

66 Birds / 3 Degrees
Descriptions by Dr John Bower

SOUTH WALL

1. Hammond's Flycatcher

Easy to overlook, even when birdwatching, this inconspicuous locally common nester in the Cascades and Rockies, is at high risk for dramatic range decreases in North America as well as in Washington State. As with other montane species, mitigating climate change will keep this bird's population healthier into the future.

2. Snowy Plover

The Snowy Plover is a small shorebird with a west coast population that is listed as threatened under the U.S. Endangered Species Act, largely due to habitat destruction via shoreline development and poor nesting outcomes from human recreation on beaches. Interestingly, Audubon scientists predict a warming climate may increase potential inland Snowy Plover breeding range, including the expansion of its breeding range into the interior Pacific NW. These predictions, while hopeful, do not take into account the many other threats to nesting Snowy Plovers, so the true fate of their populations is unknown, but concerning.

3. Lesser Scaup

The Lesser Scaup is an uncommon breeder in eastern Washington, but a common winter resident species through much of the state. One of the North American duck species considered most vulnerable to climate change, even a 2° C increase in temperature is likely to cause a complete loss of breeding range in Washington State, while reduced North American numbers will likely result in fewer overwintering birds in this region.

4. American Three-Toed Woodpecker

American Three-Toed Woodpeckers can be found in montane forests of Washington State, where it feeds on insects in areas disturbed by fire or bark beetle outbreaks. With a 3° C increase in temperature, this woodpecker is predicted to lose much of its current breeding range in Washington State.

5. Hermit Thrush

Hermit Thrushes nest in the Pacific Northwest mountains, where their lovely spiraling flute-like songs speak to remote montane forests. Like other montane species, unmitigated climate change is predicted to greatly reduce the Hermit Thrush breeding range so that they are largely driven from the Pacific NW south of Canada. Reducing the impacts of climate change will likely result in maintaining breeding populations in the Pacific NW mountains.

6. Bufflehead

Buffleheads are common wintering ducks in the Pacific NW, especially in coastal areas, and a rare breeder in Pacific NW mountains. While the Bufflehead wintering

range is not expected to be highly impacted by climate change, ecosystem changes in their northern boreal forest breeding grounds are predicted to negatively impact future Bufflehead populations. This is another species that will benefit greatly from our ability to change our behavior to reduce the severity of climate change.

7. Short-billed Dowitcher

One of many shorebird species that breed in the far north before migrating through Washington State coast, this species, like many other shorebirds, is predicted to be highly impacted by climate change as northern regions are changed. As with other shorebird species, taking action on climate change can keep this dowitcher's population much healthier in the future.

8. Northern Saw-whet Owl

An often overlooked small owl, the Saw-whet owl has the habit of singing its long series of "hoots" for hours during the breeding season, a song that loggers found to resemble the sound of a whetstone sharpening a saw. This forest bird is expected lose much of its Washington breeding range with unmitigated climate change, but will benefit, like so many other forest birds, by efforts to minimize temperature increases.

9. Orange-crowned Warbler

One of our regions first returning spring migrants, the Orange-crowned Warbler is an inconspicuous bird that nests in shrubby vegetation beneath the deciduous forest canopy. Similar to other NW forest birds, orange-crowned warblers are predicted to lose much of their Washington State breeding range with a 3° C temperature increase, but will fair much better if we take action to mitigate climate change.

10. Horned Lark

This species, the only native lark species in North America, nests in open areas such as eastern Washington grasslands and subalpine mountain meadows. Horned Larks have the fortunate luck of doing quite well at nesting on grasslands that have been disturbed and degraded by humans and are predicted to largely maintain their western breeding range despite climate change.

11. Greater Scaup

This duck nests in the far north of North America with large flocks of wintering birds migrating south to the Salish Sea. As with many other species of birds that nest in the far north, Audubon scientists predict this species will decline sharply, losing as much as 80% of its far north breeding grounds unless climate change is mitigated.

12. Band-tailed Pigeon

An often overlooked Pacific NW native pigeon (not to be confused with the non-native and ubiquitous Rock Pigeon), this species is already impacted by habitat loss, and is expected to lose much of its remaining lowland breeding habitat under the 3° C increase scenario, with nesting success predicted to be particularly impacted by increased heavy rain events and springtime heat waves. Mitigating climate change to a 1.5° C increase will allow this species to maintain much of its lowland breeding range.

13. Heermann's Gull

A strikingly handsome gull, Heerman's gulls nest in colonies in western Mexico in early spring before migrating north as far as the Salish Sea. As with most other coastal marine birds, Heerman's gulls are expected to largely maintain their range despite climate change, but are vulnerable to other climate change related changes such as changing populations of prey species

14. Wilson's Warbler

A delightfully lemon-yellow neotropical migrant, Wilson's Warblers nest near the ground in shrubby thickets. With its population already in steep decline, a 1.5° C temperature increase is predicted to increase heat waves and heavy rainfall events, reducing nesting success, particularly in the lowlands. A 3° C increase is predicted to move this species' range mostly north beyond the US-Canadian border. Mitigating climate change will be important in maintaining this species' population.

15. Black-backed Woodpecker

An uncommon nesting bird in the Cascade mountains, a sighting of the Black-backed Woodpecker is always an exciting moment. Like for many other montane species, unmitigated climate change is likely to result in almost complete extirpation from Washington State, whereas taking action now to lessen temperature rise will allow this species to continue to breed in Washington.

16. Mountain Bluebird

One of the most beautiful birds of the west, Mountain Bluebird populations have been maintained and even aided by such human activities as forest clearing over the past 50 years. A bird with a wide range from the Cascades to the Rockies, this is a species expected to have a major loss of breeding range with a 3° C increase due to unmitigated climate change, while having a much healthier future if we can slow climate change to 1.5° C.

17. American Pipit

A bird that breeds in tundra regions of the far north, American Pipits also nest in subalpine meadows of western mountain ranges, including the Cascades of Washington State. Subalpine habitat is one of the most threatened by climate change, and this species is expected to lose almost all of its breeding range in Washington State as a result.

18. Lincoln's Sparrow

Another montane breeder, this handsome sparrow of wet montane meadows is at risk of extinction south of the US-Canada border, as well as for major range reductions north of the border. Like many other montane species, taking steps to limit the extent of climate change will help us maintain a Pacific NW breeding population and a healthy North American population.

19. Barrow's Goldeneye

An attractive duck known primarily from its wintering grounds in calm coastal Salish Sea waters, this duck also occasionally occurs in summer in freshwater habitats. Unmitigated climate change is expected to cause a loss of as much as 85% of its North American breeding range which will likely make it much less common winter bird along Washington shores.

20. Dusky Flycatcher

An uncommon breeder in the mid-elevation eastern slopes of the Cascade Mountains, while more common in Rockies, this flycatcher is in danger of losing most of its North American breeding range including much of its Washington State range. Climate change mitigation is expected to result in substantial improvement in the future success of this bird in Washington State and throughout North America.

21. Common Goldeneye

This handsome duck is likely to lose its already small breeding range in Washington State with climate change. A common winter bird along Salish Sea coastlines, its North American population can be largely maintained if we take action to minimize climate change, but is likely to decline substantially otherwise.

22. American Dipper

One of only four dipper species in the world, the American Dipper is our only aquatic songbird. Always an exciting sighting, it can be found foraging, singing, and nesting along western rivers and streams. With a 3° C temperature change, Audubon scientists predict this species will lose most of its lowland range as spring heat waves and increasing fires reduce nesting success.

23. Rufous Hummingbird

The Rufous Hummingbird is our only migratory hummingbird and now competes for food with the invasive Anna's Hummingbird. Already declining by about 2% per year for the last 50 years, Audubon considers this bird to be highly vulnerable to unmitigated climate change. They predict a 70% loss of current breeding range, with its remaining range largely north of the Canada-US border. In addition, predicted increases in heavy rainfall events and early season heat waves are expected to reduce nesting success.

24. Great Gray Owl

One of the world's largest owls, Great Gray Owls are rare breeders in the Pacific NW. Similar to other uncommon and rare species, this owl's Pacific NW population is at risk of extinction due to ecosystem changes from unmitigated climate change resulting in a 3° C rise in average temperature.

25. Common Loon

This much-loved bird captures our imaginations with its wails and tremolos invoking visions of wilderness lakes. Like other waterbirds that nest sparingly in Washington State, climate change mitigation will help this species maintain its WA breeding sites

whereas unmitigated climate change will likely lead to its extirpation as a breeding bird. The wintering population in the Salish Sea will likely be more stable.

26. Marbled Murrelet

A remarkable bird that feeds in marine waters but nests on broad old-growth branches high above the forest floor, this species is listed as “threatened” under the United States Endangered Species Act. Marbled Murrelets continue to decline in the United States due to loss of old growth forest, and threats in marine waters such as oil spills, pollutants, and fishing by-catch. Potential impacts from climate change are not well understood, but do not appear to be as critical as already existing threats.

WEST WALL

27. Ruby-crowned Kinglet

This small energetic representative of the old-world warblers is tough to find in binoculars, but is common in the Pacific NW during migration as well as a breeder in NW mountainous regions. This is one of several songbird species that have had stable populations over the last 50 years but are now threatened with significant breeding range reductions due to climate change. As with many other species, acting to prevent temperature rise from 1.5° C to 3°C will likely maintain the Ruby-crowned Kinglet as a common breeding bird in the Pacific NW.

28. Varied Thrush

This beautifully patterned larger relative of the robin is found only in the Pacific NW, with a breeding range that extends from coastal Oregon up into northern Canada and Alaska. Dependent on mature forests, populations of Varied Thrushes have decreased by about 30% over the last 50 years as logging has reduced mature forest and urbanization has increased mortality from collisions with windows and cat predation. Like so many other Pacific NW specialty songbirds, Varied Thrushes are predicted to be almost entirely extirpated from their current breeding range in the United States, as well as much of their range in Canada, if we are not able to mitigate climate change.

29. California Quail

An introduced species in Washington State, California Quails delight observers with their vocalizations and their tendency to live in large family groups. This species is only expected to suffer minor climate change related range losses in Washington State with greater losses in its native California.

30. White-crowned Sparrow

One of the most widespread bird species in North America, and a welcome early spring singer, White-crowned Sparrows have maintained a steady population throughout the past 50 years. However, as with many other lowland breeders, this species is predicted to almost entirely disappear from much of its Pacific NW range if climate change is not mitigated. Mitigating climate change to achieve a 1.5° C will allow White-

crowned Sparrows to maintain a healthy breeding population throughout the U.S. and Canadian Pacific NW.

31. Mountain Chickadee

With a distinctive song and often present in mixed-species foraging flocks, Mountain Chickadees delight visitors to the western mountains. Like so many other montane species, climate change threatens to shrink habitat for this species, with increased fires and heat waves impacting nesting success. As with many other montane species, limiting climate change to 1.5° C will likely maintain healthy populations of the Mountain Chickadee.

32. Cedar Waxwing

The most frugivorous of North American songbirds, this sleek looking bird exudes a colorful waxy substance from its wings and tail. Climate change is expected to cause this species to shift its range northward, with large range losses in Eastern Washington and smaller losses in Western Washington.

33. Dark-eyed Junco

One of the most abundant of North American birds, Dark-eyed Juncos are known for their many different sub-species, each with a unique look. They are one of many species expected to lose much of their low Pacific NW elevation breeding areas with a 3° C temperature rise. Making changes to slow climate change will allow this species to continue to thrive in low elevation areas.

34. Pine Siskin

A species known to travel widely in search of coniferous forests with large seed crops, Pine Siskins often breed in high numbers in the western U.S. mountains when seed crops are high. A 3° C rise in temperatures is expected to result in a dramatic decrease in pine siskin breeding in Washington State, while smaller temperature increases will help this species largely maintain its current breeding range.

35. Black Swift

This species spends the vast majority of its time “dancing” in the air while pursuing insects. We know little about this bird, but census work has shown a steep population decline since the 1970’s, which will increase with climate change. Audubon expects its breeding range will shrink with rising temperatures, but with significantly less impact if we can mitigate temperature rise through changed human behavior and technological changes.

36. Fox Sparrow

An attractive large sparrow, Fox Sparrows are common breeders in Alaska and the far north, commonly overwintering in Washington State. The entire North American breeding population, including a small population of breeding birds in the state, are at high risk under a 3° C temperature rise scenario. Like so many other species, taking action to hold temperature increases to 1.5 or 2° C will greatly improve the sustainability of this species.

37. Black Oystercatcher

One of our most enjoyable marine shoreline specialists, these beautiful and animated shorebirds delight beachgoers throughout the Pacific NW. This species' population has been and continues to be impacted by urbanization and shoreline development. This is expected to be made worse with unmitigated climate change, particularly through breeding season heat waves.

38. Red Crossbill

One of several finches specialized for feeding on conifer seeds, red crossbills are nomadic, with flocks wandering far and wide to find bountiful seed crops. As with other conifer seed feeders, loss of habitat due to climate change, particularly through increased wildfires are likely to greatly reduce the range of this species in Washington State.

39. Gray-crowned Rosy-Finch

A fascinating species that nests above the tree line at very high elevations in mountains and on rocky arctic islands. The Cascade Mountains are near the southern limit of the Rosy-Finch's breeding range. Because montane ecosystems are amongst the most vulnerable to climate change, Gray-crowned Rosy-Finches are predicted to be highly impacted, with unmitigated climate change largely eliminating the bird's Pacific NW breeding grounds. As with other montane species, reducing the extent of climate change will lessen the population impacts on this species.

40. Spotted Owl

The northern subspecies of the Spotted Owl is a resident of mature Pacific NW coniferous forests. Spotted Owls have been at the center of controversial land management decisions for 50 years and are now listed as threatened under the U.S. Endangered Species Act. While Audubon scientists do not expect major range reduction in the Pacific NW due to climate change, there are a number of other threats. Continued habitat loss and degradation, competition and interbreeding with Barred Owls, and predation by Northern Goshawks and Great-horned Owls continue to threaten the existence of the Spotted Owl in the Pacific NW.

41. Pine Grosbeak

An uncommon but widespread bird in thick mountainous coniferous forest, Pine Grosbeaks are well-adapted to their diet of seeds and berries. Taking action against climate change will likely prevent an almost total loss of breeding range in Washington State.

42. Evening Grosbeak

A colorful black and yellow bird, Evening Grosbeaks are a nomadic species that wanders widely in search of forests producing abundant conifer seeds. This species has suffered an estimated 76% decrease in North America over the last 50 years. This is yet another species that will likely see dramatic declines in the Pacific NW due to

habitat changes, increased fire events, and spring heat waves, declines that can be largely prevented by taking action on climate change.

43. Golden-crowned Kinglet

This feisty small forest bird spends much of its life in the forest canopy eating insects and spiders. Although this species is common in Western Washington now, it is another forest species that is expected to see major range reduction if temperatures rise by 3° C. Like many Western Washington forest species, taking steps to mitigate climate change can help keep the population of this species healthy.

44. American Bittern

This reclusive member of the heron family is heard far more often than seen in freshwater marshes. While its' North American population is healthy, this species is already uncommon in the Pacific NW, and is expected to lose almost all of its regional breeding range in a 3° C temperature rise. It will be far less affected by a more moderate 1.5° C rise should we be able to mitigate climate change.

45. Savannah Sparrow

An uncommon to locally common breeder in open fields and meadows, this species is predicted to suffer substantial range reduction in Washington State as well as in much of its more southern breeding range, even with mitigation that keeps temperature rises between 1.5 and 2° C.

46. Trumpeter Swan

Trumpeter Swans mark the coming of winter in NW Washington, migrating in family groups from their breeding grounds in the far north. Like other species that nest in the high latitudes, trumpeter swans are expected to be highly impacted by climate change, with a loss of breeding range and a shift to even more northern latitudes.

47. Townsend's Warbler

A beautiful warbler found in mature western coniferous forests, the Townsend's warbler is always a welcomed sighting during in the NW Spring. Like many other lowland forest birds, the Townsend's warbler is predicted to lose most of its Washington State breeding range with unmitigated climate change.

48. Cassin's Finch

An attractive common breeder from the eastern Cascades to the rocky mountains, Cassin's Finch is predicted to be highly impacted by unmitigated climate change, both in North America and in Washington State, with as much as a 70% reduction in its breeding range. It is expected to be especially impacted by an increase in frequency of spring heatwaves and heavy rain events.

49. Northern Pygmy Owl

A beautiful, small owl that generally hunts during the day, and prefers songbirds as it prey, this owl is typically uncommon across its western North America breeding range. Often found in mountainous habitats, it is predicted to lose roughly half of its breeding

range with an average temperature rise of 3° C, with much less impact under a 1.5° C scenario.

50. Clark's Nutcracker

A fascinating montane species that relies almost entirely on fresh or stored pine seeds, Clark's Nutcracker is able to remember the locations of thousands the stored seeds. This is another species that is expected to be highly impacted by climate change due to the upward shift in montane ecosystems. Audubon scientists predict as much as a 76% reduction in the Nutcracker's Pacific NW range should we fail to slow climate change.

51. Bushtit

This endearing tiny but spirited bird is especially well known for its large sock-like hanging nests and its habit of swarming suet feeders in winter flocks of 20 or more birds. Currently a common species, it is expected to lose much of its eastern Pacific NW habitat with unmitigated climate change, especially due to increased fires and spring heat waves.

52. Vaux's Swift

This small aerial neotropical migrant can be seen darting and diving through the air as it hunts insects. Vaux's Swifts breed in both rural and urban areas of the Pacific NW. The breeding population of this species has fallen by nearly 50% over the last 50 years for reasons that are not well understood. Audubon scientists predict that with unmitigated climate change this species will be largely disappear from its current U.S. Pacific NW range, with a northward range expansion into currently uninhabited northern British Columbia and Alberta. This species is predicted to maintain much of its current breeding range if we are able to keep climate change to 1.5° C over the next sixty years.

53. Tree Swallow

A beautiful and common swallow, the Tree Swallow is one of our region's first returning spring migrants. Audubon scientists predict nearly half of the tree swallow's Washington State breeding range to be lost with a temperature rise of 3° C, whereas climate change mitigation will allow most of this species' Washington breeding to be maintained.

54. American White Pelican

American White Pelicans are an unusual sight in western Washington with almost their entire Pacific NW breeding range being east of the Cascade Mountains. While this species is expected to lose 32% of its existing breeding habitat nationally with unmitigated climate change, it is also expected to gain new breeding areas west of the Cascades.

NORTH WALL

55. Short-tailed Albatross

This “true” seabird spends its entire life at sea, only coming to land to nest on western North Pacific islands. Once commonly sighted in offshore waters of North America this species was driven almost to extinction early in the 1900’s, while changes in fishing practices and other conservation measures have allowed a slow population recovery. Likely climate change impacts on this species are not well understood.

56. Swainson’s Thrush

Widely recognized as the most beautiful singer in the Pacific NW woods, Swainson’s Thrushes are a neotropical migrant species whose return to the NW is eagerly anticipated by birders and non-birders alike. With a widespread breeding range in northern North America, Swainson’s Thrush populations have been stable over the last 50 years. However, Audubon scientists predict a 3° C rise will greatly reduce the bird’s breeding range across the continent, including near extinction in the lowlands of the Pacific Northwest. Mitigating climate change to a 1.5° C will significantly lessen these impacts, especially in the Pacific NW.

57. Townsend's Solitaire

A widespread western North American species, Townsend’s solitaire is largely limited to high elevations in Washington State. As with other high elevation breeding birds, this species is expected to lose much of its breeding range unless we can reduce the impacts of climate change.

58. Brown Pelican

Once threatened with extinction in North America due to pesticides such as DDT, brown pelicans represent a conservation success story, with their global population estimated to be over 300,000 birds today. This species is unusual in that it’s breeding and wintering range might actually increase to the north as a result of changing climate. However, it is also vulnerable to other climate change impacts on ecosystems such as declining prey species, populations, and coastal development.

59. Spruce Grouse

A delightful sight when birding in the Cascade mountains, this species is a rare breeder at higher elevations in Washington. While a common species in more northern regions, the Spruce Grouse is predicted to lose much of its North American breeding range with unmitigated climate change, and may be threatened with extinction in Washington State.

60. Olive-sided flycatcher

A long-distance migrant, the Olive-sided Flycatcher flies 14,000 miles a year between North and South America each year. If we limit climate change average temperature increases to 1.5° C , Audubon scientists expect little change in this species breeding range. Unmitigated climate change, on the other hand, is expected to reduce the olive-sided flycatcher Pacific NW breeding range by at least 50%. As is often the case with

neotropical migrants, potential impacts of climate change on the bird's South American wintering grounds or its migration route are not well understood.

61. Canada Jay

As their name suggests, the vast majority of Canada Jays live and breed in northern boreal forests, while the Pacific NW mountains are a southern breeding range outpost. These mountain ecosystems are expected to be amongst the most impacted by climate change, with cooler high elevation forests receding and disappearing. Canada Jays are expected to disappear from all but the tallest Pacific NW mountains as high montane ecosystems recede. They are likely to become Pacific NW rarities in the future.

62. Red-breasted Sapsucker

Red-breasted Sapsuckers are best known for drilling parallel lines of holes in trees, called sap wells, that trap insect food for the sapsucker. Found solely on the North American Pacific slope, the Red-breasted Sapsucker population has been stable for the last 50 years, but according to Audubon scientists, is highly threatened by climate change with as much as a 93% decrease in breeding range

63. Brandt's Cormorant

Brandt's Cormorant is a seabird that nests in large colonies along the open coast of Washington. This species is sometimes seen in flocks of hundreds or thousands in the Salish Sea in the non-breeding season. This species is only expected to incur minor range changes due to climate change, but may be impacted more from other climate-associated changes such as changes in the populations of prey species.

64. Pigeon Guillemot

A common marine bird along the North American west coast, the pigeon guillemot is easily seen along much of the Salish Sea coast. Heat waves and other forms of extreme weather are expected to reduce this birds range, particularly south of the US-Canada border, with the impacts being lessened substantially through climate-change mitigation.

WINDOWS

65. Harlequin Duck

One of the world's most beautiful ducks, the Harlequin Duck nests in tree cavities along northwest mountain rivers and streams, while wintering along the Salish Sea coast where it feeds primarily on mollusks. Audubon scientists predict that even a smaller increase in temperatures will cause this species to shift its range to the far north, with an almost total loss of breeding range in Washington State.

66. Northern Goshawk

A powerful aerial predator that employs fast and agile flight to catch prey, Northern Goshawks are widespread in northern North America but often uncommon even in appropriate habitat. In the Pacific Northwest, the species is largely restricted to mountain habitats. Under unmitigated climate change scenarios, it is considered to be highly vulnerable to breeding range loss, as well as to increased fire frequency and intensity.