

2024 Intermountain Region Broad-Scale Bird Monitoring Report

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John A. Shivik, Regional Wildlife Ecologist



“The agency also shall inventory and monitor bird habitat and populations within the agency’s capabilities and authorities ...”

Executive Order 13186

Photo: Kevin Abel, Dixie NF

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Background: Relevant Aspects of 2012 Rule (219.12) and Executive Order 13186

A purpose of USFS monitoring is to provide information for projects and planning by tracking ecological conditions on US Forest System lands over time. Monitoring reports help determine whether a change to management or monitoring should be considered (219.5).

Specific monitoring topics addressed in this report are from the 2012 Rule (219.12):

- 219.12 (5) (iii): The status of focal species to assess the ecological conditions...
- 219.12 (5) (iv): The status of a select set of the ecological conditions required under § 219.9 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.
- 219.12 (5) (ii): The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems.

The purpose of the Intermountain Region Bird Monitoring Report is to accomplish required monitoring according to the Intermountain Region Broader-Scale Terrestrial Wildlife Monitoring Strategy (2024). This report provides succinct information on the current status¹ of bird species, including At-risk and Focal species. It also provides information about current forest management related to Executive Order 13186 (Migratory Bird Treaty Act) as well as scientific information for project analyses and forest plan revision.

Monitoring Questions and Metrics

Question 1: What is the status of bird species (including focal and at-risk species) in the region, and do trends indicate sufficient ecological conditions for the species?

For individual species, the metric used is the median density trend along with its associated credible intervals and confidence statistic (f). A trend of 1.0 indicates a stable population, <1.0 indicates a decreasing trend, and >1.0 indicates population density increase. Evidence for concern for a species is indicated if the upper 90% credible interval is <1.0. The f-statistic associated with the trend indicates confidence in the reported trend; trends were considered

¹ "Status" is not defined in Rule or Directives. At a minimum, status could be documented presence of a species in the region or forest, but population trend under current management conditions is preferred. According to the 2012 Rule, "monitoring questions and associated indicators must be designed to inform the management of resources on the plan area, including by testing relevant assumptions, tracking relevant changes, and measuring management effectiveness and progress toward achieving or maintaining the plan's desired conditions or objectives." Determining "status" is within the context of progress toward desired future conditions and is not necessarily in relation to historical or range wide estimates, so the appropriate spatial and temporal scales are the region and planning unit under current management conditions (e.g. during the previous 10-15 years).

significant for $f > 0.85$. Trends for species with significant downward trends are emphasized, but all available species are reported, and Focal and At-risk species are noted.

Question 2: What does the trend of all bird species combined indicate about the status of ecological conditions in the region and forests?

It is assumed that in dynamic and changing ecosystems, some species will be favored by current conditions, with their populations increasing, but others will be adversely impacted, and their populations will be decreasing. Graphing trends of all species in a healthy and balanced ecosystem should produce a bell-shaped histogram with species trends centered around 1.0. Compromised ecosystem health is suspected if the mean trend is < 1.0 or the distribution is skewed < 1.0 . General ecological conditions were assessed using this approach by creating a histogram of species trends constructed for species with reliable trend estimates ($f > 0.85$).

Data Source: Integrated Monitoring in Bird Conservation

The Intermountain Region continues to fund broad-scale monitoring of bird communities in partnership with state and federal agencies, the Bird Conservancy of the Rockies, Intermountain Bird Observatory, and the Great Basin Bird Observatory; the effort is known as Integrated Monitoring in Bird Conservation Regions (IMBCR). Yearly reports and trend data are produced by the Bird Conservancy of the Rockies, and 2023 trend data ([2023 IMBCR estimates - Google Drive](#) accessed June 1, 2024) were used to compile this monitoring report. Sufficient data (beginning when all forests were sampled) to estimate trends at the regional scale began in 2017, but at the forest scale, some units have more historical information. Also, the Curlew National Grassland samples are not included in the computation of regional scale or Caribou-Targhee National Forest estimates. Refer to McLaren et al. (2020) for data reporting methods, assumptions, and cautions about data use.

Results and Assessment

Question 1: Bird Species Status

Species with significant negative trends

When evaluating significant negative trends for individual species at the regional scale, eleven species showed significant negative population trends at the regional scale; none are Focal or At-risk species (Table 1). The species in Table 1 are associated with a variety of habitat types, and the causal factors for observed trends are unknown. Monitoring of these species should be continued, and some species may be considered for At-risk species designation.

Table 1. USFS Region 4 bird species with median densities trending downward and the upper credible interval less than 1.0. Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend.

Species	Trend	LCI90	UCI90	f	Associated Habitat
Mountain Quail	0.65	0.51	0.83	0.99	Dense scrub habitats
American Pipit	0.68	0.46	0.96	0.97	Alpine, subalpine meadows
Rock Pigeon	0.76	0.61	0.96	0.98	Rocky cliffs, urban areas, non-native
Canyon Wren	0.81	0.69	0.93	0.99	Steep, rocky slopes
Pacific Wren	0.81	0.63	0.98	0.97	Old-growth coniferous forest
Swainson's Hawk	0.83	0.70	0.97	0.98	Grasslands, agricultural
Townsend's Warbler	0.84	0.73	0.95	1.00	Old-growth coniferous forest
Bewick's Wren	0.85	0.76	0.96	0.99	Brushy thickets, open woodland
Nashville Warbler	0.85	0.74	0.99	0.97	Shrubby, second-growth
Dark-eyed Junco	0.93	0.90	0.96	1.00	Coniferous forests
Pine Siskin	0.96	0.91	1.00	0.97	Open coniferous forests

Trends for all bird species

For all species at all confidence values, the mean trend was stable ($\bar{x}=1.02$) for the 206 species with estimated trends (Table 2). At the regional scale, trends for 13 of 17 Focal Species are stable or increasing. American Goshawks showed a significant 10% decline ($f=0.85$, but Brewer's Sparrow ($f=0.81$), Mountain Bluebird ($f=0.79$) and Peregrine Falcon ($f=0.55$) each had non-significant 2% declines. The Black Rosy Finch remains a concern as a Species of Conservation Concern with a regional trend estimate of 0.93 ($f=0.61$).

Table 2. Median Density Trends for Intermountain Region Birds 2017-2023. Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern on one or more units in the region.

Species	Trend	LCI90	UCI90	f
American Avocet	1.13	0.78	1.71	0.70
American Crow	1.02	0.91	1.16	0.56
American Dipper	1.05	0.82	1.32	0.61
American Goldfinch	0.89	0.77	1.02	0.93
American Goshawk ^F	0.90	0.75	1.09	0.85
American Kestrel	0.93	0.85	1.01	0.95
American Pipit	0.68	0.46	0.96	0.97
American Robin	1.03	0.99	1.07	0.79
American Three-toed Woodpecker ^F	1.07	0.93	1.23	0.77
American White Pelican	1.02	0.70	1.49	0.52
Anna's Hummingbird	1.10	0.77	1.62	0.67
Ash-throated Flycatcher	1.06	0.97	1.17	0.83
Bald Eagle ^F	1.00	0.76	1.31	0.54
Band-tailed Pigeon	1.12	0.85	1.51	0.73
Bank Swallow	0.88	0.67	1.16	0.81
Barn Swallow	0.98	0.80	1.19	0.59
Belted Kingfisher	1.00	0.77	1.30	0.55
Bewick's Wren	0.85	0.76	0.96	0.99
Black Phoebe	1.00	0.55	1.81	0.51
Black Rosy-Finch ^{SCC}	0.93	0.62	1.32	0.61
Black-backed Woodpecker ^F	1.18	0.95	1.43	0.89
Black-billed Magpie	0.93	0.84	1.02	0.92
Black-capped Chickadee	1.08	0.97	1.20	0.86
Black-chinned Hummingbird	0.96	0.83	1.11	0.72
Black-chinned Sparrow	0.99	0.79	1.24	0.53
Black-headed Grosbeak	1.16	1.09	1.22	1.00
Black-throated Gray Warbler	1.05	0.98	1.12	0.79
Black-throated Sparrow	0.99	0.87	1.13	0.60
Blue Grosbeak	1.10	0.77	1.50	0.67
Blue Jay	1.10	0.58	2.08	0.58
Blue-gray Gnatcatcher	1.05	0.98	1.13	0.81
Blue-winged Teal	0.96	0.69	1.34	0.59
Brewer's Blackbird	1.08	0.96	1.22	0.82

Species	Trend	LCI90	UCI90	f
Brewer's Sparrow ^F	0.98	0.91	1.04	0.81
Broad-tailed Hummingbird	1.05	0.96	1.15	0.74
Brown Creeper	0.98	0.92	1.04	0.82
Brown-headed Cowbird	0.96	0.89	1.04	0.90
Bullock's Oriole	0.99	0.85	1.14	0.58
Bushtit	1.19	1.09	1.32	1.00
Cactus Wren	0.65	0.38	1.10	0.92
California Quail	1.01	0.81	1.25	0.51
Calliope Hummingbird	1.02	0.86	1.24	0.55
Canada Goose	1.06	0.81	1.39	0.60
Canada Jay	1.05	0.97	1.14	0.77
Canyon Wren	0.81	0.69	0.93	0.99
Cassin's Finch	0.96	0.90	1.03	0.88
Cassin's Kingbird	0.97	0.61	1.62	0.55
Cassin's Vireo	0.97	0.89	1.05	0.81
Cedar Waxwing	1.00	0.88	1.13	0.54
Chestnut-backed Chickadee	0.95	0.62	1.53	0.59
Chipping Sparrow	1.02	0.99	1.06	0.73
Chukar	1.04	0.89	1.19	0.63
Cinnamon Teal	1.01	0.65	1.59	0.51
Clark's Nutcracker	0.96	0.91	1.02	0.92
Cliff Swallow	1.01	0.86	1.20	0.52
Common Grackle	1.05	0.71	1.54	0.58
Common Merganser	0.96	0.76	1.22	0.61
Common Nighthawk	1.09	0.99	1.20	0.93
Common Poorwill	1.09	0.93	1.26	0.79
Common Raven	1.10	1.05	1.15	1.00
Common Yellowthroat	0.93	0.74	1.17	0.75
Cooper's Hawk	1.02	0.91	1.17	0.57
Costa's Hummingbird	1.34	0.86	2.14	0.89
Crissal Thrasher	0.72	0.39	1.24	0.87
Dark-eyed Junco	0.93	0.90	0.96	1.00
Double-crested Cormorant	1.21	0.77	2.04	0.75
Downy Woodpecker	0.93	0.81	1.09	0.83
Dusky Flycatcher	1.01	0.96	1.04	0.59
Dusky Grouse	1.07	0.95	1.21	0.80
Eastern Kingbird	0.90	0.69	1.23	0.73
Eurasian Collared-Dove	0.92	0.78	1.08	0.83
European Starling	1.08	0.81	1.46	0.66
Evening Grosbeak	0.94	0.83	1.08	0.82
Ferruginous Hawk	1.09	0.71	1.68	0.60

Species	Trend	LCI90	UCI90	f
Fox Sparrow	0.94	0.84	1.05	0.85
Franklin's Gull	0.85	0.57	1.28	0.77
Gadwall	1.12	0.81	1.53	0.72
Gambel's Quail	1.15	0.80	1.67	0.72
Golden Eagle	1.00	0.85	1.18	0.55
Golden-crowned Kinglet	0.88	0.79	1.01	0.96
Grace's Warbler	1.30	1.05	1.57	0.98
Grasshopper Sparrow	1.03	0.81	1.30	0.56
Gray Catbird	1.06	0.85	1.31	0.66
Gray Flycatcher	1.01	0.93	1.10	0.51
Gray Vireo	1.05	0.93	1.17	0.69
Great Blue Heron	1.09	0.84	1.45	0.70
Great Horned Owl	0.97	0.82	1.13	0.67
Green-tailed Towhee	1.02	0.97	1.08	0.66
Green-winged Teal	1.04	0.75	1.44	0.54
Hairy Woodpecker ^F	1.08	1.02	1.14	0.98
Hammond's Flycatcher	1.07	1.00	1.15	0.92
Hermit Thrush	1.00	0.96	1.04	0.69
Horned Lark	1.12	0.99	1.24	0.89
House Finch	1.12	1.01	1.27	0.94
House Wren	0.98	0.92	1.05	0.74
Indigo Bunting	1.20	0.79	1.92	0.77
Juniper Titmouse	0.96	0.87	1.08	0.76
Killdeer	0.95	0.78	1.15	0.72
Lark Bunting	1.14	0.67	1.90	0.63
Lark Sparrow	1.09	1.01	1.18	0.93
Lazuli Bunting	1.05	0.98	1.13	0.80
Least Flycatcher	1.12	0.86	1.45	0.76
Lesser Goldfinch	1.05	0.91	1.21	0.68
Lesser Scaup	1.01	0.65	1.42	0.50
Lewis's Woodpecker	1.19	0.97	1.44	0.91
Lincoln's Sparrow ^F	1.01	0.93	1.09	0.51
Loggerhead Shrike	1.18	0.98	1.46	0.93
Long-billed Curlew	0.99	0.62	1.61	0.53
MacGillivray's Warbler ^F	1.06	1.00	1.12	0.93
Mallard	1.00	0.87	1.19	0.56
Marsh Wren	0.99	0.56	1.68	0.52
Merlin	1.07	0.79	1.46	0.62
Mountain Bluebird ^F	0.98	0.93	1.04	0.79
Mountain Chickadee	1.00	0.97	1.04	0.59
Mountain Quail	0.65	0.51	0.83	0.99

Species	Trend	LCI90	UCI90	f
Mourning Dove	1.07	1.01	1.13	0.95
Nashville Warbler	0.85	0.74	0.99	0.97
Northern Flicker ^F	1.01	0.97	1.05	0.50
Northern Harrier	0.93	0.80	1.06	0.85
Northern Mockingbird	1.01	0.81	1.28	0.50
Northern Pintail	1.11	0.67	1.84	0.62
Northern Pygmy-Owl	1.08	0.88	1.34	0.72
Northern Rough-winged Swallow	0.93	0.81	1.06	0.85
Northern Saw-whet Owl	1.22	0.84	1.64	0.81
Northern Waterthrush	1.12	0.77	1.69	0.67
Olive-sided Flycatcher	1.05	0.97	1.13	0.80
Orange-crowned Warbler	1.07	0.97	1.16	0.87
Osprey	1.14	0.91	1.41	0.82
Ovenbird	1.26	0.80	2.03	0.79
Pacific Wren	0.81	0.63	0.98	0.97
Peregrine Falcon ^F	0.98	0.76	1.22	0.55
Pied-billed Grebe	1.30	0.92	1.95	0.89
Pika	0.91	0.75	1.10	0.84
Pileated Woodpecker ^F	1.21	1.07	1.40	0.99
Pine Grosbeak	0.97	0.86	1.08	0.77
Pine Siskin	0.96	0.91	1.00	0.97
Pinyon Jay	1.08	0.94	1.27	0.79
Plumbeous Vireo	1.04	0.95	1.13	0.71
Prairie Falcon	0.90	0.75	1.08	0.87
Purple Martin	1.21	0.83	1.98	0.78
Pygmy Nuthatch	1.15	0.96	1.38	0.86
Red Crossbill	1.11	1.03	1.19	0.99
Red-breasted Nuthatch	0.98	0.94	1.02	0.90
Red-eyed Vireo	1.16	0.90	1.52	0.83
Red-naped Sapsucker	1.12	1.02	1.24	0.97
Red-tailed Hawk	1.03	0.97	1.12	0.73
Red-winged Blackbird	0.97	0.80	1.16	0.65
Ring-billed Gull	1.12	0.72	1.73	0.67
Ring-necked Pheasant	0.92	0.62	1.26	0.68
Rock Pigeon	0.76	0.61	0.96	0.98
Rock Wren	1.01	0.96	1.06	0.51
Ruby-crowned Kinglet	0.97	0.92	1.00	0.97
Ruffed Grouse	1.06	0.93	1.21	0.68
Rufous Hummingbird	1.05	0.84	1.29	0.64
Rufous-crowned Sparrow	0.81	0.56	1.21	0.82
Sage Thrasher ^F	1.01	0.90	1.15	0.52

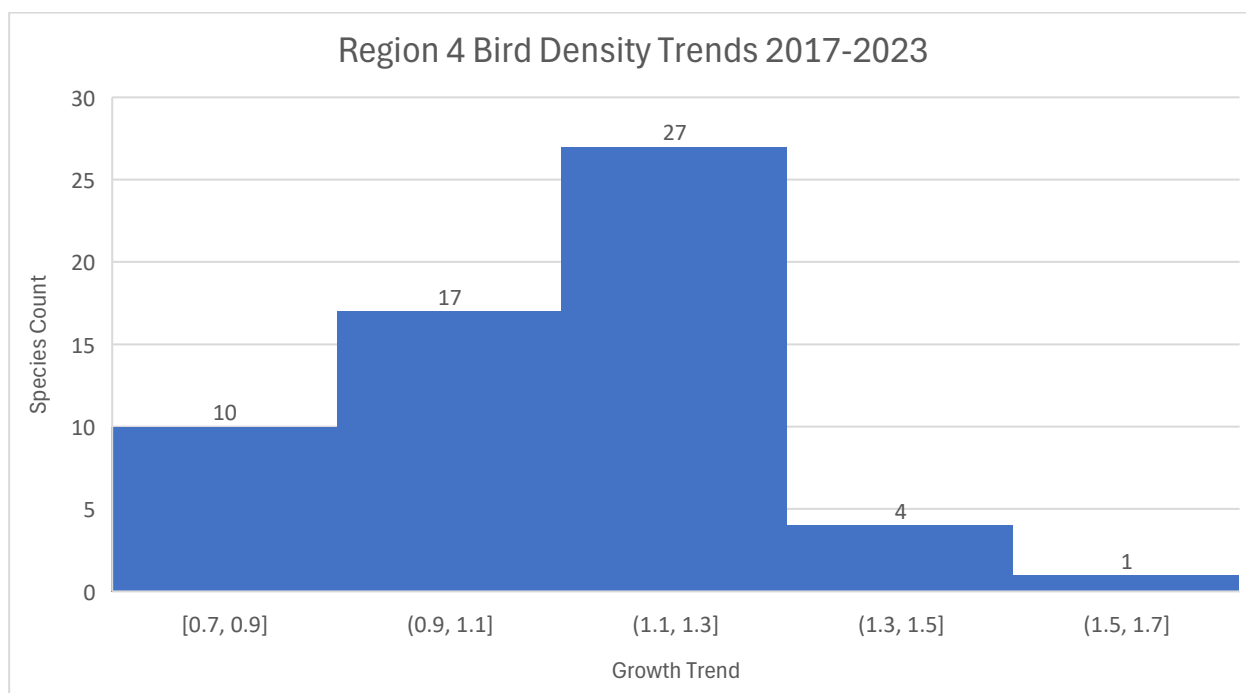
Species	Trend	LCI90	UCI90	f
Sagebrush Sparrow	0.93	0.78	1.10	0.76
Sandhill Crane	1.05	0.90	1.20	0.67
Savannah Sparrow	0.95	0.73	1.16	0.69
Say's Phoebe	1.05	0.93	1.20	0.69
Scott's Oriole	1.33	0.99	1.77	0.94
Sharp-shinned Hawk	0.89	0.74	1.04	0.90
Short-eared Owl	0.79	0.48	1.32	0.79
Song Sparrow	1.05	0.97	1.14	0.78
Spotted Sandpiper	0.97	0.83	1.13	0.68
Spotted Towhee	1.02	0.96	1.09	0.62
Spruce Grouse	0.85	0.59	1.19	0.80
Steller's Jay	1.09	1.01	1.18	0.95
Summer Tanager	0.89	0.49	1.45	0.65
Swainson's Hawk	0.83	0.70	0.97	0.98
Swainson's Thrush	1.16	1.08	1.24	1.00
Townsend's Solitaire	1.00	0.93	1.07	0.61
Townsend's Warbler	0.84	0.73	0.95	1.00
Tree Swallow	0.98	0.88	1.10	0.65
Turkey Vulture	1.03	0.92	1.15	0.59
Varied Thrush	0.90	0.66	1.19	0.75
Vaux's Swift	1.05	0.75	1.61	0.58
Veery	1.18	0.89	1.54	0.81
Vesper Sparrow ^F	1.10	1.00	1.19	0.94
Violet-green Swallow	1.04	0.95	1.16	0.72
Virginia Rail	0.99	0.64	1.47	0.55
Virginia's Warbler	1.03	0.91	1.14	0.60
Warbling Vireo	1.10	1.06	1.15	1.00
Western Bluebird ^F	1.13	0.93	1.39	0.84
Western Flycatcher	1.13	1.05	1.25	0.99
Western Grebe	1.04	0.52	2.08	0.54
Western Kingbird	0.99	0.86	1.14	0.61
Western Meadowlark	0.99	0.88	1.11	0.63
Western Tanager	1.06	1.02	1.09	0.99
Western Wood-Pewee	1.05	0.98	1.14	0.84
White-breasted Nuthatch	1.05	0.93	1.17	0.68
White-crowned Sparrow	1.00	0.91	1.10	0.54
White-headed Woodpecker ^F	1.13	0.82	1.50	0.71
White-tailed Ptarmigan	0.89	0.53	1.45	0.66
White-throated Swift	0.96	0.81	1.13	0.69
White-winged Crossbill	1.47	1.05	2.02	0.96
Wild Turkey ^F	1.03	0.89	1.21	0.61

Species	Trend	LCI90	UCI90	f
Williamson's Sapsucker	1.10	0.97	1.27	0.86
Willow Flycatcher	1.01	0.83	1.23	0.51
Wilson's Snipe	0.95	0.75	1.19	0.69
Wilson's Warbler	0.99	0.87	1.14	0.60
Wood Duck	0.95	0.69	1.35	0.62
Woodhouse's Scrub-Jay	0.93	0.86	1.01	0.95
Yellow Warbler ^F	1.01	0.95	1.08	0.54
Yellow-breasted Chat	1.09	0.89	1.33	0.73
Yellow-rumped Warbler	1.01	0.98	1.04	0.52

Question 2: Trends of All Bird Species as an Indicator of Ecological Conditions

The overall trend of bird species with reliable estimates is stable and skewed >1.0 ($\bar{x}=1.02$, Figure 1) for the 59 species with high confidence population trend estimates; there were 27 species declining and 32 species increasing. The observed histogram indicates that the region has healthy ecological conditions for a diverse array of bird species.

Figure 1. Region 4 Bird Density Trends for Species with Reliable Estimates 2017-2023



References

McLaren, M. F., Smith, M., Timmer, J. M., Drilling, N. E., Green, A. W., Leslie, B. J., White, C. M., Van Lanen, N. J., Pavlacky Jr., D. C., Sparks, R. A., & Van Boer, A. G. (2020). Integrated Monitoring in Bird Conservation Regions (IMBCR): 2019 Field Season Report. Bird Conservancy of the Rockies. Brighton, Colorado, USA.

Appendix 1. Forest Specific Bird Trends

Ashley National Forest

For species with significant trends, the mean trend was 0.78 with 22 species declining and 11 increasing. The species trend distribution was skewed <1.0 . The general ecological conditions for bird species on the Ashley National Forest deserve further examination (Figure 1-1). Trends for all species with trend estimates are listed in Table 1-1.

Figure 1-1. Bird Density Trends on the Ashley National Forest

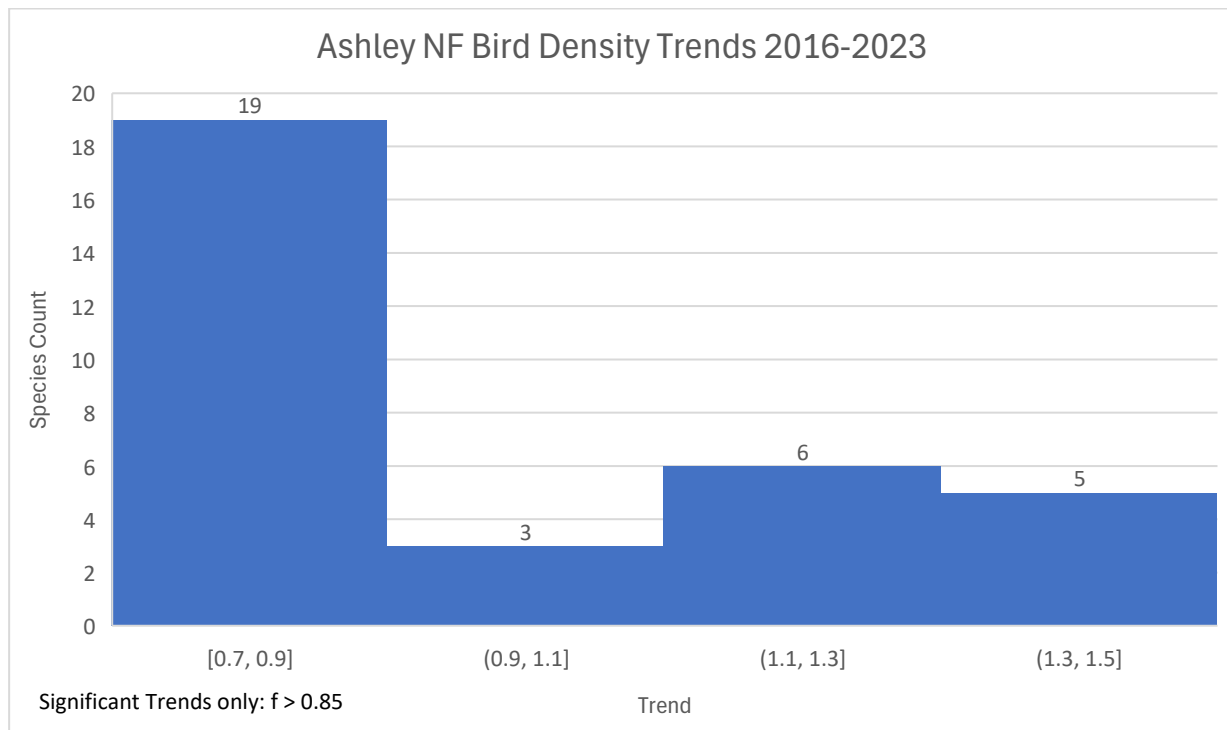


Table 1-1. Median Density Trends for Ashley National Forest Birds 2017-2023. Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend. A trend <1.0 indicates downward population trend and >1.0 indicates increasing trend. ^F=Focal Species, ^{SCC}=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Kestrel	0.99	0.79	1.19	0.58
American Pipit	1.06	0.64	1.73	0.56
American Robin	0.89	0.82	0.98	0.98
American Three-toed Woodpecker	0.96	0.79	1.21	0.64
Ash-throated Flycatcher	0.98	0.77	1.26	0.56
Bank Swallow	1.00	0.60	1.68	0.52
Barn Swallow	0.91	0.65	1.25	0.71
Bewick's Wren	0.87	0.60	1.32	0.71
Black Rosy-Finch ^{SCC}	1.03	0.62	1.61	0.53
Black-billed Magpie	1.06	0.90	1.26	0.68
Black-capped Chickadee	1.32	0.88	2.16	0.84
Black-chinned Hummingbird	1.06	0.79	1.38	0.61
Black-headed Grosbeak	0.96	0.70	1.28	0.61
Black-throated Gray Warbler	1.07	0.81	1.34	0.68
Black-throated Sparrow	1.01	0.61	1.83	0.51
Blue-gray Gnatcatcher	1.05	0.82	1.44	0.60
Brewer's Blackbird	1.23	0.96	1.61	0.91
Brewer's Sparrow	1.13	0.98	1.33	0.91
Broad-tailed Hummingbird	1.09	0.93	1.31	0.78
Brown Creeper	1.03	0.89	1.20	0.58
Brown-headed Cowbird	1.37	1.04	1.84	0.97
Bushtit	1.26	0.78	2.04	0.79
Canada Goose	1.16	0.76	1.75	0.71
Canada Jay	1.07	0.90	1.26	0.67
Canyon Wren	0.77	0.50	1.16	0.86
Cassin's Finch	0.77	0.58	0.97	0.97
Cedar Waxwing	1.08	0.78	1.51	0.61
Chipping Sparrow	0.86	0.74	0.99	0.97
Chukar	1.25	0.87	1.85	0.85
Clark's Nutcracker	0.93	0.81	1.06	0.85
Cliff Swallow	0.90	0.70	1.21	0.73
Common Grackle	1.22	0.71	2.13	0.71
Common Nighthawk	1.43	1.15	1.97	1.00
Common Raven	1.03	0.89	1.18	0.63
Cooper's Hawk	1.04	0.80	1.41	0.58
Dark-eyed Junco	0.86	0.77	0.95	1.00

Species	Trend	LCI90	UCI90	f
Downy Woodpecker	0.81	0.56	1.07	0.91
Dusky Flycatcher	1.04	0.87	1.22	0.62
Dusky Grouse	0.95	0.66	1.23	0.66
Ferruginous Hawk	0.99	0.70	1.38	0.55
Fox Sparrow	0.98	0.56	1.66	0.53
Golden Eagle	1.05	0.83	1.34	0.60
Golden-crowned Kinglet	0.70	0.50	1.01	0.95
Grasshopper Sparrow	0.95	0.58	1.49	0.60
Gray Flycatcher	1.09	0.82	1.57	0.64
Gray Vireo	1.07	0.67	1.81	0.58
Green-tailed Towhee	1.03	0.87	1.20	0.62
Hairy Woodpecker	1.00	0.88	1.12	0.53
Hammond's Flycatcher	0.84	0.55	1.13	0.83
Hermit Thrush	0.96	0.87	1.04	0.87
Horned Lark	1.14	1.01	1.34	0.94
House Finch	1.41	1.02	1.99	0.96
House Wren	0.93	0.71	1.19	0.72
Juniper Titmouse	0.97	0.62	1.38	0.57
Lark Bunting	1.05	0.67	1.58	0.55
Lark Sparrow	1.07	0.90	1.26	0.71
Lazuli Bunting	0.97	0.73	1.30	0.59
Lesser Goldfinch	1.03	0.77	1.39	0.56
Lewis's Woodpecker	1.24	0.84	1.82	0.82
Lincoln's Sparrow	0.77	0.54	1.03	0.95
Loggerhead Shrike	1.06	0.87	1.33	0.64
MacGillivray's Warbler	1.04	0.80	1.34	0.57
Mountain Bluebird	0.99	0.86	1.13	0.60
Mountain Chickadee	1.04	0.96	1.11	0.72
Mourning Dove	1.31	1.05	1.71	0.97
Northern Flicker	0.85	0.73	0.99	0.98
Northern Harrier	0.94	0.69	1.23	0.69
Northern Mockingbird	1.27	0.89	1.91	0.86
Northern Saw-whet Owl	1.05	0.61	1.59	0.55
Olive-sided Flycatcher	1.06	0.78	1.42	0.59
Orange-crowned Warbler	0.84	0.58	1.10	0.87
Pika	1.14	0.72	1.88	0.66
Pine Grosbeak	0.85	0.67	1.07	0.89
Pine Siskin	0.80	0.71	0.90	1.00
Pinyon Jay	1.10	0.84	1.47	0.73
Plumbeous Vireo	0.89	0.68	1.17	0.74
Prairie Falcon	0.85	0.58	1.21	0.80

Species	Trend	LCI90	UCI90	f
Pygmy Nuthatch	1.18	0.67	2.03	0.68
Red Crossbill	0.78	0.63	0.97	0.97
Red-breasted Nuthatch	0.83	0.63	1.02	0.94
Red-naped Sapsucker	1.09	0.79	1.46	0.67
Red-tailed Hawk	1.00	0.79	1.25	0.54
Ring-billed Gull	1.03	0.64	1.62	0.52
Rock Wren	1.05	0.93	1.21	0.71
Ruby-crowned Kinglet	0.86	0.73	0.98	0.99
Ruffed Grouse	0.95	0.60	1.46	0.61
Rufous Hummingbird	1.23	0.78	2.08	0.78
Sage Thrasher	1.03	0.88	1.21	0.59
Sagebrush Sparrow	0.97	0.82	1.14	0.64
Sandhill Crane	0.97	0.65	1.39	0.58
Savannah Sparrow	1.09	0.59	2.00	0.58
Say's Phoebe	1.07	0.83	1.45	0.66
Song Sparrow	0.98	0.75	1.27	0.58
Spotted Sandpiper	1.05	0.73	1.51	0.57
Spotted Towhee	1.39	1.10	1.67	0.99
Steller's Jay	1.17	0.92	1.47	0.86
Townsend's Solitaire	0.90	0.73	1.08	0.83
Tree Swallow	0.96	0.72	1.28	0.60
Turkey Vulture	1.08	0.81	1.40	0.65
Vesper Sparrow	1.12	0.93	1.35	0.82
Violet-green Swallow	1.15	0.94	1.41	0.84
Virginia's Warbler	1.18	0.89	1.47	0.84
Warbling Vireo	0.85	0.65	1.04	0.92
Western Flycatcher	0.80	0.58	1.02	0.94
Western Meadowlark	1.20	0.96	1.49	0.91
Western Tanager	1.07	0.90	1.24	0.71
Western Wood-Pewee	1.10	0.84	1.46	0.73
White-breasted Nuthatch	0.99	0.74	1.33	0.55
White-crowned Sparrow	0.79	0.56	1.05	0.91
White-tailed Ptarmigan	0.89	0.53	1.45	0.66
White-throated Swift	0.80	0.57	1.14	0.87
Williamson's Sapsucker	1.08	0.69	1.74	0.62
Wilson's Warbler	0.90	0.62	1.28	0.73
Woodhouse's Scrub-Jay	1.04	0.79	1.35	0.56
Yellow Warbler	1.00	0.77	1.30	0.52
Yellow-breasted Chat	1.18	0.62	2.17	0.66
Yellow-rumped Warbler	0.93	0.83	1.02	0.94

Boise National Forest

For species with significant trends, the mean trend was 1.01. The species trend distribution was skewed <1.0. The mean trend suggests stable ecological conditions, but the distribution of species trends suggests that general ecological conditions for bird species on the Boise National Forest deserve further examination (Figure 1-2). Trends for all species with trend estimates are listed in Table 1-2.

Significant Trends only: $F > 0.85$

Figure 1-2. Bird Density Trends on the Boise National Forest

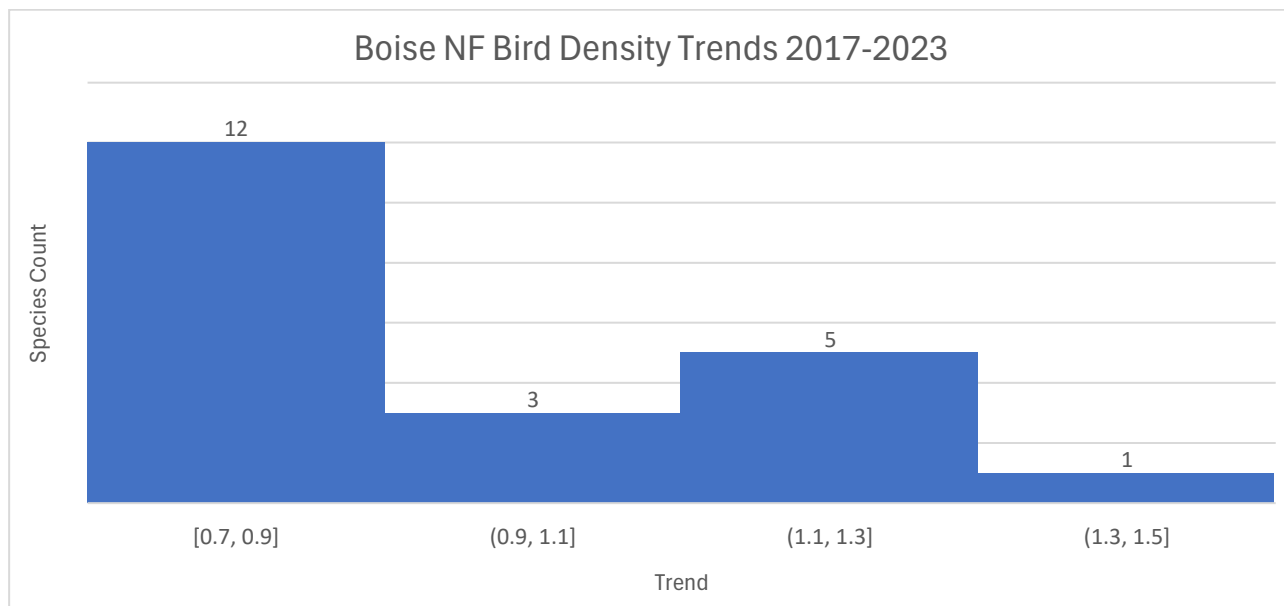


Table 1-2. Median Density Trends for Boise National Forest Birds 2010-2023. Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	1.04	0.90	1.19	0.65
American Goshawk	0.99	0.87	1.15	0.60
American Crow	1.00	0.87	1.15	0.56
American Dipper	0.98	0.87	1.14	0.62
American Kestrel	0.98	0.88	1.08	0.72
American Pipit	0.96	0.81	1.15	0.70
American Robin	1.00	0.97	1.04	0.65
Black Rosy-Finch	0.91	0.77	1.04	0.90
American White Pelican	1.00	0.83	1.19	0.54
Bald Eagle	1.01	0.86	1.20	0.51
Black-billed Magpie	1.06	0.93	1.22	0.72
Black-backed Woodpecker ^F	1.05	0.94	1.18	0.70
Black-capped Chickadee	0.96	0.84	1.09	0.72
Belted Kingfisher	1.06	0.90	1.24	0.70
Blue-gray Gnatcatcher	1.13	0.94	1.34	0.85
Brown-headed Cowbird	0.98	0.86	1.14	0.65
Black-headed Grosbeak	0.97	0.88	1.07	0.79
American Three-toed Woodpecker	0.92	0.81	1.03	0.93
Brewer's Blackbird	1.06	0.96	1.19	0.81
Chipping Sparrow	0.94	0.89	0.99	0.99
Brewer's Sparrow	1.02	0.93	1.12	0.54
Broad-tailed Hummingbird	0.99	0.90	1.08	0.59
Violet-green Swallow	0.94	0.84	1.05	0.87
Bullock's Oriole	1.00	0.85	1.17	0.59
Blue-winged Teal	1.02	0.87	1.19	0.54
Cassin's Finch	1.02	0.93	1.12	0.57
Calliope Hummingbird	0.99	0.87	1.12	0.65
Canada Jay	0.97	0.91	1.05	0.80
Canada Goose	1.00	0.84	1.21	0.53
Cedar Waxwing	1.08	0.96	1.21	0.84
Tree Swallow	0.95	0.86	1.04	0.89
Clark's Nutcracker	0.99	0.94	1.04	0.77
Cliff Swallow	1.00	0.88	1.15	0.55
Spotted Sandpiper	0.95	0.86	1.05	0.86

Species	Trend	LCI90	UCI90	f
Common Grackle	1.06	0.87	1.28	0.65
Cooper's Hawk	1.03	0.94	1.14	0.63
Common Merganser	1.01	0.86	1.19	0.50
Common Nighthawk	1.04	0.96	1.13	0.76
Common Poorwill	1.09	0.95	1.25	0.84
Common Raven	0.95	0.88	1.03	0.89
Common Yellowthroat	0.94	0.79	1.13	0.77
Dark-eyed Junco	1.03	0.99	1.08	0.81
Downy Woodpecker	0.96	0.87	1.07	0.79
Brown Creeper	0.95	0.89	1.03	0.90
Dusky Grouse	0.98	0.89	1.07	0.68
Mountain Bluebird	0.96	0.90	1.03	0.90
Yellow-rumped Warbler	0.97	0.92	1.01	0.96
Evening Grosbeak	1.02	0.84	1.24	0.53
Dusky Flycatcher	0.97	0.91	1.03	0.86
Great Blue Heron	1.03	0.89	1.21	0.60
Golden-crowned Kinglet	0.98	0.88	1.10	0.65
Warbling Vireo	1.05	0.99	1.11	0.87
Golden Eagle	1.06	0.95	1.23	0.75
Gray Catbird	1.02	0.88	1.19	0.55
Pine Siskin	1.05	0.99	1.11	0.87
Hammond's Flycatcher	1.02	0.91	1.15	0.54
Hairy Woodpecker	0.97	0.93	1.04	0.83
Hermit Thrush	1.00	0.94	1.05	0.60
House Finch	1.09	0.92	1.32	0.79
Green-tailed Towhee	1.07	0.99	1.15	0.90
House Wren	1.01	0.93	1.08	0.51
Killdeer	0.94	0.82	1.06	0.83
Lark Sparrow	1.00	0.89	1.13	0.59
Lazuli Bunting	1.04	0.94	1.13	0.72
Long-billed Curlew	1.06	0.90	1.28	0.65
Least Flycatcher	0.93	0.79	1.10	0.78
Lincoln's Sparrow	1.02	0.96	1.08	0.56
Mallard	1.01	0.87	1.17	0.51
Merlin	1.02	0.87	1.21	0.58
Red Crossbill	1.07	1.00	1.15	0.92
MacGillivray's Warbler	1.07	0.99	1.17	0.88
Mountain Chickadee	1.01	0.97	1.06	0.52
Mourning Dove	1.02	0.92	1.16	0.57
Nashville Warbler	0.98	0.81	1.17	0.61
Northern Flicker	1.00	0.94	1.06	0.62

Species	Trend	LCI90	UCI90	f
Northern Harrier	1.01	0.90	1.14	0.52
Northern Pygmy-Owl	1.04	0.93	1.18	0.68
Northern Waterthrush	1.05	0.89	1.26	0.64
Northern Rough-winged Swallow	1.07	0.93	1.26	0.75
Orange-crowned Warbler	0.97	0.84	1.14	0.71
Olive-sided Flycatcher	1.08	1.01	1.16	0.95
Osprey	0.99	0.85	1.19	0.60
Pacific Wren	1.00	0.81	1.25	0.53
Peregrine Falcon	1.03	0.87	1.19	0.60
Pine Grosbeak	0.98	0.91	1.06	0.72
Horned Lark	1.09	0.96	1.23	0.87
Song Sparrow	1.13	1.02	1.24	0.97
European Starling	1.13	0.94	1.34	0.85
Plumbeous Vireo	1.05	0.90	1.23	0.67
Red-breasted Nuthatch	0.99	0.94	1.05	0.70
Ruby-crowned Kinglet	1.00	0.95	1.05	0.57
Sage Thrasher	1.16	0.98	1.42	0.89
Red-naped Sapsucker	0.99	0.93	1.07	0.66
Rock Pigeon	0.99	0.83	1.18	0.57
Rock Wren	0.99	0.90	1.07	0.68
Red-tailed Hawk	0.99	0.94	1.05	0.71
Ruffed Grouse	1.09	0.94	1.27	0.82
Rufous Hummingbird	1.01	0.89	1.15	0.52
Red-winged Blackbird	1.01	0.87	1.20	0.52
Sandhill Crane	1.09	0.96	1.28	0.82
Say's Phoebe	1.04	0.93	1.18	0.72
Pinyon Jay	1.17	0.98	1.43	0.91
Savannah Sparrow	0.99	0.87	1.14	0.57
Eurasian Collared-Dove	1.22	1.02	1.45	0.96
Black-throated Gray Warbler	1.25	1.01	1.53	0.95
Spotted Towhee	1.04	0.92	1.21	0.64
Sharp-shinned Hawk	0.96	0.84	1.10	0.73
Steller's Jay	0.98	0.89	1.08	0.72
Swainson's Hawk	0.99	0.89	1.11	0.61
Swainson's Thrush	1.06	0.94	1.19	0.77
Townsend's Solitaire	0.98	0.90	1.07	0.69
Fox Sparrow	1.28	1.10	1.52	0.99
Turkey Vulture	1.03	0.91	1.17	0.62
Vesper Sparrow	1.02	0.96	1.10	0.61
Pika	1.34	1.15	1.63	1.00
White-breasted Nuthatch	1.00	0.92	1.10	0.58

Species	Trend	LCI90	UCI90	f
White-crowned Sparrow	1.02	0.96	1.09	0.67
Western Flycatcher	1.06	0.96	1.15	0.80
Western Kingbird	0.94	0.82	1.11	0.72
Western Meadowlark	1.03	0.83	1.27	0.57
Western Tanager	1.01	0.94	1.09	0.51
Western Wood-Pewee	1.04	0.97	1.13	0.73
Willow Flycatcher	1.00	0.89	1.15	0.54
Williamson's Sapsucker	0.98	0.87	1.11	0.66
Wilson's Snipe	1.04	0.93	1.19	0.65
Wilson's Warbler	1.01	0.93	1.13	0.52
White-winged Crossbill	1.05	0.91	1.21	0.72
Yellow Warbler	1.05	0.97	1.14	0.80

Bridger-Teton National Forest

For species with significant trends, the mean trend was 1.06. The species trend distribution was skewed >1.0. Data indicate that the general ecological conditions for bird species on the Bridger-Teton National Forest are favorable (Figure 1-3). Trends for all species with trend estimates are listed in Table 1-3.

Figure 1-3. Bird Density Trends on the Bridger-Teton National Forest

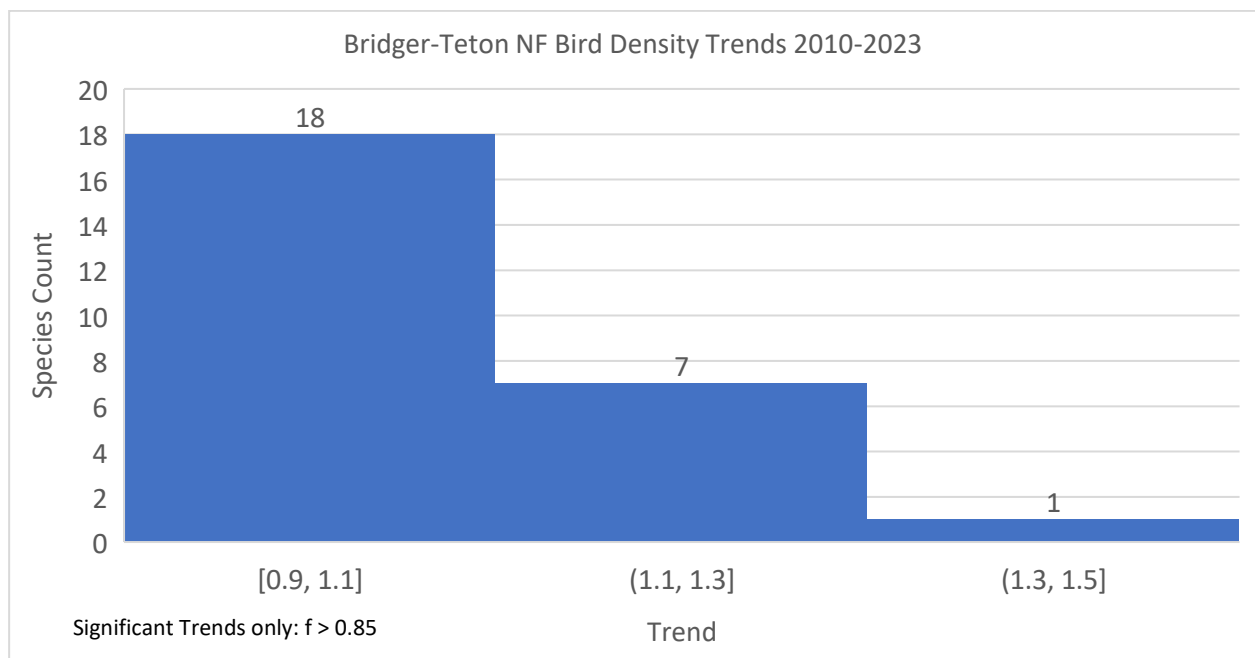


Table 1-3. Median Density Trends for Bridger-Teton National Forest Birds 2010-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	1.04	0.90	1.19	0.65
American Goshawk	0.99	0.87	1.15	0.60
American Crow	1.00	0.87	1.15	0.56
American Dipper	0.98	0.87	1.14	0.62
American Kestrel	0.98	0.88	1.08	0.72
American Pipit	0.96	0.81	1.15	0.70
American Robin	1.00	0.97	1.04	0.65
Black Rosy-Finch	0.91	0.77	1.04	0.90
American White Pelican	1.00	0.83	1.19	0.54
Bald Eagle	1.01	0.86	1.20	0.51
Black-billed Magpie	1.06	0.93	1.22	0.72
Black-backed Woodpecker	1.05	0.94	1.18	0.70
Black-capped Chickadee	0.96	0.84	1.09	0.72
Belted Kingfisher	1.06	0.90	1.24	0.70
Blue-gray Gnatcatcher	1.13	0.94	1.34	0.85
Brown-headed Cowbird	0.98	0.86	1.14	0.65
Black-headed Grosbeak	0.97	0.88	1.07	0.79
American Three-toed Woodpecker	0.92	0.81	1.03	0.93
Brewer's Blackbird	1.06	0.96	1.19	0.81
Chipping Sparrow	0.94	0.89	0.99	0.99
Brewer's Sparrow	1.02	0.93	1.12	0.54
Broad-tailed Hummingbird	0.99	0.90	1.08	0.59
Violet-green Swallow	0.94	0.84	1.05	0.87
Bullock's Oriole	1.00	0.85	1.17	0.59
Blue-winged Teal	1.02	0.87	1.19	0.54
Cassin's Finch	1.02	0.93	1.12	0.57
Calliope Hummingbird	0.99	0.87	1.12	0.65
Canada Jay	0.97	0.91	1.05	0.80
Canada Goose	1.00	0.84	1.21	0.53
Cedar Waxwing	1.08	0.96	1.21	0.84
Tree Swallow	0.95	0.86	1.04	0.89
Clark's Nutcracker	0.99	0.94	1.04	0.77
Cliff Swallow	1.00	0.88	1.15	0.55
Spotted Sandpiper	0.95	0.86	1.05	0.86

Species	Trend	LCI90	UCI90	f
Common Grackle	1.06	0.87	1.28	0.65
Cooper's Hawk	1.03	0.94	1.14	0.63
Common Merganser	1.01	0.86	1.19	0.50
Common Nighthawk	1.04	0.96	1.13	0.76
Common Poorwill	1.09	0.95	1.25	0.84
Common Raven	0.95	0.88	1.03	0.89
Common Yellowthroat	0.94	0.79	1.13	0.77
Dark-eyed Junco	1.03	0.99	1.08	0.81
Downy Woodpecker	0.96	0.87	1.07	0.79
Brown Creeper	0.95	0.89	1.03	0.90
Dusky Grouse	0.98	0.89	1.07	0.68
Mountain Bluebird	0.96	0.90	1.03	0.90
Yellow-rumped Warbler	0.97	0.92	1.01	0.96
Evening Grosbeak	1.02	0.84	1.24	0.53
Dusky Flycatcher	0.97	0.91	1.03	0.86
Great Blue Heron	1.03	0.89	1.21	0.60
Golden-crowned Kinglet	0.98	0.88	1.10	0.65
Warbling Vireo	1.05	0.99	1.11	0.87
Golden Eagle	1.06	0.95	1.23	0.75
Gray Catbird	1.02	0.88	1.19	0.55
Pine Siskin	1.05	0.99	1.11	0.87
Hammond's Flycatcher	1.02	0.91	1.15	0.54
Hairy Woodpecker	0.97	0.93	1.04	0.83
Hermit Thrush	1.00	0.94	1.05	0.60
House Finch	1.09	0.92	1.32	0.79
Green-tailed Towhee	1.07	0.99	1.15	0.90
House Wren	1.01	0.93	1.08	0.51
Killdeer	0.94	0.82	1.06	0.83
Lark Sparrow	1.00	0.89	1.13	0.59
Lazuli Bunting	1.04	0.94	1.13	0.72
Long-billed Curlew	1.06	0.90	1.28	0.65
Least Flycatcher	0.93	0.79	1.10	0.78
Lincoln's Sparrow	1.02	0.96	1.08	0.56
Mallard	1.01	0.87	1.17	0.51
Merlin	1.02	0.87	1.21	0.58
Red Crossbill	1.07	1.00	1.15	0.92
MacGillivray's Warbler	1.07	0.99	1.17	0.88
Mountain Chickadee	1.01	0.97	1.06	0.52
Mourning Dove	1.02	0.92	1.16	0.57
Nashville Warbler	0.98	0.81	1.17	0.61
Northern Flicker	1.00	0.94	1.06	0.62
Northern Harrier	1.01	0.90	1.14	0.52

Species	Trend	LCI90	UCI90	f
Northern Pygmy-Owl	1.04	0.93	1.18	0.68
Northern Waterthrush	1.05	0.89	1.26	0.64
Northern Rough-winged Swallow	1.07	0.93	1.26	0.75
Orange-crowned Warbler	0.97	0.84	1.14	0.71
Olive-sided Flycatcher	1.08	1.01	1.16	0.95
Osprey	0.99	0.85	1.19	0.60
Pacific Wren	1.00	0.81	1.25	0.53
Peregrine Falcon	1.03	0.87	1.19	0.60
Pine Grosbeak	0.98	0.91	1.06	0.72
Horned Lark	1.09	0.96	1.23	0.87
Song Sparrow	1.13	1.02	1.24	0.97
European Starling	1.13	0.94	1.34	0.85
Plumbeous Vireo	1.05	0.90	1.23	0.67
Red-breasted Nuthatch	0.99	0.94	1.05	0.70
Ruby-crowned Kinglet	1.00	0.95	1.05	0.57
Sage Thrasher	1.16	0.98	1.42	0.89
Red-naped Sapsucker	0.99	0.93	1.07	0.66
Rock Pigeon	0.99	0.83	1.18	0.57
Rock Wren	0.99	0.90	1.07	0.68
Red-tailed Hawk	0.99	0.94	1.05	0.71
Ruffed Grouse	1.09	0.94	1.27	0.82
Rufous Hummingbird	1.01	0.89	1.15	0.52
Red-winged Blackbird	1.01	0.87	1.20	0.52
Sandhill Crane	1.09	0.96	1.28	0.82
Say's Phoebe	1.04	0.93	1.18	0.72
Pinyon Jay	1.17	0.98	1.43	0.91
Savannah Sparrow	0.99	0.87	1.14	0.57
Eurasian Collared-Dove	1.22	1.02	1.45	0.96
Black-throated Gray Warbler	1.25	1.01	1.53	0.95
Spotted Towhee	1.04	0.92	1.21	0.64
Sharp-shinned Hawk	0.96	0.84	1.10	0.73
Steller's Jay	0.98	0.89	1.08	0.72
Swainson's Hawk	0.99	0.89	1.11	0.61
Swainson's Thrush	1.06	0.94	1.19	0.77
Townsend's Solitaire	0.98	0.90	1.07	0.69
Fox Sparrow	1.28	1.10	1.52	0.99
Turkey Vulture	1.03	0.91	1.17	0.62
Vesper Sparrow	1.02	0.96	1.10	0.61
Pika	1.34	1.15	1.63	1.00
White-breasted Nuthatch	1.00	0.92	1.10	0.58
White-crowned Sparrow	1.02	0.96	1.09	0.67
Western Flycatcher	1.06	0.96	1.15	0.80

Species	Trend	LCI90	UCI90	f
Western Kingbird	0.94	0.82	1.11	0.72
Western Meadowlark	1.03	0.83	1.27	0.57
Western Tanager	1.01	0.94	1.09	0.51
Western Wood-Pewee	1.04	0.97	1.13	0.73
Willow Flycatcher	1.00	0.89	1.15	0.54
Williamson's Sapsucker	0.98	0.87	1.11	0.66
Wilson's Snipe	1.04	0.93	1.19	0.65
Wilson's Warbler	1.01	0.93	1.13	0.52
White-winged Crossbill	1.05	0.91	1.21	0.72
Yellow Warbler	1.05	0.97	1.14	0.80

Caribou-Targhee National Forest

For species with significant trends, the mean trend was 1.01. The species trend distribution was skewed >1.0 . The general ecological conditions for bird species on the Caribou-Targhee National Forest are favorable (Figure 1-4). Trends for all species with trend estimates are listed in Table 1-4.

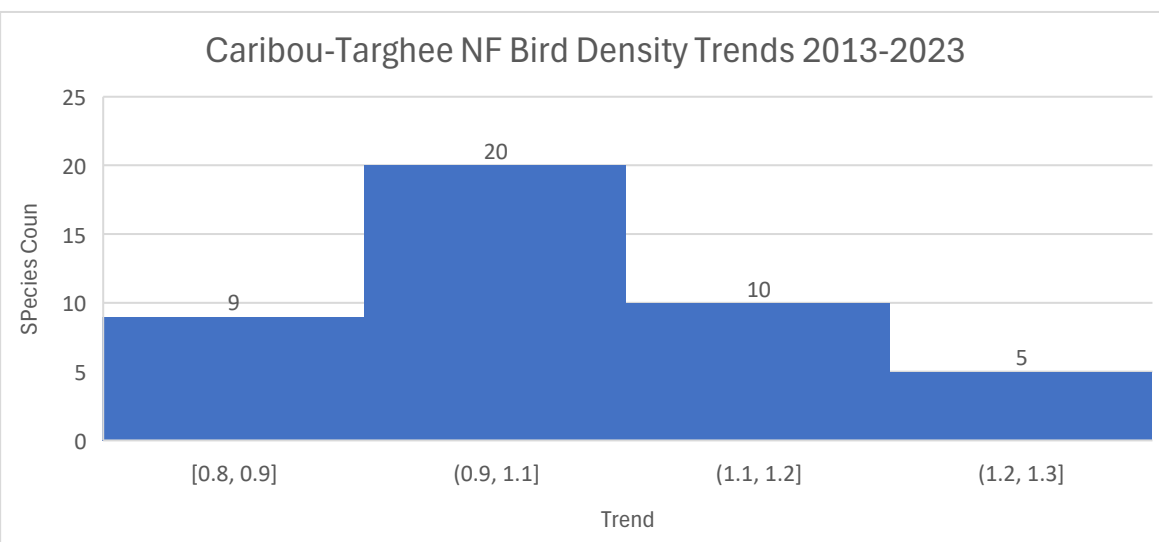


Figure 1-4. Bird Density Trends on the Caribou-Targhee National Forest

Significant Trends only: $f > 0.85$

Table 1-4. Median Density Trends for Caribou-Targhee National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Crow	1.01	0.91	1.13	0.52
American Goldfinch	0.92	0.82	1.05	0.90
American Goshawk	1.00	0.83	1.17	0.55
American Kestrel	0.94	0.87	1.02	0.94
American Robin	0.92	0.89	0.96	1.00
American Three-toed Woodpecker	0.99	0.87	1.13	0.58
American White Pelican	1.03	0.78	1.30	0.56
Ash-throated Flycatcher	1.08	0.89	1.31	0.72
Bald Eagle	1.11	0.85	1.41	0.75
Bank Swallow	1.02	0.77	1.37	0.54
Barn Swallow	1.06	0.88	1.28	0.66
Belted Kingfisher	1.10	0.91	1.42	0.78
Black-billed Magpie	0.94	0.85	1.04	0.87
Black-capped Chickadee	0.90	0.83	0.99	0.98
Black-chinned Hummingbird	1.05	0.92	1.20	0.69
Black-headed Grosbeak	1.04	0.97	1.11	0.70
Black-throated Gray Warbler	1.12	0.99	1.27	0.92
Black-throated Sparrow	1.20	0.92	1.59	0.83
Blue Grosbeak	1.09	0.78	1.58	0.63
Blue Jay	1.16	0.84	1.60	0.77
Blue-gray Gnatcatcher	1.13	0.98	1.29	0.89
Brewer's Blackbird	0.91	0.76	1.07	0.85
Brewer's Sparrow	0.98	0.90	1.07	0.68
Broad-tailed Hummingbird	1.03	0.95	1.13	0.65
Brown Creeper	0.99	0.93	1.07	0.66
Brown-headed Cowbird	0.93	0.87	1.00	0.97
Bullock's Oriole	1.06	0.90	1.23	0.68
Calliope Hummingbird	1.01	0.86	1.18	0.51
Canada Goose	0.97	0.80	1.14	0.68
Canada Jay	0.99	0.92	1.07	0.65
Canyon Wren	0.98	0.81	1.16	0.62
Cassin's Finch	0.95	0.88	1.02	0.92
Cedar Waxwing	1.05	0.94	1.16	0.71
Chipping Sparrow	0.93	0.89	0.97	1.00

Species	Trend	LCI90	UCI90	f
Chukar	1.08	0.89	1.29	0.73
Clark's Nutcracker	0.91	0.85	0.97	0.99
Cliff Swallow	1.20	1.03	1.47	0.96
Common Grackle	1.21	0.92	1.64	0.85
Common Nighthawk	1.12	1.02	1.23	0.97
Common Poorwill	1.09	1.00	1.22	0.91
Common Raven	0.95	0.90	1.00	0.97
Common Yellowthroat	1.13	0.91	1.42	0.77
Cooper's Hawk	1.02	0.89	1.15	0.55
Dark-eyed Junco	0.92	0.89	0.96	1.00
Downy Woodpecker	0.98	0.85	1.11	0.67
Dusky Flycatcher	0.96	0.91	1.01	0.95
Dusky Grouse	0.91	0.82	0.99	0.97
Eurasian Collared-Dove	1.10	0.92	1.33	0.75
European Starling	1.24	0.93	1.66	0.89
Evening Grosbeak	1.00	0.85	1.16	0.56
Fox Sparrow	1.05	0.89	1.24	0.64
Franklin's Gull	1.03	0.85	1.26	0.57
Golden Eagle	1.03	0.92	1.17	0.64
Golden-crowned Kinglet	0.91	0.81	1.04	0.89
Grasshopper Sparrow	1.07	0.90	1.27	0.70
Gray Catbird	1.10	0.95	1.25	0.81
Gray Flycatcher	1.16	0.96	1.43	0.88
Great Blue Heron	1.13	0.94	1.42	0.85
Great Horned Owl	1.06	0.94	1.18	0.75
Green-tailed Towhee	0.98	0.92	1.04	0.78
Hairy Woodpecker	1.03	0.96	1.09	0.67
Hammond's Flycatcher	1.03	0.95	1.11	0.66
Hermit Thrush	0.96	0.92	1.01	0.96
Horned Lark	1.11	0.97	1.26	0.84
House Finch	1.10	0.95	1.26	0.82
House Wren	1.03	0.95	1.11	0.64
Juniper Titmouse	1.11	0.87	1.40	0.74
Killdeer	1.09	0.92	1.27	0.76
Lark Sparrow	1.09	0.97	1.26	0.87
Lazuli Bunting	0.91	0.84	0.99	0.99
Least Flycatcher	0.97	0.84	1.13	0.67
Lesser Goldfinch	1.10	0.87	1.43	0.72
Lesser Scaup	1.09	0.84	1.39	0.72
Lincoln's Sparrow	0.97	0.89	1.05	0.80
MacGillivray's Warbler	0.96	0.90	1.02	0.89
Mallard	1.13	0.97	1.31	0.89

Species	Trend	LCI90	UCI90	f
Marsh Wren	0.97	0.74	1.24	0.62
Merlin	1.05	0.85	1.32	0.62
Mountain Bluebird	0.95	0.88	1.03	0.90
Mountain Chickadee	0.97	0.93	1.01	0.97
Mourning Dove	1.00	0.94	1.05	0.65
Northern Flicker	0.93	0.89	0.98	0.99
Northern Harrier	1.02	0.89	1.15	0.56
Northern Pygmy-Owl	1.01	0.84	1.16	0.51
Northern Rough-winged Swallow	1.03	0.91	1.15	0.56
Northern Waterthrush	0.94	0.75	1.21	0.69
Olive-sided Flycatcher	1.05	0.98	1.14	0.82
Orange-crowned Warbler	0.87	0.80	0.97	0.99
Osprey	1.11	0.91	1.37	0.81
Ovenbird	1.13	0.92	1.46	0.81
Pacific Wren	0.89	0.66	1.21	0.74
Peregrine Falcon	1.02	0.85	1.24	0.55
Pika	1.22	0.95	1.57	0.90
Pine Grosbeak	0.97	0.88	1.06	0.77
Pine Siskin	1.03	0.99	1.07	0.78
Plumbeous Vireo	1.02	0.91	1.15	0.52
Prairie Falcon	0.96	0.81	1.13	0.70
Pygmy Nuthatch	1.02	0.83	1.28	0.55
Red Crossbill	1.04	0.96	1.11	0.73
Red-breasted Nuthatch	0.99	0.94	1.03	0.83
Red-eyed Vireo	1.25	0.93	1.67	0.88
Red-naped Sapsucker	0.99	0.92	1.08	0.69
Red-tailed Hawk	1.03	0.96	1.11	0.70
Red-winged Blackbird	1.09	0.90	1.32	0.76
Ring-billed Gull	1.08	0.81	1.35	0.67
Ring-necked Pheasant	1.00	0.77	1.27	0.53
Rock Pigeon	0.78	0.65	0.95	1.00
Rock Wren	1.01	0.94	1.08	0.51
Ruby-crowned Kinglet	0.97	0.92	1.01	0.94
Ruffed Grouse	0.98	0.90	1.10	0.66
Rufous-crowned Sparrow	0.94	0.71	1.29	0.67
Sage Thrasher	1.09	0.92	1.31	0.81
Sagebrush Sparrow	1.12	0.90	1.38	0.81
Sandhill Crane	0.92	0.81	1.02	0.91
Savannah Sparrow	0.94	0.69	1.24	0.67
Say's Phoebe	1.14	0.97	1.32	0.91
Sharp-shinned Hawk	0.94	0.83	1.04	0.88
Song Sparrow	1.02	0.92	1.14	0.58

Species	Trend	LCI90	UCI90	f
Spotted Sandpiper	0.89	0.75	1.04	0.92
Spotted Towhee	1.03	0.94	1.14	0.67
Steller's Jay	1.05	0.96	1.15	0.79
Swainson's Thrush	1.04	0.98	1.11	0.76
Townsend's Solitaire	0.95	0.88	1.04	0.90
Tree Swallow	0.97	0.87	1.09	0.67
Turkey Vulture	0.98	0.89	1.08	0.65
Veery	1.14	0.97	1.43	0.90
Vesper Sparrow	0.99	0.91	1.06	0.64
Violet-green Swallow	1.06	0.96	1.17	0.79
Virginia's Warbler	1.12	0.95	1.27	0.85
Warbling Vireo	0.99	0.94	1.04	0.73
Western Bluebird	1.05	0.72	1.44	0.56
Western Flycatcher	0.98	0.89	1.09	0.66
Western Kingbird	1.09	0.92	1.25	0.80
Western Meadowlark	1.09	0.99	1.21	0.89
Western Tanager	0.99	0.95	1.03	0.80
Western Wood-Pewee	1.05	0.96	1.14	0.76
White-breasted Nuthatch	0.98	0.88	1.11	0.64
White-crowned Sparrow	0.96	0.88	1.05	0.81
White-throated Swift	1.06	0.91	1.21	0.71
White-winged Crossbill	1.32	1.08	1.64	0.98
Wild Turkey	1.09	0.91	1.29	0.74
Williamson's Sapsucker	0.97	0.87	1.07	0.77
Willow Flycatcher	1.03	0.87	1.23	0.55
Wilson's Snipe	0.99	0.75	1.26	0.54
Wilson's Warbler	0.93	0.80	1.05	0.85
Wood Duck	1.08	0.87	1.37	0.70
Woodhouse's Scrub-Jay	0.99	0.79	1.23	0.58
Yellow Warbler	0.99	0.91	1.08	0.67
Yellow-breasted Chat	1.22	0.92	1.61	0.84
Yellow-rumped Warbler	0.97	0.94	1.01	0.96

Curlew National Grassland

For species with significant trends, the mean trend was 0.94. The species trend distribution was skewed <1.0. A further examination of general ecological conditions for bird species on the Curlew National Grassland is warranted (Figure 1-5). Trends for all species with trend estimates are listed in Table 1-5.

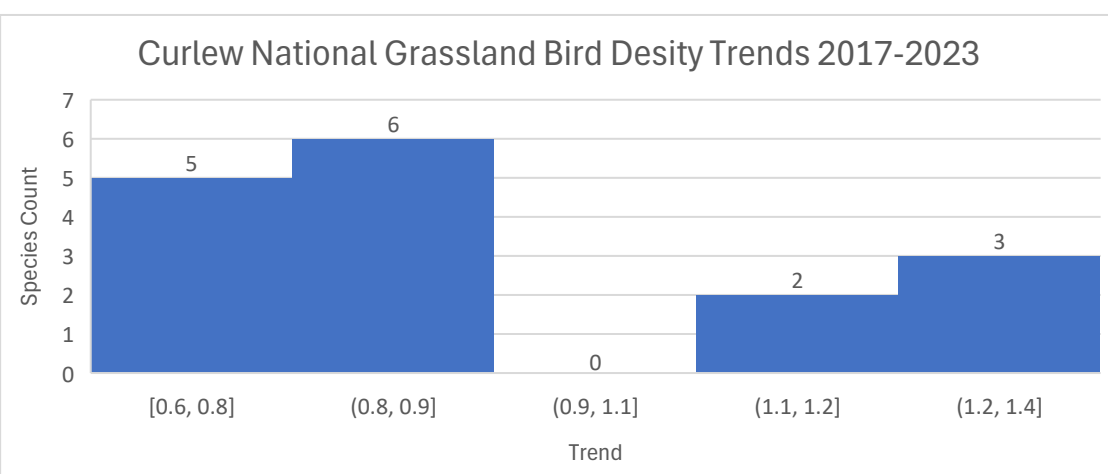


Figure 1-5. Bird Density Trends on the Curlew National Grassland

Significant Trends only: $f > 0.85$

Table 1-5. Median Density Trends for Curlew National Grassland Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Crow	1.15	0.78	1.69	0.71
American Goldfinch	0.84	0.55	1.18	0.82
American Kestrel	0.89	0.71	1.13	0.79
American Robin	0.81	0.57	1.10	0.86
Bank Swallow	1.14	0.66	2.03	0.67
Barn Swallow	0.77	0.54	1.00	0.96
Black-billed Magpie	0.96	0.80	1.14	0.70
Blue-gray Gnatcatcher	1.02	0.66	1.46	0.51
Brewer's Blackbird	1.01	0.82	1.24	0.50
Brewer's Sparrow	0.98	0.87	1.07	0.70
Broad-tailed Hummingbird	1.06	0.68	1.70	0.59
Brown-headed Cowbird	0.96	0.83	1.13	0.67
Bullock's Oriole	1.03	0.71	1.50	0.54
Burrowing Owl	0.81	0.58	1.06	0.90
California Gull	0.92	0.46	1.96	0.61
Canada Goose	1.10	0.69	1.59	0.63
Canada Jay	1.07	0.71	1.56	0.60
Chipping Sparrow	1.16	0.75	1.76	0.71
Chukar	1.40	0.97	2.05	0.94
Cliff Swallow	0.88	0.63	1.25	0.75
Common Grackle	0.86	0.49	1.33	0.70
Common Nighthawk	0.85	0.62	1.08	0.88
Common Raven	0.93	0.83	1.07	0.84
Common Yellowthroat	1.13	0.77	1.66	0.68
Eurasian Collared-Dove	0.95	0.68	1.34	0.63
European Starling	0.84	0.60	1.15	0.81
Ferruginous Hawk	1.05	0.65	1.51	0.56
Golden Eagle	0.98	0.75	1.28	0.58
Grasshopper Sparrow	0.92	0.74	1.15	0.77
Gray Flycatcher	0.92	0.72	1.14	0.74
Gray Partridge	1.25	0.85	1.94	0.85
Great Blue Heron	0.99	0.66	1.52	0.53
Great Horned Owl	1.02	0.69	1.49	0.52
Green-tailed Towhee	1.05	0.84	1.32	0.62
Horned Lark	1.01	0.86	1.16	0.50

Species	Trend	LCI90	UCI90	f
House Finch	0.95	0.59	1.45	0.60
House Wren	0.95	0.65	1.37	0.62
Killdeer	0.91	0.71	1.15	0.76
Lark Sparrow	1.11	0.92	1.33	0.81
Lazuli Bunting	1.06	0.69	1.61	0.58
Loggerhead Shrike	0.99	0.82	1.21	0.57
Long-billed Curlew	1.09	0.80	1.55	0.65
Mallard	1.40	1.00	2.33	0.94
Marsh Wren	0.97	0.55	1.69	0.56
Mountain Bluebird	0.97	0.69	1.34	0.55
Mourning Dove	1.13	1.00	1.25	0.94
Northern Harrier	0.75	0.56	0.99	0.96
Northern Rough-winged Swallow	0.82	0.59	1.13	0.85
Northern Shoveler	1.04	0.62	1.82	0.55
Pied-billed Grebe	1.00	0.67	1.44	0.52
Red-tailed Hawk	0.88	0.70	1.08	0.87
Red-winged Blackbird	1.02	0.79	1.33	0.52
Ring-necked Pheasant	0.92	0.67	1.15	0.72
Rock Wren	0.95	0.68	1.25	0.64
Sage Thrasher	0.92	0.77	1.06	0.84
Sandhill Crane	1.07	0.69	1.58	0.60
Savannah Sparrow	0.96	0.52	1.86	0.55
Sharp-tailed Grouse	1.20	0.83	1.74	0.78
Short-eared Owl	0.62	0.39	0.91	0.98
Song Sparrow	0.94	0.66	1.27	0.64
Sora	1.12	0.71	1.82	0.67
Spotted Towhee	1.00	0.67	1.45	0.52
Swainson's Hawk	0.73	0.57	0.92	0.99
Turkey Vulture	1.23	0.91	1.72	0.86
Upland Sandpiper	1.09	0.70	1.77	0.63
Vesper Sparrow	0.89	0.79	0.98	0.99
Virginia Rail	0.92	0.61	1.46	0.64
Virginia's Warbler	1.03	0.68	1.46	0.53
Western Bluebird	1.44	0.74	2.57	0.82
Western Kingbird	1.03	0.83	1.27	0.55
Western Meadowlark	0.99	0.90	1.06	0.72
Willet	0.87	0.60	1.20	0.75
Willow Flycatcher	1.00	0.66	1.49	0.52
Wilson's Snipe	0.70	0.39	1.13	0.90
Yellow Warbler	0.94	0.66	1.34	0.62
Yellow-headed Blackbird	1.20	0.84	1.76	0.78
Yellow-rumped Warbler	1.34	0.65	2.68	0.75

Dixie National Forest

For species with significant trends, the mean trend was 1.02. The species trend distribution was skewed distributed on either side of 1.0. There is insufficient evidence to conclude that general ecological conditions for bird species on the Dixie National Forest aren't favorable (Figure 1-6). Trends for all species with trend estimates are listed in Table 1-6.

Figure 1-6. Bird Density Trends on the Dixie National Forest

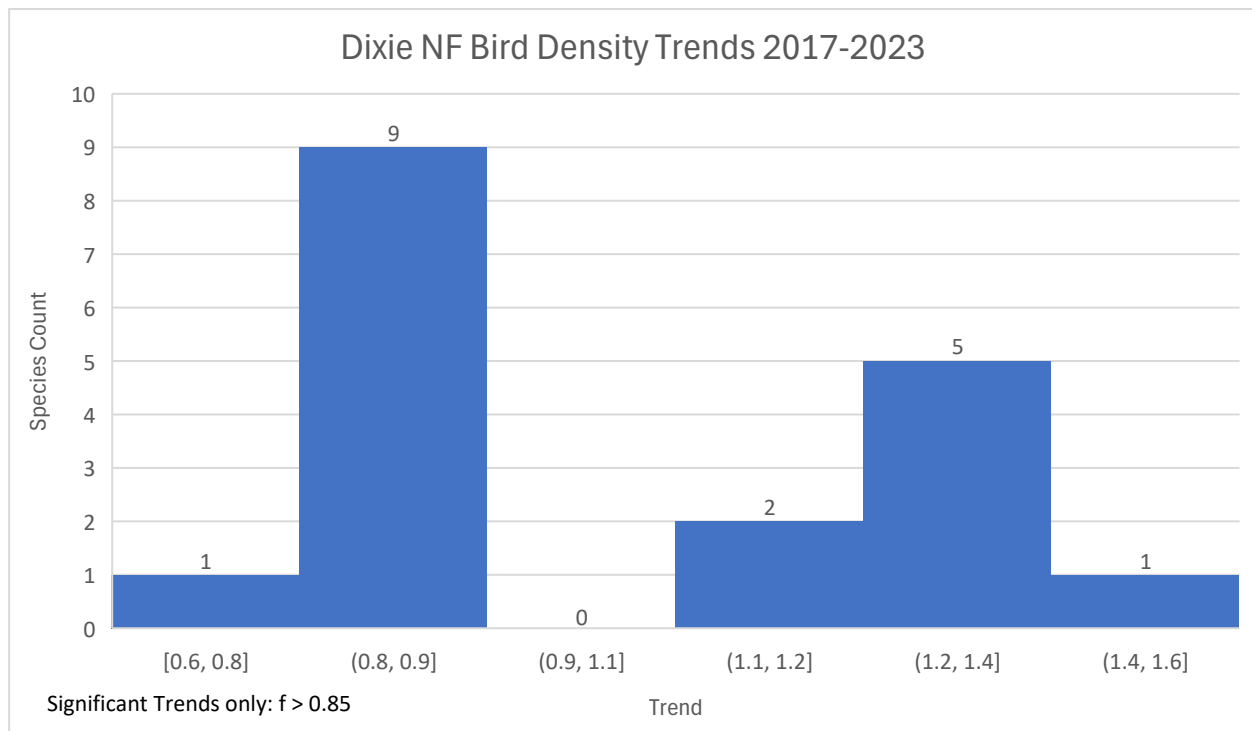


Table 1-6. Median Density Trends for Dixie National Forest Birds 2017-2023. Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	1.09	0.63	2.00	0.60
Canyon Wren	0.61	0.39	0.85	0.99
American Crow	1.15	0.84	1.61	0.75
American Kestrel	0.90	0.73	1.14	0.79
American Robin	1.07	0.93	1.22	0.77
Ash-throated Flycatcher	0.98	0.87	1.11	0.65
Bank Swallow	1.03	0.54	1.76	0.52
Barn Swallow	0.98	0.67	1.45	0.56
Black-capped Chickadee	1.07	0.69	1.79	0.61
Brown Creeper	0.77	0.58	0.98	0.98
Black-chinned Sparrow	1.03	0.79	1.31	0.56
Bewick's Wren	0.90	0.74	1.14	0.76
Eurasian Collared-Dove	0.79	0.57	1.06	0.92
Brown-headed Cowbird	0.94	0.75	1.19	0.69
Black-headed Grosbeak	1.06	0.93	1.20	0.74
Blue Grosbeak	1.12	0.67	1.97	0.66
Brewer's Blackbird	1.13	0.77	1.73	0.68
American Goshawk ^F	0.82	0.56	1.14	0.87
Brewer's Sparrow	1.07	0.76	1.48	0.63
Broad-tailed Hummingbird	0.99	0.82	1.21	0.55
Black-chinned Hummingbird	0.83	0.63	1.05	0.91
Black-throated Gray Warbler	0.96	0.84	1.10	0.73
Bullock's Oriole	1.00	0.74	1.34	0.53
Bushtit	0.94	0.80	1.12	0.75
Cassin's Finch	1.12	0.89	1.44	0.74
Cassin's Kingbird	0.97	0.61	1.62	0.55
Black-throated Sparrow	0.85	0.68	1.07	0.87
Cassin's Vireo	1.08	0.59	1.99	0.59
Chipping Sparrow	1.01	0.91	1.13	0.52
Chukar	1.06	0.70	1.54	0.60
Juniper Titmouse	0.86	0.70	1.04	0.91
Cooper's Hawk	1.08	0.84	1.45	0.70
Common Merganser	0.87	0.54	1.36	0.76
Common Nighthawk	1.08	0.82	1.47	0.67

Species	Trend	LCI90	UCI90	f
Woodhouse's Scrub-Jay	0.87	0.72	1.03	0.93
Common Raven	1.02	0.92	1.13	0.58
Dark-eyed Junco	0.92	0.78	1.09	0.82
Downy Woodpecker	0.98	0.66	1.53	0.55
Dusky Flycatcher	0.98	0.87	1.12	0.63
Dusky Grouse	0.89	0.62	1.19	0.73
Blue-gray Gnatcatcher	0.91	0.80	1.05	0.87
Evening Grosbeak	0.91	0.59	1.34	0.65
Fox Sparrow	0.94	0.54	1.51	0.60
Gambel's Quail	1.12	0.67	2.01	0.63
Gray Flycatcher	0.95	0.81	1.13	0.74
Gray Vireo	1.00	0.85	1.17	0.53
Clark's Nutcracker	0.92	0.79	1.04	0.89
Green-tailed Towhee	0.98	0.79	1.19	0.59
Hammond's Flycatcher	1.05	0.66	1.60	0.56
Hairy Woodpecker	1.03	0.88	1.19	0.60
Hermit Thrush	1.04	0.90	1.23	0.64
House Finch	0.98	0.82	1.19	0.57
House Wren	1.11	0.79	1.60	0.68
Western Tanager	1.09	0.98	1.24	0.91
Lark Sparrow	1.01	0.81	1.25	0.51
Lazuli Bunting	0.92	0.76	1.13	0.79
Lesser Goldfinch	1.12	0.86	1.48	0.73
Lincoln's Sparrow	0.98	0.57	1.56	0.52
MacGillivray's Warbler	0.88	0.64	1.15	0.82
Mountain Bluebird	0.94	0.77	1.11	0.73
Mountain Chickadee	1.01	0.89	1.14	0.51
Mourning Dove	1.01	0.89	1.16	0.50
Northern Flicker ^F	0.94	0.83	1.07	0.84
Northern Mockingbird	0.96	0.71	1.33	0.59
Northern Pygmy-Owl	0.97	0.70	1.38	0.59
Northern Rough-winged Swallow	1.05	0.72	1.61	0.58
Orange-crowned Warbler	1.22	0.91	1.69	0.85
Olive-sided Flycatcher	1.03	0.78	1.31	0.53
Osprey	1.17	0.82	1.73	0.75
Peregrine Falcon ^F	0.83	0.52	1.21	0.79
Pine Grosbeak	1.01	0.69	1.55	0.51
Pinyon Jay	0.90	0.69	1.20	0.77
Pine Siskin	0.92	0.75	1.07	0.81
Plumbeous Vireo	0.97	0.80	1.15	0.67
Pygmy Nuthatch	0.99	0.55	1.63	0.55

Species	Trend	LCI90	UCI90	f
Red-breasted Nuthatch	0.99	0.84	1.14	0.60
Ruby-crowned Kinglet	0.98	0.83	1.13	0.64
Warbling Vireo	1.21	1.06	1.44	0.99
Red-naped Sapsucker	1.05	0.71	1.54	0.58
Rock Wren	0.98	0.82	1.17	0.58
Red-tailed Hawk	1.00	0.83	1.23	0.52
Red-winged Blackbird	1.02	0.61	1.78	0.51
Say's Phoebe	1.03	0.77	1.37	0.55
Wild Turkey ^F	1.29	0.96	1.73	0.92
Song Sparrow	1.05	0.82	1.32	0.62
Spotted Sandpiper	1.07	0.72	1.70	0.61
Spotted Towhee	0.96	0.83	1.08	0.73
Sharp-shinned Hawk	0.88	0.64	1.26	0.75
Steller's Jay	1.10	0.92	1.30	0.84
Townsend's Solitaire	1.02	0.84	1.23	0.53
Tree Swallow	1.03	0.73	1.52	0.55
Turkey Vulture	1.16	0.90	1.52	0.81
Violet-green Swallow	0.94	0.71	1.21	0.69
Virginia Rail	1.00	0.62	1.57	0.51
Virginia's Warbler	1.03	0.89	1.21	0.57
Red Crossbill	1.30	1.00	1.84	0.95
White-breasted Nuthatch	0.99	0.82	1.20	0.58
White-crowned Sparrow	1.13	0.74	1.87	0.67
Western Bluebird	1.03	0.77	1.34	0.55
Western Flycatcher	1.30	1.01	1.74	0.95
Western Kingbird	0.90	0.70	1.20	0.74
Western Meadowlark	1.05	0.79	1.38	0.57
Scott's Oriole	1.32	0.88	2.13	0.88
Western Wood-Pewee	1.00	0.83	1.22	0.53
Williamson's Sapsucker	1.14	0.80	1.82	0.72
Common Poorwill	1.38	0.98	2.12	0.92
Wilson's Warbler	1.06	0.74	1.49	0.57
Grace's Warbler	1.55	1.07	2.33	0.99
White-throated Swift	0.86	0.63	1.20	0.78
Yellow-breasted Chat	1.21	0.64	2.34	0.65
Yellow Warbler	0.96	0.78	1.20	0.64
Yellow-rumped Warbler	1.04	0.91	1.19	0.67

Fishlake National Forest

For species with significant trends, the mean trend was 1.12. The species trend distribution was skewed $\gg 1.0$. The general ecological conditions for bird species on the Fishlake National Forest are favorable (Figure 1-7). Trends for all species with trend estimates are listed in Table 1-7.

Figure 1-7. Bird Density Trends on the Fishlake National Forest

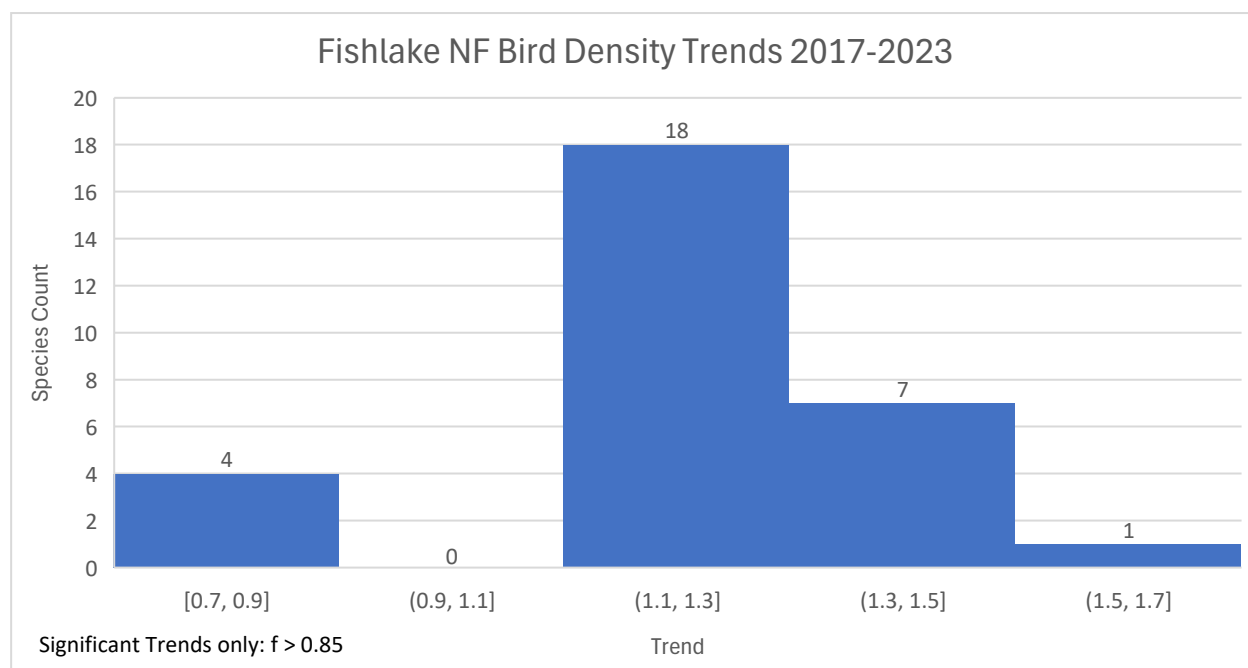


Table 1-7. Median Density Trends for Fishlake National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	1.08	0.74	1.61	0.61
American Crow	1.13	0.72	1.82	0.66
American Kestrel	0.99	0.71	1.31	0.56
American Pipit	1.18	0.62	2.38	0.64
American Robin	1.01	0.88	1.16	0.50
Ash-throated Flycatcher	1.05	0.81	1.32	0.61
Black-billed Magpie	0.90	0.69	1.19	0.74
Canyon Wren	0.72	0.50	1.03	0.94
Black-chinned Hummingbird	0.96	0.72	1.32	0.63
Bewick's Wren	0.87	0.65	1.14	0.85
Blue-gray Gnatcatcher	1.03	0.91	1.18	0.59
Brown-headed Cowbird	0.94	0.75	1.17	0.71
Juniper Titmouse	0.77	0.57	0.97	0.98
Brewer's Blackbird	1.24	0.86	1.81	0.82
Brown Creeper	1.15	0.73	1.92	0.65
Prairie Falcon	0.80	0.56	1.10	0.88
Broad-tailed Hummingbird	1.06	0.91	1.27	0.69
Woodhouse's Scrub-Jay	0.85	0.67	1.00	0.96
Black-throated Gray Warbler	1.02	0.89	1.20	0.55
Bushtit	1.14	0.91	1.48	0.76
Cassin's Finch	1.12	0.91	1.40	0.78
Canada Jay	0.91	0.64	1.25	0.66
Warbling Vireo	1.13	0.98	1.30	0.90
Cedar Waxwing	1.17	0.79	1.83	0.74
Mourning Dove	1.15	1.03	1.30	0.97
Chukar	1.08	0.84	1.41	0.65
Dusky Flycatcher	1.16	1.01	1.35	0.95
Cooper's Hawk	1.06	0.82	1.45	0.63
Common Nighthawk	1.12	0.89	1.45	0.76
Clark's Nutcracker	1.16	0.98	1.41	0.90
Common Raven	1.18	1.04	1.35	0.97
Dark-eyed Junco	0.92	0.79	1.07	0.85
Downy Woodpecker	1.18	0.78	1.88	0.72

Species	Trend	LCI90	UCI90	f
Chipping Sparrow	1.19	1.08	1.31	1.00
Dusky Grouse	0.89	0.63	1.21	0.76
Eurasian Collared-Dove	0.97	0.71	1.38	0.58
Fox Sparrow	0.99	0.59	1.68	0.53
Golden Eagle	1.02	0.76	1.36	0.53
Gray Flycatcher	0.98	0.84	1.14	0.64
Gray Vireo	1.06	0.87	1.29	0.69
Green-tailed Towhee	1.03	0.90	1.21	0.61
Green-winged Teal	1.03	0.73	1.48	0.54
Hammond's Flycatcher	0.99	0.58	1.59	0.54
House Finch	1.20	0.95	1.58	0.89
Hermit Thrush	1.08	0.94	1.28	0.79
Brewer's Sparrow ^F	1.22	0.94	1.59	0.88
Horned Lark	0.96	0.75	1.30	0.61
House Wren	0.93	0.63	1.37	0.61
Indigo Bunting	1.12	0.60	2.14	0.62
Western Flycatcher	1.22	0.95	1.54	0.91
Black-headed Grosbeak	1.22	1.02	1.48	0.96
Lazuli Bunting	1.00	0.79	1.27	0.56
Lesser Goldfinch	1.22	0.82	1.75	0.81
Mallard	1.13	0.73	1.87	0.66
Western Tanager	1.22	1.03	1.44	0.97
Mountain Bluebird ^F	1.00	0.87	1.15	0.58
Mountain Chickadee	0.97	0.87	1.10	0.71
Yellow-rumped Warbler	1.23	1.05	1.49	0.98
Northern Flicker	1.02	0.88	1.18	0.54
Northern Mockingbird	1.15	0.80	1.79	0.73
Northern Pintail	1.11	0.67	1.84	0.62
Northern Rough-winged Swallow	0.97	0.71	1.33	0.58
Virginia's Warbler	1.25	1.02	1.56	0.97
Pine Grosbeak	0.91	0.66	1.30	0.68
Pinyon Jay	1.10	0.87	1.40	0.73
Lark Sparrow	1.25	1.06	1.45	0.99
Plumbeous Vireo	1.07	0.86	1.35	0.66
Hairy Woodpecker ^F	1.25	0.87	1.88	0.85
Red-breasted Nuthatch	0.91	0.69	1.13	0.81
Ruby-crowned Kinglet	1.03	0.84	1.26	0.57
MacGillivray's Warbler ^F	1.27	1.01	1.62	0.95
Red-naped Sapsucker	1.16	0.75	1.80	0.68
Rock Wren	1.08	0.93	1.24	0.78
Red-tailed Hawk	1.03	0.78	1.34	0.54

Species	Trend	LCI90	UCI90	f
Ruffed Grouse	0.83	0.55	1.18	0.82
Red-winged Blackbird	1.07	0.60	1.75	0.54
Sagebrush Sparrow	1.02	0.73	1.47	0.53
Say's Phoebe	1.11	0.82	1.56	0.68
Sage Thrasher ^F	1.01	0.73	1.45	0.50
Savannah Sparrow	1.05	0.57	1.90	0.53
Scott's Oriole	1.31	0.71	2.45	0.74
Song Sparrow	1.30	0.95	1.83	0.89
Spotted Sandpiper	1.15	0.77	1.79	0.71
Spotted Towhee	0.98	0.83	1.16	0.63
Steller's Jay	1.00	0.72	1.35	0.51
Townsend's Solitaire	1.04	0.75	1.42	0.58
Tree Swallow	1.25	0.90	1.89	0.84
Turkey Vulture	1.12	0.79	1.61	0.68
Black-capped Chickadee	1.31	0.89	2.18	0.86
Violet-green Swallow	1.03	0.76	1.38	0.54
Black-throated Sparrow	1.32	0.97	1.91	0.93
Vesper Sparrow ^F	1.35	1.06	1.83	0.97
White-breasted Nuthatch	1.24	0.90	1.91	0.83
Orange-crowned Warbler	1.36	0.99	1.86	0.95
Common Poorwill	1.39	0.99	2.27	0.94
Western Meadowlark	1.06	0.85	1.32	0.62
Pine Siskin	1.39	1.14	1.82	1.00
Western Wood-Pewee	0.92	0.70	1.26	0.70
Wild Turkey	0.87	0.60	1.16	0.78
Wilson's Warbler	0.80	0.54	1.26	0.82
Wood Duck	0.98	0.64	1.53	0.54
Yellow Warbler ^F	1.39	1.06	1.89	0.97
White-throated Swift	1.05	0.68	1.71	0.55
Red Crossbill	1.46	0.97	2.40	0.93
White-crowned Sparrow	1.66	1.13	2.72	0.98

Humboldt-Toiyabe National Forest

For species with significant trends, the mean trend was 1.01. The species trend distribution was mostly centered around 1.0. There isn't sufficient evidence to conclude that general ecological conditions for bird species on the Humboldt-Toiyabe National Forest aren't favorable (Figure 1-8). Trends for all species with trend estimates are listed in Table 1-8.

Humboldt-Toiyabe NF Bird Density Trends 2017-2023

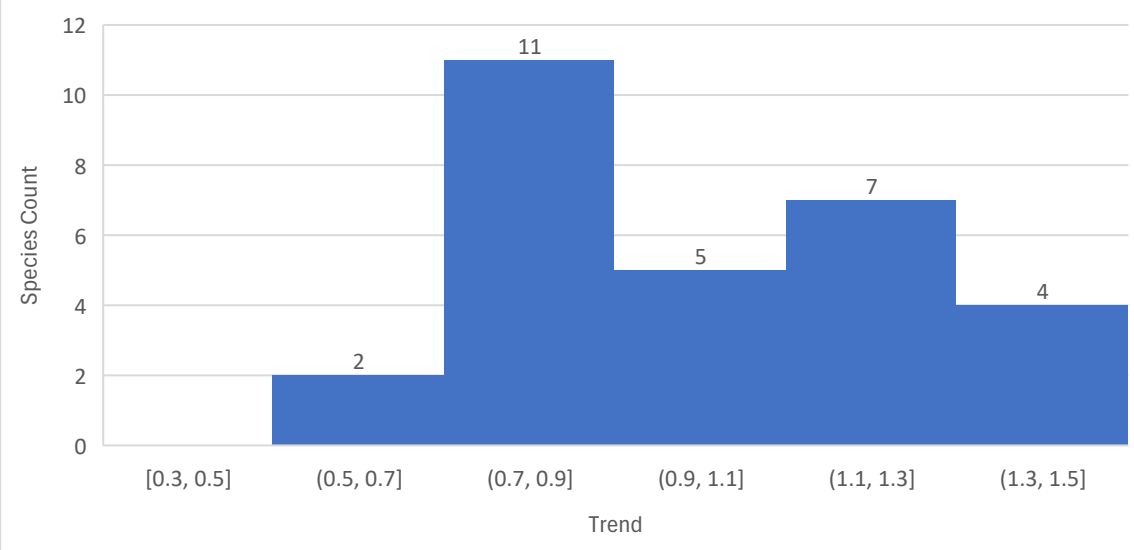


Figure 1-8. Bird Density Trends on the Humboldt-Toiyabe National Forest

Significant Trends only: $f > 0.85$

Table 1-8. Median Density Trends for Humboldt-Toiyabe National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Crow	1.06	0.67	1.61	0.56
American Kestrel	0.83	0.68	0.99	0.97
American Robin	0.97	0.86	1.09	0.73
American White Pelican	1.00	0.58	1.63	0.53
Anna's Hummingbird	1.10	0.77	1.62	0.67
Ash-throated Flycatcher	1.03	0.85	1.28	0.55
Band-tailed Pigeon	1.12	0.85	1.51	0.73
Barn Swallow	0.91	0.63	1.31	0.66
Bewick's Wren	0.80	0.68	0.95	0.99
Black Phoebe	1.00	0.55	1.81	0.51
Black-backed Woodpecker	1.28	0.90	1.83	0.88
Black-billed Magpie	0.79	0.59	1.04	0.92
Black-chinned Sparrow	0.74	0.43	1.22	0.87
Black-headed Grosbeak	1.06	0.91	1.23	0.70
Black-throated Gray Warbler	1.08	0.97	1.20	0.85
Black-throated Sparrow	0.95	0.77	1.14	0.71
Blue-gray Gnatcatcher	1.07	0.95	1.21	0.80
Brewer's Blackbird	1.10	0.86	1.42	0.71
Brewer's Sparrow	0.87	0.76	1.01	0.95
Broad-tailed Hummingbird	1.12	0.92	1.43	0.80
Brown Creeper	1.00	0.82	1.23	0.54
Brown-headed Cowbird	0.99	0.83	1.19	0.58
Bullock's Oriole	0.99	0.69	1.35	0.52
Bushtit	1.23	1.08	1.43	1.00
Cactus Wren	0.65	0.38	1.10	0.92
California Quail	0.95	0.72	1.26	0.67
Calliope Hummingbird	1.02	0.77	1.29	0.51
Canyon Wren	0.77	0.52	1.07	0.93
Cassin's Finch	1.01	0.87	1.15	0.51
Cassin's Vireo	1.07	0.69	1.65	0.57
Chipping Sparrow	1.10	0.98	1.22	0.89
Chukar	0.98	0.77	1.27	0.56
Clark's Nutcracker	0.91	0.79	1.03	0.90
Cliff Swallow	1.03	0.76	1.45	0.55

Species	Trend	LCI90	UCI90	f
Common Merganser	1.06	0.73	1.59	0.61
Common Nighthawk	1.13	0.93	1.34	0.81
Common Poorwill	0.97	0.77	1.23	0.61
Common Raven	1.02	0.91	1.16	0.58
Cooper's Hawk	0.99	0.77	1.24	0.57
Costa's Hummingbird	1.34	0.86	2.14	0.89
Crissal Thrasher	0.72	0.39	1.24	0.87
Dark-eyed Junco	0.94	0.84	1.07	0.83
Double-crested Cormorant	1.19	0.66	2.36	0.70
Dusky Flycatcher	0.99	0.86	1.12	0.58
Dusky Grouse	0.94	0.63	1.26	0.67
Eurasian Collared-Dove	0.90	0.66	1.23	0.72
Evening Grosbeak	1.11	0.70	1.73	0.62
Fox Sparrow	0.89	0.76	1.03	0.93
Gadwall	1.03	0.68	1.54	0.53
Golden Eagle	0.86	0.61	1.12	0.84
Golden-crowned Kinglet	0.92	0.54	1.48	0.63
Gray Flycatcher	1.00	0.88	1.15	0.56
Gray Vireo	1.09	0.86	1.36	0.71
Green-tailed Towhee	0.99	0.90	1.10	0.59
Hairy Woodpecker	1.05	0.89	1.24	0.67
Hammond's Flycatcher	1.01	0.74	1.35	0.50
Hermit Thrush	0.92	0.77	1.11	0.80
Horned Lark	1.01	0.75	1.45	0.50
House Finch	1.21	0.97	1.51	0.91
House Wren	0.93	0.79	1.10	0.81
Indigo Bunting	1.22	0.74	2.11	0.77
Juniper Titmouse	1.01	0.87	1.18	0.50
Lark Sparrow	1.15	0.86	1.51	0.79
Lazuli Bunting	0.87	0.74	1.05	0.90
Lesser Goldfinch	0.98	0.80	1.21	0.60
Lewis's Woodpecker	1.11	0.77	1.49	0.70
Lincoln's Sparrow	1.10	0.81	1.41	0.64
Loggerhead Shrike	1.23	0.99	1.62	0.92
MacGillivray's Warbler	0.99	0.85	1.16	0.58
Mallard	0.92	0.68	1.27	0.71
Mountain Bluebird	1.04	0.91	1.16	0.64
Mountain Chickadee	1.00	0.90	1.10	0.57
Mountain Quail	0.60	0.47	0.79	1.00
Mourning Dove	1.02	0.89	1.16	0.54
Nashville Warbler	0.98	0.63	1.43	0.56

Species	Trend	LCI90	UCI90	f
Northern Flicker	0.95	0.86	1.07	0.80
Northern Harrier	0.89	0.70	1.13	0.83
Northern Mockingbird	1.01	0.58	1.68	0.50
Northern Pygmy-Owl	0.96	0.59	1.49	0.57
Northern Rough-winged Swallow	1.03	0.74	1.46	0.55
Olive-sided Flycatcher	0.97	0.83	1.14	0.64
Orange-crowned Warbler	0.94	0.77	1.21	0.66
Peregrine Falcon	0.98	0.62	1.47	0.57
Pine Grosbeak	1.01	0.76	1.35	0.51
Pine Siskin	1.10	0.90	1.32	0.74
Pinyon Jay	1.09	0.88	1.36	0.71
Plumbeous Vireo	1.12	0.93	1.34	0.84
Pygmy Nuthatch	1.24	0.90	1.75	0.87
Red Crossbill	1.28	0.97	1.67	0.91
Red-breasted Nuthatch	0.99	0.78	1.21	0.57
Red-naped Sapsucker	1.14	0.80	1.54	0.72
Red-tailed Hawk	1.03	0.86	1.24	0.57
Red-winged Blackbird	0.81	0.49	1.21	0.82
Rock Pigeon	0.74	0.51	1.07	0.91
Rock Wren	0.94	0.83	1.04	0.89
Ruby-crowned Kinglet	1.06	0.84	1.36	0.63
Rufous Hummingbird	0.87	0.64	1.18	0.77
Rufous-crowned Sparrow	0.80	0.52	1.26	0.83
Sage Thrasher	0.97	0.74	1.24	0.59
Sagebrush Sparrow	0.86	0.65	1.11	0.83
Say's Phoebe	1.05	0.77	1.49	0.58
Scott's Oriole	1.50	0.99	2.45	0.95
Sharp-shinned Hawk	1.03	0.69	1.51	0.54
Song Sparrow	0.96	0.77	1.17	0.65
Spotted Sandpiper	1.16	0.77	1.89	0.68
Spotted Towhee	0.97	0.87	1.08	0.73
Steller's Jay	1.06	0.91	1.21	0.72
Townsend's Solitaire	1.09	0.90	1.32	0.73
Tree Swallow	1.05	0.72	1.47	0.54
Turkey Vulture	1.00	0.80	1.24	0.52
Vesper Sparrow	1.11	0.87	1.44	0.74
Violet-green Swallow	1.04	0.83	1.29	0.58
Virginia's Warbler	1.04	0.78	1.41	0.56
Warbling Vireo	1.01	0.85	1.22	0.50
Western Bluebird	1.31	0.99	1.77	0.94
Western Flycatcher	0.97	0.66	1.42	0.56

Species	Trend	LCI90	UCI90	f
Western Kingbird	0.85	0.58	1.28	0.74
Western Meadowlark	0.91	0.63	1.44	0.67
Western Tanager	1.16	1.04	1.31	0.97
Western Wood-Pewee	1.05	0.93	1.21	0.69
White-breasted Nuthatch	0.96	0.79	1.18	0.65
White-crowned Sparrow	0.93	0.75	1.15	0.73
White-headed Woodpecker	1.13	0.82	1.50	0.71
White-throated Swift	0.95	0.68	1.26	0.66
Williamson's Sapsucker	1.41	1.01	2.01	0.95
Willow Flycatcher	1.01	0.69	1.55	0.50
Wilson's Snipe	0.89	0.52	1.55	0.65
Wilson's Warbler	0.84	0.69	1.08	0.89
Woodhouse's Scrub-Jay	0.94	0.84	1.04	0.89
Yellow Warbler	1.03	0.85	1.24	0.56
Yellow-rumped Warbler	0.99	0.85	1.21	0.59

Manti-La Sal National Forest

For species with significant trends, the mean trend was 1.07. The species trend distribution was skewed >1.0. General ecological conditions for bird species on the Manti-La Sal National Forest are favorable (Figure 1-9). Trends for all species with trend estimates are listed in Table 1-9.

Manti-La Sal NF Bird Density Trends 2015-2023

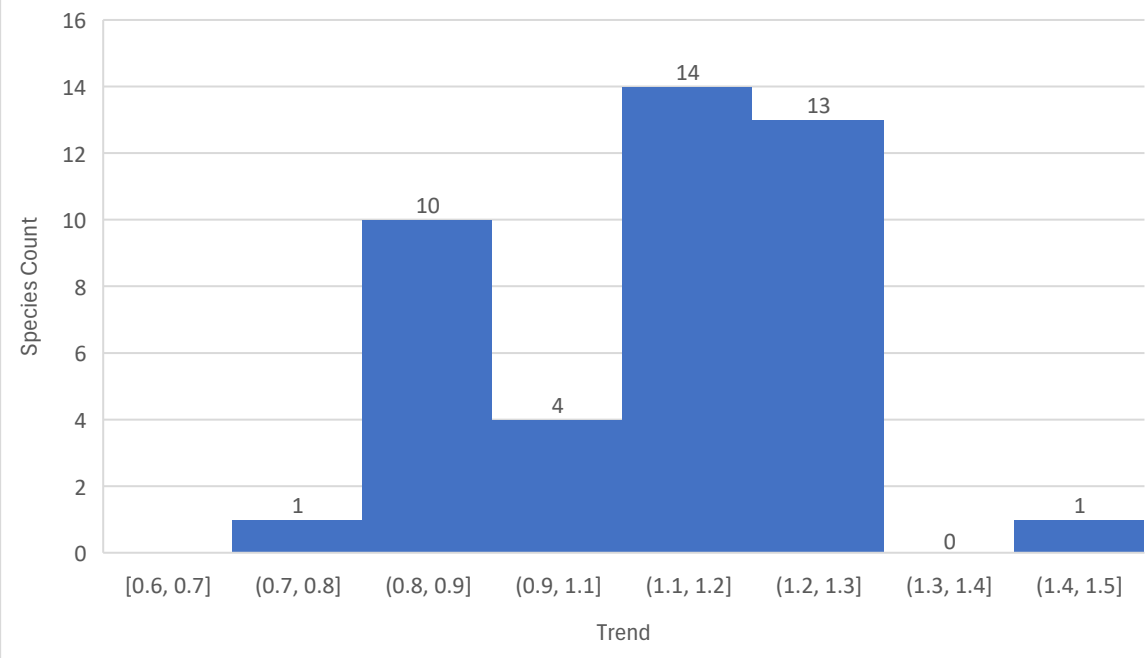


Figure 1-9. Bird Density Trends on the Manti-La Sal National Forest

Significant Trends only: $f > 0.85$

Table 1-9. Median Density Trends for Manti-La Sal National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Avocet	1.13	0.89	1.51	0.80
American Crow	0.94	0.78	1.12	0.74
American Dipper	1.04	0.82	1.36	0.61
American Goldfinch	1.20	0.87	1.72	0.78
American Goshawk ^F	0.96	0.73	1.22	0.66
American Kestrel	1.05	0.90	1.20	0.68
American Pipit	1.19	0.80	1.72	0.76
American Robin	1.05	0.99	1.11	0.89
American Three-toed Woodpecker	1.13	0.88	1.42	0.78
Ash-throated Flycatcher	1.14	0.98	1.32	0.90
Bald Eagle	1.03	0.76	1.39	0.55
Bank Swallow	1.06	0.73	1.53	0.60
Barn Swallow	0.92	0.69	1.16	0.74
Bewick's Wren	0.86	0.73	1.04	0.91
Black-billed Magpie	0.90	0.74	1.09	0.85
Black-capped Chickadee	0.96	0.81	1.13	0.72
Black-chinned Hummingbird	0.99	0.84	1.17	0.57
Black-headed Grosbeak	1.09	1.01	1.17	0.94
Black-throated Gray Warbler	0.94	0.84	1.06	0.85
Black-throated Sparrow	1.03	0.81	1.32	0.54
Blue Grosbeak	1.09	0.85	1.41	0.72
Blue-gray Gnatcatcher	0.93	0.82	1.04	0.90
Blue-winged Teal	0.94	0.68	1.28	0.67
Brewer's Blackbird	1.11	0.94	1.36	0.82
Brewer's Sparrow	0.89	0.79	1.03	0.94
Broad-tailed Hummingbird	0.95	0.87	1.03	0.90
Brown Creeper	1.13	0.97	1.32	0.88
Brown-headed Cowbird	1.07	0.91	1.27	0.74
Bullock's Oriole	1.02	0.81	1.24	0.52
Bushtit	1.16	1.01	1.36	0.94
Canada Jay	1.18	0.92	1.62	0.86
Canyon Wren	0.84	0.69	1.02	0.94
Cassin's Finch	0.98	0.88	1.10	0.66
Chipping Sparrow	1.02	0.97	1.07	0.59

Species	Trend	LCI90	UCI90	f
Chukar	1.22	0.99	1.48	0.92
Cinnamon Teal	0.99	0.76	1.34	0.53
Clark's Nutcracker	0.93	0.83	1.02	0.93
Common Nighthawk	1.16	0.92	1.43	0.83
Common Poorwill	1.19	0.98	1.46	0.92
Common Raven	0.99	0.92	1.06	0.70
Cooper's Hawk	0.98	0.83	1.13	0.62
Dark-eyed Junco	0.93	0.88	0.99	1.00
Downy Woodpecker	1.11	0.87	1.38	0.70
Dusky Flycatcher	1.01	0.94	1.08	0.51
Dusky Grouse	0.94	0.78	1.12	0.76
Eurasian Collared-Dove	1.17	0.94	1.45	0.89
Evening Grosbeak	1.26	0.93	1.77	0.88
Fox Sparrow	1.05	0.83	1.29	0.62
Gadwall	1.14	0.81	1.55	0.77
Gambel's Quail	1.04	0.79	1.35	0.57
Golden Eagle	1.05	0.88	1.28	0.63
Golden-crowned Kinglet	0.93	0.73	1.14	0.72
Grace's Warbler	1.27	1.10	1.44	1.00
Gray Flycatcher	0.98	0.85	1.11	0.62
Gray Vireo	0.85	0.73	0.99	0.97
Great Blue Heron	0.99	0.77	1.33	0.52
Great Horned Owl	1.08	0.85	1.35	0.70
Green-tailed Towhee	0.94	0.87	0.99	0.99
Green-winged Teal	1.02	0.76	1.31	0.54
Hairy Woodpecker	1.19	1.09	1.30	1.00
Hammond's Flycatcher	0.93	0.81	1.07	0.83
Hermit Thrush	1.05	1.00	1.11	0.88
Horned Lark	1.01	0.76	1.29	0.50
House Finch	1.24	1.03	1.50	0.96
House Wren	1.01	0.92	1.11	0.50
Juniper Titmouse	1.05	0.86	1.25	0.62
Killdeer	1.07	0.82	1.39	0.63
Lark Sparrow	1.08	0.93	1.23	0.80
Lazuli Bunting	0.98	0.89	1.12	0.62
Least Flycatcher	1.22	0.86	1.77	0.81
Lesser Goldfinch	1.11	0.92	1.34	0.80
Lewis's Woodpecker	1.10	0.84	1.40	0.73
Lincoln's Sparrow	1.05	0.92	1.21	0.68
MacGillivray's Warbler	0.98	0.91	1.06	0.72
Mallard	0.98	0.76	1.17	0.58

Species	Trend	LCI90	UCI90	f
Mountain Bluebird	0.79	0.69	0.88	1.00
Mountain Chickadee	0.97	0.91	1.02	0.91
Mourning Dove	0.99	0.91	1.08	0.62
Northern Flicker	0.97	0.91	1.03	0.86
Northern Harrier	0.99	0.82	1.18	0.60
Northern Mockingbird	1.11	0.75	1.68	0.65
Northern Pygmy-Owl	1.22	0.89	1.64	0.85
Northern Rough-winged Swallow	1.10	0.88	1.43	0.71
Olive-sided Flycatcher	1.11	0.96	1.27	0.86
Orange-crowned Warbler	0.99	0.90	1.09	0.64
Osprey	1.03	0.81	1.27	0.55
Pied-billed Grebe	1.13	0.89	1.50	0.79
Pika	1.23	0.90	1.57	0.88
Pine Grosbeak	1.00	0.78	1.29	0.51
Pine Siskin	1.06	0.97	1.14	0.81
Pinyon Jay	0.94	0.80	1.11	0.79
Plumbeous Vireo	0.99	0.88	1.10	0.64
Prairie Falcon	0.94	0.72	1.22	0.69
Purple Martin	1.11	0.89	1.44	0.76
Pygmy Nuthatch	1.08	0.92	1.26	0.75
Red Crossbill	1.50	1.33	1.70	1.00
Red-breasted Nuthatch	1.01	0.90	1.11	0.51
Red-naped Sapsucker	1.20	1.05	1.37	0.98
Red-tailed Hawk	1.10	0.98	1.22	0.89
Red-winged Blackbird	1.02	0.68	1.43	0.55
Rock Wren	1.07	0.96	1.19	0.81
Ruby-crowned Kinglet	1.04	0.94	1.14	0.67
Ruffed Grouse	0.88	0.65	1.14	0.80
Rufous Hummingbird	1.13	0.84	1.48	0.76
Sage Thrasher	1.14	0.84	1.60	0.78
Sagebrush Sparrow	1.07	0.88	1.33	0.69
Sandhill Crane	1.11	0.79	1.50	0.68
Savannah Sparrow	1.05	0.70	1.52	0.57
Say's Phoebe	1.05	0.91	1.22	0.65
Sharp-shinned Hawk	0.98	0.82	1.20	0.62
Song Sparrow	1.18	1.00	1.41	0.94
Spotted Sandpiper	1.02	0.84	1.22	0.53
Spotted Towhee	0.97	0.90	1.05	0.81
Steller's Jay	1.09	1.00	1.19	0.91
Summer Tanager	0.99	0.66	1.43	0.55
Swainson's Hawk	0.94	0.75	1.16	0.70

Species	Trend	LCI90	UCI90	f
Swainson's Thrush	1.29	0.86	1.96	0.84
Townsend's Solitaire	1.08	0.97	1.19	0.85
Tree Swallow	0.98	0.80	1.17	0.60
Turkey Vulture	1.10	0.94	1.28	0.83
Vesper Sparrow	1.01	0.90	1.14	0.52
Violet-green Swallow	1.15	1.02	1.29	0.97
Virginia's Warbler	0.94	0.86	1.03	0.88
Warbling Vireo	1.13	1.06	1.20	1.00
Western Bluebird	0.96	0.77	1.20	0.63
Western Flycatcher	1.17	1.02	1.30	0.97
Western Grebe	1.03	0.64	1.70	0.54
Western Kingbird	0.98	0.83	1.17	0.61
Western Meadowlark	1.04	0.79	1.38	0.56
Western Tanager	1.08	1.03	1.13	0.99
Western Wood-Pewee	1.01	0.92	1.11	0.52
White-breasted Nuthatch	1.02	0.91	1.15	0.56
White-crowned Sparrow	0.86	0.75	0.97	0.98
White-throated Swift	0.91	0.75	1.11	0.81
Wild Turkey	1.06	0.80	1.35	0.61
Williamson's Sapsucker	1.04	0.82	1.31	0.60
Willow Flycatcher	1.04	0.85	1.26	0.60
Wilson's Warbler	1.01	0.84	1.24	0.51
Woodhouse's Scrub-Jay	0.91	0.81	1.01	0.95
Yellow Warbler	1.16	0.98	1.35	0.91
Yellow-breasted Chat	0.99	0.72	1.29	0.56
Yellow-rumped Warbler	1.05	0.99	1.12	0.87

Payette National Forest

For species with significant trends, the mean trend was 0.98. The species trend distribution was distributed around 1.0. There is insufficient evidence to conclude that general ecological conditions for bird species on the Payette National Forest aren't favorable (Figure 1-10). Trends for all species with trend estimates are listed in Table 1-10.

Figure 1-10. Bird Density Trends on the Payette National Forest

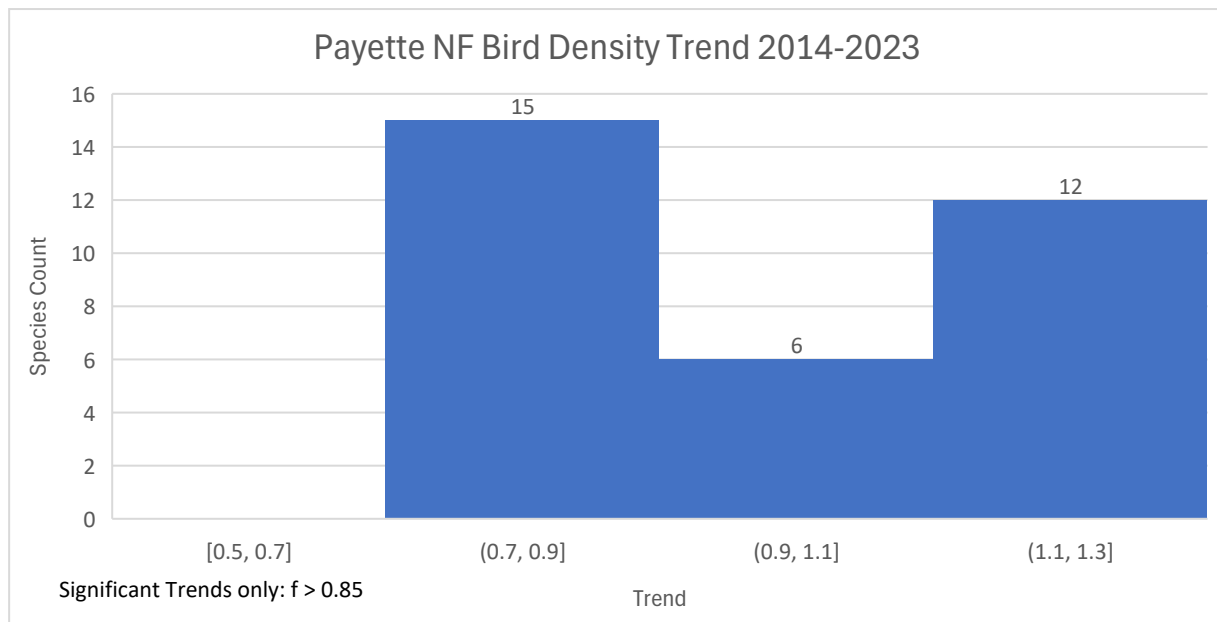


Table 1-10. Median Density Trends for Payette National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	0.96	0.73	1.29	0.63
American Goshawk	0.93	0.75	1.14	0.76
American Crow	0.90	0.71	1.14	0.79
American Dipper	1.00	0.78	1.27	0.53
American Kestrel	0.95	0.83	1.10	0.77
American Robin	1.00	0.94	1.07	0.63
American Three-toed Woodpecker	1.03	0.82	1.31	0.54
Black-billed Magpie	1.01	0.79	1.23	0.50
Black-backed Woodpecker	1.07	0.88	1.34	0.70
Black-capped Chickadee	1.08	0.86	1.38	0.69
Black-chinned Hummingbird	1.08	0.87	1.43	0.68
Brown-headed Cowbird	0.92	0.80	1.06	0.85
Black-headed Grosbeak	1.12	0.99	1.29	0.92
Brewer's Blackbird	0.92	0.73	1.14	0.77
Brown Creeper	0.96	0.84	1.11	0.75
Brewer's Sparrow	0.90	0.71	1.14	0.81
Broad-tailed Hummingbird	0.93	0.74	1.18	0.70
Cassin's Finch	1.03	0.92	1.15	0.57
Calliope Hummingbird	0.95	0.74	1.18	0.70
Canada Jay	0.90	0.80	1.03	0.92
Canyon Wren	0.96	0.71	1.29	0.64
California Quail	0.99	0.72	1.39	0.53
Cassin's Vireo	0.89	0.80	0.99	0.97
Chestnut-backed Chickadee	0.89	0.64	1.15	0.79
Cedar Waxwing	1.02	0.86	1.24	0.55
Chipping Sparrow	0.93	0.86	1.00	0.97
Chukar	1.13	0.90	1.47	0.80
Clark's Nutcracker	0.84	0.71	0.96	0.98
Cliff Swallow	0.98	0.75	1.25	0.60
Cooper's Hawk	0.99	0.85	1.15	0.61
Common Nighthawk	1.12	0.91	1.40	0.78
Common Raven	0.88	0.78	1.01	0.96
Dark-eyed Junco	0.89	0.83	0.95	1.00

Species	Trend	LCI90	UCI90	f
Downy Woodpecker	0.95	0.71	1.20	0.68
Dusky Flycatcher	1.09	0.98	1.22	0.88
Dusky Grouse	1.08	0.90	1.27	0.74
Evening Grosbeak	0.89	0.75	1.05	0.90
Fox Sparrow	1.14	0.92	1.44	0.80
Golden-crowned Kinglet	0.91	0.74	1.12	0.82
Great Horned Owl	1.01	0.82	1.23	0.51
Gray Catbird	1.05	0.77	1.45	0.59
Hammond's Flycatcher	1.07	0.95	1.22	0.79
Hairy Woodpecker	0.90	0.80	1.01	0.95
Hermit Thrush	0.92	0.83	1.02	0.94
House Finch	1.10	0.81	1.49	0.67
House Wren	1.15	0.98	1.35	0.91
Killdeer	0.85	0.67	1.07	0.88
Lark Sparrow	0.97	0.74	1.28	0.57
Lazuli Bunting	1.18	1.03	1.38	0.97
Lewis's Woodpecker	1.14	0.91	1.41	0.84
Lincoln's Sparrow	0.97	0.76	1.18	0.65
Merlin	1.13	0.87	1.50	0.79
MacGillivray's Warbler	1.27	1.12	1.54	1.00
Mountain Bluebird	0.96	0.82	1.12	0.74
Mountain Chickadee	1.01	0.95	1.07	0.51
Mourning Dove	0.95	0.85	1.07	0.83
Mountain Quail	0.94	0.71	1.24	0.69
Nashville Warbler	1.01	0.84	1.21	0.50
Northern Flicker	1.02	0.94	1.11	0.58
Northern Rough-winged Swallow	0.97	0.76	1.25	0.61
Orange-crowned Warbler	1.23	1.02	1.54	0.96
Olive-sided Flycatcher	1.10	0.97	1.26	0.87
Osprey	1.07	0.88	1.37	0.69
Pacific Wren	0.90	0.68	1.16	0.77
Pine Grosbeak	0.87	0.69	1.11	0.86
Pika	1.07	0.83	1.40	0.65
Pine Siskin	0.86	0.76	0.94	1.00
Pileated Woodpecker ^F	1.10	0.96	1.30	0.81
Pygmy Nuthatch	1.06	0.77	1.40	0.61
Red-breasted Nuthatch	1.03	0.97	1.09	0.66
Ruby-crowned Kinglet	0.82	0.71	0.93	1.00
Red Crossbill	0.92	0.81	1.06	0.85
Red-naped Sapsucker	1.03	0.83	1.30	0.55
Rock Wren	0.98	0.85	1.14	0.62

Species	Trend	LCI90	UCI90	f
Red-tailed Hawk	1.15	1.02	1.30	0.97
Ruffed Grouse	0.81	0.65	1.01	0.95
Rufous Hummingbird	0.96	0.75	1.27	0.63
Red-winged Blackbird	0.82	0.59	1.16	0.85
Sandhill Crane	0.96	0.74	1.25	0.64
Say's Phoebe	0.96	0.77	1.19	0.63
Savannah Sparrow	0.80	0.56	1.08	0.90
Song Sparrow	1.17	0.96	1.42	0.89
Spotted Sandpiper	1.03	0.84	1.31	0.56
Spotted Towhee	1.22	1.02	1.53	0.96
Sharp-shinned Hawk	0.95	0.75	1.14	0.72
Steller's Jay	1.11	0.95	1.33	0.85
Swainson's Hawk	0.98	0.78	1.24	0.60
Swainson's Thrush	1.09	0.96	1.24	0.82
Townsend's Solitaire	0.98	0.87	1.11	0.65
Townsend's Warbler	0.83	0.73	0.94	1.00
Tree Swallow	0.96	0.76	1.22	0.62
Turkey Vulture	1.04	0.88	1.24	0.59
Vaux's Swift	1.05	0.82	1.36	0.61
Varied Thrush	0.86	0.66	1.11	0.87
Veery	0.92	0.72	1.18	0.74
Vesper Sparrow	0.90	0.73	1.10	0.85
Violet-green Swallow	0.98	0.77	1.31	0.58
Warbling Vireo	1.13	1.00	1.31	0.94
White-breasted Nuthatch	1.00	0.78	1.34	0.51
White-crowned Sparrow	1.08	0.85	1.37	0.68
Western Bluebird	0.93	0.65	1.37	0.62
Western Flycatcher	1.05	0.83	1.37	0.60
Western Meadowlark	0.81	0.68	0.94	0.99
Western Tanager	1.04	0.98	1.10	0.76
Western Wood-Pewee	0.96	0.84	1.08	0.75
Willow Flycatcher	1.07	0.86	1.35	0.67
Williamson's Sapsucker	1.04	0.86	1.28	0.61
Wilson's Snipe	1.01	0.77	1.40	0.51
Wild Turkey	1.02	0.78	1.31	0.52
Wilson's Warbler	0.92	0.72	1.15	0.73
Yellow-breasted Chat	1.16	0.85	1.68	0.76
Yellow Warbler	1.13	0.95	1.36	0.87
Yellow-rumped Warbler	1.02	0.96	1.08	0.57

Salmon-Challis National Forest

For species with significant trends, the mean trend was 1.00. The species trend distribution was skewed >1.0. General ecological conditions for bird species on the Salmon-Challis National Forest are favorable (Figure 1-11). Trends for all species with trend estimates are listed in Table 1-11.

Salmon-Challis NF Bird Density Trends 2017-2023

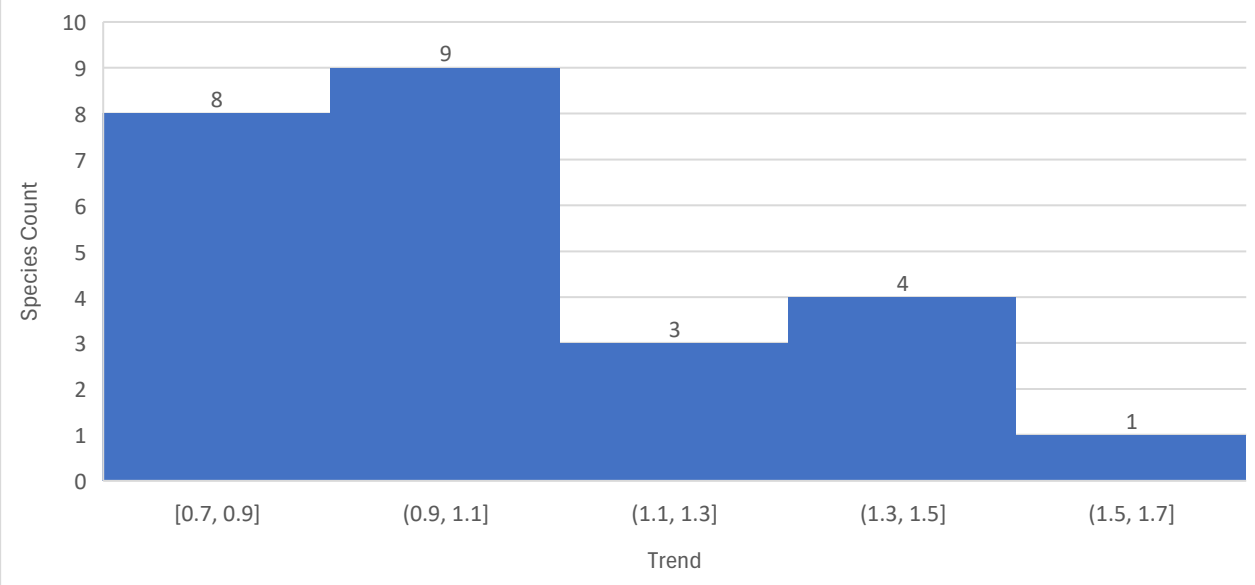


Figure 1-11. Bird Density Trends on the Salmon-Challis National Forest

Significant Trends only: $f > 0.85$

Table 1-11. Median Density Trends for Salmon-Challis National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	0.73	0.46	1.07	0.91
American Crow	1.11	0.79	1.64	0.69
American Kestrel	0.94	0.78	1.14	0.71
American Robin	1.04	0.96	1.14	0.73
American Three-toed Woodpecker	0.99	0.64	1.38	0.54
Bald Eagle	1.00	0.63	1.65	0.52
Bank Swallow	0.78	0.50	1.16	0.87
Black-billed Magpie	0.97	0.76	1.20	0.63
Black-backed Woodpecker	1.12	0.79	1.60	0.72
Black-capped Chickadee	1.56	1.07	2.67	0.97
Black-chinned Hummingbird	1.04	0.71	1.57	0.54
Blue-gray Gnatcatcher	1.26	0.81	1.91	0.81
Brown-headed Cowbird	0.92	0.61	1.29	0.71
Black-headed Grosbeak	1.37	1.05	1.90	0.97
Brewer's Blackbird	1.12	0.83	1.54	0.71
Brown Creeper	0.97	0.80	1.17	0.66
Brewer's Sparrow	0.95	0.84	1.12	0.74
Broad-tailed Hummingbird	1.18	0.77	2.10	0.71
Bullock's Oriole	0.96	0.65	1.54	0.58
Cassin's Finch	0.94	0.82	1.09	0.77
Calliope Hummingbird	1.01	0.73	1.43	0.52
Canada Jay	0.88	0.71	1.08	0.87
Canyon Wren	0.79	0.50	1.22	0.84
Cassin's Vireo	0.93	0.64	1.21	0.68
Cedar Waxwing	0.85	0.57	1.28	0.77
Chipping Sparrow	0.95	0.87	1.02	0.91
Chukar	1.03	0.71	1.43	0.52
Clark's Nutcracker	0.94	0.83	1.07	0.83
Cliff Swallow	1.08	0.80	1.47	0.63
Cooper's Hawk	1.07	0.85	1.42	0.66
Common Merganser	0.96	0.63	1.44	0.57
Common Nighthawk	1.17	0.92	1.51	0.88
Common Poorwill	1.29	0.99	1.78	0.94
Common Raven	1.06	0.94	1.19	0.76

Species	Trend	LCI90	UCI90	f
Double-crested Cormorant	1.23	0.69	2.24	0.70
Dark-eyed Junco	0.93	0.86	1.00	0.98
Downy Woodpecker	1.09	0.68	1.79	0.60
Dusky Flycatcher	0.96	0.87	1.06	0.77
Dusky Grouse	0.92	0.67	1.18	0.72
Eastern Kingbird	0.84	0.57	1.30	0.77
Evening Grosbeak	0.91	0.67	1.28	0.70
Fox Sparrow	1.12	0.64	1.95	0.62
Golden-crowned Kinglet	0.86	0.65	1.20	0.79
Great Horned Owl	0.99	0.67	1.46	0.53
Golden Eagle	0.97	0.72	1.36	0.56
Gray Catbird	1.11	0.66	1.94	0.64
Gray Flycatcher	0.97	0.65	1.38	0.58
Green-tailed Towhee	1.04	0.90	1.23	0.67
Hammond's Flycatcher	1.14	0.91	1.40	0.81
Hairy Woodpecker	1.01	0.87	1.14	0.50
Hermit Thrush	0.92	0.83	1.01	0.95
House Finch	1.29	0.76	2.47	0.77
Horned Lark	1.14	0.83	1.59	0.73
House Wren	1.08	0.87	1.38	0.71
Lark Sparrow	1.05	0.71	1.59	0.57
Lazuli Bunting	0.90	0.72	1.13	0.79
Least Flycatcher	1.41	0.84	2.47	0.84
Lincoln's Sparrow	1.15	0.90	1.48	0.80
Merlin	1.03	0.63	1.64	0.52
MacGillivray's Warbler	1.03	0.87	1.20	0.60
Mountain Bluebird	0.90	0.78	1.01	0.95
Mountain Chickadee	0.89	0.81	0.98	0.99
Mourning Dove	1.29	1.03	1.64	0.97
Nashville Warbler	0.98	0.55	1.50	0.56
Northern Flicker	0.98	0.88	1.10	0.67
Northern Harrier	0.92	0.64	1.27	0.71
Northern Rough-winged Swallow	0.94	0.66	1.41	0.63
Orange-crowned Warbler	0.99	0.72	1.29	0.56
Olive-sided Flycatcher	1.01	0.82	1.20	0.51
Pacific Wren	0.68	0.36	1.02	0.95
Peregrine Falcon	0.98	0.70	1.31	0.56
Pika	0.87	0.70	1.11	0.86
Pine Siskin	0.83	0.73	0.93	1.00
Pileated Woodpecker	1.11	0.74	1.49	0.71
Prairie Falcon	0.92	0.71	1.22	0.73

Species	Trend	LCI90	UCI90	f
Red-breasted Nuthatch	0.92	0.81	1.04	0.90
Ruby-crowned Kinglet	0.94	0.85	1.04	0.88
Red Crossbill	1.05	0.89	1.24	0.68
Red-naped Sapsucker	1.25	0.99	1.59	0.92
Rock Pigeon	0.70	0.46	1.06	0.93
Rock Wren	0.99	0.88	1.14	0.59
Red-tailed Hawk	1.06	0.87	1.26	0.69
Rufous Hummingbird	1.24	0.76	1.95	0.74
Sandhill Crane	1.03	0.63	1.60	0.53
Sage Thrasher	0.95	0.74	1.20	0.66
Savannah Sparrow	0.96	0.53	1.88	0.56
Song Sparrow	1.10	0.84	1.43	0.73
Spotted Sandpiper	1.16	0.77	1.84	0.73
Spotted Towhee	0.96	0.68	1.25	0.65
Sharp-shinned Hawk	0.92	0.63	1.34	0.68
Steller's Jay	1.37	1.08	1.82	0.99
Swainson's Hawk	0.83	0.60	1.13	0.86
Swainson's Thrush	1.02	0.78	1.27	0.52
Townsend's Solitaire	0.86	0.75	0.98	0.98
Townsend's Warbler	0.88	0.56	1.28	0.69
Tree Swallow	0.94	0.73	1.25	0.65
Veery	1.01	0.63	1.64	0.50
Vesper Sparrow	1.07	0.90	1.28	0.74
Violet-green Swallow	1.00	0.81	1.26	0.51
Warbling Vireo	1.09	0.99	1.20	0.89
White-breasted Nuthatch	0.95	0.62	1.40	0.61
White-crowned Sparrow	1.09	0.81	1.48	0.68
Western Flycatcher	1.16	0.91	1.51	0.84
Western Meadowlark	0.98	0.65	1.31	0.58
Western Tanager	0.96	0.89	1.05	0.78
Western Wood-Pewee	1.02	0.83	1.28	0.56
Willow Flycatcher	1.02	0.70	1.56	0.53
Williamson's Sapsucker	0.94	0.62	1.37	0.64
Wilson's Warbler	1.00	0.64	1.54	0.53
White-throated Swift	1.01	0.73	1.44	0.50
Yellow-breasted Chat	1.00	0.52	1.86	0.50
Yellow Warbler	1.07	0.87	1.26	0.72
Yellow-rumped Warbler	0.94	0.87	1.02	0.94

Sawtooth National Forest

For species with significant trends, the mean trend was 1.11. The species trend distribution was skewed >1.0 . General ecological conditions for bird species on the Sawtooth National Forest are favorable (Figure 1-12). Trends for all species with trend estimates are listed in Table 1-12.

Figure 1-12. Bird Density Trends on the Sawtooth National Forest

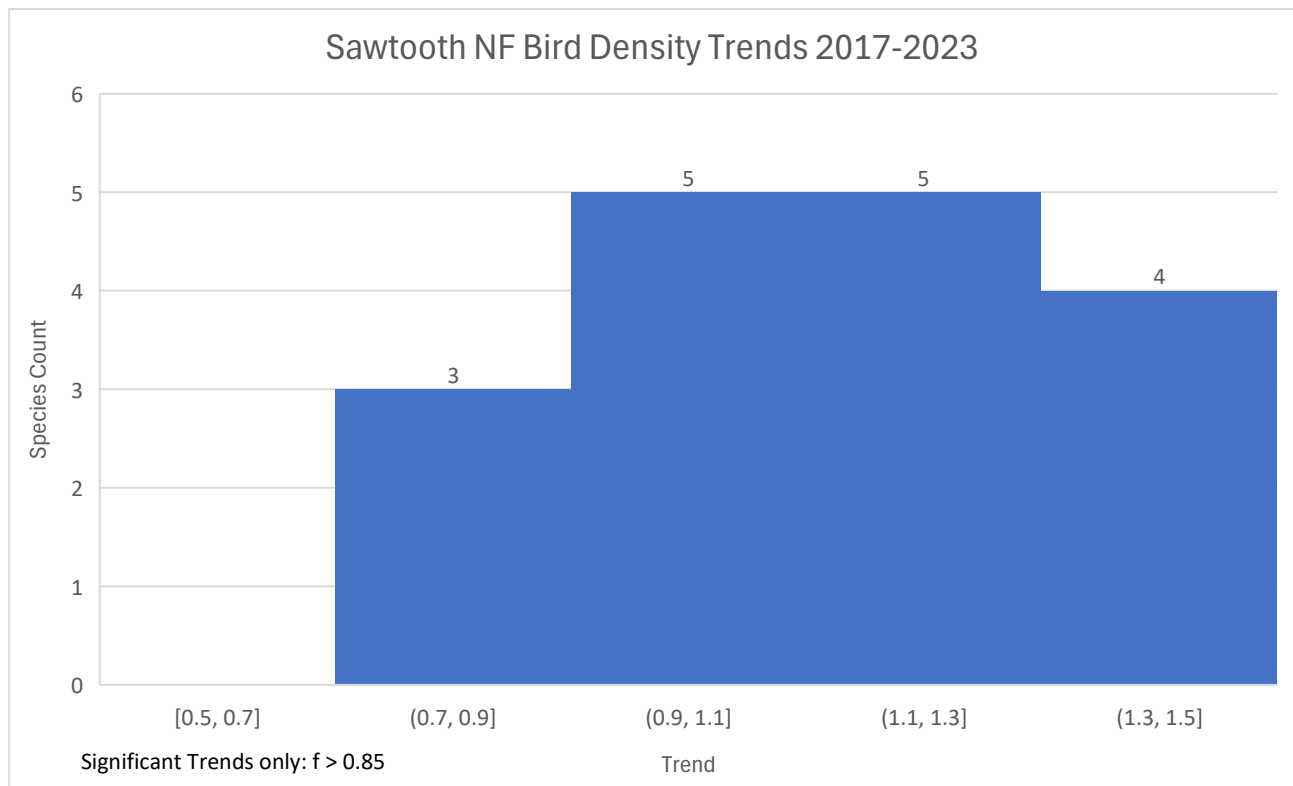


Table 1-12. Median Density Trends for Sawtooth National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	0.80	0.54	1.12	0.85
American Goshawk ^F	0.97	0.65	1.42	0.60
American Kestrel	0.89	0.65	1.17	0.77
American Robin	0.99	0.91	1.09	0.66
Ash-throated Flycatcher	1.24	0.92	1.80	0.87
American Three-toed Woodpecker	1.06	0.68	1.98	0.58
Bank Swallow	0.81	0.53	1.23	0.82
Black-billed Magpie	0.96	0.74	1.25	0.63
Black-backed Woodpecker	1.16	0.80	1.62	0.74
Black-capped Chickadee	1.12	0.83	1.50	0.70
Black-chinned Hummingbird	0.95	0.66	1.37	0.61
Bewick's Wren	1.03	0.69	1.59	0.55
Blue-gray Gnatcatcher	0.98	0.78	1.24	0.57
Brown-headed Cowbird	1.06	0.88	1.28	0.64
Black-headed Grosbeak	1.26	1.06	1.52	0.98
Brewer's Blackbird	1.06	0.76	1.52	0.60
Brown Creeper	0.97	0.81	1.16	0.68
Brewer's Sparrow	0.86	0.75	0.98	0.97
Broad-tailed Hummingbird	1.12	0.88	1.51	0.75
Black-throated Gray Warbler	0.98	0.71	1.35	0.55
Bullock's Oriole	0.88	0.64	1.15	0.78
Bushtit	1.17	0.80	1.61	0.73
Cassin's Finch	1.02	0.88	1.19	0.57
Calliope Hummingbird	1.05	0.71	1.59	0.56
Canada Jay	1.19	0.89	1.62	0.81
California Quail	1.00	0.60	1.64	0.52
Cassin's Vireo	1.37	0.82	2.50	0.83
Cedar Waxwing	1.02	0.74	1.47	0.52
Chipping Sparrow	1.01	0.92	1.10	0.52
Clark's Nutcracker	1.07	0.92	1.25	0.72
Cliff Swallow	0.98	0.62	1.60	0.55
Cooper's Hawk	1.00	0.80	1.29	0.54
Common Merganser	0.85	0.55	1.29	0.76
Common Nighthawk	0.99	0.81	1.20	0.56

Species	Trend	LCI90	UCI90	f
Common Poorwill	1.35	0.95	2.09	0.90
Common Raven	1.05	0.91	1.21	0.65
Common Yellowthroat	0.87	0.65	1.19	0.79
Dark-eyed Junco	0.90	0.82	0.99	0.98
Downy Woodpecker	1.17	0.83	1.70	0.76
Dusky Flycatcher	1.03	0.92	1.15	0.59
Dusky Grouse	0.93	0.62	1.27	0.70
Eurasian Collared-Dove	0.95	0.63	1.36	0.65
European Starling	1.02	0.65	1.67	0.52
Evening Grosbeak	1.35	0.94	2.14	0.91
Fox Sparrow	1.07	0.82	1.41	0.66
Golden-crowned Kinglet	0.90	0.63	1.26	0.72
Great Horned Owl	0.94	0.71	1.20	0.70
Gray Catbird	1.19	0.69	2.35	0.68
Gray Flycatcher	1.11	0.90	1.37	0.72
Grasshopper Sparrow	0.96	0.58	1.63	0.56
Green-tailed Towhee	0.97	0.85	1.14	0.65
Hammond's Flycatcher	0.97	0.79	1.20	0.62
Hairy Woodpecker	1.16	1.00	1.37	0.93
Hermit Thrush	0.93	0.83	1.06	0.85
House Finch	1.06	0.72	1.62	0.59
Horned Lark	0.92	0.58	1.53	0.60
House Wren	0.94	0.81	1.10	0.78
Juniper Titmouse	1.07	0.81	1.40	0.65
Killdeer	0.87	0.61	1.29	0.73
Lark Sparrow	1.07	0.87	1.32	0.68
Lazuli Bunting	0.95	0.75	1.19	0.66
Lesser Goldfinch	1.12	0.79	1.68	0.67
Lewis's Woodpecker	1.13	0.72	1.66	0.68
Lincoln's Sparrow	1.20	0.97	1.51	0.92
Loggerhead Shrike	1.11	0.87	1.59	0.73
Mallard	0.98	0.64	1.65	0.53
MacGillivray's Warbler	1.03	0.90	1.17	0.57
Mountain Bluebird	0.99	0.88	1.14	0.57
Mountain Chickadee	0.94	0.84	1.04	0.89
Mourning Dove	0.92	0.81	1.07	0.86
Nashville Warbler	0.88	0.60	1.19	0.77
Northern Flicker	0.95	0.84	1.09	0.76
Northern Harrier	0.99	0.73	1.28	0.56
Northern Rough-winged Swallow	0.92	0.69	1.25	0.69
Orange-crowned Warbler	0.95	0.79	1.16	0.72

Species	Trend	LCI90	UCI90	f
Olive-sided Flycatcher	1.22	1.00	1.49	0.94
Pacific Wren	0.76	0.41	1.26	0.80
Pine Grosbeak	0.85	0.63	1.21	0.77
Pinyon Jay	1.05	0.77	1.48	0.57
Pika	0.88	0.64	1.20	0.78
Pine Siskin	0.89	0.79	0.99	0.97
Plumbeous Vireo	0.88	0.66	1.16	0.78
Red-breasted Nuthatch	1.08	0.96	1.22	0.86
Ruby-crowned Kinglet	0.95	0.85	1.04	0.87
Red Crossbill	1.05	0.82	1.34	0.59
Red-eyed Vireo	1.09	0.60	2.02	0.58
Red-naped Sapsucker	1.03	0.82	1.28	0.56
Rock Wren	1.08	0.93	1.25	0.74
Red-tailed Hawk	1.05	0.89	1.22	0.63
Ruffed Grouse	1.07	0.82	1.40	0.62
Red-winged Blackbird	0.89	0.50	1.63	0.63
Sandhill Crane	1.16	0.78	1.78	0.71
Say's Phoebe	1.12	0.81	1.61	0.70
Sage Thrasher	0.98	0.73	1.31	0.56
Savannah Sparrow	0.94	0.57	1.60	0.61
Song Sparrow	0.97	0.77	1.25	0.58
Spruce Grouse	0.81	0.49	1.22	0.82
Spotted Sandpiper	0.95	0.68	1.40	0.59
Spotted Towhee	1.00	0.78	1.25	0.52
Sharp-shinned Hawk	1.01	0.70	1.49	0.50
Steller's Jay	1.31	0.94	1.84	0.89
Swainson's Hawk	0.95	0.69	1.36	0.62
Swainson's Thrush	1.00	0.84	1.21	0.52
Townsend's Solitaire	0.89	0.72	1.09	0.84
Townsend's Warbler	0.87	0.52	1.34	0.74
Tree Swallow	1.12	0.86	1.51	0.73
Turkey Vulture	0.97	0.78	1.20	0.61
Vesper Sparrow	0.99	0.80	1.21	0.57
Violet-green Swallow	0.92	0.71	1.19	0.71
Virginia Rail	0.94	0.62	1.47	0.65
Virginia's Warbler	1.33	0.91	1.99	0.89
Warbling Vireo	1.06	0.94	1.16	0.75
White-breasted Nuthatch	1.12	0.75	1.71	0.67
White-crowned Sparrow	1.07	0.91	1.26	0.69
Western Flycatcher	1.17	0.89	1.45	0.81
Western Kingbird	1.06	0.68	1.71	0.58

Species	Trend	LCI90	UCI90	f
Western Meadowlark	0.95	0.73	1.25	0.61
Western Tanager	1.07	0.97	1.19	0.84
Western Wood-Pewee	1.14	0.92	1.46	0.81
Willow Flycatcher	1.05	0.69	1.57	0.55
Williamson's Sapsucker	1.23	0.74	2.06	0.76
Wilson's Snipe	0.90	0.55	1.43	0.64
Wilson's Warbler	0.97	0.66	1.35	0.58
Woodhouse's Scrub-Jay	1.04	0.78	1.34	0.58
White-throated Swift	0.88	0.57	1.30	0.69
Yellow Warbler	0.91	0.76	1.08	0.82
Yellow-rumped Warbler	1.02	0.94	1.11	0.62

Uinta-Wasatch-Cache National Forest

For species with significant trends, the mean trend was 1.05. The species trend distribution was skewed >1.0 . General ecological conditions for bird species on the Uinta-Wasatch-Cache National Forest appear to be favorable (Figure 1-13). Trends for all species with trend estimates are listed in Table 1-13.

Figure 1-13. Bird Density Trends on the Uinta-Wasatch-Cache National Forest

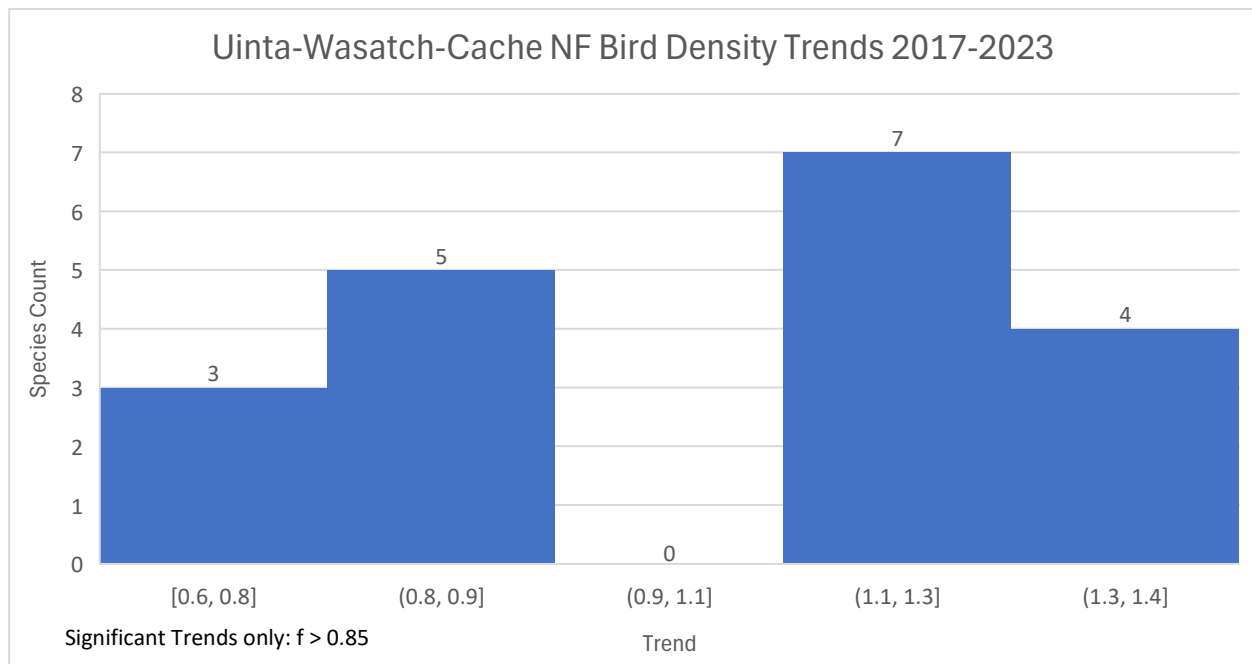


Table 1-13. Median Density Trends for Uinta-Wasatch-Cache National Forest Birds 2017-2023.

Trend=median density trend for the region; LCI90=lower credible interval; UCI90=upper credible interval; f=confidence in the direction of the reported trend, e.g., 0.83 suggests 83% confidence in the direction of an observed trend (but not its magnitude). A trend <1.0 indicates downward population trend, 1.0 indicates stable trend, and >1.0 indicates increasing trend. Superscript F=Focal Species and superscript SCC=Species of Conservation Concern.

Species	Trend	LCI90	UCI90	f
American Goldfinch	1.02	0.72	1.55	0.52
American Goshawk ^F	1.00	0.72	1.41	0.52
American Crow	1.06	0.75	1.57	0.58
American Kestrel	0.96	0.73	1.31	0.65
American Robin	1.08	0.95	1.23	0.80
Ash-throated Flycatcher	0.91	0.62	1.45	0.62
American Three-toed Woodpecker	1.14	0.75	1.77	0.71
Black-billed Magpie	1.02	0.80	1.32	0.52
Black-backed Woodpecker	1.20	0.81	1.71	0.80
Black-capped Chickadee	0.97	0.74	1.23	0.60
Black-chinned Hummingbird	1.16	0.92	1.52	0.82
Bewick's Wren	0.87	0.57	1.29	0.73
Blue-gray Gnatcatcher	1.14	0.88	1.54	0.79
Brown-headed Cowbird	1.06	0.80	1.38	0.62
Black-headed Grosbeak	1.18	1.02	1.37	0.96
Brewer's Blackbird	0.97	0.78	1.25	0.60
Brown Creeper	1.07	0.73	1.56	0.61
Brewer's Sparrow	1.04	0.78	1.35	0.56
Broad-tailed Hummingbird	1.00	0.86	1.17	0.55
Black-throated Sparrow	1.04	0.63	1.78	0.54
Black-throated Gray Warbler	1.03	0.65	1.61	0.55
Bullock's Oriole	0.95	0.68	1.33	0.62
Bushtit	1.13	0.78	1.54	0.70
Cassin's Finch	0.82	0.64	1.05	0.91
Calliope Hummingbird	1.06	0.75	1.53	0.58
Canada Jay	1.11	0.93	1.33	0.81
Canada Goose	1.07	0.63	1.84	0.56
Canyon Wren	0.70	0.44	1.14	0.90
California Quail	0.97	0.60	1.57	0.54
Cedar Waxwing	1.06	0.69	1.60	0.57
Chipping Sparrow	1.13	0.98	1.31	0.89
Chukar	0.93	0.66	1.29	0.65
Clark's Nutcracker	0.97	0.73	1.28	0.61
Cliff Swallow	1.03	0.71	1.45	0.52

Species	Trend	LCI90	UCI90	f
Cooper's Hawk	1.02	0.83	1.32	0.55
Common Nighthawk	1.09	0.88	1.31	0.70
Common Poorwill	1.33	0.95	1.97	0.91
Common Raven	1.42	1.05	1.89	0.97
Common Yellowthroat	0.87	0.57	1.32	0.70
Dark-eyed Junco	0.89	0.76	1.04	0.89
Downy Woodpecker	0.72	0.48	1.11	0.92
Dusky Flycatcher	1.15	1.00	1.36	0.94
Dusky Grouse	1.04	0.80	1.29	0.61
Eurasian Collared-Dove	0.82	0.56	1.20	0.82
European Starling	1.07	0.67	1.74	0.57
Evening Grosbeak	0.94	0.57	1.55	0.61
Fox Sparrow	0.92	0.68	1.35	0.64
Great Blue Heron	0.92	0.60	1.36	0.68
Golden-crowned Kinglet	0.62	0.44	0.90	0.99
Great Horned Owl	0.96	0.65	1.42	0.58
Golden Eagle	1.12	0.86	1.51	0.73
Gray Flycatcher	0.99	0.62	1.39	0.54
Green-tailed Towhee	1.11	0.92	1.31	0.81
Hammond's Flycatcher	0.84	0.65	1.08	0.88
Hairy Woodpecker	1.22	0.96	1.52	0.91
Hermit Thrush	1.03	0.91	1.16	0.62
House Finch	1.11	0.76	1.61	0.66
Horned Lark	0.95	0.78	1.26	0.66
House Wren	0.94	0.74	1.17	0.71
Killdeer	0.93	0.66	1.31	0.66
Lark Sparrow	1.24	0.87	1.75	0.83
Lazuli Bunting	1.23	1.04	1.44	0.97
Lesser Goldfinch	1.09	0.74	1.57	0.65
Lewis's Woodpecker	1.22	0.79	1.76	0.79
Lincoln's Sparrow	1.05	0.81	1.33	0.60
Mallard	0.87	0.56	1.19	0.77
MacGillivray's Warbler	1.13	0.97	1.31	0.87
Mountain Bluebird	1.03	0.82	1.32	0.57
Mountain Chickadee	1.00	0.85	1.17	0.55
Mourning Dove	1.08	0.85	1.33	0.67
Northern Flicker	1.11	0.94	1.31	0.80
Northern Harrier	1.01	0.79	1.29	0.51
Northern Pygmy-Owl	1.12	0.82	1.58	0.72
Northern Rough-winged Swallow	1.01	0.66	1.48	0.50
Orange-crowned Warbler	1.09	0.89	1.29	0.72

Species	Trend	LCI90	UCI90	f
Olive-sided Flycatcher	0.97	0.73	1.29	0.62
Pine Grosbeak	0.99	0.77	1.28	0.56
Pine Siskin	1.06	0.89	1.23	0.67
Plumbeous Vireo	0.97	0.63	1.44	0.57
Red-breasted Nuthatch	0.91	0.78	1.05	0.88
Ruby-crowned Kinglet	0.83	0.69	0.98	0.97
Red Crossbill	0.96	0.76	1.20	0.65
Red-naped Sapsucker	1.13	0.85	1.53	0.71
Rock Wren	1.08	0.86	1.35	0.68
Red-tailed Hawk	1.04	0.84	1.27	0.58
Ruffed Grouse	0.91	0.68	1.22	0.71
Rufous Hummingbird	0.91	0.58	1.46	0.64
Red-winged Blackbird	0.92	0.52	1.72	0.60
Sagebrush Sparrow	1.10	0.74	1.67	0.61
Sandhill Crane	1.06	0.71	1.62	0.58
Say's Phoebe	1.06	0.76	1.50	0.59
Sage Thrasher	1.02	0.71	1.52	0.51
Song Sparrow	1.05	0.83	1.35	0.62
Spotted Sandpiper	1.17	0.76	1.84	0.72
Spotted Towhee	1.09	0.87	1.32	0.72
Sharp-shinned Hawk	0.93	0.68	1.26	0.69
Steller's Jay	0.96	0.66	1.32	0.61
Swainson's Hawk	0.95	0.67	1.33	0.61
Swainson's Thrush	1.36	0.97	1.89	0.93
Townsend's Solitaire	1.04	0.83	1.34	0.60
Tree Swallow	0.92	0.63	1.35	0.64
Turkey Vulture	1.10	0.83	1.46	0.68
Vesper Sparrow	1.13	0.84	1.57	0.73
Violet-green Swallow	1.19	0.80	1.66	0.75
Virginia's Warbler	0.95	0.73	1.25	0.65
Warbling Vireo	1.10	0.95	1.29	0.84
White-breasted Nuthatch	1.11	0.76	1.62	0.67
White-crowned Sparrow	1.05	0.77	1.44	0.58
Western Bluebird	1.02	0.58	1.67	0.51
Western Flycatcher	1.35	1.00	1.88	0.94
Western Kingbird	1.12	0.75	1.78	0.67
Western Meadowlark	0.98	0.64	1.55	0.55
Western Tanager	1.17	1.01	1.36	0.95
Western Wood-Pewee	0.97	0.77	1.21	0.64
Williamson's Sapsucker	1.06	0.74	1.65	0.58
Wilson's Snipe	0.90	0.55	1.37	0.68

Species	Trend	LCI90	UCI90	f
Wild Turkey	1.23	0.79	1.94	0.77
Wilson's Warbler	0.99	0.63	1.57	0.53
Woodhouse's Scrub-Jay	1.14	0.76	1.86	0.72
White-throated Swift	0.95	0.65	1.39	0.60
Yellow Warbler	1.08	0.86	1.34	0.66
Yellow-rumped Warbler	1.07	0.93	1.25	0.74

Appendix 2. Focal and At-risk Bird Species Monitored with IMBCR in Region 4

Table 2-1 Focal Species and IMBCR Estimate Availability for R4 Forests

Species	Forests Where Listed as a Focal Species	Forests With IMBCR Estimates
Pileated Woodpecker	Boise, Payette, Sawtooth	Payette, SC
Black-backed Woodpecker	Boise	Boise, BT, HT, Payette, SC, Sawtooth, UWC
White-headed Woodpecker	Boise, Payette	HT
Greater Sage-grouse	Curlew, Dixie, Sawtooth	NA
Northern Flicker	Dixie, Sawtooth	Ashley, Boise, BT, CT, Dixie, Fishlake, HT, MLS, Payette, SC, Sawtooth, UWC
Northern (American) Goshawk	Dixie, Fishlake, MLS, Sawtooth, UWC	Boise, BT, CT, Dixie, MLS, Payette, Sawtooth, UWC
Wild Turkey	Dixie	CT, Dixie, Fishlake, MLS, Payette, UWC
Peregrine Falcon	Dixie	Boise, BT, CT, Dixie, HT, SC
Flammulated Owl	Dixie	NA
American Three-toed Woodpecker	Dixie	Ashley, Boise, BT, CT, MLS, Payette, SC, Sawtooth, UWC
Bald Eagle	Dixie	Boise, BT, CT, MLS, SC
Brewer's Sparrow	Fishlake	Ashley, Boise, BT, CT, Dixie, Fishlake, HT, MLS, Payette, SC, Sawtooth, UWC
Vesper Sparrow	Fishlake	Ashley, Boise, BT, CT, Fishlake, HT, MLS, Payette, SC, Sawtooth, UWC
Sage Thrasher	Fishlake	Ashley, Boise, BT, CT, Fishlake, HT, MSL, SC, Sawtooth, UWC
Hairy Woodpecker	Fishlake	Ashley, Boise, BT, CT, Dixie, Fishlake, HT, MLS, Payette, SC, Sawtooth, UWC
Western Bluebird	Fishlake	CT, Dixie, HT, MLS, Payette, UWC
Mountain Bluebird	Fishlake	Ashley, Boise, BT, CT, Dixie, Fishlake, HT, MLS, Payette, SC, Sawtooth, UWC
Lincoln's Sparrow	Fishlake	Ashley, Boise, BT, CT, Dixie, HT, MLS, Payette, SC, Sawtooth, UWC
Yellow Warbler	Fishlake	Ashley, Boise, BT, CT, Dixie, Fishlake, HT, MLS, Payette, SC, Sawtooth, UWC
Macgillvray's Warbler	Fishlake	NA

Table 2-1 At-risk Species and IMBCR Estimate Availability for R4 Forests

Species	Status	Forests With IMBCR Estimates
Whooping Crane	Endangered	NA
Mexican Spotted Owl	Threatened	NA
Yellow-billed Cuckoo	Threatened	NA
Black Rosy-finch	SCC: Ashley, Manti-La Sal	Ashley, Boise, BT
Greater Sage-grouse	SCC: Ashley, Manti-La Sal	Curlew
Peregrine Falcon	SCC: Ashley	Boise, BT, CT, Dixie, HT, SC