

Integrated Monitoring in Bird Conservation Regions (IMBCR) in Idaho

**2012 Field Season Summary for Transects Funded by the
USFS Region 1 on the Clearwater National Forest, Idaho**



Clearwater National Forest north of Headquarters – *photo by Jacob Cooper*

December 6, 2012

Jay Carlisle and Jessica Pollock

Idaho Bird Observatory at Boise State University, jaycarlisle@boisestate.edu

SUMMARY

Between 12 June and 10 July, 2012, Idaho Bird Observatory staff conducted landbird surveys throughout the Clearwater National Forest as a part of the Integrated Monitoring in Bird Conservation Regions (IMBCR) program coordinated by Rocky Mountain Bird Observatory (RMBO) and partners. We surveyed a total of 104 transects in Idaho in 2012, 65 of which were funded by the US Forest Service Region 1, 24 by the Great Northern Landscape Conservation Cooperative (GNLCC), and 15 by the Bureau of Land Management (BLM). Here we provide an overview of the 17 transects on the Clearwater National Forest funded by the USFS Region 1.

The purpose of this document is to provide collaborating groups with an overview of completed work and birds recorded. None of the data in this report should be considered final or published. During the winter we will work with Rocky Mountain Bird Observatory and other partners to prepare a report based on 2012 data that will include density and occupancy estimates for species throughout the range of the IMBCR program. A detailed, final report containing this information will be made available during March 2013; the 2011 report (White et al. 2012) is available at: http://www.rmbo.org/v3/Portals/0/Documents/Science/Reports/2011_IMBCR_report.pdf.

PROTOCOL and SURVEY EFFORT

Transects are randomly selected and spatially balanced throughout each stratum. Transects on the Clearwater NF were stratified into two categories:

- **CL** – USFS Region 1 lands in the Clearwater National Forest with relatively good road access (i.e., roads within ~2 miles - “frontcountry”)
 - 14 transects
- **CR** – USFS Region 1 “roadless” lands in the Clearwater National Forest, “backcountry”
 - 3 transects

All National Forest land in USFS Region 1 is sub-stratified into front-country and backcountry (roadless) areas and is surveyed on an approximate 4:1 ratio of front-country to backcountry. See Figure 1 for transects surveyed in 2012.

Each transect is a square grid of 16 points separated by 250 meters. Due to terrain, weather and other factors it is often difficult to complete all 16 point during the morning survey window. To be considered a completed transect, we must complete at least 6 point counts on each transect (transects dominated by private land reduce the minimum to 4). Each point count lasts 6 minutes and surveyors record each bird detected, how it was detected, its radial distance from the observer, and the minute of the survey in which it is first detected.

Each transect has a shorthand name for quick reference. For example, ID-BCR10-CL2 is shorthand for Idaho; Bird Conservation Region 10; Clearwater National Forest Frontcountry; priority transect 2. For a detailed protocol please see last year’s report (White et al. 2012).

BIRD DATA

We detected 1,686 individuals of 63 bird species during surveys on Clearwater National Forest transects (Table 1). Swainson’s Thrush, Townsend’s Warbler, Varied Thrush, Yellow-rumped Warbler and Western Tanager/Pine Siskin (both with an equal number of detections) were the six most frequently-detected species across all transects (Table 1). The five most frequent species on the **CL** transects were Townsend’s Warbler, Swainson’s Thrush, Yellow-rumped Warbler, Western Tanager and Varied Thrush (Table 2a). For **CR** transects, the five most frequent species were Dark-eyed Junco, Swainson’s Thrush, Pine Siskin, Varied Thrush and Golden-crowned Kinglet (Table 2b).

REFERENCES

White, C. M., N. J. Van Lanen, D.C. Pavlacky Jr., J. A. Blakesley, R. A. Sparks, J. A. Rehm-Lorber, M. F. McLaren, J. J. Birek and D. J. Hanni. 2012. Integrated Monitoring in Bird Conservation Regions (IMBCR): 2011 Annual Report. Rocky Mountain Bird Observatory. Brighton, Colorado, USA.

ACKNOWLEDGMENTS

We thank the USFS Region 1 and Clearwater National Forest for funding support and we thanks collaborators in Montana (Catherine Wightman, Beth Hahn, and Josh Vest) for their ideas and help. Thanks to Rocky Mountain Bird Observatory for support and advice in implementing IMBCR surveys and to Kristina Smucker and the Avian Science Center for help with pre-season training. We are also very grateful to Audrey Adams, Jacob Cooper, Michael Fuss, and Aaron Spidal for conducting the bird surveys and to Liz Urban for pre-season planning assistance.



Snowshoe Hare near transects CL-4 and CL-8 – *photo by Jacob Cooper*

Figure 1. Survey locations in the USFS Region 1, including the Clearwater NF, as part of the IMBCR program in 2012.

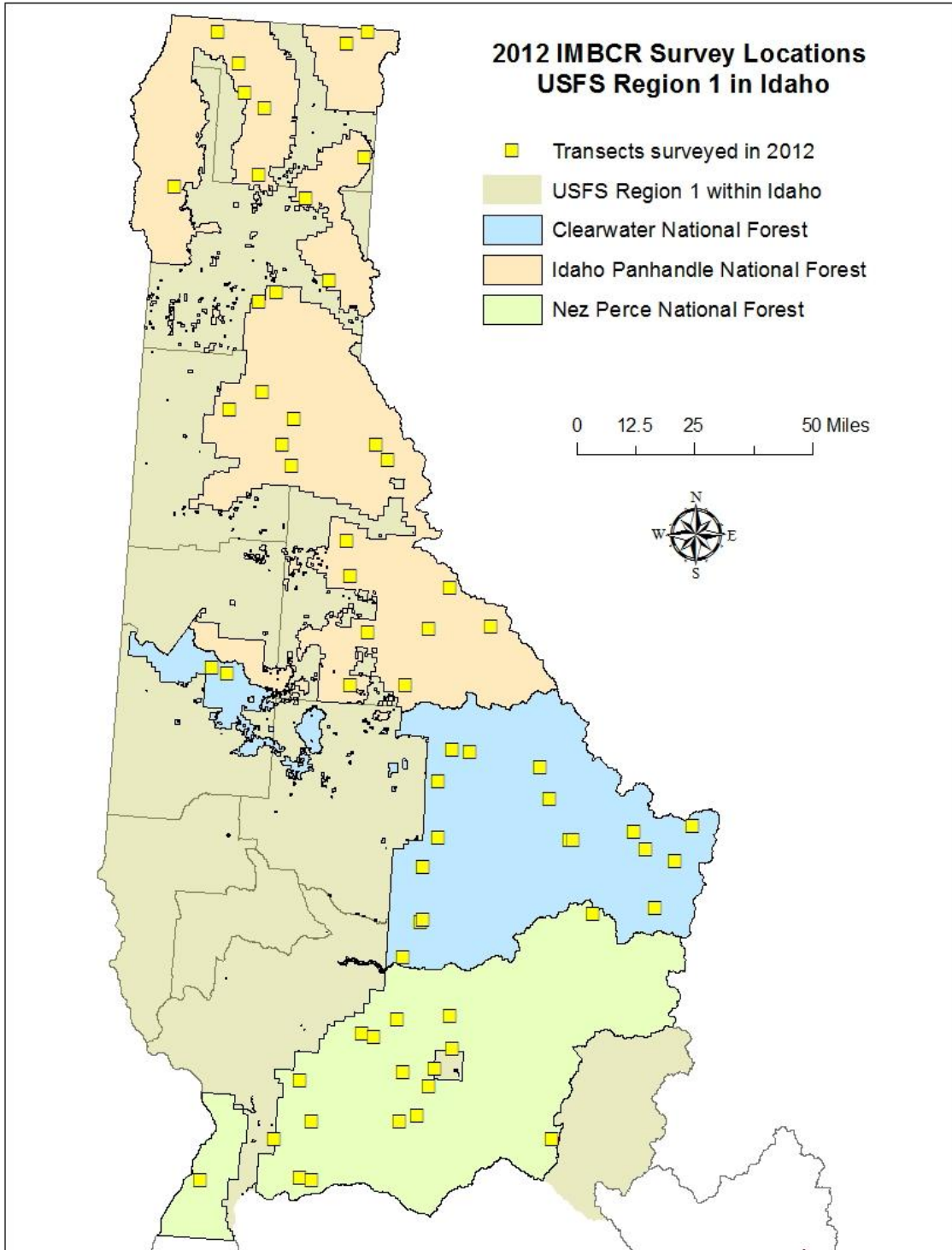


Table 1. Total number of detections for each species detected during point count surveys on the Clearwater NF in Idaho as part of the IMBCR program in 2012.

Species	Number	Species	Number
American Dipper	1	Pine Grosbeak	12
American Redstart	2	Pine Siskin	88
American Robin	22	Red Crossbill	40
American Three-toed Woodpecker	3	Red-breasted Nuthatch	70
Black-headed Grosbeak	10	Red-eyed Vireo	1
Brown Creeper	23	Red-naped Sapsucker	7
Cassin's Finch	8	Red-tailed Hawk	3
Cassin's Vireo	10	Ruby-crowned Kinglet	24
Chestnut-backed Chickadee	38	Ruffed Grouse	4
Chipping Sparrow	12	Rufous Hummingbird	2
Clark's Nutcracker	2	Sharp-shinned Hawk	1
Common Raven	12	Song Sparrow	3
Cooper's Hawk	1	Spotted Sandpiper	3
Dark-eyed Junco	90	Spotted Towhee	4
Dusky Flycatcher	13	Spruce Grouse	1
Fox Sparrow	24	Steller's Jay	8
Golden-crowned Kinglet	78	Swainson's Thrush	203
Gray Jay	14	Townsend's Solitaire	21
Hairy Woodpecker	20	Townsend's Warbler	187
Hammond's Flycatcher	13	Tree Swallow	3
Hermit Thrush	1	Unknown Bird	12
House Wren	9	Unknown Woodpecker	5
Lazuli Bunting	18	Varied Thrush	103
Lincoln's Sparrow	13	Warbling Vireo	42
MacGillivray's Warbler	52	Western Flycatcher	4
Mountain Chickadee	29	Western Tanager	88
Nashville Warbler	1	Western Wood-Pewee	6
Northern Flicker	19	White-crowned Sparrow	2
Northern Pygmy-Owl	1	Willow Flycatcher	2
Olive-sided Flycatcher	8	Wilson's Warbler	7
Orange-crowned Warbler	1	Yellow Warbler	5
Pacific Wren	61	Yellow-rumped Warbler	102
Pileated Woodpecker	14	Grand Total	1,686

Table 2a. Number of detections per point, and total per transect, for each of the CL transects in 2012.

Species	Average Detections/Point by Species (per transect)														Total # detections per species - all CL transects	Average species detection - all CL points
	CL1	CL2	CL3	CL4	CL5	CL6	CL7	CL8	CL9	CL10	CL11	CL12	CL13	CL14		
<i># of points</i>	12	7	6	6	10	12	11	9	9	9	8	7	4	11	Total: 121	Avg: 8.64
American Dipper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1	0.01
American Redstart	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	2	0.02
American Robin	0.17	0.14	0.00	0.00	0.10	0.00	0.00	0.11	0.11	0.33	0.00	0.00	0.25	0.00	10	0.08
American Three-toed Woodpecker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	1	0.01
Black-headed Grosbeak	0.00	0.14	0.00	0.00	0.10	0.00	0.45	0.22	0.00	0.00	0.00	0.14	0.00	0.00	10	0.08
Brown Creeper	0.50	0.43	0.33	0.17	0.10	0.25	0.00	0.11	0.11	0.00	0.25	0.00	0.00	0.00	20	0.17
Cassin's Finch	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.14	0.00	0.00	2	0.02
Cassin's Vireo	0.00	0.14	0.00	0.50	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.43	0.00	0.00	10	0.08
Chestnut-backed Chickadee	0.00	1.00	0.17	0.33	1.20	0.00	0.45	0.33	0.44	0.00	0.13	0.29	0.00	0.09	38	0.31
Chipping Sparrow	0.08	0.00	0.00	0.00	0.10	0.00	0.09	0.11	0.00	0.33	0.00	0.00	0.00	0.00	7	0.06
Clark's Nutcracker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	2	0.02
Common Raven	0.00	0.00	0.00	0.17	0.10	0.00	0.09	0.11	0.00	0.00	0.13	0.86	0.00	0.09	12	0.10
Cooper's Hawk	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.01
Dark-eyed Junco	0.00	0.43	0.33	0.33	0.00	0.33	0.00	0.78	0.56	1.56	1.13	1.57	0.00	0.18	59	0.49
Dusky Flycatcher	0.25	0.00	0.00	0.17	0.20	0.08	0.09	0.00	0.00	0.00	0.00	0.29	0.25	0.00	11	0.09
Fox Sparrow	0.08	0.29	0.17	0.17	0.10	0.00	0.36	0.44	0.00	0.00	0.50	0.00	0.00	0.18	20	0.17
Golden-crowned Kinglet	1.00	0.43	0.67	1.33	0.50	1.08	0.27	0.22	0.11	0.00	0.50	0.14	0.00	0.45	61	0.50
Gray Jay	0.00	0.00	0.67	0.00	0.00	0.00	0.18	0.00	0.00	0.11	0.00	0.00	0.00	0.09	8	0.07
Hairy Woodpecker	0.00	0.14	0.00	0.00	0.10	0.00	0.27	0.00	0.22	0.00	0.38	0.00	0.00	0.09	11	0.09

Species	Average Detections/Point by Species (per transect)														Total # detections per species - all CL transects	Average species detection - all CL points
	CL1	CL2	CL3	CL4	CL5	CL6	CL7	CL8	CL9	CL10	CL11	CL12	CL13	CL14		
Hammond's Flycatcher	0.50	0.00	0.00	0.17	0.10	0.00	0.00	0.00	0.00	0.00	0.13	0.14	0.00	0.00	10	0.08
Hermit Thrush	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	1	0.01
House Wren	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.01
Lazuli Bunting	0.08	0.00	0.00	0.00	0.00	0.17	0.09	0.00	0.00	0.00	0.00	1.00	0.25	0.36	16	0.13
Lincoln's Sparrow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1	0.01
MacGillivray's Warbler	0.33	0.43	0.50	0.33	0.40	0.25	1.00	1.00	0.00	0.00	0.75	0.43	0.00	0.09	49	0.40
Mountain Chickadee	0.25	0.00	0.17	0.00	0.10	0.25	0.18	0.11	0.00	0.22	0.88	0.00	0.00	0.09	21	0.17
Nashville Warbler	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.01
Northern Flicker	0.00	0.14	0.00	0.17	0.10	0.08	0.18	0.11	0.22	0.11	0.00	0.14	0.00	0.18	13	0.11
Northern Pygmy-Owl	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1	0.01
Olive-sided Flycatcher	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	2	0.02
Orange-crowned Warbler	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.01
Pacific Wren	0.58	0.57	0.83	0.50	1.00	0.58	0.18	0.22	0.22	0.00	0.38	0.29	0.50	0.18	51	0.42
Pileated Woodpecker	0.00	0.14	0.00	0.17	0.20	0.08	0.09	0.00	0.22	0.00	0.00	0.14	0.00	0.09	10	0.08
Pine Grosbeak	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.22	0.00	0.11	0.38	0.00	0.00	0.00	7	0.06
Pine Siskin	0.17	0.29	0.33	1.17	0.20	0.08	0.36	0.22	0.33	3.11	0.88	0.00	0.00	0.09	61	0.50
Red Crossbill	0.00	0.00	0.00	0.67	0.00	0.92	0.00	0.00	0.33	2.00	0.50	0.00	0.00	0.00	40	0.33
Red-breasted Nuthatch	0.08	0.29	0.00	0.17	0.50	0.33	0.45	0.89	1.33	1.11	0.63	0.86	0.00	0.18	61	0.50
Red-eyed Vireo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1	0.01
Red-naped Sapsucker	0.00	0.00	0.00	0.00	0.20	0.00	0.09	0.33	0.00	0.00	0.00	0.14	0.00	0.00	7	0.06
Red-tailed Hawk	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.29	0.00	0.00	3	0.02

Species	Average Detections/Point by Species (per transect)														Total # detections per species - all CL transects	Average species detection - all CL points
	CL1	CL2	CL3	CL4	CL5	CL6	CL7	CL8	CL9	CL10	CL11	CL12	CL13	CL14		
Ruby-crowned Kinglet	0.00	0.00	0.00	0.33	0.00	0.00	0.45	0.22	0.00	0.89	0.00	0.00	0.00	0.00	17	0.14
Ruffed Grouse	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	4	0.03
Rufous Hummingbird	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.25	0.00	2	0.02
Sharp-shinned Hawk	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	1	0.01
Song Sparrow	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	3	0.02
Spotted Sandpiper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	2	0.02
Spotted Towhee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.00	4	0.03
Spruce Grouse	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.01
Steller's Jay	0.00	0.14	0.33	0.00	0.00	0.00	0.09	0.00	0.00	0.11	0.13	0.00	0.00	0.09	7	0.06
Swainson's Thrush	3.17	1.71	1.83	1.67	1.10	1.92	1.27	1.22	0.33	0.11	1.00	0.86	0.75	2.00	173	1.43
Townsend's Solitaire	0.08	0.14	0.00	0.17	0.30	0.00	0.09	0.33	0.00	0.56	0.13	0.29	0.00	0.00	18	0.15
Townsend's Warbler	0.58	2.14	0.83	2.33	1.30	1.67	1.82	1.33	1.78	0.00	2.13	2.00	0.00	2.18	177	1.46
Tree Swallow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	1	0.01
Unknown Bird	0.00	0.00	0.00	0.00	0.10	0.25	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.27	9	0.07
Unknown Woodpecker	0.00	0.00	0.00	0.00	0.10	0.17	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	4	0.03
Varied Thrush	0.33	1.00	0.83	1.00	0.90	0.83	0.55	0.44	1.44	0.44	0.38	0.43	0.00	0.36	78	0.64
Warbling Vireo	0.08	1.29	0.00	0.17	0.30	0.25	0.91	0.56	0.00	0.00	0.75	0.57	0.00	0.00	42	0.35
Western Flycatcher	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.11	0.00	0.00	0.00	0.50	0.00	4	0.03
Western Tanager	0.83	0.43	0.50	0.17	0.90	0.58	0.55	1.11	1.11	0.22	1.00	0.43	0.25	0.55	79	0.65
White-crowned Sparrow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	2	0.02
Wilson's Warbler	0.42	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6	0.05
Yellow Warbler	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.25	0.00	5	0.04
Yellow-rumped Warbler	0.67	0.29	0.00	1.67	1.10	0.33	0.82	2.00	1.00	0.11	0.25	1.29	0.00	0.18	85	0.70

Species	Average Detections/Point by Species (per transect)														Total # detections per species - all CL transects	Average species detection - all CL points
	CL1	CL2	CL3	CL4	CL5	CL6	CL7	CL8	CL9	CL10	CL11	CL12	CL13	CL14		
Total birds per transect	124	86	52	85	116	129	129	121	93	109	109	104	21	90	1,368	
Average birds per point	10.33	12.29	8.67	14.17	11.60	10.75	11.73	13.44	10.33	12.11	13.63	14.86	5.25	8.18		11.31

Table 2b. Number of detections per point, and total per transect, for each of the CR transects in 2012.

Species	Average Detections/Point by Species (per transect)			Total # detections per species - all transects	Average species detection - all CR points
	CR1	CR2	CR3		
<i># of points</i>	<i>11</i>	<i>13</i>	<i>10</i>	<i>Total: 34</i>	<i>Avg: 11.33</i>
American Robin	0.82	0.23	0.00	12	0.35
American Three-toed Woodpecker	0.18	0.00	0.00	2	0.06
Brown Creeper	0.09	0.08	0.10	3	0.09
Cassin's Finch	0.00	0.00	0.60	6	0.18
Chipping Sparrow	0.00	0.23	0.20	5	0.15
Dark-eyed Junco	2.09	0.38	0.30	31	0.91
Dusky Flycatcher	0.18	0.00	0.00	2	0.06
Fox Sparrow	0.36	0.00	0.00	4	0.12
Golden-crowned Kinglet	0.00	0.77	0.70	17	0.50
Gray Jay	0.00	0.31	0.20	6	0.18
Hairy Woodpecker	0.55	0.23	0.00	9	0.26
Hammond's Flycatcher	0.18	0.00	0.10	3	0.09
House Wren	0.73	0.00	0.00	8	0.24
Lazuli Bunting	0.00	0.00	0.20	2	0.06
Lincoln's Sparrow	1.00	0.08	0.00	12	0.35
MacGillivray's Warbler	0.00	0.23	0.00	3	0.09
Mountain Chickadee	0.09	0.23	0.40	8	0.24
Northern Flicker	0.36	0.15	0.00	6	0.18
Olive-sided Flycatcher	0.55	0.00	0.00	6	0.18
Pacific Wren	0.00	0.62	0.20	10	0.29
Pileated Woodpecker	0.00	0.31	0.00	4	0.12
Pine Grosbeak	0.00	0.00	0.50	5	0.15
Pine Siskin	0.27	0.00	2.40	27	0.79
Red-breasted Nuthatch	0.18	0.23	0.40	9	0.26
Ruby-crowned Kinglet	0.27	0.00	0.40	7	0.21
Spotted Sandpiper	0.09	0.00	0.00	1	0.03
Steller's Jay	0.00	0.00	0.10	1	0.03
Swainson's Thrush	0.36	1.85	0.20	30	0.88
Townsend's Solitaire	0.00	0.15	0.10	3	0.09
Townsend's Warbler	0.00	0.77	0.00	10	0.29
Tree Swallow	0.18	0.00	0.00	2	0.06
Unknown Bird	0.00	0.08	0.20	3	0.09
Unknown Woodpecker	0.00	0.08	0.00	1	0.03

Species	Average Detections/Point by Species (per transect)			Total # detections per species - all transects	Average species detection - all CR points
	CR1	CR2	CR3		
Varied Thrush	0.00	1.31	0.80	25	0.74
Western Tanager	0.55	0.15	0.10	9	0.26
Western Wood-Pewee	0.55	0.00	0.00	6	0.18
Willow Flycatcher	0.18	0.00	0.00	2	0.06
Wilson's Warbler	0.00	0.08	0.00	1	0.03
Yellow-rumped Warbler	1.37	0.08	0.10	17	0.50
Total birds per transect	123	112	83	318	
Average birds per point	11.18	8.62	8.30		9.35