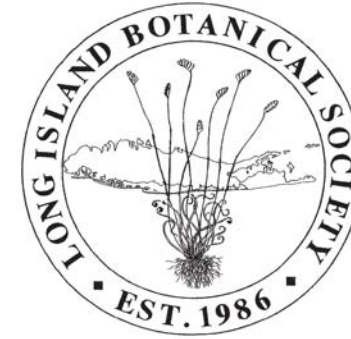


Long Island Botanical Society
Muttontown Preserve
Muttontown Lane
East Norwich, New York 11732



LONG ISLAND BOTANICAL SOCIETY

Vol. 12, No.4
2002

The Quarterly Newsletter

Oct. - Dec.

Powdery Mildews

Lance T. Biechele
Samuel Ristich

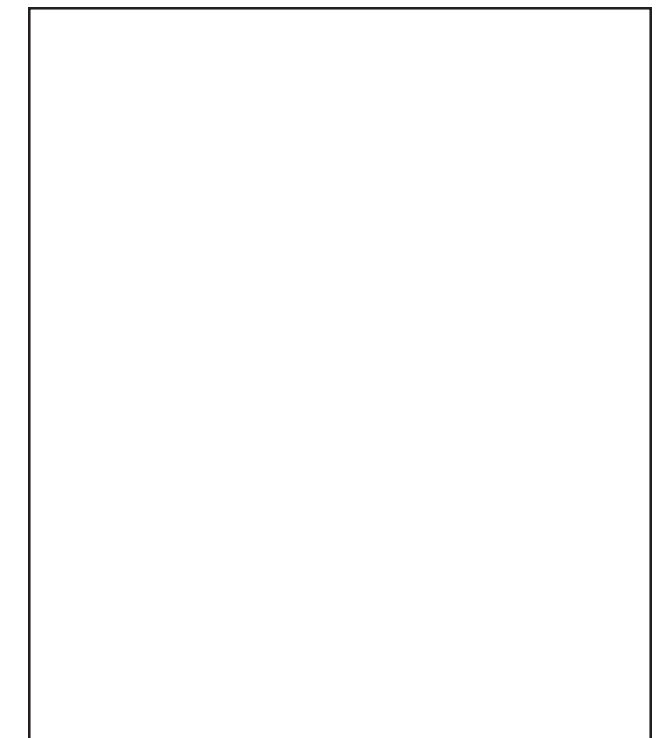
Welcome to the order Erysiphales in the division of the Ascomycetes, those fungi which produce an ascocarp (or sac) that releases the fungal spores. Everyone knows the mildews as white powdery coatings on a myriad of leaf hosts. But very few naturalists (or mycologists) have enjoyed the thrill of observing the anatomy of their ascigerous stage up close. Alexopoulos and Mim (1979) recognized only six genera from North America.

During the spring and summer, mildews flourish asexually in their conidial stage because, surprisingly, the spores can germinate without free water. However, during the short days and cool nights in the fall, the hyphae are stimulated into the formation of spherical fruiting structures called cleistothecia (closed balls). The dark balls are usually decorated with exquisite diagnostic structures. The cleistothecia are macroscopic, but a microscope is required for viewing the decorative ornaments surrounding the structures.

One of the most interesting mildews is in the genus *Phyllactina* (Figure D). *Phyllactina guttata* is commonly found on oak leaves. In response to moisture, the long, stiff needle-like appendages with bulbous bases lift the cleistothecia up off the leaf like miniature space ships. *Erysiphe* (Figure A) has thickened hyphae that feel like medusa heads. One of the common species, *Erysiphe cichorocaulium* is found on garden squash, but it also occurs frequently on plantain in backyards. In the genus *Uncinula*, (Figure B) the cleistothecia has a single or double button-hook appendage. Both willow and maple are its favorite hosts.

Podosphaera oxycanthae (Figure C) is found on meadowsweet. *Spiraea latifolia* has elegantly sculptured hyphal tips with only one ascus. The ubiquitous lilac mildew, *Microsphaeraalni*, unlike other members of its genus, lacks the dichotomously branched hyphae appendages. The haustoria, or feeding tubes, barely penetrate the upper epidermal cells and causes little, if any damage to the host. In fact, it is this author's hypothesis, that the powdery mildew of lilac might act like a greenhouse "white-wash" to protect the plant during the dry, searing heat of the summer.

(Continued on page _



Pitch Pine (*Pinus rigida*)

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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Society News

The Range in the Forest: Town, county and state lands are often leased to entities for community endeavors. A portion of the core area of the Pine Barrens was leased to Frank Vigliarolo for a shooting range by the Town of Brookhaven. He proceeded to clear about twenty acres of state protected land. The state Pine Barrens Commission voted to write a letter to Attorney General Eliot Spitzer for an investigation. While some Town of Brookhaven officials respond that the activities fell under an exception which allows construction for recreation, the Town of Brookhaven is asking Vigliarolo to pay \$25,000 for damages and has filed a lawsuit against the Long Island Shooting Range. Members of the Pine Barrens Commission call this penalty little more than a slap on the wrist.

Bursting Balloons: Celebration events and promotional attractions are often concluded with the mass release of helium-filled balloons. These balloons may be pretty to watch as they rise into the air, but not so pretty after they fall to litter the landscape and drift in our offshore waters. Worse yet, sea animals, particularly the sea turtles, identify wafting balloons as a marine delicacy: jellyfish. Legislator Lynne Nowick has introduced a resolution to limit the mass release of balloons in Suffolk County. A "Balloon Council" is pleading hardship. They contend that the balloons cause no mortality in sea life and that businesses on Long Island will suffer the consequence of restraint. This has resulted in a "compromise" bill. To support a ban on indiscriminate releases of balloons, contact your local county legislator.

Sandhills Suit: On May 1, a New York State appellate court denied the Town of Riverhead and the golf course consortium (Talmage et. al.) permission to appeal a decision that the court had made earlier in January. The earlier January decision overturned the town's approval to bulldoze the Grandifolia Sandhills because the state's SEQRA process was not properly followed. Talmage et al. had proceeded to topple the rare habitats in the Grandifolia Sandhills and began constructing a golf course and recreational area. Now that the habitat has been damaged, there remains the choice of restoring the ecosystem, pursuing further legal action or dealmaking.

Plants in the News

Moldy Minds: The journal Nature reported on the "thinking" trait of the slime mold *Physarum polycephalum*. Apparently, it was able to determine the shortest way through a labyrinth to find food. The slime mold was allowed to spread until it filled a maze. Tiny fragments of oats were then placed at the key positions. Sensing the food, the surplus parts of the slime mold withered away until only a singletubular structure was left spanning the shortest of four possible routes. "This remarkable process of cellular computation implies that cellular materials can show a primitive intelligence," said the team, which is led by Toshiyuki Nakagaki of the Bio-Mimetic control research center in Nagaya, Japan. While it was heralded as a sign of cognition, the eight hours of time it took left it unqualified for a game of Jeopardy.

Field Trips

July 20, 2002 @ 10:00 AM (Saturday)

Robert Moses State Park, Suffolk Co., NY

Hike Leaders: Gerry Moore, Angela Steward

The Long Island Botanical Society will join with the Torrey Botanical Society for a field trip to Democrat Point at Robert Moses State Park. The trip will be guided by Gerry Moore, research taxonomist at the Brooklyn Botanic Garden and Angela Steward of the Brooklyn Botanic Garden. The walk will course through the dunes to Democrat Point at the end of the island. The Atlantic dune habitats host many interesting plants, including: Beach Pea (*Lathyrus japonicus* var. *maritimus*), dune grasses heath (*Hudsonia tomentosa*) and groundsel (*Baccharis halimifolia*). Scattered interdunal swales are sites of rare plants including liadies' tresses (*Spiranthes vernalis*). We may also see the rare sea-beach Amaranth (*Amaranthus pumilis*) and Sea-Beach Knotweed (*Polygonum glaucum*). Space is limited for this trip and those wishing to attend must contact the leaders in advance. You may call: 718-623-7332 (Gerry Moore) or 718-623-7339 (Angela Steward). You may also email them at gerrymoore@bbg.org or angelasteward@bbg.org

Bring lunch, plenty of water and sun block. Wear shoes appropriate for walking over hot sand.

Directions: From NUYC, take Southern State Parkway to Robert Moses Causeway to exit #40. Follow signs to parking field #2 on westernmost point of island. Meet at parking lot #3.

August 17, 2002 @ 10:00 AM (Saturday)

Quogue Wildlife Refuge, Quogue, NY

Hike Leader: Jenny Ulsheimer

Join Jenny to see the mystical habitats and bogs of this wetland refuge. Providing the timing is right, we may get to see the White-fringed Orchids in bloom.

Directions: Take Sunrise Highway (Route 27) to exit 64. Take Route 104 south and a right fork at Quogue-Riverhead Road. Make a right on Old Country Road just before the railroad tressel. The entrance is just under a mile on the right before crossing the railroad tracks.

For further info you may call: 631-653-4771.

Sept. 15, 2002 @ 10:00 AM (Sunday)

Caumsett State Historic Park

Hike Leader: Jenny Ulsheimer

Caumsett has a bounty of undeveloped habitat including woodland, meadows, rocky shoreline and salt marsh.

Directions: Route 25A to Route 110 to Lloyd Harbor to West Neck Road. Park entrance is on left.

Programs

September 10, 2002* Tuesday, 7:30 PM

Karen Chytalo: "Tidal Wetlands Loss in Nassau and Suffolk Counties" will address vegetation stresses on Long Island shorelines. Karen is Section Head of Marine Habitat Protection-Bureau of Marine Resources in the NYS DEC.

Location: Museum of Long Island Natural Sciences, Earth and Space Science Building, Gil Hansen Room (Room 123), SUNY at Stony Brook,

*Refreshments and informal talk begin at 7:30.

Formal meeting starts at 8:00 PM.

Directions to Stony Brook: 631-354-6506



New Members

Jayce Hyon, New York, NY

Christine Fischei, Rocky Point, NY

David Laby, Setauket, NY

Chris Thompson, Southampton, NY

Potato Culls

Thomas Allen Stock

After purchasing a fifty pound bag of salad potatoes, otherwise known as culls, I ransacked the bag to find that some of the specimens had fantastic shapes. I ran to the dictionary to look up culls. I knew the word as applied to lobsters, but now potatoes. It said, "To collect, gather, pluck. Something picked out and put aside as inferior."

Inferior? Indeed not! They are just the opposite. They should sell for more than a regular bag of potatoes, not less. They have evolved their forms in the soil and have been selected out to be labelled "salad potatoes", too difficult to peel, because of all the bulbous protuberances and folded shapes. The real potato culls are those scarred and cut by the harvesting machines. As soon as one of the blades cuts into a potato, it is stigmatized as a cull. The ugly scar must be cut away and this undoubtedly leads to more waste.



These potato culls are works of art. They flow like bubble gum projections from chubby adolescent cheeks. They surround and at the same time pinch off in tuberous behavior. They transcend ordinary potatoes becoming starchy, skinned earth sculptures. Their skin is like the hands of some of the migrant workers who must have separated them from the others and chucked them into their brown sac. These bubbles and projections have the same nutrition as their egg-shaped relatives. Clumsy peeling techniques will probably mean that much of their pith will be cut off. They must be scalded to loosen their skins before they find their end in a pile of salad. They deserve a better end. Perhaps to be split apart to act a seed for next year's crop. I, an artist at heart, took the most unusual ones, sat them together and took their photograph.

Plant Sightings

Water Hyacinth: Zy Proly reported that the Water Hyacinth (*Eichhornia crassipes*) that came in last fall at Scudder's Pond in Sea Cliff does not appear to have survived the winter. As of this April it was missing.



Gerald D. Carr

Water Hyacinth: (*Eichhornia crassipes*)

Editor's Note: Water Hyacinth is a free-floating perennial herb. The plants grow about 3 feet tall as they float on the water's surface, with stems intertwining to form dense mats.

In the Amazon the plant is held in check by natural enemies such as insects and microbes. These organisms stress the plants, controlling the mat's expansion. But Water Hyacinth has escaped to friendlier waters, especially since the 1800s. Often, visitors, drawn by its lush leaves and blue-to-lavender flowers, have taken it home as an ornamental. Out of its enemies' reach, Water Hyacinth has become the worst floating aquatic weed in many tropical and subtropical parts of the Americas, Asia, Australia, and Africa. In Africa it infests every major river and nearly every major freshwater lake. In the United States, it flourishes in hundreds of bodies of water in Hawaii and California and throughout the South from Texas to the Carolinas.

***Spergula morisonii*:** Skip Blanchard reported finding *Spergula morisonii* in East Moriches on April 8th. This is apparently a first occurrence for Long Island, although it has been seen in western New York State. Since there were several hundred plants there, Skip sent back and collected it on April 15. It was in a cut and fill area of the Pine Barrens and is an annual.



Spergula morisonii

Grape Fern: John Potente reported he has been seeing Grape ferns (*Botrychium*s) appear on his property in Hauppauge after removing invasive plants. A fourth was found in late winter in an open grassy field among Purple Top (*Triodia flava*). The fifth one, the size of a thumbnail, was observed in early May in a bed of moss. It is suspected that it is a young *Botrychium dissectum*. Steve Clemants noted that *Botrychium*s are prone to have different species growing side by side.

Wood Aster: On May 15, Elsa L'Hommedieu noted that truckloads of flats of White Wood Aster (*Aster divaricatus*) and ferns were being planted at the Paul Simons Preserve in Stony Brook.

So this winter, have a ccleisthothecial carnival by collecting the leaf smples in the fall when the “Ball” have hardened. For microscopic observation soften the balls in 3% Potassium Hydroxide (KOH). View the beautiful decorations first and then, by applying slight pressure on the cover slip, you can squeeze the asci out of the ascus. And have fun with this interesting group of Ascomycetes with their wrapped-up apothecium.

I am indebted to Dr. Samuel Ristich for his kindness with allowing me the poetic license to combine his unpublished observations of the powdery mildews.

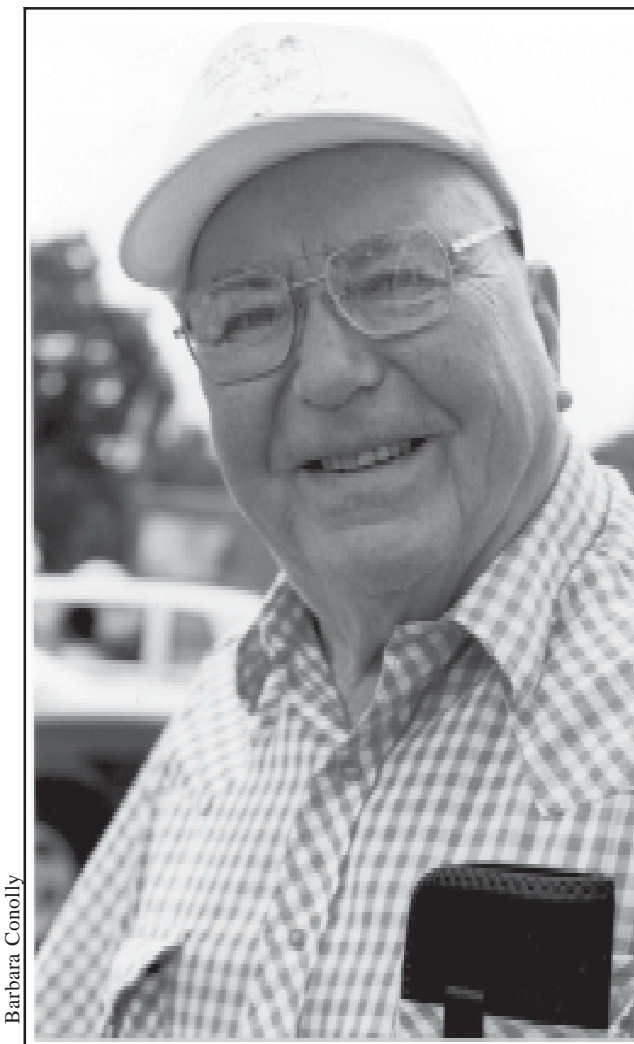
Reference

Alexopoulos. C.J. and Mims, C. W. 1979 Introductory Mycology. 3rd ed. pp. 298-300. John Wiley & Sons, New York.

Bob was also instrumental in getting the FAA property and the Kings Park woodland saved. And can anyone forget how excited he was when there was a great bloom of Birdfoot Violet on the edge of MacArthur Airport one spring! And the time he led us all to a street in Islip where he had discovered a half-block of Kudzu Vine thriving!

On our field trip to Pelham Bay Park in June of 1995, he was so thrilled to find Gama-grass (*Tripsacum dactyloides*) growing at the edge of the marsh. I believe it is an antecedent to an edible grain (these grasses were his particular expertise) and it had exposed rhizomes that looked like tan and black striped grubs!

Bob kept a sharp eye on everything and we’ll all miss him deeply.



Bob Laskowski at Pelham Bay on June 25, 1995 after finding *Tripsicum*

Christopher Mangels

Bob was truly a unique person, and to those who knew him at all, a man of great character. To me, the greatness of his character came from the range of personal qualities he embodied, which included striking contrasts. Although he was already of post retirement age when we first met, roughly eighteen years ago, Bob had probably always been, I suspect, much the same way all of his life.

Bob was a notoriously free thinker who nevertheless put great value on cooperation. He lived humbly, yet he was often more than generous, and had an unfailingly good nature. Bob could sometimes come across as being gruff, especially to strangers, yet he was always gracious and approachable. He was a born skeptic, who could always be counted on for critical dissent, yet he always managed to maintain a positive attitude. He was a decorated war veteran who possessed a truly gentle soul.

Bob was deeply connected to a past time—he often recounted stories of a pre-War, pre-suburban Long Island, notably the Hempstead Plains, and of having met and conversed with the likes of Nathaniel Britton, Stanley Cain, Roy Latham, and Robert Cushman Murphy. However, Bob never hesitated to accept the present, or to look towards the future. He had traveled the world widely, and was clearly influenced by his experiences, yet he developed deep roots in his home community of greater Islip, and over decades dedicated immeasurable amounts of time to active roles in numerous local organizations, most notably Great South Bay Audubon Society and the Long Island Botanical Society. In this sense, he was an embodiment of the “think globally, act locally” ethic.

Bob had innumerable friends, and struck up friendships with great ease. He was always eager to play the role of mentor and patron, as he did with several generations of budding naturalists. My relationship with Bob clearly fit into this category. Our friendship was based not only on a wide range of mutual interests—foremost a love of nature—but also on a shared sense of place and time. We thoroughly enjoyed being modern-day, roving naturalists, explorers and chroniclers of what still existed of Long Island’s natural world. The time and experience he shared was for me his greatest gift.

Now that Elsa was to carry the full load of caretaker, she took a careful look at her holding. She noticed that there was a green cast of moss growing under her grass and considered that if she removed the grass, more moss would grow. Moss would certainly be easier to care for than grass. No cutting, trimming or caring of lawn clippings would be necessary. In 1991, she knelt down and began picking out the blades of grass.

That same year, 1991, I looked over my new two acres of land. As I was overwhelmed by this oversized parcel, I walked the property in search of a landscaping them. I remembered the surveyor who marked the boundaries of my tract saying, "You have a small oasis here in the middle of suburban western Suffolk." Those words rung in my ears. I thought of robins darting through the branched wooded portions. They flew so quickly and assuredly as if the branches were 'nt even there. I remembered a box turtle grabbing at the ground for each slow and steadied step forward. I looked up at the tops of the mix of trees that inched past each other for the highest reach into the sky. I thought of nature. And I thought of what I could do to help it work the way it would perform best.

I thought of recreating a landscape with the plants that belonged there. I searched for information that, at that time, was not readily available. I heard of a speaker, that was giving a lecture on "native plants".

I attended the lecture in February of 1991 and as I sat and listened, I was convinced that this was what I wanted. I bought her book at the end of her lecture and waited my turn to have a personal inscription with her autograph: "To John, Go Wild", signed, "Karen Blumer".

And I did. From then on I would get down on my hands and knees and return my newly acquired property to a wild and native land. All the ornamental and nursery stock plants would be dug up and removed. The weeds that accompanied them would also be cut and torn out. And the grasses and crops that were planted for forage and farming over the past hundreds of years would go, also.

I would leave only the native plants that were indigenous to Long Island. No easy task. How would I know which plants belonged? There was no consumer-friendly internet. There were few books on the subject. And I know no one else that

was knowledgeable on the subject, much less anyone who cared. I struggled with a few elementary plant books at the local Smithtown Library and groped with questionable identifications.

Two years later, in 1993, much to my relief, I found the elusive Long Island Botanical Society. I found the people who knew and actually got excited about a native plant. And among them was an energetic and tireless student of botany: seventy-two year old Elsa L'Hommedieu.

Elsa had wasted no time learning about the natural world when she came to Nissequogue in 1953. She collected nature guides on plants, insects, birds, parks and preserves. She diligently wrote in the margins her observations and marked many of the pages with collected specimens. By the nineteen seventies many of her guide books were filled with specimens collected on Long Island.

Elsa was ready and waiting when the Long Island Botanical Society was formed in 1985. She was one its earliest members and was continuously soaking up information on plant identifications and behavior by attending the local field trips of the Long Island Botanical Society and the more distant trips of the Torrey Botanical Society.

Elsa had a simple rotary phone on a cherry wood stand. If you called after seven in the morning, you would not reach her. For she had no answering machine and by seven she was already out in the yard removing the unwanted plants. She would cut and lop the woody plants and border her property with the brush piles. After a few years the brush piles surrounded her entire five acres.

The progress was slow, but after a few years, large patches began to look "natural" and, before long, the land began to resemble a healthy northeast deciduous forest ecosystem. The moss groundcover became a field of fertility for native woodland plants. The tall mature oaks, hickories, hackberry, black cherry, black birch, sassafras, and cedar assumed a climax forest role.

Initially, Elsa was simply clearing away the congestion to allow for the native plants to breathe. But after a few years, other native plants, particularly herbaceous wildflowers appeared. And in the spring of 1996, Elsa's prize reward came. For through the green moss, succulent leaves unfurled of a Ragged-fringed Orchid (*Habernaria* _____). (To be continued)

Tale of a Ragged Fringe

John E. Potente

Chapter 1

March of 1952 came with its usual fluster of frost mornings pardoning an occasional skybreak of crisp blue stratosphere. I decided that this was a good time to be born.

A pair of young newlyweds in Jamaica, Queens christened me as their first son. I looked around and learned the sights and sounds of apartment living in Richmond Hill and eyed the black asphalt streets, soot gray sidewalks and cement block two story houses from the cradling arms of my dear mother.

1953 rolled in and further east on Long Island, Dick and Elsa L'Hommedieu purchased two large parcels of land in the upper reaches of Nissequogue in Suffolk County. The five acre purchase was just under a mile from the Nissequogue River and less than a half mile from Long Island Sound; easy walking distance.

Dick and Elsa explored the area and chose to have their new country home copied from a house on Middle Country Road and a garage fashioned in the likes of a carriage house across from the Episcopal church in Smithtown. The property they set claim to was wooded and heavily entrenched with Poison Ivy, Virginia Creeper, Bull Briar (*Smilax*), Japanese Honeysuckle, Oriental Bittersweet and Multiflora Rose. It may have been previously lumbered or farmed, but was now virtually impassable and thickly vined.

In 1955, a growing family business enticed my father to move us "out east" to Nassau County. The flat, treeless expanse of the Hempstead Plains were an open invitation to housing tract developers of the the nineteen fifties and sixties. Potato farms had claimed the land for decades. But they were quickly succumbing to the monotone houses of the spreading suburbs.

My parents found a neighborhood to their liking on the eastern border of the 60,000 acre plains in Plainview. While, at one time, the view of the grassy plain was breathtaking, by 1955, the "plain view" was no more. For the next twenty years, split level house # 10 on the block was my shelter.

I watched, through the living room window, road pavers clear and level the streets and the asphalt paving machines glue tarred gravel to the ground. I leaned forward on the window sill to see the monster steamrollers follow and press the macadam firmly into the soil.

While I watched, in bewilderment, the ground sizzling with black in front of the house, the backyard was to become a spawning ground for my interest in nature. My father would come home with fresh smelling green potted shrubs to plant. It was an exciting time. My father dug and shoveled with much excitement as he heeled in fresh nursery stock of Wisteria, Mimosa, Japanese Yew and Japanese Honeysuckle. He loved the sweet smell of their flowers and the privacy it offered, entwining ambitiously on our slat board fence, up the telephone poles (and on through the rest of the neighborhood backyards).

Dick and Elsa raised two children. A yard area was cleared and they threw some off-the-shelf grass seed in the back of their house. The lawn was not meticulously cared for, as it was merely to serve as a turf medium for the children to play ball and run about. No fertilizers were used and certainly, no herbicides, for they did not want to lose the weeds that helped sustain the green matting of their yard.

In 1990, Dick L'Hommedieu passed away and Elsa was left to care for the property. The children were grown and were done playing in the yard. She looked over her land in the northern portion of the valley of the Nissequogue.

In 1990, I struck out on my own and purchased a small house, built in 1945, along with two acres of land in Hauppauge, the southern section of the Nissequogue valley. Hauppauge is set dead center of Long Island: hilled with morainal outcroppings, strewn with freshwater uprisings and pocketed with small streams that feed the Nissequogue at its headwaters.

The water table in Hauppauge often intersects the sloping landscape and the groundwater is then free to run along the surface. It seeks the lower elevation in the Nissequogue valley and ultimately finds its way to the ocean; in this, case, the Long Island Sound. The travelling surface water keeps the soil under it wet and the land around it misted.

