

NYFA Newsletter

New York Flora Association
of the New York State Museum Institute

Vol. 6, No. 1

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April - 1995

New York State Museum The Nature Conservancy

ADDRESS ALL CORRESPONDENCE TO NYFA, 3140 CEC, ALBANY, NY 12230 - DUES \$10 PER YEAR

An Intertidal, Aquatic Cactus in New York?

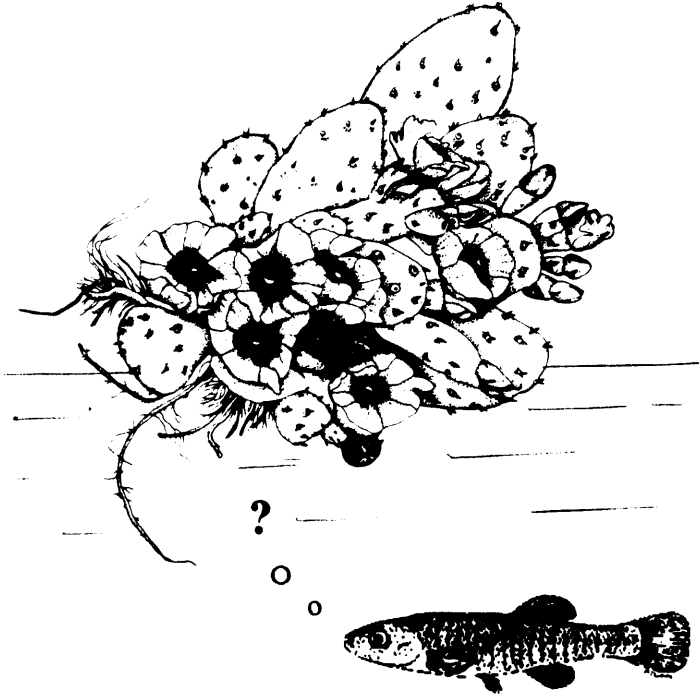
by Richard Mitchell

It was during my third quest for the elusive (or more likely extirpated) woolly lip-fern, *Cheilanthes lanosa*, that I decided to brave the muck and slog all the way around the South Knoll of Iona Island. Up to my knees in the Hudson River Estuary, I was trying the strategy of looking up along the limy cliffs and peering under the lips of rocky ledges where the fern might have persisted unnoticed. The going got a little tough at times, due to the density of *Phragmites* and *Typha* stands, and occasionally I had to climb up on the cliffs to make my way.

At about noon, on the southwest side of the island, I was up on the cliff-face, bagging a few harebells (*Campanula rotundifolia*) and rock sandworts (*Minuartia michauxii*), when I noticed some pale green, bulbous extrusions from the outgoing tidewater under the lip of a stony overhang. I crawled down, and, to my surprise, found several healthy stems of prickly-pear (*Opuntia humifusa*) solidly rooted in the mud of the estuary floor, their bases covered by two inches of water. At some time in the past, at least one plant had apparently fallen from the ledge above and found a niche for itself in the aquatic ecosystem. The fact that there are now several stems indicates to me that it is propagating vegetatively with some success.

I was immediately reminded of an article I read some 30 years before when I was in college, in which John Kunkel Small described this kind of "behavior" in several species of cacti in Florida and Texas, and among them were a couple of *Opuntia* species. When you consider the anatomical features of a cactus that serve to keep water in, like a thick waxy epidermis and sunken stomates, it's not hard to picture those same features keeping water, infectious bacteria and fungi out. There is actually a case in the literature in which a cactus-like *Euphorbia* not only survived a long period of submergence in an aquarium, but thrived there and even produced floating leaves!

For what I am about to say, I probably should apologize to those who continue to be influenced by the ecological concepts of Frederic Clements, and



Native prickly-pear (*Opuntia humifusa* Raf.) has been found in the muck of the intertidal Hudson River Estuary, where it is inundated daily.

who may cling to threads of the romantic notion that there is some "reality" to biotic communities as discrete, functional units. If you have come to believe that communities are in some way structured, based on biologically significant combinations of species, I offer the humble aquatic cactus as my challenge to a convoluted brand of thinking.

Individual organisms merely survive wherever they survive. If certain combinations of species often occur together, so what?

Will somebody please challenge this? I've made myself an easy target, here, so shoot me down. I must be getting bored, with over 300 newsletter subscribers and so little reader input. Your letters on autecology vs. synecology or anything relating to systematics and field botany are welcome and hereby solicited.

Address your responses to me: Richard Mitchell, Biological Survey, 3140 CEC, Albany, NY 12230.

Some Observations on *Phragmites* Stolons -

by John M. Bernard, Ithaca College

Common reed [*Phragmites australis* (Cav.) Steud.] can be an extremely aggressive competitor, often dominating large areas of wetlands, roadside ditches and the shallow waters of lakes. Once established, it grows and reproduces at a given site by means of an extensive rhizome system, often eliminating native vegetation. Not so well known, though, is that *Phragmites* may also develop very long, lateral, above-ground shoots (stolons) that produce new shoots and rooted clumps at a considerable distance from base of the parent plant.

Franz Seischab and I first noticed such stolons while doing a survey of Irondequoit Bay wetland communities. While working near a small stand of *Phragmites* along a slope, we noticed a few long, horizontal shoots growing along the ground. Our first thought was that these were shoots that had fallen over, but we soon realized that they were 3-4 times longer than the upright shoots. Since then, I have looked for these every time I visited a *Phragmites* stand and have made measurements of some of the stolons found. Many of the measurements were made in a constructed wetland that received landfill leachate.

Stolons grow out from the edge of the stands and seem to thrive where the ground is moist, but not covered by dense, shading vegetation. They grow very long, at a rate of up to 12 cm per day. By September, the shortest I've found were over five meters, the longest up to 9.4 meters. A node is produced about every 20 cm. If the ground over which the stolon grows is dry, or if the stolon does not touch the ground the node may sometimes produce an upright shoot, a secondary stolon, or both. More commonly, erect shoots and secondary stolons will alternate at nodes along the primary axis, sometimes for distances of 300-400 cm or more. Large systems can produce tremendous numbers of nodes. One stolon measured 850 cm in length and produced a total of 255 nodes, each capable of generating a new grass clump.

The secondary stolons may grow to over a meter in length during a single season, with a node about every 5-10 cm. They also produce upright shoots and new root systems where they touch the ground. Often, they touch the ground tip first, and, if conditions are right, begin to grow below ground as a rhizome.

When the ground is moist, the nodes often produce both a shoot and a root system while sprouting laterally. By the end of summer, the rooted nodes produce new clumps of *Phragmites* at a good distance from the edge of the parent clump.

Stolons appear to be foraging organs in the best sense of the word. They grow along the ground, producing roots primarily where the environment is favorable, thus utilizing their energy efficiently by

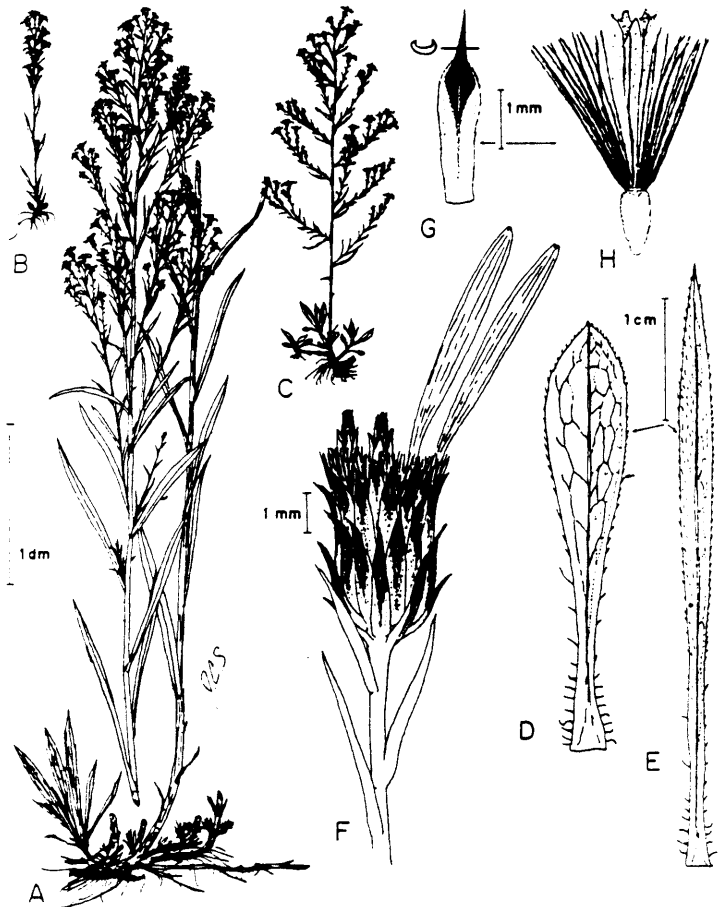
allocating it to terminal growth. At the end of each season, the stolon system dies back, leaving new rooted plants where its nodes once were.

Editor's Note: Two races of *Phragmites australis* apparently occur in New York State: a non-aggressive, native phase and an extremely invasive biotype from outside North America. For extensive information and references on this significant weedy grass species, see: Tucker, G., 1990. *Journal of the Arnold Arboretum* 71: 145-177.

Four "Historical" Rarities Found in 1994, and Others in Need of Searches -

by Steve Young, Compiled from records of the New York Natural Heritage Program.

The SH (state historical) rank is assigned to a rare native taxon at the beginning of each field season, if its occurrence has not been documented for over 15 years. Four species ranked SH by the New York Natural Heritage Program were discovered in the field or identified from existing herbarium specimens in 1994. This continues the recent trend of botanists finding one or more historical species per year since 1990. Species moved from SH to the rank of S1 last year are listed below:



Aster pilosus Willd. var. *pringlei* (Gray) Blake G4G5 SH. Illustration from Semple & Heard (1987).

***Aristolochia serpentaria* L. G5 SH**

After remaining uncollected in New York State for 99 years, these odd little plants were found last summer at two locations in the Hudson Highlands by Spider Barbour and Jack Focht (see the NYFA Newsletter of December, 1994).

***Aster pilosus* Willd. var. *pringlei* (Gray) Blake**

G4G5 SH

Gordon Tucker collected this aster variety twice near Westerlo, Albany County, in 1991, and Eric Lamont provided recent identifications. David Hunt also identified one of Bob Zaremba's specimens from the 1980s -- also from Albany Co. The next most recent specimen of this aster was collected in 1968 in Onondaga County, with an unverified report from Dutchess Co. in 1977.

***Cuscuta cephalanthi* Engelm. G5 SH**

Hudsonia Inc. came up with two recent finds of a plant that had not been collected since 1947 when Stanley Smith saw it at Piermont. Steve Nyman, on an assignment for Hudsonia, collected it in Ulster Co. in 1987 and Gretchen Stevens found it again in 1994 in Dutchess Co.

***Juncus bufonius* L. var. *halophilus* Fern. & Buch. G5T?**

SH David Hunt recently identified one of Bob Zaremba's specimens from the 1980s from the town of Islip, Suffolk Co.

That leaves 84 taxa that are still ranked SH out of a total rare flora numbering about 600 (13% of our state flora). Only 16 of these taxa have 10 or more historical records. Some have been sought extensively, while others have not.

Some historically known taxa in need of searches are:

Buchnera americana - ten historical sites, mostly from central and western New York.

Callitriche hermaphroditica - 15 historical sites from the St. Lawrence and Champlain Valley Regions; probably affected by the seaway.

Calypto bulbosa - ten historical sites from central and northern New York. This orchid is probably hiding out there somewhere on a shady slope under conifers.

Collinsia verna - 11 historical sites from central and western New York. Destruction of floodplain forests may have made this species rarer and harder to find. It sometimes occurs in large colonies.

Eriophorum angustifolium ssp. *scabriusculum* - ten historical sites from central New York, but some of these may be misidentified.

Eupatorium rotundifolium var. *rotundifolium* - 12 historical sites from Long Island and Staten Island.

Gnaphalium helleri var. *micradenium* - ten historical sites from Long Island and central New York.

Lemna perpusilla - 13 historical sites from Long Island and the New York City area.

Listera convallarioides - 13 historical sites from across upstate New York. This small orchid is almost

sure to be found with some careful searching.

Najas marina - ten historical sites, primarily from the Finger Lakes Region. This distinctive aquatic plant used to be abundant in a number of lakes in central New York, but water quality changes have severely limited its distribution. Last reported (no specimen) in the Canoga marshes by Rawinski in 1981; also north end of Cayuga Lake (1977) and Duck Lake.

Oxypolis rigidior - 19 historical sites from western Long Island and New York City boroughs; most are probably extirpated.

Petasites frigidus var. *palmanus* - 20 historical sites across upstate New York. This showy, wetland plant should have been found by now. Where is it?



Polygonum erectum - about 30 historical sites across upstate NY. A species of shores and disturbed soils that has mysteriously declined in the past 40 years.

Potamogeton filiformis var. *alpinus* - about 15 historical sites from central New York.

Strophostyles umbellata - 19 historical sites from Long Island and New York City; likely to be extirpated from many of these sites.

Viola nephrophylla - 17 historical sites from eastern and central upstate New York; may have been seen recently in the Seneca Falls area.

With all the botanical work that is taking place in the state, I hope most of these taxa will be found in the next few years. If you would like more detailed information on historical locations, let me know. It is unlikely that all of the remaining SH taxa will be found, but field botanists across the state have been doing an excellent job of finding them in recent years. Since the 1989 season, 61 SH taxa have been found. That's an average of almost twelve a year! Keep up the good work and best of luck in future searches.

**Rare Plant Status List Revisions for 1995 -
by Steve Young, New York Natural Heritage
Program.**

In early February, a meeting was held in our Latham offices to review the ranks of New York's rare plants. Ten botanists from across the state discussed the status of selected species on the Heritage inventory list and made recommendations for new state ranks. State ranks were changed for 89 taxa. The following is a summary of those changes:

- **Ten taxa from the watch list were moved to the active list (meaning that active searches should be carried out for these taxa):**

<i>Agalinis paupercula</i>	
var. <i>borealis</i>	S3?
<i>Aster spectabilis</i>	S3?
<i>Bidens beckii</i>	S3?
<i>Cenchrus tribuloides</i>	S3?
<i>Chenopodium berlandieri</i>	
var. <i>macrocalyrium</i>	S1S2
<i>Gaylussacia dumosa</i>	S1
<i>Lilaeopsis chinensis</i>	S3
<i>Pycnanthemum muticum</i>	S3
<i>Sabatia stellaris</i>	S3
<i>Suaeda linearis</i>	S3?

- **Sixteen taxa were moved from the active inventory list to the watch list, because they have been documented in over 30 sites, and are considered to be currently secure in the state:**

<i>Agrimonia parviflora</i>
<i>Asclepias purpurascens</i>
<i>Aster nemoralis</i>
<i>Aster ontarionis</i>
<i>Aster schreberi</i>
<i>Calamagrostis pickeringii</i>
<i>Carex bushii</i>
<i>Carex cryptolepis</i>
<i>Fuirena pumila</i>
<i>Heteranthera reniformis</i>
<i>Lathyrus ochroleucus</i>
<i>Mimulus alatus</i>
<i>Pinus banksiana</i>
<i>Polygonum tenue</i>
<i>Scleria reticularis</i> var. <i>reticularis</i>
<i>Veronica peregrina</i> ssp. <i>xalapensis</i>

- **Three new species were added to the active list:**

<i>Pycnanthemum verticillatum</i>	
var. <i>pilosum</i>	SH
<i>Utricularia minor</i>	S3
<i>Vitis vulpina</i>	S2

- **Fourteen taxa were removed from all current lists:**
Aster racemosus (*A. vimineus*) - This species has been documented at over 30 sites in New York. The plants are frequent in the Hudson Highlands.

Chenopodium standleyanum - Reviews of historical information and field surveys indicate that *C. stanleyanum* is much more common than previously

thought; an invasive, though infrequent, native weed.
Commelina virginica - The only report for this species in New York was apparently a garden escape, and there are no known native occurrences of *C. virginica* in New York.

Cyperus filicinus - Currently not considered a variety of *C. polystachyos*, and relatively common on Long Island.

Eleocharis caribaea - No records of *E. caribaea* are known from New York. An fragmentary specimen previously thought to be *E. caribaea* has been re-identified as *E. ovata*.

Eleocharis wolfii - The single (1927) specimen was from a railroad yard and very doubtfully native.

Huperzia porophila - Although the hybrid of this species with *H. lucidula* is known from the Shawangunk Mountains of New York, no state report of *H. porophila* itself has been verified.

Luzula parviflora ssp. *melanocarpa* - This species is now considered to be far too common in the Adirondacks for continued listing.

Maianthemum canadense var. *interius* - This variety is no longer recognized taxonomically.

Pilea fontana - Many widespread, documented occurrences in recent years indicate that this species is far more common than previously thought. Errors in manuals may have caused it to be commonly misidentified.

Platanthera pallida - The taxonomic status of this orchid is highly questionable. Statistical studies have shown it to fall well within the variation range of *Platanthera cristata* and its hybrids. However, *P. cristata* is itself rare -- currently ranked state endangered, S1.

Senecio pauperculus - This species is more common than previously thought, with large populations in the Watertown area.

Suaeda maritima - This species has been found to be locally abundant on Long Island.

Trillium cernuum var. *macranthum* - This taxon is no longer recognized as a distinct variety.

A New Heritage Rare Plant Status List will be produced this spring, reflecting these and all other changes. If you have received a list in the past, you are automatically on our mailing list for future updates. If you would like to receive a current list, contact me at 518-783-3941.

Changes in Protected Status:

The New York State protection status of rare and vulnerable plants had not been reevaluated since 1990, so numerous changes were not unexpected. None of these changes will go into effect until regulations are updated. This is the responsibility of the Division of Lands and Forests of the DEC. For more information or answers to questions about regulations, contact: **Doug Schmid at (518) 457-7370.**

Rarity Status Tally:

Endangered

- 86 endangered taxa remained unchanged.
- 42 taxa were changed from threatened to endangered.
- 43 taxa were changed from rare to endangered.
- 185 taxa were changed from unprotected to endangered.
- 12 taxa were changed from exploitably vulnerable to endangered.

Threatened

- 31 threatened taxa remained unchanged.
- 66 taxa were changed from rare to threatened.
- 24 taxa were changed from unprotected to threatened.
- 1 species was changed from endangered to threatened.

Rare

- 25 taxa were changed from unprotected to rare.
- 1 species was changed from endangered to rare.
- 4 taxa were changed from threatened to rare.
- 1 species changed from exploitably vulnerable to rare.
- Two species have been recently lost from our flora: *Salix herbacea* and *Woodsia oregana* ssp. *cathcartiana*. These were changed from endangered to unprotected, with a code of SX (state extirpated).

Future efforts will be made to change State Regulations to protect (as endangered) any native species that is found to be new to the state, or any species thought to be extirpated that is rediscovered.

A Partial List of New York State Graduate Students Working on Botanical Projects -

Numerous graduate programs in New York (and at least one outside New York) focus on plants and plant communities. Several years ago we produced a list of graduate students and their projects in the newsletter. In the interest of sharing information and highlighting botanical work in the state, the following is a partial list of graduate student projects:

Alix Cleveland; Donald Leopold, Advisor, CESF*, M.S., Predicting rare plant occurrences using an ecological classification system on the Huron-Manistee National Forest, MI.

Karen Deitz; Donald Leopold, Advisor, CESF*, M.S., Germination and seedling growth rates of woody New York Lake Plain species along a moisture gradient.

Aimee Delach; Robin Kimmerer, Advisor, adelach@mailbox.syr.edu, M.S., The effects of iron mine tailing substrates on seedling germination rates.

Mary Droege; Bill Patterson, Advisor, U.Mass, Amherst, M.S. Forestry and Wildlife Management Department. mdroege@forwild.umass.edu, M.S. Seasonal variation in total available carbohydrates in rhizomes of *Gaylussacia baccata* and its implications for fire management.

Extirpated



Woodsia oregana var. cathcartiana



Salix herbacea

Farewell to two species newly reported to be extirpated from New York State: Cathcart's woodsia had been declining for a century, and dwarf willow was known from a single plant on a heavily-hiked alpine summit.

(Graduate Student Projects, Continued)

- Estrella Fernandez;** Robin Kimmerer, Advisor, CESF*, M.S., Characterization of a community established in sandy soils in Amazonas, Venezuela.
- Andy Finton;** Bill Patterson, Advisor, U. Mass.-Amherst, Forestry and Wildlife Management Department, andyf@forwild.umass.edu. The role of land use and fire in the development of vegetation patterns in inland pine barrens.
- Andy Fisher;** Donald Leopold, Advisor, afisher@svm.acs.syr.edu, Ph.D., Forest succession on abandoned agricultural mucklands in central New York.
- Nancy Gearhart;** Donald Leopold, Craig Davis, Advisors, nlgearha@mailbox.syr.edu, Ph.D., Stand and landscape characteristics associated with a disease of white ash in central New York.
- Ron Gill;** George Robinson, Advisor, SUNY-Albany, Biology Dept. 126, Albany, NY 12222, 518-442-4341, Spatial stability of a fragmented nature preserve - The Albany Pine Bush - penetration of edge environments using pitch pine as a bioindicator.
- Bruce Gilman;** Robert Burgess, Advisor, Conservation Dept., Community College of the Finger Lakes, Canandaigua, NY, Ph.D., Vegetation of Limerick Cedars: pattern and process in alvar communities.
- Frank Hudson;** Donald Leopold, Dudley Raynal, Advisors, CESF*, M.S., Vascular plant diversity of powerline rights-of-way.
- Todd Hurd;** Dudley Raynal, Advisor, to hurd@mailbox.syr.edu, Ph.D., Influence of actinorhizal nitrogen-fixing shrubs on riparian nitrogen dynamics.
- Michele Maciorowski;** Donald Leopold, Advisor, CESF*, M.S., Genetic variation of Hart's Tongue Fern (*Phyllitis scolopendrium* var. *americana*) and the establishment of new populations in central New York.
- Greg McGee;** Donald Leopold, Advisor, ggmcee@mailbox.syr.edu, Ph.D., The influence of old-growth structural characteristics on northern hardwood forest vegetation.
- Jennifer O'Reilly;** Donald Leopold, Advisor, CESF*, M.S., Seedbanks of abandoned agricultural wetlands: topsoil application as a method of restoring wetlands.
- Greg Podniesinski;** Donald Leopold, Advisor, CESF*, Ph.D., Plant community organization along environmental gradients in natural forested wetlands.
- Amy Samuels;** Robin Kimmerer, Advisor, CESF*, M.S., The effects of land use history and community on the distribution and impact of buckthorn (*Rhamnus cathartica*) at Chaumont Barrens.
- Diane Thompson;** Donald Leopold, Advisor, CESF*,

M.S., Edge effects in mid-successional stands of central New York.

Kendall Watkins; Donald Leopold, CESF*, M.S., Control of common reed (*Phragmites australis*) at White Lake Swamp.

Siril Wijesundara; Andy Greller, Advisor, Biology Dept., Queens College, Flushing, NY 11367, 718-997-3437, Ph.D., Correlation of vegetation and soils at Floyd Bennett Field, Gateway National Recreational Center.

***Contact at: Environmental and Forest Biology, SUNY-CESF, 1 Forestry Drive, Syracuse, NY 13210.**

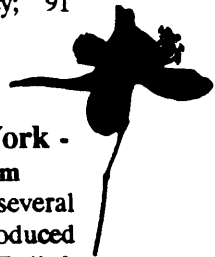
We will continue to expand upon this list in future issues of this newsletter. If you are conducting any botanical research or monitoring any species or plant communities and would like you work to be known to other botanists in the state, contact Bob Zaremba, NY Regional Office; The Nature Conservancy; 91 Broadway; Albany, New York.

***Consolida regalis* S. Gray,
Naturalized in Genesee County, New York -
by Norton G. Miller, New York State Museum**

The New York state flora includes two of the several species of annual larkspurs that have been introduced into North America: *Consolida ambigua* (L.) Ball & Heyw. (*C. ajacis* of American authors), originally from the Mediterranean region, and *C. regalis* S. Gray, a native of central and eastern Europe. Mitchell and Dean (1982) treat *C. ambigua* in their flora volume on the Ranunculaceae of New York, listing *C. regalis* as non-persistent; Mitchell (1986) lists it as a rare escape, and both *C. ambigua* and *C. regalis* are reported as "rare escapes" in New York Flora Association's *Vouchered Atlas of N. Y. State Flora* (1990). Neither Fernald (1950) nor Gleason and Cronquist (1991) treat *C. regalis* as an established member of the vascular plant flora of northeastern North America.

I collected *Consolida regalis* in the Town of Bergen, northeastern Genesee County, on 10 August 1994 in a recently harvested wheat field near the end of Pocock Road, where it was so abundant that its brilliant azure flowers were conspicuous from a distance. This same larkspur was also seen at two additional locations nearby on the same date, one where it occurred with roadside weeds along Pocock Road, several hundred yards north of Swamp Road, and the other in a second field of wheat stubble adjacent to Swamp Road, 0.2 mi southwest of the first station. These widely separated occurrences argue that the species has become naturalized in Genesee County, a conclusion that is supported by data from herbarium specimen vouchers.

Consolida regalis was first collected in Genesee County in the Town of Byron by Harold and Rachel Axtell on 21 August 1967 ("established throughout



grain field and adjacent roadside for several years") about 3.25 mi south of the stations where I observed it growing in 1994. The Axtell's collection is cited by Zenkert and Zander (1975). Stanley Smith gathered specimens of *C. regalis* along a "railroad siding" in Bergen on 18 July 1972 [without doubt the "old railroad grade" shown on recent United States Geological Survey topographic maps], and on 23 July 1990 Alfred Schotz and Betsy Potter found it in a hedgerow next to wheat field near the Pocock Trail entrance to Bergen Swamp -- the same place I found *C. regalis* to be abundant in 1994. Thus, this species has been observed off and on over a period of nearly 30 years in northeastern Genesee County. There is evidence of self-seeding and persistence from seed banks that have built up over the years in an area of perhaps 35 square miles or possibly more. Therefore, *Consolida regalis*, joins many other naturalized alien species as a member of the New York State flora, albeit one of local occurrence at the present time.

I have seen only two herbarium collections of *Consolida regalis* from other parts of New York State. One was from a College of Agriculture greenhouse, Cornell University campus (*Wilde s.n.*, 13 June 1928; BH), the other of uncertain locality (Hudson [sic] County, New York, *ex* collection of Stephen Calverley; BKL). While it seems that *C. regalis* may escape occasionally from gardens, Bayard Long (1916) and others have suggested that it may be introduced as a contaminant with seed grain. This is considered the likely origin of Genesee County populations.

While the status of *Consolida regalis* as a naturalized member of our flora is now secure, it is less clear that *C. ambigua*, rocket larkspur, persists outside cultivation for longer than one year. According to the NYFA Atlas it is known from 17 New York counties (but with a specimen from one of these, Genesee County, being misidentified). However, in contrast to the multiple observations of *C. regalis* in a small area over 30 years, I have not found voucher specimens or other evidence that establishes that *C. ambigua* has persisted over several years at the same locality. Therefore, I encourage other botanists to collect data to determine whether or not *C. ambigua* is naturalized in New York.

When in fruit, the glabrous follicles of *Consolida regalis* are easily distinguished from the pubescent ones of *C. ambigua*. This difference is expressed at anthesis also. At maturity, the follicles of *C. regalis* are 1-1.25 cm long and ca. 0.3 mm wide, whereas those of *C. ambigua* are 1.5 cm long and ca. 0.6 mm wide. Moreover, the lower flower bracts of *C. regalis* are simple, while they are divided in *C. ambigua*.

Genesee County collections of *C. regalis* include the following: Town of Byron, Route 33 and Old Clinton Road (sic) [=Old State Road], *H. & R. Axtell, s.n.* (BUF); Town of Bergen, Bergen, *S. J. Smith 47970*

(NYS); Town of Bergen, near Pocock Trail entrance to Bergen Swamp, *A. Schotz & B. Potter 471* (BUF); Town of Bergen, and stubble field north of railroad grade, ca. 2.3 mi east-northeast of Byron, 43°05'31"N, 78°00'07"W, *N. G. Miller 10606* (NYS).

I am grateful for the loan of specimens from the Bailey Hortorium (Cornell University), Brooklyn Botanic Garden, and Buffalo Museum of Science.

Literature:

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WINNERS OF THE FERN HOTSPOT CONTEST -

Joe McMullen, Bernard Carr and Diane Wheelock wrote an article that we published in February 1994 describing the fern diversity at the Clark Reservation State Park. They are the winners of the contest, so over \$100 worth of State Museum botany and zoology publications have been sent to Mr. Carr for their use. Congratulations, and thanks for the nice article.

(The Editors)

Upcoming NYFA Field Trips:

Saturday, June 3: Great Lakes Dunes and Shoreline Fens.

Join us for a visit to New York's interesting non-maritime dunes with the botanist who knows them best, Sandy Bonanno. Sandy studied the vegetation of New York Great Lakes Dunes as a part of her Masters work with Don Leopold at SUNY ESF. We will be visiting a TNC preserve, El Dorado Beach Preserve in Ellisburg, NY, south of Watertown. The site also has an extensive alkaline cobble shore community and successional northern white cedar and juniper woodlands. Later in the day, we will visit nearby Rainbow Shores Fen which supports the bog buckmoth, which should be evident in larval clusters.

The fen also boasts the orchid, *Arethusa bulbosa*, and several rare sedges, which may be visible. Bring hiking boots and footwear for a very wet walk in a fen. For complete information about meeting places and times, contact Sandy Bonanno at (716)-546-8030 or Bob Zaremba at (518)-463-6133, ext. 226.

Back by Popular Demand: Visit the Alvar!

Sunday, June 4: Chaumont Barrens and Other Alvarian Wonders. For those who will be attending the Great Lakes trip (June 3), and anyone else who wants to join us, we will stay overnight in the Watertown area and meet Sunday morning to visit Chaumont Barrens. We should be able to see a wide variety of New York rarities, including: *Castilleja coccinea*, *Geum triflorum*, *Senecio pauperculus*, and *Phlox divaricarpa* in bloom. We may also look for *Carex juniperorum*, which is a newly described member of the sub-group Phyllostachyae, known from alvar sites in nearby Ontario. If there is interest, we will also try to get permission to visit another alvar site that was not included in our 1991 visit. For information on hotels, meeting places and times, contact Bob Zaremba at (518)-463-6133 ext. 226.

Saturday, August 19: Anthony's Nose and Iona Island. A joint field trip with the Long Island Botanical Society. We will hike from the Appalachian Trail at the east end of the Bear Mountain Bridge to the top of Anthony's Nose (along a steep, woodland road). We will see a rocky grassland summit and dry oak woods. At low tide, we will visit Iona Island, with a guarantee of seeing rare plant populations, and a brackish tidal marsh with mudflats. Bring both hiking boots and marsh slogging footwear. For information, contact Bob Zaremba at (518)-463-6133 ext. 226.

Saturday, September 16: The Albany Pine Bush. We will hike through the central section of the Pine Bush seeing a range of dry pine barrens. Parts of this area have been managed with fire over the past three years. We will also visit several Karner blue butterfly sites (It's too late to see butterflies.) and a pine barrens wetland. The field trip will begin at 10:00am at the Pine Bush sign on Rte. 155 just north of the Thruway underpass. For information contact bob Zaremba at (518)-463-6133.

NYFA Annual Meeting:

The 1995 Annual Meeting will be held in association with the Fall Field trip to the Albany Pine Bush. If you want to attend, let Skip Blanchard know if you would prefer to meet in the Albany area Friday evening before the field trip or on Saturday afternoon after the field trip. At this meeting we will elect new officers and council members and discuss the grants

programs and the possibilities for developing new NYFA programs.

New York State Natural History Conference

The fourth in this popular series of conferences will be held on April 26-29, 1996 at the New York State Museum in Albany. All persons interested in biological research in the state are invited. The program is now in the early stages of development. To share information and ideas, contact the coordinator: Gordon Tucker, at (518) 486-2026 or 474-5812. e-mail: gtucker@museum.nysed.gov

Advance Notice:

The annual moss foray will be on Thursday and Friday, September 29 and 30 in New Jersey. For information, contact: Ted Gordon at (609)-859-3566.

Fern Photographers -

I am in the final stages of developing a *Northeastern Fern Identifier* program for personal computer that will employ color photos of all species. The package will be released by the State Museum, and should be available in both DOS and CD-ROM formats some time next year. If you have a spectacular 35 mm color slide of any native northeastern fern species and would like to share it, please contact me. A good copy is O.K., since you shouldn't risk sending us the original. We will give full photo credit for any picture we select for use. You, as a contributor, will receive (at the very least) a copy of this spectacular software package. Call: Richard Mitchell (518) 486-2027 (or 474-5812).

Coming Up in the Next Issue of the NYFA Newsletter!

A Key to *Carex* Species of New York State
Over 220 species of *Carex* occur in New York State, including a unusually high number of our rare species. For those of you who need to identify *Carex*, such as private consultants, the next edition of the newsletter will be a special bonus. It will consist primarily of a key developed over a two year period by Dr. Gordon Tucker of the State Museum. He is currently putting the finishing touches on this work after having the manuscript reviewed by Dr. Tony Reznicek of the University of Michigan. It promises to be the most useful *Carex* key yet produced for a northeastern state.

DON'T FORGET 1995 DUES.

That time is here again, and your dues are requested; please check your newsletter envelope. The number above your name indicates the last year you paid. Even if it was 1992, \$20 will reinstate you, just this once. We don't want to lose you as a member!