Botanic Data Entry: It’s not Just Typing
By Susan Hepler

Herbarium sheet of Wild Ginger, Asarum canadense, collected by Thomas Nuttall in 1810, now part of the Academy of Natural Sciences Collection.

Want something fascinating and worthwhile to do? Enter botanical data. Easy to do. Create your ID and password and begin entering old botanical records into the template. There are discoveries and curiosities awaiting. (See page 4 for all contacts)

Continued on page 3

Upcoming

Margaret Chatham: Successional Change at Fraser Preserve
Thursday, Mar 11, 7:30 pm
Zoom Meeting. See https://vnps.org/potowmack/events/ for registration connection closer to the date

Alan Weakley: The Southeast’s Diverse Flora — discoveries, conservation & Identification
Thursday, Apr 8, 7:30 pm
Zoom Meeting. See https://vnps.org/potowmack/events/ for registration connection closer to the date

Glenn Tobin: Using Natural Ecological Communities Research
Thursday, May 13, 7:30 pm
Glenn Tobin translates the many studies of Virginia natural communities into practical guidance for ecological restoration and native planting.
Zoom Meeting. See https://vnps.org/potowmack/events/ for registration connection closer to the date

Walks:
Someday... Watch for announcements or check the website.

Plant Sales:
VNPS-Potowmack first Wednesdays April through October, in the propagation beds at Green Spring Gardens Park, 10-2. Cash or check only. Any additional sales will be announced on the website.

All events are free and open to the public. Walks require preregistration. For email notices of upcoming events, subscribe to https://vnps.groups.io/g/potowmack. Or send a blank email to potowmack+subscribe@vnps.groups.io
Manage your VNPS Membership Online

1. Go to https://vnps.z2systems.com/
2. Enter your VNPS member username. This is usually your email address.
3. If you don’t know or have forgotten your password, click on “Forgot Password?”
4. Once logged in, you can manage your account and preferences by clicking on “What would you like to do?” in the upper right-hand corner.
5. Select “Update My Profile Information.”
6. To request a paper newsletter, at the bottom of your Profile Information, set “Electronic Distribution” to “No.”
7. Update any other profile information, then click “Submit.”

Cristol Fleming
By Margaret Chatham

Cris Fleming, lead author of *Finding Wildflowers in the Washington-Baltimore Area*, leader of innumerable walks to share the plants described therein, Botany Chair for our Potowmack Chapter — for how many years? — died Jan. 15, 2021. While many of us fondly recall classes she taught at Woodend, my own most memorable contact came after moving into my current house in 1986. I was now in charge of a bit of woods, and didn’t know which were the native and which the invasive plants in it. Cris agreed to come to my yard and spend an hour telling me what I had. I took careful note of the reference book she used, and soon had my own copy of *The Flora of West Virginia*. She inspired so many of us.

*Photo by Ginny Yacovissi, at the VNPS 25th anniversary celebration.*

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Potowmack Chapter
Virginia Native Plant Society
P.O. Box 5311
Arlington, VA 22205
http://www.vnps.org/potowmack
WHY GET INVOLVED
I was all for the advancement of botanical knowledge when I first learned of crowdsourcing at a Virginia Native Plant Society meeting a few years ago. I’d heard Dr. Andrea Weeks, of the Ted Bradley Herbarium at George Mason University (VA), speak about how digitizing historical records can benefit science by creating accessible data. One is able to trace global warming patterns as species move northward and up mountains. Pamela Puppo from Marshall University’s herbarium (WVA) later added that these records provide evidence of plant diversity through time and space. Additionally, they can be used to inform mapping, identify unique distribution patterns, and spot places where little collection has occurred.

So I signed on to various herbaria, first to George Mason, next to Marshall, and finally I washed up on the digital shores of Mid-Atlantic Herbaria Consortium at Drexel University (PA).

GETTING STARTED
At first the task seemed dry and mindless. From the original record, copy the collector, the date, the site, the terrain, and hit “Enter.” If the collectors number their work, record it. If not, put in “s.n.” which means “sin numero.” The Academy of Natural Sciences features many botanical records in its database, mainly from the states of NY, PA, NJ, and DE. Jordan Teisher, at the Academy of Natural Science at Drexel estimates some third to half have been digitized by a small army of volunteers. There’s plenty more opportunity for all.

MAKING CONNECTIONS
The task became anything but dry as I began to notice patterns. In Staten Island records, the specimens of American Chestnut gradually disappeared in early 1900, evidence of the species’ sad decline. I typed so many entries from Rogers McVaugh that I looked him up and discovered that, beginning as a boy in New York State around 1920, he almost single-handedly recorded all of the known flowering species in Columbia County. I came upon so many New Jersey records found in the Pine Barrens that I began to wonder about that distinct area. At a used book sale, I bought an old John McPhee paperback, *The Pine Barrens* (1968) and read with interest about the special geography, cranberry bogs, bootleggers, scruffy woods, woodsmen, and war heroes who came from there. It was one of McPhee’s earliest books and I could see even then the way he submerged himself in a subject and leads the reader seamlessly and intriguingly through what he has gleaned.

DISCOVERING HISTORY
I love the very old records. The oldest one I have seen was collected in 1810. One early specimen even used the old script F for an S; another was collected from "the Territory," and is probably from John Torrey, whose black-inked entries are often unsigned and undated. I have found specimens of Torrey's student and friend, Asa Gray, tersely signed “Gray.” Gray is arguably considered the father of botanical studies in this country and the founder of the botany department at Harvard. They were both friends of the older Thomas Nuttall who relocated from Britain to spend many years off and on in this country. He explored and collected in the West and in the Dakota territories. He also recollected specimens which had been lost following the Lewis and Clark expeditions. Nuttall, Gray, and Torrey and their publications are often cited in the earliest records as authority or prior documentation. Scientists still build on their work. And I still get a thrill out of finding them in the collection.

As I occasionally paused to look up a collector, I noticed unfamiliar names. There’s the sad story of the young collector, H.H. Eaton, who corresponded with Torrey, and whose father founded the oldest technological university in the English-speaking world, New York’s Rensselaer Polytechnic Institute in 1824. H.H. Eaton had gone to his father’s school and began his first job as a botany professor in Kentucky but died suddenly in 1832 of “brain hemorrhage.” He was 23. In the very early records of the 1800s women are included but usually only as a “Mrs” paired with a male collector. This convention seems to have faded out by the mid-1900s. One of botany’s “founding mothers” is Ida A. Keller who began a study of biology in Philadelphia in 1886 when women were not granted degrees at University of Pennsylvania. She returned to her native Germany to earn a PhD and then came back to teach for 30 years at the Philadelphia High School for Girls. In the 1890s she became a member of numerous scientific societies that previously had not accepted women. A true pioneer in the field, she is well
represented by her records in the collection. Other women such as Ruth T. Wellman, Ida K. Longman and C.A. Boice also appear in these early records. C.A., Carrie Ann, meticulously hand-transcribed her entries and often each letter was embellished with curvy tails (see below). Other prolific early collectors whose names pop up frequently are Alexander McElwee, Thomas C. Porter, J.J. Carter, Thomas Seal, Isaac Martindale and Witmer Stone.

Some records set my mind wandering. A sheet from Michigan of many tiny *Lycopodium inundatum* were arranged to spell “Vallee.” Like the tails on Boice’s letters, I wondered if this indicated boredom? Artistry? We will never know but it’s fun to notice anyhow.

**NAILING IT DOWN**

Most modern records have towns and county names on them. Some older ones don’t. I have had to look up Mercersburg, Percasie, or Guyan Creek to find out what PA county they are in because I can’t remember. However, after transcribing so many of Thomas C. Porter’s 1880s records collected in Easton, PA, I can now remember Northampton County without having to look it up.

I have deciphered probable place names and checked them against the other data given. I have begun to recognize likely collectors from their spiderian handwriting. When an undated record has been given to a university by a botanist’s estate in 1864, “Prior to 1864” at least supplies a ballpark date. And there’s always giving up and relying on the backstop of "Expert Required," if you can’t go any further. There’s a space to record what your mystery or inquiry is and someone else will take it from there.

The old handwriting is often a challenge where the letters U, N, W, and V seem easy to misinterpret. There’s a handy search feature of “Towns starting with H in Allegheny County PA” that can give a few suggestions. Some old time writing is so angular, wiry, or loopy that it is a trick to decipher what was meant. This has sent me back to check on geographical records and the old place names: Near Hans Jenson farm, Nanjemoy County, Old Navy Yard.

In the last three or four years of data entering, I have come to love the time each day when I sit with a podcast in the background, a cup of tea or a glass of wine beside me, and start transcribing. It’s easy now to type through my goal of at least 50 records a day in less than an hour. When I started that was a 90-minute task. Occasionally, I enjoy dipping into a collector biography or obituary, or checking out the site of a collected specimen for a bit more information. I also often translate the Latin name into the common name just in case I might remember it better that way, amateur that I am.

Another reward is to see my stats on the Crowdsourcing Scoreboard mounting up to the low five-figures. Each sheet I type gives me two points and the points tally up. I watched my numbers pile up this year from 11,000 to over 43,000 which was my first personal satisfaction in the beginning of my data entry journey.

There are so many more records to transcribe. Log on to a site, create your ID and get started. You are helping to save history for the next generation of scientists.

Here are three of my favorite sites because there’s a professor behind each one ready to answer questions if you get stuck:

https://midatlanticherbaria.org/portal/, find “Crowdsourcing Module,” and select Academy of Natural Sciences at Drexel. Or contact: Jkteisher@gmail.com

https://sernecportal.org/ Choose Marshall University’s “more info” or contact: Pamela.puppo@marshall.edu

https://www.zooniverse.org/projects/md68135/notes-from-nature-southeastern-us-biodiversity

Locate the “Plants of Virginia” portal. Or contact: Aweeks3@gmu.edu

Susan Hepler is an ardent gardener and would have majored in Botany if she hadn’t first discovered Children’s Literature. She lives in Alexandria, Virginia.
Word of the Month: Dioecious

“In two houses:” having staminate (male) and pistillate (female) flowers on different plants. Of the single-sex flowers below, only the Spicebush and Holly are truly dioecious. Red Maple is mostly dioecious, but a given tree may grow the opposite sex flowers on one branch. The other plants grow separate male and female flowers on the same plant, so are monoecious, with both sexes “in one house.” All photos by Margaret Chatham.

1. Acer rubrum, Red Maple, male
2. Acer rubrum, female
3. Carex plantaginea, male
4. Carex plantaginea, female
5. Carpinus caroliniana, Musclewood, male
6. Carpinus caroliniana, female
7. Corylus americana, Hazelnut, male
8. Corylus americana, female
9. Ilex opaca, American Holly, male
10. Ilex opaca, female
11. Lindera benzoin, Spicebush, male
12. Lindera benzoin, female

Answers on page 6
Weed Warrior’s Lament

I do love Partridgeberry (*Mitchella repens*), with its perky, evergreen leaves, its fragrant flowers in May, and its bright red berries, which may linger on the plant even until the next year’s flowers bloom. But what a pain when it grows over, under, around, and through the base of the Multiflora Rose (*Rosa multiflora*) I’m trying to pull out!

Partridgeberry, Photo by Margaret Chatham.

Answers to flowers on page 5: 1 A, 2 B, 3 E, 4 F, 5 D, 6 C, 7 L, 8 K, 9 J, 10 I, 11 G 12