Eugene C. Ogden, State Botanist Emeritus (1905 – 2001)

by John Haines, Larry Syzdek, et al.

Eugene Cecil Ogden, State Botanist, Emeritus, of the New York State Museum in Albany, passed away June 30th at his home in Delmar, after battles with cancer that lasted nearly 30 years. Dr. Ogden was a Michigan native who received a B.S. degree from Michigan State University, an M.S. from the University of Maine, and a Harvard Ph.D., where he studied with M. L. Fernald.

He held the position of State Botanist of New York from 1952 to 1975, when he reached the (then) compulsory retirement age of 70. He was third in a continuous succession of only four scientists to hold that title since 1868. His principle research interests were allergenic pollen and aquatic plants. In the 1940s, his work on pondweeds (Potamogeton) was the first to feature random-access keys in botany, important, modern devices now widely used in computer-assisted identification. Before coming to New York, he taught at the University of Maine, Orono, and worked for the U.S. Department of Agriculture Plant Introduction Bureau, searching for pharmaceutically useful plants in Mexico.

Starting in 1957, backed by federal grants, he formed a partnership with Brookhaven National Laboratory on Long Island and combined weather and botany to study the release and airborne travels of ragweed pollen, perhaps the major cause of airborne allergy in eastern North America. He was an inventor, devising new pollen sampling devices and trailer-mounted, mobile towers to measure airborne particles in the high Adirondacks. In the 1960s, he could be seen, with his team of technicians, sampling ragweed pollen in the middle of Broadway in downtown Saratoga Springs. He even tested the feasibility of totally eradicating the common ragweed (Ambrosia artemesiifolia) from a city, using Saratoga a test case, but it wasn't possible. His research was the starting point for studies by many scientific groups interested in allergens and air sampling.

After officially retiring, he continued his pondweed studies (Potamogeton), and became quite interested in ferns. Renewing his interest in random-access keys, he again became an innovator, writing
books that included computerized plant identification programs. Some of his better-known works in botany were published after his retirement.

Eugene Ogden was an innovative, enthusiastic, exacting scientist, who loved the woods and lakes of the northeast. His breadth of scope allowed him to excel in several fields of endeavor, and he has left New York and the field of botany many gifts.

Thoughts About my Predecessors:
by Richard S. Mitchell

By two extreme strokes of luck, I had wonderful predecessors in both botanical positions that I've been privileged to hold, and I got to know them well.

When I went to Virginia Tech as a rookie professor, in 1967, I was warned that "mean-old Doc. Massey," then 86, had managed to chase away the two plant taxonomists that had so-far come to replace him. Of course, that turned out to be just an amusing rumor, since they really left for different reasons.

A. B. Massey didn't let me off without a test or two, though. September, 1967: into my dendrology class he strides, unannounced, dragging a woody branch of something he was sure a wet-behind-the-ears, California botanist wouldn't know. "Groundsel tree, Baccharis halamifolia!" I blurted, in relief. "Hey, you tree-guys come up and look at the woody aster Dr. Massey brought us from where... the coast... right? I closed my eyes and said a little prayer of thanks that he hadn't brought me some odd hickory from the campus (which I probably wouldn't have known at the time).

"Hmmph," he said. "Well, ol' Mitchell, I guess I forgot you were down in Florida for a while." We became very good friends after that. He and his wife, Violet, would come over, and he'd let my two young sons sit on his knee, picking old stamps from his album as gifts.

When I came to New York, people warned: "If you want to meet your predecessor, Eugene Ogden, you'd better hurry. He's had operations for two kinds of cancer, and he's 70 years old. They had misjudged the man's courage and endurance by a mere quarter century. What I found, when I met him, was an articulate, energetic gentleman with a sharp wit and a fierce determination to enjoy his retirement, while continuing to contribute significantly to his beloved field of botany.

At a time when personal computers were in their infancy – on the verge of bringing world-changing technology, he decided to renew an old interest in random-access keys, the word-devices he employed as early as 1940 to treat the taxonomic miasma called the narrow-leaf pondweeds (Potamogeton). He and his son, Everett, a young computer expert, devised what might be called a fern-identification "computer," consisting of a wooden box, about the size of a telephone book, with rows of buttons and lights.

I remind you that this was in 1977, two years before I would bring the first PC into the surveys. In the presence of "Ogden's Magic Box," you merely looked at a fern, chose any obvious characteristic, like the number of pinnae, and punched the button for that feature. A number of little bulbs would flash on. Then, as you continued to make choices, some of them would go out, until one was left burning, revealing the genus of the fern. I was amazed.

Because so few people had a personal computers at the time, Dr. Ogden decided to combine his knowledge of ferns and random-accesss keys to produce a book (Ogden, 1981), which I had the pleasure of editing and supervising the illustrations. In fact, that's how I learned many northern ferns. That illustrated fern book for the Northeast became so popular that it has long been out of print.

Later, we wrote a book together, treating all the northeastern plants with pulpy or juicy fruits that might be eaten as food or poisonous to humans, wildlife or livestock (Ogden & Mitchell, 1990). The publication included an early floppy disk with a computer-driven, random-access key to genera, and has been used by emergency rooms, such as the Nyack, NY, Poison Center, for many years.

I clearly remember a few choice winter days, when I visited Dr. Ogden to work on the book, while consulting his scholarly personal library. We would start up the fireplace and, later, have coffee, soup and figs when we got tired, half way through the long day. It was a truly Victorian experience, including lively discussions, sometimes consisting more of Latin and Greek binomials than English. He would speak of the Ficus carica on his plate, and remind me that he never ate those after dining on any cultivar of Brassica oleracea. I never thought to ask why.

If he planned to visit the museum, he would usually call ahead, but one day he just walked in, wearing a beanie – its propeller driven by a battery pack on his belt. The spinner was actually an ingenious air-sampler that he had invented to count pollen, mold spores, or even asbestos particles in schools – and the beauty of it was that you could operate it "hands-free." He said, "I used to have to hire two or three boys to carry those old, 50 lb.
battery packs for me when we sampled… like the time we climbed Mount Katahdin up in Maine…”

The Josselyn Botanical Society of Maine has been around for a very long time. Long enough for Gene Ogden's major professor, Merritt Lyndon Fernald, of *Gray's Manual* fame, to have been trekking around with the club over a century ago, when he was in his early 20s. At that time, Fernald collected and named one of the late meadow-rues, *Thalictrum confine*, which I was studying in detail in 1987. I wanted to see it in the wild and mass-collect the fruits, so I jumped at a chance to travel to Maine and give a lecture to the Josselyn Society. I quickly called and asked Dr. Ogden if he wanted to ride up with me. He readily agreed, but, as I put down the phone, I thought… how shall I put this… he was losing his hearing, he had a very robust voice, and my car was the smallest Colt they ever made. Oh, no…

As it turned out, there was no need for the slightest concern. Once across the state line into New England, he settled into the much more easy-going side of his personality associated with his middle name, Cecil. Wherever we went, people embraced him and called him "Cecil." He was a great travelling companion, who spoke in moderate tones and did me the huge favor of guiding us to the homes of well-known New England botanists for visits. So, I had the privilege of meeting some great people (Neil Hotchkiss, for instance) whom I would never have met otherwise. We walked in moose tracks, saw round-leaf orchis and explored the Aroostook River with Martin Rassmussen, where I found the meadow rue at Fernald's type-location. Standing on the riverbank, I realized the species had been named from the top of one plant and the bottom of another. All in all, it was one of the best trips I've ever taken.

Eugene Ogden was a fine botanist, aerobiologist and an extraordinary man, who will be missed by many, especially me. He had a sharp intelligence and passion for science that lasted into his final days, when we would still engage in joyous, heated debates over obscure botanical details. (July 2, 2001)

**Literature Cited:**


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**Hydrangeas Gone Wild:**

**An Adventure in Plant Identification and Nomenclature -**

by Warren F. Broderick, NY State Archives

The unusual native and introduced flora of historic Oakwood Cemetery, in Rensselaer County, has been discussed in previous NYFA newsletters. Established in 1849, and situated just to the east of Lansingburgh, on the escarpment overlooking the Hudson River Valley, Oakwood is one of the more botanically

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**Hydrangea arborescens** L. WILD HYDRANGEA, SEVEN-BARK

*H. arborescens* var. *oblonga* Torrey & Gray; forma *sterilis* (Torrey & Gray) St. John

**Rarity Status:** State Listed Endangered

偶尔栽培，特别是那种具有许多无花的花序形式，称为*forma sterilis*，或Cv. "Annabelle"在园艺贸易中；这种根干被用作药用植物如利尿剂，被用作强化剂，当被作为药用植物使用时。

这种灌木或小乔木生长在峡谷、峡谷和陡坡，常在岩石斜坡上和沿山顶在凉爽避风的山林中；稀有：集中分布于纽约州南中部（东南部提奥加，南部谢明和斯泰布恩县）的两个出没人群在中央和西部纽约，以及一个在哈德逊高地州立公园（波特兰县）的种群；逸生植物的这种形式有时会与类似的*M. cinerea* cultivar混淆。H. *cinerea*，一种紧密相关的物种（见第8页）。

**Key Habitats:** FORESTED UPLANDS; TERRESTRIAL DISTURBED.

[Abstracted from R. Mitchell's upcoming compendium of NY plants]
diverse localities in Rensselaer County. Within the cemetery boundaries are grassy exposed rocky ridges with prairie-like conditions, deep shale ravines cut by falling streams and bordered by steep cliffs, and rich natural forest communities. The Rensselaer-Taconic Land Conservancy has been involved in studying Oakwood's unusual and diverse flora, and a comprehensive report on this subject is under preparation.

The cemetery contains some apparently disjunct populations of more western and southern species than are generally found in this part of the state, several of which are at the eastern or northern limits of their natural ranges. A number of state-listed rare plants are found there. In addition, in the century and a half since ornamentals were first planted in the landscaped, rural cemetery, a number of unusual garden escapes have become naturalized in both lawns and wild areas, including some not previously known outside cultivation in the state. Because of great botanical diversity at Oakwood, it is unclear whether some of the unusual native plants found in natural areas are indeed native, or have spread by seed from planted specimens in the developed parts of the cemetery.

A few years ago Bob Ingalls and I discovered a few plants of an unusual hydrangea growing deep in a shale ravine. The location closely resembles the habitat where *H. arborescens* is found naturally in the Southern Tier of New York counties, but the hydrangea we discovered had large flowering heads with a number of sterile florets, and different leaves than the species native to New York.

The leaves of the plants we observed were large and distinctly gray and pubescent on the undersides, not pale green and smooth, as with *H. arborescens*. At the same time, these plants did not display large heads of fully sterile florets found in the popular cultivar known as "grandiflora." Soon thereafter, I discovered another unusual hydrangea escaped in a woodland behind cemetery lots at another location. The flowering heads of these plants more closely resembled those of the typical species, with mostly fertile florets, but, again, their leaves displayed pubescent, gray undersides.

A brief foray into standard botanical and horticultural literature did not solve the mystery, but revealed a dizzying inconsistency of nomenclature for *H. arborescens*, both in the wild and in cultivation. Fortunately research conducted by Elizabeth McClintock of the California Academy of Sciences (1957) and Ronald Pilatowski of North Carolina State University (1980) has led to revision of *Hydrangea* nomenclature that has now been accepted by Kartesz (1994.) The following brief synopsis of the history and taxonomy of North American *Hydrangea* will hopefully help us to sort though the confusing nomenclature and lead to a revised treatment of the genus *Hydrangea* for New York.

According to McClintock (1957), *Hydrangea arborescens* was first collected in the Southeast in 1736 by P. Collinson and named three years later by Gronovius, based on a plant collected at the same site by John Clayton. Philip Miller stated in 1768 that *Hydrangea arborescens* (with mostly small, fertile florets) was "now preserved in gardens for the sake of its variety more than its beauty." For some time thereafter, horticulturists became more interested in the showier hydrangeas being collected in Asia and newly introduced into cultivation.

In North America, *Hydrangea arborescens* is found growing in the wild from the Southern Tier of New York State southwestward in the Appalachians, in Alabama and Mississippi, and throughout the Midwest, as far west as Arkansas and Missouri. Typical *H. arborescens* is found throughout this area, but distinct and showy, less fertile individuals have been discovered in more confined parts of this range.

While typical *H. arborescens* has leaves with light green and generally glabrous undersides, plants have been found in all but the northeastern portions of its range that had leaves with grayish undersides and notable pubescence. These plants were named *H. arborescens* var. discolor Seringe (1830), *H. cinerea* Small (1898), *H. arborescens* var. deamii St. John (1921), and *H. arborescens* ssp. discolor (Seringe) McClintock (1956). *Hydrangea cinerea* Small is now the more widely-accepted name.

Yet another variety, bearing leaves with conspicuously white felt-like undersides, was found in a far more limited area in the southern Blue Ridge mountains. This was named *H. radiata* Walter (1788), *H. nivea* Michaux (1803) and later *H. arborescens* ssp. radiata (Walt.) McClintock (1956). *Hydrangea radiata* Walter is now its more widely-accepted name. Further complicating matters, plants with narrower leaves were once referred to as *H. arborescens* var. oblonga Torr. & Gray, but that name is now considered a synonym of typical *H. arborescens* L.

McClintock (1957) described three subspecies of *Hydrangea arborescens*: typical ssp. *arborescens*, ssp. discolor and ssp. *radiata*. Then, Pilatowski
(1980) conducted very precise genetic and taxonomic research, leading to the conclusion that these comprise three distinct species: *H. arborescens*, *H. cinerea* and *H. radiata*. Pilatowski's nomenclature is currently the accepted standard, with *Hydrangea arborescens* the only species found naturally in the wild in New York State. The story does not end here.

The origin, identification and nomenclature of hydrangeas that have escaped from gardens is equally confusing, so an explanation is in order. Because their flower clusters are not particularly showy, the three closely related native *Hydrangea* species described above were not popular in American horticulture for many years, until forms with large heads and many sterile florets were found in the wild about 1900.

E.G. Hill discovered a very showy form of *H. cinerea* in Ohio which was soon introduced to cultivation and became popular. It has been referred to *H. arborescens* forma *grandiflora* (E.G. Hill) Rehder, and sometimes *H. arborescens* Cv. "grandiflora." Given its natural origin, and leaves that exhibit distinctly gray-pubescent undersides, it should be called *Hydrangea cinerea* Small forma *grandiflora* (E.G. Hill) Rehder. Spreading relatively easily by seed and stolons, this showy form has apparently escaped into woodlands from both cemetery lots and abandoned gardens.

This form also sometimes reverts back to the appearance of the typical *H. cinerea*, with a few marginal sterile florets, as documented by some Oakwood Cemetery specimens. The plants found in a shale ravine appear to be intermediate between true forma *grandiflora* and its native parent.

Curiously, another showy form of a native hydrangea, "found" about 1900 near Anna, Illinois and was named *H. arborescens* Cv. "Annabelle." Its resemblance to the *H. cinerea* forma *grandiflora* is superficial, since it has smaller florets and smaller leaves, with glabrous light green undersides. Detailed descriptions of these two plants are found in Mallet (1992) and Lawson-Hall & Rothera (1995.) The Illinois plant is clearly a form of *H. arborescens* rather than *H. cinerea*, and seems to correspond to a taxon described in some literature (Rehder 1940, Fernald 1957) as *H. arborescens* var. *oblonga* Torrey & Gray forma *sterilis* (Torrey & Gray) St. John. The variety *oblonga* is no longer recognized; therefore, the better name for this plant, when found in the wild, would be *H. arborescens* forma *sterilis* (Torrey & Gray) St. John, rather than *H. arborescens* Cv. "Annabelle," a name that might suggest horticultural origin.

*Hydrangea quercifolia* Bartr. a species that is unlikely to be found in New York State, is easily distinguished by its large, lobed leaves, long-panicled flower heads and often exfoliating bark. Native to the deep south, *H. quercifolia* is only borderline hardy in New York, and probably not vigorous enough to survive in the wild. Likewise, *H. macrophylla* and many other cultivated Oriental hydrangeas would not be hardy.
"grandiflora," introduced by von Siebold in 1867. Its showy, pyramidal panicles bloom later than \( H. \) arborescens, and its close relatives, begin flowering in late July. The large heads of white, sterile, showy flowers fade to greenish-rose; this immensely popular cultivar became known as the "Pee-Gee" Hydrangea. It is easily distinguished from the \( H. \) arborescens group by the conical flower heads and smaller, ovate leaves.

Less known in gardens are other \( H. \) paniculata cultivars, notably \( H. \) paniculata Cv. "floribunda," with its large, impressive, conical flower heads, which contain a larger proportion of fertile florets than "grandiflora." This shrub is less compact and has a looser, more graceful appearance than the better-known Cv. "grandiflora." Both are quite hardy in New York State and both occasionally escape from gardens. In Oakwood Cemetery, some impressive specimens of \( H. \) paniculata Cv. "floribunda" have colonized a patch of Appalachian oak-hickory forest.

The following diagnostic list should help the reader distinguish between various hydrangeas that might possibly be encountered in the wild in New York State:

1. \( Hydrangea \) arborescens L. var. arborescens
   - Cv. "Annabelle"
   Found as a native in shale ravines in the Southern Tier region only, and in general not known in cultivation. The lower leaf surface is light to medium green and glabrous, the flower heads contain mostly fertile florets, occasionally with a few sterile florets on the margins. It flowers in June and early July.

2. \( Hydrangea \) arborescens L.
   - forma sterilis (Torrey & Gray) St. John.
   = Cv. "Annabelle"
   If it exists in the wild in New York State, it would be as a garden escape. The leaves are smaller than \( H. \) cinerea forma grandiflora and light to medium green and glabrous. The plant typically seen in horticulture has large convex/hemispherical heads of mostly sterile florets. The sepals are smaller than those of \( H. \) cinerea forma grandiflora and are pale cream in bloom with fine gray lines, fading to pale green. It may exist as a garden escape in New York State, but I am not aware of a voucher specimen. It flowers in June and early July.

3. \( Hydrangea \) cinerea Small forma grandiflora (E.G. Hill) Rehder.
   Found only as a garden escape. The leaves are larger than those of \( H. \) arborescens, distinctly gray and pubescent on the undersides. The typical form as seen in horticulture has large flat/convex irregular heads of mostly sterile florets. The sepals are white to pale cream in bloom, fading to brown. As a garden escape, it may be seen with a lower percentage of sterile florets, occasionally with a very few marginal sterile florets, closely resembling the typical species found in its native range south and west of New York State. It flowers in June and early July.

4. \( Hydrangea \) paniculata Sieb. Cv. "grandiflora."
   It is found only as a garden escape. The leaves are smaller than \( H. \) arborescens or \( H. \) cinerea and are more pointed and oblong to elliptical in shape. The sepals are white to cream, fading to greenish-rose. The flower heads are large and conical-shaped with densely packed mostly sterile florets. It exists as a occasional garden escape in New York State. It flowers in late July and August.

5. \( Hydrangea \) paniculata Sieb. Cv. "floribunda."
   Found only as a garden escape. The leaves are smaller than \( H. \) cinerea forma grandiflora and are more pointed and oblong to elliptical in shape, longer and more tapering than its close relative \( Hydrangea \) paniculata Cv. "grandiflora." The sepals are white to cream, fading to greenish-rose. The flower heads are large and elongated conical panicles with a number of fertile as well as sterile florets. It is a larger shrub of less compact growth than \( H. \) paniculata Cv. "grandiflora." It exists as a occasional garden escape in New York State. It flowers in August. This cultivar is pictured on page 275 of Vol. 2 of Gleason (1952) mistakenly illustrated as the typical Japanese species, which is not known in cultivation.

6. \( Hydrangea \) quercifolia Bartr.
   If it exists in the wild in New York State, it would be as a garden escape. It is distinguished by large, leathery lobed leaves and often by its exfoliating bark. The flowering heads consist of long, loose pyramidal panicles with creamy sepals, quickly fading to deep rose-brown. It is unlikely to be hardy in New York, and I am not aware of a vouchered occurrence outside cultivation. It flowers in August and September.

Proposed Revisions for the N. Y. Checklist:
\( Hydrangea \) arborescens L. WILD HYDRANGEA, SEVEN-BARK
\( \{ H. \) arborescens var. oblonga Torrey & Gray; forma sterilis (Torrey & Gray) St. John\]
Rarity Status: State: E TNC Rank: G5 S1
*\( Hydrangea \) cinerea Small HILLS-OF-SNOW, SNOWBALL BUSH. SNOWBALL HYDRANGEA; SEVEN-BARK
\( \{ H. \) arborescens ssp. discolor (Ser.) McClint.; var. discolor Ser.; var. deamii St. John; forma grandiflora (E.G. Hill) Rehd.; Cv. "grandiflora"\]
*\( Hydrangea \) paniculata Sieb. PEE- GEE HYDRANGEA
   (Represented in New York State only by garden
escapes of the cultivars "floribunda" and "grandiflora.")

**Literature Cited:**


The two previous Illustrations are from Holmgren, 1998

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**Do You Plan to Visit Lake Ontario Sites You Saw on the NYFA Website?**

If so, here is an important note from Sandy Bonanno of The Nature Conservancy:

It was a pleasure to share some of the special sites and species of eastern Lake Ontario coastal dunes and fens with NYFA members on the June 9 field trip. To wander so freely was a special privilege; some areas of these places are not generally accessible, to prevent undue disturbance to fragile habitats. Please, before entering the fens at Rainbow Shores Preserve seek written permission from me at The Nature Conservancy (315) 298-2040 ext. 22. The state dune site, Deer Creek Wildlife Management Area, is open to the public with no prior permission, but when visiting that site, please respect the string fencing that guides foot traffic through the site. Its placement is intended to prevent further accelerated erosion in that sand-starved environment. The sand cherry population also should not be visited without permission. Thank you for your cooperation,

*Sandy Bonanno*

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**ARTICLES WANTED**

I am seeking new or previous authors with interesting botanical information to share. All kinds of input will be appreciated, from the profound to the whimsical. Please don’t be shy. Send articles, letters and field experiences to me, preferably in MS Word™, via my email address, listed on the banner. (Editor)

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**Have You Visited our New NYFA Website?**

If not, try us at: [www.nyflora.org](http://www.nyflora.org)
**Hydrangea arborescens** L. *forma sterilis*  
(Torrey & Gray) St. John  
Often called Cv."Annabelle" in the horticultural trade, the showy form of a very rare New York native plant; this cultivar sometimes escapes from yards to open, disturbed sites, and is easily confused with the species to the right.  
(photos: Lawson-Hall & /Rothera *ibid.*)

**Hydrangea cinerea** Small  
Cv. "grandiflora,"  
A common cultivated plant; the showy form of a species native to the southern Appalachians, it sometimes escapes to open, disturbed places, but has also been found in Rensselaer County in a sheltered ravine, where it has mostly fertile flowers, simulating less showy, wild hydrangeas.