

Engaging Visitors in Bird Ecology at Crater Lake National Park: 2017 Summary Report

Robert I. Frey and Jaime L. Stephens
Klamath Bird Observatory
Rep. No. KBO-2017-0014
December 21, 2017

Background

In 2017 Klamath Bird Observatory (KBO) and Crater Lake National Park (CRLA) initiated a new collaborative project to engage park visitors in bird ecology. The objectives of this five-year project are to improve educational opportunities, public awareness, and knowledge about bird populations within the Klamath-Siskiyou Bioregion, and specifically at CRLA, through surveys and public outreach.

In particular, this project includes establishment of a new bird survey station within CRLA and continued operation of an existing bird survey station adjacent to CRLA, and incorporates a bird conservation interpretive program during bird banding operations for park visitors. The two stations are operated by KBO staff and student volunteer interns and integrate multiple survey methods following an established National Park Service protocol (Stephens et al. 2010). Park Rangers led interpretive programs focused on birds and bird ecology with hikes planned to culminate at the survey stations where the visiting public can see birds up close and learn about banding, scientific methods, and bird conservation.

This report summarizes KBO's survey operations and contributions to outreach efforts at the new CRLA constant effort banding station located in Munson Valley and the Sevenmile Guard Station (hereafter, Sevenmile) within Fremont-Winema National Forest.

Constant Effort Banding Station Operations

The meadow complex within Munson Valley was selected by KBO and CRLA staff for the new bird survey station because the location has both 1. Appropriate habitat and habitat-edge for concentrated bird species diversity and abundance and 2. Ease of access for park visitor groups near the Steel Park Headquarters along Munson Valley Road. The banding stations at Munson Valley and Sevenmile have 11 and 12 mist-nets respectively (Table 2). Both stations were scheduled for operation once each 10-day period (from period 1 beginning May 1) through August and once each week September through mid-October.

An unusual and persistent snow-cover delayed establishment of the Munson Valley survey station until the first week of July with the inaugural banding operation conducted July 12. Operations were conducted a total of 11 times during the remainder of July through October 10. Nearby wildfires created smoky air conditions within the Park from late-July through early-September; although, hazardous air quality conditions were not detected at the banding station and no scheduled operations were missed during this period. An additional operation was completed September 1 per the Park Ranger's request. A scheduled operation for the third week of September was cancelled due to snow. Operations at the Sevenmile station were conducted 12 times beginning May 22 through October 9. This station was within a wildfire-related area closure established by Fremont-Winema National Forest which caused the cancellation of five scheduled operations between the last week of August and last week of September.

During banding operations at Munson Valley 39 species were encountered and/or captured. A total of 131 birds of 25 species were captured (Table 3). During banding operations at Sevenmile 74 bird species were encountered and/or captured. A total of 617 birds of 44 species were captured (Table 4). A species checklist and Incidental Observations count were completed during each banding operation. The species checklist documented every bird species encountered during the operation period by breeding status (based on observed behavior) including those observed and captured. The Incidental Observations count was established by KBO in 2017 in a banding programmatic transition, replacing point count and area search surveys. The Incidental Observations documents total number of individuals observed for each species (not including captures) during the banding operation period. These data are included in this report as relative abundance within the station as a whole (Tables 3 and 4). These data are also contributed to eBird, the international bird checklist network (www.ebird.org). This method documents information similar to point count and area search surveys but with a procedure more practical for field workers concurrently managing a mist netting operation.

Several species captured and/or otherwise observed at the Munson Valley and Sevenmile stations in 2017 have elevated conservation status. These include designations by the U.S. Fish and Wildlife Service (U.S. Fish and Wildlife Service 2008), 2014 State of the Birds (North American Bird Conservation Initiative, U.S. Committee 2014), Partners in Flight 2016 Continental Plan (Rosenberg et al. 2016), and Oregon-Washington Partners in Flight Habitat Conservation for Landbirds in Coniferous Forests (Altman and Alexander 2012) and Conservation Strategy for Landbirds of the East-Slope of the Cascade Mountains (Altman 2000) (Tables 3 and 4).

Outreach

KBO provided an extensive collection of bird banding interpretation materials to CRLA in January 2017. The collection included banding and bird conservation interpretation guides and tutorials, bird biology and species identification flash cards, a banding interpretation kit inventory checklist, and links to web-based bird conservation and banding interpretation resources (KBO K-12 Curriculum Library and KBO Bird Conservation Educator Kits). The materials included Crater Lake and Klamath Basin specific items and general bird conservation topic items (Table 1). A KBO Banding Interpretation Kit was loaned to CRLA for use in 2017.

Training in banding technique, including bird handling, and banding as a bird conservation awareness tool was provided by KBO staff and interns for the Park Ranger and another CRLA staff person over five mornings during operations. As much as reasonably possible, the banding station efforts were scheduled for Tuesdays to facilitate CRLA park visitor program advertising with a consistent day of week. Upcoming dates were communicated to pertinent CRLA staff several weeks in advance. A total of seven visitors were brought to banding operations at the Munson Valley station by the Park Ranger. The Sevenmile station received no park visitors in 2017.

Acknowledgements

The collaborative accomplishments described in this report were made possible by Sean Mohren, Marsha McCabe, Nico Ramirez, and other supportive staff of Crater Lake National Park. Many thanks are due for the considerable efforts of KBO staff and interns: Eric Cannizzaro, Luiza Figueira Rodrigues, Gemma Green, Aranya Iyer, Martin Lopez Aguilar, Pedro Martins, Claire Nemes, and Nathan Trimble. We

are grateful to John Alexander for both the early establishment and continued guidance of KBO's bird banding program.

Literature Cited

- Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]
- Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]
- Frey, R. I. and J. L. Stephens. 2017. Klamath Bird Observatory's 2017 long-term constant effort monitoring station and bird banding efforts in the Klamath-Siskiyou Bioregion, Rep. No. KBO-2017-0012. Klamath Bird Observatory. Ashland, Oregon.
- North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]
- Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]
- Stephens, J. L., S. R. Mohren, J. D. Alexander, D. A. Sarr, and K. M. Irvine. 2010. Klamath Network landbird monitoring protocol. Natural Resource Report NPS/KLMN/NRR – 2010/187. National Park Service, Fort Collins, Colorado.
- U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 1. List of bird banding interpretive items provided to Crater Lake National Park 2017.

Common Birds of Crater Lake Field Guide (pdf)
Common Birds of Crater Lake (ppt)
Crater Lake Birds Flash Cards (pdf and original Publisher file for editing)
Crater Lake Habitats (pdf)
Klamath Basin Birding Trail Common Birds Crater Lake (ppt)
Klamath Basin Birding Trail Crater Lake Winter Adaptations teachersheets (pdf)
Klamath Basin Birding Trail Crater Lake Inventory and Monitoring teachersheet (pdf)
Crater Lake-Birding by Ear CD contents (.wma files and CD label)
Klamath Bird Observatory Guidelines for Banding Interpretation (pdf)
Mist Netting With the Public (pdf)

KBO Banding Interp Kit Inventory (pdf)

KBO Banding Interp Kit Info Sheets:

- KBO Banding Interp Brood Patches (pdf)
- KBO Banding Interp CES Map 2011 (pdf)
- KBO Banding Interp Cloacal Protuberance (pdf)
- KBO Banding Interp Extraction from Net (pdf)
- KBO Banding Interp Fat Deposits (pdf)
- KBO Banding Interp Skull Ossification (pdf)

General Bird Conservation, Outreach, and Education PowerPoint Presentations:

- KBO bird conservation and identification for high school audience (ppt)
- BCA Education Outreach Bird Conservation (ppt)
- Bird Adaptations K-12 (ppt)
- REEL Process and Tools for Evaluating (ppt)
- Common Birds of Rogue Valley K-12 (ppt)
- Hawks and People (ppt)
- Klamath Basin Birding Trail Common Birds (ppt)
- OAC Talk: Education and Collaboration (ppt)
- Using Birds for Conservation K-12 (ppt)
- Using Birds as Focal Species for Conservation (ppt)

Link to KBO Curriculum Library (online-only resource)

Link to KBO Education Kits (online-only resource)

Table 2. Location (UTM coordinates NAD 83, Zone 10) of Munson Valley, Crater Lake National Park and Sevenmile Guard Station, Fremont-Winema National Forest constant effort mist netting stations' central point and net locations.

Munson Valley

	Easting	Northing
Central point	570384	4749077
Net #1	570351	4749072
Net #2	570351	4749141
Net #3	570335	4749189
Net #4	570406	4749230
Net #5	570424	4749212
Net #6	570428	4749165
Net #7	570404	4749121
Net #8	570401	4749104
Net #9	570403	4749070
Net #10	570379	4749036
Net #11	570380	4748972

Sevenmile Guard Station

	Easting	Northing
Central point	575785	4728482
Net #1	575785	4728482
Net #2	575790	4728502
Net #3	575796	4728529
Net #4	575766	4728535
Net #5	575763	4728545
Net #6	575733	4728648
Net #7	575713	4728715
Net #8	575717	4728759
Net #9	575690	4728585
Net #10	575726	4728569
Net #11	575732	4728500
Net #12	575699	4728757

Table 3. Results from the constant effort monitoring station at Munson Valley, Crater Lake National Park in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (July12 to August 23) and migration (September 1 to October 10), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Relative Abundance (breeding)	Relative Abundance (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
American Crow	<i>Corvus brachyrhynchos</i>	-	-	0.200	0	-	-	-	-	-
American Robin	<i>Turdus migratorius</i>	2	-	3.600	0.667	-	-	-	-	-
Allen's Hummingbird	<i>Selasphorus sasin</i>	5	-	0	0	X	-	X	-	-
Brown Creeper	<i>Certhia americana</i>	-	7	0.400	0.167	-	-	-	X	X
Belted Kingfisher	<i>Megaceryle alcyon</i>	-	-	0.400	0.000	-	-	-	-	-
Cassin's Finch	<i>Haemorhous cassinii</i>	-	-	0	0.167	-	-	X	-	-
Clark's Nutcracker	<i>Nucifraga columbiana</i>	-	-	0.600	0.500	-	-	-	-	X
Common Raven	<i>Corvus corax</i>	-	-	3.000	0.500	-	-	-	-	-
Dark-eyed Junco	<i>Junco hyemalis</i>	24	9	5.800	8.833	-	-	-	-	-
Downy Woodpecker	<i>Picoides pubescens</i>	-	-	0	0.167	-	-	-	-	-
Fox Sparrow	<i>Passerella iliaca</i>	-	2	0	1.667	-	-	-	X	-
Golden-crowned Kinglet	<i>Regulus satrapa</i>	1	2	4.800	0.500	-	-	-	-	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 3. Results from the constant effort monitoring station at Munson Valley, Crater Lake National Park in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (July12 to August 23) and migration (September 1 to October 10), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Relative Abundance (breeding)	Relative Abundance (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	-	9	8.000	2.667	-	-	-	-	-
Gray Jay	<i>Perisoreus canadensis</i>	-	1	3.200	3.167	-	-	-	-	-
Hairy Woodpecker	<i>Leuconotopicus villosus</i>	-	-	0.200	0.333	-	-	-	-	-
Hermit Thrush	<i>Catharus guttatus</i>	-	6	0	0.500	-	-	-	-	X
Hermit Warbler	<i>Setophaga occidentalis</i>	1	2	1.000	0	-	-	-	X	-
House Wren	<i>Troglodytes aedon</i>	-	-	0.600	0	-	-	-	-	-
Lesser Goldfinch	<i>Spinus psaltria</i>	-	-	0.200	0	-	-	-	-	-
Lincoln's Sparrow	<i>Melospiza lincolni</i>	9	9	2.000	0.333	-	-	-	X	-
MacGillivray's Warbler	<i>Geothlypis tolmiei</i>	-	1	0	0	-	-	-	-	-
Mountain Chickadee	<i>Poecile gambeli</i>	1	-	3.200	2.833	-	-	-	-	-
Northern Flicker	<i>Colaptes auratus</i>	-	2	5.000	0.667	X	-	-	X	-
Pacific Wren	<i>Troglodytes pacificus</i>	-	-	0.400	1.000	-	-	-	X	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 3. Results from the constant effort monitoring station at Munson Valley, Crater Lake National Park in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (July12 to August 23) and migration (September 1 to October 10), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Relative Abundance (breeding)	Relative Abundance (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Pine Siskin	<i>Spinus pinus</i>	4	9	5.200	6.333	-	X	-	-	-
Red Crossbill	<i>Loxia curvirostra</i>	-	-	3.600	1.667	X	-	-	-	-
Red-breasted Nuthatch	<i>Sitta canadensis</i>	1	3	2.200	4.167	-	-	-	-	-
Red-tailed Hawk	<i>Buteo jamaicensis</i>	-	-	0	0.500	-	-	-	-	-
Ruby-crowned Kinglet	<i>Regulus calendula</i>	-	-	0	0.333	-	-	-	-	-
Rufous Hummingbird	<i>Selasphorus rufus</i>	2	-	0.200	0	X	-	X	X	-
Savannah Sparrow	<i>Passerculus sandwichensis</i>	-	1	0	0	-	-	-	-	-
Spotted Sandpiper	<i>Actitis macularius</i>	1	-	0.800	0	-	-	-	-	-
Steller's Jay	<i>Cyanocitta stelleri</i>	1	-	2.200	0.500	-	-	-	-	-
Turkey Vulture	<i>Cathartes aura</i>	-	-	0.600	0.167	-	-	-	-	-
Unidentified <i>Selasphorus</i> hummingbird spp.	<i>Selasphorus</i> spp.	-	1	0.200	0	-	-	-	-	-
Varied Thrush	<i>Ixoreus naevius</i>	-	2	0	0.333	-	X	-	X	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 3. Results from the constant effort monitoring station at Munson Valley, Crater Lake National Park in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (July12 to August 23) and migration (September 1 to October 10), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Relative Abundance (breeding)	Relative Abundance (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Western Tanager	<i>Piranga ludoviciana</i>	-	-	0.400	0	-	-	-	X	-
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	-	3	0.600	0.833	-	-	-	-	-
Wilson's Warbler	<i>Cardellina pusilla</i>	-	1	0	0	-	X	-	X	-
Yellow-rumped Warbler	<i>Setophaga coronata</i>	8	1	1.000	1.167	-	-	-	-	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 4. Results from the constant effort monitoring station at Sevenmile Guard Station, Fremont-Winema National Forest in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (May 22 to August 18) and migration (October 3 to October 9), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Rel. Abund. (breeding)	Rel. Abund. (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
American Crow	<i>Corvus brachyrhynchos</i>	-	-	0.200	1.000	-	-	-	-	-
American Goldfinch	<i>Spinus tristis</i>	3	-	0.100	0	-	-	-	-	-
American Robin	<i>Turdus migratorius</i>	9	-	1.200	1.500	-	-	-	-	-
Bald Eagle	<i>Haliaeetus leucocephalus</i>	-	-	0.100	0	X	-	-	-	-
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	-	-	0.200	0	-	-	X	-	-
Belted Kingfisher	<i>Megasceryle alcyon</i>	-	-	0.600	1.000	-	-	-	-	-
Black-billed Magpie	<i>Pica hudsonia</i>	-	-	0	0.500	-	-	-	-	-
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	11	-	0.300	0	-	-	-	-	-
Brewer's Sparrow	<i>Spizella breweri</i>	2	-	0	0	X	-	-	-	-
Brown Creeper	<i>Certhia americana</i>	1	-	0.200	0.500	-	-	-	X	X
Brown-headed Cowbird	<i>Molothrus ater</i>	1	-	0.300	0	-	-	-	-	-
Bufflehead	<i>Bucephala albeola</i>	-	-	0.100	0	-	-	-	-	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 4 (continued). Results from the constant effort monitoring station at Sevenmile Guard Station, Fremont-Winema National Forest in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (May 22 to August 18) and migration (October 3 to October 9), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Rel. Abund. (breeding)	Rel. Abund. (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Bullock's Oriole	<i>Icterus bullockii</i>	-	-	0.100	0	-	-	-	-	-
California Quail	<i>Callipepla californica</i>	-	-	0.100	0	-	-	-	-	-
Canada Goose	<i>Branta canadensis</i>	-	-	0.200	1.500	-	-	-	-	-
Cassin's Finch	<i>Haemorhous cassinii</i>	3	-	0	0	-	-	X	-	-
Cassin's Vireo	<i>Vireo cassinii</i>	-	-	0.200	0	-	-	-	-	-
Cedar Waxwing	<i>Bombycilla cedrorum</i>	3	-	1.700	0	-	-	-	-	-
Chestnut-backed Chickadee	<i>Poecile rufescens</i>	4	5	0.300	1.000	-	-	-	-	-
Clark's Nutcracker	<i>Nucifraga columbiana</i>	-	-	0	3.000	-	-	-	-	X
Common Merganser	<i>Mergus merganser</i>	-	-	0.300	0	-	-	-	-	-
Common Nighthawk	<i>Chordeiles minor</i>	-	-	0.300	0	-	X	-	-	-
Common Raven	<i>Corvus corax</i>	-	-	1.000	0	-	-	-	-	-
Dark-eyed Junco	<i>Junco hyemalis</i>	102	3	4.200	3.000	-	-	-	-	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 4 (continued). Results from the constant effort monitoring station at Sevenmile Guard Station, Fremont-Winema National Forest in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (May 22 to August 18) and migration (October 3 to October 9), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Rel. Abund. (breeding)	Rel. Abund. (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Downy Woodpecker	<i>Picoides pubescens</i>	2	-	0	0	-	-	-	-	-
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	2	-	1.900	18.000	-	-	X	-	-
Fox Sparrow	<i>Passerella iliaca</i>	-	8	0	0	-	-	-	X	-
Golden-crowned Kinglet	<i>Regulus satrapa</i>	1	-	0.400	0	-	-	-	-	-
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	-	20	0	10.500	-	-	-	-	-
Hairy Woodpecker	<i>Leuconotopicus villosus</i>	-	-	0.300	0	-	-	-	-	-
Hammond's Flycatcher	<i>Empidonax hammondi</i>	7	1	0	0	-	-	-	X	-
Hermit Thrush	<i>Catharus guttatus</i>	2	6	0.300	0	-	-	-	X	X
Hermit Warbler	<i>Setophaga occidentalis</i>	14	-	0	0	-	-	-	X	-
House Wren	<i>Troglodytes aedon</i>	12	-	1.700	0	-	-	-	-	-
Lazuli Bunting	<i>Passerina amoena</i>	6	-	0.400	0	-	-	-	X	-
Lincoln's Sparrow	<i>Melospiza lincolni</i>	2	2	0	0.500	-	-	-	X	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 4 (continued). Results from the constant effort monitoring station at Sevenmile Guard Station, Fremont-Winema National Forest in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (May 22 to August 18) and migration (October 3 to October 9), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Rel. Abund. (breeding)	Rel. Abund. (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
MacGillivray's Warbler	<i>Geothlypis tolmiei</i>	59	-	0.900	0	-	-	-	-	-
Mallard	<i>Anas platyrhynchos</i>	-	-	0.200	0	-	-	-	-	-
Mountain Chickadee	<i>Poecile gambeli</i>	-	2	0.800	0	-	-	-	-	-
Nashville Warbler	<i>Oreothlypis ruficapilla</i>	76	-	0.600	0	-	-	-	X	X
Northern Flicker	<i>Colaptes auratus</i>	-	-	0.800	0.500	X	-	-	X	-
Northern Pygmy-Owl	<i>Glaucidium gnoma</i>	-	-	0	0.500	-	-	-	-	-
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	-	-	0.600	0	-	-	-	-	-
Orange-crowned Warbler	<i>Oreothlypis celata</i>	82	-	0	0	-	-	-	X	-
Pileated Woodpecker	<i>Dryocopus pileatus</i>	-	-	0.500	0.500	X	-	-	X	-
Pine Siskin	<i>Spinus pinus</i>	2	-	0	3.500	-	X	-	-	-
Purple Finch	<i>Haemorhous purpureus</i>	3	-	0	0	X	-	-	X	-
Red Crossbill	<i>Loxia curvirostra</i>	-	-	2.000	4.500	X	-	-	-	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 4 (continued). Results from the constant effort monitoring station at Sevenmile Guard Station, Fremont-Winema National Forest in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (May 22 to August 18) and migration (October 3 to October 9), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Rel. Abund. (breeding)	Rel. Abund. (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Red-breasted Nuthatch	<i>Sitta canadensis</i>	7	1	1.400	1.500	-	-	-	-	-
Red-breasted Sapsucker	<i>Sphyrapicus ruber</i>	11	-	0.600	0	-	-	-	-	-
Red-tailed Hawk	<i>Buteo jamaicensis</i>	-	-	0.300	0	-	-	-	-	-
Ruby-crowned Kinglet	<i>Regulus calendula</i>	-	9	0.200	5.000	-	-	-	-	-
Ruffed Grouse	<i>Bonasa umbellus</i>	-	-	0.100	0.500	-	-	-	-	-
Rufous Hummingbird	<i>Selasphorus rufus</i>	5	-	0	0	X	-	X	X	-
Sandhill Crane	<i>Grus canadensis</i>	-	-	0.500	0	-	-	-	-	X
Steller's Jay	<i>Cyanocitta stelleri</i>	-	-	1.100	1.500	-	-	-	-	-
Song Sparrow	<i>Melospiza melodia</i>	42	2	1.600	1.000	X	-	-	-	-
Spotted Towhee	<i>Pipilo maculatus</i>	-	2	0	1.000	X	-	-	-	-
Swainson's Thrush	<i>Catharus ustulatus</i>	2	-	0.300	0	-	-	-	-	-
Townsend's Solitaire	<i>Myadestes townsendi</i>	-	-	0.100	0	-	-	-	-	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 4 (continued). Results from the constant effort monitoring station at Sevenmile Guard Station, Fremont-Winema National Forest in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (May 22 to August 18) and migration (October 3 to October 9), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Rel. Abund. (breeding)	Rel. Abund. (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Tree Swallow	<i>Tachycineta bicolor</i>	-	-	0.100	0	-	-	-	-	-
Turkey Vulture	<i>Cathartes aura</i>	-	-	0.100	0	-	-	-	-	-
Unidentified Selasphorus hummingbird spp.	<i>Selasphorus spp.</i>	-	-	0.300	0	-	-	-	-	-
Varied Thrush	<i>Ixoreus naevius</i>	-	1	0	1.000	-	X	-	X	-
Warbling Vireo	<i>Vireo gilvus</i>	7	-	0.100	0	-	-	-	-	-
Western Flycatcher	<i>Empidonax difficilis</i>	6	-	0.400	0	-	-	-	X	-
Western Tanager	<i>Piranga ludoviciana</i>	25	-	0.700	0	-	-	-	X	-
Western Wood-Pewee	<i>Contopus sordidulus</i>	4	-	1.400	0	X	-	-	-	-
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	-	4	0	1.500	-	-	-	-	-
White-throated Sparrow	<i>Zonotrichia albicollis</i>	-	1	0	0	-	-	-	-	-
Willow Flycatcher	<i>Empidonax traillii</i>	3	-	0.200	0	X	-	-	-	-
Wilson's Warbler	<i>Cardellina pusilla</i>	6	-	0	0	-	X	-	X	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

Table 4 (continued). Results from the constant effort monitoring station at Sevenmile Guard Station, Fremont-Winema National Forest in 2017, showing total mist net captures and relative abundance (birds/plot, where plot is the entire monitoring station) during breeding (May 22 to August 18) and migration (October 3 to October 9), and conservation status.

						Conservation Status by Agency/Plan				
						USFWS	2014 SOTB	Cont. PIF	OR-WA PIF	
Common Name	Scientific Name	Total Captures (breeding)	Total Captures (migration)	Rel. Abund. (breeding)	Rel. Abund. (migration)	United States Fish & Wildlife Service Species of Concern (USFWS 2008)	State of the Birds 2014 Common Birds in Steep Decline (NABCI 2014)	Partners in Flight Continental Plan Reverse Decline Watch List - Western Forest (Rosenberg et al. 2016)	Oregon-Washington Partners in Flight Coniferous Forests (Altman and Alexander 2012)	Oregon-Washington Partners in Flight East-slope Cascades Mtns (Altman 2000)
Yellow Warbler	<i>Setophaga petechia</i>	5	1	0.300	0.500	X	-	-	-	-
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	-	-	0	0	-	-	-	-	-
Yellow-rumped Warbler	<i>Setophaga coronata</i>	13	4	0.100	1.500	-	-	-	-	-

Altman, B. 2000. Conservation strategy for landbirds of the east-slope of the Cascade Mountains in Oregon and Washington. Oregon-Washington Partners in Flight. [Available online at http://orwapif.org/sites/default/files/east_slope.pdf]

Altman, B. and J. D. Alexander. 2012. Habitat conservation for landbirds in coniferous forests of western Oregon and Washington. Version 2.0. Oregon-Washington Partners in Flight (www.orwapif.org) and American Bird Conservancy and Klamath Bird Observatory. [Available online at http://www.orwapif.org/sites/default/files/Western_Conifer_Plan_new.pdf]

North American Bird Conservation Initiative, U.S. Committee. 2014. The State of the Birds 2014 Report. U.S. Department of Interior, Washington, D.C. 16 pages. [Online version available at http://www.stateofthebirds.org/2014/2014%20SotB_FINAL_low-res.pdf]

Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. [Available online at <http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>]

U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]