California

Survival by Degrees: 389 Species on the Brink

Background

Birds form part of healthy ecosystems, bring joy to people, and benefit local economies throughout the United States. In 2011, birdwatching-related industries drove $41 billion in expenditures and $107 billion in total industry output nationally. There are nearly five million total birders in California alone [1]. Additionally, birds play critical roles in pollination, insect control, forest generation, seed dispersal, carrion scavenging, and many other ecosystem services we rely on.

However, the future of birds is at risk with alarming losses of biodiversity occurring worldwide. Global extinction rates are now 100 times higher than background rates [2]. Climate change exacerbates the global biodiversity crisis, with an anticipated rate of change 20 times faster in the next century than during the past two million years.

Audubon leads the way in conducting science to understand the vulnerability and threats to birds from climate change. Our science shows that stabilizing warming at a global average of 1.5°C (2.7°F), as recommended by the IPCC (Intergovernmental Panel on Climate Change) to reduce the global risk of climate change, would also reduce vulnerability and threats for many species of birds. To save birds we must address the underlying causes of climate change (*climate change mitigation*), and protect places that birds need now and will need in the future (*climate change adaptation*). Climate change mitigation means reducing or preventing the causes of climate change, such as greenhouse gas emissions. Climate change adaptation includes efforts to alter and adapt both our natural surroundings as well as our infrastructure to better withstand the threats of climate change.

Audubon's 2019 Report, *Survival by Degrees: 389 Bird Species on the Brink* [3], is a powerful look at how vulnerable birds are to climate change across North America based on a new, updated scientific analysis that leverages big data and incorporates the unique biology of each bird to determine its vulnerability. In this research, we related bird observations for 604 species with climate and habitat conditions at these locations and used modeling algorithms to capture the unique composition of each species's suitable range. We then mapped and compared the projected current and future ranges to estimate the projected range loss and gain under multiple future climate change scenarios. These projections were then used to assess how vulnerable each species was to climate change [4,5].

Figure 1. California Quail. Photo: Carl Reese/Audubon Photography Awards

Future Climate and Habitat in California

Across the state of California, without substantial climate change mitigation (i.e., a 3°C/5.4°F global warming scenario), average temperatures during the warmest month are expected to increase approximately 5.3°C (9.6°F), and average temperatures during the coldest month are expected to increase approximately 3.4°C (6.1°F) from 2010 to the end of the century. Average annual precipitation is expected to increase by approximately 29 mm (1.1 in), ranging from a decrease of 153 mm (6.0 in) in the north to an increase of 300 mm (11.8 in) in the east. Despite the overall increase in precipitation, available moisture is expected to decrease by 17% across the state due to increases in evapotranspiration [6].

The distribution of vegetation biomes, critical for plants and animals, are also projected to change under climate change scenarios [7]. By the end of the century under a 3°C (5.4°F) global warming scenario, approximately 45% of the state of California will transition to a different biome. At present, the largest biome in the state is Desert Scrub, covering 26% of the state. By the end of the century, Desert Scrub will cover approximately 39% of the state.

All of these changes in climate and vegetation will alter plant and insect communities; influence availability of food, water, and shelter for birds; and will likely cause ecological disruption as species assemblages reshuffle. Over time, a complex suite of changes in climate and vegetation will inevitably affect California's bird communities.

Climate Change Vulnerability

Climate change will negatively affect many birds in the state. Here, we assess vulnerability based on the amount of a species's range that may be gained or lost with climate change. We designate species that may lose much more range across North America than they have the potential to gain as *climate vulnerable*. In California, 146 out of 307 modeled species are climate vulnerable in summer under the 3°C scenario, meaning they stand to lose more of their North American summer range than they would gain under a warming climate. Reducing emissions to 1.5°C reduces the number of vulnerable species to 98. Impacts are somewhat lessened in winter, with 79 out of 333 modeled species vulnerable under 3°C of warming and 43 species vulnerable if we reduce warming to 1.5°C.

Each bird was grouped by its primary habitat (see Table 2 for groupings), and these groups are not equally affected. In California, the habitat groups with the most species vulnerable to the impacts of ongoing and future climate change are western forest (55 species) and aridland (20 species) in summer (Figure 2). In winter, western forest (29 species) and aridland (14 species) groups have the most vulnerable species.

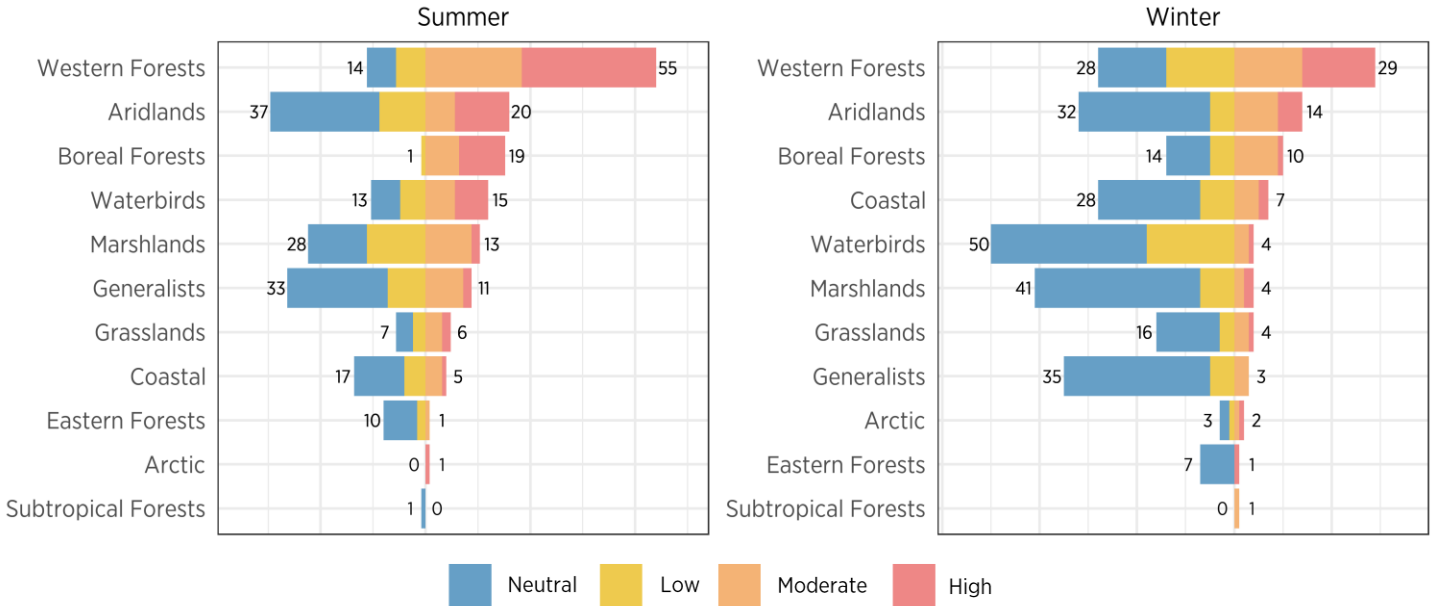

Figure 2. Number of species by their vulnerability to climate change in each habitat group under a global 3°C warming scenario. The species in each group are ones that currently live in the state, though vulnerability is assessed across the species's full North American range to better account for range-wide changes. Red and orange indicate number of vulnerable (high and moderate) species, and yellow and blue indicate non-vulnerable (low and neutral) species.

Climate-Related Threats

In addition to changes in climate across North America, we assessed the potential impacts of other forecasted threats related to climate change, including sea level rise, land use change, and extreme weather events, such as extreme spring heat, spring drought, fire weather, heavy rain, and false springs within the lower 48 states [8]. These threats are relevant to both birds and the places they need, but were only available for the lower 48 states, and were analyzed separately from vulnerability. This analysis provides information on how each location and the birds that occur there may be exposed to these specific, climate-related threats (Figure 3) beyond their range-wide vulnerability described above.

Here we summarize threats occurring within the state. Six climate-related threats will affect portions of California (Table 1). The threat affecting both the greatest area and number of species in the state is extreme spring heat.

In California, species that are most threatened by a combination of climate change and additional climate-related threats under 3°C of warming include Acorn Woodpecker, Allen's Hummingbird, Bushtit, Cassin's Kingbird, California Thrasher, Lawrence's Goldfinch, Nuttall's Woodpecker, Vaux's Swift, and Yellow-billed Magpie. For information on threats for individual species in California, see Table 2.

Climate-Related Threats (Cont.)

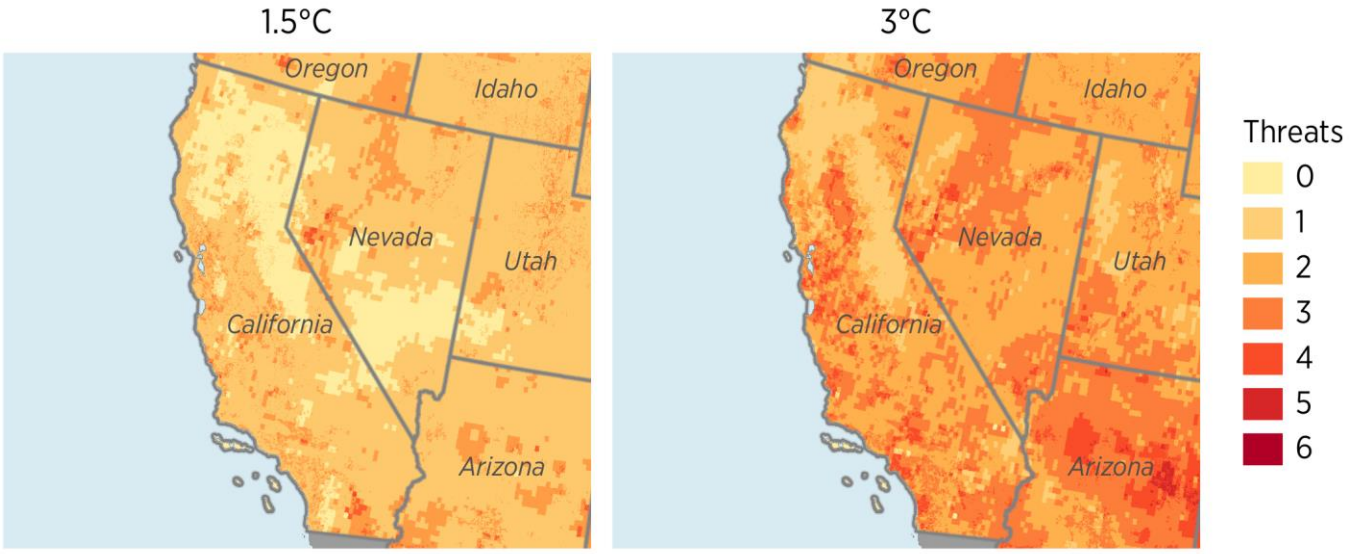

Figure 3. The number and distribution of overlapping climate-related threats under future global change scenarios of 1.5°C and 3°C. For detailed information on threats for each location in the state, refer to our online interactive tool at climate.audubon.org.

Table 1. Climate-related threats that California is expected to experience under the warming scenarios 1.5°C (2.7°F) and 3°C (5.4°F), and the projected area and number of species affected. We report the projected amount(s) of global sea level rise associated with each scenario [8]. Threats and scenarios were omitted if no species were affected in that scenario.

Threat	Scenario	Area Affected (acres)	Summer (Vulnerable) Species Affected	Winter (Vulnerable) Species Affected
Sea Level Rise	3°C (1 m/3.3 ft)	187,278		1 (0)
	3°C (2 m/6.6 ft)	251,723		2 (1)
Urbanization	1.5°C	4,156,793	4 (1)	22 (7)
	3°C	11,943,452	145 (35)	258 (40)
Cropland Expansion	1.5°C	3,542,497		1 (0)
Extreme Spring Heat	1.5°C	70,467,674	233 (48)	292 (30)
	3°C	103,145,086	268 (101)	351 (75)
Fire Weather	1.5°C	2,740,147	2 (0)	1 (0)
	3°C	74,731,718	238 (84)	318 (57)
Spring Droughts	3°C	27,372,068	5 (1)	19 (1)

We also mapped risk, areas of high conservation value for birds that are exposed to climate change-related threats. For any one location, risk is the product of the number of overlapping climate change-related threats, the total number of bird species that occur under future climate, and the number of species with range-wide vulnerability under future climate. Risk is greater across California in summer relative to winter, and mitigating warming from 3°C to 1.5°C would more than halve the average risk of climate change-related threats to birds across the state.

Conclusions and Caveats

Birds are early responders to climate change and can be important indicators of large-scale ongoing and future ecological change. We found that 47% of California's 381 bird species are vulnerable to climate change across seasons. A rapidly changing climate could lead to population declines and local extinctions if species are not able to adapt. In addition, the reshuffling of bird communities at a continental scale will bring together species that previously lived in isolation, leading to novel, unpredictable interactions. Disruptions in food and nesting resources further compound vulnerabilities to climate change.

Although we project range gains offsetting loss for some species, especially in winter, it is unknown whether birds will establish populations in these new locations because of other factors not assessed here. On top of this, the added stressors of extreme weather events and other climate change-related threats will make establishment and persistence of populations difficult in the coming decades.

While these studies did not assess the effects of climate change on people, we know that the fate of humans and birds are deeply connected. Climate change is currently and will continue to cause harm to people too, who face threats like extreme weather, loss of coastal areas and changing economic patterns, to name a few. Climate change will cause disproportionate harm to vulnerable communities, including children, the elderly, the sick, and the poor, who may have fewer resources available to move or otherwise protect themselves from these threats. If we drastically reduce carbon emissions, we help people and birds alike.

This is the most comprehensive assessment of climate change vulnerability of birds in North America to date, but even this assessment may reasonably be considered conservative because the pace of change is exceeding the scenarios considered in this study. Our work concludes that climate change will have multiple, compounding effects on birds and will likely amplify biodiversity loss, unless actions are taken to lessen its effects.

Call to Action

We know what to do.

The scientific consensus is clear. We must reduce greenhouse gas emissions at an urgent speed and on a wide scale from every sector of the economy to achieve a more favorable future for birds and people. There is no single perfect solution, but we can make a series of changes that lead to large-scale, systemic adjustments to achieve the required reductions.

Addressing the underlying causes of climate change.

Audubon is pursuing policies that together can drive down emissions at the scale and speed we need. For instance, we can invest in 100% clean energy, energy efficiency, and clean transportation policies that will dramatically reduce carbon emissions from the U.S. and world economies. We can adapt, improve, and innovate. We can power our cars, homes, cities, factories, farms, communities, and economy with clean energy-without contributing to climate change. We are working to implement policies and conservation practices that offset what we cannot eliminate, such as planting forests and testing new technologies to capture (i.e., sequester) carbon through industrial processes and permanently store it underground. We can do all of this in ways that spur innovation, create good jobs, promote homegrown industries, and build our economy for a smarter future.

Protecting the places birds need.

We can also pursue policies and conservation practices that help us avoid some of the worst effects of climate change by building more resilient infrastructure—meaning our cities, roads, and other structures—or even ranches, parks, floodplains, forests, and wetlands that can serve as good wildlife habitat and simultaneously protect our communities from extreme weather.

Audubon has identified the best opportunities to increase the resilience of coastal wetlands in key places that can serve as the first line of defense against the threat of sea level rise. We work to ensure key landscapes that are critical for birds have clean and reliable sources of water, now and in the future, and we advocate for conservation-minded management of working and urban landscapes that can help birds adapt to the changing climate.

We still have time.

We can avert and limit dangerous warming and its worst effects if we act quickly. Science tells us that in order to limit warming to a rise of 1.5°C (2.7°F), we must reduce greenhouse gas emissions 45% below 2010 levels by 2030 and reach net-zero carbon emissions by 2050.

We must act now.

We are on a dangerous path, but we have the power to chart a better one. Still, change will come only if we demand action from the public officials who represent us and the businesses we support.

We ask you to join us.

Be part of the solution. We can do this, together.

How You Can Help in California

We still have time.

We can avert and limit dangerous warming and its worst effects if we act quickly. California is already implementing an Executive Order to reach net-zero carbon emissions by 2045.

We must act now.

Charting a sustainable path requires all Californians to act. First, we must hold our state elected officials accountable at the ballot box and through direct communications to urge them to keep California on a path to carbon neutrality. Second, California must invest more public funding in natural climate solutions by protecting, restoring, and enhancing wetlands, riparian corridors, grasslands, and coastal ecosystems. These solutions not only provide essential climate benefits, they also provide much-needed habitat that birds and other wildlife will rely on as the climate changes. Third, Californians can make daily decisions to reduce emissions and better sequester carbon, including choices in the foods we buy, what we plant in our yards, and how we commute.

More Information

This project was conducted by the National Audubon Society. For more information, including details on the methods, please see the project website (climate.audubon.org) and the scientific publications [5,8].

References

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Species Projections

Table 2. Climate suitability projections in summer and winter under the 3°C warming scenario for birds in California. Each bird is associated with the *Habitat Group* representing its primary habitat (see classification key below). *Range-wide Vulnerability* is the vulnerability of each species, across its full North American range under 3°C of global warming, based on long-term climate and vegetation change. High and moderately vulnerable species are considered vulnerable to climate change, whereas low and neutral species are considered not vulnerable. In *State Trends*, we show the top two trends in climate and habitat suitability for select birds in California, with colors reflecting the trend according to the legend below and percentages reflecting the percent of the state's area in which each trend will occur. The total percentage reflects the area of the state that the species currently occupies and is projected to occupy in the future. Potential colonization indicates that climate and habitat are projected to become suitable for the species, whereas potential extirpation indicates that climate and habitat are suitable today but projected to become unsuitable. *State Threats* shows the additional climate-related threats each species might face, indicated by icons as in Table 1. Threats shown here were assessed within each state for species under either 1.5°C or 3°C warming (i.e., species that will be completely extirpated from the state do not have threats shown). Omitted species are either not present in the state during that season or not modeled due to data deficiency. These lists may have been further reduced by local experts. For a full list of species modeled in California, see the project website (climate.audubon.org).

Habitat classifications:

F-B = Boreal Forests
F-E = Eastern Forests
F-W = Western Forests
F-S = Subtropical Forests
A = Arctic
D = Aridlands
G = Grasslands
M = Marshlands
C = Coastal
W = Waterbirds
Gen = Generalists

Trend classifications:

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Snow Goose	W	Winter	Low	29% 3%	
Ross's Goose	W	Winter	Low	6% 32%	
Greater White-fronted Goose	W	Winter	Low	5% 55%	
Brant	W	Winter	Moderate	3% 1%	
Cackling Goose	M	Winter	Moderate	22% 7%	
Canada Goose	W	Summer	Moderate	21% 9%	
	W	Winter	Neutral	39% 48%	
Tundra Swan	W	Winter	Moderate	18% 12%	
Wood Duck	W	Summer	Low	14% 34%	
	W	Winter	Neutral	48% 16%	
Blue-winged Teal	M	Summer	Low	2% 3%	
	M	Winter	Neutral	8% 18%	
Cinnamon Teal	M	Summer	Moderate	12% 13%	
	M	Winter	Neutral	78% 7%	
Northern Shoveler	M	Summer	Low	3% 3%	
	M	Winter	Neutral	5% 38%	
Gadwall	M	Summer	Moderate	19% 11%	
	M	Winter	Neutral	55% 14%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Eurasian Wigeon	M	Winter	Moderate	26% 6%	
American Wigeon	M	Summer	Moderate	1% <1%	
	M	Winter	Neutral	13% 53%	
Mallard	W	Summer	Low	83% 10%	
	W	Winter	Neutral	16% 74%	
Northern Pintail	M	Summer	Moderate	8% 6%	
	M	Winter	Neutral	5% 33%	
Green-winged Teal	M	Summer	Moderate	4% 1%	
	M	Winter	Neutral	12% 32%	
Canvasback	M	Summer	Low	1% <1%	
	M	Winter	Neutral	15% 37%	
Redhead	M	Summer	Neutral	5% 11%	
	M	Winter	Low	12% 15%	
Ring-necked Duck	W	Summer	Moderate	13% 21%	
	W	Winter	Neutral	63% 12%	
Greater Scaup	W	Summer	High	<1%	
	W	Winter	Neutral	28% 27%	
Lesser Scaup	W	Summer	High	1% <1%	
	W	Winter	Neutral	64% 19%	
Harlequin Duck	W	Summer	Moderate	<1% <1%	
	W	Winter	Low	<1% <1%	
Surf Scoter	C	Winter	Neutral	2% 2%	
Bufflehead	W	Summer	High	1% <1%	
	W	Winter	Low	8% 75%	
Common Goldeneye	W	Summer	High	1% <1%	
	W	Winter	Neutral	11% 63%	
Barrow's Goldeneye	W	Winter	High	6% 1%	
Hooded Merganser	W	Summer	Low	1%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	W	Winter	Neutral	42% 6%	
Common Merganser	W	Summer	Moderate	19% 5%	
	W	Winter	Low	22% 53%	
Red-breasted Merganser	W	Winter	Low	2% 3%	
Ruddy Duck	M	Summer	Low	10% 25%	
	M	Winter	Neutral	45% 8%	
Mountain Quail	F-W	Summer	Low	13% 8%	
	F-W	Winter	Moderate	13% 10%	
California Quail	D	Summer	Low	24% 25%	
	D	Winter	High	42% 6%	
Gambel's Quail	D	Summer	Neutral	15% 5%	
	D	Winter	Neutral	8% 11%	
Ruffed Grouse	F-B	Summer	Moderate	5%	
	F-B	Winter	Moderate	7% <1%	
Greater Sage-Grouse	D	Summer	High	3% <1%	
	D	Winter	High	4% <1%	
Wild Turkey	Gen	Summer	Neutral	10% 19%	
	Gen	Winter	Neutral	16% 10%	
Pied-billed Grebe	M	Summer	Neutral	8% 24%	
	M	Winter	Neutral	49% 13%	
Horned Grebe	M	Winter	Neutral	4% 3%	
Red-necked Grebe	M	Winter	Neutral	2% 1%	
Eared Grebe	M	Summer	High	12% 6%	
	M	Winter	Neutral	58% 5%	
Western Grebe	M	Summer	Low	19% 31%	
	M	Winter	Low	20% 23%	
Clark's Grebe	M	Summer	Low	16% 15%	
	M	Winter	High	29% 25%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Band-tailed Pigeon	F-W	Summer	Moderate	17% 7%	
	F-W	Winter	High	22% 28%	
Inca Dove	D	Summer	Neutral	8% 9%	
	D	Winter	Neutral	13% 17%	
Common Ground-Dove	D	Summer	Neutral	7% 28%	
	D	Winter	Neutral	8% 27%	
White-winged Dove	D	Summer	Neutral	12% 8%	
	D	Winter	Neutral	6% 10%	
Mourning Dove	Gen	Summer	Neutral	69% 11%	
	Gen	Winter	Neutral	25% 27%	
Greater Roadrunner	D	Summer	Neutral	44% 18%	
	D	Winter	Neutral	30% 20%	
Yellow-billed Cuckoo	F-E	Summer	Neutral	6% 38%	
Lesser Nighthawk	D	Summer	Neutral	34% 22%	
Common Nighthawk	Gen	Summer	Neutral	18% 30%	
Common Poorwill	D	Summer	Neutral	50% 7%	
	D	Winter	Moderate	13% 12%	
Black Swift	F-W	Summer	Moderate	9% 3%	
Chimney Swift	F-E	Summer	Neutral	<1%	
Vaux's Swift	F-W	Summer	High	5%	
White-throated Swift	D	Summer	Low	47% 12%	
	D	Winter	Moderate	43% 9%	
Black-chinned Hummingbird	D	Summer	Neutral	31% 31%	
	D	Winter	Low	3%	
Anna's Hummingbird	Gen	Summer	Low	53% 14%	
	Gen	Winter	Moderate	18% 30%	
Costa's Hummingbird	D	Summer	Neutral	27% 12%	
	D	Winter	Neutral	20% 33%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Broad-tailed Hummingbird	F-W	Summer	High	<1% <1%	
Rufous Hummingbird	F-W	Summer	High	2% <1%	
Allen's Hummingbird	D	Summer	High	8% 4%	
	D	Winter	High	4% 2%	
Calliope Hummingbird	F-W	Summer	High	14% 3%	
Ridgway's Rail	M	Summer	Neutral	5% 11%	
	M	Winter	Neutral	6% 5%	
Virginia Rail	M	Summer	Moderate	19% 15%	
	M	Winter	Low	25% 24%	
Sora	M	Summer	Moderate	3% <1%	
	M	Winter	Neutral	37% 11%	
Common Gallinule	M	Summer	Neutral	19% 24%	
	M	Winter	Neutral	11% 9%	
American Coot	M	Summer	Neutral	36% 10%	
	M	Winter	Neutral	72% 15%	
Black Rail	M	Summer	Moderate	10% 17%	
	M	Winter	Low	6% 13%	
Sandhill Crane	M	Summer	Moderate	6%	
	M	Winter	Low	7% 7%	
Black-necked Stilt	M	Summer	Neutral	20% 9%	
	M	Winter	Neutral	21% 15%	
American Avocet	M	Summer	Neutral	11% 13%	
	M	Winter	Neutral	20% 14%	
Black Oystercatcher	C	Summer	Low	3% 1%	
	C	Winter	Neutral	<1% 3%	
Black-bellied Plover	W	Winter	Neutral	12% 14%	
Pacific Golden-Plover	W	Winter	Moderate	5% 2%	
Snowy Plover	C	Summer	Neutral	20% 8%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	C	Winter	Neutral	1%	
Semipalmated Plover	W	Summer	High	<1%	
	C	Winter	Neutral	5% 5%	
Killdeer	W	Summer	Neutral	6% 46%	
	W	Winter	Neutral	56% 21%	
Mountain Plover	G	Winter	Low	5% 20%	
Whimbrel	W	Winter	Neutral	3% 10%	
Long-billed Curlew	G	Summer	High	3% 1%	
	G	Winter	Neutral	19% 11%	
Marbled Godwit	M	Winter	Neutral	9% 2%	
Ruddy Turnstone	W	Winter	Neutral	2% 7%	
Black Turnstone	C	Winter	Neutral	1% 2%	
Red Knot	W	Winter	Low	1% 2%	
Surfbird	W	Winter	Low	11% 6%	
Sanderling	W	Summer	High	<1% <1%	
	W	Winter	Neutral	4% 6%	
Dunlin	W	Winter	Low	5% 15%	
Rock Sandpiper	C	Winter	High	<1%	
Least Sandpiper	W	Winter	Neutral	54% 13%	
Western Sandpiper	W	Winter	Neutral	9% 10%	
Short-billed Dowitcher	W	Summer	High	<1% <1%	
	W	Winter	Neutral	5% <1%	
Long-billed Dowitcher	W	Winter	Neutral	37% 7%	
Wilson's Snipe	M	Summer	Moderate	3% <1%	
	M	Winter	Neutral	57% 12%	
Wilson's Phalarope	M	Summer	Low	4% <1%	
Spotted Sandpiper	W	Summer	Moderate	21% 13%	
	W	Winter	Neutral	33% 36%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Wandering Tattler	W	Summer	High	<1% <1%	
	W	Winter	Neutral	4% 12%	
Greater Yellowlegs	W	Winter	Neutral	46% 15%	
Willet	W	Summer	Neutral	4% 4%	
	C	Winter	Neutral	10% 11%	
Lesser Yellowlegs	W	Winter	Neutral	7% 10%	
Parasitic Jaeger	C	Winter	High	2% 1%	
Common Murre	C	Summer	Low	3% 1%	
	C	Winter	Neutral	4% <1%	
Pigeon Guillemot	C	Summer	Moderate	4% 1%	
	C	Winter	Moderate	5% 1%	
Marbled Murrelet	C	Summer	Low	1% <1%	
	C	Winter	Moderate	2% <1%	
Ancient Murrelet	C	Summer	High	<1% <1%	
	C	Winter	Moderate	<1% <1%	
Cassin's Auklet	C	Summer	Moderate	3% 2%	
	C	Winter	Neutral	2% 2%	
Rhinoceros Auklet	C	Summer	Low	1% <1%	
	C	Winter	Low	4% 2%	
Black-legged Kittiwake	C	Winter	Neutral	8% 4%	
Bonaparte's Gull	W	Winter	Neutral	26% 8%	
Franklin's Gull	M	Summer	High	<1% <1%	
Heermann's Gull	C	Summer	Neutral	6% 25%	
	C	Winter	Neutral	4% 2%	
Mew Gull	C	Winter	Neutral	2% 1%	
Ring-billed Gull	W	Summer	Low	8% 11%	
	W	Winter	Neutral	12% 39%	
Western Gull	C	Summer	Neutral	2% 8%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	C	Winter	Low	5% 4%	
Yellow-footed Gull	C	Summer	Neutral	4%	
	C	Winter	Neutral	2% 8%	
California Gull	W	Summer	Moderate	18% 23%	
	W	Winter	Low	14% 58%	
Herring Gull	W	Winter	Neutral	4% 53%	
Iceland Gull	C	Winter	Low	15% 2%	
Glaucous-winged Gull	C	Summer	Moderate	<1% <1%	
	C	Winter	Low	13% 1%	
Glaucous Gull	W	Winter	Low	2% 2%	
Least Tern	W	Summer	Low	5% 4%	
Gull-billed Tern	C	Summer	Neutral	1% 8%	
	C	Winter	Neutral	4%	
Caspian Tern	W	Summer	Low	17% 8%	
	W	Winter	Neutral	4% 23%	
Black Tern	M	Summer	Low	1% <1%	
Forster's Tern	M	Summer	Neutral	4% 30%	
	M	Winter	Neutral	4% 1%	
Royal Tern	C	Summer	Neutral	<1%	
	C	Winter	Neutral	1% 3%	
Black Skimmer	C	Summer	Neutral	7% 8%	
	C	Winter	Neutral	<1% 1%	
Red-throated Loon	W	Winter	Low	10% 3%	
Pacific Loon	W	Winter	Low	3% 3%	
Common Loon	W	Summer	Moderate	2% <1%	
	W	Winter	Low	5% 10%	
Northern Fulmar	C	Winter	Low	10% 8%	
Black-vented Shearwater	C	Summer	Moderate	2% 1%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	C	Winter	Moderate	1% 1%	
Brandt's Cormorant	C	Summer	Neutral	4%	
	C	Winter	Low	1% 7%	
Pelagic Cormorant	C	Summer	Low	2% 1%	
	C	Winter	Moderate	4% 2%	
Neotropic Cormorant	C	Summer	Neutral	1% 12%	
	C	Winter	Neutral	4% 11%	
Double-crested Cormorant	W	Summer	Neutral	24% 20%	
	W	Winter	Neutral	53% 9%	
American White Pelican	M	Summer	Low	10% 5%	
	M	Winter	Neutral	9% 11%	
Brown Pelican	C	Summer	Neutral	9% 17%	
	C	Winter	Neutral	4% <1%	
American Bittern	M	Summer	Low	9% 1%	
	M	Winter	Neutral	12% 2%	
Least Bittern	M	Summer	Neutral	8% 18%	
	M	Winter	Neutral	5% 18%	
Great Blue Heron	W	Summer	Neutral	85% 9%	
	W	Winter	Neutral	23% 54%	
Great Egret	W	Summer	Neutral	34% 16%	
	W	Winter	Neutral	55% 24%	
Snowy Egret	M	Summer	Neutral	16% 17%	
	M	Winter	Neutral	31% 26%	
Little Blue Heron	M	Summer	Neutral	5% 17%	
	M	Winter	Neutral	<1% 4%	
Tricolored Heron	M	Winter	Neutral	<1% 2%	
Cattle Egret	W	Summer	Neutral	28% 20%	
	W	Winter	Neutral	24% 15%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Green Heron	M	Summer	Neutral	20% 20%	
	M	Winter	Neutral	20% 19%	
Black-crowned Night-Heron	M	Summer	Neutral	47% 10%	
	M	Winter	Neutral	42% 18%	
Yellow-crowned Night-Heron	M	Summer	Neutral	4% 18%	
	M	Winter	Neutral	1% 9%	
White-faced Ibis	M	Summer	Low	16% 12%	
	M	Winter	Neutral	9% 4%	
Turkey Vulture	Gen	Summer	Neutral	88% 7%	
	Gen	Winter	Neutral	46% 22%	
Osprey	W	Summer	Neutral	35% 8%	
	W	Winter	Neutral	15% 44%	
White-tailed Kite	D	Summer	Moderate	8% 26%	
	D	Winter	Neutral	37% 12%	
Golden Eagle	Gen	Summer	Moderate	37% 21%	
	Gen	Winter	Moderate	46% 33%	
Northern Harrier	M	Summer	Low	20% 13%	
	M	Winter	Neutral	11% 41%	
Sharp-shinned Hawk	F-W	Summer	Moderate	30% 4%	
	F-W	Winter	Neutral	14% 74%	
Cooper's Hawk	Gen	Summer	Neutral	68% 15%	
	Gen	Winter	Low	62% 11%	
Northern Goshawk	F-B	Summer	High	18% 3%	
	F-B	Winter	Low	17% 7%	
Bald Eagle	Gen	Summer	Low	22% 25%	
	Gen	Winter	Neutral	38% 40%	
Red-shouldered Hawk	F-E	Summer	Neutral	21% 31%	
	F-E	Winter	Neutral	10% 24%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Swainson's Hawk	G	Summer	Neutral	12% 19%	
Red-tailed Hawk	Gen	Summer	Neutral	98% 2%	
	Gen	Winter	Neutral	81% 9%	
Rough-legged Hawk	A	Winter	Moderate	9% 6%	
Ferruginous Hawk	G	Summer	Moderate	2% 1%	
	G	Winter	Moderate	28% 14%	
Barn Owl	Gen	Summer	Neutral	72% 23%	
	Gen	Winter	Neutral	83% 14%	
Western Screech-Owl	F-W	Summer	Neutral	64% 10%	
	F-W	Winter	Neutral	40% 18%	
Great Horned Owl	Gen	Summer	Neutral	87% 3%	
	Gen	Winter	Neutral	9% 77%	
Northern Pygmy-Owl	F-W	Summer	High	19% 19%	
	F-W	Winter	High	13% 32%	
Burrowing Owl	G	Summer	Neutral	17% 31%	
	G	Winter	Neutral	6% 33%	
Spotted Owl	F-W	Summer	High	14% 9%	
	F-W	Winter	High	14% 8%	
Barred Owl	F-E	Summer	Neutral	9% 7%	
	F-E	Winter	Neutral	8% 13%	
Great Gray Owl	F-B	Summer	High	1%	
	F-B	Winter	Moderate	11%	
Long-eared Owl	F-W	Summer	Low	30% 26%	
	F-W	Winter	Low	30% 33%	
Short-eared Owl	G	Summer	Moderate	4% 1%	
	G	Winter	Neutral	4% 8%	
Northern Saw-whet Owl	F-B	Summer	Moderate	40% 5%	
	F-B	Winter	Low	29% 20%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Belted Kingfisher	Gen	Summer	Neutral	38% 9%	
	Gen	Winter	Neutral	89% 6%	
Williamson's Sapsucker	F-W	Summer	High	13% 3%	
	F-W	Winter	High	11% 3%	
Red-naped Sapsucker	F-W	Summer	High	14% 1%	
	F-W	Winter	Neutral	26% 9%	
Red-breasted Sapsucker	F-W	Summer	High	11% 2%	
	F-W	Winter	Low	14% 38%	
Lewis's Woodpecker	F-W	Summer	Moderate	15% 9%	
	F-W	Winter	Low	11% 22%	
Acorn Woodpecker	F-W	Summer	High	23% 17%	
	F-W	Winter	Moderate	11% 34%	
Gila Woodpecker	D	Summer	Neutral	4% 8%	
	D	Winter	Neutral	4% 11%	
Black-backed Woodpecker	F-B	Summer	High	10% 2%	
	F-B	Winter	Moderate	7% 1%	
Downy Woodpecker	Gen	Summer	Neutral	24% 21%	
	Gen	Winter	Neutral	42% 14%	
Nuttall's Woodpecker	F-W	Summer	High	32% 13%	
	F-W	Winter	High	33% 5%	
Ladder-backed Woodpecker	D	Summer	Neutral	22% 14%	
	D	Winter	Neutral	23% 12%	
Hairy Woodpecker	Gen	Summer	Low	21% 14%	
	Gen	Winter	Low	20% 12%	
White-headed Woodpecker	F-W	Summer	High	18% 6%	
	F-W	Winter	High	11% 4%	
Pileated Woodpecker	F-E	Summer	Neutral	9% 10%	
	F-E	Winter	Neutral	9% 4%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Northern Flicker	Gen	Summer	Moderate	32% 24%	
	Gen	Winter	Neutral	22% 63%	
American Kestrel	Gen	Summer	Neutral	1% 88%	
	Gen	Winter	Neutral	79% 13%	
Merlin	F-E	Winter	Neutral	10% 85%	
Gyrfalcon	A	Winter	Low	7% <1%	
Peregrine Falcon	Gen	Summer	Neutral	4% 93%	
	Gen	Winter	Neutral	66% 19%	
Prairie Falcon	D	Summer	Low	7% 32%	
	D	Winter	Low	4% 73%	
Olive-sided Flycatcher	F-B	Summer	High	28% 7%	
Western Wood-Pewee	F-W	Summer	High	40% 16%	
Willow Flycatcher	F-W	Summer	Moderate	25% 17%	
Hammond's Flycatcher	F-W	Summer	High	13% 3%	
	F-W	Winter	Moderate	2% 12%	
Gray Flycatcher	D	Summer	High	6% 1%	
	D	Winter	Neutral	3% 12%	
Dusky Flycatcher	F-W	Summer	High	14% 4%	
	F-W	Winter	Neutral	1% 5%	
Pacific-slope Flycatcher	F-W	Summer	Low	19% 9%	
Cordilleran Flycatcher	F-W	Summer	High	<1% <1%	
	F-W	Winter	High	2%	
Black Phoebe	Gen	Summer	Neutral	70% 11%	
	Gen	Winter	Neutral	53% 18%	
Say's Phoebe	Gen	Summer	Low	9% 35%	
	Gen	Winter	Low	4% 50%	
Vermilion Flycatcher	D	Summer	Neutral	22% 11%	
	D	Winter	Neutral	10% 19%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Ash-throated Flycatcher	D	Summer	Neutral	75% 14%	
	D	Winter	Neutral	5% 20%	
Cassin's Kingbird	D	Summer	High	4% 5%	
	D	Winter	Neutral	3% 25%	
Western Kingbird	G	Summer	Neutral	63% 7%	
	G	Winter	Neutral	<1% 5%	
Loggerhead Shrike	G	Summer	Neutral	50% 10%	
	G	Winter	Neutral	8% 47%	
Northern Shrike	F-B	Winter	Moderate	11% 2%	
Bell's Vireo	D	Summer	Low	9% 36%	
	D	Winter	Low	4%	
Gray Vireo	D	Summer	Moderate	<1% 1%	
	D	Winter	Neutral	7%	
Hutton's Vireo	F-W	Summer	Moderate	17% 18%	
	F-W	Winter	Moderate	18% 15%	
Cassin's Vireo	F-W	Summer	Low	18% 15%	
	F-W	Winter	Neutral	3% 14%	
Plumbeous Vireo	F-W	Summer	Neutral	2% 6%	
	F-W	Winter	Moderate	3%	
Warbling Vireo	Gen	Summer	Neutral	35% 16%	
Red-eyed Vireo	F-E	Summer	Low	<1%	
Canada Jay	F-B	Summer	High	3% <1%	
	F-B	Winter	High	4% <1%	
Pinyon Jay	F-W	Summer	Moderate	8% 3%	
	F-W	Winter	Low	10% 12%	
Steller's Jay	F-W	Summer	Moderate	25% 10%	
	F-W	Winter	Moderate	20% 15%	
California Scrub-Jay	F-W	Summer	Moderate	15% 18%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	F-W	Winter	Moderate	17% 18%	
Woodhouse's Scrub-Jay	F-W	Summer	Moderate	6% 6%	
	F-W	Winter	Moderate	12% 6%	
Black-billed Magpie	Gen	Summer	High	8% 1%	
	Gen	Winter	Moderate	8% 1%	
Yellow-billed Magpie	F-W	Summer	High	14%	
	F-W	Winter	High	17%	
Clark's Nutcracker	F-W	Summer	High	11% 2%	
	F-W	Winter	High	12% 1%	
American Crow	Gen	Summer	Low	22% 34%	
	Gen	Winter	Neutral	19% 43%	
Common Raven	Gen	Summer	Low	16% 82%	
	Gen	Winter	Low	15% 83%	
Horned Lark	G	Summer	Low	8% 23%	
	G	Winter	Low	19% 11%	
Northern Rough-winged Swallow	Gen	Summer	Neutral	88% 6%	
	Gen	Winter	Neutral	4% 36%	
Purple Martin	Gen	Summer	Neutral	2% 14%	
Tree Swallow	Gen	Summer	Moderate	40% 14%	
	Gen	Winter	Neutral	22% 22%	
Violet-green Swallow	F-W	Summer	Moderate	40% 23%	
	F-W	Winter	Neutral	5% 4%	
Bank Swallow	Gen	Summer	Neutral	17% 20%	
Barn Swallow	Gen	Summer	Neutral	15% 53%	
Cliff Swallow	Gen	Summer	Neutral	12% 73%	
Black-capped Chickadee	F-B	Summer	Low	12% 3%	
	F-B	Winter	Low	14% 8%	
Mountain Chickadee	F-W	Summer	High	16% 8%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	F-W	Winter	High	18% 8%	
Chestnut-backed Chickadee	F-W	Summer	Low	20% 2%	
	F-W	Winter	Neutral	13% 2%	
Oak Titmouse	F-W	Summer	Low	25% 11%	
	F-W	Winter	Moderate	29% 10%	
Juniper Titmouse	F-W	Summer	Low	<1%	
	F-W	Winter	Low	2% 2%	
Verdin	D	Summer	Neutral	22% 4%	
	D	Winter	Neutral	21% 15%	
Bushtit	F-W	Summer	High	38% 20%	
	F-W	Winter	Moderate	33% 17%	
Red-breasted Nuthatch	F-B	Summer	Moderate	26% 3%	
	F-B	Winter	Neutral	30% 48%	
White-breasted Nuthatch	F-E	Summer	Low	27% 19%	
	F-E	Winter	Neutral	21% 19%	
Pygmy Nuthatch	F-W	Summer	High	22% 3%	
	F-W	Winter	Moderate	17% 7%	
Brown Creeper	F-W	Summer	Moderate	21% 12%	
	F-W	Winter	Neutral	21% 42%	
Rock Wren	D	Summer	Moderate	7% 30%	
	D	Winter	Neutral	63% 11%	
Canyon Wren	D	Summer	Neutral	25% 10%	
	D	Winter	Neutral	40% 18%	
House Wren	Gen	Summer	Moderate	30% 12%	
	Gen	Winter	Neutral	44% 17%	
Pacific Wren	F-W	Summer	Neutral	4% 6%	
	F-W	Winter	Low	14% 6%	
Marsh Wren	M	Summer	Low	10% 6%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	M	Winter	Low	15% 39%	
Bewick's Wren	D	Summer	Neutral	12% 61%	
	D	Winter	Low	12% 71%	
Cactus Wren	D	Summer	Neutral	28% 17%	
	D	Winter	Neutral	25% 12%	
Blue-gray Gnatcatcher	Gen	Summer	Neutral	29% 20%	
	Gen	Winter	Neutral	12% 46%	
California Gnatcatcher	D	Summer	Moderate	2% 3%	
	D	Winter	Moderate	1%	
Black-tailed Gnatcatcher	D	Summer	Neutral	15% 7%	
	D	Winter	Neutral	19% 11%	
American Dipper	F-W	Summer	Moderate	11% 27%	
	F-W	Winter	High	15% 15%	
Golden-crowned Kinglet	F-B	Summer	Moderate	18% 2%	
	F-B	Winter	Neutral	11% 17%	
Ruby-crowned Kinglet	F-W	Summer	High	4% 1%	
	F-W	Winter	Neutral	72% 13%	
Wrentit	D	Summer	Moderate	20% 12%	
	D	Winter	Moderate	16% 6%	
Western Bluebird	F-W	Summer	Moderate	17% 50%	
	F-W	Winter	High	29% 39%	
Mountain Bluebird	F-W	Summer	High	5%	
	F-W	Winter	Low	25%	
Townsend's Solitaire	F-W	Summer	High	14% 4%	
	F-W	Winter	High	11% 8%	
Varied Thrush	F-W	Summer	High	1%	
	F-W	Winter	Low	30% 21%	
Swainson's Thrush	F-B	Summer	High	5%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Hermit Thrush	F-W	Summer	High	10% 2%	
	F-W	Winter	Low	15% 39%	
American Robin	Gen	Summer	Moderate	37% 14%	
	Gen	Winter	Neutral	37% 33%	
Bendire's Thrasher	D	Summer	Low	4% 6%	
	D	Winter	Neutral	19%	
California Thrasher	D	Summer	High	19% 7%	
	D	Winter	Moderate	13% 14%	
LeConte's Thrasher	D	Summer	High	16% 7%	
	D	Winter	Moderate	14% 11%	
Crissal Thrasher	D	Summer	Low	7% 7%	
	D	Winter	Low	14% 8%	
Sage Thrasher	D	Summer	High	6% <1%	
	D	Winter	Low	10% 29%	
Northern Mockingbird	Gen	Summer	Neutral	51% 9%	
	Gen	Winter	Neutral	44% 15%	
American Pipit	A	Winter	Neutral	10% 43%	
Sprague's Pipit	G	Winter	Neutral	9% 23%	
Cedar Waxwing	Gen	Summer	Low	21% 5%	
	Gen	Winter	Neutral	18% 21%	
Phainopepla	D	Summer	Neutral	36% 21%	
	D	Winter	Neutral	11%	
Evening Grosbeak	F-B	Summer	High	15% 2%	
	F-B	Winter	Moderate	25% 9%	
Pine Grosbeak	F-B	Summer	High	3% <1%	
	F-B	Winter	Moderate	5% 1%	
Gray-crowned Rosy-Finch	A	Summer	High	3% <1%	
	A	Winter	High	4% <1%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
House Finch	Gen	Summer	Low	11% 62%	
	Gen	Winter	Low	12% 62%	
Purple Finch	F-B	Summer	Moderate	28% 4%	
	F-B	Winter	Low	10% 11%	
Cassin's Finch	F-W	Summer	High	21% 4%	
	F-W	Winter	Moderate	30% 18%	
Red Crossbill	F-B	Summer	High	26% 4%	
	F-B	Winter	Moderate	29% 23%	
Pine Siskin	F-W	Summer	Moderate	14% 2%	
	F-W	Winter	Neutral	23% 44%	
Lesser Goldfinch	F-W	Summer	Neutral	63% 19%	
	F-W	Winter	Neutral	67% 12%	
Lawrence's Goldfinch	D	Summer	High	21% 9%	
	D	Winter	Low	11% 10%	
American Goldfinch	Gen	Summer	Moderate	21% 2%	
	Gen	Winter	Neutral	23% 35%	
Lapland Longspur	A	Winter	Neutral	4% 1%	
Rufous-winged Sparrow	D	Winter	Neutral	16%	
Grasshopper Sparrow	G	Summer	Low	1% 2%	
	G	Winter	Neutral	1% 5%	
Chipping Sparrow	Gen	Summer	Moderate	8% 3%	
	Gen	Winter	Neutral	10% 29%	
Black-chinned Sparrow	D	Summer	High	12% 5%	
	D	Winter	Low	10%	
Brewer's Sparrow	D	Summer	High	9% 1%	
	D	Winter	Moderate	3% 4%	
Black-throated Sparrow	D	Summer	Neutral	26% 8%	
	D	Winter	Neutral	19% 18%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Lark Sparrow	D	Summer	Neutral	40% 19%	
	D	Winter	Neutral	47% 14%	
Lark Bunting	G	Winter	Neutral	12% 16%	
Fox Sparrow	F-B	Summer	High	9% 2%	
	F-B	Winter	Moderate	23% 24%	
Dark-eyed Junco	F-W	Summer	High	30% 4%	
	F-W	Winter	Neutral	32% 38%	
White-crowned Sparrow	Gen	Summer	High	11% 1%	
	Gen	Winter	Neutral	61% 12%	
Golden-crowned Sparrow	F-B	Winter	Moderate	16% 40%	
White-throated Sparrow	F-B	Winter	Neutral	14% 22%	
Sagebrush Sparrow	D	Summer	High	4% <1%	
	D	Winter	Neutral	5% 7%	
Bell's Sparrow	D	Summer	Moderate	18% 25%	
	D	Winter	Neutral	16% 11%	
Vesper Sparrow	G	Summer	Moderate	5%	
	G	Winter	Neutral	9% 33%	
Savannah Sparrow	G	Summer	High	3% <1%	
	G	Winter	Low	13% 23%	
Song Sparrow	Gen	Summer	Moderate	29% 24%	
	Gen	Winter	Neutral	47% 29%	
Lincoln's Sparrow	F-B	Summer	High	5% 1%	
	F-B	Winter	Neutral	75% 20%	
Canyon Towhee	D	Summer	Low	<1% 3%	
Abert's Towhee	D	Summer	Moderate	7% 10%	
	D	Winter	Moderate	7% 11%	
California Towhee	D	Summer	Low	25% 13%	
	D	Winter	High	24% 6%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Rufous-crowned Sparrow	D	Summer	Low	17% 8%	
	D	Winter	High	5% 5%	
Green-tailed Towhee	D	Summer	High	15% 3%	
	D	Winter	Neutral	1% 16%	
Spotted Towhee	F-W	Summer	Moderate	34% 22%	
	F-W	Winter	Low	30% 41%	
Yellow-breasted Chat	F-E	Summer	Neutral	30% 19%	
Yellow-headed Blackbird	M	Summer	Low	14% 13%	
	M	Winter	Low	16% 8%	
Western Meadowlark	G	Summer	Low	23% 6%	
	G	Winter	Neutral	14% 44%	
Hooded Oriole	F-W	Summer	Neutral	48% 17%	
	F-W	Winter	Moderate	9%	
Bullock's Oriole	F-W	Summer	Neutral	11% 71%	
	F-W	Winter	Moderate	7%	
Scott's Oriole	D	Summer	Neutral	20% 7%	
	D	Winter	Moderate	2% 9%	
Red-winged Blackbird	Gen	Summer	Neutral	50% 7%	
	Gen	Winter	Neutral	19% 44%	
Tricolored Blackbird	M	Summer	Moderate	16% 12%	
	M	Winter	High	21%	
Bronzed Cowbird	D	Summer	Neutral	5% 12%	
	D	Winter	Neutral	25%	
Brown-headed Cowbird	Gen	Summer	Neutral	66% 7%	
	Gen	Winter	Neutral	12% 14%	
Brewer's Blackbird	Gen	Summer	Moderate	31% 58%	
	Gen	Winter	Neutral	38% 51%	
Great-tailed Grackle	Gen	Summer	Neutral	24% 20%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	Gen	Winter	Neutral	22% 24%	
Black-and-white Warbler	F-E	Winter	Neutral	<1% 3%	
Orange-crowned Warbler	F-W	Summer	High	21% 8%	
	F-W	Winter	Neutral	31% 30%	
Lucy's Warbler	D	Summer	Low	6% 7%	
Nashville Warbler	F-E	Summer	Moderate	12% 4%	
	F-E	Winter	Neutral	14%	
Virginia's Warbler	F-W	Summer	Moderate	<1%	
	F-W	Winter	Neutral	1%	
MacGillivray's Warbler	F-W	Summer	Moderate	14% 6%	
Common Yellowthroat	Gen	Summer	Low	40% 20%	
	Gen	Winter	Neutral	17% 20%	
American Redstart	F-B	Summer	Moderate	1%	
	F-B	Winter	Neutral	6%	
Yellow Warbler	F-B	Summer	Moderate	34% 8%	
Yellow-rumped Warbler	F-B	Summer	Moderate	15% 2%	
	F-B	Winter	Neutral	70% 14%	
Grace's Warbler	F-W	Winter	High	<1% <1%	
Black-throated Gray Warbler	F-W	Summer	Moderate	13% 7%	
	F-W	Winter	Low	1% 7%	
Townsend's Warbler	F-W	Summer	High	1% <1%	
	F-W	Winter	Moderate	15% 15%	
Hermit Warbler	F-W	Summer	Moderate	11% 6%	
	F-W	Winter	High	3% 2%	
Wilson's Warbler	F-W	Summer	High	21% 2%	
	F-W	Winter	Low	<1%	
Hepatic Tanager	F-W	Summer	Moderate	1% 2%	
	F-W	Winter	Low	<1%	

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Summer Tanager	F-E	Summer	Neutral	12% 14%	
Western Tanager	F-W	Summer	Moderate	23% 16%	
	F-W	Winter	Low	8% 10%	
Northern Cardinal	F-E	Summer	Neutral	7% 22%	
	F-E	Winter	Neutral	8% 35%	
Pyrrhuloxia	D	Summer	Neutral	2%	
	D	Winter	Neutral	15%	
Black-headed Grosbeak	F-W	Summer	Moderate	22% 29%	
	F-W	Winter	Neutral	<1% 3%	
Blue Grosbeak	F-S	Summer	Neutral	37% 11%	
	F-S	Winter	Neutral	8%	
Lazuli Bunting	F-W	Summer	Neutral	49% 35%	