



Lakeside daisy (*Actinea herbacea*)

Chicago's Rare Wildflowers

by Floyd Swink

How many species of flowering plants (native and introduced) are to be found in the Chicago area? Well over 2,000. A good number of these are rare and localized, a fact that is in part explained by the variety of dissimilar geographic or geologic features within a relatively small area: the proximity of a great body of fresh water, high sand dunes along Lake Michigan, regions of rich corn-belt soil, sandy soils (as in the Kankakee River valley), and the occurrence of Niagaran dolomitic limestone near (or even at) the earth's surface.

Add to this the great modification of this area by man, and the impact of a very dense concentration of human population, it is easier to understand that many of these plant species have become even rarer.

"Rarity" of a species is used here only with respect to local occurrence, as most of the species under discussion are not so rare in other parts of their distribution range. The twelve species treated here are, of course, only a small sampling of the rarities eligible for discussion, but have been selected because of their exceptional beauty or for some other special attribute.

Lakeside daisy, or four-nerved starflower (*Actinea herbacea*). This attractive yellow-flowered member of the composite family blooms in spring, and is found in gravelly soils. It is known from only four places in the world—Mason County, Ill.; the shores of Lake Erie, near Sandusky, Ohio; Manitoulin Island, Ont. (in Lake Huron); and the area of our local interest: the village of Rockdale, near Joliet, in Will County, Ill. There are good-sized colonies of the flower in Rockdale, but they occur on industrial property very close to actual industry. Its associates there include beach wormwood (*Artemisia caudata*), sand coreopsis (*Coreopsis lanceolata*), shooting star (*Dodecatheon meadia*), purple coneflower (*Echinacea pallida*), false pennyroyal (*Isanthus brachiatus*), fringed puccoon (*Lithospermum incisum*), marbleseed (*Onosmodium hispidissimum*), scurfy pea (*Psoralea tenuiflora*), and hoary vervain (*Verbena stricta*). Some botanists place *Actinea* in the genus *Hymenoxys*.

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Orange-fringed orchid (*Habenaria ciliaris*). This is certainly one of America's most beautiful wildflowers, whose blossoms show curious resemblance to witches' heads. It still occurs in good numbers at the Pinhook Bog in La Porte County, Ind. Formerly, it occurred in the Goose Lake area of Porter County, Ind., until that area was taken over by industry. Probably the only existing Illinois locality today is in one of the Cook County forest preserves, where a number of plants still persist very close to a well-traveled interstate highway. Here the plants associate with rattlesnake master (*Eryngium yuccifolium*), alum root (*Heuchera richardsonii grayana*), wild quinine (*Parthenium integrifolium*), chokeberry (*Pyrus melanocarpa*), and prairie cord grass (*Spartina pectinata*).

Mead's milkweed (*Asclepias meadii*). This is one of our country's rarest plants. Only two localities were ever known in the Chicago area. One was at Crown Point, Ind., where it was collected by a Mr. Brannon in July, 1888. The other was a fairly recent discovery, made by William Rommel, in 1966, near Palatine, in Cook County. Unfortunately, this colony has recently been destroyed. Associates there include wild onion (*Allium canadense*), thimbleweed (*Anemone cylindrica*), smooth blue aster (*Aster laevis*), pasture thistle (*Cirsium discolor*), wild sunflower (*Helianthus maximiliani*), hoary puccoon (*Lithospermum canescens*), purple prairie clover (*Petalostemum purpureum*), Seneca snakeroot (*Polygala senega*), blue-eyed grass (*Sisyrinchium albidum*), stiff goldenrod (*Solidago rigida*), Indian grass (*Sorghastrum nutans*), prairie dropseed (*Sporobolus heterolepis*), and porcupine grass (*Stipa spartea*).

Milk vetch (*Astragalus neglectus*). This is our rarest species of milk vetch, and was thought for many years to be extinct in this area. Norman Fassett, of the University of Wisconsin, recorded that it had been collected at Barnes Prairie near Racine, Wis., in 1880 and 1881 by J. J. Davis, and that by 1934 the prairie had been destroyed and placed under cultivation. This was our only local record until 1971, when Ray Schulenberg and Catherine Ciolac of the Morton Arboretum discovered another locality for this rare plant near Somers in Kenosha County, Wis. Confirmation of the identification was made by Duane Isely of Iowa State University.

Dragon's mouth (*Arethusa bulbosa*). This beautiful orchid is now extinct in the Chicago area, but it still frequently occurs in the boggy areas of our northern states and Canada. It formerly grew in several areas near Gary, Ind. Perhaps the last observation of this plant in that state was recorded by Edwin Hull, writing in 1935 in the *American Botanist* (Vol. 41, p. 29):

In 1933 several specimens were found in a bog at New Chicago . . . in 1934 this number had dwindled to two, and these were in a rather poor condition though flowering, growing in pure Sphagnum, and in the shade of Poison Sumac. It seems worthwhile to make a record of this orchid, since the two mentioned are probably the last specimens in the Indiana dune region, and possibly for the entire state.



Orange-fringed orchid (*Habenaria ciliaris*)

Buffalo berry (*Shepherdia canadensis*). Locally, this is one of our rarest shrubs, although it becomes common farther north. Perhaps only one specimen survives in all of Indiana, near Clark Road in Gary. Only a few plants survive near the lake Michigan beach at Glencoe, Ill., and in nearby Highland Park. Contrasting with this rarity, substantial numbers occur on Chicago's periphery, near Crestview, in Racine County, Wis. There it is found on calcareous clay bluffs, growing with spreading dogbane (*Apocynum androsaemifolium*), paper birch (*Betula papyrifera*), climbing bittersweet (*Celastrus scandens*), round-leaved dogwood (*Cornus rugosa*), stiff gentian (*Gentiana quinquefolia occidentalis*), witch-hazel (*Hamamelis virginiana*), red honeysuckle (*Lonicera dioica*), Canada mayflower (*Maianthemum canadense interius*), hop hornbeam (*Ostrya virginiana*), wood betony (*Pedicularis canadensis*), and basswood (*Tilia americana*).

Fame Flower (*Talinum rugospermum*). This pretty member of the purslane family is exceedingly rare here. For years, only two localities were known, both in Lake County, Ind., in parts of what is now Gary. These localities were known about 100 years ago; but both localities are now extinct. Then, in August 29, 1962, Richard Wason discovered this species in a Cook County forest preserve. It prefers a sandy soil, and some of its original Gary associates were little bluestem grass (*Andropogon scoparius*), three-awn grass (*Aristida tuberculosa*), butterfly weed (*Asclepias tuberosa*), sand coreopsis (*Coreopsis lanceolata*), flowering spurge (*Euphorbia corollata*), rockrose (*Helianthemum canadense*), June grass (*Koeleria cristata*), fall witch grass (*Leptoloma cognatum*), rough blazing star (*Liatris aspera*), horse mint (*Monarda punctata villicaulis*), sand primrose (*Oenothera rhombipetala*), prickly pear cactus (*Opuntia humifusa*), sand club moss (*Selaginella rupestris*), and hoary pea (*Tephrosia virginiana*).

Thismia americana. Unquestionably one of the most remarkable plants of the American flora, this species occurred



Dragon's mouth (*Arethusa bulbosa*)

only at Chicago (near Lake Calumet), and nowhere else in the world. It has not been seen alive in more than sixty years, and is now certainly extinct. By the use of a map supplied by Norma Pfeiffer, the plant's discoverer, I was able to discover the old habitat, and found that *Selaginella apoda* and most of the other associates mentioned by Pfeiffer (*Bot.*

Gaz. 57:124, 1914) were still present.

For a number of years the area was searched for *Thismia*, but without success. Unfortunately, the land has been usurped by industry. To make the story even more fascinating, this interesting plant of the Burmannia family has as its closest relative a species that occurs only in New Zealand and Tasmania.

Kankakee mallow (*Iliamna remota*). The only place in the world where this species occurs as a native plant is on Altorf Island in the Kankakee River in Kankakee County. Other populations, such as the one in Elkhart County, Ind. were introduced by man. The closely related *Iliamna corei*, which occurs on Peters Mountain in Virginia, may actually be a variation of *I. remota*. At any rate, this population occurs naturally nowhere else in the world. The phytogeographic implications of these two disjunct species are of profound interest. Altorf Island has been badly abused by farming and grazing, but a goodly number of *Iliamna* plants continue to survive there. Earl Sherff has written interestingly about *Iliamna* in *Rhodora* (Vol. 48, p. 89, 1946).

Leafy prairie clover (*Petalostemum foliosum*). Until quite recently, this species was thought to be locally extinct. It had originally occurred in four northeastern Illinois counties, as well as in areas near Nashville, Tenn., and Russellville, Ala. Robert Betz, of Northeastern Illinois and a Research Associate at Field Museum, obtained information on the Tennessee population from Elsie Quarterman of Vanderbilt University, and was able to observe the plants in their native habitat. Then, last August, came the remarkable rediscovery of our local plants by Gerould Wilhelm of the Morton Arboretum, near Lockport in Will County.

Corn salad (*Valerianella chenopodifolia*). Tens of thousands of these plants occur along Trail Creek south of U.S. 20 near Michigan City in La Porte County, Ind. They were originally reported by Earl Sherff in *Rhodora* (Vol. 48, p. 96, 1946) where he stated that one stand of them covering more than a quarter of an acre was so dense that it resembled a field of buckwheat in bloom. In spite of all this abundance, the plant is to be found hardly anywhere else in the Chicago region.

Death camas (*Zigadenus glaucus*). This

species occurs locally in Berrien County, Mich.—the Michigan county closest to Chicago. In the nearer Chicago area it is only found at one locality in La Porte County, Ind., and at one locality near Elgin, in Kane County, Ill. The latter colony is in special jeopardy, as it is sandwiched between a railroad track and the Fox River, in a very narrow area. This is a species of calcareous springy places, and its associates include swamp thistle (*Cirsium muticum*), cotton grass (*Eri-*

phorum angustifolium), Joe Pye weed (*Eupatorium maculatum*), boneset (*Eupatorium perfoliatum*), gay feather (*Liatris spicata*), narrow-leaved loosestrife (*Lysimachia quadriflora*), -winged loosestrife (*Lythrum alatum*), grass of Parnassus (*Parnassia glauca*), shrubby cinquefoil (*Potentilla fruticosa*), Ohio goldenrod (*Solidago ohioensis*), swamp goldenrod (*Solidago patula*), Riddell's goldenrod (*Solidago riddellii*), and valerian (*Valeriana ciliata*). □



Kankakee mallow (*Iliamna remota*)



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