

Indian Ricegrass Shale Barren Grassland



Parks &
Open Space

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Background

This rare plant community is known to have sparse vegetative cover, with bare soil or rock cover often above 75 percent. Indian ricegrass is dominant in the herbaceous layer. This community is endemic to the Front Range of Colorado, where it is ranked as critically imperiled (S1) by the Colorado Natural Heritage Program. It is susceptible to degradation by anthropogenic activities, like development, heavy livestock grazing, and invasive weeds.

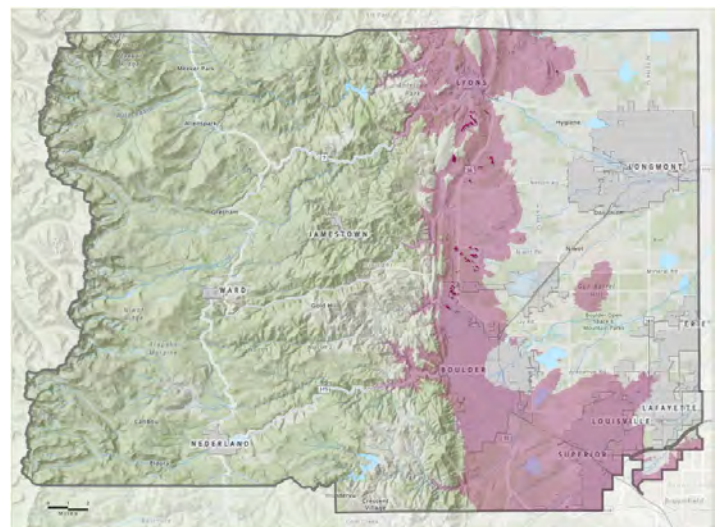
Distribution & Range

This community is endemic to Colorado. It is often in “islands” surrounded by agricultural fields in the Front Range and on mesatops in the Colorado Plateau. In Boulder County, it occupies areas with exposed shale, including road cuts. Among BCPOS properties, it has been identified on Rabbit Mountain and along properties adjacent to Hwy 36 between Boulder and Lyons.

Community Description

Biotic: Indian ricegrass, a hardy, cool-season native perennial bunchgrass, is the dominant species in this community. Overall vegetation is sparse in this community, usually between 5-25 percent cover. Other common species include junegrass, squirreltail, and western wheatgrass. Subshrubs may include prairie sagewort, winterfat, and broom snakeweed.

Abiotic: This community occurs on exposed shale outcrops on slopes, ridges, and rolling topography. Soils are composed of shales and mudstones and are alkaline and calcareous.



Threats

Invasive Species: Cheatgrass and crested wheatgrass are common invaders of this rare plant community. If cheatgrass takes over a community, it may allow wildfires to burn through areas that typically do not burn.

Overgrazing: Livestock can damage the fragile exposed surfaces of this community, leading to increased soil erosion, a decrease in cover of native plants, and an increase in weedy, non-native species. Although Indian ricegrass itself is tolerant of grazing pressures, the sensitive abiotic components of this association are not able to tolerate grazing.

Development: Stands of this population are continuously at risk of elimination from development. Where stands of this community occur near roadways, they can be threatened by road maintenance. Mowing, grading, weed control, dust abatement, and snow and ice control measures can negatively impact adjacent Indian ricegrass shale barren grasslands.



Management Considerations

Avoidance: Avoid impacts to this community from disturbances such as trails, roads, housing development, pipelines, and other infrastructure.

Agriculture/grazing: Exclude grazing from Indian ricegrass shale barren grasslands, since the impact of livestock on the fragile substrate may lead to irreparable damage and erosion.

Invasive Plant Management: Evaluate the application of herbicides to target invasive plants, particularly cheatgrass, which has been observed to take over these communities. If mechanical treatment is not feasible, careful use of herbicide may be key to eliminating invasive plants where the dominant Indian ricegrass population is already established.

Fire Management: Avoid the use of fire as a management tool for Indian ricegrass shale barren grasslands.

Restoration: Restore Indian ricegrass shale barren communities by removing grazing pressures, treating invasive plants mechanically if possible or with deliberate use of herbicide, and by reintroducing native plants that are historically known to make up this rare plant community.



2021

The areas displayed in this map indicate known and potential locations of the following significant natural community in Boulder County:


Achnatherum hymenoides
Shale Barren Grassland




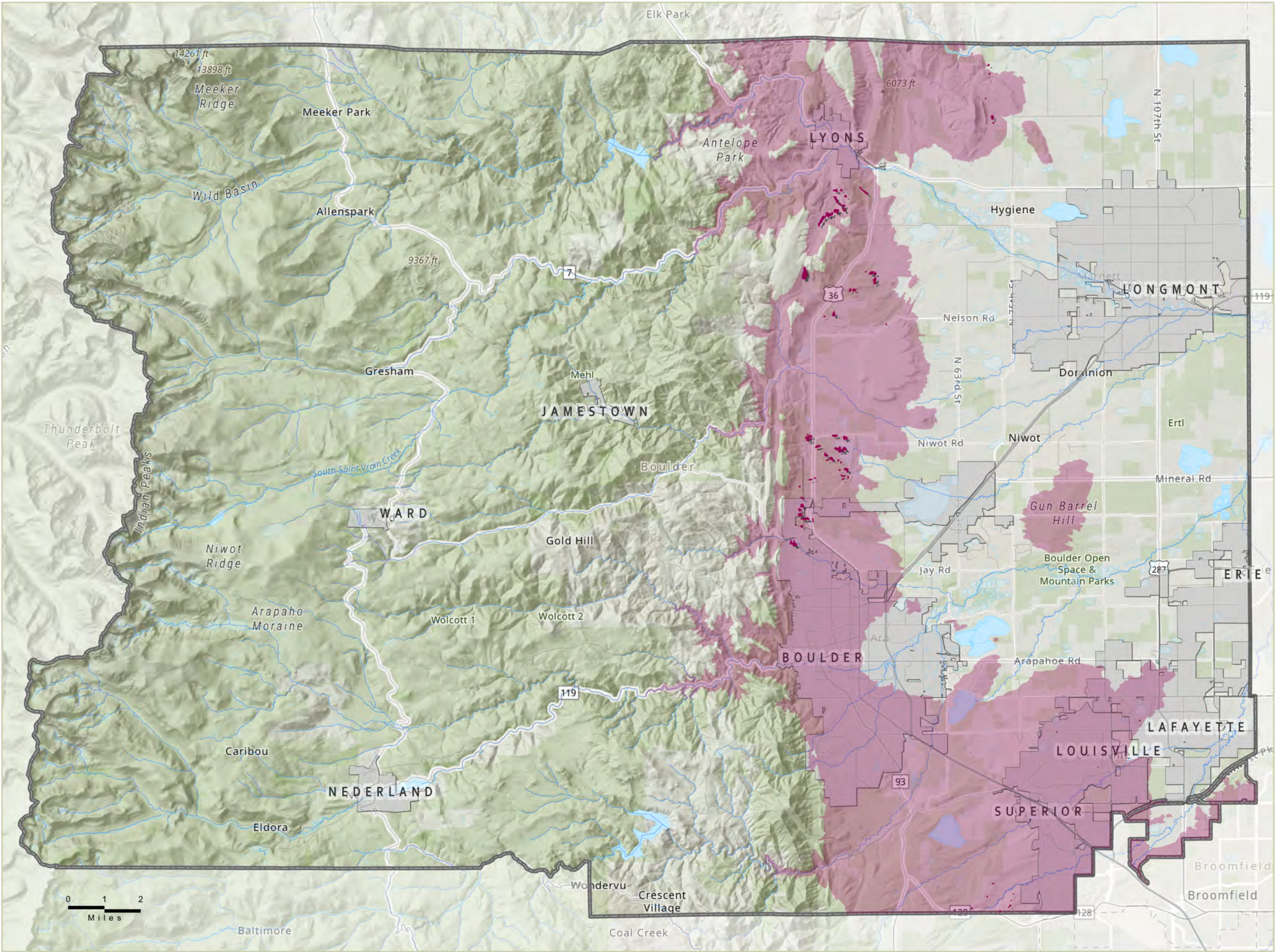
Indian Ricegrass Shale Barren Complex

The Indian Ricegrass Shale Barren Grassland is endemic to the Front Range of Colorado where it is critically imperiled (S1). The community has sparse vegetative cover, occurring on exposed shale outcrops on slopes, ridges, and rolling topography. The community is threatened by habitat degradation by the introduction of invasive species and by overgrazing and development.

This map shows only known occurrences of this community that exist within BCPOS property, and where there is a potential for the community to occur county-wide.

Known Location

Potential Location



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