Alaska’s Landscapes Are Natural Climate Solutions

About Audubon’s Natural Climate Solutions Report

Audubon’s science team focused on one of the most powerful tools in the climate mitigation toolkit: the natural ability of ecosystems to store carbon. By keeping more carbon in the ground and capturing it in plants, we can reduce carbon dioxide in our atmosphere.

In Alaska, researchers looked at forest, coastal and freshwater wetland, and lowland and alpine tundra ecosystems. In each, they found significant overlap between important bird habitat and areas of high carbon value.

The bottom line: what’s good for birds is also good for climate change mitigation.

Takeaways from the Natural Climate Solutions Report

Alaska is the largest state in the US and boasts a diversity of habitats supporting over 500 bird species. From wetlands like Teshekpuk Lake and the Chilkat River Estuary to the Tongass National Forest to tundra habitat in the Arctic National Wildlife Refuge, Alaska provides critical breeding habitat for migratory bird species from all six continents. In a changing climate, Alaska will become even more critical to species coping with rising temperatures and shifting precipitation patterns.

- Priority areas in Alaska store the second highest amount of carbon per acre, as nearly half of the total area is comprised of forests.
- The majority (> 50%) of priority areas in Alaska are on protected land, highlighting the importance of working with land managers to ensure proper maintenance and enhancement of native habitats.
- Alaska’s Tongass National Forest represents 44% of the carbon mitigation capacity across the entire national forest system and also provides breeding habitat for climate vulnerable bird species like the Boreal Chickadee. Likewise, Alaska’s tundra ecosystem in the Arctic National Wildlife Refuge currently stores two times the amount of carbon that is held in the atmosphere and also supports declining bird species like the Red-throated Loon.
- Continued protection of Alaska’s natural areas will be essential for both climate change mitigation and adaptation; maintenance of carbon stores and sinks in Alaskan ecosystems will benefit human communities while also providing essential resources for birds in the face of climate change.