

1923

## The Occurrence of *Juniperus horizontalis* in Floyd County near Rockford

L. H. Pammel  
*Iowa State College*

*Let us know how access to this document benefits you*

Copyright ©1923 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

---

### Recommended Citation

Pammel, L. H. (1923) "The Occurrence of *Juniperus horizontalis* in Floyd County near Rockford," *Proceedings of the Iowa Academy of Science*, 30(1), 297-300.  
Available at: <https://scholarworks.uni.edu/pias/vol30/iss1/50>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact [scholarworks@uni.edu](mailto:scholarworks@uni.edu).

## THE OCCURRENCE OF *JUNIPERUS HORIZONTALIS* IN FLOYD COUNTY NEAR ROCKFORD

L. H. PAMMEL

The occurrence of the prostrate Juniper (*Juniperus horizontalis*) in Iowa is so unusual that an account of the habitat and associates will be of interest. Some years ago Mr. C. L. Webster



Fig. 1.—Climbing or creeping juniper or savin (*Juniperus horizontalis*) near Rockford, Iowa. This is the only place in the state where it is found with the possible exception of a little intrusion in Allamakee county from Houston county, Minnesota. This area is also rich in fossil shells, and it is hoped it may be made into a state park. Photo by G. B. MacDonald.

and Mr. H. Clark Brown of Charles City sent me some specimens of this savin which Mr. Brown said was native to this general region. Its occurrence was so unusual that I felt it might have been introduced. During July, 1922, the writer, Professor G. B. MacDonald and Mr. C. L. Webster visited the place and observed the plant, which covers an area of some ten acres on the northerly slope of a hill about half a mile south of Lime Creek near Rockford. This shrub occurs on shaly prairie hills with many fossil shells lying on the ground. The region is therefore an interesting one from the standpoint of geology as well as botany. A brick and tile factory attests the value of the shaly material for the making of brick and tile.

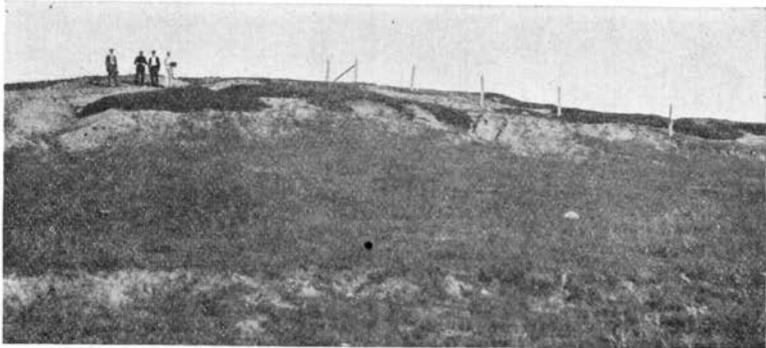


Fig. 2.—General view of *Juniperus horizontalis* near Rockford, Iowa, showing clay banks and native prairie plants in front. Photo by G. B. MacDonald.

Doctors B. L. Robinson and M. L. Fernald in the 7th edition of Gray's Manual report the distribution of the juniper as follows; rocky or shady banks, borders of swamps, Nfd. to N. E. N. Y., N. Minn and northward. Doctor Britton in the Manual of the Flora of the northern states and Canada gives the distribution as Nova Scotia to British Columbia, south to Mass., N. Y., Minnesota, Montana. Rydberg in his Flora of the Rocky Mountains and Adjacent Plains gives it as banks and hillsides N. S., Me., n N. Y., Minn., Wy. and B. C. Conway MacMillan<sup>1</sup> in his paper "Observations on the distribution of plants along shore of Lake of the Woods" notes that it is one of the dune plants at the mouth of the Rainy river in the Lake of the Woods region.

W. A. Wheeler<sup>2</sup> in a paper on the Flora of Southeastern Minnesota mentions the occurrence of this juniper in Houston county, Minnesota.

There can be no question as to the correct determination in this case since we have a specimen of the plant from Houston county Minnesota collected by Ellison Orr. Mr. Wheeler makes this comment: "Rare and local on dry bluffs. No previous collection reported from this part of the state. This is about the most southern point of collection for this species in the United States, according to Britton and Brown."<sup>3</sup>

The locality in southern Minnesota is not given. It is, however, strange that the species has not been found on the east side of the river in LaCrosse county, Wisconsin. I have looked for it at several points but have never observed it.

<sup>1</sup> Minn. Bot. Studies 1: 964, 966, 989, 1016.

<sup>2</sup> A Contribution to the Knowledge of the Flora of Southeastern Minnesota. Minn. Bot. Studies 2: 367.

<sup>3</sup> The first edition of Britton and Brown, an Illustrated Flora, 1: 60.

The Iowa material is represented by specimens; one by Mr. Brown and Mr. Webster and one by L. H. Pammel and G. B. MacDonald, 1922. Many years ago I collected the species in northeastern Massachusetts, not far from the sea coast. I have done considerable collecting in Illinois, western Wisconsin and Minnesota, but do not recall having seen it in western Wisconsin nor in the vicinity of Duluth, where I am certain it does not occur. I therefore asked Dr. Robinson of the Gray Herbarium to furnish me with names of localities represented by specimens in the Gray herbarium. Mr. William Penland furnished me with the following localities: Emmet and Cheboygan counties in Michigan; Waukegan, Lake county, Door county, Wisconsin; Black Hills, South Dakota; Sheridan and Crook counties, Wyoming; Bozeman, Montana. Doctor Lyall collected the plant on the Oregon Boundary Commission, "Rocky Mountains 49°." I found it in abundance at Banff in Saskatchewan.

I find we have specimens in the collection (college herbarium) from Mt. Desert Island, Hunter Beach head, E. L. Pond; Newfoundland, M. L. Fernald, K. M. Wiegand, H. T. Darling; Banff, Canada, L. H. Pammel; Dundern, Saskatchewan, Carl A. Hansen; Houston county, Minnesota, St. Peter sandstone, dry ledges of outlier of St. Peter sandstone, Houston county, Minnesota; roadside near Short Farm, French Creek township, Allamakee county, Iowa.

The northern range is Newfoundland to British Columbia.

This juniper was formerly considered a variety of the *Juniperus Sabina* of Europe, a variety bearing the name of *procumbens* Pursh. The European species has scalelike leaves, obtuse and more closely appressed. The *Juniperus horizontalis* is a creeping shrub with terminal catkins, scalelike leaves which are acutely cuspidate, fleshy berries on short recurved peduncles; habitat rocky, sandy or gravelly soils. The associated plants are of interest. They are all typical prairie plants, such as you might expect on a gravel prairie soil in central Iowa, but with them is the western woolly thistle (*Cirsium canescens*). There are also a few *Prunus americana* in thickets. We may note here such typical prairie plants as *Salix humilis*, *Rosa pratincola*, *Ceanothus americanus*, *Amorpha canescens*, *Petalostemum purpureum*, *Petalostemum candidum*, *Astragalus canadensis*, *Desmodium canadense*, *Potentilla canadensis*, *Potentilla arguta*, *Fragaria virginiana* var. *Illinoensis*, *Oenothera serrulata*, *Anemone cylindrica*, *Silene antirrhina*, *Heuchera hispida*, *Hypoxis hirsuta*, *Sisyrinchium*

*angustifolium*, *Eryngium yuccaeifolium*, *Zizia aurea*, *Viola pedata*, *Aster multiflorus*, *Aster laevis*, *Aster sericeus*, *Solidago missouriensis*, *Solidago nemoralis*, *Solidago rigida*, *Liatris cylindrica*, *Erigeron ramosus*, *Silphium laciniatum*, *Rudbeckia hirta*, *Ambrosia psilostachya*, *Heliopsis scabra*, *Lepachys pinnata*, *Coreopsis palmata*, *Achillea millefolium*, *Artemisia canadensis*, *Cacalia tuberosa*, *Echinacea purpurea*. Adjacent to the shady gravel hills there are little marshy swales in which the following species were found: *Carex vulpinoidea*, *Cicuta maculata*, *Scirpus atrovirens*, *Steironema longifolia*, *Thalictrum purpurascens*, *Anemone canadensis*, *Ranunculus septentrionalis*, *Phlox glaberrima*, *Lilium canadense*, *Impatiens biflora*, *Leersia oryzoides*, *Calamagrostis canadensis*, *Lathyrus palustris* var. *myrtifolius*, *Vicia americana*, *Rumex altissimus*, *Polygonum Pennsylvanicum*, *Polygonum Hydro-piper*, *Polygonum Muhlenbergii*.

This juniper area is therefore unique for Iowa and should be preserved as combining an eastern and northern representative of the family Pinaceae, normally in a wooded country, but here in a region which is a typical prairie.

DEPARTMENT OF BOTANY,  
IOWA STATE COLLEGE.