

1958

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Recommended Citation

Cooperrider, Tom S. (1958) "A Preliminary Report on the Flora of Clinton, Jackson, and Jones Counties, Iowa," *Proceedings of the Iowa Academy of Science*: Vol. 65: No. 1 , Article 12.
Available at: <https://scholarworks.uni.edu/pias/vol65/iss1/12>

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A Preliminary Report on the Flora of Clinton, Jackson, and Jones Counties, Iowa¹

By TOM S. COOPERRIDER

A study was made to determine the nature of the vascular flora of Clinton, Jackson, and Jones Counties, Iowa, which had been relatively unexplored botanically (Thorne, 1954). Examination of specimens from the herbaria of the Davenport Public Museum, Iowa State College, and the State University of Iowa yielded a total of 675 species from the three counties. Specimens of the following numbers of species were found from the individual counties:

Clinton County.....	231
Jackson County.....	142
Jones County.....	560

The collections from Jones County were mainly those of R. G. Brown who reported (Brown, 1949) finding 492 species in the Jones County flora. Other collectors in the area included C. R. Ball, J. E. Cameron, L. H. Pammel, and B. Shimek.

Between August, 1955, and September, 1957, the author traveled approximately 10,000 miles in the tri-county area and made 4,291 numbered collections. These proved, upon identification, to include 943 species and 7 presumed hybrids. Considering both herbarium specimens and the new collections, the total number of species collected from this area is now 998, 830 of which are believed to be indigenous, 168 naturalized. The new totals for the individual counties are these:

Clinton County.....	736
Jackson County.....	734
Jones County.....	826

Eight species collected are believed to be additions to the known flora of Iowa. The name and collection data for each are listed below:

Carex plantaginea Lam., collected on a rich, rocky, wooded hillside at Maquoketa Caves State Park, NW $\frac{1}{4}$ Sec. 6, South Fork Twp. (T-84N, R-1E), Jackson County; nos. 711 and 903.

¹During the final year of this study, the author was the recipient of a pre-doctoral fellowship awarded by the National Science Foundation. The author is also grateful for funds from the National Science Foundation and from the State University of Iowa's Old Gold Fund which helped defray travel and other expenses.

Carex retroflexa Muhl., collected in wet sand along a small, rocky stream bordered by a wooded hillside, SE $\frac{1}{4}$ Sec. 2, Castle Grove Twp. (T-86N, R-4W), Jones County; no. 1662; and again on an open, sandy, hilltop prairie, SW $\frac{1}{4}$ Sec. 28, Richland Twp. (T-86N, R-2W), Jones County; no. 3984.

Coreopsis grandiflora Hogg, presumably an escape, collected on an open, sandy roadside, two miles north of Sabula, Jackson County; no. 1556.

Helenium amarum H. Rock (*H. tenuifolium* Nutt.), probably adventive, collected on a wide, sandy, mowed bank along Highway 151, NE $\frac{1}{4}$ Sec. 30, Wayne Twp. (T-85N, R-3W), Jones County; no. 680.

Hudsonia tomentosa Nutt., collected on disturbed sand dunes along Mississippi River, NE $\frac{1}{4}$ Sec. 1, Bellvue Twp. (T-86N, R-4E), Jackson County; no. 1983.

Krigia virginica (L.) Willd., collected from the same station as *Hudsonia tomentosa*; no. 1529.

Silphium terebinthinaceum Jacq., probably adventive, collected along railroad tracks at the base of a calcareous, wooded hillside along the Mississippi River, Sec. 29, Union Twp. (T-84N, R-7E), Jackson County; no. 2607.

Veronica officinalis L., possibly adventive, collected from a mat of this species growing along a creek bank in a pastured field, NW $\frac{1}{4}$ Sec. 6, Waterford Twp. (T-83N, R-4E), Clinton County; no. 3833.

In addition, new stations were found for several species which are extremely rare in the Iowa flora. These include: *Osmunda regalis* L., *Carex careyana* Torr., *Carex frankii* Kunth, *Cypripedium reginae* Walt., *Luzula campestris* (L.) DC., *Adoxa moschatellina* L., *Cristatella jamesii* T. & G., *Lechea villosa* Ell., *Proserpinaca palustris* L., *Corydalis aurea* Willd., *Phlox bifida* Beck, *Aconitum noveboracense* Gray, *Hydrastis canadensis* L., *Potentilla fruticosa* L., *Gerardia gattingeri* Small, *Veronica scutellata* L., and *Veronica serpyllifolia* L.

A variety of botanically interesting habitats was found in these counties. The topography is largely that of a drift plain, most of which has been deeply dissected, but with some areas of younger, undissected drift also present. Due mainly to its steepness, 45 per cent of the 1,900 square miles is not in cropland. Hundreds of acres of deciduous forest are found on the steep hillsides and on the floodplains along the major rivers. The forested land in the three state parks, Bellvue, Maquoketa Caves, and Wapsipinicon, is particularly valuable botanically because it is ungrazed. The abundant exposures

of dolomite, eroded locally along the Maquoketa River and its tributaries into precipitous ledges 150 feet in height, support a vigorous rock flora. Habitats for marsh and aquatic plants are found in poorly drained areas of Iowan glacial drift, and in meander scars, ox-bow lakes, and low places in the floodplains of the major rivers. Along the Mississippi and Wapsipinicon Rivers, open fields of sand support a distinctive flora. Prairie species are found in remnants of prairie along railroad tracks, at quarries, and on open bluffs. Disturbed ground supports a ubiquitous flora of weeds.

Listed below are the largest families and genera found in the area with the number of species in each.

Families:

Compositae	135	Cruciferae	33
Gramineae	107	Scrophulariaceae	32
Cyperaceae	76	Labiatae	31
Leguminosae	42	Ranunculaceae	28
Rosaceae	40	Polygonaceae	25

Genera:

Carex	52	Viola	11
Aster	20	Salix	10
Polygonum	17	Asclepias	9
Euphorbia	11	Cyperus	9
Solidago	11	Panicum	9

Literature Cited

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