

Great Smoky Mountains National Park
photographs of
Calamagrostis cainii - *Carex ruthii* - *Parnassia asarifolia* /
Sphagnum spp. Herbaceous Vegetation



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***Calamagrostis cainii* – *Carex ruthii* – *Parnassia asarifolia* / *Sphagnum* spp. Herbaceous Vegetation**

COMMON NAME Cain's Reedgrass – Ruth Sedge - Kidneyleaf Grass-of-Parnassus / Peatmosses
Herbaceous Vegetation
SYNONYM Blue Ridge High Elevation Seep (Mount Le Conte type)
PHYSIOGNOMIC CLASS Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP Temperate or subpolar perennial forb vegetation (V.B.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (V.A.5.N)
FORMATION Saturated temperate perennial forb vegetation (V.A.5.N.m.)

ALLIANCE *Carex ruthii* – *Carex gynandra* Saturated Herbaceous Alliance

CLASSIFICATION CONFIDENCE LEVEL 3

USFWS WETLAND SYSTEM Palustrine

RANGE

Globally

This community is known from Mount Le Conte in the Great Smoky Mountains of Tennessee. It is currently known from only a single location.

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See above

ENVIRONMENTAL DESCRIPTION

Globally

This community occurs on a steep, south-facing, exposed slope, at 6000 feet elevation. The site is thought to be a former landslide scar (Feldcamp 1984). It is a perennial seep, with small rock outcroppings. This community occurs in the spruce – fir zone and is adjacent to forests affected by Balsam Woolly Adelgid (*Adelges piceae*).

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MOST ABUNDANT SPECIES

Globally

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Calamagrostis cainii</i>
Nonvascular	<i>Sphagnum</i> species

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<u>Stratum</u>	<u>Species</u>
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See above

CHARACTERISTIC SPECIES

Globally

Calamagrostis cainii, *Gentiana linearis*, *Parnassia asarifolia*, *Solidago glomerata*, *Sphagnum* spp.

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VEGETATION DESCRIPTION

Globally

This is a herbaceous-dominated seepage slope, one to two acres in size. The vegetation is open with little or no shading by the surrounding forest. Graminoid species have almost continuous coverage, growing within large mats of *Sphagnum*. It is strongly dominated by *Calamagrostis cainii*. Other species with moderate coverage include *Carex ruthii*, *Carex misera*, *Gentiana linearis*, and *Dennstaedtia punctilobula*. Additional herbaceous species include *Carex debilis*, *Glyceria nubigena*, *Hypericum graveolens*, *Krigia montana*, *Parnassia asarifolia*, and *Solidago glomerata*. Shrubs and small trees may be scattered within the seep but are more prominent around the perimeter. Woody species include *Abies fraseri*, *Picea rubens*, *Prunus pensylvanica*,

Rhododendron catawbiense, *Rubus canadensis*, and *Vaccinium erythrocarpum*.

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OTHER NOTEWORTHY SPECIES

CONSERVATION RANK G1

RANK JUSTIFICATION

This is a highly restricted, naturally rare community and known from only a single location. The dominant species *Calamagrostis cainii* is only known from the summits of Mount Le Conte and in the Blacks and Craggy Mountains. Its current taxonomy is uncertain; it may be better classified as a very local expression of Blue Ridge High Elevation Seep (Sedge Type) (CEGL007697), a G2 community.

DATABASE CODE CEGL007877

COMMENTS

Globally

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Calamagrostis cainii may be locally dominant in seepage inclusions of other communities on Mount Le Conte, such as cliffs, heath shrublands, and steep landslide scars. The site that supports this community is a former landslide scar directly downslope from Cliff Tops, where there is a large concentration of *Calamagrostis cainii*, growing in stable ledge and seeps. These stable substrates provide propagule sources for revegetating landslide scars, thus there is a tight spatial autocorrelation for species composition between scars and nearby ledges and cliffs (J. Boetsch pers. comm.). This community may be better classified as a very local expression of Blue Ridge High Elevation Seep (Sedge Type) (CEGL007697).

REFERENCES

Boetsch 1998, Feldcamp 1984