

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 more than 1,516,000 total birders in Washington 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. Rufous Hummingbird. Photo: Boe Baty/Audubon Photography Awards

Future Climate and Habitat in Washington

Across the state of Washington, 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 6.2°C (11°F), and average temperatures during the coldest month are expected to increase approximately 3.9°C (7.1°F) from 2010 to the end of the century. Average annual precipitation is expected to increase by approximately 64 mm (2.5 in). Despite the overall increase in precipitation, available moisture is expected to decrease by 35% 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 30% of the state of Washington will transition to a different biome. At present, the largest biome in the state is Conifer Forest, covering 59% of the state. By the end of the century, Conifer Forest will cover approximately 46% 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 Washington'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 Washington, 141 out of 248 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 96. Impacts are somewhat lessened in winter, with 56 out of 208 species vulnerable

under 3°C of warming and 29 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 Washington, the habitat groups with the most species vulnerable to the impacts of ongoing and future climate change are western forest (48 species) and boreal forest (27 species) in summer (Figure 2). In winter, western forest (18 species) and boreal forest (17 species) groups have the most vulnerable species.

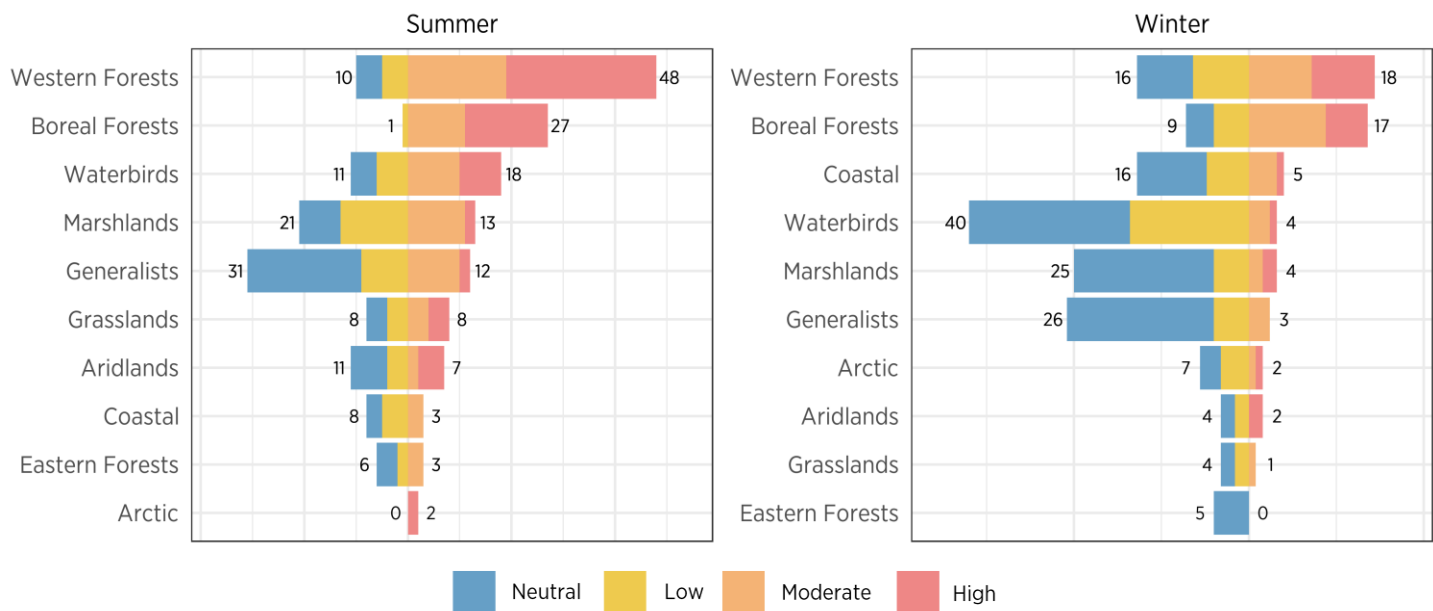


Figure 2. Number of species by their vulnerability to climate change in each habitat group under a global 3°C warming scenario. The species in each group are ones that currently live in the state, though vulnerability is assessed across the species's full North American range to better account for range-wide 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 Washington (Table 1). The threat affecting both the greatest area and number of species in the state is extreme spring heat.

In Washington, species that are most threatened by a combination of climate change and additional climate-related threats under 3°C of warming include Bushtit and Eared Grebe. For information on threats for individual species in Washington, see Table 2.

Climate-Related Threats (Cont.)

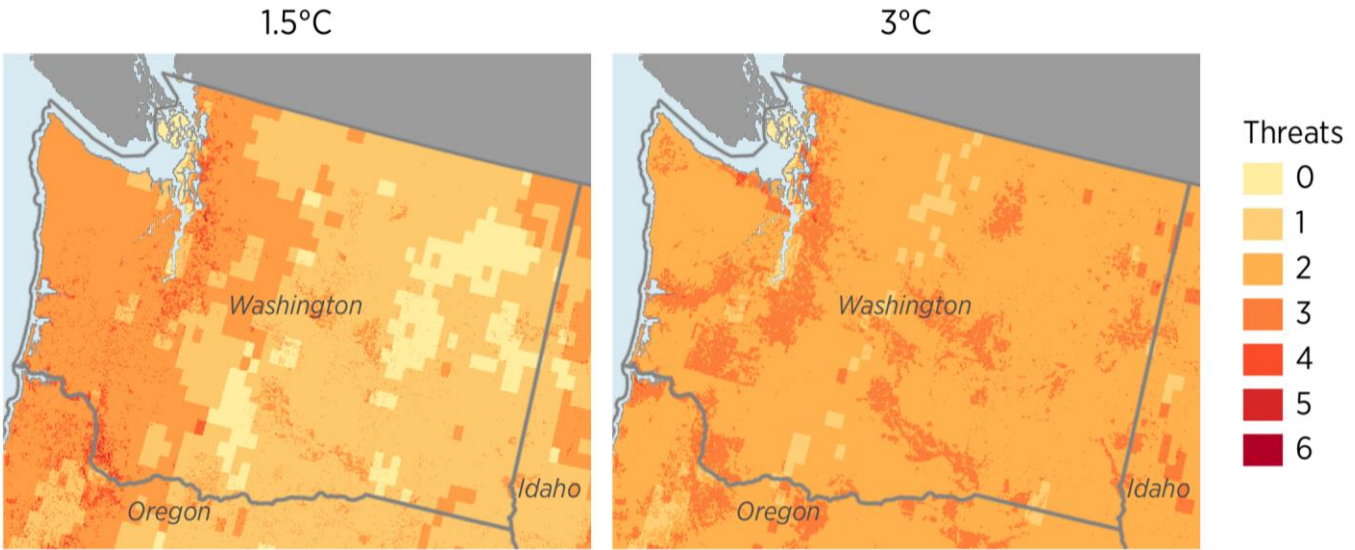








Figure 3. The number and distribution of overlapping climate-related threats under future global change scenarios of 1.5°C and 3°C. For detailed information on threats for each location in the state, refer to our online interactive tool at climate.audubon.org.

Table 1. Climate-related threats that Washington 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	1.5°C (0.5 m/1.6 ft)	266,700	2 (0)	
	3°C (1 m/3.3 ft)	300,514	1 (0)	3 (0)
	3°C (2 m/6.6 ft)	382,785	4 (2)	11 (1)
 Urbanization	1.5°C	977,708		1 (0)
	3°C	4,059,419	91 (20)	153 (17)
 Cropland Expansion	1.5°C	1,016,590	1 (0)	1 (0)
 Extreme Spring Heat	1.5°C	36,646,907	230 (72)	227 (25)
	3°C	44,685,727	226 (92)	247 (50)
 Fire Weather	3°C	23,701,323	143 (39)	128 (19)
 Heavy Rain	1.5°C	19,451,117	72 (35)	89 (12)
	3°C	19,901,837	72 (45)	103 (27)

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 Washington 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 54% of Washington's 296 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.

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

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.

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 Washington

We still have time.

In Washington state we’re building momentum and setting the bar high. Now is not the time to let up. Passing one of the strongest 100% clean electricity standards in 2019 was a big step, but over the course of the next few decades we must move our transportation and building energy systems onto that 100% clean grid. We also must protect and enhance natural solutions to climate change that sequester carbon dioxide while also providing habitat for birds and other wildlife.

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

1. US Fish & Wildlife Service. 2013. Birding in the United States: A Demographic and Economic Analysis. Addendum to the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

2. Ceballos, G. et al. 2015. Accelerated modern human-induced species losses: Entering the sixth mass extinction. *Science Advances* 1:e1400253. doi:10.1126/sciadv.1400253.

3. Wilsey, C. et al. 2019. Survival By Degrees: 389 Bird Species on the Brink. National Audubon Society: New York.

4. Wilsey, C. et al. 2019. Climate policy action needed to reduce vulnerability of conservation-reliant grassland birds in North America. *Conservation Science and Practice* e21; DOI: 10.1111/csp2.21.

We must act now.

We’ve made progress, but can’t afford to slow down. Together we can continue to pass trend-setting policies that will reduce our carbon emissions in Washington state while setting an example for the kind of policies that will ultimately need to be passed in Washington DC. To protect birds and people from the worst impacts of climate, we need to keep showing up and demanding action. Join us.

5. Bateman, B. et al. 2019. North American birds require mitigation and adaptation to reduce vulnerability to climate change. In review.

6. AdaptWest Project. 2015. Gridded current and projected climate data for North America at 1km resolution, interpolated using the ClimateNA v5.10 software (T. Wang et al., 2015). Available at adaptwest.databasin.org.

7. Rehfeldt, G.E. et al. 2012. North American vegetation model for land-use planning in a changing climate: a solution to large classification problems.

8. Bateman, B. et al. 2019. Risk to North American birds from climate change-related threats. In review.

9. IPCC (Intergovernmental Panel on Climate Change). 2019. IPCC Special Report on the Ocean and Cryosphere in a Changing Climate.

Contact

Brooke Bateman, PhD
Senior Climate Scientist, National Audubon Society
climatescience@audubon.org

Species Projections



















































Table 2. Climate suitability projections in summer and winter under the 3°C warming scenario for birds in Washington. 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 Washington, 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 Washington, 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:










































































 Potential extirpation
 Worsening
 Stable
 Improving
 Potential colonization

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Snow Goose	W	Winter	Low	<div><div>8%</div><div>15%</div></div>	  
Ross's Goose	W	Winter	Low	<div><div>5%</div><div>12%</div></div>	  
Greater White-fronted Goose	W	Winter	Low	<div><div>8%</div><div>33%</div></div>	  
Brant	W	Winter	Moderate	<div><div>16%</div><div>2%</div></div>	 
Cackling Goose	M	Winter	Moderate	<div><div>22%</div><div>26%</div></div>	  
Canada Goose	W	Summer	Moderate	<div><div>36%</div><div>20%</div></div>	  
	W	Winter	Neutral	<div><div>59%</div><div>31%</div></div>	 
Trumpeter Swan	W	Summer	Moderate	<div><div><1%</div><div><1%</div></div>	
	W	Winter	Low	<div><div>17%</div><div>40%</div></div>	  
Tundra Swan	W	Winter	Moderate	<div><div>18%</div><div>29%</div></div>	 
Wood Duck	W	Summer	Low	<div><div>34%</div><div>27%</div></div>	  
	W	Winter	Neutral	<div><div>15%</div><div>57%</div></div>	  
Blue-winged Teal	M	Summer	Low	<div><div>7%</div><div>6%</div></div>	  
	M	Winter	Neutral	<div><div>3%</div></div>	   
Cinnamon Teal	M	Summer	Moderate	<div><div>8%</div><div>6%</div></div>	  
	M	Winter	Neutral	<div><div>12%</div><div>31%</div></div>	  
Northern Shoveler	M	Summer	Low	<div><div>6%</div><div>4%</div></div>	  
	M	Winter	Neutral	<div><div>14%</div><div>20%</div></div>	  

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
Gadwall	M	Summer	Moderate	23% 10%				
	M	Winter	Neutral	21% 24%				
Eurasian Wigeon	M	Winter	Moderate	14% 7%				
American Wigeon	M	Summer	Moderate	5% 1%				
	M	Winter	Neutral	27% 21%				
Mallard	W	Summer	Low	85% 8%				
	W	Winter	Neutral	70% 23%				
Northern Pintail	M	Summer	Moderate	11% 5%				
	M	Winter	Neutral	26% 7%				
Green-winged Teal	M	Summer	Moderate	8% 4%				
	M	Winter	Neutral	21% 18%				
Canvasback	M	Summer	Low	3% 1%				
	M	Winter	Neutral	12% 24%				
Redhead	M	Summer	Neutral	9% 1%				
	M	Winter	Low	9% 5%				
Ring-necked Duck	W	Summer	Moderate	24% 24%				
	W	Winter	Neutral	35% 29%				
Greater Scaup	W	Summer	High	<1%				
	W	Winter	Neutral	48% 18%				
Lesser Scaup	W	Summer	High	6% <1%				
	W	Winter	Neutral	33% 20%				
King Eider	W	Winter	Low	4% <1%				
Harlequin Duck	W	Summer	Moderate	14% <1%				
	W	Winter	Low	5% 1%				
Surf Scoter	C	Winter	Neutral	1% 7%				
White-winged Scoter	W	Winter	Neutral	7% <1%				
Black Scoter	C	Winter	Neutral	2% 5%				
Long-tailed Duck	W	Winter	Low	7% <1%				






































































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
Bufflehead	W	Summer	High	5%	2%			
	W	Winter	Low	68%	8%			
Common Goldeneye	W	Summer	High	6%	<1%			
	W	Winter	Neutral	82%	3%			
Barrow's Goldeneye	W	Summer	High	9%	<1%			
	W	Winter	High	31%	6%			
Hooded Merganser	W	Summer	Low	23%	3%			
	W	Winter	Neutral	45%	19%			
Common Merganser	W	Summer	Moderate	52%	17%			
	W	Winter	Low	75%	13%			
Red-breasted Merganser	W	Winter	Low	20%	7%			
Ruddy Duck	M	Summer	Low	10%	18%			
	M	Winter	Neutral	6%	14%			
Mountain Quail	F-W	Summer	Low	1%	15%			
	F-W	Winter	Moderate	1%	12%			
California Quail	D	Summer	Low		29%			
	D	Winter	High	16%	24%			
Ruffed Grouse	F-B	Summer	Moderate	34%	10%			
	F-B	Winter	Moderate	47%	8%			
Greater Sage-Grouse	D	Summer	High	6%				
	D	Winter	High	8%				
Spruce Grouse	F-B	Summer	High	5%	<1%			
	F-B	Winter	High	19%	1%			
Dusky Grouse	F-W	Summer	High	16%	2%			
	F-W	Winter	High	15%	2%			
Sharp-tailed Grouse	G	Summer	Low	3%				
	G	Winter	Moderate	4%				
Wild Turkey	Gen	Summer	Neutral	11%	14%			












































































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Pied-billed Grebe	Gen	Winter	Neutral	<div><div>13%</div><div>20%</div></div>	  
	M	Summer	Neutral	<div><div>6%</div><div>2%</div></div>	  
	M	Winter	Neutral	<div><div>6%</div><div>38%</div></div>	   
Horned Grebe	M	Winter	Neutral	<div><div>13%</div><div>5%</div></div>	  
Red-necked Grebe	M	Summer	Moderate	<div><div><1%</div><div><1%</div></div>	
	M	Winter	Neutral	<div><div>4%</div><div>8%</div></div>	 
Eared Grebe	M	Summer	High	<div><div>3%</div><div>3%</div></div>	  
	M	Winter	Neutral	<div><div>7%</div><div>5%</div></div>	  
Western Grebe	M	Summer	Low	<div><div>5%</div><div>12%</div></div>	  
	M	Winter	Low	<div><div>16%</div><div>18%</div></div>	  
Clark's Grebe	M	Summer	Low	<div><div>8%</div><div>1%</div></div>	  
	M	Winter	High	<div><div>2%</div><div>10%</div></div>	  
Band-tailed Pigeon	F-W	Summer	Moderate	<div><div>21%</div><div>9%</div></div>	 
	F-W	Winter	High	<div><div>14%</div></div>	 
Mourning Dove	Gen	Summer	Neutral	<div><div>36%</div><div>16%</div></div>	  
	Gen	Winter	Neutral	<div><div>20%</div></div>	  
Yellow-billed Cuckoo	F-E	Summer	Neutral	<div><div>22%</div></div>	  
Common Nighthawk	Gen	Summer	Neutral	<div><div>30%</div><div>47%</div></div>	 
Common Poorwill	D	Summer	Neutral	<div><div>39%</div><div>10%</div></div>	 
	D	Winter	Moderate	<div><div>7%</div></div>	 
Eastern Whip-poor-will	F-E	Summer	High	<div><div>4%</div></div>	 
Black Swift	F-W	Summer	Moderate	<div><div>34%</div><div>6%</div></div>	 
Vaux's Swift	F-W	Summer	High	<div><div>32%</div><div>7%</div></div>	 
White-throated Swift	D	Summer	Low	<div><div>4%</div><div>15%</div></div>	 
	D	Winter	Moderate	<div><div>3%</div></div>	 
Black-chinned Hummingbird	D	Summer	Neutral	<div><div>12%</div><div>31%</div></div>	 
Anna's Hummingbird	Gen	Summer	Low	<div><div>7%</div><div>20%</div></div>	  


























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
Costa's Hummingbird	Gen	Winter	Moderate	8%	5%			
	D	Summer	Neutral	6%				
	D	Winter	Neutral	6%				
Rufous Hummingbird	F-W	Summer	High	48%	1%			
Calliope Hummingbird	F-W	Summer	High	45%	9%			
Virginia Rail	M	Summer	Moderate	26%	4%			
	M	Winter	Low	20%	15%			
Sora	M	Summer	Moderate	8%	<1%			
	M	Winter	Neutral	7%				
Common Gallinule	M	Summer	Neutral	2%				
	M	Winter	Neutral	2%				
American Coot	M	Summer	Neutral	9%	19%			
	M	Winter	Neutral	23%	32%			
Black Rail	M	Winter	Low	11%				
Sandhill Crane	M	Summer	Moderate	17%	1%			
	M	Winter	Low	1%	15%			
Black-necked Stilt	M	Summer	Neutral	5%	8%			
	M	Winter	Neutral	1%				
American Avocet	M	Summer	Neutral	3%	7%			
	M	Winter	Neutral	4%				
Black Oystercatcher	C	Summer	Low	5%	2%			
	C	Winter	Neutral	<1%	7%			
Black-bellied Plover	W	Winter	Neutral	5%	2%			
Snowy Plover	C	Summer	Neutral	5%				
	C	Winter	Neutral	1%				
Wilson's Plover	C	Summer	Neutral	3%				
Semipalmated Plover	W	Summer	High	1%				
	C	Winter	Neutral	3%				













































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Killdeer	W	Summer	Neutral	<div><div></div>46%<div></div>3%</div>	  
	W	Winter	Neutral	<div><div></div>10%<div></div>57%</div>	  
Mountain Plover	G	Winter	Low	<div><div></div>2%</div>	  
Whimbrel	W	Winter	Neutral	<div><div></div>3%</div>	   
Long-billed Curlew	G	Summer	High	<div><div></div>28%<div></div>1%</div>	 
	G	Winter	Neutral	<div><div></div>5%</div>	  
Marbled Godwit	M	Winter	Neutral	<div><div></div>2%<div></div>7%</div>	  
Ruddy Turnstone	W	Winter	Neutral	<div><div></div>2%</div>	   
Black Turnstone	C	Winter	Neutral	<div><div></div>5%<div></div>2%</div>	  
Surfbird	W	Winter	Low	<div><div></div>5%<div></div>11%</div>	  
Sanderling	W	Winter	Neutral	<div><div></div>5%<div></div>1%</div>	  
Dunlin	W	Winter	Low	<div><div></div>6%<div></div>9%</div>	  
Rock Sandpiper	C	Winter	High	<div><div></div><1%</div>	
Least Sandpiper	W	Summer	Moderate	<div><div></div>5%<div></div>3%</div>	
	W	Winter	Neutral	<div><div></div><1%<div></div>34%</div>	  
Western Sandpiper	W	Winter	Neutral	<div><div></div>2%<div></div>3%</div>	  
Short-billed Dowitcher	W	Summer	High	<div><div></div>1%<div></div>2%</div>	
Long-billed Dowitcher	W	Winter	Neutral	<div><div></div>2%<div></div>15%</div>	  
American Woodcock	F-E	Summer	Moderate	<div><div></div>1%</div>	 
Wilson's Snipe	M	Summer	Moderate	<div><div></div>10%</div>	
	M	Winter	Neutral	<div><div></div>19%<div></div>28%</div>	  
Wilson's Phalarope	M	Summer	Low	<div><div></div>21%<div></div>1%</div>	 
Spotted Sandpiper	W	Summer	Moderate	<div><div></div>58%<div></div>39%</div>	 
	W	Winter	Neutral	<div><div></div>3%<div></div>56%</div>	   
Wandering Tattler	W	Summer	High	<div><div></div>3%<div></div><1%</div>	
	W	Winter	Neutral	<div><div></div>5%</div>	  
Greater Yellowlegs	W	Winter	Neutral	<div><div></div>3%<div></div>6%</div>	  
Willet	W	Summer	Neutral	<div><div></div>2%</div>	  

























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	C	Winter	Neutral	<div><div></div>9%</div>	  
Lesser Yellowlegs	W	Winter	Neutral	<div><div></div>2%</div>	   
Common Murre	C	Summer	Low	<div><div></div>8%<div></div>2%</div>	
	C	Winter	Neutral	<div><div></div>10%<div></div>1%</div>	 
Pigeon Guillemot	C	Summer	Moderate	<div><div></div>14%<div></div>2%</div>	 
	C	Winter	Moderate	<div><div></div>12%<div></div>5%</div>	 
Marbled Murrelet	C	Summer	Low	<div><div></div>6%<div></div>5%</div>	 
	C	Winter	Moderate	<div><div></div>8%<div></div>1%</div>	
Ancient Murrelet	C	Winter	Moderate	<div><div></div>2%<div></div>1%</div>	   
Cassin's Auklet	C	Summer	Moderate	<div><div></div>8%<div></div>2%</div>	  
	C	Winter	Neutral	<div><div></div>8%<div></div>7%</div>	  
Rhinoceros Auklet	C	Summer	Low	<div><div></div><1%<div></div>4%</div>	   
	C	Winter	Low	<div><div></div>4%<div></div>6%</div>	 
Black-legged Kittiwake	C	Winter	Neutral	<div><div></div>2%<div></div>20%</div>	  
Bonaparte's Gull	W	Winter	Neutral	<div><div></div>10%<div></div>3%</div>	  
Franklin's Gull	M	Summer	High	<div><div></div><1%<div></div><1%</div>	
Heermann's Gull	C	Winter	Neutral	<div><div></div>5%<div></div>2%</div>	  
Mew Gull	W	Summer	Moderate	<div><div></div>2%<div></div>5%</div>	
	C	Winter	Neutral	<div><div></div>17%<div></div>2%</div>	  
Ring-billed Gull	W	Summer	Low	<div><div></div>17%<div></div>3%</div>	  
	W	Winter	Neutral	<div><div></div>31%<div></div>15%</div>	  
Western Gull	C	Summer	Neutral	<div><div></div>2%<div></div>13%</div>	  
	C	Winter	Low	<div><div></div>11%<div></div>8%</div>	  
California Gull	W	Summer	Moderate	<div><div></div>8%<div></div>29%</div>	  
	W	Winter	Low	<div><div></div>33%<div></div>16%</div>	  
Herring Gull	W	Summer	Low	<div><div></div><1%<div></div><1%</div>	  
	W	Winter	Neutral	<div><div></div>9%<div></div>67%</div>	 
Iceland Gull	C	Winter	Low	<div><div></div>17%<div></div>15%</div>	  





























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
Glaucous-winged Gull	C	Summer	Moderate	2%	1%			
	C	Winter	Low	18%	26%			
Glaucous Gull	W	Winter	Low	21%	8%			
Least Tern	W	Summer	Low	3%				
Caspian Tern	W	Summer	Low	3%	7%			
Black Tern	M	Summer	Low	2%	1%			
Forster's Tern	M	Summer	Neutral	2%	8%			
	M	Winter	Neutral	8%				
Red-throated Loon	W	Winter	Low	20%	7%			
Pacific Loon	W	Winter	Low	8%	12%			
Common Loon	W	Summer	Moderate	27%	2%			
	W	Winter	Low	12%	12%			
Yellow-billed Loon	W	Winter	Moderate	2%	1%			
Northern Fulmar	C	Winter	Low	4%	18%			
Brandt's Cormorant	C	Summer	Neutral	2%	5%			
	C	Winter	Low	9%	1%			
Pelagic Cormorant	C	Summer	Low	5%	2%			
	C	Winter	Moderate	4%	4%			
Double-crested Cormorant	W	Summer	Neutral	5%	30%			
	W	Winter	Neutral	14%	37%			
American White Pelican	M	Summer	Low	9%	5%			
	M	Winter	Neutral	8%				
Brown Pelican	C	Summer	Neutral	1%	3%			
	C	Winter	Neutral	<1%	6%			
American Bittern	M	Summer	Low	3%	<1%			
	M	Winter	Neutral	1%	5%			
Least Bittern	M	Summer	Neutral	3%				
Great Blue Heron	W	Summer	Neutral	64%	19%			

























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	W	Winter	Neutral	<div><div>59%</div><div>22%</div></div>	 
Great Egret	W	Summer	Neutral	<div><div>5%</div><div>24%</div></div>	  
	W	Winter	Neutral	<div><div>7%</div><div>65%</div></div>	  
Snowy Egret	M	Summer	Neutral	<div><div>3%</div></div>	  
	M	Winter	Neutral	<div><div>15%</div></div>	  
Little Blue Heron	M	Summer	Neutral	<div><div>2%</div></div>	  
	M	Winter	Neutral	<div><div>1%</div></div>	   
Green Heron	M	Summer	Neutral	<div><div>2%</div><div>9%</div></div>	  
	M	Winter	Neutral	<div><div><1%</div><div>22%</div></div>	  
Black-crowned Night-Heron	M	Summer	Neutral	<div><div>10%</div><div>10%</div></div>	 
	M	Winter	Neutral	<div><div>3%</div><div>25%</div></div>	  
Yellow-crowned Night-Heron	M	Summer	Neutral	<div><div>15%</div></div>	  
White Ibis	M	Summer	Neutral	<div><div>4%</div></div>	  
White-faced Ibis	M	Summer	Low	<div><div>13%</div></div>	  
Turkey Vulture	Gen	Summer	Neutral	<div><div>37%</div><div>27%</div></div>	  
	Gen	Winter	Neutral	<div><div>25%</div></div>	   
Osprey	W	Summer	Neutral	<div><div>9%</div><div>58%</div></div>	 
White-tailed Kite	D	Summer	Moderate	<div><div>15%</div></div>	   
	D	Winter	Neutral	<div><div><1%</div><div>21%</div></div>	  
Golden Eagle	Gen	Summer	Moderate	<div><div>17%</div><div>35%</div></div>	 
	Gen	Winter	Moderate	<div><div>60%</div><div>12%</div></div>	 
Mississippi Kite	F-E	Summer	Neutral	<div><div>4%</div></div>	 
Northern Harrier	M	Summer	Low	<div><div>21%</div><div>13%</div></div>	 
	M	Winter	Neutral	<div><div>37%</div><div>12%</div></div>	  
Sharp-shinned Hawk	F-W	Summer	Moderate	<div><div>57%</div><div>10%</div></div>	 
	F-W	Winter	Neutral	<div><div>66%</div><div>13%</div></div>	 
Cooper's Hawk	Gen	Summer	Neutral	<div><div>37%</div><div>28%</div></div>	  




























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
Northern Goshawk	Gen	Winter	Low	36%	29%			
	F-B	Summer	High	46%	8%			
	F-B	Winter	Low	54%	23%			
Bald Eagle	Gen	Summer	Low	37%	57%			
	Gen	Winter	Neutral	14%	75%			
Red-shouldered Hawk	F-E	Summer	Neutral	48%				
	F-E	Winter	Neutral	22%				
Swainson's Hawk	G	Summer	Neutral	10%	22%			
Red-tailed Hawk	Gen	Summer	Neutral	88%	9%			
	Gen	Winter	Neutral	55%	26%			
Rough-legged Hawk	A	Winter	Moderate	21%	35%			
Ferruginous Hawk	G	Summer	Moderate	16%	3%			
	G	Winter	Moderate	16%				
Barn Owl	Gen	Summer	Neutral	30%	40%			
	Gen	Winter	Neutral	39%	36%			
Western Screech-Owl	F-W	Summer	Neutral	42%	23%			
	F-W	Winter	Neutral	28%	34%			
Great Horned Owl	Gen	Summer	Neutral	5%	63%			
	Gen	Winter	Neutral	8%	65%			
Snowy Owl	A	Winter	Low	42%	1%			
Northern Hawk Owl	F-B	Summer	Moderate	<1%	<1%			
	F-B	Winter	Moderate	<1%				
Northern Pygmy-Owl	F-W	Summer	High	36%	24%			
	F-W	Winter	High	21%	37%			
Burrowing Owl	G	Summer	Neutral	14%	9%			
	G	Winter	Neutral	19%				
Spotted Owl	F-W	Summer	High	9%	9%			
	F-W	Winter	High	4%	5%			


























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
Barred Owl	F-E	Summer	Neutral	19%	29%			
	F-E	Winter	Neutral	46%	4%			
Great Gray Owl	F-B	Summer	High	2%				
	F-B	Winter	Moderate	22%	1%			
Long-eared Owl	F-W	Summer	Low	13%	43%			
	F-W	Winter	Low	37%	13%			
Short-eared Owl	G	Summer	Moderate	16%	10%			
	G	Winter	Neutral	3%	11%			
Boreal Owl	F-B	Summer	High	6%	<1%			
	F-B	Winter	High	8%	<1%			
Northern Saw-whet Owl	F-B	Summer	Moderate	56%	16%			
	F-B	Winter	Low	41%	49%			
Belted Kingfisher	Gen	Summer	Neutral	11%	65%			
	Gen	Winter	Neutral	65%	19%			
Williamson's Sapsucker	F-W	Summer	High	32%	3%			
	F-W	Winter	High	6%				
Yellow-bellied Sapsucker	F-E	Winter	Neutral	7%				
Red-naped Sapsucker	F-W	Summer	High	59%	2%			
	F-W	Winter	Neutral	9%				
Red-breasted Sapsucker	F-W	Summer	High	24%	2%			
	F-W	Winter	Low	23%	13%			
Lewis's Woodpecker	F-W	Summer	Moderate	27%	14%			
	F-W	Winter	Low	2%	10%			
Acorn Woodpecker	F-W	Summer	High	<1%	8%			
	F-W	Winter	Moderate	<1%	17%			
American Three-toed Woodpecker	F-B	Summer	High	25%	2%			
	F-B	Winter	High	25%	1%			
Black-backed Woodpecker	F-B	Summer	High	28%	3%			



























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	F-B	Winter	Moderate	<div><div></div>25%</div> <div><div></div>3%</div>	
Downy Woodpecker	Gen	Summer	Neutral	<div><div></div>70%</div> <div><div></div>11%</div>	 
	Gen	Winter	Neutral	<div><div></div>66%</div> <div><div></div>20%</div>	 
Nuttall's Woodpecker	F-W	Summer	High	<div><div></div>2%</div>	 
Ladder-backed Woodpecker	D	Summer	Neutral	<div><div></div>8%</div>	  
	D	Winter	Neutral	<div><div></div>8%</div>	  
Hairy Woodpecker	Gen	Summer	Low	<div><div></div>15%</div> <div><div></div>44%</div>	 
	Gen	Winter	Low	<div><div></div>11%</div> <div><div></div>47%</div>	 
White-headed Woodpecker	F-W	Summer	High	<div><div></div>17%</div> <div><div></div>10%</div>	
	F-W	Winter	High	<div><div></div>10%</div> <div><div></div>6%</div>	 
Pileated Woodpecker	F-E	Summer	Neutral	<div><div></div>29%</div> <div><div></div>17%</div>	  
	F-E	Winter	Neutral	<div><div></div>23%</div> <div><div></div>13%</div>	  
Northern Flicker	Gen	Summer	Moderate	<div><div></div>24%</div> <div><div></div>60%</div>	 
	Gen	Winter	Neutral	<div><div></div>74%</div> <div><div></div>22%</div>	 
American Kestrel	Gen	Summer	Neutral	<div><div></div>65%</div> <div><div></div>2%</div>	  
	Gen	Winter	Neutral	<div><div></div>25%</div> <div><div></div>35%</div>	  
Merlin	F-E	Summer	Moderate	<div><div></div>37%</div> <div><div></div>2%</div>	
	F-E	Winter	Neutral	<div><div></div>78%</div> <div><div></div>11%</div>	 
Gyr Falcon	A	Winter	Low	<div><div></div>71%</div> <div><div></div>10%</div>	 
Peregrine Falcon	Gen	Summer	Neutral	<div><div></div>87%</div> <div><div></div>7%</div>	 
	Gen	Winter	Neutral	<div><div></div>45%</div> <div><div></div>29%</div>	 
Prairie Falcon	D	Summer	Low	<div><div></div>3%</div> <div><div></div>32%</div>	 
	D	Winter	Low	<div><div></div>45%</div> <div><div></div>6%</div>	  
Olive-sided Flycatcher	F-B	Summer	High	<div><div></div>36%</div> <div><div></div>19%</div>	 
Western Wood-Pewee	F-W	Summer	High	<div><div></div>36%</div> <div><div></div>43%</div>	 
Willow Flycatcher	F-W	Summer	Moderate	<div><div></div>37%</div> <div><div></div>54%</div>	 
Least Flycatcher	F-B	Summer	Moderate	<div><div></div><1%</div>	
Hammond's Flycatcher	F-W	Summer	High	<div><div></div>40%</div> <div><div></div>14%</div>	 






























































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats		
	F-W	Winter	Moderate	2%			
Gray Flycatcher	D	Summer	High	16%			
Dusky Flycatcher	F-W	Summer	High	28% 4%			
Pacific-slope Flycatcher	F-W	Summer	Low	16% 11%			
Cordilleran Flycatcher	F-W	Summer	High	2%			
Black Phoebe	Gen	Summer	Neutral	1% 22%			
	Gen	Winter	Neutral	22%			
Say's Phoebe	Gen	Summer	Low	41% 2%			
	Gen	Winter	Low	4%			
Ash-throated Flycatcher	D	Summer	Neutral	8% 33%			
Western Kingbird	G	Summer	Neutral	26% 18%			
Eastern Kingbird	G	Summer	Moderate	11% 1%			
Loggerhead Shrike	G	Summer	Neutral	23% 11%			
	G	Winter	Neutral	19%			
Northern Shrike	F-B	Winter	Moderate	56% 5%			
White-eyed Vireo	F-E	Summer	Neutral	4%			
Hutton's Vireo	F-W	Summer	Moderate	21% 20%			
	F-W	Winter	Moderate	20% 28%			
Cassin's Vireo	F-W	Summer	Low	29% 24%			
Plumbeous Vireo	F-W	Summer	Neutral	9%			
Warbling Vireo	Gen	Summer	Neutral	26% 64%			
Red-eyed Vireo	F-E	Summer	Low	21% 11%			
Canada Jay	F-B	Summer	High	27% 1%			
	F-B	Winter	High	28% 2%			
Pinyon Jay	F-W	Summer	Moderate	4%			
	F-W	Winter	Low	6%			
Steller's Jay	F-W	Summer	Moderate	17% 38%			
	F-W	Winter	Moderate	53% 11%			





































































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
California Scrub-Jay	F-W	Summer	Moderate	<div><div><1%</div><div>8%</div></div>	<div><div></div><div></div><div></div></div>
	F-W	Winter	Moderate	<div><div>1%</div><div>10%</div></div>	<div><div></div><div></div><div></div></div>
Woodhouse's Scrub-Jay	F-W	Summer	Moderate	<div><div>5%</div></div>	<div><div></div><div></div></div>
	F-W	Winter	Moderate	<div><div>11%</div></div>	<div><div></div><div></div></div>
Black-billed Magpie	Gen	Summer	High	<div><div>40%</div><div>6%</div></div>	<div><div></div><div></div></div>
	Gen	Winter	Moderate	<div><div>40%</div><div>7%</div></div>	<div><div></div><div></div></div>
Clark's Nutcracker	F-W	Summer	High	<div><div>32%</div><div>8%</div></div>	<div><div></div><div></div></div>
	F-W	Winter	High	<div><div>31%</div><div>2%</div></div>	<div><div></div></div>
American Crow	Gen	Summer	Low	<div><div>28%</div><div>30%</div></div>	<div><div></div><div></div></div>
	Gen	Winter	Neutral	<div><div>60%</div><div>22%</div></div>	<div><div></div><div></div></div>
Northwestern Crow	Gen	Summer	Moderate	<div><div>2%</div></div>	
	Gen	Winter	Low	<div><div>6%</div></div>	
Common Raven	Gen	Summer	Low	<div><div>42%</div><div>57%</div></div>	<div><div></div><div></div></div>
	Gen	Winter	Low	<div><div>40%</div><div>57%</div></div>	<div><div></div><div></div></div>
Horned Lark	G	Summer	Low	<div><div>3%</div><div>26%</div></div>	<div><div></div><div></div></div>
	G	Winter	Low	<div><div>3%</div><div>19%</div></div>	<div><div></div><div></div></div>
Northern Rough-winged Swallow	Gen	Summer	Neutral	<div><div>66%</div><div>17%</div></div>	<div><div></div><div></div><div></div></div>
Purple Martin	Gen	Summer	Neutral	<div><div>4%</div><div>8%</div></div>	<div><div></div><div></div><div></div></div>
Tree Swallow	Gen	Summer	Moderate	<div><div>43%</div><div>34%</div></div>	<div><div></div><div></div><div></div></div>
	Gen	Winter	Neutral	<div><div>2%</div></div>	<div><div></div><div></div><div></div></div>
Violet-green Swallow	F-W	Summer	Moderate	<div><div>12%</div><div>74%</div></div>	<div><div></div><div></div></div>
Bank Swallow	Gen	Summer	Neutral	<div><div>11%</div><div>28%</div></div>	<div><div></div><div></div></div>
Barn Swallow	Gen	Summer	Neutral	<div><div>54%</div><div>6%</div></div>	<div><div></div><div></div><div></div></div>
Cliff Swallow	Gen	Summer	Neutral	<div><div>60%</div><div>15%</div></div>	<div><div></div><div></div><div></div></div>
Black-capped Chickadee	F-B	Summer	Low	<div><div>29%</div><div>38%</div></div>	<div><div></div><div></div></div>
	F-B	Winter	Low	<div><div>56%</div><div>33%</div></div>	<div><div></div><div></div></div>
Mountain Chickadee	F-W	Summer	High	<div><div>31%</div><div>14%</div></div>	<div><div></div></div>



































Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Winter Wren	F-E	Winter	Low	<div><div></div>2%</div>	 
Marsh Wren	M	Summer	Low	<div><div></div>7%<div></div>8%</div>	  
	M	Winter	Low	<div><div></div>24%<div></div>24%</div>	  
Bewick's Wren	D	Summer	Neutral	<div><div></div>19%<div></div>36%</div>	  
	D	Winter	Low	<div><div></div>20%<div></div>36%</div>	  
Cactus Wren	D	Summer	Neutral	<div><div></div>20%</div>	  
Blue-gray Gnatcatcher	Gen	Summer	Neutral	<div><div></div>33%</div>	 
American Dipper	F-W	Summer	Moderate	<div><div></div>11%<div></div>76%</div>	 
	F-W	Winter	High	<div><div></div>25%<div></div>30%</div>	 
Golden-crowned Kinglet	F-B	Summer	Moderate	<div><div></div>45%<div></div>7%</div>	 
	F-B	Winter	Neutral	<div><div></div>9%<div></div>47%</div>	 
Ruby-crowned Kinglet	F-W	Summer	High	<div><div></div>27%<div></div>2%</div>	
	F-W	Winter	Neutral	<div><div></div>25%<div></div>41%</div>	   
Wrentit	D	Summer	Moderate	<div><div></div>21%</div>	  
	D	Winter	Moderate	<div><div></div>3%</div>	 
Western Bluebird	F-W	Summer	Moderate	<div><div></div>18%<div></div>17%</div>	 
	F-W	Winter	High	<div><div></div>1%<div></div>16%</div>	 
Mountain Bluebird	F-W	Summer	High	<div><div></div>16%</div>	 
	F-W	Winter	Low	<div><div></div>13%</div>	 
Townsend's Solitaire	F-W	Summer	High	<div><div></div>32%<div></div>8%</div>	 
	F-W	Winter	High	<div><div></div>24%<div></div>21%</div>	 
Varied Thrush	F-W	Summer	High	<div><div></div>31%<div></div>1%</div>	
	F-W	Winter	Low	<div><div></div>15%<div></div>72%</div>	 
Veery	F-E	Summer	Moderate	<div><div></div>13%<div></div>5%</div>	
Swainson's Thrush	F-B	Summer	High	<div><div></div>46%<div></div>4%</div>	
Hermit Thrush	F-W	Summer	High	<div><div></div>19%<div></div>9%</div>	 
	F-W	Winter	Low	<div><div></div>21%<div></div>50%</div>	   
American Robin	Gen	Summer	Moderate	<div><div></div>26%<div></div>52%</div>	 

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
	Gen	Winter	Neutral	63%	27%			
Gray Catbird	F-E	Summer	Neutral	3%	8%			
Curve-billed Thrasher	D	Summer	Neutral	3%				
Bendire's Thrasher	D	Summer	Low	10%				
California Thrasher	D	Summer	High	2%				
LeConte's Thrasher	D	Summer	High	7%				
	D	Winter	Moderate	6%				
Crissal Thrasher	D	Summer	Low	1%				
	D	Winter	Low	7%				
Sage Thrasher	D	Summer	High	30%	3%			
	D	Winter	Low	8%				
Northern Mockingbird	Gen	Summer	Neutral	4%	18%			
	Gen	Winter	Neutral	20%				
American Pipit	A	Summer	High	7%				
	A	Winter	Neutral	1%	18%			
Bohemian Waxwing	F-B	Winter	High	60%	9%			
Cedar Waxwing	Gen	Summer	Low	40%	30%			
	Gen	Winter	Neutral	17%	22%			
Phainopepla	D	Summer	Neutral	7%				
Evening Grosbeak	F-B	Summer	High	54%	7%			
	F-B	Winter	Moderate	60%	20%			
Pine Grosbeak	F-B	Summer	High	19%	<1%			
	F-B	Winter	Moderate	28%	4%			
Gray-crowned Rosy-Finch	A	Summer	High	16%	1%			
	A	Winter	High	11%	<1%			
House Finch	Gen	Summer	Low	49%	9%			
	Gen	Winter	Low	46%	16%			
Purple Finch	F-B	Summer	Moderate	25%	9%			

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
	F-B	Winter	Low	18%	8%			
Cassin's Finch	F-W	Summer	High	52%	10%			
	F-W	Winter	Moderate	6%	54%			
Common Redpoll	A	Winter	Low	48%	7%			
Red Crossbill	F-B	Summer	High	52%	21%			
	F-B	Winter	Moderate	58%	21%			
White-winged Crossbill	F-B	Summer	High	5%	<1%			
	F-B	Winter	Moderate	32%	7%			
Pine Siskin	F-W	Summer	Moderate	55%	6%			
	F-W	Winter	Neutral	82%	12%			
Lesser Goldfinch	F-W	Summer	Neutral	19%	42%			
	F-W	Winter	Neutral	15%	46%			
Lawrence's Goldfinch	D	Summer	High	4%				
	D	Winter	Low	6%				
American Goldfinch	Gen	Summer	Moderate	33%	12%			
	Gen	Winter	Neutral	53%	17%			
Lapland Longspur	A	Winter	Neutral	7%	12%			
Snow Bunting	A	Winter	Low	58%	26%			
Grasshopper Sparrow	G	Summer	Low	18%	4%			
Chipping Sparrow	Gen	Summer	Moderate	19%	9%			
	Gen	Winter	Neutral	6%				
Clay-colored Sparrow	G	Summer	High	<1%				
	G	Winter	Neutral	2%				
Black-chinned Sparrow	D	Summer	High	4%				
	D	Winter	Low	2%				
Field Sparrow	F-E	Summer	High	1%				
Brewer's Sparrow	D	Summer	High	36%	2%			
Black-throated Sparrow	D	Summer	Neutral	14%	16%			

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
	D	Winter	Neutral	30%	  
Lark Sparrow	D	Summer	Neutral	19% 21%	 
American Tree Sparrow	A	Winter	Neutral	37% 9%	 
Fox Sparrow	F-B	Summer	High	21%	
	F-B	Winter	Moderate	28% 18%	  
Dark-eyed Junco	F-W	Summer	High	47% 12%	 
	F-W	Winter	Neutral	73% 26%	 
White-crowned Sparrow	Gen	Summer	High	48% 2%	
	Gen	Winter	Neutral	29% 30%	  
Golden-crowned Sparrow	F-B	Winter	Moderate	9% 15%	  
White-throated Sparrow	F-B	Winter	Neutral	23%	  
Sagebrush Sparrow	D	Summer	High	21% 1%	 
Bell's Sparrow	D	Summer	Moderate	4%	  
	D	Winter	Neutral	7%	  
Vesper Sparrow	G	Summer	Moderate	28% 2%	 
Savannah Sparrow	G	Summer	High	17%	
	G	Winter	Low	<1% 8%	   
Song Sparrow	Gen	Summer	Moderate	37% 28%	 
	Gen	Winter	Neutral	63% 18%	 
Lincoln's Sparrow	F-B	Summer	High	27% 1%	
	F-B	Winter	Neutral	44% 41%	  
Swamp Sparrow	M	Winter	Neutral	1% 14%	  
California Towhee	D	Summer	Low	<1% 2%	  
Rufous-crowned Sparrow	D	Summer	Low	2%	 
Green-tailed Towhee	D	Summer	High	2%	 
Spotted Towhee	F-W	Summer	Moderate	37% 21%	 
	F-W	Winter	Low	34% 39%	 
Yellow-breasted Chat	F-E	Summer	Neutral	17% 39%	  

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends		State Threats		
Yellow-headed Blackbird	M	Summer	Low	10%	15%			
Bobolink	G	Summer	High	<1%				
Western Meadowlark	G	Summer	Low	9%	28%			
	G	Winter	Neutral	15%	32%			
Eastern Meadowlark	G	Summer	Moderate	2%				 
Hooded Oriole	F-W	Summer	Neutral	6%				
Bullock's Oriole	F-W	Summer	Neutral	42%	12%			
Scott's Oriole	D	Summer	Neutral	9%				
Red-winged Blackbird	Gen	Summer	Neutral	46%	7%			
	Gen	Winter	Neutral	44%	17%			
Tricolored Blackbird	M	Summer	Moderate	1%	11%			
	M	Winter	High	2%				
Brown-headed Cowbird	Gen	Summer	Neutral	61%	7%			
	Gen	Winter	Neutral	<1%	12%			
Rusty Blackbird	F-B	Winter	Neutral	4%				
Brewer's Blackbird	Gen	Summer	Moderate	49%	24%			
	Gen	Winter	Neutral	37%	38%			
Great-tailed Grackle	Gen	Summer	Neutral	8%				
	Gen	Winter	Neutral	9%				
Northern Waterthrush	F-B	Summer	Moderate	6%				
Golden-winged Warbler	F-E	Summer	High	2%				
Orange-crowned Warbler	F-W	Summer	High	43%	7%			
	F-W	Winter	Neutral	23%				
Nashville Warbler	F-E	Summer	Moderate	9%	7%			
MacGillivray's Warbler	F-W	Summer	Moderate	31%	20%			
Common Yellowthroat	Gen	Summer	Low	18%	27%			
American Redstart	F-B	Summer	Moderate	27%	6%			
Yellow Warbler	F-B	Summer	Moderate	64%	18%			

Species	Habitat Group	Season	Range-wide Vulnerability	State Trends	State Threats
Chestnut-sided Warbler	F-E	Summer	High	<div><div>2%</div></div>	 
Palm Warbler	F-B	Winter	Low	<div><div>2%</div><div>4%</div></div>	  
Pine Warbler	F-E	Summer	High	<div><div>3%</div></div>	 
Yellow-rumped Warbler	F-B	Summer	Moderate	<div><div>40%</div><div>10%</div></div>	 
	F-B	Winter	Neutral	<div><div>43%</div><div>41%</div></div>	  
Black-throated Gray Warbler	F-W	Summer	Moderate	<div><div>14%</div><div>18%</div></div>	 
Townsend's Warbler	F-W	Summer	High	<div><div>28%</div><div>3%</div></div>	 
	F-W	Winter	Moderate	<div><div>12%</div><div>13%</div></div>	  
Hermit Warbler	F-W	Summer	Moderate	<div><div>10%</div><div>19%</div></div>	 
Wilson's Warbler	F-W	Summer	High	<div><div>35%</div><div>12%</div></div>	 
Western Tanager	F-W	Summer	Moderate	<div><div>15%</div><div>49%</div></div>	 
	F-W	Winter	Low	<div><div>7%</div></div>	  
Northern Cardinal	F-E	Summer	Neutral	<div><div>2%</div></div>	  
	F-E	Winter	Neutral	<div><div>4%</div></div>	
Black-headed Grosbeak	F-W	Summer	Moderate	<div><div>33%</div><div>25%</div></div>	 
Lazuli Bunting	F-W	Summer	Neutral	<div><div>22%</div><div>51%</div></div>	