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Thismia americana
A mystery that still haunts —
and helps — the Calumet region

Many have tried to find the elusive buried treasure of the Calumet prairies: a strange and tiny flowering plant called *Thismia americana*. The sole plant found nowhere outside of Chicago Wilderness, it hasn't been seen since 1916.



Photo of preserved specimen by Keith Wilson.

Thismia americana was a mystery right from its discovery. Instead of drawing energy from the sun, *Thismia* fed on fungi that grew in its roots, spending much of the year underground. In midsummer, a tiny tube-like flower pushed upward an inch or so, and only the upper quarter actually emerged from the soil. Its three petals remained linked at the top of the tube, leaving arch-like entries for small insects to pollinate. Lacking chlorophyll, the entire plant was smooth and translucent white, with hints of pale blue-green stripes that deepened at the tip of the flower. By September, the blossoms seeded and withered, and the plant disappeared underground for another year.

With its hidden life-history, it's a wonder *Thismia* was discovered at all. In 1912, Norma Pfeiffer, a graduate student at the University of Chicago, was visiting a low, wet prairie near Torrence Avenue in Chicago to collect plants to show her students. She saw the tiny pearl of a *Thismia* flower in moist soil shaded by goldenrod, swamp milkweed, irises, and black-eyed Susans. She

brought back a specimen, which stumped the university botany faculty, so Pfeiffer wrote her dissertation on the little plant, becoming the school's youngest Ph.D. in 1914.

She collected specimens for five seasons, linking the little flower to a family of non-chlorophyllic plants from rainforests of the Southern Hemisphere. *Thismia*'s nearest relative, the fairy lantern, grows only in Australia, New Zealand, and Tasmania; but *Thismia americana* has never been found outside the Calumet area. How such an isolated population arrived here remains a mystery.

No one has seen a living *Thismia americana* since 1916. In 1949, from her post at a plant research institute in New York, Pfeiffer sent Field Museum botanist Julian Steiermark a map, but his subsequent search with six eminent colleagues amongst the mosses and goldenrod around Lake Calumet was unsuccessful. The original site of Pfeiffer's discovery was developed some years later, and is now covered by fill.

In the early 1990s, ecologists George Johnson and Linda Masters called out the botanical equivalent of a posse for four summers running. After identifying 22 likely sites near the original prairie, they sent volunteers searching for a plant most of them had never seen. They prepared by scrutinizing a ghostly photograph of a specimen, ethereal and translucent — the Shroud of Turin of a vanished flower. They held clay models created by the staff artist at the Morton Arboretum. And they handled small beads, pea-sized and white to imitate *Thismia* blossoms, which were then scattered on four sites to test the likelihood that even a careful search would uncover the small flowers.



Illustration by Mark Mohlenbrock.

Though in just that first weekend volunteers catalogued 17 species not previously known to the Calumet area — helping to build consensus in opposition to a proposed Calumet airport — they found no *Thismia* at all. Intriguingly, they also found no beads, until a few volunteers were told exactly where to look. Even then, many of the beads remained lost.

The possibility of *Thismia*'s discovery also added an undertone of excitement to the Calumet BioBlitz in 2002 (CW, Fall '02), as 150 scientists combed the area feverishly to catalogue species. Others have searched, alone and in groups, but none have succeeded.

Still, by their very existence, *Thismia* and thousands of other rare species here have inspired the public to preserve critical pockets of biological richness in one of the Midwest's most intriguing places. Organizations ranging from The Field Museum to the Wolf Lake Initiative hold Calumet workdays, events, and meetings to promote the restoration of key areas. The City of Chicago plans to preserve parts of the Calumet area as an ecological sanctuary. And this year, a pair of bald eagles, a sight absent from the region for even longer than *Thismia*, attempted to nest here.

Masters still holds out hope that *Thismia* may survive in an isolated colony: "I like to think *Thismia americana* is still out there."

— *Ryan Chew*
