

Northern Waterthrush (*Parkesia noveboracensis*; NOWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
5.7006	3.0912	15.0527	0.1539	0.0611	0.2985

Metrics used to calculate log ratio components and AUC:

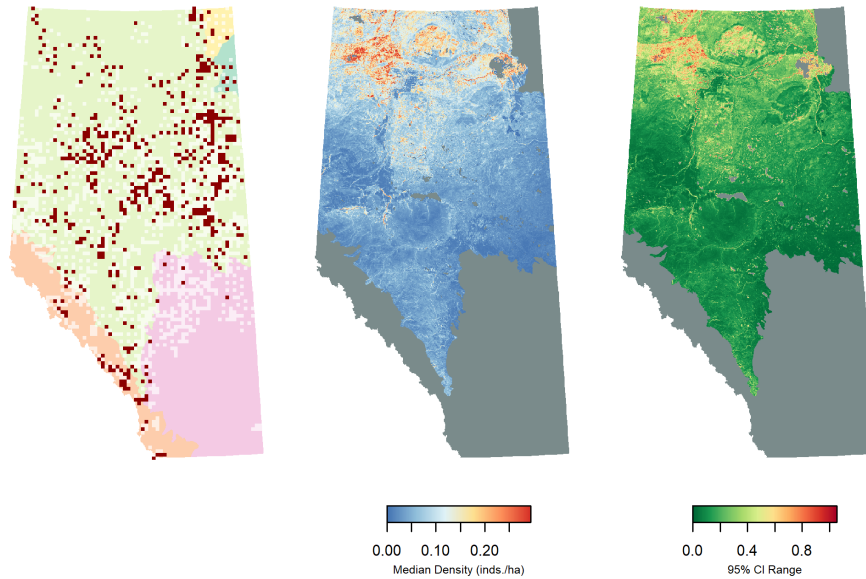
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0101	0.0115	0.549	1.1151	0.4614	200	98.0226	0.7769

Log ratio components:

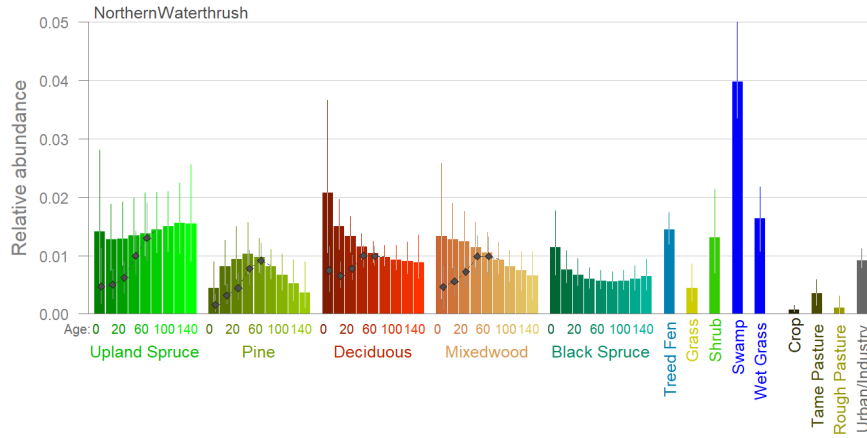
T	A	R	H
0.6646	1.4262	1.1368	0.5996

Distribution and density map:

Northern Waterthrush
(*Parkesia noveboracensis*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1139	0.1128	0.0861	0.0873	0.0617	0.064	0.0848	0.1398	0.0894	0.0767
Percent	3.2800	15.3900	1.3900	2.7200	2.5300	2.230	1.7800	4.1400	4.6300	4.9800
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.1852	0.2145	0.0407	0.238	0.2138	0.4507	0.0203	0.0282		
Percent	18.9300	2.3300	0.1300	3.720	1.6100	28.2400	1.7100	0.2900		

Black-and-white Warbler (*Mniotilta varia*; BAWW)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
7.5473	5.4161	9.4789	0.7301	0.3554	1.3096

Metrics used to calculate log ratio components and AUC:

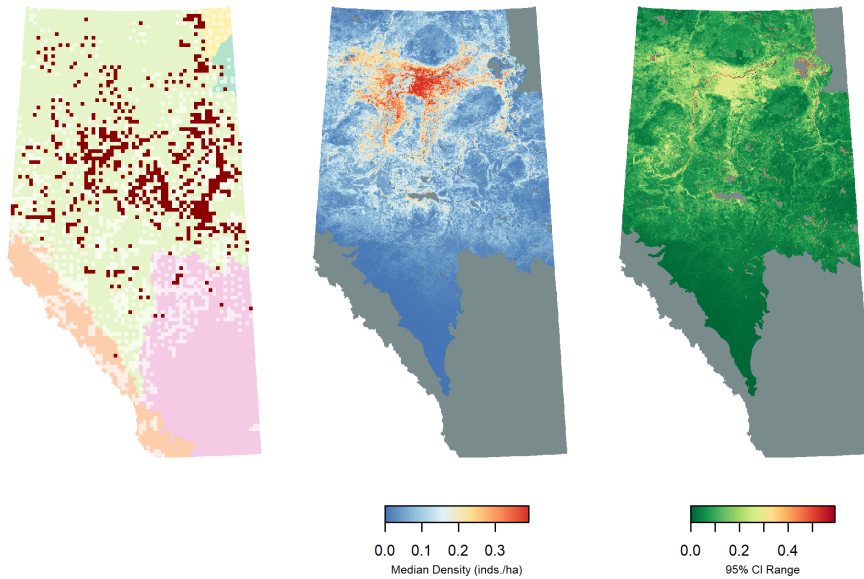
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.016	0.0189	0.9249	1.1651	0.5329	100	64.1823	0.8269

Log ratio components:

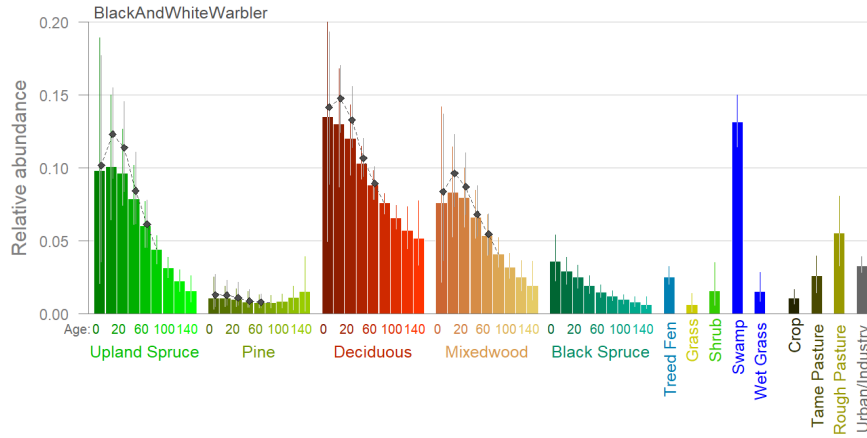
T	A	R	H
0.4765	0.8869	1.182	0.078

Distribution and density map:

Black-and-white Warbler
(*Mniotilta varia*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.4188	0.3208	0.2567	0.1229	0.0322	0.0444	0.2941	0.0719	0.0808	0.0312
Percent	8.8400	32.1000	3.0400	2.8000	0.9700	1.1300	4.5200	1.5600	3.0700	1.4800
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0983	0.0541	0.0713	0.1279	0	0.5432	0.0894	0.0812		
Percent	7.3600	0.4300	0.1600	1.4600	0	24.9500	5.5200	0.6100		

Tennessee Warbler (*Oreothlypis peregrina*; TEWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
71.0145	62.1271	81.4647	3.9847	2.4632	6.0731

Metrics used to calculate log ratio components and AUC:

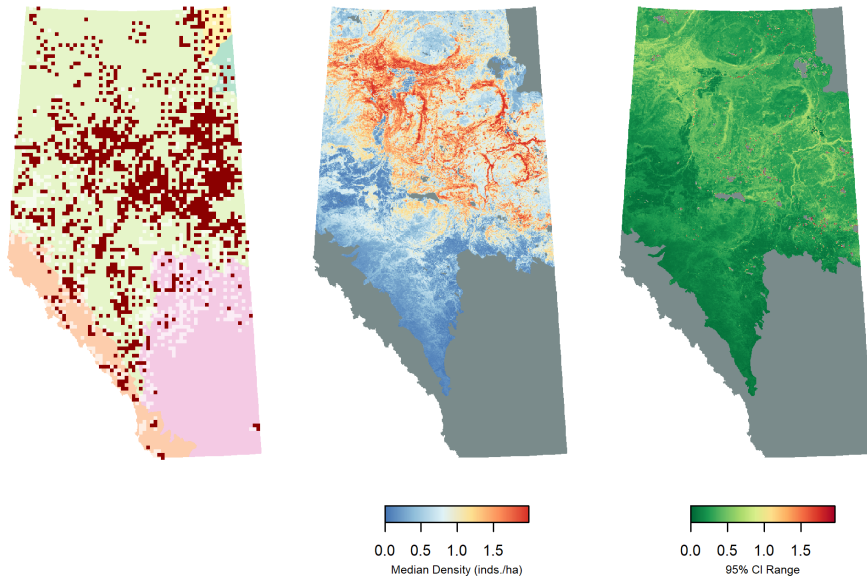
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1597	0.2119	0.7413	1.2189	0.7834	125	61.745	0.8328

Log ratio components:

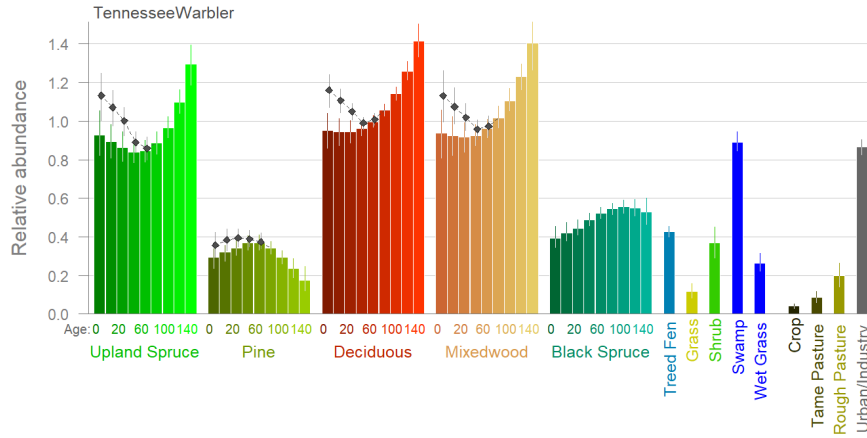
T	A	R	H
0.0462	1.4106	1.3269	0.2993

Distribution and density map:

Tennessee Warbler
(*Oreothlypis peregrina*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	2.4501	3.0586	2.1541	2.8909	0.9338	0.808	2.1994	2.4515	1.3225	1.5028
Percent	5.4200	32.1100	2.6800	6.9200	2.9400	2.160	3.5500	5.5800	5.2700	7.5000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	1.1614	1.2228	0.6047	0.7434	0.9844	2.4669	0.1949	1.2087		
Percent	9.1300	1.0200	0.1400	0.8900	0.5700	11.8900	1.2600	0.9500		

Orange-crowned Warbler (*Oreothlypis celata*; OCWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
2.9517	1.4551	195.782	0.6015	0.3367	0.981

Metrics used to calculate log ratio components and AUC:

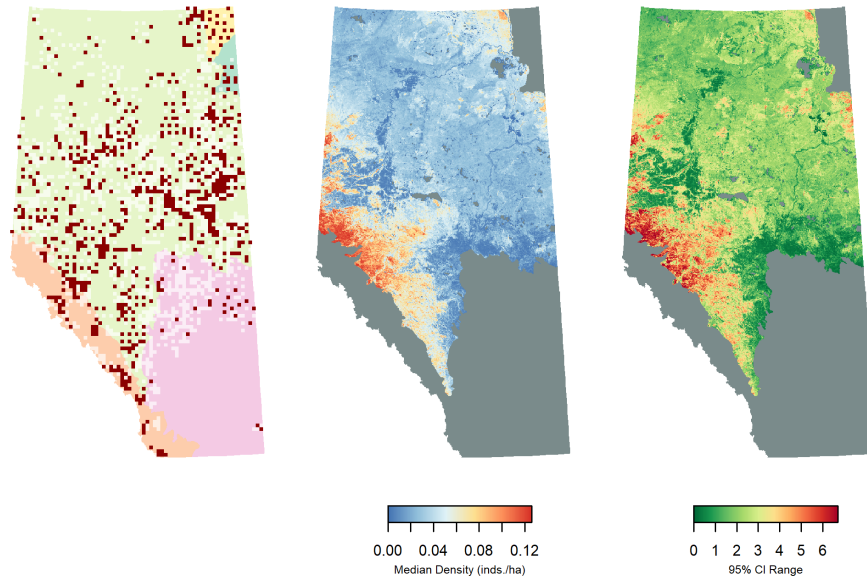
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0441	0.0496	0.7045	1.2677	0.4413	125	58.3544	0.7563

Log ratio components:

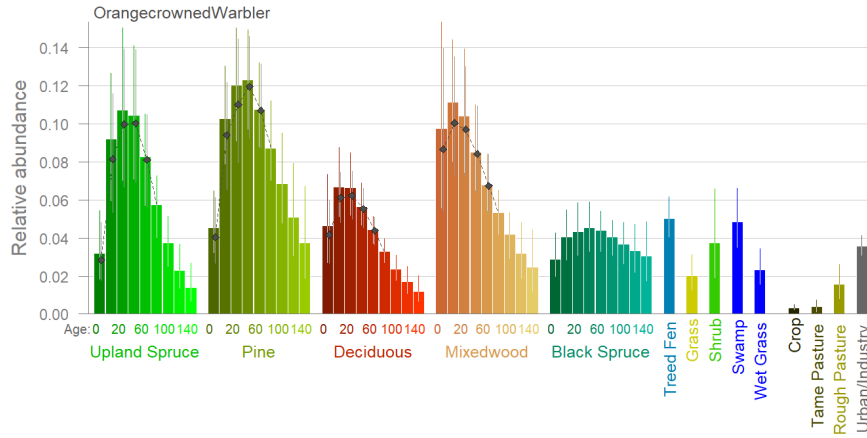
T	A	R	H
0.5808	1.5236	1.1247	0.3502

Distribution and density map:

Orange-crowned Warbler
(*Oreothlypis celata*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1131	0.0559	0.1855	0.0751	0.1224	0.1083	0.1091	0.0438	0.0734	0.0692
Percent	5.9500	13.9600	5.4800	4.2800	9.1700	6.8900	4.1800	2.3700	6.9500	8.2100
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0865	0.0653	0.0445	0.0565	0.0456	0.0851	0.0086	0.082		
Percent	16.1600	1.3000	0.2500	1.6100	0.6300	9.7600	1.3200	1.530		

Connecticut Warbler (*Oporornis agilis*; CONW)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
0.6424	0.3805	1.1408	0.1982	0.0971	0.3484

Metrics used to calculate log ratio components and AUC:

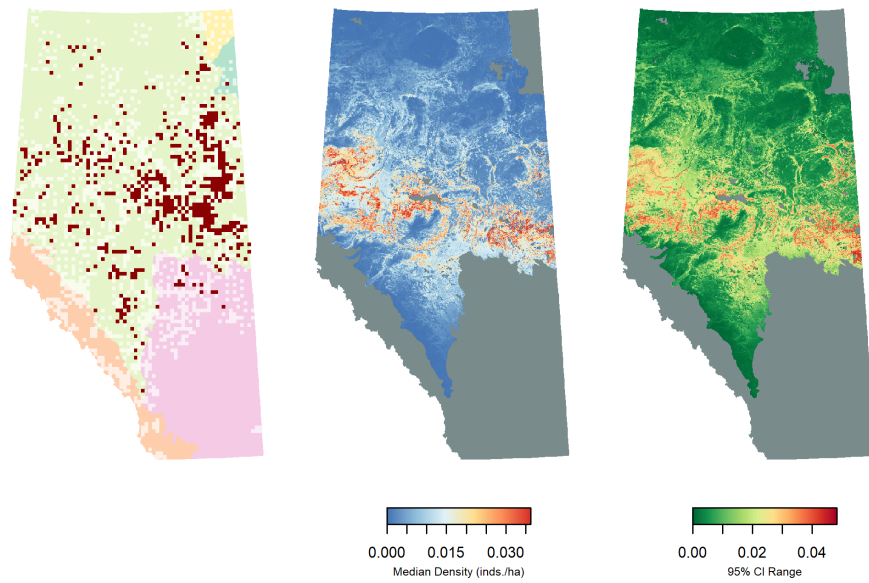
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.011	0.0163	1.4682	1.2863	0.7398	125	79.6224	0.8304

Log ratio components:

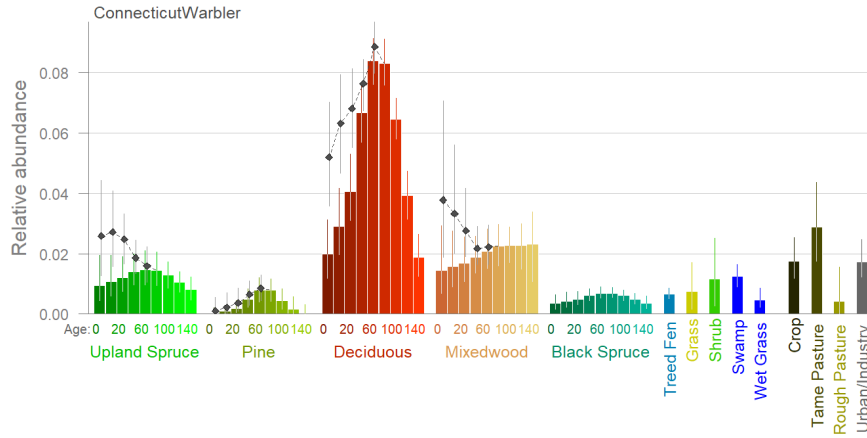
T	A	R	H
0.0496	0.902	1.4828	-0.384

Distribution and density map:

Connecticut Warbler
(*Oporornis agilis*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0287	0.0446	0.0126	0.0178	0.0021	0.0026	0.0077	0.0089	0.0028	0.0026
Percent	7.1900	52.9200	1.7700	4.8300	0.7400	0.7800	1.4000	2.3000	1.2500	1.4600
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0036	0.0047	0.0061	0.0016	0.0021	0.0069	0.0229	0.0083		
Percent	3.1600	0.4400	0.1600	0.2100	0.1400	3.7600	16.7600	0.7300		

Mourning Warbler (*Geothlypis philadelphia*; MOWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
3.438	2.2944	5.3222	0.6458	0.3152	1.1498

Metrics used to calculate log ratio components and AUC:

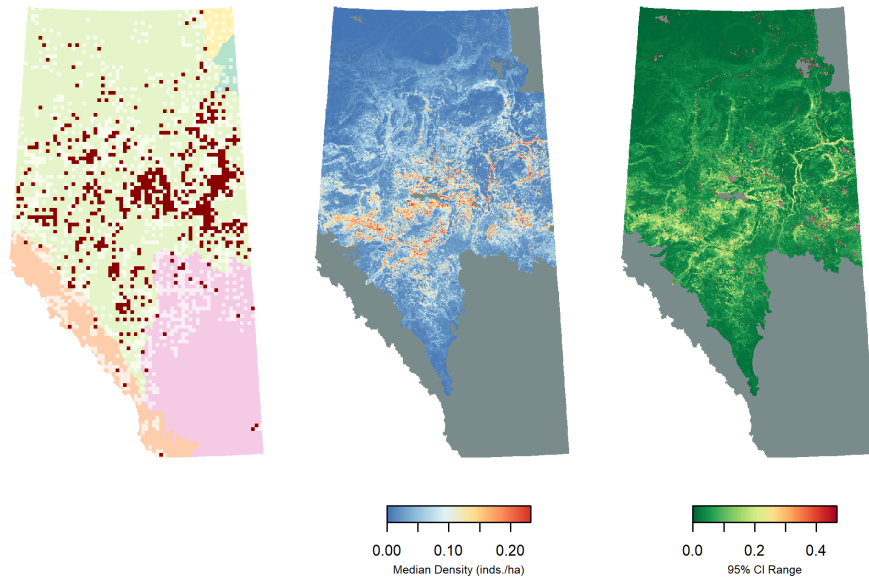
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0175	0.024	1.0245	1.2969	0.6558	125	75.6588	0.8649

Log ratio components:

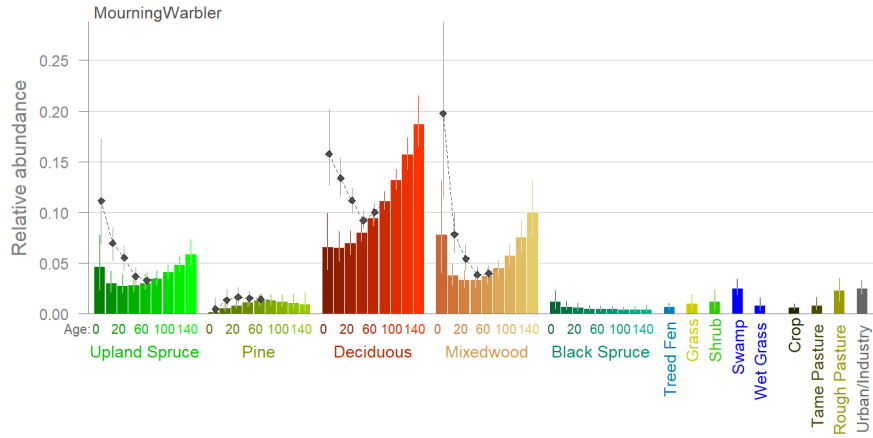
T	A	R	H
0.1619	1.0042	1.3729	-0.0242

Distribution and density map:

Mourning Warbler
(*Geothlypis philadelphia*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2349	0.2817	0.1622	0.1967	0.0304	0.0365	0.0884	0.1734	0.0176	0.0116
Percent	9.0100	51.2100	3.4900	8.1600	1.6600	1.6900	2.4700	6.8300	1.2200	1.0000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0177	0.041	0.0386	0.0065	0.0114	0.0668	0.0303	0.0643		
Percent	2.4100	0.590	0.1600	0.1400	0.1100	5.5800	3.4000	0.8700		

Common Yellowthroat (*Geothlypis trichas*; COYE)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
5.0635	3.2157	8.1987	2.0137	1.2091	3.0876

Metrics used to calculate log ratio components and AUC:

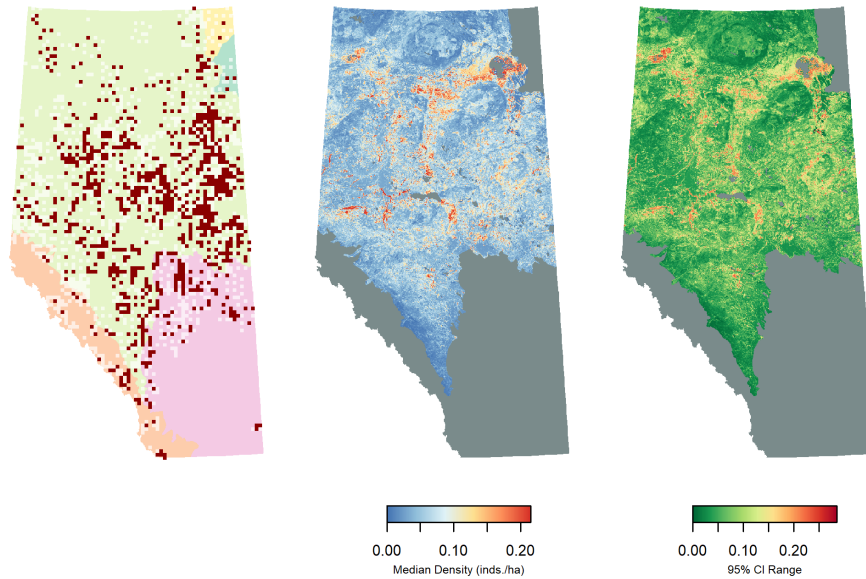
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0319	0.0256	0.7469	1.1108	0.6275	125	86.5327	0.7723

Log ratio components:

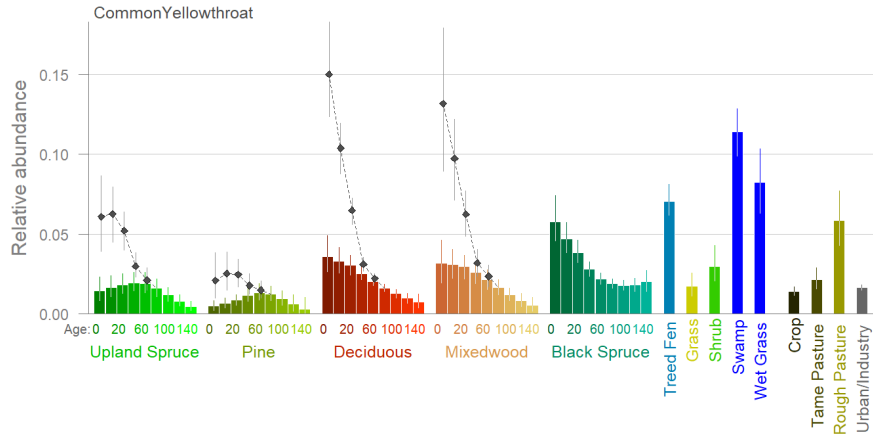
T	A	R	H
0.3609	0.7356	0.8024	0.2919

Distribution and density map:

Common Yellowthroat
(*Geothlypis trichas*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1778	0.0523	0.1937	0.0477	0.0469	0.0234	0.1081	0.0305	0.1032	0.0576
Percent	5.7300	7.9900	3.5100	1.6600	2.1500	0.9100	2.5400	1.0100	5.9800	4.1900
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.216	0.0966	0.0624	0.2511	0.2521	0.3422	0.0656	0.1303		
Percent	24.720	1.1800	0.2200	4.3900	2.1200	24.0200	6.1900	1.4900		

American Redstart (*Setophaga ruticilla*; AMRE)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
7.8071	5.9946	13.7109	1.3363	0.5267	2.4731

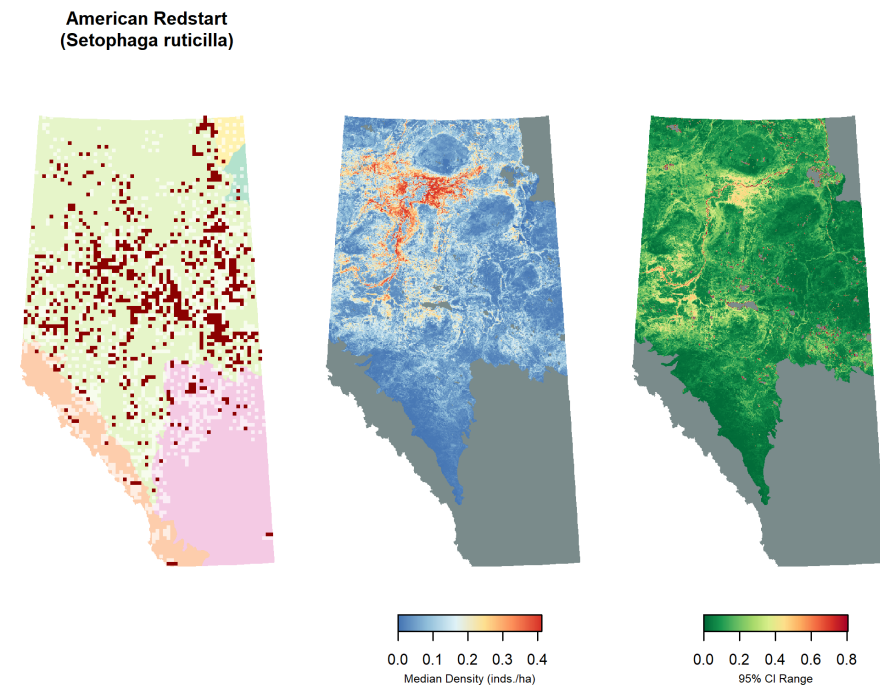
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0298	0.0565	0.9499	1.0845	0.5778	100	63.1092	0.7952

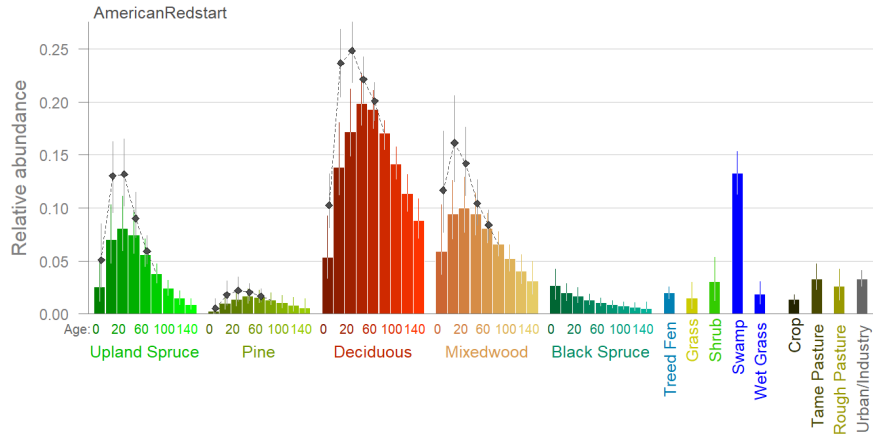
Log ratio components:

T	A	R	H
0.4674	0.9206	1.8983	0.0514

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.5179	0.4728	0.3144	0.1296	0.0413	0.0406	0.2368	0.0634	0.0493	0.017
Percent	10.3900	44.9900	3.5400	2.8100	1.1800	0.9800	3.4600	1.3100	1.7800	0.770
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0629	0.1457	0.0684	0.0402	0.105	0.4167	0.058	0.0638		
Percent	4.4800	1.1000	0.1500	0.4400	0.550	18.2100	3.410	0.4500		

Cape May Warbler (*Setophaga tigrina*; CMWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
17.6802	10.9057	27.3418	0.2397	0.0676	0.5802

Metrics used to calculate log ratio components and AUC:

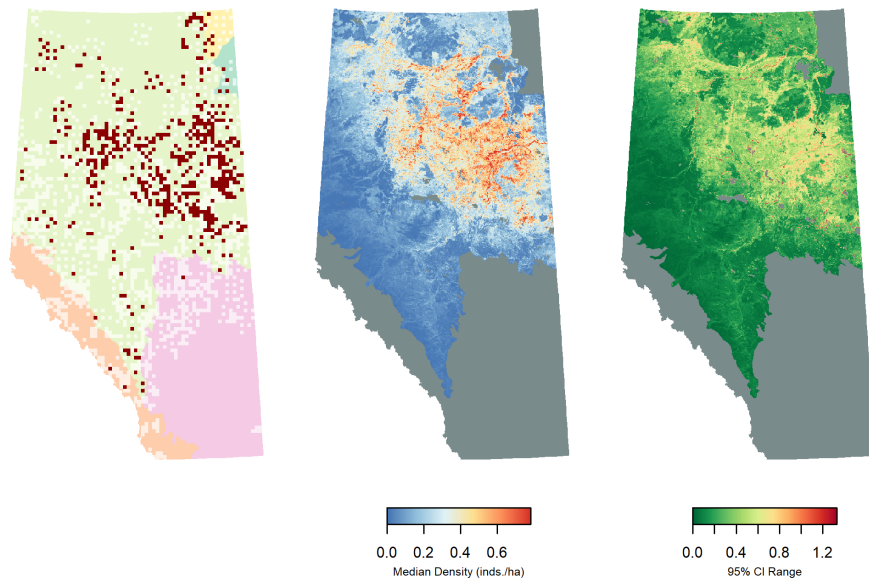
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0061	0.0182	0.5936	1.3851	0.6398	80	42.7804	0.8709

Log ratio components:

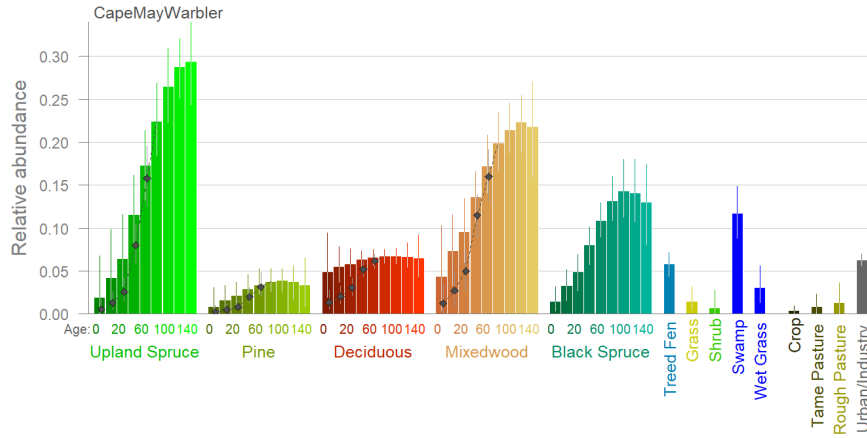
T	A	R	H
0.1209	1.2519	2.9663	0.5215

Distribution and density map:

**Cape May Warbler
(*Setophaga tigrina*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2031	0.457	0.2455	1.1217	0.1298	0.2537	0.2388	1.2656	0.4336	0.8091
Percent	1.8300	19.510	1.2400	10.9300	1.6600	2.7600	1.5700	11.7100	7.0200	16.4200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.3353	0.0583	0.1807	0.0716	0.1719	0.6087	0.0352	0.20		
Percent	10.7200	0.2000	0.1800	0.3500	0.4000	11.9400	0.9300	0.64		

Magnolia Warbler (*Setophaga magnolia*; MAWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
9.1898	7.4025	11.9705	0.2814	0.116	0.5142

Metrics used to calculate log ratio components and AUC:

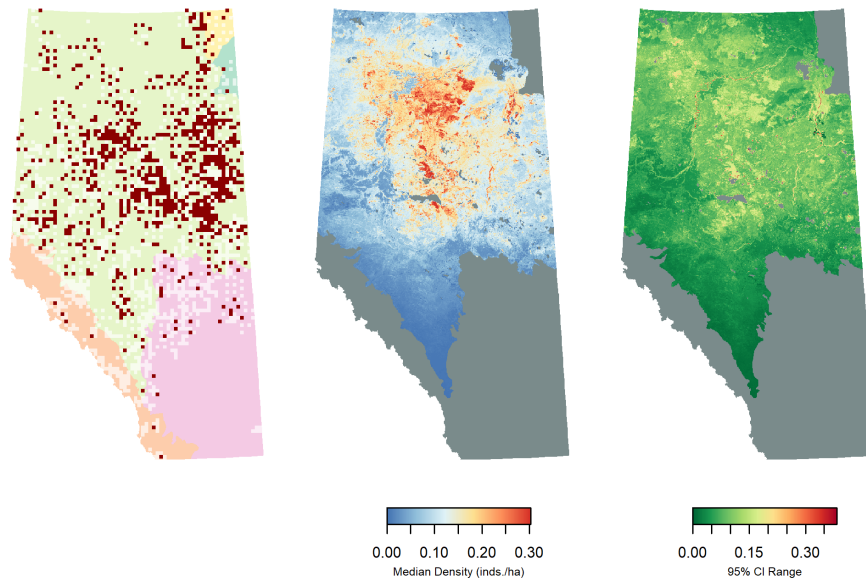
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0141	0.0207	0.7948	1.1368	0.6644	125	65.19	0.7929

Log ratio components:

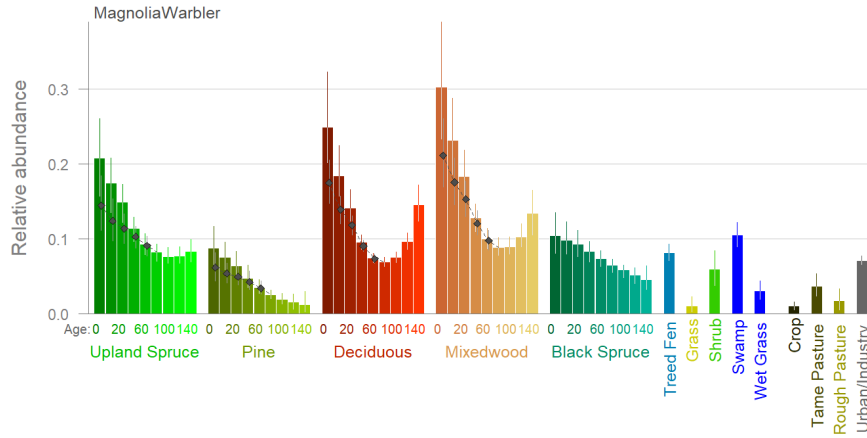
T	A	R	H
0.2806	1.302	1.4703	0.2297

Distribution and density map:

Magnolia Warbler
(*Setophaga magnolia*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.4347	0.2414	0.4604	0.2737	0.1805	0.068	0.3457	0.2501	0.2728	0.1712
Percent	7.3200	19.2900	4.3600	4.9900	4.3300	1.380	4.2400	4.3300	8.2700	6.5000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.2539	0.2866	0.0943	0.1244	0.1453	0.3136	0.073	0.1537		
Percent	15.1900	1.8200	0.1700	1.1400	0.6400	11.5100	3.600	0.9200		

Bay-breasted Warbler (*Setophaga castanea*; BBWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
6.1831	4.7106	21.9223	0.2235	0.0101	0.6394

Metrics used to calculate log ratio components and AUC:

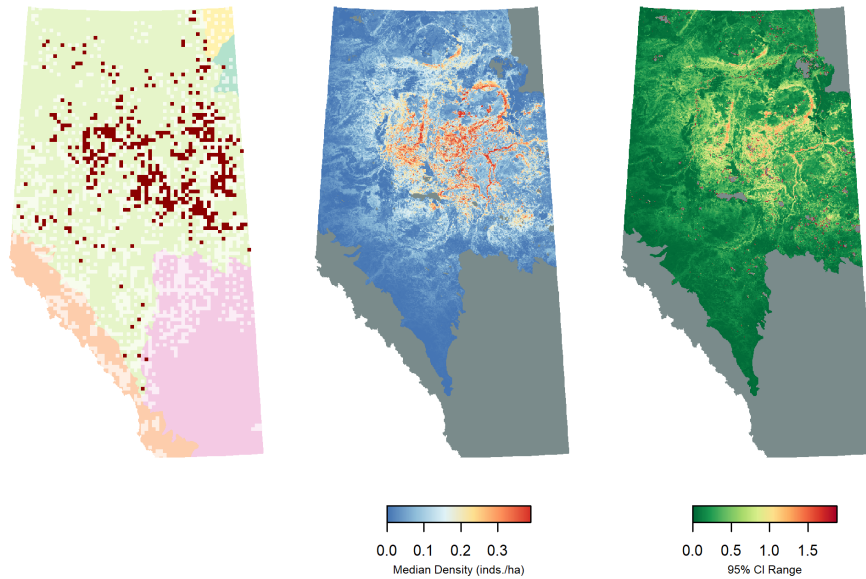
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0086	0.0239	0.7801	1.1661	0.6514	80	40.2964	0.8706

Log ratio components:

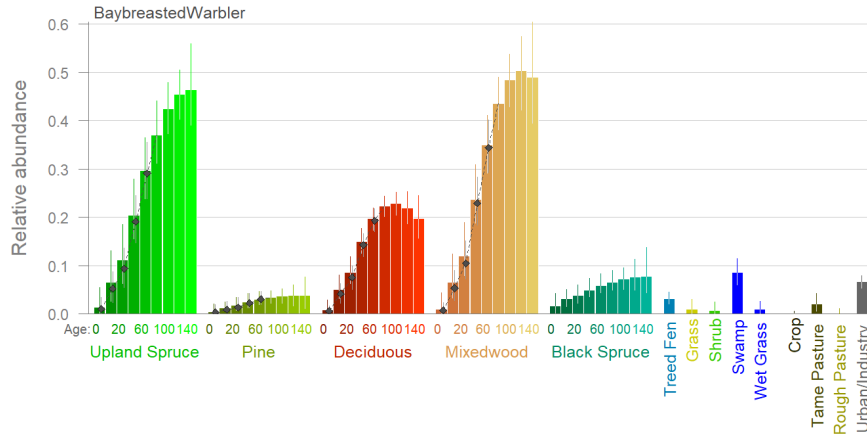
T	A	R	H
0.2749	1.3715	2.7861	0.2484

Distribution and density map:

Bay-breasted Warbler
(*Setophaga castanea*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1102	0.3798	0.1122	0.6291	0.0479	0.0699	0.1541	0.4708	0.0898	0.1316
Percent	2.5300	41.4100	1.4500	15.6500	1.5700	1.9400	2.5800	11.1300	3.7100	6.8200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0436	0	0.0336	0	0.048	0.1211	0.0179	0		
Percent	3.5600	0	0.0800	0	0.290	6.0600	1.2000	0		

Yellow Warbler (*Setophaga petechia*; YEWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
4.5938	3.4029	6.4298	5.6579	3.8478	7.993

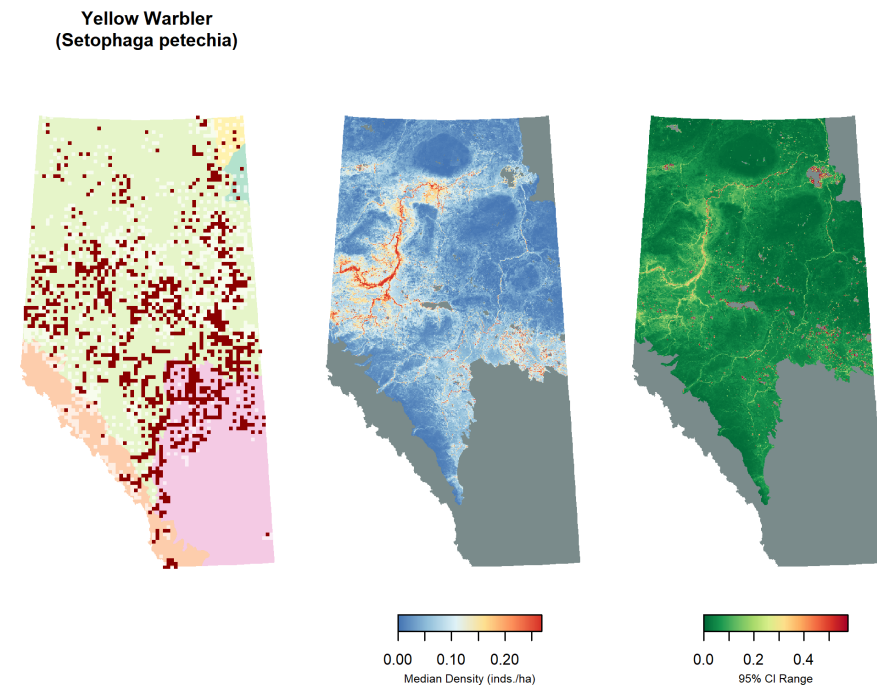
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.169	0.1221	1.3131	1.1061	0.5135	125	71.231	0.7855

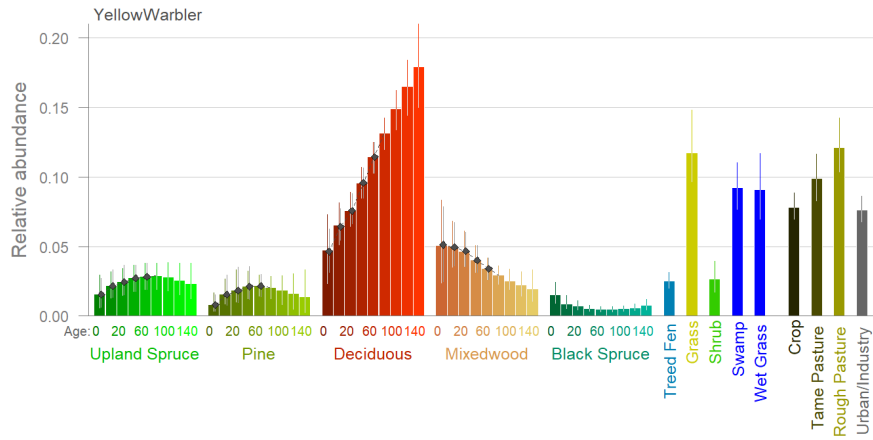
Log ratio components:

T	A	R	H
0.5657	1.1248	0.7226	-0.2724

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.1746	0.2558	0.1009	0.0603	0.0315	0.0301	0.0462	0.056	0.0139	0.0097
Percent	5.8300	40.5000	1.8900	2.1800	1.5000	1.2100	1.1200	1.920	0.8400	0.7300
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0589	0.0441	0.1586	0.1785	0.1919	0.17	0.157	0.1308		
Percent	6.9900	0.5600	0.5700	3.2400	1.6700	12.36	15.340	1.5500		

Blackpoll Warbler (*Setophaga striata*; BLPW)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.2712	0.4713	3.1665	0.07	0.0092	0.1824

Metrics used to calculate log ratio components and AUC:

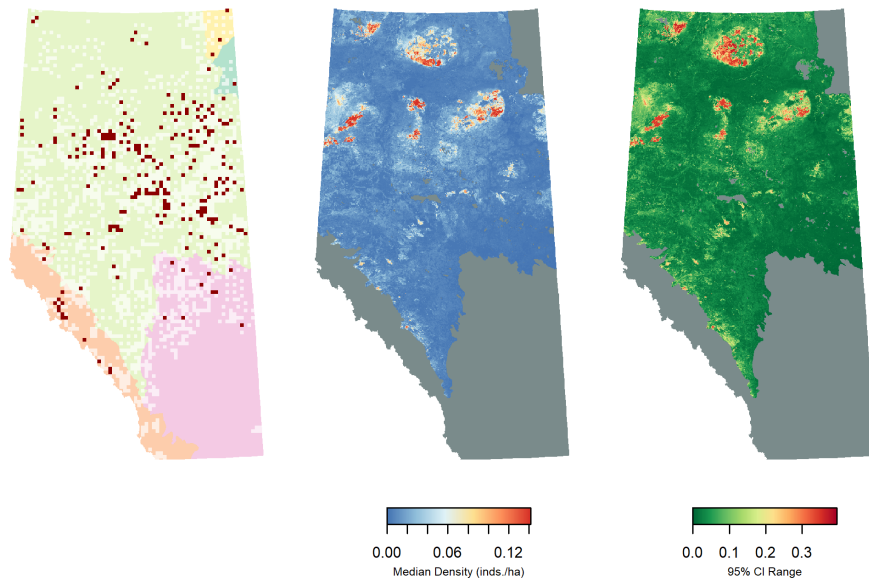
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0019	0.013	0.7501	1.0376	0.5454	80	49.6057	0.8715

Log ratio components:

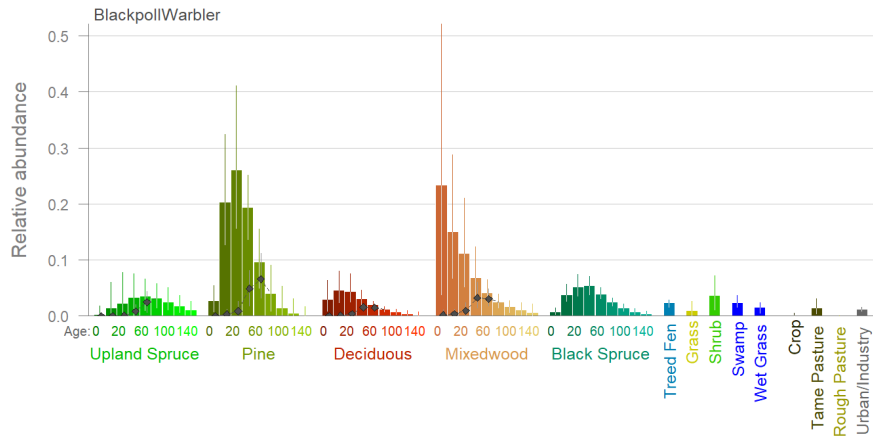
T	A	R	H
0.5692	0.9558	6.8732	0.2875

Distribution and density map:

**Blackpoll Warbler
(*Setophaga striata*)**



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0282	0.0148	0.0912	0.0284	0.1298	0.0205	0.0176	0.0197	0.059	0.018
Percent	3.4900	8.6400	6.3300	3.8000	22.8300	3.0600	1.5900	2.5000	13.110	5.000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0228	0.0703	0.0309	0.0442	0.0097	0.0327	0.0108	0		
Percent	9.9900	3.2800	0.4100	2.9600	0.3100	8.7900	3.9100	0		

Palm Warbler (*Setophaga palmarum*; PAWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
14.0299	11.7415	4384.954	0.0685	0.024	0.1386

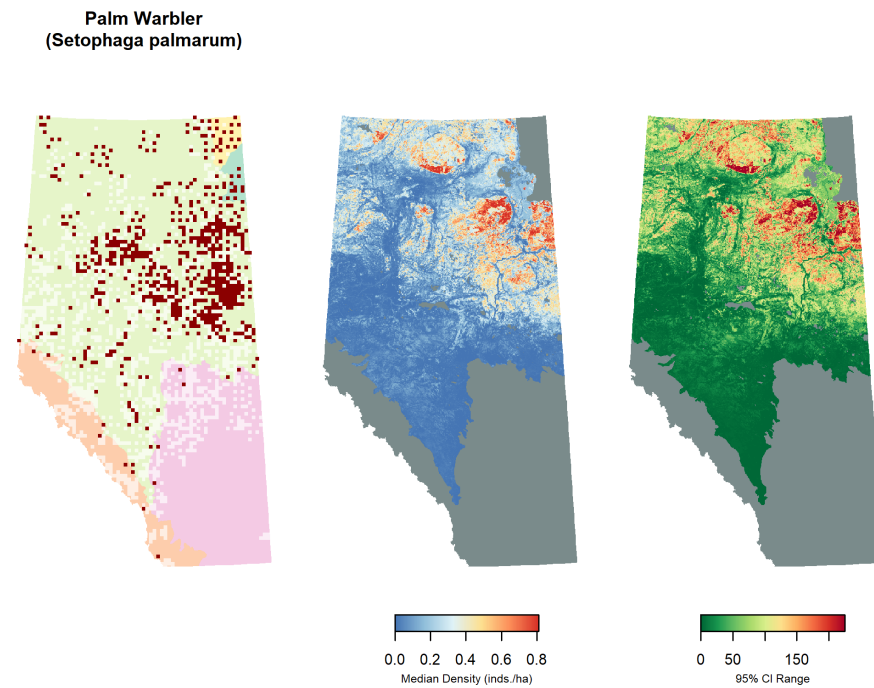
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0074	0.024	0.3558	1.3041	0.8012	125	57.6912	0.9051

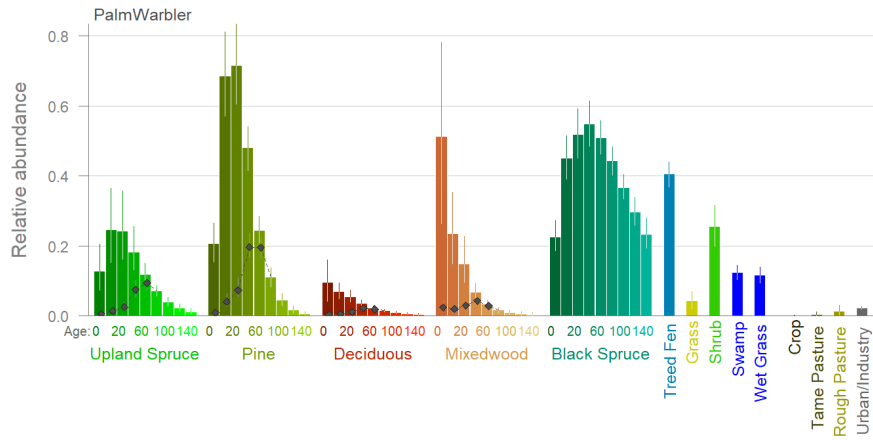
Log ratio components:

T	A	R	H
-0.0438	1.5464	3.2258	1.0335

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0555	0.0235	0.201	0.0307	0.5552	0.214	0.1555	0.084	1.0116	0.7312
Percent	0.6100	1.2300	1.250	0.3700	8.7500	2.860	1.2500	0.960	20.1500	18.2500
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.7407	0.9282	0.2714	0.3646	0.3572	0.3004	0.0092	0.0635		
Percent	29.1100	3.8800	0.3300	2.1900	1.0300	7.2400	0.3000	0.2500		

Yellow-rumped Warbler (*Setophaga coronata*; YRWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
49.4958	47.0076	522.9612	5.0151	2.7569	8.0538

Metrics used to calculate log ratio components and AUC:

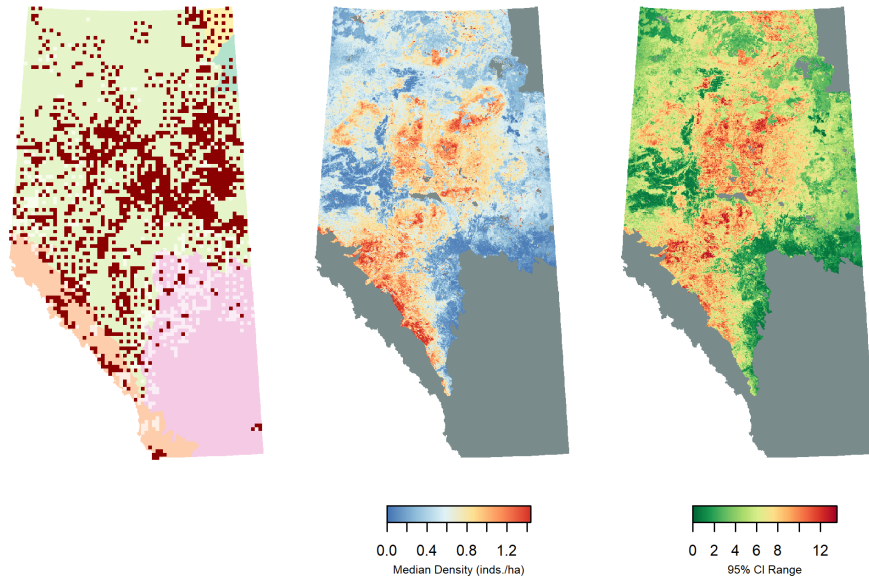
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.1685	0.3882	0.6313	1.2971	0.547	125	62.1215	0.8309

Log ratio components:

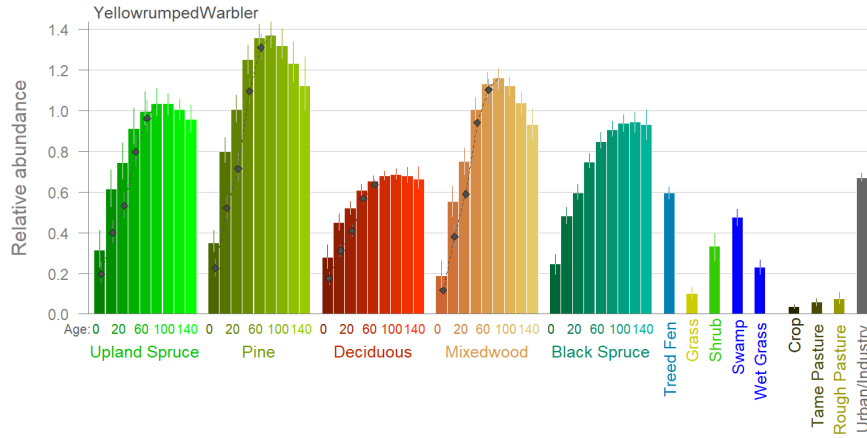
T	A	R	H
0.3431	1.3984	2.3044	0.46

Distribution and density map:

Yellow-rumped Warbler
(*Setophaga coronata*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.8017	1.3364	0.9452	2.0967	1.6313	2.5766	1.0787	1.7901	1.3235	1.8215
Percent	2.5200	19.9000	1.6700	7.1200	7.2900	9.7700	2.4700	5.7800	7.4800	12.9000
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	1.1903	0.5859	0.2407	0.5963	0.5738	0.9057	0.1026	0.384		
Percent	13.2700	0.6900	0.0800	1.0200	0.4700	6.1900	0.9400	0.430		

Black-throated Green Warbler (*Setophaga virens*; BTNW)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.2813	0.687	3.0379	0.0223	0.0015	0.0556

Metrics used to calculate log ratio components and AUC:

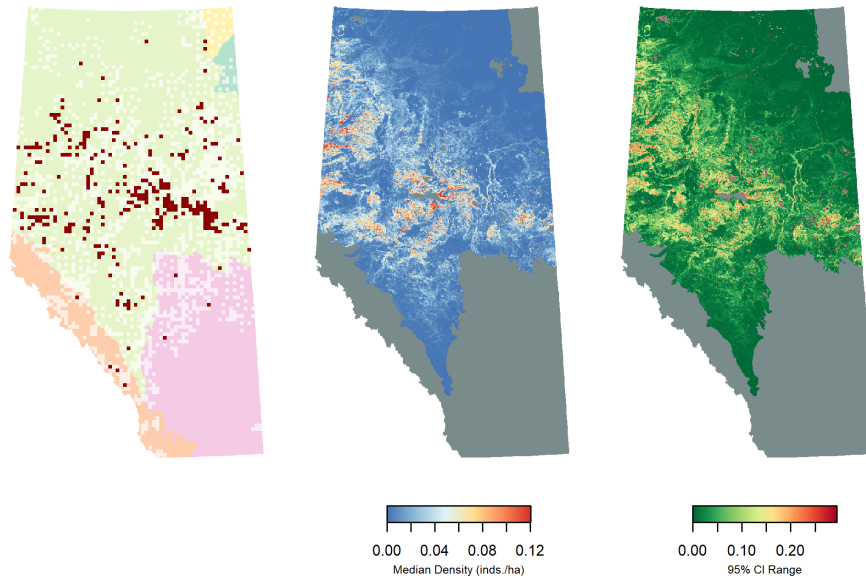
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0018	0.0227	0.8439	1.1309	0.583	125	77.6381	0.9264

Log ratio components:

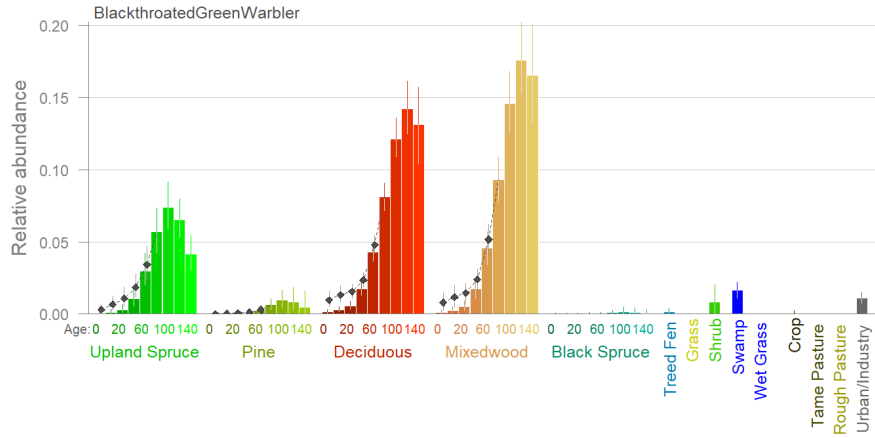
T	A	R	H
0.4165	0.9525	12.5368	0.1697

Distribution and density map:

Black-throated Green Warbler
(*Setophaga virens*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0256	0.1265	0.0201	0.269	0.0011	0.0105	0.029	0.1272	5e-04	0.0022
Percent	2.1300	50.0300	0.9400	24.280	0.1300	1.0600	1.760	10.9000	7e-02	0.4200
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0046	0.0389	0	0	0	0.0311	0	0.0021		
Percent	1.3600	1.2300	0	0	0	5.6500	0	0.0600		

Canada Warbler (*Cardellina canadensis*; CAWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
2.3446	0.0526	3.2523	0.168	0.0291	0.3679

Metrics used to calculate log ratio components and AUC:

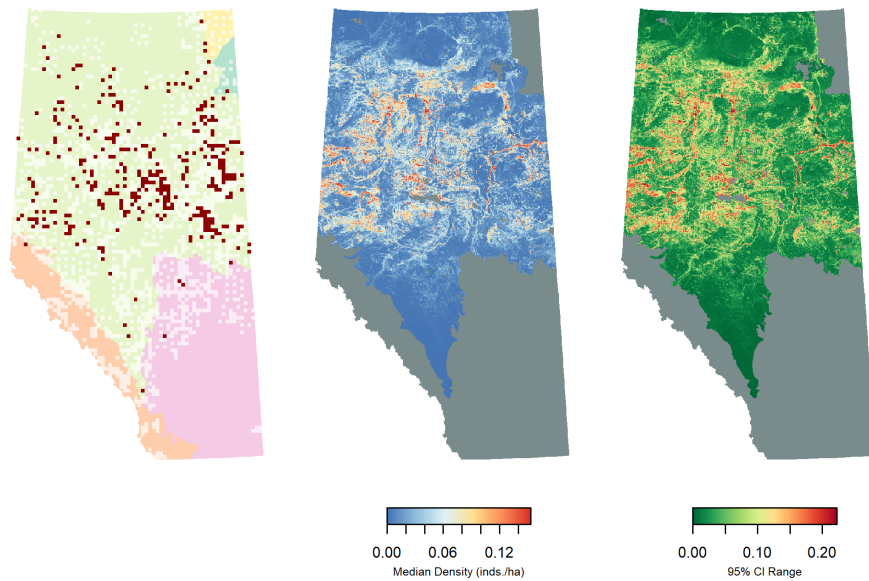
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0035	0.0087	0.8824	1.1555	0.6785	100	68.7505	0.8582

Log ratio components:

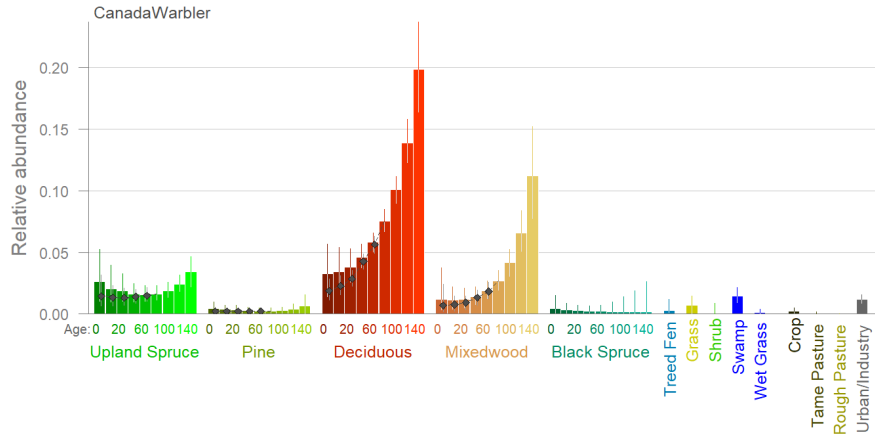
T	A	R	H
0.2433	0.7494	2.4509	0.1251

Distribution and density map:

Canada Warbler
(*Cardellina canadensis*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0632	0.2141	0.0209	0.1027	0.009	0.0093	0.0334	0.0775	0.0052	0.0044
Percent	4.3000	69.0800	0.8000	7.5600	0.870	0.7700	1.6600	5.4200	0.6400	0.6700
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0082	0	0.0593	0	0	0.0323	0.0052	0		
Percent	1.9700	0	0.4400	0	0	4.7800	1.0400	0		

Wilson's Warbler (*Cardellina pusilla*; WIWA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
1.0719	0.6604	1.7608	0.3155	0.141	0.5911

Metrics used to calculate log ratio components and AUC:

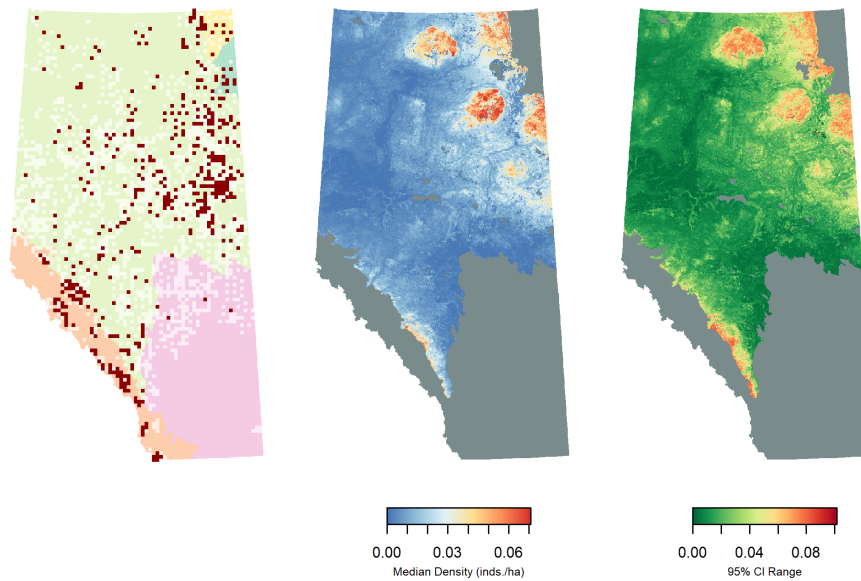
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0323	0.044	0.4718	1.1627	0.5258	100	57.8127	0.8419

Log ratio components:

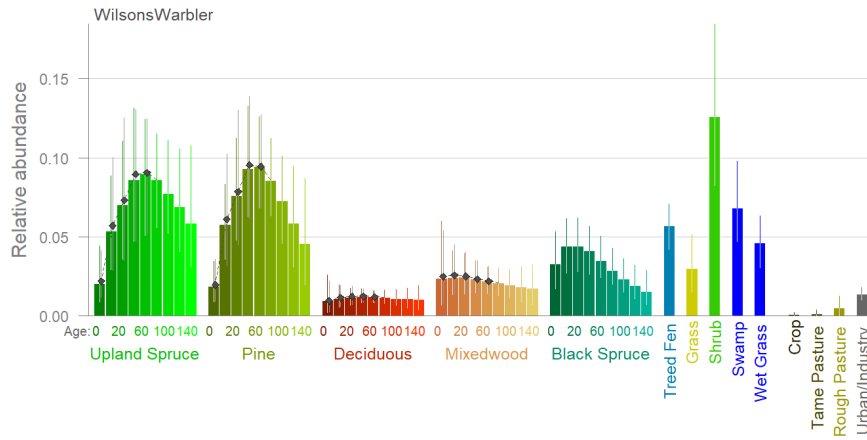
T	A	R	H
0.492	1.0959	1.3615	0.7512

Distribution and density map:

Wilson's Warbler
(*Cardellina pusilla*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.0091	0.01	0.0213	0.0107	0.0406	0.0376	0.0309	0.0332	0.0278	0.0156
Percent	1.3300	6.97	1.7500	1.7000	8.4600	6.6400	3.2900	4.9900	7.3100	5.1500
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0474	0.0594	0.0346	0.0474	0.0348	0.0553	9e-04	0.0168		
Percent	24.6300	3.2800	0.5500	3.7600	1.3300	17.6000	4e-01	0.8700		

Western Tanager (*Piranga ludoviciana*; WETA)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
8.1311	6.3184	10.4998	0.2914	0.123	0.5521

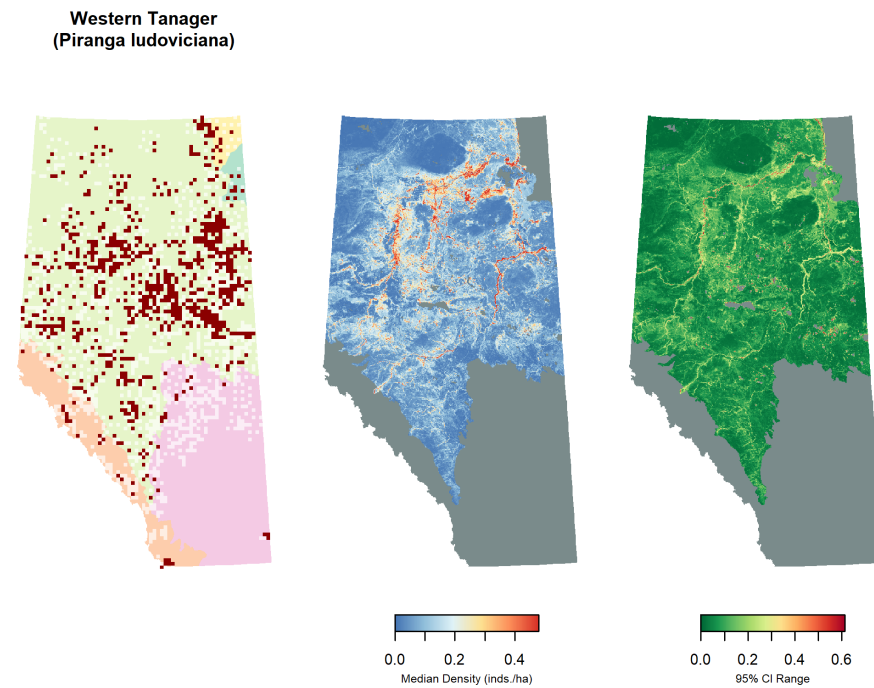
Metrics used to calculate log ratio components and AUC:

Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0113	0.0198	0.7792	1.5643	0.5805	200	80.699	0.8258

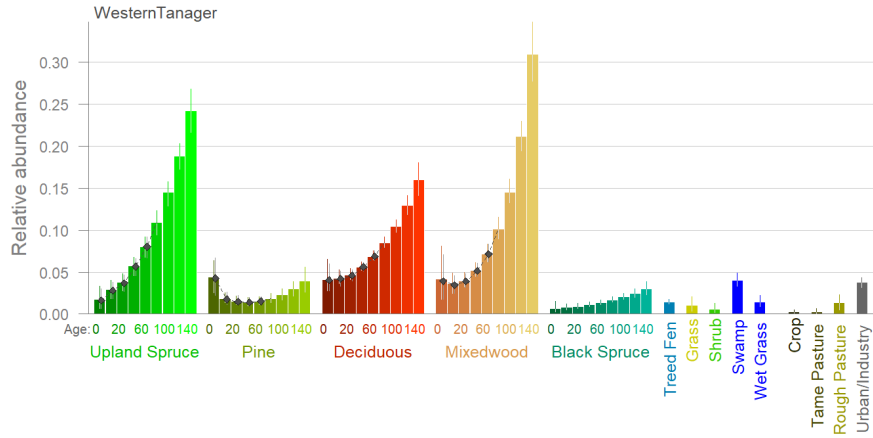
Log ratio components:

T	A	R	H
0.0965	1.8152	1.7482	0.2494

Distribution and density map:



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.2068	0.4379	0.1443	0.6704	0.0976	0.1169	0.1542	0.8837	0.0422	0.0857
Percent	3.8300	38.4700	1.5000	13.4400	2.5700	2.6200	2.0800	16.8300	1.4100	3.5800
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0628	0.0241	0.0746	0.0577	0.0371	0.183	0.0163	0.0307		
Percent	4.1300	0.1700	0.1500	0.5800	0.1800	7.380	0.8800	0.2000		

Rose-breasted Grosbeak (*Pheucticus ludovicianus*; RBGR)

Population size estimates:

Npix	Npix95lower	Npix95upper	Npif	Npif95lower	Npif95upper
6.544	5.2908	8.0349	0.806	0.4108	1.4392

Metrics used to calculate log ratio components and AUC:

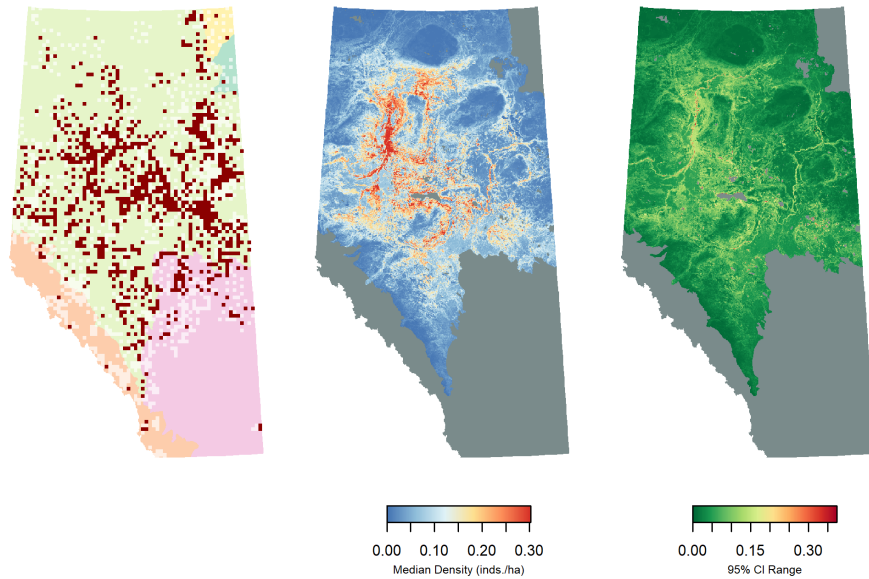
Y1	Y0	h1	Tadj	p3	MDD	EDR	AUC
0.0252	0.029	1.1928	1.1643	0.588	200	99.4462	0.8068

Log ratio components:

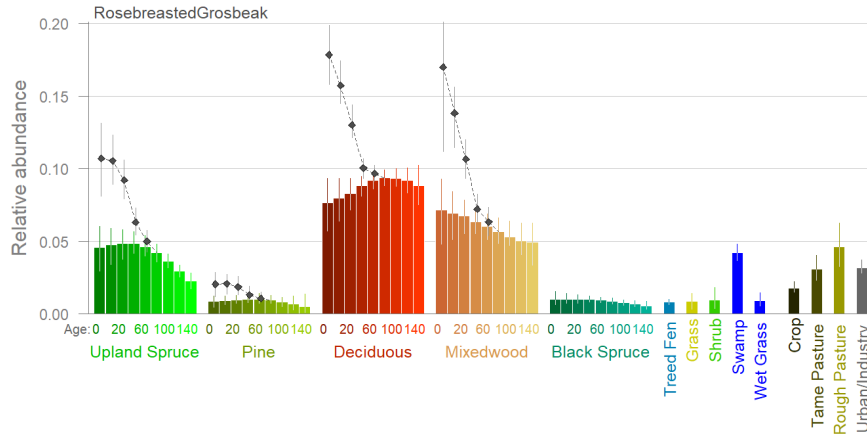
T	A	R	H
0.3789	1.3974	1.1522	-0.1763

Distribution and density map:

Rose-breasted Grosbeak
(*Pheucticus ludovicianus*)



Land cover associations:



Land cover level densities and population percentages:

	Decid	DecidO	Mixed	MixedO	Pine	PineO	WSpr	WSprO	BSpr	BSprO
Density	0.4882	0.3931	0.354	0.2319	0.0522	0.0303	0.2289	0.1128	0.0399	0.0298
Percent	11.5500	44.1100	4.700	5.9400	1.7600	0.8700	3.9400	2.7400	1.7000	1.5900
	TrFen	Shrub	Grass	GrFen	Marsh	Swamp	Agr	UrbInd		
Density	0.0319	0.0516	0.0605	0.0392	0.0602	0.1615	0.1164	0.0642		
Percent	2.6800	0.4600	0.1600	0.5000	0.3700	8.3200	8.0600	0.5400		