

# ***ARENARIA GROENLANDICA* (RETZ.) SPRENG. VAR. *GROENLANDICA* (CARYOPHYLLACEAE) IN THE MIDWEST**

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## ABSTRACT

*Arenaria groenlandica* (Retz.) Spreng. var. *groenlandica* is reported from Illinois for the first time. This represents the first report for the species in the Midwest.

Botanists familiar with species of *Arenaria* know that it is not unusual to find them colonizing disturbed ground. Marchand and Roach (1980) reported *A. groenlandica* (Retz.) Spreng. as one of four "potential early colonizers of disturbed alpine tundra in the White Mountains of New Hampshire." The same authors, Roach and Marchand (1984) introduced *A. groenlandica* and two other species in an alpine area of the Appalachian Trail disturbed by excessive human activity. They concluded that there was little difference between the patterns of establishment on hiker disturbed sites and on naturally open undisturbed sites.

In May 1985, this author found *A. groenlandica* var. *groenlandica* growing in the cracks of sidewalks on the north side of metropolitan Chicago. Plants were also found along a rock border in front of a residence which is behind the sidewalk. The owners of the lot say that the plants have been there for years. The plants along the sidewalk receive heavy foot traffic; those along the rock border do not. In both areas, the plants are colonizing bare soil. After observing the plants for over a year, both colonies seem to be on the increase; and similar to the findings of Roach and Marchand (1984), there appears to be little difference in the patterns of establishment when comparing the plants in the heavy traffic along the sidewalk (the disturbed site) with those along the rock border which is not subject to repeated disturbance.

This find represents the first report not only for Illinois, but for the Midwest as well. Heretofore, the species was known from Greenland to the Gaspé Peninsula and Nova Scotia in Canada and in the United States at higher elevations along the east-

ern seaboard states from Maine to North Carolina (Gleason and Cronquist, 1963). The Chicago population is the westernmost report for the species being almost 900 miles west of any of the eastern populations. Lake Michigan is only four miles away from the Chicago population of *A. groenlandica*, and one could speculate that the plants got their start from seeds transported by ships coming through the St. Lawrence Seaway. (The seeds are less than a millimeter in length.) Therefore, it would not be surprising if investigators eventually find *A. groenlandica* in Michigan. One could also suggest that the seeds came in as a contaminate in grass seed; but if this is the case, then why have more reports not been noted outside of the northeastern U.S.? A possible answer is that it is a small and inconspicuous species which is easily overlooked.

Specimens have been deposited in the herbarium as SIU and in my personal herbarium. I wish to thank Dr. Robert Mohlenbrock at SIU for verification of my determinations.

Specimen examined: *Arenaria groenlandica* (Retz.) Spreng. Cook County, Illinois. 5300 Block of N. Spaulding Avenue, Chicago. *Hattaway* 5326 (SIU and personal herbarium).

#### LITERATURE CITED

- Gleason, H.A. and A. Cronquist 1963. Manual of vascular plants of northeastern United States and adjacent Canada. van Nostrand Co., Inc., Toronto. li + 810 p.
- Marchand, P.J. and D.A. Roach. 1980. Reproductive strategies of pioneering alpine species: seed production, dispersal, and germination. *Arctic Alpine Research* 12(2): 137-146.
- Roach, D.A. and P.J. Marchand. 1984. Recovery of alpine disturbances: early growth and survival in populations of the native species *Arenaria groenlandica*, *Juncus trifidus*, and *Potentilla tridentata*. *Arctic Alpine Research* 16(1): 37-44.