Rare Rocky Mountain insects will need snowfields to survive

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This undated file photo provided by the U.S. Geological Survey shows a side view of a recently emerged adult female western glacier stonefly from below Grinnell Glacier in Glacier National Park, Mont. Federal wildlife officials say the western glacier stonefly and a second, similar species wil need several thousand acres of glaciers and snowfields in areas such as Glacier if they are to survive in a warming world that's threatening them with extinction.. Credit: Joe Giersch/via AP, File

Federal wildlife officials say two species of rare insects in the Rocky Mountains will need several thousand acres of glaciers and snowfields if they are to survive a warming world that's threatening them with extinction.

The western glacier stonefly and the meltwater lednian stonefly live in streams that flow from melting glaciers and snowfields. Scientists say the insects are not doing well and face continued declines as they lose a projected 80% of their habitat in Glacier National Park by 2030.

The stoneflies' peril underscores the threat climate change poses worldwide to mountaintops that are "biodiversity hotspots"—home to a rich variety of plants, animals and insects that scientists are still learning about.

The two species live in and around Glacier National Park in Montana, Waterton Lakes National Park in Alberta, Canada, and Native American tribal lands in western Montana. More recently, they've been found in streams in Wyoming's Grand Teton National Park and the Absaroka-Beartooth Wilderness in Montana and Wyoming.

They are mostly found in steep, remote areas that are hard to reach and away from backcountry trails.

A new draft recovery plan from the U.S. Fish and Wildlife Service suggests the possible transplant of some of the insects to new areas, exploring ways to artificially propagate populations and research into the stoneflies' heat tolerance.

Researchers have said it's uncertain what other direct steps could preserve the insects, which are mostly found in national parks that

already have strong regulations in place to protect wildlife. That reflects the difficulty of dealing with climate change at the local level.

The wildlife service listed them as a threatened species in 2019 after being sued by environmentalists to act. To be safe from continued decline, the agency says the two species each need at least 3,087 acres (1,250 hectares) of glaciers and snowfields. That's about how much meltwater habitat the insects had in northwestern Montana in 2005, but much has since been lost.

Public comments on the recovery plan are due by Feb. 14, Montana Public Radio reported.

Climate change is directly driving the loss of glaciers in parts of the Rockies. Glacier National Park early last century had 150 glaciers larger than 25 acres (10 hectares). Only 25 glaciers of that size remain.

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