

# Migration Monitoring: Rocky Point Bird Observatory

Fall 2025

*Max Hellicar*



Cover photo: *Black-throated Gray Warbler (Setophaga nigrescens)* at Rocky Point (Max Hellicar).

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## 1.0 Summary

The 2025 fall migration monitoring season marked the 31<sup>st</sup> year of operation for Rocky Point Bird Observatory (RPBO). Excluding 2007, volunteers and staff have conducted monitoring of migratory birds at the southernmost point of Vancouver Island each fall since 1994. RPBO is a unique member of the Canadian Migration Monitoring Network (CMMN), constituting the only two stations to be located on the Canadian Pacific coast: Rocky Point and Pedder Bay.

There are three main components to RPBO's migration monitoring: census, banding and observations. These three forms of coverage are combined into Daily Estimated Totals (DET) for each species, providing a more holistic coverage of migration monitoring than could be achieved via any one of these methods in isolation. The monitoring protocol is standardized, following CMMN guidelines (CMMN 2025), and the details of which can be found in RPBO (2022). Each year, migration monitoring begins on 21 July and ends on 18 October; a total of 90 days, encompassing the majority of neotropical songbird migration through southern Vancouver Island.

In 2025, 7309 birds of 74 avian species were banded at the two stations combined, with a further 1611 recapture records of 42 species. In addition to songbirds, which are the focus of banding, considerable numbers of seabirds, raptors, waterfowl, and shorebirds are recorded via visual and aural detections each season. Considering all birds recorded in the Daily Estimated Totals at both Rocky Point and Pedder Bay, there were 285,551 detections of individual birds, comprising 194 species, logged over the course of the fall. See Table 1 for these totals, split per station.

Max Hellicar was 2025's Bander-in-Charge. Mara Hanneson, Sonja Futehally, Rebecca Reader-Lee and Megan Miller (Megan switching in for Rebecca in August) performed as banders, along with Andrew Jacobs and Gaelin Armstrong (joining in August) as assistant banders. On the ground, 88 individual volunteers donated an impressive 6356 hours of their time and experience between the stations over the course of the season, in addition to many more hours behind the scenes.

*Table 1. 2025 season totals per station.*

	Total Banded	Species Banded	Total Recaptures	Species recaptured	Total birds DET	Total species DET
Rocky Point	4443	72	892	35	225,173	190
Pedder Bay	2866	61	719	36	60,378	134
<b>Total</b>	<b>7309</b>	<b>74</b>	<b>1611</b>	<b>42</b>	<b>285,551</b>	<b>194</b>

Notes on nomenclature: all bird names follow the standard naming system as per the American Ornithological Society Checklist of North and Middle American Birds (Chesser *et al.* 2025); species names are given in English, with their accompanying scientific names only upon their first mention in the text; taxa are listed in taxonomic order when presented in tables.

## 2.0 Acknowledgements

The significant contribution from the large volunteer base who supports Rocky Point Bird Observatory's fall migration monitoring program enables us to operate. We are very grateful to the census surveyors, extractors, scribes, net menders, education program aides, bird walk leaders, bird bag launderers and many others who work diligently to ensure the effective operation of the organization. Particular appreciation is given to Ann Nightingale as Migration Monitoring Project Coordinator, Robyn Byrne as Volunteer Coordinator, Mark Byrne as Operations Coordinator, Mike Motek for technical support, and all members of the RPBO Board and Science Committee for oversight. With respect to this report, many thanks are due to Mara Hanneson and David Bell for their input on data visualization.

Financial and in-kind support was received from public and private sources, including Environment and Climate Change Canada, the Victoria Foundation, Nature Victoria (formerly Victoria Natural History Society), the Oak Bay Marine Group, the British Columbia Naturalists' Foundation, the Greater Victoria Naturehood, and private donors. We also acknowledge the financial support of the Province of British Columbia. This support made this season not only possible, but successful.

Access to Rocky Point is provided by the Department of National Defence, including the staff at Formation Safety and Environment, Range Control, and the ever-helpful commissionaires on-site. RPBO gratefully acknowledges the assistance of all those involved to ensure continued operation of this long-term project. Access to Pedder Bay is provided by the Pedder Bay RV Resort and Marina, for which we are extremely grateful. RPBO acknowledges, with respect, the Scia'new and T'Sou-ke First Nations, on whose territory we work. We recognize their leadership for time immemorial to protect the land and water for the benefit of nature and people alike.



*Assorted staff and volunteers during the fall 2025 migration monitoring period (images by Mara Hanneson, Liam Seward-Ragan and Max Hellicar).*

## **Part A – Rocky Point**

### **3.0 Introduction**

In 2025, RPBO undertook migration monitoring at Rocky Point for its 31<sup>st</sup> season (25 since standardization in 2000; the only exception being an absence of operations in 2007). The Rocky Point field station is situated on the southern tip of Vancouver Island, British Columbia, on Department of National Defence land. Specifics of the site can be found, in detail, in Melcer Jr. & Nightingale (2024). The three main components to RPBO’s migration monitoring are census, banding and observations. The monitoring protocol is standardized (RPBO 2022), with operations beginning on 21 July and ending on 18 October each year.



*Morning views at Rocky Point (Max Hellicar).*

## 4.0 Banding

### 4.1 Coverage



Following the protocol of previous years, 13 mist nets were operated in their standard localities. Avinet nylon mist nets were used, with the following specifications: 12x2.6 metres, four shelves, 30 mm (15x15 mm) mesh, 70 denier/2-ply. During this season, Rocky Point had five full closure days due to military activities taking place on Bentinck Island from 6 to 10 October, which resulted in a loss of 390 potential net hours. This fall's controlled burns were outside of our study area, resulting in no reduction in monitoring hours. A total of 269.4 net hours were lost over the duration of the season due to wind, rain, and other factors which affected operations. Overall, the total of 6360.6 net hours was the eighth highest since standardization in 2000, and 580 hours above the mean average for this period (Table 2). It is worth noting that in 2000, when the protocol was standardized at Rocky Point, nets 11-13 were operated on alternating days, as they were in 2001. From 2002, nets 11-13 were operated every day alongside the original 10 nets.

*It was another good year for megafauna at Rocky Point, both on land and in the water, including this Orca (*Orcinus orca*) sighting (Mara Hanneson).*



*Wilson's Warblers (*Cardellina pusilla*) were in good number this season, being the fourth most prevalent species banded at Rocky Point (Max Hellicar).*

## 4.2 Banding Totals

At Rocky Point this season, 4443 birds of 72 species were banded during our standardised operations, constituting 133.4% of the 2000-2024 mean of 3330 (Table 2, Figure 1). This equates to 69.85 birds per 100 net hours, which is 11.94% above the 2000-2024 mean of 57.91.

*Table 2. Coverage and banding totals for Rocky Point per year since standardization.*

Year	Coverage period	Days banded	Total banded	Species	Net hours	New birds per 100 net hours
2025	21 July – 18 October	85	4443	75	6361	69.85
2024	21 July – 18 October	86	4051	64	6204	65.30
2023	21 July – 18 October	87	4220	63	6474	65.19
2022	21 July – 18 October	90	3790	62	6691	56.64
2021	21 July – 18 October	88	3576	63	6283	56.92
2020	21 July – 18 October	90	3624	63	6493	55.81
2019	21 July – 18 October	90	4378	59	6722	65.13
2018	21 July – 18 October	81	2929	68	5832	50.22
2017	21 July – 18 October	79	2791	61	4978	56.07
2016	21 July – 18 October	81	2761	57	5282	52.27
2015	21 July – 18 October	86	2938	59	5907	49.74
2014	21 July – 18 October	85	2694	65	5830	46.21
2013	21 July – 18 October	82	3189	59	5304	60.12
2012	21 July – 18 October	83	3191	63	5899	54.09
2011	21 July – 18 October	71	2734	59	5121	53.39
2010	21 July – 18 October	79	3193	64	5775	55.29
2009	21 July – 18 October	66	2801	59	4693	67.44
2008	21 July – 18 October	64	3211	56	4604	69.74
2006	21 July – 18 October	78	3068	60	5383	56.99
2005	21 July – 18 October	88	4615	58	6377	72.43
2004	21 July – 18 October	90	4001	57	6286	63.65
2003	20 July – 18 October	91	3716	61	6689	55.55
2002	20 July – 21 October	90	3153	56	6501	48.50
2001	23 July – 7 October	75	2576	64	4296	59.96
2000	21 July – 21 October	90	2723	57	5113	53.26
<b>Mean 2000-2024</b>		<b>83</b>	<b>3330</b>	<b>61</b>	<b>5781</b>	<b>57.91</b>

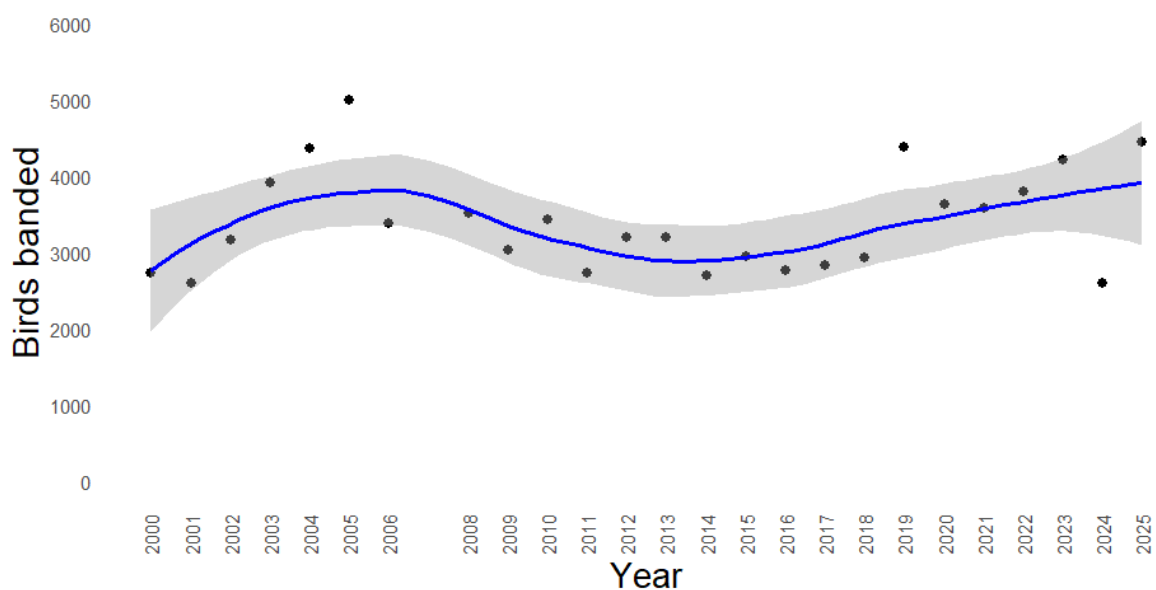
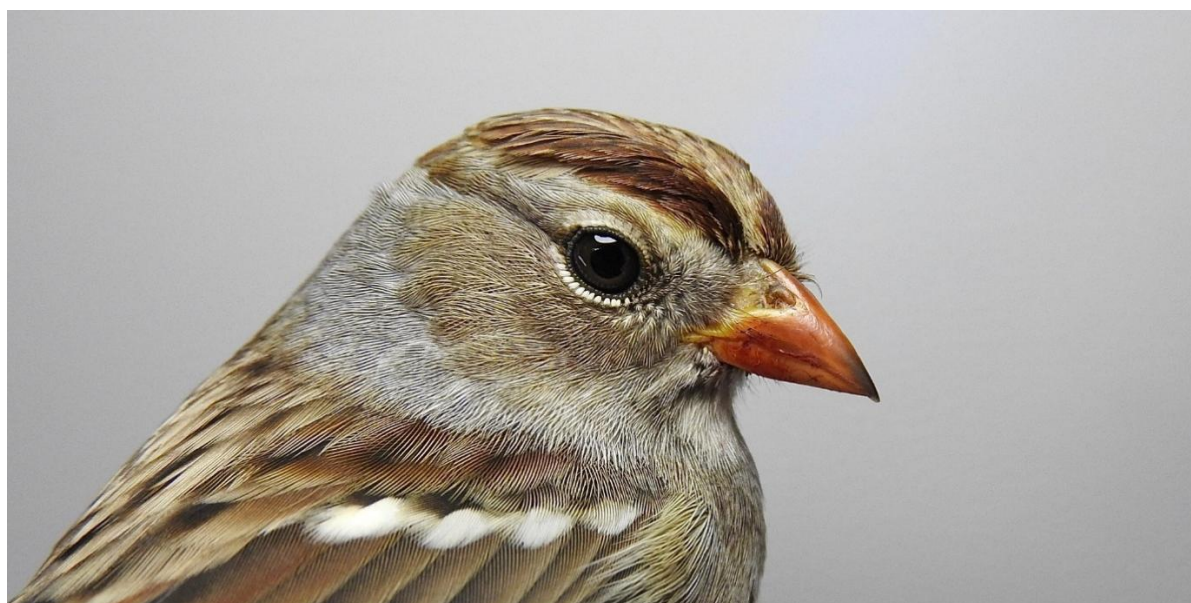


Figure 1. Annual totals of individual birds banded per fall at Rocky Point since standardisation in 2000 (excluding 2007 due to absence of operations). The blue line denotes a LOESS-smoothed (locally estimated scatterplot smoothing) trend, with 95% confidence intervals in grey.

The top five most prevalent species banded through fall 2025 were White-crowned Sparrow (*Zonotrichia leucophrys*; 537 individuals), Spotted Towhee (*Pipilo maculatus*; 438), American Goldfinch (*Spinus tristis*; 260), Wilson’s Warbler (242) and Western Flycatcher (*Empidonax difficilis*; 226). Of these species, it was a record season for numbers of White-crowned Sparrow, Spotted Towhee and American Goldfinch. Wilson’s Warbler and Western Flycatcher, however, both had season records in 2022, of 354 and 387, respectively. See Table 3 for a full breakdown of birds banded at Rocky Point in fall 2025.



Rocky Point hit an all-time high for White-crowned Sparrows banded, with 537 in fall 2025. This individual is of the scarcely trapped Gambel’s subspecies (*Zonotrichia leucophrys gambelii*). (Max Hellicar).

In addition to White-crowned Sparrow, Spotted Towhee and American Goldfinch, as mentioned above, it was also a record banding season at Rocky Point for Black-headed Grosbeak (*Pheucticus melanocephalus*; nine), House Finch (*Haemorhous mexicanus*; eight), Olive-sided Flycatcher (*Contopus cooperi*; six), Northern Rough-winged Swallow\* (*Stelgidopteryx serripennis*; five), Palm Warbler (*Setophaga palmarum*; two), Brewer's Sparrow (*Spizella breweri*; one) and Western Sandpiper (*Calidris mauri*; one).

It was a joint record season – that is, a season where the total banded ties the record of a prior season – for Clay-colored Sparrow (*Spizella pallida*; three), Swamp Sparrow (*Melospiza georgiana*; three), Cooper's Hawk (*Astur cooperii*; two), Virginia Rail (*Rallus limicola*; one), Pileated Woodpecker\* (*Dryocopus pileatus*; one), Tennessee Warbler (*Leiothlypis peregrina*; one) and Ovenbird (*Seiurus aurocapilla*; one).

It was an automatic record season for Western Sandpiper\* and Brewer's Sparrow as the aforementioned individuals, on 4 and 7 September, respectively, constituted the first to ever be banded during the standardised period at Rocky Point. The Brewer's Sparrow was assigned to the Timberline subspecies *taverneri* and constituted the second banding record for RPBO sites, following one at Pedder Bay in 2014. Other rarities (10 or fewer banding records within the standardised period) comprised the second Ovenbird to be banded at Rocky Point, following an individual in 2018; the third Tennessee Warbler, following individuals in 2006 and 2019; the third Virginia Rail of the standardised period, following singles in 2017 and 2018 (albeit with another banded in 1997, prior to standardisation); the fourth Least Sandpiper (*Calidris minutilla*), following three in 2024; the fifth and sixth Palm Warblers, both of the western subspecies *S. p. palmarum*; the ninth Pileated Woodpecker; along with the ninth to eleventh Clay-colored Sparrows.

\*It should be noted that, prior to standardisation in 2000, Northern Rough-winged Swallow experienced a higher record year, with seven individuals banded in 1999, as did Pileated Woodpecker, with two individuals banded in each 1994 and 1997. Likewise, Western Sandpiper peaked at 12 individuals banded in 1999, however none had since been trapped at Rocky Point.



Rocky Point's second-ever Ovenbird to be banded was this adult on 9 August (Sonja Futehally).



*Brewer's Sparrow (left) and Virginia Rail (right). The sparrow was Rocky Point's first-ever to be banded, on 7 September, while the rail was the site's fourth banding record (third within the standardized period), on 12 October. (Max Hellicar).*

In addition to those that broke or tied annual banding records, and those with 10 or fewer total records, taxa which experienced more than 50% above their annual historical mean during fall 2025 were Northern Saw-whet Owl (*Aegolius acadicus*), Anna's Hummingbird (*Calypte anna*), Rufous Hummingbird (*Selasphorus rufus*), Red-breasted Sapsucker (*Sphyrapicus ruber*), Hairy Woodpecker (*Leuconotopicus villosus*), Red-shafted Flicker (*Colaptes auratus* "Red-shafted" group), Western Wood-pewee (*Contopus sordidulus*), Violet-green Swallow (*Tachycineta thalassina*), Bushtit (*Psaltriparus minimus*), Swainson's Thrush (*Catharus ustulatus*), Cedar Waxwing (*Bombycilla cedrorum*), Audubon's Warbler (*Setophaga coronata auduboni*), Savannah Sparrow (*Passerculus sandwichensis*), White-throated Sparrow (*Zonotrichia albicollis*), Gambel's White-crowned Sparrow and Purple Finch (*Haemorhous purpureus*).

It was a joint-record low year for Red-breasted Nuthatch (*Sitta canadensis*), with just a solitary individual banded, equating to 14.5% of the historical mean per season for this species. The only other species trapped in 2025 whose total was more than 50% below the historical mean was Hutton's Vireo (*Vireo huttoni*). Varied Thrush (*Ixoreus naevius*), banded in 19 of the 24 prior standardised seasons (2000-2024 mean of 5.4), was notable for its absence this fall, as was Pine Siskin (*Spinus pinus*), which had been trapped in 17 prior seasons (2000-2024 mean of 10.8).

Table 3. Individuals per species banded at Rocky Point in fall 2025, alongside the mean average per season since standardization (excluding 2007 due to absence of operations), and the 2025 total's percentage of this historical average. Subspecies names given for select taxa follow those accepted by the Bird Banding Office (BBL 2025a). Species names given in bold represent first banding records for the station. Sub)species names followed by an asterisk (\*) represent a record or joint record high season. Species names followed by a cross (†) represent a record low season. Subspecies with 10 or fewer banding records for the station are presented with the total number of records in place of the average. See footnote directly below the table in relation to superscripts <sup>1</sup> and <sup>2</sup>.

Species	2025	Average (2000-2024)	% of average
Sharp-shinned Hawk	4	4	101.1
Cooper's Hawk*	2	2	300
Virginia Rail*	1	3 <sup>rd</sup> banding record	
<b>Western Sandpiper*</b>	1	1 <sup>st</sup> banding record	
Least Sandpiper	1	4 <sup>th</sup> banding record	
Barred Owl	2	1.9	106.7
Northern Saw-whet Owl <sup>1</sup>	3	1.6	184.6
Anna's Hummingbird <sup>2</sup>	6	1.7	464.5
Rufous Hummingbird <sup>2</sup>	37	16.4	225.7
Red-breasted Sapsucker	2	0.5	436.4
Downy Woodpecker	4	2.8	143.3
Hairy Woodpecker	2	1	192
Red-shafted Flicker	3	1.9	156.5
Pileated Woodpecker*	1	9 <sup>th</sup> banding record	
Olive-sided Flycatcher*	6	1	626.1
Western Wood-pewee	1	0.4	266.7
Willow Flycatcher	99	66.9	148
Hammond's Flycatcher	24	20.3	118
Western Flycatcher	226	273.4	82.7
Cassin's Vireo	1	1.2	85.7
Hutton's Vireo	2	4.9	40.7
Warbling Vireo	10	18.2	54.9
Steller's Jay	9	16.5	54.5
Violet-green Swallow	3	1.3	240
Northern Rough-winged Swallow*	5	0.9	545.5
Barn Swallow	1	1	96
Chestnut-backed Chickadee	37	60.1	61.6
Bushtit	51	24.7	206.8
Red-breasted Nuthatch†	1	6.9	14.5
Brown Creeper	22	14.9	147.9
Bewick's Wren	44	34.5	127.5
Northern House Wren	16	17	93.9
Pacific Wren	198	153.7	128.8
Marsh Wren	5	6.7	75
Golden-crowned Kinglet	62	101.1	61.3
Ruby-crowned Kinglet	223	336.9	66.2
Swainson's Thrush	142	90.2	157.5

Hermit Thrush	60	91.2	65.8
American Robin	25	22.4	111.5
Cedar Waxwing	23	9.2	249.8
Tennessee Warbler*	1	3 <sup>rd</sup> banding record	
Orange-crowned Warbler	148	166.8	88.7
Yellow Warbler	203	144.8	140.2
Yellow-rumped Warbler (unknown ssp.)	7	4.3	164.7
Myrtle Warbler	15	18.3	82
Audubon's Warbler	34	12	284.3
Black-throated Gray Warbler	4	5.1	78
Townsend's Warbler	3	5.7	52.6
Western Palm Warbler*	2	5 <sup>th</sup> and 6 <sup>th</sup> banding records	
Ovenbird*	1	2 <sup>nd</sup> banding record	
Northern Waterthrush	1	0.8	126.3
MacGillivray's Warbler	56	47.9	116.9
Common Yellowthroat	110	74.8	147
Wilson's Warbler	242	236	102.5
Western Tanager	5	3.7	136.4
Spotted Towhee*	438	145.9	300.3
Chipping Sparrow	11	14.8	74.2
Clay-colored Sparrow*	3	9 <sup>th</sup> to 11 <sup>th</sup> banding records	
<b>Brewer's Sparrow*</b>	1	1 <sup>st</sup> banding record	
Savannah Sparrow	138	71.3	193.6
Fox Sparrow	149	151.1	98.6
Song Sparrow	203	135.5	149.8
Lincoln's Sparrow	152	154.3	98.5
Swamp Sparrow*	3	1	288
White-throated Sparrow	16	7.2	223.3
Gambel's White-crowned Sparrow	14	4	346.4
Puget Sound White-crowned Sparrow*	523	156.5	334.2
Golden-crowned Sparrow	125	127.5	98
Oregon Junco	69	69.3	99.6
Black-headed Grosbeak*	9	2.2	415.4
Red-winged Blackbird	8	6.5	123.1
Brown-headed Cowbird	8	8.8	90.6
Purple Finch	108	36.8	293.9
House Finch*	8	0.8	1010.5
American Goldfinch*	260	81.5	319.2
<b>Total</b>	<b>4443</b>	<b>3330</b>	<b>133.4</b>

## Notes on standardization

- <sup>1</sup> Northern Saw-whet Owls are likely to be influenced by playback from the species-specific program which runs every night at both stations from 15 September annually, resulting in intentional numbers of owls being drawn to the trapping area at night, some of which may be encountered in the mornings following. One individual, trapped early morning on 24 August, was certainly not influenced by playback as this was prior to the commencement of the saw-whet monitoring period, thus was a bona fide standardized capture. A report on the Northern Saw-whet Owl (*Aegolius acadicus*) monitoring program can be found in a separate report at [www.rpbo.org/resources/reports-publications](http://www.rpbo.org/resources/reports-publications).
- <sup>2</sup> Hummingbirds were not included in Rocky Point banding totals until 2006, following a pilot project from 2003, during which time captures were counted as non-standard banding. In light of this, the mean average per year for Anna's and Rufous Hummingbirds have been taken as the means from 2006-2024, rather than 2000-2024 (excluding 2007 due to absence of operations), as is the case for all other species listed.

In addition to the birds listed above, three individuals of two species were banded outside of standard operations this fall at Rocky Point (categorised as “non-standard banding”). These included one Barred Owl (*Strix varia*), which was intentionally captured due to its continued presence next to net 5 on 1 September. As a predatory species, Barred Owls can pose a risk to birds in mist nets, so this individual was banded and swiftly released a short distance away on-site. Two American Pipits (*Anthus rubescens*) were trapped in the back meadow, with singles on 16 and 17 October, constituting the first banding record for Rocky Point Bird Observatory. These were banded as part of a targeted effort to assess the feasibility of trapping American Pipits at Rocky Point, as there had only been 37 individuals banded across British Columbia from 1960 to 2024 (BBL 2025b).



*A targeted effort in October produced RPBO's first and second American Pipits to be banded (David Bell).*

### 4.3 Recaptures

In addition to the new birds banded, there were a total of 892 recapture records of 563 individual birds, comprising 35 species, at Rocky Point through the fall 2025 monitoring period. These numbers do not include same-day recaptures. See Table 4 for a complete list of recaptures per species this season.

Table 4. Total recaptures by species at Rocky Point in 2025.

Species	Recaptures	Species	Recaptures
Red-breasted Sapsucker	1	American Robin	1
Red-shafted Flicker	1	Orange-crowned Warbler	11
Willow Flycatcher	12	Yellow Warbler	2
Western Flycatcher	2	MacGillivray's Warbler	14
Hutton's Vireo	2	Common Yellowthroat	46
Warbling Vireo	1	Wilson's Warbler	36
Steller's Jay	2	Spotted Towhee	114
Chestnut-backed Chickadee	56	Brewer's Sparrow	2
Bushtit	12	Fox Sparrow	54
Brown Creeper	10	Song Sparrow	104
Bewick's Wren	29	Lincoln's Sparrow	11
Northern House Wren	3	Swamp Sparrow	1
Pacific Wren	14	Puget Sound White-crowned Sparrow	234
Marsh Wren	2	Golden-crowned Sparrow	17
Golden-crowned Kinglet	12	Oregon Junco	2
Ruby-crowned Kinglet	12	Purple Finch	19
Swainson's Thrush	40	American Goldfinch	12
Hermit Thrush	1		

The oldest known recaptures to be encountered in 2025 were a Swainson's Thrush hatched in 2018 (banded in 2019) and an American Goldfinch hatched in 2018 or prior (banded in 2019); see Table 5. The North American longevity records for these species are 12 years and one month, set in Montana in 2006, for Swainson's Thrush, and 10 years and 11 months, set in Maryland in 2013, for American Goldfinch (BBL 2024).

The most recaptured individual of 2025 was a hatch year Song Sparrow (*Melospiza melodia*) who was banded on the first day of the season (21 July) and subsequently trapped on eight individual days, followed by a hatch year White-crowned Sparrow who was banded on 3 August and trapped on a further seven days.

Table 5. The oldest known birds to be recaptured at Rocky Point in fall 2025. All birds known to have hatched in 2019 or prior are included. Key to abbreviations: HY = hatch year (hatched in the given calendar year), SY = second year (hatched in the calendar year prior to that given), AHY = after hatch year (hatched prior to the given calendar year but the year of hatching is unknown). Age is given in years.

Band number	Species	2019	2020	2021	2022	2023	2024	2025	Age
2951-16640	Swainson's Thrush	SY					✓	✓	7
2920-50064	American Goldfinch	AHY	✓					✓	7+
2920-50015	Chestnut-backed Chickadee	HY	✓	✓				✓	6
2951-16685	White-crowned Sparrow	HY	✓					✓	6
2951-16798	Song Sparrow	HY		✓				✓	6
2721-84595	Purple Finch	HY		✓	✓		✓	✓	6
2981-15344	Swainson's Thrush		SY					✓	6



This Swainson's Thrush, recaptured at Rocky Point in July, was banded on site in its second year in 2019, meaning it has migrated to Central America and back seven times; a fantastic insight we wouldn't have without bird banding (Max Hellicar).

#### 4.4 Capture Rate Per Mist Net

The placement of nets is a vital component of any mist-netting operation, and including a range of habitat types is important in passive monitoring. Nets positioned along flight lines of birds, such as those that bisect understory vegetation and/or are placed on habitat edges, are more likely to produce a higher capture rate than those below high canopies and those in open areas. These differences are the main cause for the observed discrepancies in capture rates per net. Following the historical pattern, net 4 continued to maintain its streak as the best net for captures, totalling 1079 and accounting for just over a fifth of all captures at Rocky Point this fall. Net 1 claimed second place, with 732 captures, largely due to the high numbers of hatch year White-crowned Sparrows feeding in the front meadow throughout the season. Despite being a mere couple of metres from net 1, net 2 was the poorest performing net this season, with 134 captures accounting for just 2.5% of the season's total (although it did include the first-ever Western Sandpiper for RPBO's standardised monitoring period). See Table 6 for a breakdown of capture rates per net for this season.

*Table 6. Birds banded (new captures), recaptures, total (combined) captures and capture rate per mist net at Rocky Point in fall 2025.*

<b>Net</b>	<b>New captures</b>	<b>Recaptures</b>	<b>Total captures</b>	<b>% of total</b>
1	597	135	732	13.7
2	116	18	134	2.5
3	587	109	696	13
4	902	177	1079	20.2
5	135	31	166	3.1
6	308	30	338	6.3
7	474	115	589	11
8	136	46	182	3.4
9	193	32	225	4.2
10	180	30	210	3.9
11	194	53	247	4.6
12	316	49	365	6.8
13	305	67	372	7

## 4.5 Banding Numbers Through the Season

The season started with 78 birds banded on day one: 21 July. This number was not bettered until 8 August when 80 individuals were banded. This total wasn't improved until the following month, when 87 new birds were processed on 2 September, surpassed by a total of 89 two days later. Remarkably, 10 and 11 September each produced a total of 107 new birds, which were trumped by 132 on 15 September, and ultimately peaking at 158 birds banded on 4 October. Excluding five full closure days due to military activity from 6 to 10 October, the poorest day of the season for new captures was 6 August, with 10 birds banded, followed by 13 on 01 October and 15 on each 13 and 15 August. Capture rates were above average from the season's beginning until mid-September, being exceptional through early September in comparison to the historical trend. The rate of capture then dipped below average from mid-September, remaining sub-par until mid-October, before rising once more in mid-October for a strong finish. See Figure 2 for a visual depiction of birds banded per day.

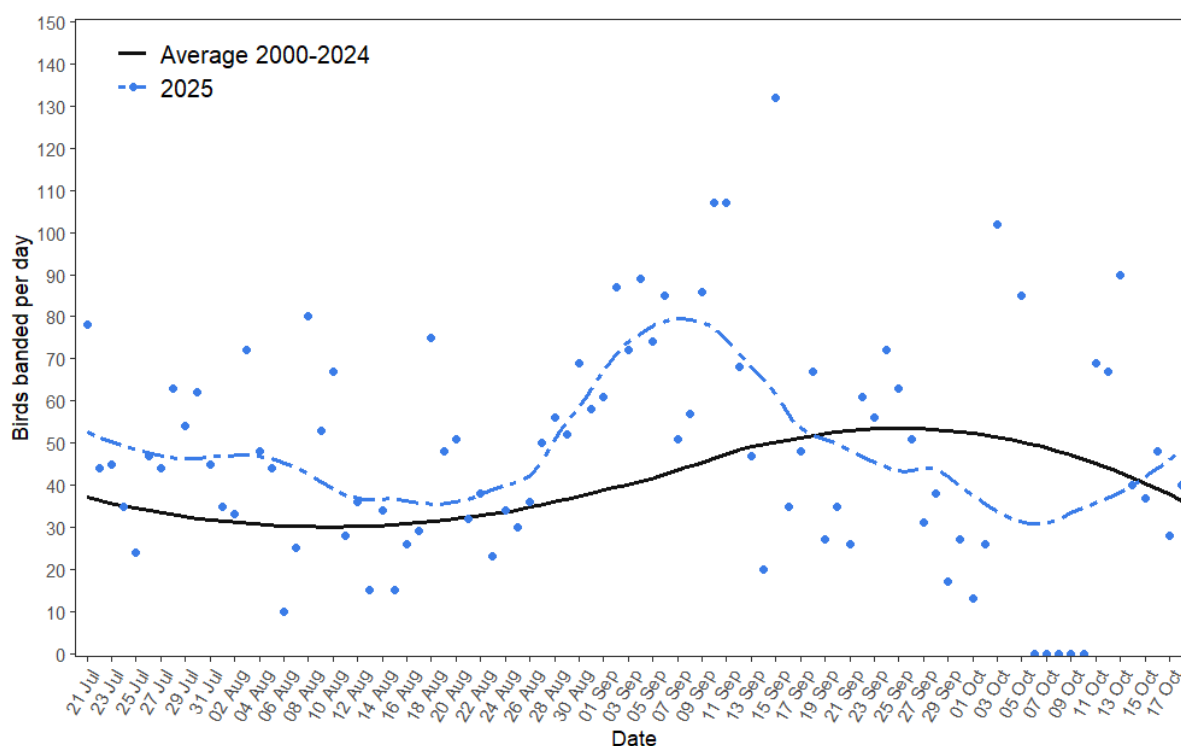


Figure 2. Birds banded per day at Rocky Point in fall 2025. The dashed blue line represents a smoothed mean of birds banded per day in 2025. The solid black line represents a smoothed mean of birds banded per day across all prior years of standardized monitoring (2000-2024, excluding 2007 due to absence of operations). Due to military activity, 6 to 10 October represents a period of no operations.

## 5.0 Daily Estimated Totals



*Great Horned Owl (Bubo virginianus) were heard on most days at Rocky Point, but less frequently seen (Ann Nightingale).*

2025, with 28,855 detections, followed by Common Murre (*Uria aalge*; 17,378), Short-tailed Shearwater (*Puffinus tenuirostris*; 14,361), Brandt's Cormorant (*Urile penicillatus*; 10,555) and Band-tailed Pigeon (*Patagioenas fasciata*; 8343) to complete the top five. Short-tailed/Sooty Shearwaters (*Puffinus tenuirostris* / *Ardenna grisea*) which were not identified to species also get an honourable mention, with 9492 logged; the majority of which were almost certainly Short-tailed, based on the quantities of identified individual of either species. The top five species for highest day counts were also the five that surpassed one thousand: Short-tailed Shearwater (7800), Brandt's Cormorant (3850), California Gull (3652), Common Murre (3195) and Turkey Vulture (*Cathartes aura*; 1035). Short-tailed/Sooty Shearwaters which weren't identified to species also get an honourable mention, with a peak count of 2362.

In addition to coverage via mist netting, staff and volunteers completed a standardized census every morning during operations. Census followed the same route for the same duration, commencing an hour after sunrise. Additionally, all birds encountered during the sampling period – outside of banding and census – were noted each day. These three forms of coverage are then combined into the Daily Estimated Totals for each species, providing a more holistic coverage of migration monitoring than could be achieved via any one of these methods in isolation. Throughout the fall 2025 monitoring period (21 July to 18 October), there were 225,173 detections of individual birds, comprising 190 species, recorded at Rocky Point. Detections represent bird-days rather than number of individuals (e.g., the same individual may be detected on multiple days). See Table A1 (Appendix I) for a full breakdown of Rocky Point's Daily Estimated Totals for fall 2025.

California Gull (*Larus californicus*) took first place for the most abundant species of fall

Eleven species were detected on all 85 days of monitoring this season (accounting for 5 days of exclusion due to military activity): Great Blue Heron (*Ardea herodias*), Belted Kingfisher (*Megasceryle alcyon*), Northern Flicker (*Colaptes auratus*), Common Raven (*Corvus corax*), Chestnut-backed Chickadee (*Poecile rufescens*), Red-breasted Nuthatch, Brown Creeper (*Certhia americana*), Bewick's Wren (*Thryomanes bewickii*), Spotted Towhee, Song Sparrow and Purple Finch. A further five species were detected on all but one day of monitoring: Canada Goose (*Branta canadensis*), Glaucous-winged Gull (*Larus glaucescens*), Downy Woodpecker (*Dryobates pubescens*), American Robin (*Turdus migratorius*) and White-crowned Sparrow.

Notable records, in addition to those from the mist nets, included a single Black-type (Black or hybrid) Phoebe (*Sayornis nigricans* / *Sayornis* hybrid), seen on 22 August, increasing to two the following day, followed by two Say's Phoebes (*Sayornis saya*) on 25 August. A Lewis's Woodpecker (*Melanerpes lewis*) was noted on 6 and 12 September (eighth site record) and a Franklin's Gull (*Leucophaeus pipixcan*) from 28-30 September was the sixth record site, followed by a different individual from 14-18 October.



*Short-tailed Shearwater (left) was a major rarity in the Salish Sea until this decade, being a common sight at Rocky Point this fall. October's first-cycle Franklin's Gull (right) was the seventh record for Rocky Point. (Max Hellicar).*

## **Part B – Pedder Bay**

### **6.0 Introduction**

In 2025, RPBO undertook migration monitoring at Pedder Bay for its 14<sup>th</sup> consecutive season. The field station at Pedder Bay is on the Pedder Bay RV Resort and Marina property, bounded by the Galloping Goose Trail to the north, the RV Resort and Marina to the east, the Pedder Bay estuary to the south, and Rocky Point Road to the west. The operating area holds a diversity of habitats, including mixed woodland, meadows, scrubland dominated by broom, with riparian and estuarine areas. The three main components to RPBO's migration monitoring are census, banding and observations. The monitoring protocol is standardized (RPBO 2022), with operations beginning on 21 July and ending on 18 October each year.

### **7.0 Banding**

#### **7.1 Coverage**

Following the protocol of previous years, 15 mist nets were operated in their standard localities. Avinet nylon mist nets were used, with the following specifications: 12x2.6 metres, four shelves, 30 mm (15x15 mm) mesh, 70 denier/2-ply. With only weather influencing operations at Pedder Bay, coverage was improved in comparison to Rocky Point. In total, 130.4 net hours were lost over the duration of the season due to wind, rain, and other factors which affected operations. Overall, the total of 7969.6 net hours accounted for the sixth-highest season total since the inception of Pedder Bay's operations, and the fourth-highest excluding two years in which a canopy net was operated (2014 and 2015); see Table 7. This season's total was 245 hours above the mean average for this period.

#### **7.2 Banding Totals**

At Pedder Bay this season, 2866 birds of 61 species were banded during our standardised operations, constituting 91.7% of the 2012-2024 mean of 3124 (Table 7, Figure 3). This equates to 35.96 birds per 100 net hours, which is 4.12% below the 2012-2024 mean of 40.08.

Table 7. Coverage and banding totals for Pedder Bay by year since inception. Asterisks indicate years in which a canopy net was used, accounting for the higher number of net hours.

Year	Coverage period	Days banded	Total banded	Species	Net hours	New birds per 100 net hours
2025	21 July – 18 October	90	2866	66	7970	35.96
2024	21 July – 18 October	90	2819	57	7974	35.35
2023	21 July – 18 October	90	3163	62	8006	39.51
2022	21 July – 18 October	90	3928	54	7999	49.10
2021	21 July – 18 October	89	2987	60	7832	38.14
2020	21 July – 18 October	90	3257	57	7623	42.73
2019	21 July – 18 October	90	3040	61	7872	38.62
2018	21 July – 18 October	90	2776	58	7833	35.44
2017	21 July – 18 October	88	3558	58	7390	48.14
2016	21 July – 18 October	86	2927	55	7152	40.93
2015	21 July – 18 October	89	3073	63	8218*	37.39
2014	21 July – 18 October	89	3074	61	8274*	37.15
2013	21 July – 18 October	87	3311	56	7673	43.15
2012	21 July – 18 October	87	2702	57	7621	35.45
<b>Mean 2012-2024</b>		<b>89</b>	<b>3124</b>	<b>58</b>	<b>7725</b>	<b>40.08</b>

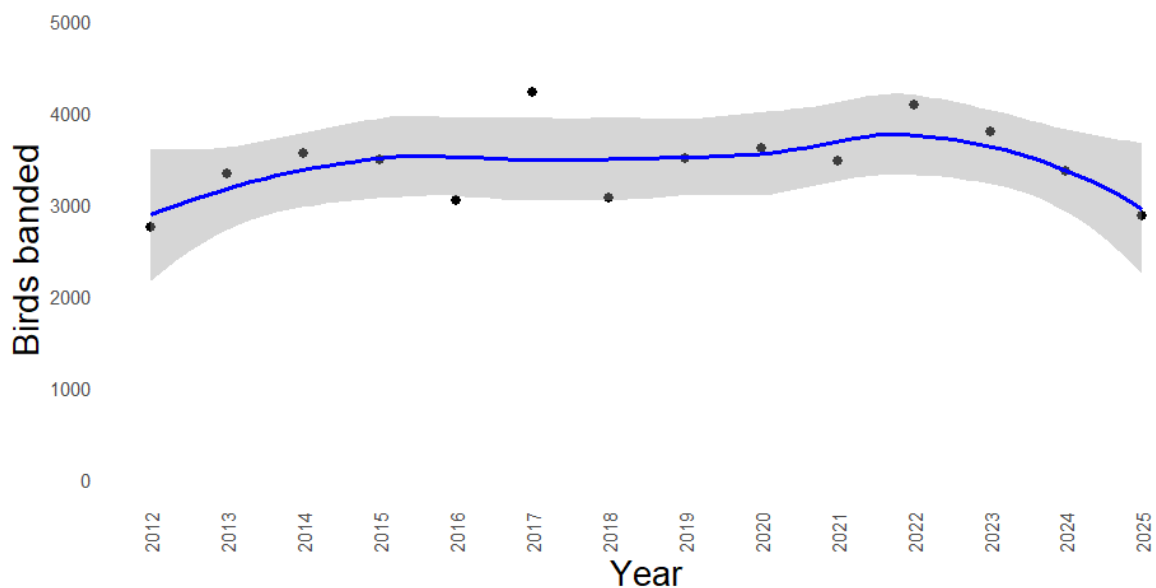


Figure 3. Annual totals of individual birds banded per fall at Pedder Bay since inception in 2012. The blue line denotes a LOESS-smoothed (locally estimated scatterplot smoothing) trend, with 95% confidence intervals in grey.

The top five most prevalent species to be banded through fall 2025 were Fox Sparrow (*Passerella iliaca*; 246 individuals; record of 654 in 2017), White-crowned Sparrow (222; record of 316 in 2018), Swainson’s Thrush (219; record of 347 in 2023), Hermit Thrush (*Catharus guttatus*; 215; record of 304 in 2019) and Ruby-crowned Kinglet (*Corthylio calendula*; 211;

record of 298 in 2013). See Table 8 for a full breakdown of birds banded at Pedder Bay in fall 2025.

It was a record banding season at Pedder Bay for Bewick's Wren (41), Violet-green Swallow (8), Barn Swallow (*Hirundo rustica*; 5) and Pileated Woodpecker (2). The Pileated Woodpeckers represented the fifth and sixth banding records for the site, and the Violet-green Swallows represented the site's fourth to eleventh to be banded.

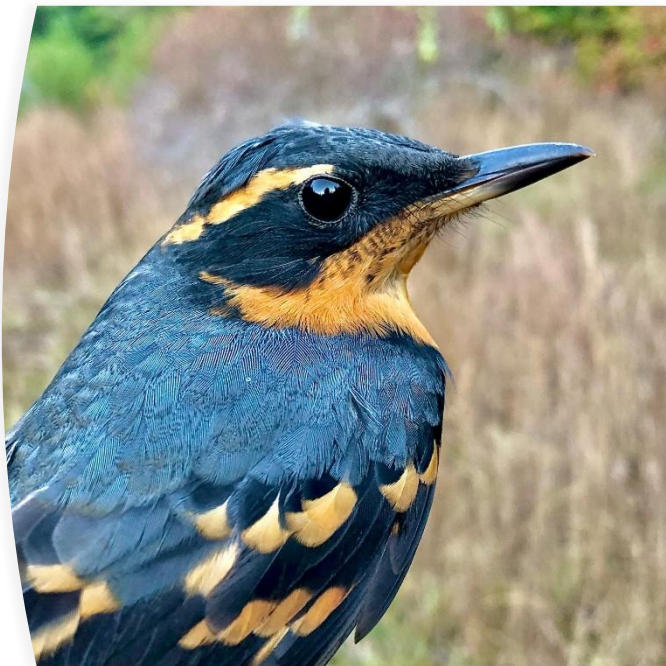
There were no new species banded for the site during standard operations, however, on a subspecific note, Pedder Bay saw its first banding record of Yellow-shafted Flicker (*Colaptes auratus* "Yellow-shafted group") on 26 September. It was, therefore, an automatic record year for this taxon, however it was not a record year for the species; Northern Flicker (*C. auratus*). This represents the second banding record of this subspecies for RPBO sites, following one at Rocky Point in 2000. In comparison, Pedder Bay has banded 61 Red-shafted Flickers (*C. auratus* "Red-shafted group") and 17 Red- x Yellow-shafted Flicker intergrades during the same timeframe.

In addition to those that broke or tied annual banding records, and those with 10 or fewer total records, taxa which experienced more than 50% above their annual historical mean during fall 2025 were Sharp-shinned Hawk (*Accipiter striatus*), Red- x Yellow-shafted Flicker intergrade, Cassin's Vireo (*Vireo cassinii*), Hutton's Vireo, and American Goldfinch.

It was not a record low season for any regularly occurring species at Pedder Bay, with the only mention-worthy absence being Pine Siskin, which have been banded in nine of the 13 prior standardised seasons (2012-2024 mean of 6.2 banded). Species trapped in 2025 whose totals were more than 50% below the historical mean consisted of Downy Woodpecker, Willow and Western Flycatchers (*Empidonax traillii* and *difficilis*), American



*It was a record season for Violet-green Swallows banded at Pedder Bay, with a total of eight (Max Hellicar).*



*It was a poor year for Varied Thrushes in the mist nets, with just one banded at Pedder Bay and none at Rocky Point (Max Hellicar).*

Robin, Varied Thrush, Orange-crowned Warbler (*Leiothlypis celata*), Black-throated Gray Warbler and Brown-headed Cowbird (*Molothrus ater*).

*Table 8. Individuals per species banded at Pedder Bay in fall 2025, alongside the mean average per season since inception, and the 2025 total's percentage of this historical average. Subspecies names given for select taxa follow those accepted by the Bird Banding Office (BBL 2025a). Subspecies names given in bold represent first banding records for the station. Subspecies names followed by an asterisk (\*) represent a record or joint record high season. Su)species with 10 or fewer banding records for the station are presented with the total number of records in place of the average. See footnote directly below the table in relation to superscript <sup>1</sup>.*

Species	2025	Average (2012-2024)	% of average
Sharp-shinned Hawk	2	1.2	173.3
Cooper's Hawk	1	1.3	76.5
Northern Saw-whet Owl <sup>1</sup>	2	1.8	113
Anna's Hummingbird	42	31.1	135.1
Rufous Hummingbird	35	39.5	88.5
Belted Kingfisher	1	1.5	68.4
Red-breasted Sapsucker	7	6.5	108.3
Downy Woodpecker	2	4.5	44.1
Hairy Woodpecker	3	2.9	102.6
<b>Yellow-shafted Flicker*</b>	1	1 <sup>st</sup> banding record	
Red-shafted Flicker	4	4.4	91.2
Red- x Yellow-shafted Flicker intergrade	2	1.2	173.3
Pileated Woodpecker*	2	5 <sup>th</sup> and 6 <sup>th</sup> banding record	
Olive-sided Flycatcher	1	7 <sup>th</sup> banding record	
Willow Flycatcher	18	37.8	47.6
Hammond's Flycatcher	11	13.6	80.8
Western Flycatcher	44	96.2	45.8
Cassin's Vireo	3	1.8	162.5
Hutton's Vireo	5	2.9	171.1
Warbling Vireo	12	13.7	87.6
Steller's Jay	3	5.5	54.2
Violet-green Swallow*	8	4 <sup>th</sup> to 11 <sup>th</sup> banding records	
Northern Rough-winged Swallow	1	9 <sup>th</sup> banding record	
Barn Swallow*	5	9 <sup>th</sup> to 13 <sup>th</sup> banding records	
Chestnut-backed Chickadee	40	53.1	75.4
Bushtit	44	33.1	133
Red-breasted Nuthatch	5	6	83.3
Brown Creeper	13	11.5	113.4
Bewick's Wren*	41	32.2	127.2
Northern House Wren	23	22.9	100.3
Pacific Wren	79	56.1	140.9
Golden-crowned Kinglet	50	51	98
Ruby-crowned Kinglet	211	188.8	111.8
Swainson's Thrush	219	195.6	112
Hermit Thrush	215	173.2	124.1
American Robin	36	74.2	48.5

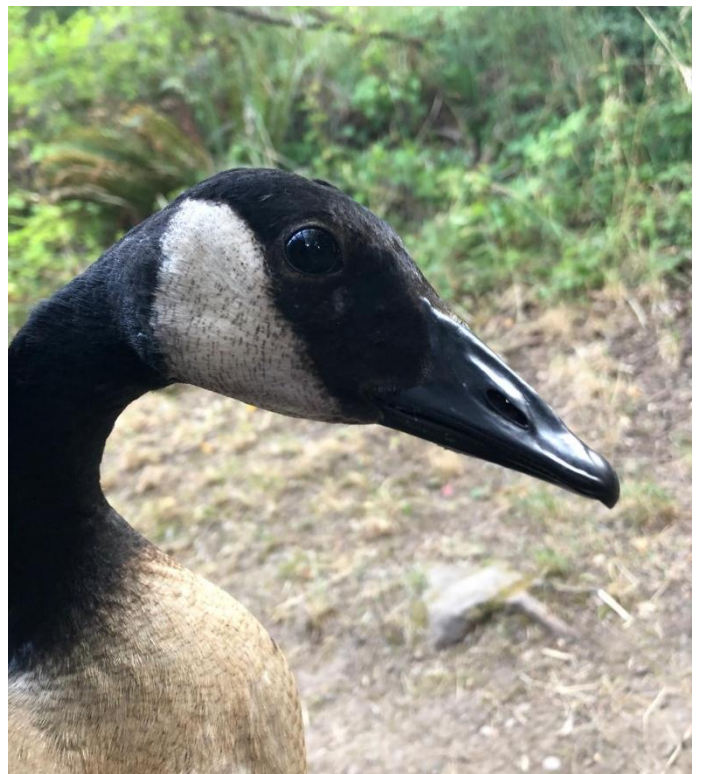
Varied Thrush	1	5.2	19.1
Cedar Waxwing	12	11.7	102.6
Orange-crowned Warbler	40	103.4	38.7
Yellow Warbler	41	46.9	87.4
Yellow-rumped Warbler (unknown ssp.)	1	3.2	31.7
Myrtle Warbler	8	9	88.9
Audubon's Warbler	8	12.2	65.8
Black-throated Gray Warbler	2	5	40
Townsend's Warbler	7	7.1	98.9
Northern Waterthrush	1	9 <sup>th</sup> banding record	
MacGillivray's Warbler	39	49.8	78.2
Common Yellowthroat	59	54.5	108.3
Wilson's Warbler	76	146.3	51.9
Western Tanager	28	24.4	114.8
Spotted Towhee	173	152.1	113.8
Chipping Sparrow	13	15.6	83.3
Savannah Sparrow	6	6.8	88.6
Fox Sparrow	247	303.5	81.4
Song Sparrow	187	150.5	124.2
Lincoln's Sparrow	101	159.5	63.3
White-throated Sparrow	7	6.5	108.3
Gambel's White-crowned Sparrow	6	4.2	141.8
Puget Sound White-crowned Sparrow	216	215.3	100.3
Golden-crowned Sparrow	153	176.5	86.7
Oregon Junco	151	187	80.7
Black-headed Grosbeak	5	5.8	85.5
Brown-headed Cowbird	1	2.7	37.1
Purple Finch	64	63.4	101
House Finch	5	6.2	80.2
American Goldfinch	17	9.2	185.7
<b>Total</b>	<b>2866</b>	<b>3124</b>	<b>91.7</b>

Note on standardization: <sup>1</sup>Northern Saw-whet Owls are likely to be influenced by playback from the species-specific program which runs every night at both stations from 15 September annually, resulting in intentional numbers of owls being drawn to the trapping area at night, some of which may be encountered in the mornings following. A report on the Northern Saw-whet Owl (*Aegolius acadicus*) monitoring program can be found in a separate report at [www.rpbo.org/resources/reports-publications](http://www.rpbo.org/resources/reports-publications).



*Two Northern Saw-whet Owls were trapped during migration monitoring at Pedder Bay this fall (Max Hellicar).*

In addition to the birds listed above, one bird was banded outside standard operations this fall at Pedder Bay (categorised as “non-standard banding”); a juvenile Canada Goose on 30 July. This individual surprised the crew on-site by crashing through brambles on a downward slope and appearing by the banding station, in need of a rescue. It was assigned its unique identifying number following an inspection to check its health, then released in the estuary, where it rejoined its family party. Its wing was still growing so it was assumed to have crash landed further up the slope shortly before making its way down (as this is when the crew observed a family group flying low over from that direction) due to its sub-par flight capability at this age. This represents the first banding record for Rocky Point Bird Observatory.



*RPBO's first Canada Goose to be banded (Max Hellicar).*

### 7.3 Recaptures

In addition to the new birds banded, there were a total of 719 recapture records of 434 individual birds, comprising 36 species, at Pedder Bay through the fall 2025 monitoring period. These numbers do not include same-day recaptures. See Table 9 for a complete list of recaptures per species this season.

*Table 9. Total recaptures by species at Pedder Bay in 2025.*

<b>Species</b>	<b>Recaptures</b>	<b>Species</b>	<b>Recaptures</b>
Anna's Hummingbird	1	American Robin	1
Red-breasted Sapsucker	1	Orange-crowned Warbler	2
Downy Woodpecker	3	Yellow Warbler	2
Red-shafted Flicker	1	MacGillivray's Warbler	10
Willow Flycatcher	1	Common Yellowthroat	8
Cassin's Vireo	1	Wilson's Warbler	8
Hutton's Vireo	1	Western Tanager	6
Chestnut-backed Chickadee	54	Spotted Towhee	124
Bushtit	17	Chipping Sparrow	2
Red-breasted Nuthatch	1	Fox Sparrow	77
Brown Creeper	4	Song Sparrow	71
Bewick's Wren	37	Lincoln's Sparrow	11
Northern House Wren	4	White-throated Sparrow	1
Pacific Wren	14	Puget Sound White-crowned Sparrow	37
Golden-crowned Kinglet	7	Golden-crowned Sparrow	21
Ruby-crowned Kinglet	16	Oregon Junco	24
Swainson's Thrush	97	Purple Finch	7
Hermit Thrush	46	American Goldfinch	1

The oldest known recapture to be encountered in 2025 was a Chestnut-backed Chickadee hatched and banded in 2020; see Table 10. A recapture of an Anna's Hummingbird hatched and banded in 2021 was a good return for a species we rarely recapture but remains well off the species' longevity record of eight years and two months, set in Arizona in 2001 (BBL, 2024).



Adult male Anna's Hummingbirds have uniquely shaped outer tail feathers, which produce a loud squeak-like sound during courtship display dives. They dive at a speed of 385 body lengths per second, which is the greatest recorded velocity achieved by any vertebrate, relative to body length (Clark 2009). (Max Hellicar).

The most recaptured individual of 2025 was a hatch year Spotted Towhee who was banded on 5 August and subsequently trapped on 13 individual days, followed by another hatch year Spotted Towhee who was banded on 23 July and trapped on further 10 days.

Table 10. The oldest known birds to be recaptured at Pedder Bay in fall 2025. All birds known to have hatched in 2021 or prior are included. Key to abbreviations: HY = hatch year (hatched in the given calendar year), AHY = after hatch year (hatched prior to the given calendar year but the year of hatching is unknown). Age is given in years.

Band number	Species	2020	2021	2022	2023	2024	2025	Age
2960-11014	Chestnut-backed Chickadee	HY			✓		✓	5
7100-62997	Anna's Hummingbird		HY				✓	4
2981-15300	White-crowned Sparrow		HY				✓	4
2911-02858	Spotted Towhee			AHY			✓	4+

## 7.4 Capture Rate Per Mist Net

Following the pattern of previous seasons, the four nets which proved most fruitful for captures were 7, 8, 14 and 15. All of these nets are in broom scrub, accompanied by the presence of shrubbery such as blackberry bushes. They are also clustered in pairs (7 and 8; 14 and 15), away from the main collection of nets at the site. The productive feeding areas of these nets, coupled with their higher probability to capture birds which haven't already been encountered by adjacent nets, are the main factors in their higher capture rates. Of these, net 15 recorded 552 captures, which equates to 15.4% of the total captures for the site. Net 4 performed most poorly, claiming a meagre 2% of the total catch, with 72 captures (although these did include the station's fifth banding record of Pileated Woodpecker). The low catch rate is due to its position under tall trees, with this effect mirrored in other nets with a similar habitat structure. See Table 11 for a breakdown of capture rates per net for this season.

*Table 11. Birds banded (new captures), recaptures, total (combined) captures and capture rate per mist net at Pedder Bay in fall 2025.*

<b>Net</b>	<b>New captures</b>	<b>Recaptures</b>	<b>Total captures</b>	<b>% of total</b>
1	81	31	112	3.1
2	145	30	175	4.9
3	238	59	297	8.3
4	49	23	72	2.0
5	134	70	204	5.7
6	165	70	235	6.6
7	277	52	329	9.2
8	412	59	471	13.1
9	98	28	126	3.5
10	147	58	205	5.7
11	71	25	96	2.7
12	161	30	191	5.3
13	87	27	114	3.2
14	333	73	406	11.3
15	468	84	552	15.4

## 7.5 Banding Numbers Through The Season

The season started with 47 birds banded on day one; 21 July. This was not trumped until 2 September, when a total of 70 were banded, which was bettered with 78 banded on the 10 and 80 the following day. 4 October then saw 89 birds banded, ultimately peaking at an even 100 on 8 October. The poorest day of the season for new captures was 6 August when three birds were banded, followed by 14 August and 29 September, which each saw four new individuals processed. Capture rates were below average from the season's beginning until the very end of August, rising above the historical trend for two weeks. Mid-September saw a dip below the average trend, which wasn't to be rectified until October. This productive spell peaked on 8 October, when the station experienced its busiest banding day of the season. Numbers then crashed, crossing the line to dip below the historical average for the last couple of days of operations. See Figure 4 for a visual depiction of birds banded per day.

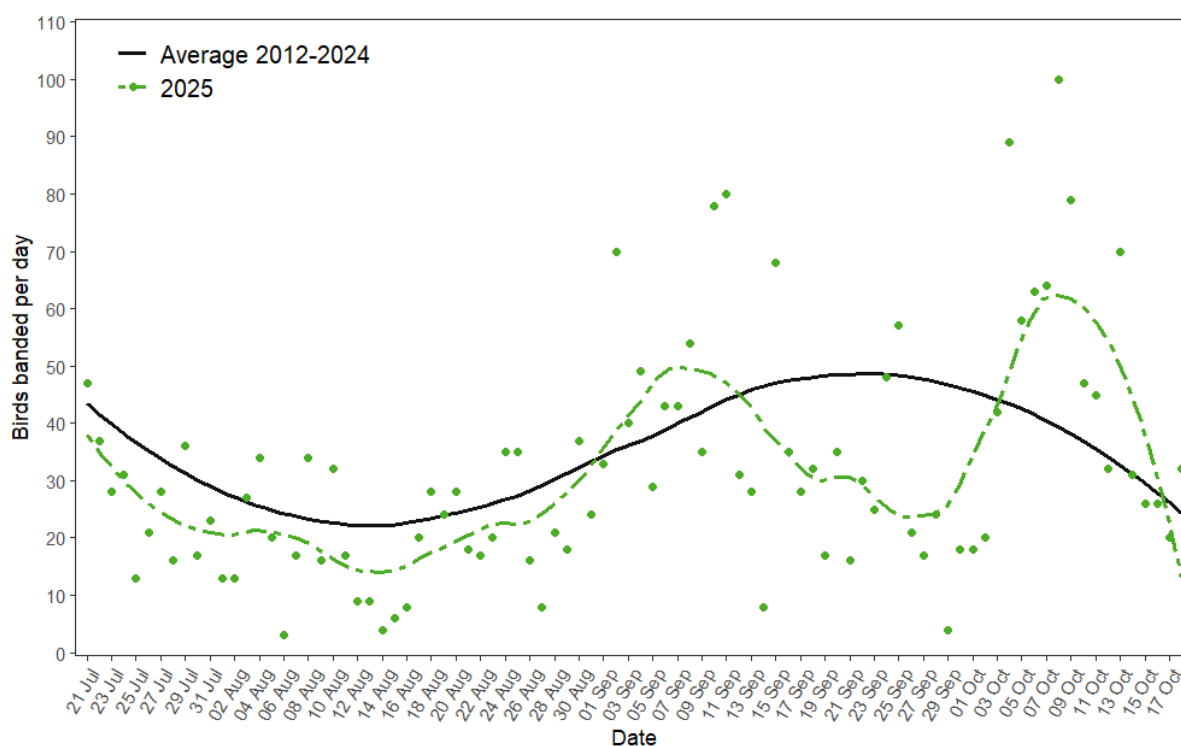


Figure 4. Birds banded per day at Pedder Bay in fall 2025. The dashed green line represents a smoothed mean of birds banded per day in 2025. The solid black line represents a smoothed mean of birds banded per day across all prior years of standardized monitoring (2012-2024).

## 8.0 Daily Estimated Totals

Additional to coverage via mist netting, staff and volunteers completed a standardized census every morning during operations. Census followed the same route for the same duration, commencing an hour after sunrise. Additionally, all birds encountered during the sampling period – outside of banding and census – were noted each day. These three forms of coverage are then combined into the Daily Estimated Totals for each species, providing a more holistic coverage of migration monitoring than could be achieved via any one of these methods in isolation. Throughout the fall 2025 monitoring period (21 July to 18 October), there were 60,378 detections of individual birds, comprising 134 species, recorded at Pedder Bay. Detections represent bird-days rather than number of individuals (e.g. the same individual may be detected on multiple days). This equates to just 26.85% of Rocky Point’s total number of individual birds recorded over the same timeframe, largely due Rocky Point’s direct coastal location which enables recording of offshore seabird passage, as opposed to Pedder Bay’s estuarine locality. See Table A2 (Appendix II) for a full breakdown of Pedder Bay’s Daily Estimated Totals for fall 2025.

American Robin was the most abundant species of fall 2025, with 2815 detections, followed by Chestnut-backed Chickadee (2763), Puget Sound White-crowned Sparrow (2503), Turkey Vulture (2288) and Oregon Junco (*Junco hyemalis* “Oregon group”; 2237) to complete the top five. Turkey Vulture claimed top spot for highest day count of any species, with 544 logged on 5 October.

Twelve species were detected on all 90 days of monitoring this season: Anna’s Hummingbird, Belted Kingfisher, Northern Flicker, Common Raven, Chestnut-backed Chickadee, Red-breasted Nuthatch, Brown Creeper, Bewick’s Wren, American Robin, Spotted Towhee, Song and Puget Sound White-crowned Sparrows. A further three species were detected on all but one day of monitoring: Downy Woodpecker, European Starling (*Sturnus vulgaris*) and House Finch.



*Steller’s Jays (Cyanocitta stelleri) made a welcome return to our mist nets, after a total absence in 2024 (Max Hellicar).*

## 9.0 Education Program

In 2025, five school groups visited our Pedder Bay field station, all in October. The station was once again open every day for visits from the general public. Throughout the season, we welcomed 581 visitors who had the opportunity to see birds up close while learning about the banding process and bird conservation as a whole. Free bird walks were also offered twice per week at Pedder Bay. Our visitor total was an all-time record since we started operating at Pedder Bay, representing a 79% increase on 2024, when we hosted a total of 324 visitors.



*In addition to enabling visitors to learn about bird banding and conservation, visiting the banding station also provided the unique chance to appreciate finer details of birds that are not so easy to see in the field, such as the undertail coverts of this Red-shafted Flicker (Max Hellicar).*

## Part C – Rocky Point And Pedder Bay (Combined)

### 10.0 Priority Species Banded

Banding totals, as integers and per 100 net hours, per species considered by the Canadian Wildlife Service as priorities for monitoring (Government of Canada, 2025), are presented in Table 12 for fall 2025 at both Rocky Point and Pedder Bay. Additionally, 13 individuals of two Canadian Species at Risk were banded between the two stations: Olive-sided Flycatcher (six at Rocky Point and a single at Pedder Bay) and Barn Swallow (five at Pedder Bay and a single at Rocky Point).



*Table 12. Banding totals per species considered to be monitoring priorities by the Canadian Wildlife Service, and individuals banded per 100 net hours (NH), for fall 2025 at Rocky Point (RP) and Pedder Bay (PB).*

*It was a record fall for Olive-sided Flycatchers at Rocky Point, with six banded (Max Hellicar).*

Species	Banded		Banded/100NH		Species	Banded		Banded/100NH	
	RP	PB	RP	PB		RP	PB	RP	PB
Downy Woodpecker	4	2	0.06	0.03	Cedar Waxwing	23	12	0.36	0.15
Hairy Woodpecker	2	3	0.03	0.04	Purple Finch	108	64	1.70	0.80
Northern Flicker	3	7	0.05	0.09	Pine Siskin	0	0	0.00	0.00
Olive-sided Flycatcher	6	1	0.09	0.01	American Goldfinch	260	17	4.09	0.21
Western Wood-pewee	1	0	0.02	0.00	Chipping Sparrow	11	13	0.17	0.16
Willow Flycatcher	99	18	1.56	0.23	Fox Sparrow	149	247	2.34	3.10
Western Flycatcher	226	44	3.55	0.55	Dark-eyed Junco	69	151	1.08	1.89
Hutton's Vireo	2	5	0.03	0.06	White-crowned Sparrow	537	222	8.44	2.79
Cassin's Vireo	1	3	0.02	0.04	Golden-crowned Sparrow	125	153	1.97	1.92
Warbling Vireo	10	12	0.16	0.15	White-throated Sparrow	16	7	0.25	0.09
Northern Rough-winged Swallow	5	1	0.08	0.01	Savannah Sparrow	138	6	2.17	0.08
Violet-green Swallow	3	8	0.05	0.10	Song Sparrow	203	187	3.19	2.35
Barn Swallow	1	5	0.02	0.06	Lincoln's Sparrow	152	101	2.39	1.27
Red-breasted Nuthatch	1	5	0.02	0.06	Spotted Towhee	438	173	6.89	2.17
Brown Creeper	22	13	0.35	0.16	Brown-headed Cowbird	8	1	0.13	0.01
Northern House Wren	16	23	0.25	0.29	Orange-crowned Warbler	148	40	2.33	0.50
Pacific Wren	198	79	3.11	0.99	Common Yellowthroat	110	59	1.73	0.74
Marsh Wren	5	0	0.08	0.00	Yellow Warbler	203	41	3.19	0.51
Bewick's Wren	44	41	0.69	0.51	Yellow-rumped Warbler	56	17	0.88	0.21
Golden-crowned Kinglet	62	50	0.97	0.63	Black-throated Gray Warbler	4	2	0.06	0.03
Ruby-crowned Kinglet	223	211	3.51	2.65	Townsend's Warbler	3	7	0.05	0.09
Swainson's Thrush	142	219	2.23	2.75	Wilson's Warbler	242	76	3.80	0.95
Hermit Thrush	60	215	0.94	2.70	Western Tanager	5	28	0.08	0.35
American Robin	25	36	0.39	0.45	Black-headed Grosbeak	9	5	0.14	0.06

## 11.0 Temporal Changes In Species Composition

As is the nature of migration, different species peak at different times, passing through in variable numbers. Figures 5 and 6 depict the seasonal passage of seven common species of sparrow and six common species of insectivores (three warblers, two kinglets and one flycatcher) through fall 2025, using combined data for both Rocky Point and Pedder Bay. At the season's beginning, the vast bulk of individuals trapped were locally bred hatch years. These comprised a mix of residents and migrants, who would go on to depart over the coming weeks, many of whom were still recently fledged, and others who were beginning their post-juvenile dispersal. During late July, true migration was limited, and the bulk of numbers were accounted for by juvenile Puget Sound White-crowned Sparrows, peaking in early September and remaining omnipresent through the monitoring period. Song Sparrows peaked at the season's start, remaining fairly stable in number throughout the period. Of the selected common species, the first to peak early in the season was Wilson's Warbler, during the turning of July to August, remaining present until the season's final individual in mid-October. Yellow Warblers (*Setophaga petechia*) were also present from late July, peaking in early September, before disappearing in early October, while a similar trajectory was followed by Orange-crowned Warblers and Western Flycatchers, who peaked in late August and mid-September, respectively. Lincoln's Sparrows (*Melospiza lincolnii*) and Fox Sparrows arrived from late August, peaking in early September and remaining into mid-October. Spotted Towhees and Oregon Juncos were present throughout the season, peaking in late September and early October, respectively, while Golden-crowned Sparrows (*Zonotrichia atricapilla*) arrived from early September, with a peak in early October. Golden-crowned Kinglets (*Regulus satrapa*) appeared from late August, peaking on an upward trajectory at the season's end, while Ruby-crowned Kinglets appeared in early September, peaking in mid-October. A dip in numbers from 6 through 10 October due to a military closure at Rocky Point was particularly evident in quantities of Ruby-crowned Kinglet and Golden-crowned Sparrow, while operations at Pedder Bay maintained numbers.



Golden-crowned Sparrows arrived at our monitoring sites from early September (Max Hellicar).

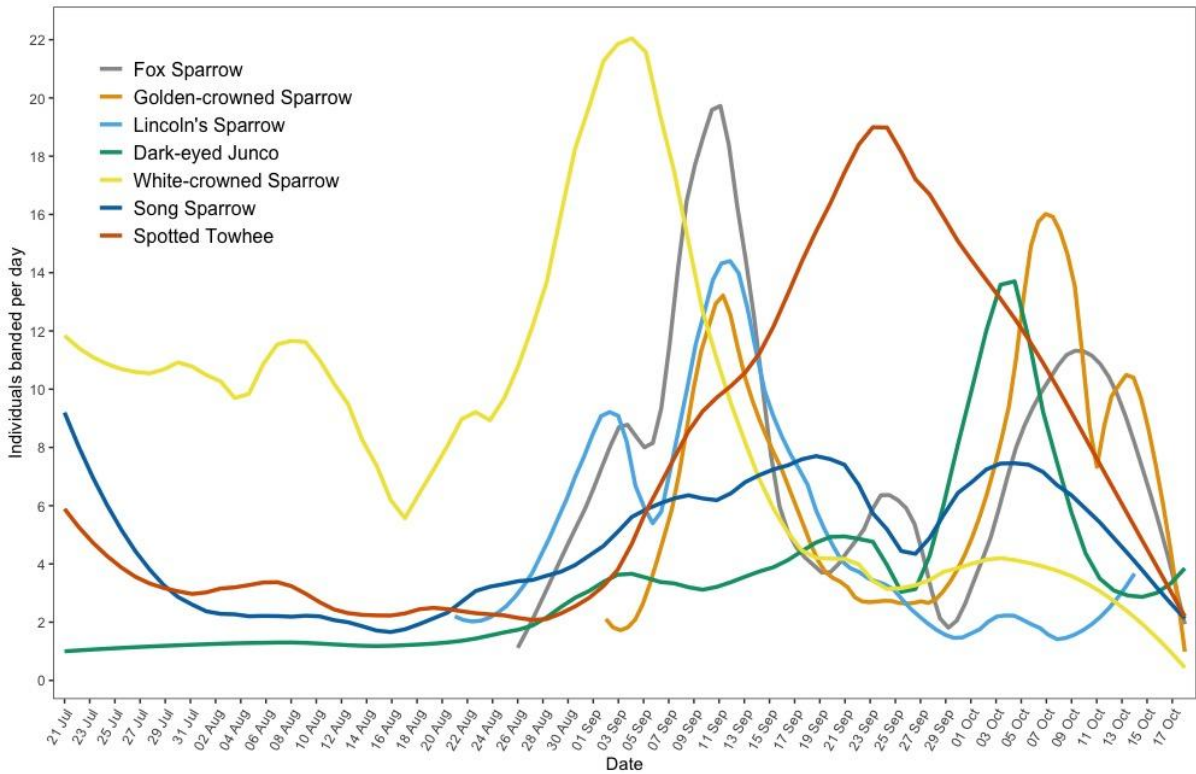


Figure 5. The timing of migration in seven common granivorous sparrow species, as shown by smoothed averages of birds banded per day at both Rocky Point and Pedder Bay combined, during fall 2025.

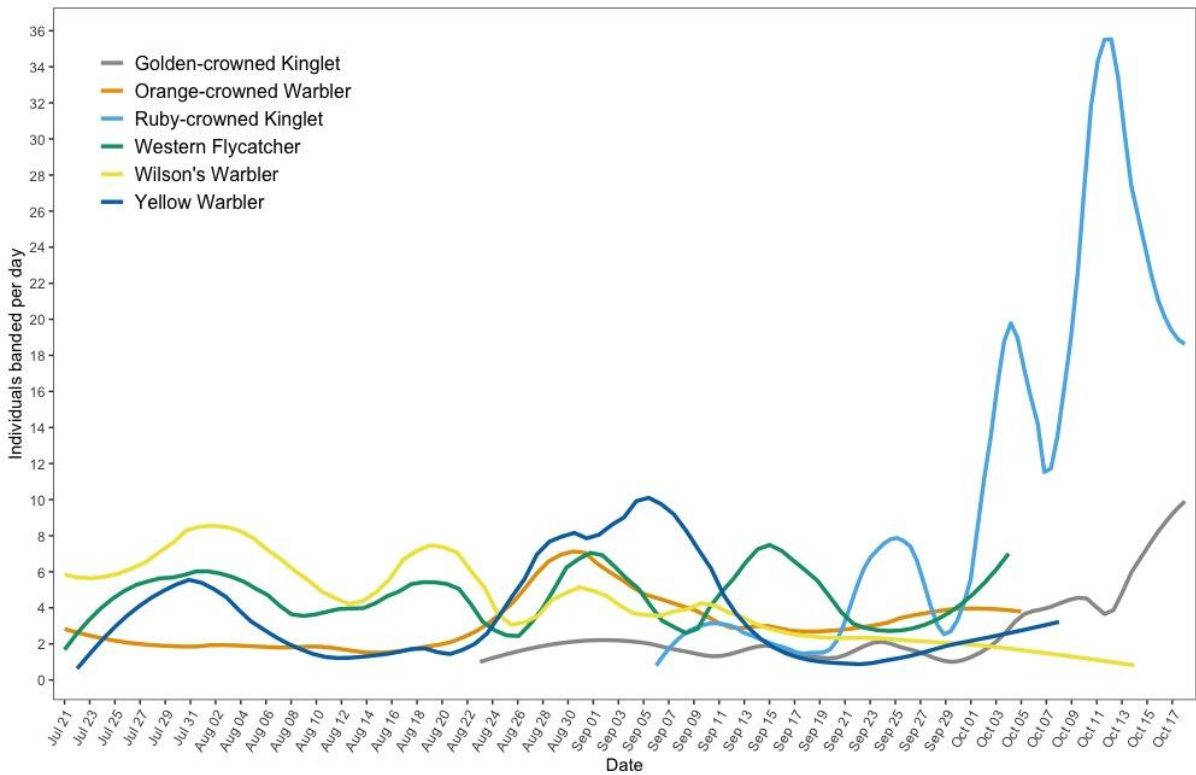


Figure 6. The timing of migration in six common insectivorous species (three warblers, two kinglets and one flycatcher), as shown by smoothed averages of birds banded per day at both Rocky Point and Pedder Bay combined, during fall 2025.

## 12.0 Ethics Statement

All birds captured during fall 2025's migration monitoring were trapped and handled in strict adherence with legal and ethical capture requirements, under appropriate permits.

## 13.0 Recommendations

Rocky Point Bird Observatory is the only member of the Canadian Migration Monitoring Network on the Pacific coast, collecting valuable data on the fall migration of western avifauna. To increase the value of this longitudinal data, continued monitoring in future is recommended at both Rocky Point and Pedder Bay. However, due to an issue identified with weak bones in recently fledged birds locally (Nightingale and Moore Reid 2019), it is recommended that RPBO seriously consider delaying the start of the season until this issue is resolved, while working to identify the exact cause and pinpoint a solution. This problem is encountered predominantly during the first month of operations.

During recent years, the slowing of migration during the October portion of the monitoring period has not been as pronounced as it has historically (Bell 2022, 2023, 2024), with changes in migratory periods potentially being driven by climate change. As a result, a potentially large portion of migration has gone unmonitored. It is recommended that RPBO trial delaying the end of the season, potentially as late as mid-November, to monitor levels of migration in the late season; something that RPBO has no data on. The intention of this would be to identify the full migration window of species for which we encounter steady numbers of new individuals during mid-October, and ensure we are able to encapsulate a minimum of 75% of migration within our monitoring period, in order to fulfil CMMN obligations (CMMN 2021). In addition, extension of the season would combat the hypothesized loss of coverage if the start of the season were to be delayed.

It is recommended that RPBO continue to always ensure they have an excellent crew operating on any given day, which can be achieved by continuing to hire experienced professionals and through the continued training of volunteers to a high standard, ensuring they keep in mind the scientific objectives of our operations, as opposed to partaking solely for recreation. An experienced and competent crew is pivotal in maintaining bird welfare as the number one priority, and in ensuring volunteers and visitors have an enjoyable experience at the stations.

A final recommendation is that RPBO continue to collaborate with researchers and universities to undertake advanced research and data collection. As western North American birds are, generally, understudied, in comparison to their eastern equivalents, there is plenty of potential for research projects using RPBO personnel, data and field sites.

## 14.0 References

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## **Appendices**

### **15.0 Appendix I: Rocky Point Daily Estimated Totals**

*Table A1. Daily estimated totals per taxa at Rocky Point during the fall 2025 monitoring period (21 July to 18 October). Number of detections represent bird-days rather than number of individuals (e.g. the same individual may be detected on multiple days); the exception to this being the maximum counts, which always represent the highest day count of individuals per taxon. Months represent total detections.*

<b>Species</b>	<b>Total detections</b>	<b>Maximum count</b>	<b>Days detected</b>	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>
Greater White-fronted Goose	116	46	9			48	68
Snow Goose	723	659	7				723
Cackling Goose	665	200	16		1	542	122
Canada Goose	2981	125	84	560	978	866	577
Gadwall	5	5	1		5		
American Wigeon	40	9	11		1	11	28
Northern Shoveler	25	10	8			6	19
Northern Pintail	53	8	20		2	37	14
Green-winged (American) Teal	140	15	30		29	57	54
Mallard	524	25	59	4	141	202	177
Unidentified dabbling duck	40	40	1				40
Harlequin Duck	128	29	23	3		24	101
Surf Scoter	599	92	44	14	106	282	197
White-winged Scoter	82	12	19	1	5	31	45
Unidentified scoter	6	6	1			6	
Bufflehead	76	17	6				76
Hooded Merganser	14	6	6	3			11
Common Merganser	29	12	5		1		28
Red-breasted Merganser	23	6	5			6	17
Unidentified duck	150	120	7	3	10	133	4
California Quail	223	20	42	32	66	113	12
Red-throated Loon	7	3	5		1		6
Pacific Loon	204	68	24		7	18	179
Common Loon	46	4	25		10	11	25
Unidentified loon	6	2	4			1	5
Horned Grebe	5	5	1				5
Red-necked Grebe	33	10	14		1	11	21
Eared Grebe	1	1	1				1
Western Grebe	2	1	2			2	
Northern Fulmar	5	2	3			2	3
Pink-footed Shearwater	1	1	1				1
Sooty Shearwater	36	11	10			22	14
Short-tailed Shearwater	14361	7800	18			1626	12735
Short-tailed/Sooty Shearwater	9492	2362	24		21	4349	5122
Manx/Black-vented Shearwater	1	1	1				1
Unidentified shearwater	6	3	4			4	2

Fork-tailed Storm-Petrel	3	3	1				3
Leach's Storm-Petrel	1	1	1				1
Unidentified storm-petrel	1	1	1				1
Brown Pelican	3	2	2		1	2	
Brandt's Cormorant	10555	3850	47	2	62	5488	5003
Double-crested Cormorant	1288	112	67	7	91	577	613
Pelagic Cormorant	717	102	49	2	37	263	415
Unidentified cormorant	2003	590	32		34	838	1131
American Bittern	2	2	1			2	
Great Blue Heron	286	6	85	38	111	92	45
Turkey Vulture	6453	1035	83	70	134	4248	2001
Osprey	49	7	35	12	13	15	9
Bald Eagle	173	14	61	24	55	17	77
Northern Harrier	56	7	33	6	12	24	14
Sharp-shinned Hawk	197	18	53	4	15	101	77
Cooper's Hawk	168	10	58	3	27	80	58
Unidentified Accipitrine hawk	3	2	2		2	1	
Broad-winged Hawk	17	4	9			17	
Red-tailed Hawk	315	13	78	24	68	145	78
Unidentified Buteo	1	1	1				1
Golden Eagle	2	1	2			1	1
American Kestrel	38	3	29	1	11	21	5
Merlin	32	2	29	2	9	8	13
Peregrine Falcon	17	2	16	1		9	7
Virginia Rail	58	3	45	11	19	23	5
Sora	16	2	15		2	5	9
Sandhill Crane	18	7	7			15	3
Black-bellied Plover	4	1	4		2	2	
Semipalmated Plover	9	2	8		7	2	
Killdeer	313	17	66	24	164	85	40
Black Oystercatcher	825	40	81	72	262	233	258
Spotted Sandpiper	17	3	11		15	1	1
Wandering Tattler	1	1	1			1	
Greater Yellowlegs	53	5	32	4	26	22	1
Lesser Yellowlegs	3	1	3	1	2		
Marbled Godwit	2	1	2		2		
Black Turnstone	236	54	22	7	185	30	14
Surfbird	55	10	13		31	19	5
Semipalmated Sandpiper	2	1	2		1	1	
Western Sandpiper	198	41	29	4	167	25	2
Least Sandpiper	325	28	46	30	230	52	13
Unidentified small sandpiper	220	30	26	75	89	48	8
Short-billed Dowitcher	3	2	2		3		
Long-billed Dowitcher	9	4	5		1	3	5
Unidentified dowitcher	2	2	1			2	
Wilson's Snipe	24	3	19		7	9	8
Red-necked Phalarope	77	47	6		6	67	4
Unidentified shorebird	17	9	5		17		

Franklin's Gull	7	1	7			3	4
Bonaparte's Gull	543	245	11		9	1	533
Heermann's Gull	557	109	53	12	31	312	202
Short-billed Gull	2009	280	63	3	232	750	1024
Ring-billed Gull	5	1	5			3	2
California Gull	27855	3652	83	1004	4421	17723	4707
Herring Gull	4	1	4			2	2
Iceland Gull	36	15	8			2	34
Western Gull	42	7	19	1	2	15	24
Glaucous-winged Gull	5433	524	84	363	1798	1906	1366
Glaucous-winged x Western Gull hybrid	3792	251	62	284	507	1818	1183
Sabine's Gull	7	6	2		6	1	
Black-legged Kittiwake	1	1	1			1	
Unidentified gull	46608	4200	84	2286	6598	26841	10883
Caspian Tern	1	1	1	1			
Pomarine Jaeger	1	1	1			1	
Parasitic Jaeger	8	3	5		5	3	
Pomarine/Parasitic Jaeger	1	1	1			1	
Unidentified jaeger	1	1	1			1	
Common Murre	17378	3195	65	36	2629	6368	8345
Pigeon Guillemot	330	21	52	49	199	50	32
Marbled Murrelet	77	16	28	1	10	20	46
Ancient Murrelet	59	45	6			1	58
Cassin's Auklet	1	1	1				1
Rhinoceros Auklet	1372	122	69	159	566	336	311
Tufted Puffin	1	1	1				1
Unidentified alcid	263	60	22		88	74	101
Rock Pigeon	6	3	4		6		
Band-tailed Pigeon	8343	778	67	6	761	5906	1670
Eurasian Collared-Dove	52	6	27	2	33	14	3
Unidentified dove	2	2	1			2	
Great Horned Owl	122	5	56	3	34	62	23
Barred Owl	53	4	36		19	26	8
Long-eared Owl	1	1	1			1	
Northern Saw-whet Owl	6	1	6		2	4	
Unidentified owl	1	1	1				1
Common Nighthawk	11	3	8	3	8		
Black Swift	21	6	5		8	4	9
Vaux's Swift	912	400	29	1	27	448	436
Unidentified swift	12	8	2			12	
Anna's Hummingbird	148	6	69	10	52	59	27
Rufous Hummingbird	81	10	31	53	23	5	
Unidentified hummingbird	3	1	3		3		
Belted Kingfisher	251	7	85	26	107	89	29
Lewis's Woodpecker	2	1	2			2	
Red-breasted Sapsucker	73	3	58	6	24	30	13
Downy Woodpecker	320	9	84	44	128	108	40

Hairy Woodpecker	223	8	76	17	71	97	38
Northern Flicker (Red-shafted or intergrade)	944	55	85	88	271	340	245
Pileated Woodpecker	132	8	68	14	55	45	18
Olive-sided Flycatcher	278	20	35	135	138	5	
Western Wood-pewee	210	14	46	59	143	8	
Willow Flycatcher	222	12	53	20	154	48	
Hammond's Flycatcher	80	10	32	3	22	49	6
Western Flycatcher	571	27	64	156	282	124	9
Unidentified Empidonax	9	3	6		6	3	
Black Phoebe	3	2	2		3		
Say's Phoebe	2	2	1		2		
Cassin's Vireo	11	2	10	4	3	4	
Hutton's Vireo	95	7	54	24	34	27	10
Warbling Vireo	144	12	48	49	69	25	1
Steller's Jay	806	70	48		17	384	405
American Crow	41	20	13	2	5	24	10
Common Raven	1136	77	85	38	181	670	247
Horned Lark	23	7	12		1	11	11
Purple Martin	325	47	51	34	137	154	
Tree Swallow	20	14	5	2	18		
Violet-green Swallow	684	85	43	238	322	83	41
Northern Rough-winged Swallow	326	56	32	149	173	4	
Cliff Swallow	54	30	7	53	1		
Barn Swallow	581	77	61	229	170	181	1
Unidentified swallow	18	6	4		13	5	
Chestnut-backed Chickadee	3323	86	85	408	1335	1161	419
Bushtit	1218	44	76	156	529	434	99
Red-breasted Nuthatch	806	39	85	99	352	260	95
Brown Creeper	888	29	85	131	367	276	114
Bewick's Wren	711	20	85	113	292	198	108
Northern House Wren	253	22	55	128	105	18	2
Pacific Wren	1006	58	74	5	61	465	475
Marsh Wren	50	4	30		7	17	26
Golden-crowned Kinglet	1881	92	83	46	317	839	679
Ruby-crowned Kinglet	735	63	38			250	485
Townsend's Solitaire	1	1	1				1
Swainson's Thrush	544	29	74	144	227	163	10
Hermit Thrush	150	23	33			75	75
American Robin	4695	525	84	189	247	1810	2449
Varied Thrush	181	29	31	1		85	95
European Starling	2676	143	79	398	759	902	617
American Pipit	655	76	44		6	385	264
Cedar Waxwing	4176	205	82	327	1384	1746	719
Tennessee Warbler	1	1	1				1
Orange-crowned Warbler	305	14	68	33	110	136	26
Yellow Warbler	562	43	65	93	224	218	27
Yellow-rumped Warbler (unknown ssp.)	1132	199	66	53	84	606	389

Myrtle Warbler	87	10	25		4	52	31
Audubon's Warbler	331	34	55	19	82	128	102
Black-throated Gray Warbler	15	2	13	1	5	9	
Townsend's Warbler	28	4	16		7	17	4
Palm Warbler	1	1	1			1	
Western Palm Warbler	3	2	2			1	2
Ovenbird	1	1	1		1		
Northern Waterthrush	3	1	3		3		
MacGillivray's Warbler	104	6	44	36	58	9	1
Common Yellowthroat	534	21	76	50	272	198	14
Wilson's Warbler	627	22	75	147	317	156	7
Unidentified warbler	3	2	2		2	1	
Western Tanager	105	9	42	15	51	38	1
Spotted Towhee	2152	80	85	135	375	1048	594
Chipping Sparrow	89	17	17	76	13		
Clay-colored Sparrow	3	1	3			3	
Brewer's Sparrow	3	1	3			3	
Savannah Sparrow	466	58	54	3	39	317	107
Fox Sparrow	550	37	47		9	326	215
Song Sparrow	1308	43	85	149	324	525	310
Lincoln's Sparrow	432	22	51		56	282	94
Swamp Sparrow	6	1	6			3	3
White-throated Sparrow	39	8	12			11	28
Gambel's White-crowned Sparrow	14	6	7			10	4
Puget Sound White-crowned Sparrow	4520	207	84	1105	1981	1245	189
Golden-crowned Sparrow	558	54	42		1	196	361
Oregon Junco	708	135	64	20	64	211	413
Lapland Longspur	6	2	5				6
Snow Bunting	1	1	1				1
Rose-breasted Grosbeak	1	1	1				1
Black-headed Grosbeak	74	5	37	20	51	2	1
Red-winged Blackbird	1278	210	68	86	119	333	740
Western Meadowlark	5	4	2				5
Brewer's Blackbird	53	22	5			8	45
Brown-headed Cowbird	61	21	17	29	31	1	
Purple Finch	1051	55	85	104	194	507	246
House Finch	266	27	52	39	82	72	73
Red Crossbill	195	23	43	52	64	72	7
Pine Siskin	132	39	24	17	37	26	52
American Goldfinch	3395	207	82	759	2040	483	113
Evening Grosbeak	220	18	52	46	50	64	60
Unidentified sparrow	8	8	1			8	
<b>Total</b>	<b>225173</b>			<b>11943</b>	<b>36670</b>	<b>102710</b>	<b>73850</b>

## 16.0 Appendix II: Pedder Bay Daily Estimated Totals

*Table A2. Daily estimated totals per taxa at Pedder Bay during the fall 2025 monitoring period (21 July to 18 October). Number of detections represent bird-days rather than number of individuals (e.g. the same individual may be detected on multiple days); the exception to this being the maximum counts, which always represent the highest day count of individuals per taxon. Months represent total detections.*

<b>Species</b>	<b>Total detections</b>	<b>Maximum count</b>	<b>Days detected</b>	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>
Greater White-fronted Goose	72	70	3			71	1
Snow Goose	493	490	2				493
Cackling Goose	22	20	3			1	21
Canada Goose	337	40	60	74	158	37	68
American Wigeon	2	2	1				2
Northern Shoveler	6	2	3				6
Northern Pintail	57	25	12		2	51	4
Green-winged (American) Teal	26	10	6			11	15
Mallard	89	33	23	3	14	29	43
Hooded Merganser	2	1	2				2
Common Merganser	20	7	6			10	10
Unidentified duck	25	15	4			4	21
California Quail	1488	62	88	322	547	465	154
Red-throated Loon	2	2	1				2
Common Loon	1	1	1				1
Double-crested Cormorant	276	52	33		2	163	111
Great Blue Heron	172	4	88	27	63	49	33
Turkey Vulture	2288	544	87	102	203	927	1056
Osprey	11	1	11		8	1	2
Bald Eagle	127	6	60	29	46	13	39
Northern Harrier	5	1	5	1	1	1	2
Sharp-shinned Hawk	41	5	26	3	3	20	15
Cooper's Hawk	118	7	65	5	34	49	30
Unidentified Accipitrine hawk	1	1	1		1		
Broad-winged Hawk	3	3	1			3	
Red-tailed Hawk	165	13	84	19	57	61	28
Unidentified Buteo	2	2	1				2
American Kestrel	13	1	13	1	6	3	3
Merlin	11	2	10	3	2	2	4
Peregrine Falcon	1	1	1				1
Virginia Rail	1	1	1				1
Sandhill Crane	16	16	1				16
Semipalmated Plover	1	1	1		1		
Killdeer	16	2	14	3	6	6	1
Spotted Sandpiper	9	5	5	1	6	2	
Greater Yellowlegs	14	4	10	2	6	5	1
Unidentified Tringinae	1	1	1		1		
Black Turnstone	2	2	1		2		
Western Sandpiper	39	21	5		6	33	

Least Sandpiper	17	4	11	2	12	3	
Unidentified small sandpiper	24	9	9		8	16	
Short-billed Dowitcher	1	1	1			1	
Long-billed Dowitcher	1	1	1				1
Unidentified dowitcher	2	2	1				2
Wilson's Snipe	3	2	2			1	2
Bonaparte's Gull	436	123	10				436
Short-billed Gull	509	114	20			10	499
Ring-billed Gull	2	1	2				2
California Gull	154	35	35	8	18	50	78
Western Gull	3	1	3			1	2
Glaucous-winged Gull	711	35	87	96	251	195	169
Glaucous-winged x Western Gull hybrid	535	38	66	29	93	252	161
Unidentified gull	880	119	62	43	104	275	458
Rock Pigeon	6	3	3		4	2	
Band-tailed Pigeon	1261	118	72	36	165	707	353
Eurasian Collared-Dove	320	14	73	56	151	93	20
Great Horned Owl	53	3	39	6	22	19	6
Northern Pygmy-Owl	6	1	6	1	1	2	2
Barred Owl	9	1	9		2	5	2
Northern Saw-whet Owl	7	4	3	4		1	2
Common Nighthawk	45	4	29	9	36		
Black Swift	13	8	4		1	12	
Vaux's Swift	341	123	22		33	242	66
Anna's Hummingbird	625	17	90	59	217	224	125
Rufous Hummingbird	77	7	31	41	33	3	
Belted Kingfisher	259	5	90	35	101	82	41
Red-breasted Sapsucker	66	4	47	5	21	27	13
Downy Woodpecker	317	8	89	27	101	128	61
Hairy Woodpecker	147	5	72	11	62	48	26
Northern Flicker (Red-shafted or intergrade)	804	20	90	64	232	303	205
Yellow-shafted Flicker	1	1	1			1	
Red- x Yellow-shafted Flicker intergrade	2	1	2		1	1	
Pileated Woodpecker	109	5	71	14	39	40	16
Olive-sided Flycatcher	116	8	34	52	60	4	
Western Wood-pewee	7	1	7	1	3	3	
Willow Flycatcher	211	18	43	94	104	13	
Hammond's Flycatcher	32	3	22	2	8	20	2
Western Flycatcher	240	10	55	77	128	33	2
Unidentified Empidonax	1	1	1			1	
Northern Shrike	1	1	1				1
Cassin's Vireo	12	3	9		5	7	
Hutton's Vireo	109	4	67	14	50	34	11
Warbling Vireo	89	9	37	19	43	27	
Unidentified vireo	1	1	1	1			
Steller's Jay	430	28	64	2	21	299	108

American Crow	171	22	46	5	78	15	73
Common Raven	960	35	90	80	299	392	189
Horned Lark	2	1	2				2
Purple Martin	1042	43	54	191	762	89	
Tree Swallow	14	5	6		13	1	
Violet-green Swallow	749	63	51	236	393	109	11
Northern Rough-winged Swallow	121	19	30	29	82	10	
Cliff Swallow	7	4	3		3	4	
Barn Swallow	1616	60	63	362	898	356	
Unidentified swallow	10	8	3		9	1	
Chestnut-backed Chickadee	2763	62	90	321	1087	947	408
Bushtit	2150	70	87	267	883	630	370
Red-breasted Nuthatch	938	18	90	79	340	341	178
Brown Creeper	638	16	90	64	236	218	120
Bewick's Wren	992	19	90	121	332	342	197
Northern House Wren	273	13	71	58	153	59	3
Pacific Wren	750	37	78	18	38	281	413
Golden-crowned Kinglet	1794	82	87	48	250	688	808
Ruby-crowned Kinglet	754	69	46		1	191	562
Townsend's Solitaire	1	1	1			1	
Swainson's Thrush	842	34	84	139	351	318	34
Hermit Thrush	513	38	46			228	285
American Robin	2815	107	90	194	285	1319	1017
Varied Thrush	189	11	38	9	1	67	112
European Starling	2233	80	89	231	930	912	160
American Pipit	86	23	17	1		31	54
Cedar Waxwing	2081	89	78	351	820	876	34
Orange-crowned Warbler	223	20	62	20	101	95	7
Nashville Warbler	1	1	1			1	
Yellow Warbler	190	22	49	10	50	123	7
Yellow-rumped Warbler (unknown ssp.)	245	30	50	2	19	136	88
Myrtle Warbler	72	20	15			57	15
Audubon's Warbler	129	24	34	1	6	66	56
Black-throated Gray Warbler	22	4	11		17	5	
Townsend's Warbler	70	7	38	10	17	39	4
Northern Waterthrush	3	2	2		3		
MacGillivray's Warbler	138	8	42	25	101	12	
Common Yellowthroat	257	17	54	2	149	103	3
Wilson's Warbler	393	15	69	67	233	86	7
Unidentified warbler	19	12	3		19		
Western Tanager	315	13	63	47	153	113	2
Spotted Towhee	2148	57	90	164	573	896	515
Chipping Sparrow	87	8	22	57	29	1	
Clay-colored Sparrow	3	1	3		1	2	
Savannah Sparrow	77	10	30		12	41	24
Fox Sparrow	913	37	52		20	474	419
Song Sparrow	1821	49	90	133	409	753	526

Lincoln's Sparrow	405	29	57		45	263	97
Swamp Sparrow	2	2	1				2
White-throated Sparrow	34	4	19			14	20
Gambel's White-crowned Sparrow	14	4	11			12	2
Puget Sound White-crowned Sparrow	2503	110	90	294	1001	1073	135
Golden-crowned Sparrow	1780	160	47			575	1205
Dark-eyed Junco (unknown ssp.)	1	1	1			1	
Slate-colored Junco	1	1	1				1
Oregon Junco	2237	126	86	32	274	875	1056
Cassiar Junco	1	1	1			1	
Lapland Longspur	1	1	1				1
Black-headed Grosbeak	107	6	40	23	76	8	
Red-winged Blackbird	432	34	55	6	157	197	72
Brewer's Blackbird	1113	53	83	142	462	372	137
Brown-headed Cowbird	71	9	27	30	34	7	
Unidentified blackbird	3	3	1				3
Purple Finch	700	29	88	97	139	314	150
House Finch	2077	47	89	312	699	716	350
Red Crossbill	217	22	56	24	99	79	15
Pine Siskin	34	12	12	16		12	6
American Goldfinch	1553	68	85	441	852	207	53
Evening Grosbeak	317	17	71	64	156	58	39
House Sparrow	147	12	53	26	69	36	16
Unidentified sparrow	27	15	2				27
Unidentified passerine	1	1	1		1		
<b>Total</b>	<b>60378</b>			<b>6252</b>	<b>17525</b>	<b>21451</b>	<b>15150</b>