



Mitchelliana

New York Flora Association Newsletter Summer 2023

President’s Message: The last few months have been a whirlwind of field trips and workshops, spring blooms and tragic losses. As you will read later in this issue, we lost David Hunt, an incredible botanist and ecologist, in March. This was a tragic and consequential loss for David’s family, the State and its flora.

In a lighter vein, we’d like to thank you for signing up and attending the 36 field trips and workshops in 27 of the State’s counties. It takes a lot of effort by the Board and our amazing volunteer trip leaders to organize and run these events. We appreciate your support.

Our Annual Meeting will be on August 27 at Joralemon Park in Coeymans and we invite and encourage you to attend. Lastly, our Strategic Planning process is going full steam ahead and we expect a draft document in the Fall, so stay tuned, and remember, if you have any questions or comments regarding NYFA, contact me: nyfa@nyflora.org.

Dan Spada, NYFA President,

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New York Flora Association

Address: P.O. Box 122

Albany, NY 12201

Phone: (518)250-6054

Email: editor@nyflora.org

Website: www.nyflora.org

Zurich Bog Field Trip

by Rachel Schultz

On May 13, 2023 the NYFA sponsored a field trip to Zurich Bog, a wetland complex situated in the Town of Arcadia, Wayne County, New York. Rachel Schultz, a wetland ecologist at SUNY Brockport, and Jimmy Johnson, the caretaker of Zurich Bog, co-led the trip. This 650-acre preserve is owned and managed by the [Bergen Swamp Preservation Society](#), a non-profit organization dedicated to the conservation of wetland preserves in western New York State. Fifty years ago, in 1973, Zurich Bog was designated as a U.S. Department of the Interior National Natural History Landmark. The participants were eager to identify wildflowers and to investigate the soil characteristics associated with the various wetland communities at the site. We had gloriously sunny skies and warm weather, perfect for botanizing!

Zurich Bog is situated in the Erie-Ontario lowlands and is surrounded by two tall drumlins (elongated hills formed by glacial drift), which form a natural basin in which wetlands developed. It is known for its diversity of plant species, including some that are threatened or endangered, as well as boreal species typical to more northern climates and a variety of animal species, including rare reptiles and insects.

The open peatlands in Zurich Bog consist of both bogs and fens. Bogs are ombrotrophic, primarily fed by rainwater, while fens are supplied by groundwater. Bogs are nutrient-poor and acidic, while fens have a higher nutrient content and can be neutral to alkaline due to groundwater percolating through mineral bedrock such as limestone. Bogs receive naturally acidic rainwater with a pH of around 5.6. They are characterized by the dominance of sphagnum mosses, which release hydrogen ions (H⁺) through unique cellular structures. The moss absorbs water and takes up positively charged ions, including calcium and magnesium from the surrounding water, resulting in the release of hydrogen ions and the acidification of the bog’s water and soil. Optimal plant growth typically occurs around a pH of 6 to 7, which allows plants to access nutrients without exposure to the toxic conditions found in more acidic soils. When the pH falls below 5.5 or rises above 7.5, nutrient availability decreases, leading to reduced growth. In peatlands at these extreme pH levels, specialized plants have evolved adaptations to survive in such conditions.

The property is divided into three distinct zones based on substrate characteristics and hydrology: upland forest, open peatlands (bogs and fens), and forested swamps. The distribution of vegetation within Zurich Bog is closely tied to its varied hydrological conditions. Mixed hardwood and hemlock upland forests grow on the exposed drumlin island. A floating fen dominated by sedge species and other vegetation tolerant of mineral enriched saturated substrates and the sphagnum-dominated bog provide habitat for fantastic plant species adapted to acidic and nutrient-poor conditions, including the carnivorous purple pitcher plant (*Sarracenia purpurea*) and sundew (*Drosera* sp.). The

surrounding swamp areas support different vegetation assemblages, including those dominated by maple, white cedar, tamarack and black spruce.

During the field trip, we observed and documented plant communities in various habitats along with their soil conditions, as follows.

Stop 1 - Hardwood Swamp: This stop focused on a hardwood swamp habitat with mostly organic soil. The soil was dark brown and slightly gritty, and the organic material was largely broken down and hard to identify. The pH of the soil was approximately 6.2. Plant species observed in bloom at this stop included: Jack-in-the-pulpit (*Arisaema triphyllum*), marsh-marigold (*Caltha palustris*), spring-cress (*Cardamine bulbosa*), bladder sedge (*Carex intumescens*), goldthread (*Coptis trifolia*), wintergreen (*Gaultheria procumbens*), swamp avens (*Geum rivale*), spicebush (*Lindera benzoin*), swamp saxifrage (*Micranthes pensylvanica*), cursed buttercup (*Ranunculus sceleratus*), hooked buttercup (*Ranunculus recurvatus*), skunk currant (*Ribes glandulosum*), swamp dewberry (*Rubus hispidus*), common elderberry (*Sambucus nigra* ssp. *canadensis*), foamflower (*Tiarella cordifolia*), and starflower (*Lysimachia borealis*).



Path through the hardwood swamp (dominated by *Acer ×freemanii*) at Zurich Bog, east side of the drumlin island.

Stop 2 - Open Shrub Bog: At this stop, an open shrub bog habitat was examined. The substrate consisted of living and dead sphagnum moss, which was mostly still intact. The pH of the soil was approximately 3.6, which is strongly acidic. Plant

species found blooming on the edge of this habitat included: black chokeberry (*Aronia melanocarpa*), high-bush cranberry (*Vaccinium corymbosum*), and pink lady's slipper (*Cypripedium acaule*), while bog-rosemary (*Andromeda glaucophylla*) and southern twayblade (*Neottia bifolia*) were found in the bog itself.



Bog rosemary (*Andromeda glaucophylla*) in flower along the bog boardwalk.



Purple pitcher plant (*Sarracenia purpurea*) is found in both the bog and fen locations at Zurich Bog.

Stop 3 - Rich Fen Swamp: This stop focused on a rich fen swamp habitat with mostly organic soil. The soil was dark brown and slightly gritty, similar to the hardwood swamp. The pH of the soil was approximately 6.6. The plant species in flower observed in this habitat included red baneberry (*Actaea rubra*) and yellow lady's slipper (*Cypripedium parviflorum*).





Yellow lady's slipper (*Cypripedium parviflorum*) in the rich fen swamp.

Stop 4 – Rich Graminoid Fen: At this stop, a rich graminoid fen habitat was explored. Its substrate was characterized by a high level of organic matter in the form of roots and leaves mixed with mineral soil. The soil had a medium brown color, and the pH was approximately 6.9. Plant species blooming in this habitat included leatherleaf (*Chamaedaphne calyculata*) and sweet white violet (*Viola blanda*).

Additionally, several other plant species were

observed in different locations during the field trip. Moonseed (*Menispermum canadense*) was found along the trail by the entrance; wild sarsaparilla (*Aralia nudicaulis*), Canada mayflower (*Maianthemum canadense*), and sweet cicely (*Osmorhiza claytonii*) were discovered in the woods southeast of the fen; and Indian cucumber-root (*Medeola virginiana*), naked miterwort (*Mitella nuda*), hairy Solomon's seal (*Polygonatum pubescens*), and downy yellow-stemmed violet (*Viola pubescens*) were identified in the woods west of the bog.

Over the course of the five-hour field trip, we recorded thirty-four species in bloom. I then compared our list with one compiled in 2004 (Terlizzi 2004). We were able to add sixteen species to the original 159 species recorded. Furthermore, I reached out to Marie Terlizzi and she graciously shared her files with me on her Zurich Bog surveys. I am now looking for an opportunity to sponsor a student to revisit her original transects to conduct a comparison study. Zurich Bog is a true gem in NY State, and it was wonderful to explore the preserve with the very knowledgeable people who joined us.



Botanists on the rich graminoid fen floating mat (left to right): River Santina, Whitney Carleton, Raquel Mennella, Fred Haynes, Barbara Chase, Paul Brach's grandson, Paul Brach, Bruce Gilman, Jimmy Johnson, Anna Stalter, and Sue Johnson. Not pictured: Jennifer Meininger, Rachel Schultz, Krystal White, and Kathleen Wakefield.



Spring Wildflowers at John Burroughs Nature Sanctuary

by Andrew Leonardi

A group of 10 hikers met at John Burroughs Nature Sanctuary on Saturday May 13th. It was a beautiful day at about 78 degrees with full sun. John Burroughs Nature Sanctuary, in West Park, NY, has multiple habitat types and supports a wide array of plant species. The hike was approximately 1.5 miles long, which took around three hours thanks to the intense botanizing by the group!

The hike started off at the parking lot of the John Burroughs Nature Sanctuary where we travelled approximately 20 steps before finding a diverse array of trailside plants underneath an eastern hemlock (*Tsuga canadensis*) canopy. Along this first leg of the hike, we found pink lady slipper (*Cypripedium acaule*), white snakeroot (*Ageratina altissima*), rock harlequin (*Capnoides sempervirens*), broad-leaved sedge (*Carex platyphylla*), false Solomon's seal (*Maianthemum racemosum*) and many more!



The hike progressed along the trail until we arrived at the pond where we got our first taste of wetland plants. Among these were: skunk cabbage (*Symplocarpus foetidus*), cinnamon fern (*Osmundastrum cinnamomeum* var. *cinnamomeum*), and various pondweeds (*Potamogeton* spp.). The pond has a large peninsula, which extends approximately 500 feet

into the middle, making a perfect lunch spot. From there, we admired more plants and the impressive bedrock jutting out into the waters illuminated by the bright sun. After the lunch stop, we continued to the 'pond house' located southwest of the pond. There, we found lily-of-the-valley (*Convallaria majalis* ssp. *majalis*) and shadbush (*Amelanchier* sp.) within an old, abandoned garden.



Following our visit to the pond house, we explored a diverse wetland with skunk cabbage, marsh fern (*Thelypteris palustris* var. *pubescens*) and multiple species of violet (*Viola* spp.). This lowland was very muddy and extended farther than we could see from the trail – those with binoculars were able to do some long-distance botanizing here! As we continued along the rocky lowland we came to the base of a waterfall where we found some purple trillium (*Trillium erectum*), squirrel corn (*Dicentra* sp.), and blood root (*Sanguinaria canadensis*). The rocky steps up to the side of the waterfall made it easy to enjoy plants along the way. Once we scaled the walkway up the waterfall, we came to the John Burroughs Slabsides cabin where we found more skunk cabbage and horsetail (*Equisetum arvense*).

The last leg of our hike involved walking down a winding driveway to a path, which eventually led us back to the parking lot where we started. Overall, it was a beautiful day for a hike and for some intense botanizing. Over the course of the hike, 178 plant species were identified and many scenic areas were enjoyed.





The happy group at the end of the day.

List of Vascular Plants noted at John Burroughs Nature Sanctuary, May 13th, 2023, compiled by Kyle J. Webster

- | | | |
|--|--|---|
| <i>Acer pensylvanicum</i> | <i>Dirca palustris</i> | <i>Polygonatum pubescens</i> |
| <i>Acer rubrum</i> | <i>Dryopteris cristata</i> | <i>Polypodium virginianum</i> |
| <i>Acer saccharum</i> | <i>Dryopteris intermedia</i> | <i>Polystichum acrostichoides</i> |
| <i>Adiantum pedatum</i> | <i>Dryopteris marginalis</i> | <i>Potamogeton</i> sp. |
| <i>Ageratina altissima</i> | <i>Epigaea repens</i> | <i>Potentilla recta</i> |
| <i>Agrimonia</i> sp. | <i>Equisetum arvense</i> | <i>Potentilla simplex</i> |
| <i>Agrostis</i> sp. | <i>Erigeron annuus</i> | <i>Prunella vulgaris</i> ssp. <i>vulgaris</i> |
| <i>Ailanthus altissima</i> | <i>Eurybia divaricata</i> | <i>Prunus virginiana</i> var. <i>virginiana</i> |
| <i>Ajuga</i> sp. | <i>Eurybia macrophylla</i> | <i>Pteridium aquilinum</i> ssp. <i>latiusculum</i> |
| <i>Alliaria petiolata</i> | <i>Fagus grandifolia</i> | <i>Quercus alba</i> |
| <i>Allium vineale</i> | <i>Fragaria virginiana</i> | <i>Quercus montana</i> |
| <i>Amelanchier</i> sp. | <i>Fraxinus americana</i> | <i>Quercus rubra</i> |
| <i>Amphicarpaea bracteata</i> | <i>Fraxinus pennsylvanica</i> | <i>Ranunculus abortivus</i> |
| <i>Antennaria plantaginifolia</i> | <i>Galium aparine</i> | <i>Ranunculus recurvatus</i> var. <i>recurvatus</i> |
| <i>Anthriscus sylvestris</i> | <i>Galium circaezans</i> | <i>Reynoutria japonica</i> var. <i>japonica</i> |
| <i>Apocynum androsaemifolium</i> | <i>Gaultheria procumbens</i> | <i>Rhamnus cathartica</i> |
| <i>Aquilegia canadensis</i> | <i>Geranium maculatum</i> | <i>Rosa multiflora</i> |
| <i>Arabidopsis lyrata</i> ssp. <i>lyrata</i> | <i>Geranium robertianum</i> | <i>Rubus allegheniensis</i> |
| <i>Aralia nudicaulis</i> | <i>Glechoma hederacea</i> | <i>Rubus occidentalis</i> |
| <i>Arctium minus</i> | <i>Glyceria striata</i> | <i>Rubus phoenicolasius</i> |
| <i>Arisaema triphyllum</i> | <i>Hamamelis virginiana</i> | <i>Sambucus racemosa</i> |
| <i>Artemisia vulgaris</i> | <i>Helianthus divaricatus</i> | <i>Sanguinaria canadensis</i> |
| <i>Asplenium trichomanes</i> | <i>Hemerocallis fulva</i> | <i>Sassafras albidum</i> |
| <i>Barbarea vulgaris</i> | <i>Hieracium venosum</i> | <i>Sedum acre</i> |
| <i>Berberis thunbergii</i> | <i>Hypoxis hirsuta</i> | <i>Silene</i> sp. |
| <i>Betula alleghaniensis</i> | <i>Impatiens</i> sp. | <i>Solidago caesia</i> var. <i>caesia</i> |
| <i>Botrychium virginianum</i> | <i>Iris virginica</i> | <i>Solidago flexicaulis</i> |
| <i>Capnoides sempervirens</i> | <i>Juglans cinerea</i> | <i>Solidago juncea</i> |
| <i>Cardamine hirsuta</i> | <i>Juglans nigra</i> | <i>Solidago rugosa</i> var. <i>rugosa</i> |
| <i>Carex albicans</i> | <i>Juniperus communis</i> var. <i>depressa</i> | <i>Sparganium</i> sp. |
| <i>Carex blanda</i> | <i>Juniperus virginiana</i> var. <i>virginiana</i> | <i>Spiraea prunifolia</i> |
| <i>Carex canescens</i> | <i>Leucanthemum vulgare</i> | <i>Staphylea trifolia</i> |
| <i>Carex communis</i> var. <i>communis</i> | <i>Ligustrum</i> sp. | <i>Stellaria</i> sp. |
| <i>Carex leptoneuria</i> | <i>Lindera benzoin</i> | <i>Symplocarpus foetidus</i> |



John Burroughs Nature Sanctuary List, cont.

<i>Carex pedunculata</i>	<i>Lonicera morrowii</i>	<i>Thelypteris palustris</i> var. <i>pubescens</i>
<i>Carex pensylvanica</i>	<i>Luzula multiflora</i> ssp. <i>multiflora</i>	<i>Tilia americana</i> var. <i>americana</i>
<i>Carex platyphylla</i>	<i>Lysimachia nummularia</i>	<i>Toxicodendron radicans</i> ssp. <i>radicans</i>
<i>Carex sparganioides</i>	<i>Maianthemum canadense</i>	<i>Trillium erectum</i>
<i>Carex umbellata</i>	<i>Maianthemum racemosum</i>	<i>Tsuga canadensis</i>
<i>Carpinus caroliniana</i>	<i>Medicago lupulina</i>	<i>Tussilago farfara</i>
<i>Carya cordiformis</i>	<i>Melampyrum lineare</i>	<i>Ulmus rubra</i>
<i>Celastrus orbiculatus</i>	<i>Melilotus albus</i>	<i>Uvularia sessilifolia</i>
<i>Celtis occidentalis</i>	<i>Mitchella repens</i>	<i>Vaccinium angustifolium</i>
<i>Chelidonium majus</i>	<i>Morus alba</i>	<i>Vaccinium corymbosum</i>
<i>Chimaphila maculata</i>	<i>Nabalus albus</i>	<i>Vaccinium pallidum</i>
<i>Circaea canadensis</i>	<i>Oenothera</i> sp.	<i>Verbascum thapsus</i>
<i>Cirsium arvense</i>	<i>Onoclea sensibilis</i>	<i>Veronica chamaedrys</i>
<i>Clematis virginiana</i>	<i>Osmorhiza claytonii</i>	<i>Veronica officinalis</i>
<i>Convallaria majalis</i> ssp. <i>majalis</i>	<i>Osmunda regalis</i> var. <i>spectabilis</i>	<i>Veronica serpyllifolia</i> ssp. <i>serpyllifolia</i>
<i>Cornus alternifolia</i>	<i>Osmundastrum cinnamomeum</i>	<i>Viburnum acerifolium</i>
<i>Cornus florida</i>	<i>Ostrya virginiana</i>	<i>Vinca minor</i>
<i>Cryptotaenia canadensis</i>	<i>Parthenocissus quinquefolia</i>	<i>Viola cucullata</i>
<i>Cypripedium acaule</i>	<i>Pedicularis canadensis</i>	<i>Viola pubescens</i>
<i>Cystopteris bulbifera</i>	<i>Peltandra virginica</i>	<i>Viola rostrata</i>
<i>Danthonia spicata</i>	<i>Persicaria virginiana</i>	<i>Viola sororia</i>
<i>Daucus carota</i>	<i>Phryma leptostachya</i>	<i>Viola sororia</i> , glabrous variant
<i>Dianthus armeria</i> ssp. <i>armeria</i>	<i>Pinus strobus</i>	<i>Viola subsinuata</i>
<i>Dicentra</i> sp.	<i>Plantago lanceolata</i>	<i>Vitis riparia</i>
<i>Dichantherium</i> sp.	<i>Plantago rugelii</i>	
<i>Diervilla lonicera</i>	<i>Polygonatum biflorum</i>	

**Hudson River Ice Meadows Field Trip – June 11, 2023**by Steve Young botanyvisible@gmail.com

It was back on June 22 of 1991 that I attended my first NYFA field trip and the fourth trip of our fledgling organization. The trip was to the Hudson River Ice Meadows northwest of Warrensburg and 30 people attended. I was amazed at the diversity and beauty of the meadows and excited to be in the field with so many great botanists. Thirty-two years later the latest trip to the Ice Meadows was held, and I was still amazed at its diversity and beauty and still excited to see 20 NYFA veterans as well as people new to the group. Our leader, Robert Wesley, was an enthusiastic teacher who pointed out and described many of the unusual plants that grow in this [special ecological community](#). We all enjoyed the day botanizing the grasslands and meadows of this very special place; NYFA has led many trips to the meadows since 1991 and it never fails to impress.

We met in the parking lot of the Hudson River Recreation Area on Golf Course Road north of Warrensburg at 10 am on a beautiful day, and after introductions we walked down the path to the river and down a small dirt path to the meadows. We were immediately greeted by the bright yellow flowers of Canada frostweed (*Crocianthemum dumosum*) and northern sundrops (*Oenothera fruticosa* ssp. *tetragona*). After that it was hard to keep up with all the different plants Bob was finding, especially the rare ones, like



New England violet (*Viola novae-angliae*), dwarf cherry (*Prunus pumila* var. *depressa*), and whip nut sedge (*Scleria triglomerata*, a plant usually seen more commonly on the coast).



Canada frostweed (*Crocianthemum dumosum*). Photo by Chris Kreussling.

There were many interesting insects to see on the plants as well, and we witnessed a large dragonfly called a dragonhunter emerge from its exuvium along the shoreline. This section of the Ice Meadows narrows to steep slopes to the south and to the north; we covered the territory in-between, including a section of white marble mélange outcrop along the shoreline. Some large rocks on the north end provided a great place to eat lunch.



The emerging Dragonhunter. Photo by Jennifer Harvey.



A comfortable and scenic lunch spot. Photo by Jennifer Harvey.



We botanized for another three hours after lunch before heading back to the parking lot. Over the years, NYFA and others have recorded 434 plant taxa at the ice meadows (contact me at the email above if you would like a copy) and during this trip we were able to add six more: asparagus (*Asparagus officinalis*), Queen Anne's lace (*Daucus carota*), oval-headed sedge (*Carex cephalophora*), Carolina crane's bill (*Geranium carolinianum*), witch hazel (*Hamamelis virginiana*), and bladder campion (*Silene vulgaris*). Thanks to Amy David who recorded them for the trip. You can view the plants and insects that were observed by Chris Kreussling on his iNaturalist page at https://www.inaturalist.org/observations?on=2023-06-11&place_id=any&user_id=xris&verifiable=any and there are also photos of the participants on our Facebook page at: <https://www.facebook.com/newyorkflora>

Thanks to all the participants and to Bob Wesley for a very enjoyable day at the Ice Meadows!



The end of another great Hudson River trip. Photo by Jennifer Harvey.



One of the many interesting insects, a dogwood leaf beetle. Photo by Chris Kreussling.



New York Flora Association 2023 Annual Meeting

Sunday, August 27, 10 am - 4 pm

<https://nyflora.org/events-directory/2023-nyfa-annual-meeting/>

The NYFA Annual Meeting will be held in Joralemon Town Park on Route 102 (Starr Road), Coeymans, NY. The Pavilion is on the west side of the park. Enter at the main entrance (parking is best at the main entrance off Starr Road). For directions in Google Maps, look for the [Joralemon Park Disc Golf Course](#).

Activities will include: presentation of the 2023 Plant Conservationist Award, botanizing at the park, the Annual Meeting and 2023 Board of Directors election, Steve's Plant Quiz, and more! This year we are honored to present the Plant Conservationist Award to Gretchen Stevens from Hudsonia (an ecological consulting company). Lunch will be provided. RSVP with number attending to annualmeeting@nyflora.org by August 10. Events are open to NYFA members, past and present. Friends and family welcome!

In accordance with the Organization and Bylaws of the New York Flora Association, the Nominating Committee is recommending that the following current Directors whose terms expire in 2023 return for another three-year term: Mary Alldred, Victoria Bustamante, Christopher Graham, Clara Holmes, Rachel Schultz, Steven Daniel (Secretary), and Joseph M. McMullen (Treasurer). Write-in candidates are also accepted. Please cast your ballots by mail, email at annualmeeting@nyflora.org or other form of technology, prior to, or in person, at the NYFA Annual Meeting.

Hope to see you there!



From the Editor: David Hunt, who passed away this past March, was a well-respected botanist and we received some remembrances which provide a moving tribute to him and his work. They are printed here.

David Hunt Memorials



David at the Schodack Island bioblitz, 2013. Photo by Greg Edinger.



Remembrance submitted by Gregory J. Edinger, NY Natural Heritage Program:

In the course of your career and throughout your life, if you are lucky, you will cross paths with someone, maybe a professor or a coworker, who will have a positive, lasting impact on your life and the lives of others. David Hunt was one of those people.

David worked as an ecologist for the NY Natural Heritage Program from the mid-1990s to 2001, when our office was located in Latham, NY. His first big project was the “Adirondack Exemplary Community Project” with the daunting mission to find, survey, and document the best example of each natural community known to occur in the Adirondacks. Over several years David personally surveyed the best occurrences (along with several of the “runner-ups”) of each of the 100-plus natural communities in the northern part of the state. Perhaps you were one of the dozens of people David interviewed during the first year of the project while he gathered information and compiled the list of proposed exemplary occurrences. David’s work resulted in two voluminous documents.

1. A 468-page table listing 2689 occurrences that David reviewed in consideration for choosing the best of each type; from alpine meadows to aquatic caves, and every forest and wetland in between (converted to a searchable database in 2018).
2. A 524-page report that documented the ranking criteria (aka “Element Occurrence Specifications” in Natural Heritage jargon) that David used to rank and select the best of each from a set that often included several excellent examples needing tie-breakers.

Both milestone documents are used to this day by Natural Heritage ecologists and will likely be referred to for decades to come.

David was a true naturalist in the traditional sense. His knowledge of plant species was broad and deep, both geographically and taxonomically. As a botanist, David was a “walking Gray’s Manual” and he maintained a list of the best keys or floras for particular plant groups. When he was unsure of his identification of a plant, he would give a “Spock-like” uncertainty range saying he was 85% confident in his identification. He was an expert with graminoids, his survey site plant lists were exhaustive, and it is nearly impossible to find a new species to add to a David Hunt plant list, even after multiple revisits.

David was indefatigable in the field. Few people could match his long field days or keep up with his pace hiking to a summit. I witnessed his all-day scuba surveys and data collection in severe weather conditions while I sought shelter in a vehicle. He would take copious notes as a passenger to a field site noting the forest types along the road, or the geology of a road cut. He never stopped collecting data.

Here is a small sampling of other long-lasting David Hunt contributions to NY Natural Heritage Program and beyond.

Erie Gorges – David was the lead author of a 2002 report that evaluated the biodiversity, significance, and condition of the 13 river gorges that flow into Lake Erie in western NY (Hunt et al. 2002).

Long Island – David surveyed and described five new coastal oak forest types (Hunt 1997) distinct from the maritime forests that were already in the classification; at Mashomack Preserve David conducted scuba surveys of the marine eelgrass meadows offshore of Shelter Island;

Tug Hill – As a Natural Heritage contractor David developed stream sampling protocols and documented the first stream occurrences in the state (Hunt et al. 2005);

Lake George – In a pilot project designed to test sampling methods, David surveyed numerous aquatic plots and mapped aquatic communities in the lake (Hunt 2000).

In addition to these monumental achievements, David will also be remembered for his subtle daily actions that perhaps speak louder than his words, such as eating lunch in the field with hand-carved wooden utensils and submitting his resignation letter on paper birch bark using elderberry juice for ink. He made you think



about your choices in the Anthropocene epoch and how those choices impact the environment. He believed we could do better, and he truly practiced what he preached.

David left our Program over 20 years ago, but I will likely continue to mention his name at least once a month at meetings or in the field to remind everyone how one person can make a difference and challenge you to “up your game” as a passionate, scientific environmentalist.

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Remembrance submitted by Bill Brown:

I first met David Hunt in the 1990's while working with The Nature Conservancy. David was working on a project to document significant examples of each natural community type in the Adirondacks. A daunting task, but one David's ecological mind dove right into – he seemed to know every single plant he came across and could also put each site into the larger, and rather confusing, context of ecological communities or systems on the landscape; lots of lists and tables, categories of size and conditions, and volumes of detailed observations. But my favorite remembrances are of the times we spent together in the field.

I recall joining David on a several-day trip into the Five Ponds Wilderness to document a random spruce-northern hardwood forest site (he had some method of picking an x and y coordinate out of a hat, which we then had to locate in the woods). The fact that the scheduled fieldwork was not long after the 1995 blowdown didn't seem to faze David – it was just part of the task at hand. Besides, I was along to help navigate, and to help schlep the equipment and camping gear. This was before David took up eating healthy, home grown (or foraged) foods – mostly from his own land. So, no light-weight dried veggies. I recall cans of tortellini (with a full-size kitchen can opener of course), an alarm clock and other rather heavy items. We hiked into one of the backcountry lean-tos, dropped the packs and got to work. We hiked through woods of maple, yellow birch, cherry and beech, with scattered spruce and pine, into sections of old-growth, where David pointed out that the cherry was less abundant, and where there were towering pines. Of course, there was a lot of blowdown too – natural disturbance in full force - which we were able to scramble over, under, across and



around. David was in his element: in a natural area not dominated by human activity, with ecological processes at play, and a diversity of trees, mosses, birds, flowers, insects – all co-evolving; applying the natural science that his mind was so good at; and doing what he could to love and protect the world around him.

It was not just the Adirondacks that David cared about. Over the years, with an occasional visit to his home east of Troy, I would see the 32 acres that he stewarded with such care; the nearby Rensselaer Plateau where he dedicated his ecological skills to conserve a wonderful natural area; and a life dedicated to promoting sustainable co-existence in the natural world. As Scott Russell Sanders said, “Every place needs people who will dig in, keep watch, explore the terrain, learn the animals and plants, and take responsibility for the welfare of their home ground”. David Hunt dug in.



Remembrance submitted by Bob Zaremba:

David Hunt was a dedicated conservation biologist and a very good botanist, and he was different and not afraid of being different. I first met David when he applied for a job at The Nature Conservancy in the State Office. He explained that his PhD thesis used a mathematical characterization of leaf sinuses to separate oak species. Like many, I am often baffled by some oak individuals that don't neatly fit into a species description. I was impressed, but didn't know how I could apply equations to oak identification; but was later comforted when David told me that most oak “species” interbreed and in reality there was no more than a sense of a distinct species.

I knew David for about five years during his TNC and Natural Heritage Program days. One particular day stands out for me. After of couple of years working with a landowner at the Diameter in South Bay Lake Champlain, we finally received permission for a site visit to make a biological assessment of this large site that had sheer cliffs and a massive talus slope. We had no information about the site other than the general knowledge that there were rattlesnakes there. My job was to flesh out the basics of the rare plant and natural communities at the site, and I asked David to join me. The evening before he asked if I had an extra pair of snake guards (leg coverings used as protection from snake strikes). I did not, but said that I didn't think it was an issue. I had been around rattlesnakes at two Vermont sites and at Sam's Point and felt that I knew what to expect and that we would be fine.

I picked David up. He had a roll of thick rope and a pair of home-made shin guards made of a short section of old tire about 18 inches long. He had driven a heavy string through the tire to make lacing so the tire could be tied to his legs. I was astounded and laughed maybe a bit too much.

When we got to the Diameter, it was mid-morning and we initially thought we could enter the site from the summit. This is a big site and we explored the high ground for some time looking for rare plants. I was in shorts and sneakers. David lugged his heavy rope and heavier shin guards with him. At one point we were working down the steeper slope to the edge of the cliff and I saw David tie his rope around a small tree and prepare to lower himself to get a better look. I gasped and told him not to do this. He told me that it would be okay. He had tied his rope to an oak and no oak would ever let anything bad happen to him. I considered (briefly) getting him to write something stating that he was doing this against my advice, but too quickly he was down the slope and happily looking for plants. No harm happened to David.

It was clear that we could not access the rugged, large block talus from the summit and would have to come at it from the bottom. By now it was nearing mid-day and we crawled up the sharp-edged blocks from near the base of the cliff, initially in the shade. David had on his tire shin guards and I carried only a



backpack and a collecting bag. I had recently gotten progressive lenses and was learning that I had trouble seeing my feet while looking through my lower lenses that were meant for reading. All was fine at first and we headed toward a talus slope woodland that we wanted to document. We had some trouble getting across the large blocks of jumbled rock when David told me to stop. There were rattlesnakes ahead. I did stop and froze as David counted three adult snakes and four very small snakes all below me. I could not see a way out of this and had to be talked into retreating, rock by rock, by the shin-protected David. I did escape, but couldn't compose myself enough to do any more work. I have no idea how I could have gotten out of that without David.

Later David moved on to the Heritage Program where he tried to bring stream communities into the same documentation format as upland and other wetland communities. He had, during his time at TNC, been helping me with plant identifications for plant groups that were difficult for me, mainly grasses and sedges. When I left TNC, I had occasion to need his help on some of my projects, but I could never get comfortable with his insistence that I not pay him, but that I figure out a way to compensate him in other ways. I was never imaginative enough to feel I could do that.

I smile broadly thinking of David. He responded to his own rhythms in his brain and his heart. His intentions were good and his dedication unquestionable. I regret losing touch.



Remembrance submitted by Tom Phillips, Tim Howard, Nick Conrad and Annie Jacobs:

Ecologist and botanist David Hunt PhD passed away from cancer after a brief period of illness on Friday, March 24, 2023. Up until his last weeks of life, he was still busy with fieldwork and meetings on behalf of local natural areas in Rensselaer County.

David received his BS in botany from Cornell University and his PhD from the University of Georgia where he studied the diversity of oak trees in the SE United States. Before focusing his career closer to home, David worked for the New York Natural Heritage Program from 1990-2002. While there, he was involved in projects throughout New York State, often leading them and often applying methods at the forefront of conservation science. In western New York, for example, he led the Lake Erie Gorges project, which included literature reviews, landscape analyses, field surveys, and a conservation assessment of the watersheds for Cattaraugus Creek, Chautauqua Creek, and 12 other creeks flowing into Lake Erie. David's expertise with *Quercus* came into play when he studied the natural communities on Long Island and helped define the five different coastal oak natural community assemblages occurring there. In the Adirondacks, David spent seven years gathering information from the literature, local experts, field surveys, maps, and aerial imagery to compile a list of Exemplary Community Occurrences for all natural communities occurring throughout the region. The resulting list of over 2600 special places has since been converted into a database and remains an important source of information for Heritage Program scientists.

The following three examples represent just a small sampling of the breadth and impact of David's work at the Heritage Program and the legacy he left that will continue to impact science and conservation actions for years to come.

In 2001, David left the Natural Heritage Program to answer the call to "act locally"; he lived as sustainably as possible and worked as an independent ecologist with a focus on Rensselaer County. He became the leading expert on its ecology, plants and natural areas and he discovered many new locations of plants that were rare to Rensselaer County. Among his many accomplishments David prepared a map of the environmentally critical areas of the county for Rensselaer County Environmental Council in 1998,



documented the most important conservation areas of the county for Rensselaer Polytechnic Institute in 2000, compiled the ecological assessment section for the Rensselaer Plateau Alliance's (RPA) Rensselaer Plateau Regional Conservation Plan and prepared biodiversity and ecological information for the Rensselaer Land Trust's (RLT) Rensselaer County Conservation plan. David has provided RPA and RLT ecological evaluations of most all of the lands acquired for preserves and easements.

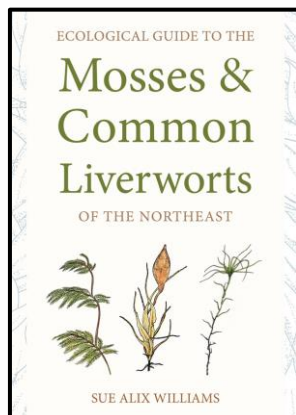
David consulted with municipalities throughout the county along with many individual land owners providing valuable information for land use planning and stewardship decisions. He has led numerous field trips and workshops for RPA, RLT and the Friday Field Botany group. David was awarded the 2017 William Niemi Conservation Leadership Award for his work in conservation for Rensselaer County.

David will be fondly remembered for his encyclopedic knowledge of ecology, an unparalleled level of detail in his field studies and reports, and his readiness to work in all weather conditions, even waist-deep in mud, without a thought. He will also be remembered for his sincerity, loyalty and friendship, his love of playing games with family and friends, his choice to live without a cell phone or email, and his deep connection to nature.



A true botanist! Photo by Greg Edinger.

Editor's Note - We received notice of a new book that some of our readers may be interested in:





Kyle Webster and Doug McGrady measuring a large northern white cedar (dbh 37") on the recent Bonaparte Swamp field trip.



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