# VERMONT BOTANICAL AND BIRD CLUB NEWSLETTER

## FEBRUARY 2021

### 2021 Annual Meeting Announcement

**The 126th Annual Meeting of the Vermont Botanical and Bird Club will be held on Thursday, June 3 – Sunday, June 6, 2021 at Castleton University in Castleton, Vermont.**

The date of this year's meeting was brought forward one year from plans that were originally made for the 125th Annual Meeting in 2020. Due to the unexpected appearance of the Coronavirus pandemic in January, 2020, it became necessary to make this change. As many of you know, we were able to enjoy a re-scheduled 125th Annual Meeting on August 22, 2020 with a Botanical Foray at Pelot's Natural Area in North Hero followed by a Social Gathering, Picnic Supper and Evening Program at Camp Ingalls in North Hero, Vermont.

We look forward to holding our meeting in 2021 in the west-central region of Vermont. We were last in the area (and stayed at then named Castleton State College) in 2011. Members who attended that meeting will remember that year as a high water year for Lake Champlain. The water level was so high that we were prevented from driving down the Poultney River Road to Bald Mountain and Buckner Preserve, as the road was under 4' of water. We hope that the Lake will be better behaved this year and look forward to visiting this special place; we also look forward to West Rutland Marsh for birding and to other great places. We will stay at Hoff Hall on campus.

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**Pelot's Natural Area, North Hero, Saturday, August 22, 2020** Clockwise from upper left: The Wetlanders (KK); the The Foresters/Wetlanders (LN), The Outcroppers (DB), the Scouters on Friday, August 21, 2020 (EM).

(Photo Credits from previous page: KK=Kate Kruesi, LN=Louanne Nielsen, DB=Debbie Benjamin, EM=Everett Marshall)

# Vermont Botanical and Bird Club 125th Annual Meeting August 22, 2020

**Part 1: Botanical Foray to Pelot's Natural Area 10:00 AM – 3:00 PM**
**Part 2: Social Gathering, Picnic Supper, Evening Program - Camp Ingalls 4:00 PM – 10:00 PM**

The Vermont Botanical and Bird Club would like to thank the Hardy Plant Club for inviting us to share in the August 22, 2020 Botanical Foray to Pelot's Natural Area in North Hero, Vermont. The day long activities culminated in the celebration of its 125th Annual Meeting at Camp Ingalls in North Hero through the early evening. We all were delighted that we could have a properly socially distanced event during this year of change. Thanks to the three trip leaders that made the Foray so memorable—Arthur Gilman, Peter Hope, and Everett Marshall. It was a pleasure working with Kate Kruesi and Aaron Marcus in the planning and scouting period and it was good to see people from the two Clubs engage in a day of cross-pollination at this very interesting place.

| The Wetlanders | | The Outcroppers | | The Foresters | |
|---|---|---|---|---|---|
| Leader: | Arthur Gilman | Leader: | Peter Hope | Leader: | Everett Marshall |
| Assistant: | Kate Kruesi | Assistant: | Debbie Benjamin | Assistant: | Deb Parrella |
| Tig Arnold | | Ann Burcroff | | Sue Elliott | |
| Lynne Arnold | | Annie D'Alton | | Marvin Elliott | |
| Scott Bassage | | Ralph Nimtz | | Eric Wood | |
| Sue Brown | | Sharon Nimtz | | Connie Youngstrom | |
| Polly Darnell | | Catherine Sells | | Mark Youngstrom | |
| Charlotte Hanna | | Brian Tremback | | + Grace Glynn – Scholarship | |
| Louanne Nielsen | | Bryan Palfey | | | |

**Part 1. Botanical Foray to Pelot's Natural Area, North Hero – 3 accounts:**

1. The Wetlanders, written by Kate Kruesi:

Art immediately found the very rare P*runus americana*, an S1 plant in the overgrown meadows near the parking lot. He pointed out the sharply pointed teeth on the leaves. From here the trail left the meadow to skirt along the top of a high bluff of Stony Point shale which fractured in interesting patterns and even thrust vertically in areas. Pennsylvania pellitory, *Parietaria pensylvanica*, a low inconspicuous plant, grew in the dry limy soils here only found at similar sites in western Vermont.

A steep climb down the slope through rich woods took us to an abandoned railroad bed that bisects the property north to south. Along the way, we saw lots of large-fruited sanicle, *Sanicula trifoliata*, noting its beak-like sepals protruding above the bristly seed capsules. In addition to sugar maples and oaks, bitternut hickory, *Carya glabra*, was common with its *snake bark*. We were careful not to grab prickly ash stems, *Xanthoxylum americanum*, a member of the orange family, host plant for giant swallowtail butterflies, and phytophototoxic like wild parsnip. The tiny oranges were ripe and fragrant.

The slope continued beyond through more rich woods and overgrown meadows, remnants of old sugar bushes, pastures and hayfields to the small floodplain forest community. Lakeside floodplain forests are typically old lake coves frequently dammed by a beach ridge and flooded during spring and early summer when lake levels are high. The sparse herbaceous plants present can be found at slightly different elevations like rings around a bathtub. We found the rare lowland

loosestrife, *Lysimachia hybrida*, veiny-leaved meadow-rue, *Thalictrum venulosum*, and Ontario aster, *Symphyotrichum ontarionis*, at the uppermost edges and the false hop sedge at the lowest elevation. Grace Glynn found the very rare umbrella flatsedge, *Cyperus diandrus*, here, too. Peter Hope pointed out the extensive hybrid maple, *Acer x freemanii,* which can be common where red and silver maples grow together in these floodplain forests.

On the east edge of the property, we explored the rich forest edge of a mosaic of varying marsh habitats. We were shown river tuber-bulrush, *Bolboschoenus fluviatilis*, the tall attractive swamp dock, *Rumex verticillatus*, the diminutive cursed crowfoot, *Ranunculus sceleratus*, marsh-cinquefoil, *Comarum palustre*, and the rare small beggar-ticks, *Bidens discoidea*. In the nearby rich woods, we discovered Canada moonseed vines, *Menispermum canadense*, a member of a tropical plant family. It is dioecious, some vines have male flowers, others have only female flowers. So far no one has figured out the pollinator though it is not uncommon in western Vermont! One of the prettiest highlights of the trip was found nearby: cardinal flower still in bloom, with veiny-leaved meadow-rue and Ontario aster at the edge of the rich woods and the emergent marsh on Pelots Bay. A great day was had by all, thanks to our excellent leaders! [Reprinted with permission from the Hardy Plant Club Bulletin, November, 2020, pages 8, 10-11]

2. The Outcroppers, written by Peter Hope:

This year's pandemic truncated Vermont Botanical and Bird Club conference met on a Saturday for field trips to the botanically rich Pelots Natural Area next to Lake Champlain. After a rather wet and rainy scouting day on Friday, Saturday was bright, warm, and sunny. Our group began in the field examining some young prickly ash which isn't an ash at all but a fragrant member of the citrus family. Later we got to see taller ones in the woods in fruit, ranging from unripe green fruits through green with blushes of orange to mature orange fruits some with their shiny black seeds hanging out of the orange fruits on long stems. Gilman (2015) reports prickly ash to be a food source for the giant swallowtail butterfly (which we didn't get to see). Another interesting shrub in fruit were some robust round-leaved dogwoods on the edge of the field with the gray goldenrod and spotted knapweed. Their prominently veined round leaves framed the white fruits (at this point) growing on beautiful bright, pink-red peduncles and pedicels.

Another fun find were a number of the Freeman's hybrid maples – the hybrid between red and silver maple. One clue in identifying them is their leaves have deeper sinuses than red maple leaves but still v-shaped sinuses, rather than the more elegantly deep-cut, narrower, u-shaped sinuses of the silver maple. Gilman (2015) states that former member Bill Countryman told him that "This hybrid forms a distinctive zone around Lake Champlain wetlands where it occurs more lakeward than red maples and more landward than silver maples, and sometimes occurs in other nearby, lowland forested areas."

At the water's edge we got to see the Ontario asters and caught up with Everett's group and got to socialize with the other group, keeping social distancing.

3. The Foresters, written by Everett Marshall:

The weather was fabulous, and all wore masks and socially distanced. We began the field trip with a treat of seeing one of the rarest species in the state, American plum that Art Gilman had found in the morning.

We then ambled through Mesic Maple-Ash-Hickory-Oak Forest. As in many sites this year, the herb layer was carpeted with maple seedlings. There were many calciphiles present along the woods path that were mostly in fruit, including blood root, sweet cicely, Virginia stickseed, Doll's-eye, and wild ginger and tall enchanter's

nightshade and two uncommon species, white bear sedge (*Carex albursina*) and large-fruited sanicle (*Sanicula trifoliata*).

We then proceeded through an open fields with patches of gray goldenrod and spotted knapweed in bloom.

The Lakeside Floodplain Forest had several highlights, including the rare and uncommon Lance-leaved Loosestrife (*Lysimachia hybrida*), cat-tail sedge, false hop sedge (*Carex lupuliformis*), veiny meadow-rue (*Thalictrum venulosum*). Grace Glynn, our Scholarship student, found the very rare low flat-sedge (*Cyperus diandrus*) on the Lake Shale Beach, which also had the uncommon Ontario aster (*Symphyotrichum ontarionis*).

Our last delights of the day were a nice colony of cardinal flower in bloom along the banks of the bay and the rare slender bulrush (*Schoenoplectus heterochaetus*).

See pictures in the Photo Gallary

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**Part 2. Afternoon and Evening at Camp Ingalls, North Hero**

A warm sunny day stayed with us as we regrouped at Camp Ingalls in North Hero for a fine social gathering, a delicious picnic supper catered by Denise Boutin of My Kids' Kitchen of Grand Isle; followed by an evening business meeting, presentation on *Phegopteris excelsior* and slides by members. Camp Ingalls is managed by the North Hero Recreation Committee and we give special thanks to John Skutel and Berney Skutel for allowing us to enjoy this special place adjacent to Butternut Hill Natural Area. The Club visited this area in 2018 at its 123rd Annual Meeting at Camp Eagle on Grand Isle. This year's visit has expanded our knowledge of this special place.

**I. 125th Annual Business Meeting of the Vermont Botanical and Bird Club 6:00 PM at Camp Ingalls, North Hero, Vermont**

1. Scholarships – Two very qualified students were accepted to attend the originally planned meeting at Castleton University – Claire Scherf and Kyle Amerantes; but due to Covid -19 precautions, that meeting was cancelled. We were very fortunate to hear of (thank you Everett) a recent graduate of the UVM Field Naturalist School – Grace Glynn – who was able to attend on August 22. All three students will be invited to attend the 2021 meeting.

2. Treasurer's Report – Treasurer, Charlotte Hanna distributed a two-sided page handout that listed details for the 2018 and 2019 meetings. In 2019, the Club had a total of $8,201.00 in General Funds. The Scholarship Endowment had $390.00 in donations plus $7,638.00 in Green Century Fund interest plus $9,450.00 remaining amount of the Davis Bequest for a total of $17,478.00. From the total of $25,679.00 and after Expenses of $8,610, the remaining Total Funds was $17,069.00. Sue Elliott moved and Catherine Sells seconded that the Treasurer's Report be approved. The Treasurer's Report was approved unanimously.

3. Election of Officers – Kate Kruesi read the Slate of Officers:

| | |
|---|---|
| President | Deborah Benjamin |
| VP Plants | Everett Marshall |
| VP Birds | Susan Elliott |
| Co-Veep Birds | Connie Youngstrom |
| Treasurer | Charlotte Hanna |
| Secretary and Website | Scott Bassage |

Deb Parrella moved and Kate Kruesi seconded that the Secretary cast one unanimous ballot for the Slate of Officers. The motion was approved unanimously.

4. The 126th Annual Meeting will be held at Castleton University on Thursday, June 3 – Suday, June 6,. 2021.

5. … suspend the business meeting temporarily to hear the *Phegopteris excelsior* talk by Arthur Gilman … .

**II. The Nature of the North American tetraploid Beech Fern, by Arthur V. Gilman**

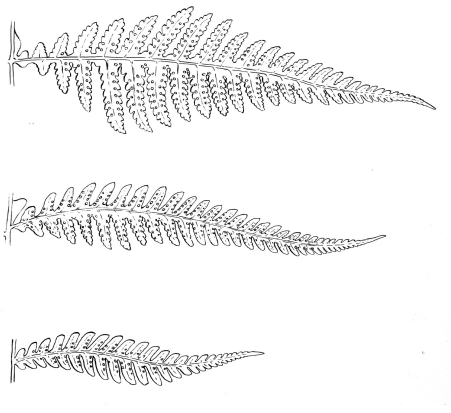
Arthur presented the results of his patient research into a North American tetraploid (and apomictic) Beech Fern that he began in 1993; and that, with the help of dedicated people (also patient), culminated in an understanding of the presumed parentage and present characteristics of *Phegopteris excelsior* published in Fall, 2019.

There are six known species of Phegopteris worldwide:
1) *Phegopteris connectilis,* Long or Narrow Beech Fern, that spans the temperate northern latitudes worldwide – a 3x triploid, apomictic (no sexual generation) species;
2) *Phegopteris connectilis*, a 2x diploid species from the mountains of Japan;
3) P. undescribed – a 4x tetraploid apomictic species – our subject of this evening – of New Brunswick, Montreal, Maine, Vermont, New York and Connecticut;
4) *Phegopteris hexagonopters*, Broad Beech Fern of eastern North America;
5) *Phegopteris decursive-pinnata*, 2x 3x 4x species of Asia; and
6) *Phegopteris tibetica*, of the Himalayas.

*P. hexagonoptera* and *P.* connectilis were first described and named in 1793 by the French botanist Michaux as he traveled through Vermont. In 1950, Irene Manton of the University of Leeds, described *P. connectilis* as a triploid apomict with the Dobb-Manton (pre-meiotic endomitosis) pathway. In 1965, Lyle Cinquemars, of the University of Laval in Quebec, found an usual fern at Rougemont near Montreal and described it as the tetraploid apomictic product of a cross between *P. hexagonoptera* (a 1x haploid viable egg) and *P. connectilis* (3x sperm).

"All was well until I got involved" said Arthur because he believed that the morphology didn't reflect that particular set of parents. He suggested that Professor David Barrington of UVM, assign the question to a student. In 2003, Heather Driscoll (a former Vermont Botanical and Bird Club scholarship student in 2001 and 2002) did isozyme analysis and her results suggested that *P. hexagonoptera* was not a parent of the tetraploid. In 2013, Niki Patel, who was taking her doctorate at the University of Connecticut in plants of the Himalayas, entered the lab of Prof. Barrington and performed several analyses of the tetraploid fern: field observations, raising plants from spores, using flow cytometry to determine the ploidy, and studying plastid markers (inherited through the egg) and nucleotide markers (inherited through the nucleus). She concluded that *P. hexagonoptera* was not a progenitor and that it instead shared maternal origins with *P. connectilis*. Arthur described the fern as a new fern of hybrid origin; and described its parentage as *P. connectilis* 1x egg crossed with an unknown parent with 3x sperm to produce the 4x newly name species - *Phegopteris excelsior.*

In the field, *Phegopteris excelsior* appears as large well-spaced fronds. And the best in the hand way of distinguishing it is the ratio of the length to width of the basal pinnae.



Top: 3:1 *Phegopteris hexagonopteris*

Middle 4.5:1 *Phegopteris excelsior*

Bottom 4:1 *Phegopteris connectilis*

See a photo of Arthur with the "type" plants in St. Johnsbury in the Photo Gallery.

**III. Continuation of the 125th Annual Business Meeting**

6. Plant and Bird Reports – We enjoyed birds at this time of the year when nesting is winding up and the pressures of the breeding season are less. Sue and Everett described an unusual call from a Northern Cardinal (possibly an adult and a young) as somewhat insect-like; Debbie described the Murder of Crows that she and Catherine saw at Catherine and Mike's place; and sharp eyes spotted an Osprey nest on a farm silo.

Each trip leader gave their favorite plant siting: Arthur – American Plum along Pelot's Road; Peter – Freeman hybrid maples; and Everett – the veiny-leaved meadow rue with cardinal flower. We also noticed the fruits of many species that would only have been seen as flowers or plants earlier in the year: fragrant prickly ash fruits, and many plants with hooked seeds such as Haekelia.

7. Adjourn – Peter Hope moved and Sue Elliott seconded that the business meeting adjourn. All voted Aye.

**IV. Slides by Member Show**

1. Debbie Benjamin played a song from Johnson Creek Watershed Council of Portland Oregon that was laden with bird names and we all sang along.

"For the Birds" Lyrics

If I asked you a wigeon, would you answer merganser?
Would you tell me a pintail as true as a smew?
Well, eider believe you, I'd a grebe with you
We wouldn't buffleheads if it mallard to you

Can you condor with candor?
Are you goose, are you gander? Can you manage a tanager too?
Well dowitcher wanna, with your Northern Jacana
On a whimbrel, owl do the same too

Pauraque me to sleep
Avocet my alarm clock
Kittiwake me in the mourning . . . dove
Grab me a spoonbill, shoveler in my cereal
Snap, Grackle, Pop's what I love

I've been heron from some
A good parula of thumb
Is not to harrier way through your food
If you're fulmar or sora, If your pelican-not fit mora oriole surely be one sorry dude.

You're my ani, you're my plover
Mynah veery own bird lover
Will you murrelet me kiskadee you?
Whip-or-will that be auk-ward?
Willet make you feel bluebird?
Albatross-ting you to teal me the truth

Well it's that ptarmigan
Wren my bird song must end
I'll sparrow you more silly puns
You say you were confused
Well, my eagle is bruised
But I'll swallow my pride and be dunlin.

Debbie then showed a sequence of photos of a red fox that came into view in the yard that she took through the window. Thinking that each picture might be the last, she was amazed how long the fox stayed as it munched on a small mammal in the tall grass, stretched, laid down for a quick nap and eventually saw her through the window. It's demeanor changed to 100% unblinkingly focused on her as she froze in place and was lucky to capture two more shots before it exited.

2. Marvin Elliott shared pictures of birds and places from Vermont and Texas: Furnace Brook headwaters at Boiling Spring in Proctor State Forest; Northland Park in Rutland hydro as it was starting to freeze; black-capped chickadee – not enough people recognize its beauty. In Texas, a heron rookery was being used by a Great Horned Owl (hence very few herons at the time); Blue-winged Teal, Verdun with fruit; Green Jays with orange; and Mallards on ice back home at Bomoseen Lake.

3. Susan Elliott also showed bird pictures and birds seen in Texas: Altamira Oriole, Crested Cara Cara zipping its feathers together, Green Jay, Cha Cha Laca, Roseate Spoonbill, Sora. Back home in Vermont she was photographing ducks at Leffert's Pond and turned around to see an immature Bald Eagle perched just 15' above her. Least Bittern held a nice pose at West Rutland

Marsh with back lighting; and Yellow-headed Blackbird on an unusual sojourn at the Fairgrounds in Rutland.

4. Kate Kruesi asked herself “Where am I and What am I looking at”. First to a mystery Penstemon at Buckner Preserve and Bald Mountain growing in a moist location at the base of cliffs. Too early for bloom on May 25, Connie Y. visited two weeks later on June 12 and took a picture – it was neither P. hirsutus or P. pallidus but possibly P. calycosus. We will try to check it out in 2021. On a Colorado trip, she ejoyed Penstemon whippleanus, Claytonia megarrhiza, Pedicularis racemosa, Mimulus lewisii. One plant of Colorado was seen today at Pelot's Natural Area – Thalictrum venulosum; and also at Pelot's was Freeman hybrid of Silver and Red Maples (from Peter's instructional photo).

5. Peter Hope shared pictures from Florida, New York, New Hampshire and Vermont. Florida: several pictures taken from a boardwalk of a river otter gorging on fish – one looked like it had a cigar hanging from its mouth; four Wood Storks in line (like the Beatles on Abbey Road), Gators, Egrets. New York: Teasel in bloom in late July and Swallowtail. New Hampshire: Gray Jay at the campground in Pitsburg.Vermont: Hepatica, Blue Cohosh, Bloodroot, Leatherwood – all beautiful with his new camera; and winding up with reflections on Preston Pond, Columbine and Beech leaves.

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**Henry Potter Scholarships**

Three scholarship students were accepted for the year 2020: Kyle Amerantes of UVM, Claire Scherf of St. Michael's College and Grace Glynn of UVM Field Naturalists Program. The school year was disrupted by sudden school closures and uncertainty involving the Fall Semester. We are delighted that Grace Glynn was able to attend and she certainly “earned her keep” by discovering *Cyperus diandrus* at the lake shale beach. All three students will be invited to attend in 2021.

**Bird List 2020**
from eBird reports by Susan and Marvin Elliott and by Louanne Nielsen (merged):

Mallard
Mourning Dove
Ruby-throated Hummingbird
Ring-billed Gull
Double-crested Cormorant
Great Blue Heron
Osprey
Belted Kingfisher
Downy Woodpecker
Hairy Woodpecker
Pileated Woodpecker
Eastern Wood-Pewee
Eastern Phoebe
Great Crested Flycatcher
Eastern Kingbird
Red-eyed Vireo
Blue Jay
American Crow
Black-capped Chickadee
White-breasted Nuthatch
Marsh Wren
Carolina Wren
Gray Catbird
Northern Mockingbird
American Robin
Cedar Waxwing
American Goldfinch
Red-winged Blackbird
Common Yellowthroat
American Redstart
Northern Cardinal
Rose-breasted Grosbeak
Indigo Bunting 33 species

Members Memorable Moments:
… Onward and upward to better things ...
… If he came down on the back on my neck ...
… It'll scold you sometimes, but it won't matter ..
… Woodstork “Abbey Road” ...
… Corvids ! Not Covids ! ...
… When you really see it, then you know it ...

## Pelots Bay 2019 Wetland and Aquatic Plants

(from October, 2019 visit by E, Marshall & A. Marcus)

| Scientific Name | Common Name |
|---|---|
| Acalypha rhomboidea | common three-seeded mercury |
| Acer rubrum × saccharinum | Freeman's hybrid maple |
| Acer saccharinum | silver maple |
| Acorus americanus | American sweet-flag |
| Apios americana | ground-nut |
| Bidens cernua | nodding bur-marigold |
| Bidens connata | purple-stemmed beggar-ticks |
| Bidens discoidea | few-bracted beggar's-ticks |
| Bidens frondosa | common beggar's-ticks |
| Bolboschoenus fluviatilis | river bulrush |
| Carex crinita | fringed sedge |
| Cephalanthus occidentalis | buttonbush |
| Ceratophyllum demersum | coontail |
| Cicuta bulbifera | bulbiferous water-hemlock |
| Comarum palustre | marsh cinquefoil |
| Dulichium arundinaceum | three-way sedge |
| Eleocharis acicularis | needle spike-rush |
| Eleocharis erythropoda | marsh spike-rush |
| Elodea canadensis | water-weed |
| Equisetum arvense | field horsetail |
| Equisetum fluviatile | water horsetail |
| Fraxinus pennsylvanica | green red ash |
| Galium sp. | bedstraw |
| Heteranthera dubia | water star-grass |
| Leersia oryzoides | rice cut-grass |
| Lemna minor | duckweed |
| Lindernia dubia (var. dubia & anagallidea) | false pimpernel |
| Lycopus americanus | American water-horehound |
| Lysimachia ciliata | fringed loosestrife |
| Lysimachia nummularia | moneywort |
| Lysimachia terrestris | swamp-candles |
| Lythrum salicaria | purple loosestrife |
| Lysimachia terrestris | swamp-candles |
| Lythrum salicaria | purple loosestrife |
| Mentha arvensis ssp. parietariifolia | field mint |
| Mentha canadensis | American wild mint |
| Myriophyllum spicatum | Eurasian water-milfoil |
| Nymphaea odorata | waterlily |
| Onoclea sensibilis | sensitive fern |
| Penthorum sedoides | ditch stonecrop |
| Persicaria coccinea | scarket snartweed |
| Phalaris arundinacea | reed canary grass |
| Pilea pumila | clearweed |
| Populus deltoides | eastern cottonwood |
| Potamogeton robbinsii | Robbins' pondweed |
| Ranunculus flabellaris | yellow water-crowfoot |
| Ranunculus aquatilis var. diffusus | white water-crowfoot |
| Rorippa amphibia | great yellow cress |
| Rorippa aquatica | lake cress |
| Rumex verticillatus | swamp dock |
| Sagittaria latifolia | common arrowhead |
| Sagittaria rigida | stiff arrowhead |
| Salix nigra | black willow |
| Schoenoplectus tabernaemontani | common bulrush |
| Scirpus pedicellatus | pedicellate bulrush |
| Scutellaria lateriflora | blue skullcap |
| Sium suave | hemlock water-parsnip |
| Solanum dulcamara | bittersweet nightshade |
| Sparganium emersum (var. emersum & acaule) | green bur-reed |
| Sparganium eurycarpum | large bur-reed |
| Spirodela polyrrhiza | greater duckweed |
| Symphyotrichum ontarionis var. glabrata | smooth Ontario aster |
| Thelypteris palustris var. pubescens | marsh fern |
| Torreyochloa pallida (var. pallida & fernaldii) | pale manna grass |
| Typha angustifolia | narrow-leaved cat-tail |
| Typha angustifolia × latifolia | hybrid cat-tail |
| Typha latifolia | broad-leaved cat-tail |
| Vallisneria americana | eel-grass |
| Veronica scutellata | marsh speedwell |