

Long Island Botanical Society  
Muttontown Preserve  
Muttontown Lane  
East Norwich, New York 11732

## Programs

**October 14, 2003\***      **Tuesday, 7:30 PM**

Vincent Puglisi: "Rain Forest and Cloud Forest Ecology of Costa Rica." This talk will address botany from one of the most easily reachable tropical areas. Reminisce about your last visit, or get the impetus to go there for the first time. Vince is a professor of Biology at Nassau Community College. Location: Bill Paterson Nature Center, Muttontown Preserve, East Norwich

**November 11, 2003\***      **Tuesday, 7:30 PM**

Skip Blanchard: "Malvaceae from A to W." This presentation will give an overview of the family. Please don't ask about X to Z. Skip is LIBS VP, a Flora Committee member, and a Botany professor at Long Island University at C.W. Post. Skip has done much research on Hibiscus and Kosteletzkya, and he is currently writing species accounts in this area for an upcoming volume of the Flora of North America.

Location: Bill Paterson Nature Center,  
Muttontown Preserve, East Norwich

Note: Executive Board Meeting to commence  
at 6:30 PM. Members welcome.

**December 9, 2003\***      **Tuesday, 7:30 PM**

Douglas Little: "Impacts and Management of White-tailed Deer on Long Island." This talk will discuss the economic impacts of deer on the agricultural community as well as secondary impacts of these cute animals which seem to eat everything that grows. Douglas is a Wildlife Biologist at the DEC Division of Fish, Wildlife, and Marine Resources.

Location: Earth and Space Science Building,  
Gil Hanson Room (Room 123)

SUNY at Stony Brook, Stony Brook

\* Refreshments and informal talk begin at 7:30.

Formal meeting starts at 8:00 PM.

Directions to Muttontown: 516-571-8500

Directions to Stony Brook: 516-354-6506

## Programs

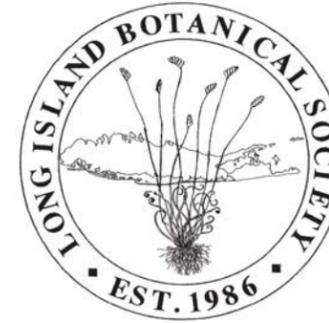
**October 11, 2003 @      Saturday**

**West Hills Park, Melville, Long Island**

**Hike Leader: Andrew Greller**

Andrew Greller will lead a joint Trip with the Torrey Botanical Society through one of his favorite natural areas: the West Hills Park Preserve.

Directions:



# LONG ISLAND BOTANICAL SOCIETY

Vol. 13, No.4  
2003

The Quarterly Newsletter

Oct. - Dec.

## Black Locust

**John E. Potente**

The last heave sent a crack of lightening down my back and drove me to my knees. The far end of the locust bolt pounded the wood pile, then the rest of it dropped and landed with a loud thud. It settled between the others amongst the cordwood stacks that lie along the northern border of the Native America preserve. Steady April rains and dampness kept the long lengths of trunk sections a darkened brown and extra heavy. Heavier than than was meant for me.

Each day brought stronger pains along my sides, across my back and down my legs. My sciatic nerve was screaming mad and sleep became next to impossible. A week later, the pain not subsiding, I conceded to magnetic nuclear resonance imaging scan. A diagnosis awaited me that would tell the extent of the damage done to my spine. I lay on the narrow flat bed, the button was pushed and slowly I was conveyed into the closed cylindrical MRI chamber. A tight, round metal cave, making intermittent groans and rumbles, held me prisoner.

I stared at the curved steel-gray surface inches in front of my nose for the next twenty minutes and thought of the circumstances that brought me here: I had convinced my neighbor that he, too, should remove the Black Locust (*Robinia pseudoacacia*) trees from his yard and, obligingly, he did, leaving the remains of the chain-sawed hundred pound lengths on my property as an ambiguous gift. I was left to struggle stacking them. For years, in vain, I worked to remove the locust trees from the quiet two acre meadow. Cutting off limbs, sawing the trunks in sections, and tearing the cable-like roots from the ground became an obsession as I battled against time and forest succession to keep the land free of this vigorous field invader.

Black locust just loves freshly formed fields. The seed pods are carried a small distance in the winter winds and split open releasing a half-dozen or so small seeds. The seed begins work sending a root into the ground that soon forks into opposite horizontal directions. Pulling a locust seedling from the ground merely snaps the double root and the remaining root will gladly start anew. Existing locust trees, likewise, will send out a network of underground roots that will quickly map out any field of any size. Sharply thorned sprouts from these roots will form a forest clone of locust within a few years. Where did this energetic and prolific tree that wreaks havoc on gentle fields and meadows come from? And how did it become so widespread and omnipresent on Long Island?

(Continued on Page 40)

From: The Illustrated Companion  
to Gleason and Cronquist's Manual

**Black Locust (*Robinia pseudoacacia*)**

Long Island Botanical Society  
Founded: 1986 Incorporated: 1989

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

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Printed by Native America

## Society News

**Betty Bids Farewell:** Betty has moved to Colorado, and LIBS gratefully acknowledges her many years of service to the LI Botanical Society and the botanical community at large. If you want to add a few specifics, maybe Barbara can give you some information.

Here's Betty's address: Good Samaritan Center, 2525 Taft Drive, Apt. 503, Boulder, Colo. 80302.

**Overton overdevelopment:** Tiger salamanders and five hundred acres of Pine Barrens habitat are on the run again, this time in Coram, Long Island.

**Editorial Exit:** It is with great pride that I look over my completed four-year term as editor of the Long Island Botanical Society Newsletter. The position brought me into contact with many of the accomplished botanists of the northeast, many fine writers, and a storehouse of botanical literature. It was an exciting and pivotal period of time where the value of native plants gained recognition, invasive weeds received alarm bells, and the remaining pristine land on Long Island became the focal point of contentious courtroom battles. I wish to thank the members of the Executive Board for their assistance and advice on the literary content of each publication and the many readers for their encouraging and appreciative feedback that served as emotional fuel to help inspire the creation of each new issue. Thankfully,  
John E. Potente  
Editor, Long Island Botanical Society Newsletter

#### As Completely as a Tree

Trees were basking in October warmth;  
no breath of wind, no sound at all  
save a flock of crows whose sleepy calls  
came from fields a mile away.

In silence a leaf came drifting down,  
Rocking through the air to meet the earth.  
Then another slowly fell,  
floating softly to its resting place.

In gentle air the trees stood tall, unmoving.  
In stillness let each fragment fall,  
leaf by leaf, without regret,  
releasing them in dignity.

No wind came by to help disrobe them.  
Without reluctance they let go  
their food, protection, their beauty and their seeds,  
the very stuff that gave them life.

In peace they lifted up their limbs  
Without a sigh or any sound,  
accepting  
nakedness and poverty that ensue;  
ready for the winter cold and  
winds to be endured before the spring.

Can trees have a knowing of the web of roots  
that hold them firm  
which slowly spread deep in the soil,  
preparing them for resurrection,  
and even greater growth?  
Could I ever be a tree in the autumn of my life,  
accept with calm the letting go a  
of all that nurtures me on earth  
and trust the resurrection to my roots?

Could I have faith to see a lot of me drop off,  
them welcome utter poverty and  
accept the pain of winter winds  
without the tears of loss?

Could I ever trust my God  
as completely as a tree?

--Barbara H. Conolly

From her book: Bones and other Poems  
Copyright 2002

(Continued from page 40)

Today, on Long Island, the shift is away from Black Locust plantings. Balled exotic weeping ornamentals are sought by landscape designers and native trees are selected by park preserve managers and restorationists. The craze for Black Locust due to its usefulness and dowry value has passed.

Never-the-less, Black Locust is well established and currently found throughout Long Island. When fields are cleared or created, Black Locust is one of the first pioneers to surface. And when sunlight is made available in forests, Black Locust will, likewise, take up on the opportunity and emerge there. Moreover, Black Locust is a nitrogen-fixer adding nitrogen to the soil. This acts as a stimulant for other invasive plants to join in.

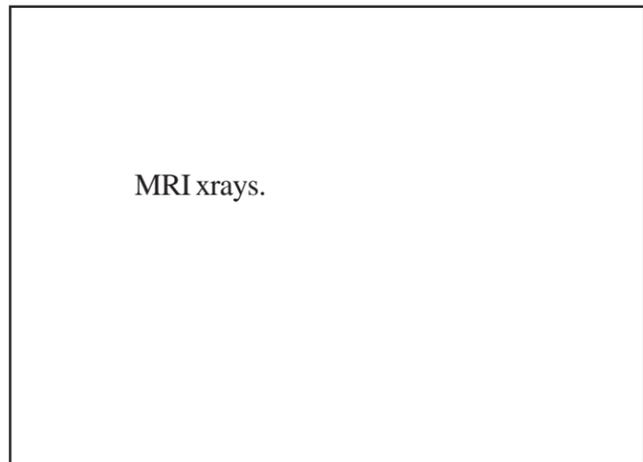
When it comes to removing locust trees, the chore is not an easy one. Some trees, such as many of the conifers and some hardwoods are very susceptible to bark girdling. That is a technique whereby a ring is cut through the bark and cambium around the base of the tree. It usually needs to be about two to four inches wide and should extend into the woody portion of the trunk. The tree usually dies a slow death over the course of two or three years. However, Black Locust defies such management. It simply resprouts below the point of girdling with a vengeance.

Areas of the Albany Pine Bush in upstate New York have also felt the effects of Black Locust penetration. Black Locust has probably been around up there for a hundred years or more. Within the 2,900 acres of the Pine Bush Preserve about 400-500 acres are compromised with Black Locust. Neil Gifford, the Conservation Director of the Albany Pine Bush Preserve Commission, has tackled the enormous challenge of removing Black Locust from the Pine Bush.

Three years ago, Gifford began with a 4-acre area test site within the Albany Pine Bush. Locust trees were cut leaving a one foot stump. The stumps were treated by applying Roundup with a polypropylene squirt bottle. This was done in the autumn when the tree is translocating its energy into the roots. This technique has been effective in nullifying the tree and its clonal sprouts within a twenty foot radius. Small root fragments remained viable with 400-500 resprouts per acre. Follow-up treatments were continued for several years. Last year another twenty acres were treated and the method is proving promising.

Stumps and roots can be removed from areas where reseeding is desired. A Tree Lever will help in this process. Trunk sections and root portions can be set in a cordwood pile for a fireplace as Black Locust is an excellent firewood. Or it can be set in a brush pile for wildlife and slow decomposition as I was doing.

The buzzer rang, and slowly the round metal bed rolled me out of the MRI. I sat attentively with my Orthopedic surgeon, "Four herniated discs, two lumbar and two thoracic.": a crushing blow by Black Locust to my skeleton and, worse yet, to my pride. I was defeated by the pea plant from the south! I postponed surgical intervention and after six months, upon reconsultation, it appeared as though my discs were healing. However, I now had a weakness in my spine and was instructed to stay away from *Robinia pseudoacacia*, especially in April.



References

## Letters to the Editor

"I would like to submit a few Long Island sightings from this season (summer 2003): all rather uncommon to rare and all quite "nice" flowers in my opinion. Here Goes:

Long Island Field Notes - 2003 Season (to date)

Wild Lupine (*Lupinus perennis*) - considering its rather beleaguered status (mowing!) along East Hampton's old Northwest Road, I was most pleased to find Lupins in full bloom on June 2 along verges of Mill Road (West of Calverton, South of Peconic River) Four small patches, just before and after the Halsey Manor Road crossing. These appeared to be truly "wild" plants (as no houses nearby).

Wild Pink (*Silene caroliniana*) - continues successfully at Orient Beach State Park; along sandy-verged road right after HQ building. Several were still in flower on June 12 (this very late season).

Wild Coffee or Feverwort (*Triosteum perfoliatum*) - a nice colony (first discovered in 2000) continues to thrive at Montauk County Park, along an open "nature trail". This year, just beginning to bloom on June 12.

Green Adder's-mouth (*Malaxis unifolia*) - this tiny orchid continues at its well-known site: the North Street "bank" at Manorville. On July 5, three seen in bloom, in close proximity (this year) to flowering Colic roots.

...and, not to forget: Jim Ash's glorious White Milkweed (*A. variegata*) found last year along powerline cut north of (new) SOFO Nature Center on Bridgehampton Turnpike. Jim showed us all - on July 5."

Sincerely, and regards  
Guy Tudor,  
NYC Butterfly Club

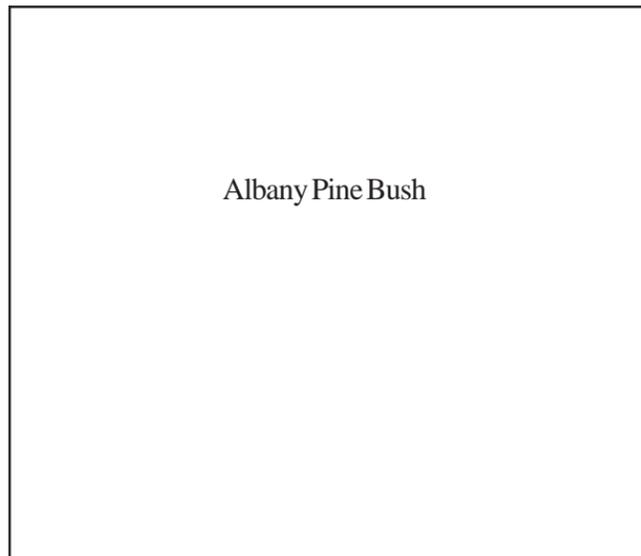
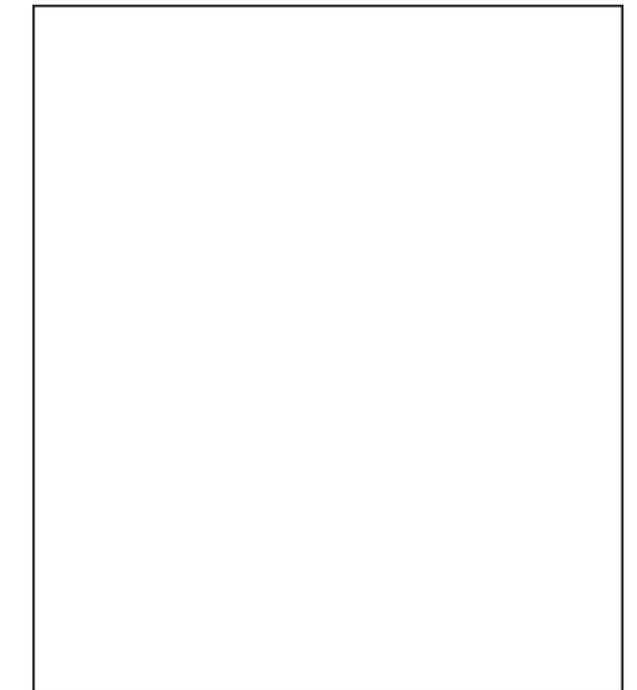
## Plant Sightings

**Grape Fern:** Rich Kelly also reported *Botrychium dissectum v. obliquum* in Caumsett State Park right under the water tower where LIBS members on a field trip had looked for it last year.

**Scarlet Oak:** John Potente and Eric Lamont observed severe defoliation of oak trees at Calverton Ponds County Park by caterpillar infestation. Skip Blanchard identified the larva as (native) Oakworm Moth (genus *Anisota*, likely *A. senatoria*). Skip mentioned that he, too, noticed a similar outbreak in the Calverton area involving the same insect about ten years ago. He had then noticed them moving across a road in astonishing numbers looking for a place to pupate. Tom Stock also reported a similar outbreak near his home in Manorville.

**Ipecac Spurge:** Skip and Rich have recently seen Ipecac Spurge (*Euphorbia ipecacuanhae*) in flower at Caleb Smith State Park. They had reported it vegetatively last fall in the same location. Ray Welch volunteered that he had seen the Ipecac Spurge on Suffolk Community College Campus 8 or 9 years ago and that there were 20 green morph and 25 red morph specimens.

**Giant Hogweed:** Al Lindberg



Albany Pine Bush

# Curly-grass Fern drowned and scorched, but still persists on Long Island

Eric Lamont

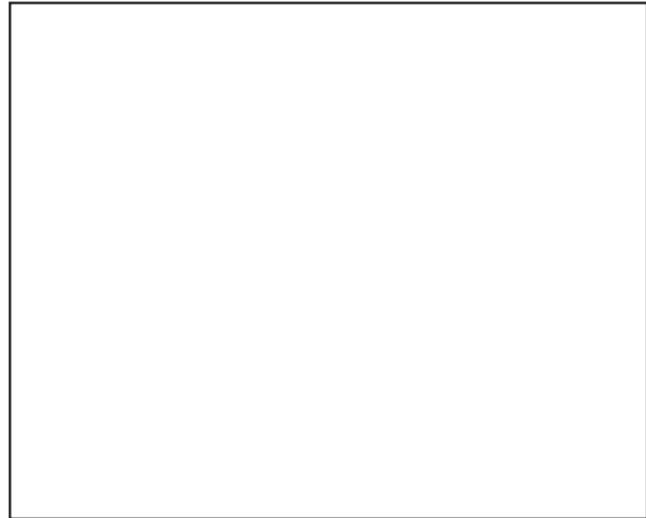
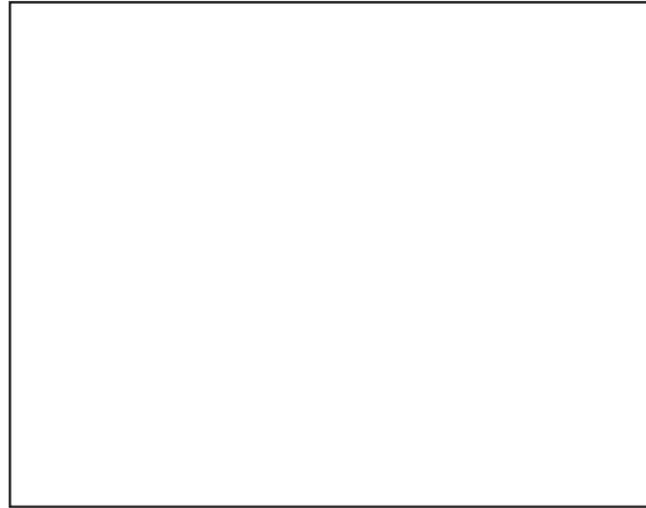
Curly-grass Fern (*Schizaea pusilla*) is one of the rarest plants in New York State. These tiny ferns are less than two inches tall when mature and even when their location is known, they are difficult to find among the matted sedges and grass. In New York, this diminutive fern is known only from the South Fork of eastern Long Island, where it grows in moist to wet sandy depressions within a dynamic system of shifting dunelands bordering the Atlantic Ocean and Gardiners Bay.

On 13 September 2003, John Potente and I visited the Curly-grass Fern site in Napeague. We broke through the dense shrub thicket surrounding the isolated swale where the fern occurs, and expecting to see a colorful array of diverse wildflowers, I was taken back by the view. My first thought was, "a fire must have swept through the swale". The ground was charcoal gray and lifeless. There were no colorful wildflowers, no carnivorous plants, no bog clubmosses, and very little Sphagnum moss. Scraggly cranberries and a few other plants provided the only greenery above the scorched ground.

A few clumps of Curly-grass Fern were located. The fronds and sporangia were charcoal gray and appeared like they had been scorched. They appeared to be dead, but eerily preserved like the ash-covered victims of a once active volcano. Upon further investigation, the borders of the swale were ringed to a uniform height with scorched vegetation. The ringing reminded me of a high tide line bordering a tidal inlet or estuary.

When I last visited the site in early spring, the entire swale was underwater, covered by about ten inches of water. It was strange to see the masses of Curly-grass Fern underwater, but they didn't seem to mind. They appeared green and healthy. I was reminded of the time years before when I had visited the site in the dead of winter and observed a thin layer of ice covering the ferns like a natural greenhouse. Water levels in the swale had been high the previous autumn.

But back to our current story, what had happened at the swale since my last visit



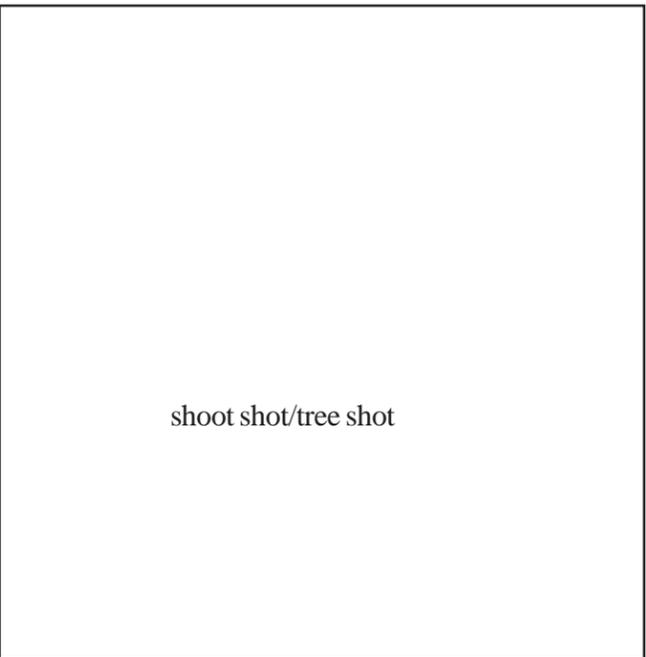
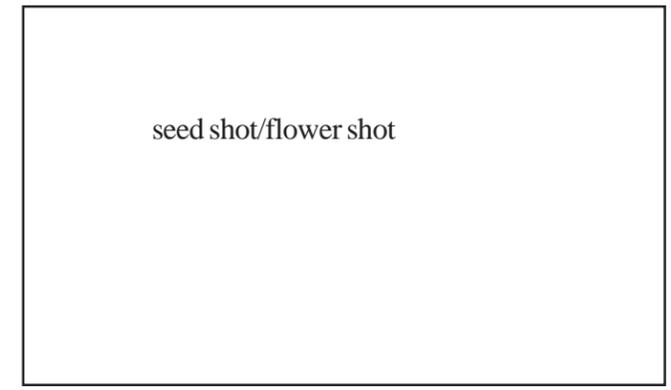
(Continued from page 37)

Black locust belongs to the pea family, Fabaceae/Leguminosae(?). And it certainly behaves like an overgrown pea plant in disguise as a tree. The flowers hang in racemes in typical pea form, the seed cases dangle looking like pea pods suspended from a giant wooden pea plant and the tree germinates with such quickness that it would seem it grows straight out of "Jack and the Beanstalk".

One nasty additional feature is the pair of thorns about each leaf along the stems that are large, curved and needle sharp. The tiny tips are designed to snap off when a mammal attempts to free itself. Worse yet, minor secondary infections, often harbored on the lancing tip, erupt with concomitant swelling and throbbing giving the offending human something to remember. When the plants are young, the thorny branches are at waist height making them quite obtrusive and obnoxious.

Black Locust had its natural post-Wisconsinian range on the lower slopes of the Appalachian Mountains in the southeast United States. A few outlying populations were along the slopes and forest edges of southern Illinois, Indiana and Missouri. It was not a Long Island tree.

While, currently, homeowners opting for more ornamental trees may remove existing black locusts from their lawns and landscape restorationists may want them out of the picture since they are not part of the native ecosystems of Long Island, the original settlers and farmers and landowners of Long Island did want them. Why, in heavens name, would they? Black Locusts hurt when you grab them, they grow uncontrollably, and they are extremely difficult to eradicate once established. They have a relatively short lifespan of less than a hundred years and their shallow roots do not hold them fixed under high winds allowing them to fall over.



The early settlers of Long Island, however, had different concerns and priorities. They needed rot-proof fencing for their farms, livestock, and horses. They needed tall wooden masts for their ships. And they needed lots of wood for the fireplace that would burn hot and clean. The durability of Black Locust in terms of strength, longevity and wear, coupled with its quick growth (and regrowth from stumps) and its high combustion value when burned for fuel was the answer and soon gave it a reputation as a desirable tree to own. Till this day, many older homes are still held up by Black Locust posts in their basements.

In the later part of the 1600's John Sands, who carried on trade between Virginia and New York, brought back young locust trees and planted them on Long Island at his home at Sands Point. Locust was subsequently widely planted in western Long Island on woodlots and also on lawns, avenues and hedgerows. Locust seeds and seedlings were actively carried by wagon to other farms on Long Island until most farms of the island boasted stands of the popular Black Locust.

As early as 1683, Black Locust and "Shipmast Locust" (*Robinia pseudoacacia* var. *rectissima*) were planted in Roslyn and Glen Cove. In 1934, the term "Shipmast Locust" was coined for the yellow strain of locust which grew straighter and taller and had a harder wood than the white form commonly referred to as the "Black Locust". Shipmast Locusts, however, produce a paucity of seeds and rely principally on root sprouts and root cutting for propagation. (Cont. on page 45)

September rounded the corner and the Ragged-fringed Orchid was still pushing on. The leaves were badly beaten by the slugs and their vibrant green was now mixed with shades of brown at their edges from slugwork and strains of yellow along their veins told of summer dry spells and trying cooing nights. And now, upon close inspection, I was alarmed by yet another potential perpetrator.

Ants. Lots and lots of ants were investigation the orchid. They were up to something. What? As it turns out, the ants were interested in the developing seed pods. They were monitoring the progress of the orchid seeds. The tiny seeds have an appendage called an eliasome which is rich in fats and proteins that are sought by the ants. The ants carry the seeds by this protrusion down to their tunnels, eat the fleshy eliasomes and then discard the remaining inedible orchid seeds in the trash section of their tunnels.

This underground compost heap is rich in organic remains of invertebrate corpses and plant leftovers. This serves the orchid seeds well. The tunnels are located a distance from the parent orchid aiding in seed dispersal. Few seed predators will trespass the ant nests. The decaying refuse is a source of nutrition and a substrate for symbiotic fungi. The ants, as it turns out, are a critical benefit to orchid colonization.



ant photo



ant line drawing

The newcomer to the Native America Preserve made a full round of seasons. It prepared itself for winter by sending the summer's nutritional stores down to its underground tuberooids. The standing stalk turned autumn brown and half way through winter dropped to the snow covered ground.

Early spring of 2003 had me checking every sunrise for the hopeful advent of the orchid's return. I knew not how the accompanying fungi were faring. While fungi are deemed important for the initial growth of the young orchid protocorms, it was not determined until recently that even orchids that bear green leaves retain their mycorrhizal relationship. New orchids that arise from vegetative reproduction seem to "eat" their way into new territory consuming available fungi. In addition, the fungi associated with orchids do not appear to reproduce within the orchid. So the fungi need to replenish themselves freely in the soil. This underscores the importance of a healthy fungal population in the vicinity of an expanding orchid colony.

Elation abounded when I found, peeking through an early April snow, two tiny individual orchid shoots. The orchid grew with vigor and, this year, again bequeathed a pair of floral racemes that ornamented the mossy woodland corner. Not only that, but I now saw on the ground beside them two additional small orchid leaves making a stage appearance. While the new supplemental shoots remained small, they lent hope that next year might bring even more reward.

I visited Elsa's former property over the summer out of curiosity to observe the birthplace of this Ragged-fringed Orchid. The ground was scrapped bare throughout the yard exposing the soil to the hard sun. Invasive weeds were rampantly overtaking the new disturbance and a small bobcat bulldozer was sitting idle in the middle of it all. I returned home, looked down at the orphaned orchid in my yard and sighed.

#### References

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WILSON, E.O. Ants

## Tale of a Ragged Fringe

John E. Potente

(Continued from Vol 13, No. 2, page 32)

### Chapter 3

I woke up early the next morning and head straight out to check on the orchid. It was the seventh of April, 2002. Two small leaves curled the morning sunlight an inch above the ground. I sat for a while under the Tupelo just looking at it. Green shimmered off its back and the mystery of its very needs and desires elevated its prestige. Wonder and worries were disarmed by merely watching it posing so still and steadfast.

The Ragged-fringed orchid (*Platanthera lacera*) had made it through its first night in its new home seven miles south of Nissequogue. I called Elsa and gave her the good news. One day later and the orchid was still alive. I told her how affixed I was to sitting on the ground just watching it. It was as good as any big screen Hollywood production or any amusement ride at Great Adventures. Elsa agreed telling me how she, herself, would go out morning after morning and sit by the orchid. It seemed to possess a lure and impart a contentment that permeated the air right through your soul.

Just how long could I expect the orchid to tolerate the transplantation and its new environs? I, myself was confident it would last the year. Jim Ash, \_\_\_ of the South Fork Natural History Society told me two or three years was not necessarily insurance. It could take that long for it to exhaust its nutritional stores before succumbing. Eric Lamont added that, in the meantime, I might be fortunate enough to see more appear from seed dispersal. I would wait and see.

Three weeks into April, the two orchid leaves had grown to four and five inches high. I checked on them every day, sometimes a few times a day. Frosty nights were fewer and morning rays came earlier. The twin plants were looking more like orchids as time went on. Long, fleshy leaves arched alternately atop one another. And by late May, at nine inches tall, developing stalks emerged bearing tiny unlit flower buds. The orchid was meting out a suspenseful anticipation of its ephemeral show.

Summer heat came to Long Island and Elsa signed the closing papers on her home in Nissequogue. We said goodbye and she head off to the Sierra Nevada Mountains of California. Our conversations turned to letter writing as we related our lives back and forth.

By the end of June, the orchid grew to twenty inches. Its twin stood beside it at eighteen inches. The flower buds began breaking open to reveal a most beautiful creation: a vertical string of orchid flowers. Lined up and down the stalk they would begin bloom at the lower end of the raceme and finale at the waiting tip.

A cream-biased green beamed from each tiny flower from the inner corolla chambers to the feather-like fringes of the luring lower lip. The flowers proclaimed rejoice in every direction around the supporting stalk. Beauty burst forth across the moss of its new home and out to the open skies above Long Island.

All was going well. The orchid grew, flowered and held a healthy green color. The leaves were thick and strong looking and held a pronounced lanceolate shape, save one. The end of a lower leaf was missing. It was blunted and appeared shreaded. And then more.

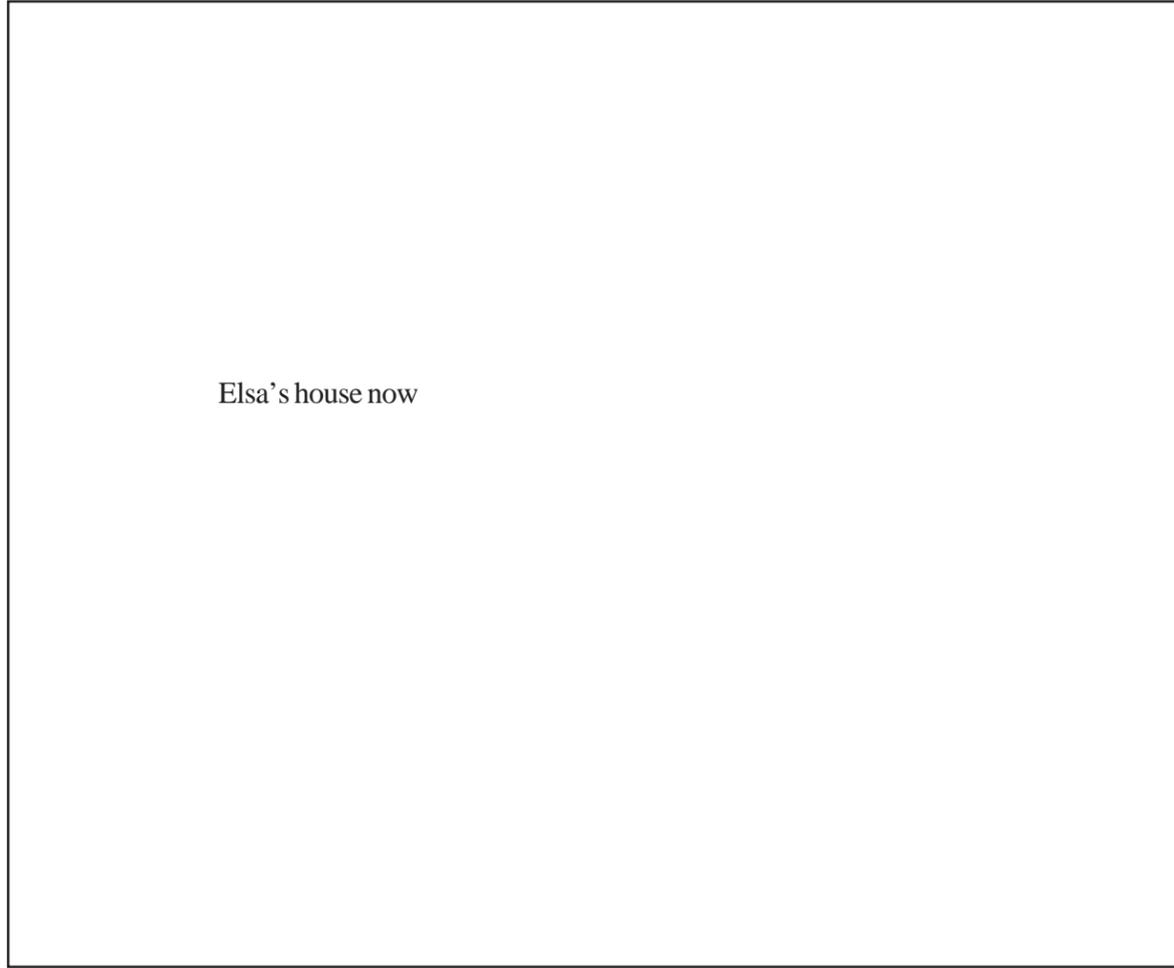
Happily munching and digesting the leaves were the primordial solitary ground crawlers. Now what? After all this. My efforts were being undermined by pill-sized slugs. Their takings were modest, however. And I soon sought consolation in the realization that the lowly slugs were a dietary staple of the beloved Long Island box turtle. The eyes of box turtles gleam with delight as they relish them like a fine Italian Tiramisu.



A slug making breakfast, lunch and dinner out of the orchid.

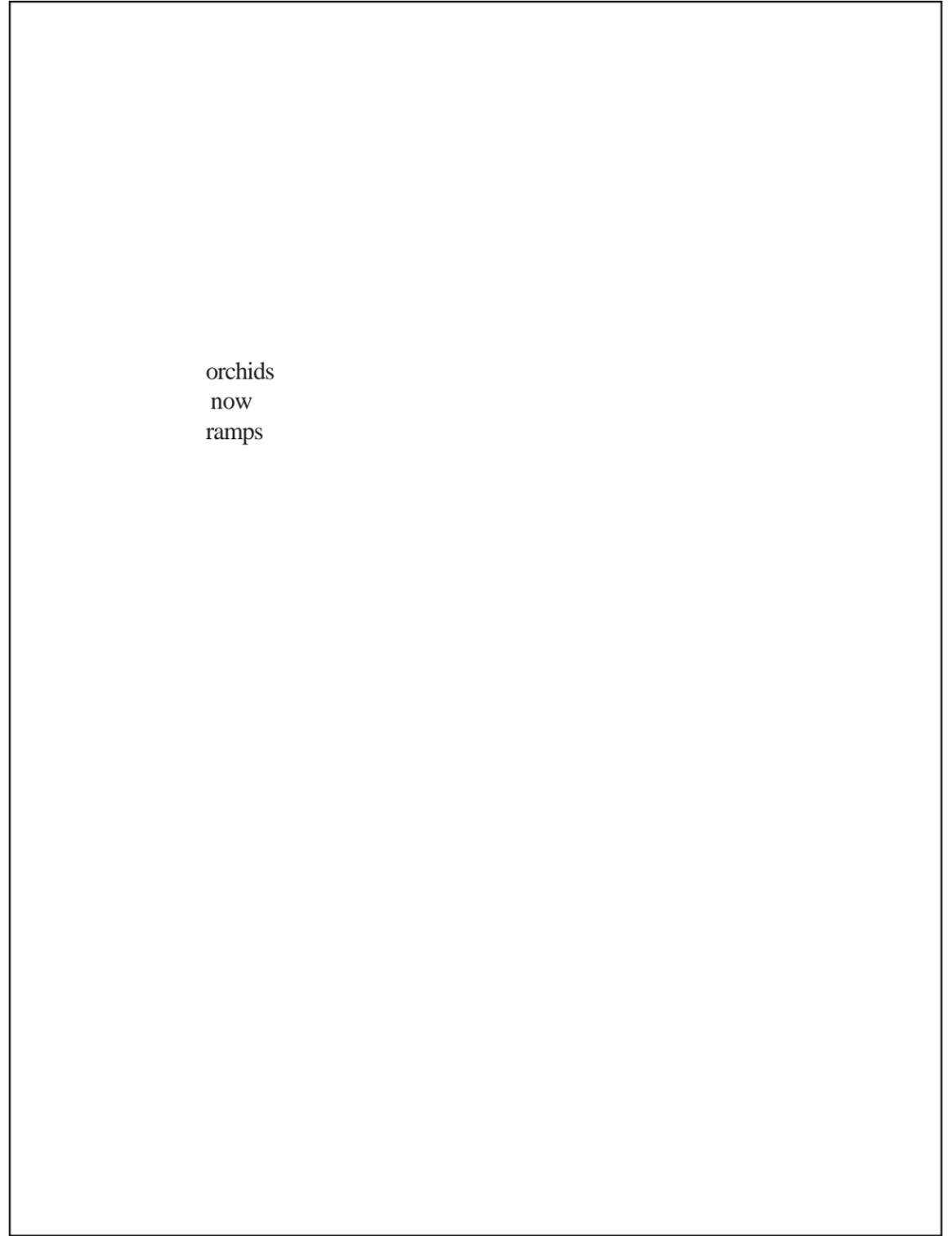


Turtle saving the day by eating the slug that was eating the orchid.



Elsa's house now

John E. Potente



orchids  
now  
ramps

William MacDonald/ West Virginia  
University

John E. Potente