

Calamagrostis pickeringii

Pond reed bent grass

Status

Federal status: G4 N?, Not listed

NH state status: S2S3, Threatened

ME state status: S1, Threatened

There is not enough information to determine trends across its range or locally.

So much of the habitat of *Calamagrostis pickeringii* is protected or undeveloped that its current outcome is B or C range-wide and on both Forests. This may go down to C during the next 20 years with increased hiking in some habitats. Whether and how much the outcome will decline depends on whether new trails are built that access more suitable habitat. There is a possibility that increased use may increase invasions of exotic plants.

Distribution

Ranges from Ontario east to Labrador, south along the east coast to New Jersey, including New York, Massachusetts, New Hampshire, and Maine.

New Hampshire has documented extant occurrences in Albany, Conway, Waterville Valley, Benton, Easton, Franconia, Livermore, Lincoln, Woodstock, Sargents Purchase, Success, and Low & Burbanks; historical occurrences are documented from Cutts Grant, Sargeants Purchase, Bethlehem, and Lincoln. The Albany, Lincoln, Livermore, Easton, Benton, Sargents Purchase, and Low & Burbanks extant occurrences are on the WMNF. All of the historical occurrences were on the WMNF. In Maine, there are four extant occurrences, all in Hancock and Washington Counties. It is absent from large areas of seemingly appropriate habitat in Maine.

Habitat

Calamagrostis pickeringii uses a wide range of habitats. Its preference is for wetness, particularly alpine and sub-alpine habitats in New England, where it is broadly located in the boreal forest, and along the Maine coast. It also uses dry habitats, including banks, old streambeds, and alpine; it also may be found on talus slopes, beside railroad tracks, and in ditches. This species thrives in sphagnous peatlands.

Calamagrostis pickeringii seems to have a preference for acidic conditions and sandy, gravel, or peat soils. It is usually located either above 3500 feet or below 1500 feet, although there are a few instances between 1500 and 2500 feet. It probably benefits from some forms of natural disturbance that keep habitats open, but does not appear to be dependent on disturbance.

Limiting Factors

Sub-alpine and alpine occurrences of this plant species may be threatened by trampling from recreational hiking. Threats to wetland habitat include water level changes in bogs and ponds, peat mining, and development of wetlands in lowland populations.

Hydroelectric power and road riprap may threaten riparian populations. Invasive wetland

species may negatively impact this species in certain habitats, particularly along riverbanks. The impacts of agriculture need to be studied further. Succession, perhaps resulting from the lowering of water level, would be threatening to this species. This species needs open habitat, such as shoreline, for viability. Canopy closure would have a detrimental effect. Genetic factors may be a limiting factor in small populations, but more study is needed.

Viability concern

WMNF contains 58% of NH population. The expert panel expects a decline in the viability outcome due to increased hiking, though whether viability outcome declines may depend on whether or not trail numbers/density increases, which is under control of the Forest Service. Species kept on the list because management that may affect viability outcomes could change between alternatives. Uses a wider range of habitat than species limited to alpine/subalpine, so no good surrogate species exists.

Management activities that might affect viability

The most likely threat to this species on the Forest is from hiking in alpine and subalpine habitats. Management to keep people on the existing trail system would benefit this species. Increasing the number or density of trails in or near suitable habitat could remove suitable habitat and increase the risk of impacts to individuals. Trail maintenance activities could alter habitat suitability or directly impact individuals.

Activities that would alter water levels in ponds and bogs, such as dam construction or removal, dredging, or road building, could reduce habitat suitability, increase the potential for invasive species, and encourage succession.

Management that would alter stream banks or dry streambeds, such as recreational development or some fisheries projects, also could reduce habitat suitability.

References

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