McGill Bird Observatory

Annual Report

2024

Migration Monitoring & MAPS Banding Station

Ste-Anne-de-Bellevue, Quebec, Canada

A project of The Migration Research Foundation Inc.

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2024 Season Overview

The 2024 banding season at McGill Bird Observatory was conducted from April through November, encompassing spring migration, the MAPS breeding bird monitoring program, and fall migration monitoring. This report summarizes the results of our standardized monitoring efforts.

2,088
Total Captures

77
Species Recorded

1,553
New Bands

63
Active Days

Capture Summary

Capture Type	Count	Percentage
New Bands	1,553	74.4%
Recaptures (same season)	406	19.4%
Returns (previous years)	128	6.1%

Seasonal Distribution

Season	Captures	Species	Days
Spring Migration (Apr–May)	1,649	69	42
MAPS Season (Jun–Jul)	65	13	7

Key Highlights

- Peak capture day: May with the highest daily totals
- Most abundant species: RCKI (600 captures)
- Species diversity: 77 species recorded across all seasons
- Return rate: 6.1% of captures were returning birds

Spring Migration (April–May)

Spring migration monitoring captured the northward movement of neotropical migrants and short-distance migrants returning to breeding grounds. The spring season recorded1,649 captures of 69 species over 42 monitoring days.

1,649
Spring Captures

69
Species

1,369
New Bands

Top Spring Migrants

Species	Count	% Total	New	Recap
RCKI	600	36.4%	568	32
WTSP	134	8.1%	110	21
TEWA	120	7.3%	118	2
MYWA	108	6.5%	104	4
YEWA	56	3.4%	28	20
RWBL	46	2.8%	25	9
MAWA	39	2.4%	36	3
AMRE	37	2.2%	24	8
PUFI	30	1.8%	24	5
COGR	29	1.8%	27	0
SOSP	29	1.8%	14	9
NOWA	26	1.6%	20	6
AMGO	23	1.4%	19	3
BAOR	21	1.3%	11	6
RBGR	21	1.3%	5	9

MAPS Breeding Season (June–July)

The Monitoring Avian Productivity and Survivorship (MAPS) program operates during the breeding season to assess local breeding bird populations, productivity (young:adult ratios), and survivorship through standardized mist-netting protocols.

65
MAPS Captures

13
Species

42
New Bands

Age Distribution (Breeding Season)

Age Class	Count	Percentage
1	1	1.5%
4	11	16.9%
5	37	56.9%
6	15	23.1%
8	1	1.5%

Top Breeding Species

Species	Count	New	Returns
BCCH	16	14	1
BTBW	15	6	0
OVEN	13	5	2
HETH	6	3	2
PEFA	4	4	0
BLJA	3	3	0
RBNU	2	2	0
BAWW	1	0	1
BRCR	1	1	0
YBSA	1	1	0
VEER	1	1	0
DOWO	1	1	0

Fall Migration (August–November)

No fall migration data available for 2024.

Notable Species Accounts

The following accounts highlight species of particular interest based on capture numbers, population trends, or conservation significance.

RCKI

Total: 600 | New bands: 568 | Recaptures: 32 | 28.7% of total

RCKI was the most abundant species during the 2024 season, representing 28.7% of all captures. The recapture rate of 5.3% indicates site fidelity during the monitoring period.

WTSP

Total: 150 | New bands: 111 | Recaptures: 33 | 7.2% of total

WTSP was the #2 most captured species during the 2024 season, representing 7.2% of all captures. The recapture rate of 22.0% indicates site fidelity during the monitoring period.

BCCH

Total: 146 | New bands: 38 | Recaptures: 86 | 7.0% of total

BCCH was the #3 most captured species during the 2024 season, representing 7.0% of all captures. The recapture rate of 58.9% indicates site fidelity during the monitoring period.

TEWA

Total: 120 | New bands: 118 | Recaptures: 2 | 5.7% of total

TEWA was the #4 most captured species during the 2024 season, representing 5.7% of all captures. The recapture rate of 1.7% indicates site fidelity during the monitoring period.

MYWA

Total: 108 | New bands: 104 | Recaptures: 4 | 5.2% of total

MYWA was the #5 most captured species during the 2024 season, representing 5.2% of all captures. The recapture rate of 3.7% indicates site fidelity during the monitoring period.

SCJU

Total: 96 | New bands: 27 | Recaptures: 66 | 4.6% of total

SCJU was the #6 most captured species during the 2024 season, representing 4.6% of all captures. The recapture rate of 68.8% indicates site fidelity during the monitoring period.

Complete Banding Totals by Species

Complete capture totals for all species banded during the 2024 season, including breakdown by capture type and demographics.

Species	Total	Banded	Returns	Repeats	M	F	U	HY	AHY+
RCKI	**600**	568	0	32	0	0	600	0	0
WTSP	**150**	111	6	33	0	0	150	0	0
BCCH	**146**	38	22	86	0	0	146	0	0
TEWA	**120**	118	0	2	0	0	120	0	0
MYWA	**108**	104	0	4	0	0	108	0	0
SCJU	**96**	27	3	66	0	0	96	0	0
AMGO	**92**	67	10	15	0	0	92	0	0
NOCA	**65**	37	7	21	0	0	65	0	0
YEWA	**56**	28	8	20	0	0	56	0	0
RWBL	**47**	25	13	9	0	0	47	0	0
MAWA	**39**	36	0	3	0	0	39	0	0
AMRE	**37**	24	5	8	0	0	37	0	0
PUFI	**30**	24	1	5	0	0	30	0	0
COGR	**29**	27	2	0	0	0	29	0	0
SOSP	**29**	14	6	9	0	0	29	0	0
NOWA	**27**	21	0	6	0	0	27	0	0
BAOR	**21**	11	4	6	0	0	21	0	0
BTBW	**21**	12	0	9	0	0	21	0	0
RBGR	**21**	5	7	9	0	0	21	0	0
GRCA	**21**	10	3	8	0	0	21	0	0
CEDW	**21**	19	0	2	0	0	21	0	0
HOWR	**19**	7	2	10	0	0	19	0	0
COYE	**19**	15	1	3	0	0	19	0	0
DOWO	**17**	3	4	10	0	0	17	0	0
OVEN	**17**	9	2	6	0	0	17	0	0
WAVI	**16**	5	5	6	0	0	16	0	0
LEFL	**16**	16	0	0	0	0	16	0	0
FOSP	**14**	12	0	2	0	0	14	0	0
ATSP	**12**	8	0	4	0	0	12	0	0
HAWO	**10**	4	3	3	0	0	10	0	0
HETH	**10**	7	2	1	0	0	10	0	0
AMRO	**9**	5	1	3	0	0	9	0	0
CSWA	**9**	6	3	0	0	0	9	0	0
LISP	**8**	8	0	0	0	0	8	0	0
BAWW	**8**	7	1	0	0	0	8	0	0

M = Male, F = Female, U = Unknown sex, HY = Hatch Year, AHY+ = After Hatch Year and older

Complete Banding Totals by Species (continued)

Species	Total	Banded	Returns	Repeats	M	F	U	HY	AHY+
BLJA	**7**	4	3	0	0	0	7	0	0
NAWA	**7**	7	0	0	0	0	7	0	0
HOFI	**7**	7	0	0	0	0	7	0	0
REVI	**6**	5	1	0	0	0	6	0	0
TRFL	**6**	6	0	0	0	0	6	0	0
BLPW	**6**	6	0	0	0	0	6	0	0
WIWA	**6**	6	0	0	0	0	6	0	0
EWCS	**6**	6	0	0	0	0	6	0	0
TRES	**5**	4	1	0	0	0	5	0	0
SWSP	**5**	5	0	0	0	0	5	0	0
BRCR	**5**	5	0	0	0	0	5	0	0
WBNU	**5**	1	1	3	0	0	5	0	0
PEFA	**4**	4	0	0	0	0	4	0	0
MOWA	**4**	4	0	0	0	0	4	0	0
BBWA	**4**	4	0	0	0	0	4	0	0
BHCO	**4**	3	0	1	0	0	4	0	0
BRTH	**3**	3	0	0	0	0	3	0	0
CHSP	**3**	3	0	0	0	0	3	0	0
YBSA	**3**	2	1	0	0	0	3	0	0
VEER	**3**	3	0	0	0	0	3	0	0
RBWO	**2**	1	0	1	0	0	2	0	0
BHVI	**2**	2	0	0	0	0	2	0	0
INBU	**2**	2	0	0	0	0	2	0	0
EAPH	**2**	2	0	0	0	0	2	0	0
RBNU	**2**	2	0	0	0	0	2	0	0
BOWA	**2**	2	0	0	0	0	2	0	0
GCFL	**2**	2	0	0	0	0	2	0	0
NSHR	**1**	1	0	0	0	0	1	0	0
RUBL	**1**	1	0	0	0	0	1	0	0
MODO	**1**	1	0	0	0	0	1	0	0
BALO	**1**	0	0	0	0	0	1	0	0
OCWA	**1**	1	0	0	0	0	1	0	0
WPWA	**1**	1	0	0	0	0	1	0	0
BLBW	**1**	1	0	0	0	0	1	0	0
CMWA	**1**	1	0	0	0	0	1	0	0
TOTALS	**2088**	**1553**	**128**	**406**	**0**	**0**	**0**	-	-

Age and Sex Demographics

Age Distribution

Age	Count	%
0	1	0.0%
1	149	7.1%
4	11	0.5%
5	1393	66.7%
6	518	24.8%
7	3	0.1%
8	11	0.5%
Unknown	2	0.1%

Sex Distribution

Sex	Count	%
0	502	24.0%
4	831	39.8%
5	754	36.1%
Unknown	1	0.0%

Age Ratios by Species (ne10)

Species	HY	AHY+	Y:A	n

Monthly Effort and Capture Summary

Summary of banding effort and captures by month. Net-hours are estimated based on active days and standard net operation (12 nets × 6 hours/day).

Month	Days	Net-Hours	Total Cap	Banded	Recaps	Species	B/100h
Jan	4	288.0	155	72	83	11	53.8
Feb	5	360.0	135	48	87	11	37.5
Mar	5	360.0	84	22	62	13	23.3
Apr	12	864.0	222	162	60	24	25.7
May	30	2160.0	1427	1207	220	65	66.1
Jun	7	504.0	65	42	23	13	12.9

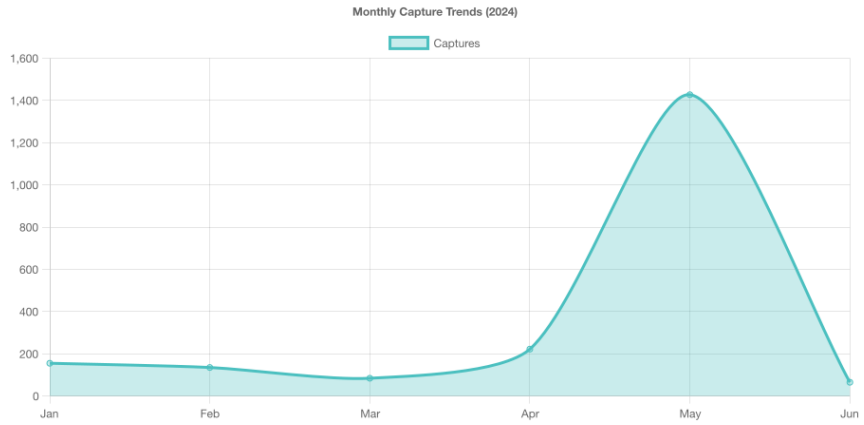

Figure 1. Monthly capture totals for 2024

Sex Ratios by Species (ne10)

Species	Male	Female	Unknown	M:F	n
RCKI	0	0	600	N/A	600
WTSP	0	0	150	N/A	150
BCCH	0	0	146	N/A	146
TEWA	0	0	120	N/A	120
MYWA	0	0	108	N/A	108
SCJU	0	0	96	N/A	96
AMGO	0	0	92	N/A	92
NOCA	0	0	65	N/A	65
YEWA	0	0	56	N/A	56
RWBL	0	0	47	N/A	47

Recaptures and Returns

Recapture data provides valuable information on site fidelity, local movements, and minimum longevity. Returns represent birds banded in previous years and recaptured in 2024.

Longevity Records

Species	Recaps	Min Days	Avg Days	Max Days	Max Years
BCCH	4501	1	266	3382	9.26
SOSP	1888	1	238	2812	7.70
WTSP	1668	1	16	757	2.07
GRCA	1284	1	132	2633	7.21
SNBU	1202	1	140	2184	5.98
RCKI	1068	1	3	43	0.12
YEWA	920	1	426	2864	7.84
COYE	840	1	293	3259	8.92
HETH	702	1	8	367	1.00
SCJU	702	1	115	2533	6.93
MYWA	683	1	7	721	1.97
AMGO	661	1	248	2780	7.61

Net Location Efficiency

Net	Captures	Species	New	Recaps	Recap %
V4	167	11	79	65	38.9%
H1	161	27	129	23	14.3%
E2	150	37	125	18	12.0%
H2	149	32	115	27	18.1%
N1	144	28	127	14	9.7%
B3	141	28	111	21	14.9%
C2	124	23	115	7	5.6%
C1	123	26	106	11	8.9%
V5	103	11	32	59	57.3%
V3	103	10	31	63	61.2%

Returns – Spring Migration

List of returns captured during the 2024 spring migration monitoring, sorted by time elapsed since original banding.

Band #	Species	Age/Sex 2024	Age/Sex Band	Banding	Prev. Cap	2024	Time Elapsed
2501-10272	HAWO	8-4	2-4	8 Aug 2014	24 May 2023	31 May	9y 9m 14d
1372-11211	BLJA	6-0	5-0	26 Apr 2016	2 May 2022	19 Apr	7y 12m 5d
2741-62949	SOSP	1-0	1-0	18 Sept 2016	6 May 2023	18 Apr	7y 7m 9d
2651-67034	RWBL	6-5	5-5	12 May 2018	12 May 2022	1 May	5y 11m 21d
2651-67051	BAOR	6-5	5-5	17 May 2018	22 May 2019	6 May	5y 11m 21d
1513-23526	COGR	1-4	1-4	22 May 2019	22 May 2019	14 May	4y 11m 19d
2880-02870	YEWA	6-5	6-5	26 May 2019	18 May 2023	15 May	4y 11m 16d
1372-78983	AMRO	6-4	2-0	21 Aug 2019	21 Aug 2019	20 May	4y 9m 24d
2281-72792	DOWO	1-5	5-5	25 Nov 2019	22 Nov 2023	11 May	4y 5m 9d
2791-60958	SOSP	1-4	5-4	18 Jun 2020	29 May 2023	24 May	3y 11m 26d
2991-02808	RWBL	6-5	5-5	24 Apr 2021	19 May 2023	12 May	3y 4d
2501-44983	HAWO	8-4	8-4	6 May 2021	24 Oct 2023	18 May	3y 28d
2991-02831	RWBL	6-5	6-5	9 May 2021	13 Jul 2023	20 May	3y 27d
2991-02887	RBGR	6-5	6-5	20 May 2021	20 May 2021	25 May	3y 21d
2981-26485	SOSP	1-0	5-0	30 Apr 2021	13 Jul 2023	28 Apr	2y 12m 14d
2991-02866	RWBL	6-5	6-0	17 May 2021	17 May 2021	15 May	2y 12m 14d
2991-02851	RBGR	6-4	5-4	15 May 2021	10 May 2023	11 May	2y 12m 12d
2991-02824	RWBL	6-5	5-5	5 May 2021	8 May 2022	30 Apr	2y 12m 11d
2991-02838	RBGR	6-5	5-5	11 May 2021	11 May 2021	4 May	2y 11m 9d
1462-00648	RWBL	6-4	6-4	12 May 2021	9 May 2023	1 May	2y 11m 5d
2871-19270	PUFI	6-4	6-4	21 May 2021	21 May 2021	8 May	2y 11m 3d
2991-02873	GRCA	6-0	6-4	18 May 2021	9 Aug 2022	3 May	2y 11m 1d
2871-28636	TRES	1-4	4-0	16 Jun 2021	27 Apr 2022	7 May	2y 10m 6d
2950-32410	AMRE	6-4	2-4	15 Aug 2021	7 Sept 2023	20 May	2y 9m 19d
1462-00680	BLJA	6-0	2-0	12 Aug 2021	2 Nov 2023	10 May	2y 9m 12d
2950-32578	CSWA	6-4	1-4	3 Sept 2021	3 Sept 2021	20 May	2y 8m
2991-03034	NOCA	1-4	0-4	26 Oct 2021	3 May 2023	22 May	2y 6m 9d
1462-02018	RWBL	6-4	5-4	25 Mar 2022	25 Mar 2022	28 Apr	2y 1m 15d
2960-36322	HOWR	1-4	1-0	27 Apr 2022	18 May 2023	20 May	2y 4d
2960-36283	WAVI	6-0	5-0	21 May 2022	28 May 2022	19 May	1y 12m 9d
1462-02066	RWBL	6-4	5-4	13 May 2022	13 May 2022	8 May	1y 12m 6d
2991-03078	RWBL	6-5	6-5	13 May 2022	7 Jun 2022	2 May	1y 11m
2991-03094	RWBL	6-0	6-5	15 May 2022	31 May 2023	3 May	1y 11m 29d
1573-03927	COGR	1-4	5-4	18 May 2022	18 May 2022	2 May	1y 11m 25d
1462-02064	RWBL	6-4	5-4	13 May 2022	13 May 2022	19 Apr	1y 11m 17d

Total spring returns: 78 birds. Longest return: 9 years 9 months 14 days

Returns – MAPS/Breeding Season

List of returns captured during the 2024 MAPS breeding season, sorted by time elapsed.

Band #	Species	Age/Sex 2024	Age/Sex Band	Banding	Prev. Cap	2024	Time Elapsed
2871-28406	OVEN	6-4	5-4	6 Jun 2021	6 Jun 2021	8 Jun	3y 18d
2960-96104	BAWW	6-4	5-4	8 Jun 2023	8 Jun 2023	11 Jun	1y 9d
2960-96106	BCCH	6-0	6-4	8 Jun 2023	8 Jun 2023	8 Jun	1y 6d
3041-36604	HETH	6-5	5-5	9 Jun 2023	9 Jun 2023	9 Jun	1y 6d
2871-63302	OVEN	6-4	5-4	8 Jun 2023	8 Jun 2023	6 Jun	12m 4d
3041-36605	HETH	6-4	5-4	10 Jun 2023	10 Jun 2023	6 Jun	12m 2d

Total MAPS returns: 6 birds. Longest return: 3 years 18 days

Net Usage and Capture Rates

Analysis of net efficiency and capture rates by net location. Capture rates are expressed as birds per 100 net-hours. Shaded rows indicate subtotals for grouped net locations.

Net	Hours Open	New Captures	Returns + Repeats	Total Captures	Birds/100h New	Birds/100h Total
A	18.0	2	2	4	11.1	22.2
A1	168.0	74	17	91	44.0	54.2
A2	174.0	86	13	99	49.4	56.9
A - TOTAL	**756.0**	**162**	**32**	**194**	**21.4**	**25.7**
B2	150.0	68	11	79	45.3	52.7
B3	180.0	111	30	141	61.7	78.3
B - TOTAL	**408.0**	**179**	**41**	**220**	**43.9**	**53.9**
C	6.0	1	0	1	16.7	16.7
C1	180.0	106	17	123	58.9	68.3
C2	168.0	115	9	124	68.5	73.8
C - TOTAL	**666.0**	**222**	**26**	**248**	**33.3**	**37.2**
D	18.0	9	2	11	50.0	61.1
D1	150.0	62	12	74	41.3	49.3
D2	90.0	34	8	42	37.8	46.7
D3	120.0	54	12	66	45.0	55.0
D4	108.0	33	10	43	30.6	39.8
D - TOTAL	**1080.0**	**192**	**44**	**236**	**17.8**	**21.9**
E	6.0	0	1	1	0.0	16.7
E1	150.0	47	15	62	31.3	41.3
E2	204.0	125	25	150	61.3	73.5
E - TOTAL	**702.0**	**172**	**41**	**213**	**24.5**	**30.3**
F	18.0	1	2	3	5.6	16.7
H	18.0	1	3	4	5.6	22.2
H1	204.0	129	32	161	63.2	78.9
H2	216.0	115	34	149	53.2	69.0
H - TOTAL	**774.0**	**245**	**69**	**314**	**31.7**	**40.6**
I	12.0	2	0	2	16.7	16.7
J	12.0	1	1	2	8.3	16.7
K	12.0	0	2	2	0.0	16.7
L	12.0	1	1	2	8.3	16.7
M	18.0	2	1	3	11.1	16.7
N1	198.0	127	17	144	64.1	72.7
N3	180.0	81	18	99	45.0	55.0
N - TOTAL	**432.0**	**208**	**35**	**243**	**48.1**	**56.3**
P	12.0	3	0	3	25.0	25.0
S	6.0	0	2	2	0.0	33.3
T	6.0	0	2	2	0.0	33.3
U	6.0	1	1	2	16.7	33.3
V	12.0	3	0	3	25.0	25.0
V3	84.0	31	72	103	36.9	122.6
V4	84.0	79	88	167	94.0	198.8
V5	84.0	32	71	103	38.1	122.6
V - TOTAL	**384.0**	**145**	**231**	**376**	**37.8**	**97.9**
W	24.0	3	3	6	12.5	25.0
X	6.0	1	0	1	16.7	16.7
GRAND TOTAL	**3114.0**	**1540**	**534**	**2074**	**49.5**	**66.6**

[1] – Total captures include new captures, returns, repeats, and foreign recaptures. Net hours estimated at 6 hours per active day per net.

Morphometric Measurements

Average weight and wing chord measurements for species with adequate sample sizes (ne10). Standard deviation (SD) indicates variation within each species.

Species	Avg Wt (g)	Wt SD	Wt Range	Avg Wing	Wing SD	Wing Range	n
RCKI	6.5	0.6	3.3-8.7	56.4	2.1	51-63	597
WTSP	42.4	59.6	21.6-304.0	69.7	2.2	65-75	149
BCCH	11.1	0.6	9.6-13.1	63.2	2.1	59-68	139
TEWA	10.7	2.9	8.2-40.3	62.3	2.3	56-67	120
MYWA	12.7	0.9	10.6-15.0	69.5	2.4	65-75	108
SCJU	21.1	2.3	15.6-26.4	73.8	2.3	69-80	95
AMGO	13.8	1.4	10.8-20.4	69.8	2.2	65-75	92
NOCA	47.2	4.0	39.1-56.0	90.7	2.4	84-97	64
YEWA	11.2	12.1	8.1-101.0	59.7	2.0	55-64	56
RWBL	55.0	12.2	39.4-73.4	107.3	9.8	90-123	47
MAWA	8.7	0.5	7.7-10.0	57.6	2.3	54-63	39
AMRE	8.2	0.6	7.1-9.4	60.6	2.3	56-66	37
PUFI	25.7	2.5	22.0-31.1	79.0	2.4	72-83	30
COGR	122.2	11.7	90.7-136.7	136.1	6.7	119-148	29
SOSP	19.8	2.4	10.2-22.1	63.5	2.9	58-69	28
NOWA	17.1	0.9	14.9-19.7	73.0	3.2	68-80	27
BAOR	33.2	1.6	29.4-35.1	89.5	2.2	85-95	21
BTBW	9.7	0.4	9.2-10.7	62.0	2.0	59-66	21
RBGR	46.5	10.9	35.1-92.5	100.1	3.1	93-104	21
GRCA	37.6	4.8	32.3-56.1	88.9	1.9	85-92	21

Weight by Age and Sex (ne20)

Species	Male	Female	HY	AHY+	n
RCKI	N/A	N/A	N/A	N/A	597
WTSP	N/A	N/A	N/A	N/A	149
BCCH	N/A	N/A	N/A	N/A	139
TEWA	N/A	N/A	N/A	N/A	120
MYWA	N/A	N/A	N/A	N/A	108
SCJU	N/A	N/A	N/A	N/A	95
AMGO	N/A	N/A	N/A	N/A	92
NOCA	N/A	N/A	N/A	N/A	64
YEWA	N/A	N/A	N/A	N/A	56
RWBL	N/A	N/A	N/A	N/A	47
MAWA	N/A	N/A	N/A	N/A	39
AMRE	N/A	N/A	N/A	N/A	37

Body Condition Index (Weight/Wing)

Species	Avg BCI	CV (%)	Avg Wt	Avg Wing	n
RCKI	11.52	7.7	6.5	56.4	597
WTSP	60.14	137.8	42.4	69.7	149
BCCH	17.54	4.7	11.1	63.2	139
TEWA	17.18	26.0	10.7	62.3	120
MYWA	18.26	7.2	12.7	69.5	108
SCJU	28.58	10.1	21.1	73.8	95
AMGO	19.73	9.3	13.8	69.8	92

NOCA	52.14	8.8	47.2	90.7	64
YEWA	18.75	109.7	11.2	59.7	56
RWBL	50.72	14.1	55.0	107.3	47

BCI = Body Condition Index (weight/wing × 100). CV = Coefficient of Variation.

Long-term Population Trends

Multi-year data allows assessment of population trends and changes in species composition over time. The following tables summarize key metrics across recent years of monitoring.

Annual Summary (Last 10 Years)

Year	Total	Species	New	Returns	Y:A
2016	9,268	109	7,541	264	0.00
2017	7,945	94	6,613	206	0.00
2018	8,417	112	6,850	266	0.00
2019	9,203	117	7,696	222	0.00
2020	7,262	100	6,101	188	0.00
2021	10,521	105	8,848	252	0.00
2022	9,070	106	7,703	277	0.00
2023	6,528	100	5,244	241	0.00
2024	2,088	77	1,553	128	0.00
NaN	91	2	0	0	0.00

Capture Effort Analysis

Year	Days	Total	Per Day	Spp/Day
2016	238	9,268	38.94	0.46
2017	210	7,945	37.83	0.45
2018	226	8,417	37.24	0.5
2019	228	9,203	40.36	0.51
2020	197	7,262	36.86	0.51
2021	254	10,521	41.42	0.41
2022	242	9,070	37.48	0.44
2023	176	6,528	37.09	0.57
2024	63	2,088	33.14	1.22
NaN	1	91	91	2

Species Diversity Analysis

Species diversity indices provide quantitative measures of community structure. The Shannon diversity index (H') accounts for both species richness and evenness, with higher values indicating more diverse and stable communities.

Diversity Indices Over Time

Year	Richness	Shannon H'	Evenness	Captures
2016	109	3.407	0.726	9,268
2017	94	3.259	0.717	7,945
2018	112	3.637	0.771	8,417
2019	117	3.626	0.761	9,203
2020	100	3.326	0.722	7,262
2021	105	3.419	0.735	10,521
2022	106	3.325	0.713	9,070
2023	100	3.731	0.81	6,528
2024	77	3.062	0.705	2,088
NaN	2	0.641	0.925	91

Top Species Trends

1. SNBU

2018	2019	2020	2021	2022	2023	2024	NaN
1417	1876	1766	2620	2452	0	0	0

2. WTSP

2018	2019	2020	2021	2022	2023	2024	NaN
491	461	356	706	700	716	150	0

3. RCKI

2018	2019	2020	2021	2022	2023	2024	NaN
422	423	339	602	392	358	600	0

Complete Species List (2024)

A total of 77 species were recorded during the 2024 monitoring season. The following table lists all species in order of abundance.

Species	n	Species	n
RCKI	600	TRFL	6
WTSP	150	BLPW	6
BCCH	146	WIWA	6
TEWA	120	EWCS	6
MYWA	108	TRES	5
SCJU	96	SWSP	5
AMGO	92	BRCR	5
NOCA	65	WBNU	5
YEWA	56	PEFA	4
RWBL	47	MOWA	4
MAWA	39	BBWA	4
AMRE	37	BHCO	4
PUFI	30	BRTH	3
COGR	29	CHSP	3
SOSP	29	YBSA	3
NOWA	27	VEER	3
BAOR	21	RBWO	2
BTBW	21	BHVI	2
RBGR	21	INBU	2
GRCA	21	EAPH	2
CEDW	21	RBNU	2
HOWR	19	BOWA	2
COYE	19	GCFL	2
DOWO	17	NSHR	1
OVEN	17	RUBL	1
WAVI	16	MODO	1
LEFL	16	BALO	1
FOSP	14	OCWA	1
ATSP	12	WPWA	1
HAWO	10	BLBW	1
HETH	10	CMWA	1
AMRO	9	CAWA	1
CSWA	9	PISI	1
LISP	8	NOPA	1
BAWW	8	BTNW	1
BLJA	7	SCTA	1
NAWA	7	SWTH	1
HOFI	7	RTHU	1
REVI	6		

Acknowledgements

The McGill Bird Observatory's 2024 banding operations were made possible through the dedication of our staff, volunteers, and supporters. We extend our sincere gratitude to everyone who contributed to this season's success.

Banding Staff

Bander	Captures	Days	Species
SLS	1049	39	66
LAT	309	16	18
SID	176	5	31
CIB	165	5	23
LNA	120	8	34
ACM	101	6	12
ALH	52	6	21
KML	34	3	17
BF	25	1	3
MPB	21	4	13

About the Observatory

The McGill Bird Observatory is a project of The Migration Research Foundation Inc., a registered charitable organization dedicated to the study and conservation of migratory birds. Located at the western tip of the Island of Montreal, the observatory has been conducting standardized migration monitoring since 2004.

McGill Bird Observatory
A project of The Migration Research Foundation Inc.
PO Box 10005
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www.migrationresearch.org
Registered Charity: 899163505RR0001

Permits and Protocols

Bird banding activities were conducted under federal and provincial scientific collection permits. All operations followed standardized protocols established by the Canadian Wildlife Service and The Institute for Bird Populations (MAPS program).

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