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NYFA Newsletter

New York Flora Association
of the New York State Museum Associates

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Vol. 9 No.3

Amendments to the State Checklist I.

by Richard S. Mitchell

About 30 seconds after you hand the final copy of any manuscript to the printer, particularly if it's a checklist (eg. Mitchell & Tucker, 1997), a plethora of much-needed changes mysteriously appears on your desk back at the office -- all extremely critical, of course. Gordon Tucker and I were blessed to hear very few complaints about errors, but there inevitably were some. I will list a few new important additions and subtractions of taxa from the state flora that have come up since our book came out in 1997.

There are some taxonomic changes that I feel are backed up by valid reasoning and research. Also, I will deal with a couple of cases in which we have previously been recognizing the wrong name for a taxon. Then, there are some sweeping generic rearrangements afoot, with which I largely disagree. Such changes will not be made at this time (see my editor's note at the end of this article).

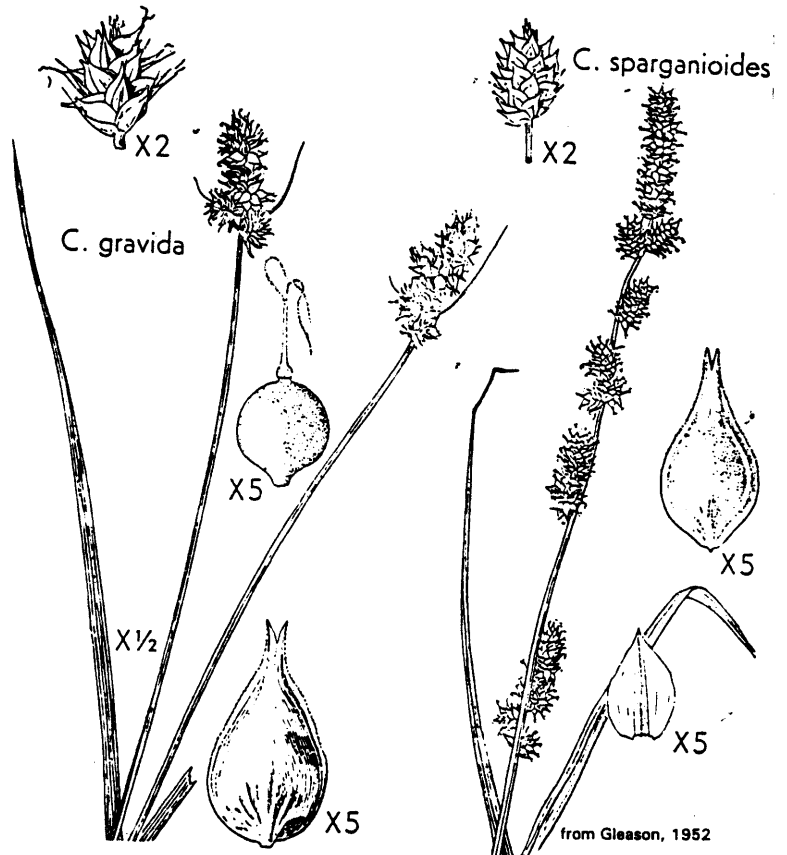
Thanks to Troy Weldy, Ihsan Al-Shebaz and Steve Young for calling some of the following problems to my attention.

Deletions

***Carex grvida* Bailey** All of our New York State specimens (NYS) formerly identified as *Carex grvida* were sent to Dr. A. Reznicek (Michigan State University) and determined to be misidentifications of either *Carex aggregata* or *C. sparganioides*. He says that *C. grvida* does not range eastward into New York from the Midwest.

***Desmodium glabellum* (Michx.) DC.** After some detective work by Troy Weldy, it was found that none of the New York specimens identified as *D. glabellum* quite fit the characteristics listed in the latest descriptions of the species. The following is an email message from him, detailing his findings:

"As I first mentioned back in April, it is my belief that *Desmodium glabellum (sensu stricto)* does not occur in New York, even though it is on the NYS Rare Plant list and NYS Checklist. As far as I can tell, all the NY specimens at the State Museum under *Desmodium glabellum* are incorrectly identified. The majority of these should be annotated to either *Desmodium perplexum* or



Carex grvida has a strongly expanded style base and golden perigynia at maturity; in New York, we have only *C. sparganioides* and *C. attenuata* with greenish fruits

***Desmodium paniculatum*.** If you follow Gleason & Cronquist, *D. perplexum* is lumped under *D. glabellum*; this has most likely resulted in the determinations [*sic* 'errors present'] at the State Museum.

The most recent paper studying this group was written by Duane Isley. While researching the taxonomy of this group, I had the opportunity to speak with Dr. Isley. He mentioned that he studied species from many herbaria and did not come across any *D. glabellum* from NY; however, while Dr. Isley did view the specimens at NYBG, he did not view those at NYS. Unfortunately, Dr. Isley is in poor health and notable to annotate additional specimens. I also spoke with Rupert Barneby at NYBG but he was unable to offer any insight.

Rick Spelinberg (FNA Editor for Fabaceae) said that he knows of no American authority actively working on *Desmodium* and that FNA has contacted a Japanese scientist to write the *Desmodium* section (Osakii, sp?). He believes that *D. perplexum*, *D. glabellum* and *D.*

paniculatum will all be recognized as distinct species, while *D. dillenii* will be recognized as a synonym in part under each of the three (just as Mitchell has listed it). There was no verdict on the FNA treatment of *D. humifusum*.

Obviously, there are taxonomic problems that have yet to be addressed. Until these are solved, I recommend following Mitchell's checklist where the following three closely related taxa are treated as distinct species: *D. glabellum*, *D. perplexum*, *D. paniculatum*, as this is also how it is believed FNA will structure the *Desmodium paniculatum* complex. If *D. glabellum/perplexum* are distinct, then I believe that *D. glabellum* is either very rare or not present in NY; if *D. perplexum* is lumped under *D. glabellum*, then we have so much *D. perplexum* in the state that it will be removed from (rare) list. If *D. glabellum (sensu stricto)* is not found this year, and no herbarium specimens can document its historic existence in the state, I would like propose its removal from the state [Heritage] list.

The distinguishing characteristic between *D. glabellum* and *D. perplexum* is the presence of uncinata (hooked) hairs; *D. glabellum* is densely covered with uncinata hairs throughout the stem, with some long ciliate hairs intermixed; uncinata hairs are sometimes also present on the veins of the upper side the leaf; *D. perplexum* is void of uncinata hairs, and only has scattered long hairs." Troy Weldy, New York Natural Heritage Program.

****Iberis pruitii* Tineo** - This citation was based on a misidentified specimen of *I. umbellata*, according to Dr. Ihsan Al-Shebaz (Missouri Bot. Garden).

***Utricularia fibrosa* Walt.** - should be replaced by *U. striata* in the checklist. The type specimen of Walters' *U. fibrosa* turns out to be a plant of *U. gibba*, a species that also occurs in New York as a native (see additions immediately following).

Additions

***Utricularia striata* LeConte ex Torrey** BLADDERWORT
(*U. fibrosa* Britt; *U. fibrosa* Walt. of some NY reports)

Rarity Status: State Listed Threatened.

This name replaces what we northeastern botanists have been mistakenly calling *U. fibrosa* Walt., not Britt.

****Lepidium perfoliatum* L.** SHIELD-CRESS

This is a rare, but widely-scattered, introduced European weed in New York State, occurring in inland waste places, on roadsides, etc., in the lowlands north of the Coastal Plain. It has been known in the state for a long time, but was deleted from the manuscript (by a slip of a key, no doubt) somewhere between the publication of the 1986 and 1997 checklists.

Editorial Note: To paraphrase Gertrude Stein: an aster is an aster is... I resist dropping the genus *Aster* from the North American flora, no matter how convincingly some may argue for splitting all of our native species into several genera -- none of which is *Aster*. The morphological breaks may be useful at the subgeneric level, but not of enough significance to eliminate one of our best known genera from the continental flora. John Kartesz tells me that several *Aster* experts will agree with the split, but, since we will have no asters under the new scheme, who needs aster experts? Joking aside, this is the fickle side of plant taxonomy that always bothers me.

The same thing occurred in the 1970s-80s with the grass genera, *Panicum* and *Chasmanthium*, the latter being very poorly defined, even at the subgeneric level. The pendulum swings, sorry to say, with changes often based on too few (and inconsistent) morphological differences. If we start calling our native asters *Symphotrichum* (and such), we are only paving the way for some future genius to get tenure by discovering that: **all we have is a bunch of asters.** Changes in the national list would certainly bring happiness in certain circles, though, where god-like bureaucrats might be imagined chortling with glee, while giving calico aster its new, official common name of "Britton's calico symphotrich." R. Mitchell

More on *Pyrola minor* (Pyrolaceae)

by Norton G. Miller, Biological Survey, New York State Museum

The rarity status of *Pyrola minor* L. in New York State was reported recently in this Newsletter by Steve Young (1997), who wrote about relocating its only two known stations in New York, which are on and near Whiteface Mountain in Essex County. Steve's account draws needed attention to this northern plant that reaches its southernmost distributional limit in the eastern United States at these two places (Hultén, 1986).

I participated in the discovery of the Whiteface Mountain population in 1961 and observed the plants a number of times on the mountain after that -- especially in the 1990s. What follows is additional documentation about the occurrence of *P. minor* in New York that I gleaned from the Herbarium of the New York State Museum, records in the State Botanist's office, and Stanley Smith's plant collection record books, to which I add my own observations of the plant on Whiteface.

Pyrola minor was first discovered in New York by Theodore C. Baim of Schenectady on 29 June 1952 along wooded banks of the West Branch of the Ausable River southwest of Wilmington Notch. Steve Young (1997) has relocated this population. Other collections in the State Museum Herbarium were, gathered six years after Baim's discovery (by O. A. Phelps, S. J. Smith, and G. E. Larson), and are presumably from the same population.

I was with Stanley Smith on 19 August 1961 when he discovered a second station for *Pyrola minor* in New York. The locality was near the summit of Whiteface Mountain, just beyond the upper end of a long stone wall that marks the Wilmington (upper hairpin) Turn, near the junction of the northeast summit trail and the east side of the Memorial Highway. I saw plants of *P. minor* there several times after 1961, mostly while in the company of Stanley Smith. I was his field assistant in the summers of 1961-1963, and continued to botanize with him in the Adirondacks whenever possible throughout the 1960s and 70s.

Specimens in the herbarium of the New York State Museum or notes in the plant locality master directory in the State Botanist's office show that the species was observed on Whiteface by Smith in 1962 and that specimens from the population were collected by him in 1965, 1966, and 1973. The habitat of the plants is noted on the specimen labels as either "ditch" or "roadside ditch," although unaccountably the designation "Saranac Lake Hairpin Turn" or "Lake Placid Turn" are noted in his or his assistant's field notes.

The Lake Placid Turn is the lowest (1250 m) of two hairpin turns along the Memorial Highway, whereas the Wilmington Turn is 70 m higher (1320 m). Unfortunately, the elevational range given in Smith's collection book, for specimen 40395, for example, and other plants gathered on 15 July 1966 on Whiteface, 4000-4600 ft (1219-1402 m), is too broad to be helpful, but I am certain that Smith's station for *P. minor* was at the upper end of the Wilmington Turn.

Believing the population to be well-known and secure, I had not thought much about *Pyrola minor* on Whiteface Mountain until July 1996 when I accompanied a group of European botanists down from the summit along the Memorial Highway to the Wilmington Turn. We had been exploring the upper mountain slopes as part of an International



***Pyrola minor* L. Mountain Pyrola, has recently been relocated in New York State**

Association of Bryologists Sphagnum Excursion that visited peatlands in the Adirondack Mountains and New Jersey. I observed and pointed out a large population of *P. minor* on the north side of the Memorial Highway several hundred meters above the locality where I had first seen it in 1961. The species was known to the Finnish and Scandinavian botanists in our group as a plant of their homeland.

When I studied this population in detail again in July 1998, it consists of several hundred plants in fruit, under low branches of small balsam fir trees at the edge of the road pavement, in association with *P. elliptica* Nutt. and weeds, including *Hieracium aurantiacum*, *Taraxacum* sp., and *Achillea millefolium* s. lat. Colonies of *P. minor* plants occur discontinuously along about 145 m of highway from an elevation of 1369 to 1327 m. A search for *P. minor* in 1998 at the original discovery site at the southeast corner of the Wilmington Turn was unsuccessful. The ditch contained small shrubs of *Alnus viridis* subsp. *crispa* and other plants and appeared to have been cleaned of loose rock during highway maintenance, thereby possibly eliminating the first population discovered on Whiteface.

It seem likely that original station for *Pyrola*

minor on Whiteface Mountain, where the plant evidently no longer grows, and the large extant colony farther up the mountain are part of the same general population. If so, the species has persisted for nearly 40 years in roughly the same area, which suggests a potential for dispersal over short distances by seed.

Once established, the plants are clonal, growing outward sympodially, forming new apical branches from an underground stem. Separate plants have one or more basal clusters of leaves that represent either new offsets or leaf clusters from a previous period of flowering.

Pyrola minor is one of New York's rarest flowering plants, but both known populations appear vigorous and not in decline. The two New York stations are within 6 km of each other. **Specimens examined (all NYS):** Essex County, Town of North Elba, West Branch of Ausable River, 1.5 mi sw of Wilmington Notch, 1600' elev., *Baim 4081*, 29 Jun 1952; Wilmington Notch, *Phelps et al. 262*, 18 Jun 1958; *Smith et al. 25250*, 18 Jun 1958. Town of Wilmington, summit of Mt. Whiteface up Memorial Highway, ditch at camp, *Smith & Miller 31574*, 19 Aug 1961; near summit of Mount Whiteface, in ditch, *Smith et al. 38627*, 17 Aug 1965; Memorial Highway, Mount Whiteface, *Smith et al. 40395*, 15 Jul 1966; upper slopes of Mt. Whiteface, roadside ditch, *Smith et al. 49687*, 6 Jul 1973; Whiteface Mountain, n side of Memorial Highway above Wilmington Turn just before Castle parking lot, 44°22'08", 73°54'03"W, elev. 1360 m, *Miller 12476*, 18 Jul 1998.

Literature Cited:

- Hultén, E., & M. Fries. 1986. Atlas of north European vascular plants north of the Tropic of Cancer. 1173 pp. Koeltz Scientific Books. Königstein.
- Young, S. 1998. Significant botanical discoveries of 1997 — compiled from information received at the New York Natural Heritage Program. NYFA Newsletter 9(1): 4-6.

A Preliminary Key to the Ericaceae of New York State - by Steven Clemants

I am currently working on a treatment of the Ericaceae (Heath Family) for the New York state flora. I submit the following key to the NYFA membership as a preliminary key to the 55 species in the state. In writing this key I have tried to use vegetative characters as much as possible, or a

combination of flower and fruit characters. You will notice that I have included members of the Empetraceae, Monotropaceae and Pyrolaceae in the Ericaceae, since recent research has shown that these families do not warrant separate status.

**Please use the key and let me know what does not work or what might work better to separate genera or species. Send comments to:
Steven Clemants, Brooklyn Botanic Garden
1000 Washington Ave., Brooklyn, NY 11225
e-mail: steveclemants@bbg.org**

Key to Genera

1. Plants without chlorophyll; stems white, pink or yellow; leaves scale-like.....2
1. Plants with chlorophyll; stems brown or green; leaves not scale-like.....3
 2. Petals distinct; calyx of 2-5 bract-like sepals.....*Monotropa*
 2. Petals fused together; calyx of 5 sepals.....*Pterospora*
3. Plants herbaceous; leaves basal (except in *Chimaphila*).....4
3. Plants woody; leaves cauline.....7
 4. Leaves cauline; inflorescences umbellate or corymbose*Chimaphila*
 4. Leaves chiefly basal; inflorescences racemose or of solitary flowers.....5
5. Flowers solitary and terminal; fruit opening from the top downward.....*Moneses*
5. Flowers in racemes; fruit opening from the base upward.....6
 6. Racemes secund (the flowers oriented to one side); stigmas not subtended by a collar or ring; style straight.....*Orthilia*
 6. Racemes with spirally arranged flowers; stigmas subtended by a collar or ring; styles declinate (straight in *P. minor*)*Pyrola*
7. Leaves 5 mm wide or less; often curled and appearing needle-like.....8
7. Leaves 6 mm wide or more (commonly over 1 cm wide) usually not appearing needle-like...20
 8. Leaves alternate.....9
 8. Leaves opposite, whorled or subverticillate.....17
9. Flowers showy, perfect.....10
9. Flowers not showy, unisexual.....16
 10. Flowers 4-merous; fruit a white berry.....*Gaultheria*
 10. Flowers 5-merous; fruit a capsule or a red or blue berry.....11

11. Ovary inferior; fruit a red or blue berry....
.....*Vaccinium*
11. Ovary superior; fruit a capsule.....12
12. Corolla vase-shaped (urceolate);
capsules loculicidal.....13
12. Corolla trumpet-shaped (salverform)
or bell-shaped (campanulate); capsules
septicidal (except *Harrimanella*)....14
13. Leaves white-hairy beneath.....*Andromeda*
13. Leaves with orange scales beneath....
.....*Chamaedaphne*
14. Anthers spurred; capsule loculicidal...
...*Harrimanella*
14. Anthers not spurred; capsule septicidal
.....15
15. Flowers 3-4 mm wide.....*Loiseluria*
15. Flowers more than 1 cm wide.. *Rhododendron*
16. Flowers axillary; stigmas 6-9....*Corema*
16. Flowers in small terminal heads; stigmas
2-5 (usually 3).....*Empetrum*
17. Flowers showy, perfect.....18
17. Flowers not showy, unisexual.....19
18. Flowers 4-merous; anthers not in a
pocket in the corolla.....*Calluna*
18. Flowers 5-merous; anthers in a
pocket in the corolla.....*Kalmia*
19. Flowers axillary; stigmas 6-9.....*Corema*
19. Flowers in small terminal heads; stigmas 2-5
(usually 3).....*Empetrum*
20. Leaves opposite, whorled or sub-
verticillate.....*Kalmia*
20. Leaves alternate.....21
21. Flowers 4-merous..... *Gaultheria*
21. Flowers 5-merous.....22
22. Ovary inferior; fruit a blue berry.....23
22. Ovary superior; fruit a capsule or a
red drupe.....24
23. Leaves not glandular; ovary 4-5 locular
with numerous ovules and seeds..*Vaccinium*
23. Leaves glandular; ovary 10 locular, with 10
ovules and seeds.....*Gaylussacia*
24. Plants prostrate or low growing to 3
dm tall.....25
24. Plants erect, more than 3 dm tall....27
25. Plants prostrate; leaves cordate at base,
ciliate.....*Epigaea*
25. Plants erect; leaves acute to rounded at the
base, serrate or entire.....26
26. Fruit a capsule; leaves serrate...
.....*Chimaphila*
26. Fruit a red drupe; leaves entire...
.....*Arctostaphylos*
27. Flowers bell-shaped (campanulate) or
trumpet-shaped (salverform); fruit a
septicidal capsule.....*Rhododendron*
27. Flowers vase-shaped (urceolate); fruit a
loculicidal capsule or a drupe.....28
28. Leaves with orange scales; flowers
single in the axis of foliage leaves....
.....*Chamaedaphne*
28. Leaves glabrous or variously hairy,
without scales; inflorescence of
racemes, panicles or clusters.....29
29. Leaves white hairy beneath, often slightly
curled.....*Andromeda*
29. Leaves neither white hairy beneath nor
curled.....30
30. Capsule with white-thickened
sutures; anthers spurred or
awned.....*Lyonia*
30. Capsule without thickened sutures;
anthers without spurs or awns...31
31. Flowers in lateral racemes.....*Leucothoe*
31. Flowers in terminal panicles.....*Oxydendrum*

Keys to Species

Andromeda

One species in our flora: *A. glaucophylla*

Arctostaphylos

One species in our flora: *A. uva-ursi*

Calluna

One species in our flora: *C. vulgaris*

Chamaedaphne

One species in our flora: *C. calyculata*

Chimaphila

1. Leaves acuminate, with white veins

.....*C. maculata*

1. Leaves acute, without white veins

.....*C. umbellata*

Corema

One species in our flora: *C. conradii*

Empetrum

1. Youngest parts of stem minutely
stipitate-glandular

.....*E. hermaphroditum*

1. Youngest parts of stem tomentose or
villous but not glandular.....*E. atropurpurea*

Epigaea

One species in our flora: *E. repens*

Gaultheria

1. Leaves 3-9 mm long, with scattered
setose hairs beneath; fruit white

.....*G. hispidula*

1. Leaves 17-41 mm long, glabrous or

puberulent along midveins; fruit red

.....*G. procumbens*

Gaylussacia

1. Glands on lower surface of leaves small, on generally curved, hair-like stalks

.....*G. dumosa*

1. Glands on lower surface of leaves, large, short-stalked and nearly sessile.....2

2. Resin glands present and generally abundant on both surfaces of the leaf

.....*G. baccata*

2. Resin glands present on lower surface only.....*G. frondosa*

Harrimanella

One species in our flora: *H. hypnoides*

Kalmia

1. Leaves borne in whorls of 3; sepals glandular-setose.....*K. angustifolia*

1. Leaves opposite; sepals glabrous.....2

2. Leaves lanceolate, over 1 cm broad.....*K. latifolia*

2. Leaves linear, less than 0.5 cm broad.....*K. polifolia*

Leucothoë

1. Leaves evergreen; bracteoles basal on the pedicel.....*L. fontanesiana*

1. Leaves deciduous; bracteoles apical on the pedicel.....2

2. Anthers with 4 awns; capsules slightly lobed; racemes usually nearly straight.....*L. racemosa*

2. Anthers with 2 awns; capsules clearly lobed; racemes usually curved.....*L. recurva*

Loiseluria

One species in our flora: *L. procumbens*

Lyonia

1. Flowers 3-5 mm long; sepals 1-1.5 mm long.....*L. ligustrina*

1. Flowers 7-13 mm long; sepals 3-10 mm long.....*L. mariana*

Moneses

One species in our flora: *M. uniflora*

Monotropa

1. Plants with one flower; stems glabrous.....*M. uniflora*

1. Plants with more than one flower; stems usually pubescent.....*M. hypopitys*

Orthilia

One species in our flora: *O. secunda*

Oxydendrum

One species in our flora: *O. arboreum*

Pterospora

One species in our flora: *P. andromeda*

Pyrola

1. Style straight; anthers connivent around the style, 0.8-1.2 mm long; corolla subglobose, the petals converging and nearly meeting at the tip.....*P. minor*

1. Style declinate; anthers not connivent around the style, 1.8-3.6 mm long; corolla bell-shaped (campanulate), the petals spreading or loosely converging.....2

2. Sepals about as broad as long or broader.....3

2. Sepals longer than broad.....4

3. Leaf blades mostly 1-3 cm, usually shorter than the petioles; sepals broadly ovate; obtuse to subacute.....*P. chlorantha*

3. Leaf blades mostly 3-7 cm, usually longer than the petiole; sepals triangular, shortly acuminate.....*P. elliptica*

4. Petals white; sepals oblong or ovate-oblong, not overlapping at the base

.....*P. asarifolia* var. *americana*

4. Petals pink or pinkish; sepals essentially triangular, slightly overlapping at the base.....*P. asarifolia* var. *asarifolia*

Rhododendron

1. Leaves evergreen.....2

1. Leaves deciduous.....4

2. Leaves with dense orange or white pubescence below; corolla deeply cleft and appearing to have 5 free petals.....*R. groenlandicum*

2. Leaves glabrous; corolla fused for most of its length.....3

3. Leaves 5-20 cm long.....*R. maximum*

3. Leaves 1-1.5 cm long.....*R. lapponicum*

4. Stamens 10; corolla irregular, divided nearly to the base.....*R. canadense*

4. Stamens 5; corolla more or less regular, funnel-shaped.....5

5. Flowers appearing in mid summer, after the leaves have expanded (essentially all of the leaves unfolded, and the vegetative bud scales absent).....6

5. Flowers appearing before or with the leaves (at least some of the leaves till folded or the vegetative bud scales still present).....7

- 6. Sepals under 1 mm long; pedicels puberulent and glandular.....*R. viscosum*
- 6. Sepals 1.6-3 mm long; pedicels glandular but not puberulent.....*R. arborescens*
(Report Only)
- 7. Flowers yellow or orange.....*R. calendulaceum*
(Report Only)
- 7. Flowers white to pink.....8
 - 8. Floral bud scales glabrous; pedicels without short pubescence and long hairs, usually only with long hairs; leaves glabrous or only sparsely unicellular pubescent.....*R. periclymenoides*
 - 8. Floral bud scales densely covered with unicellular hairs; pedicels with both short pubescence and long hairs; leaves moderately to densely covered with unicellular hairs below.....*R. prinophyllum*

Vaccinium

- 1. Stems trailing; flowers 4-merous cleft to below the middle with reflexed lobes; fruit red.....2
- 1. Stems erect; flowers 4-5 merous not deeply cleft; fruit blue.....3
 - 2. Leaves ovate-oblong, ovate or triangular, strongly whitened beneath; bracteoles scale-like, attached below the middle of the pedicel.....*V. oxycoccus*
 - 2. Leaves oblong-elliptic, only slightly paler beneath; bracteoles leaf-like, attached above the middle of the pedicel.....*V. macrocarpon*
- 3. Twigs warty (verrucose); anthers not spurred....4
- 3. Twigs smooth; anthers spurred.....8
 - 4. Plants usually over 1.5 m tall..
.....*V. corymbosum*
 - 4. Plants less than 0.8 m tall.....5
- 5. Leaves sharply and uniformly serrate.....6
- 5. Leaves entire or irregularly serrate.....7
 - 6. Plants 2-6 cm tall; leaves 2.5-5.5 mm wide.....*V. boreale*
 - 6. Plants 9-27 cm tall; leaves 6-16 mm wide.....*V. angustifolia*
- 7. Leaves glaucous, usually glabrous; twigs pubescent in lines.....*V. pallescens*
- 7. Leaves not glaucous, densely pubescent; twigs pilose.....*V. myrtilloides*
- 8. Corolla bell-shaped (campanulate); stamens exerted; shrubs 1-2 m tall..*V. stamineum*
- 8. Corolla vase-shaped (urceolate); stamens included; shrubs to 0.7 m tall.....9

- 9. Leaves toothed; flowers 5-merous...
.....*V. caespitosum*
- 9. Leaves entire; flowers 4-merous..*V. uliginosum*

Dues

Remember, dues are only \$10 a year (\$15 to join). Check your envelope. The last year you paid will appear above your name. We will soon have volumes of all back newsletters available free to new members and for a reasonable charge to old members. If you joined recently and did not get a complete set, we owe you one. Just write for it. Encourage a botanical friend to be the only one on the block to be a member of this obscure and fascinating organization (maybe the only person in the township).

NYFA Fall Trip for 1998

The Western Adirondack Wilderness: August 29 - 30 Led by David Hunt, we will visit Spring Pond Bog, old-growth forest areas, and communities damaged by the 1995 blowdown.
Details: contact Bob Zaremba at (518) 273-9408 ext. 226 (Home: 274-7419)
e-mail: rzaremba@tnc.org

**New York
Natural History Conference
October 14-17, 1998**

N. Y. State Museum, Albany
If you are interested in attending or getting updated information on the conference, call (518) 474-5812, or e-mail rgill@mail.nysed.gov
Check our website updates at www.nysm.nysed.gov.
See you here in October. It's always great.

**Send us Your Articles, Field
Experiences, Discoveries, etc.
We'd Love to Hear from You**



***Chimaphila maculata* - Spotted Wintergreen**

An example of a scientific illustration by artist, Bobbi Angell, from Steve Clemants' upcoming, illustrated flora volume on New York Ericaceae, to be published c. 1999.