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SCIRPUS MUCRONATUS AND *VALERIANELLA CHENOPODIFOLIA* IN ILLINOIS

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ABSTRACT

Scirpus mucronatus L., *Valerianella chenopodifolia* (Pursh) DC and *Picea abies* (L.) Karst. are reported as spontaneous in Illinois for the first time.

Voucher specimens of each of the species treated herein have been deposited in the Herbarium of the Illinois State Museum (ISM).

While collecting in the sand areas of western Mason County in 1975, I visited a large relatively low area about 1.3 miles southeast of Snicarte that was standing in water during this exceptionally wet summer. Although it was obvious that this entire area was cultivated in dry years, it was now covered with a carpet of the rarely encountered annual sedge *Scirpus hallii*. Scattered here and there were the peltate leaves of American lotus (*Nelumbo lutea*) attesting to the more permanent wetland nature of the site in presettlement times. Also scattered throughout the site were clumps of a perennial *Scirpus* about 7 dm tall that were completely new to me. This new *Scirpus* did not readily key to any species in the manuals at hand, but I finally decided I had found a rare inland population of the coastal *Scirpus olneyi*. The site was completely farmed in succeeding years but the strange sedge reappeared in wet summers in 1979 and 1981. Not satisfied with my earlier identification, I sent specimens to *Scirpus* authority Dr. Alfred E. Schuyler at the Philadelphia Academy of Natural Sciences. Dr. Schuyler identified the plant as *S. mucronatus*, a European species that is established in California and which has occasionally turned up elsewhere in the United States.

Since *S. mucronatus* is not adequately described in the manuals for our range, a brief description here seems appropriate. It is perennial from short rhizomes giving older plants a clumped appearance. It apparently fruits as a one year old plant only a decimeter or two high, at which time it could be mistaken for an annual. As the plant matures, it reaches a height of about 7 dm. and its clumps have a peculiar flat-topped appearance due to the involucral bracts, up to 10 cm. long, which are deflexed at right angles to the stem. Culms are sharply triangular and slightly

winged on the angles, up to 8 mm wide when pressed, and weak and spongy in texture. Spikelets number up to 17 and probably more per inflorescence and achenes are planoconvex.

I believe that S. mucronatus arrived at its Illinois locality by natural means, probably on the feet of birds. The source area and time of introduction are unknown. The sand area in which it grows harbors a variety of greatly disjunct species of which four are moist soil sedges (Winterringer 1959). These sedges are *Fimbristylis vahlii*, *Scleria reticularis*, *Scirpus hallii* and *Lipocarpha maculata*. Apparently sand areas provide an exceptional environment for establishment of long range migrants. It is possible that *S. mucronatus* has been in Illinois since presettlement times and has not spread significantly because of the very limited nature of its specialized habitat.

Collection data on my voucher specimen are as follows: open sandy marsh southeast of Snicarte, Mason County, Illinois; July 18, 1975; John Schwegman #2642.

Valerianella chenopodifoloia has a restricted range in the upper midwest, ranging from southern Ontario and western Pennsylvania to Wisconsin. The closest previous report to Illinois is by Swink and Wilhelm (1979) from LaPorte County, Indiana. I discovered this species on a south-facing, low bluff of limestone fronting on the Des Plaines River in Will County. It was locally very abundant in this small area of habitat. Collection data: rocky limestone slopes along north side of Des Plaines River 3.5 miles below the Brandon Locks at Joliet, Will County, Illinois; May 18, 1982; John Schwegman #3098.

Picea abies, the Norway spruce, is widely cultivated but rarely reported as escaping into wild situations. I was very surprised to find a sapling of this species in a very natural setting on a steep north-facing bluff along the Galena River in JoDaviess County. It was growing at the base of a shaded slope in a large stand of yew (*Taxus canadensis*) where it had apparently seeded in naturally from trees in a nearby cemetery. Collection data: base of steep north-facing bluff along Galena River below Grant Hill Cemetery, 4½ miles northeast of Galena, JoDaviess County, Illinois; September 13, 1981; John Schwegman #3063.

LITERATURE CITED

Swink, F. and G. Wilhelm. 1979. Plants of the Chicago region. The Morton Arboretum, Lisle, IL. 922 pp.

Winterringer, G.S. 1959. Notes on Cyperaceae from Illinois. Rhodora 61:290-292.