



FORGET-ME-NOT

Myosotis Messenger

Winter 1996

Edmund Niles Huyck Preserve
& Biological Research Station
P.O. Box 189, Rensselaerville, NY 12147

Voices on the Preserve

Richard L. Wyman

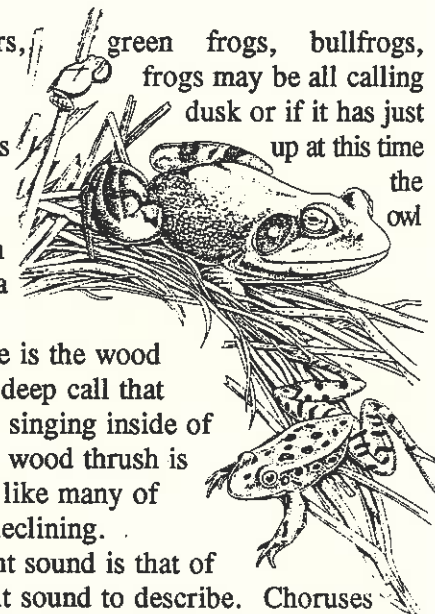
In the spring I often sit on the front porch of my home, the Ordway House, and as evening approaches I listen to the sounds. You can hear several species of frogs and toads chorusing around the shore of Lake Myosotis and in several of the small ponds nearby in the woods. The first call in the spring are the woodfrogs who might be thought to sound like large drops of water falling into an empty bucket. Woodfrogs breed explosively and in one or two days the event is over. Shortly thereafter the spring peepers begin their shrill peeps. I remember once, while studying the courtship of yellow spotted salamanders, being surrounded by peepers and then having my ears ring for hours afterward. Another amazing thing about them is while they are very loud it is extremely difficult to find them. They sit in the vegetation around water and peep but you can be a foot away from them and not be able to see them. Peepers call throughout most of the summer although their activity is greater in the spring.

Next come the high pitched, long trill of the American toad. These calls last several seconds and sound something like a cross between a cicada and the sound you make when you vibrate your tongue on the top of your mouth and make a moderately high pitched sound. A little later in the spring the green frogs begin to play the banjo. These relatively large frogs sound like someone plucking a single string on a banjo. Males will frequently respond to one another and if there are a dozen or more males they will soon be playing a symphony of banjo chords. Sometimes when they begin to call together the sound intensity increases as they become synchronized. About this time the drone of the bullfrog begins. One of our buildings that sits on the shore of Lincoln Pond, used for researcher housing, is called Bullfrog camp because around the shores of Lincoln Pond bullfrogs form large choruses. These frogs also respond to one another answering one low pitched throaty moan with another, supposed to sound like "Jug-of-Rum". Apparently the larger the male the deeper is his call. When 20 or 30 of these frogs are all singing at once the synchronized sound becomes a roar.



Another entry into the cacophony is the grey tree frog. This fellow also sits in trees or shrubs near the waters' edge and utters a long trill much like the American toad but lower in pitch and with more time between each note. As the spring progresses and they become numerous they can even be heard in the trees quite some distance from the water. Both pickerel and leopard frogs occur on the Preserve but they call much less frequently. They both sound like they are saying "duck, duck, duck".

In June and July peepers, green frogs, bullfrogs, American toads and tree frogs may be all calling at once especially around dusk or if it has just rained. Bird singing picks up at this time of day as well. Later in the evening the great horned and barred owl may begin their hooting. There are a few other birds that call at night. Around here one is the wood thrush. It has a beautiful deep call that sounds as if the bird were singing inside of a tube. Unfortunately the wood thrush is a neotropical migrant and like many of those its populations are declining.



I think my favorite night sound is that of the coyote. It is a difficult sound to describe. Choruses of coyote calls often begin with howls but mixed in are sounds that sound like hysterical laughing as one might imagine in an insane asylum. The choruses usually end with long drawn out howls. Other sounds like chortles and warbles may also be dispersed throughout the calling episode, but I would need a tape recorder to give you the idea.

One night this fall, I was working in the barn behind my house when I began to hear coyotes in the forest all around me. They were obviously on the ridge behind my house and across Lake Myosotis on the ridge west of the lake. They were also further up the valley behind Lincoln Pond. They abruptly stopped. About ten minutes later they began again but now they were all together on the ridge west of Lake Myosotis. I do not know for sure what they were up to, but I imagined that they had been hunting independently and then one or more had been successful and the successful ones were calling in the rest of the family or pack. I once found a nest

of coyote pups in the base of a rotted tree. They looked like little puppies of a house dog.

The final caller of the night is the red fox. This animal has to win the bizarre animal sound contest. It took me quite a while before I figured out who was being murdered in the woods. Foxes (males I think) evidently call on the run because you can frequently trace the sound as it moves along a woodland edge. It sounds just like a woman screaming because she is being attacked. It can make your hair stand on end. I think it is the way males let other males know they are there or they let females know they are there. I have had foxes run up my driveway screaming bloody murder with me sitting on the porch. Sometimes it becomes quite noisy while I'm sitting on my front porch.

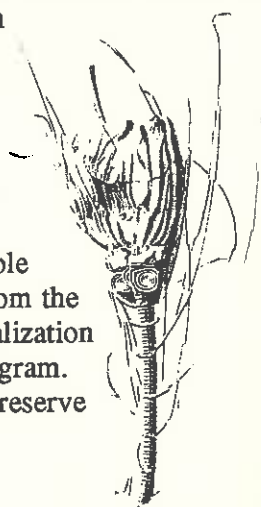
Lincoln Pond: Deluge and the Dam

Rain began on October 27th and by Saturday at 1:00 pm the Preserve had received about 3 in. Between 1:00 and 3:00 pm an additional two inches of rain fell. Apparently at least one beaver dam upstream of Lincoln Pond gave way. Lincoln Pond water elevation then rose rapidly and the water overtopped the spillway structure and surrounding rock wall. Rick and Tom inspected the bridge just below Lincoln Pond at about 3:00 and noticed that the earth under the bridge had washed away. There was only a six inch layer of packed road surface with nothing underneath but an old corroded culvert. At about 4:00, with water flowing over the road and about 15 ft. of water pushing on the upstream side of the bridge, the structure began to moan. A few seconds later the 6 ft. diameter culvert shot out from under the bridge and traveled 75 ft. downstream. The top of the bridge then collapsed into the stream. We had previously blocked off the road with our vehicles and had informed the authorities. The Town will have the bridge repaired this spring but repairs to Lincoln Pond dam will be our responsibility.

The main dam on Lake Myosotis passed this water with ease and showed no signs of stress. This was the kind of event for which we had the dam repaired. Again during the January floods, when many areas were devastated, the dam held just fine. Unfortunately the same cannot be said for Lincoln Pond dam. During the October storm the small dam and spillway at Lincoln Pond did suffer damage. One spillway support wall was washed away. No further damage seemed to occur during January but it is difficult to tell simply by looking whether or not it will withstand many similar events. The structure will need to be inspected and evaluated by an engineer so that we can begin to start the repair process. Lincoln Pond served as an inspiration to Edmund Niles Huyck and has similarly inspired others who have since followed. It is our intention to preserve this beautiful pond. A special fund has been set up for this purpose. Contributions can be made to the Huyck Preserve.

Natural History Illustrators Artist-in-Residency Program

The E.N. Huyck Preserve will be sponsoring a Natural History Illustrators Artist-in-Residency program during the 1996-97 summer season. The program is designed to give twelve to twenty natural artists the opportunity to work in the field. With artists increasingly confined to their studios, there is a great need for opportunities to practice their skills in the field through direct observation. A small stipend is available for interested artists through a grant from the New York State Arts Council Decentralization Program given specifically for this program. For more information please call the Preserve office at 797-3440.



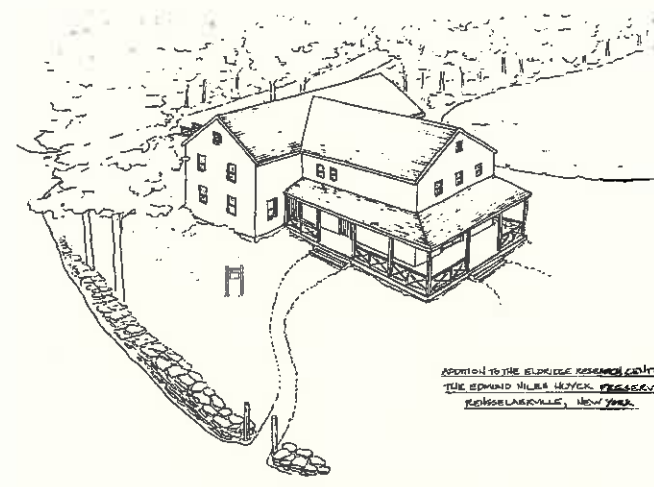
Institute for Bird Populations will hold training at Huyck Preserve

The Institute for Bird Populations (IBP) will hold a bird bander training program at the Huyck Preserve from July 20-27. IBP is a non-profit organization founded in 1989 to foster a global approach to the study of changes in bird populations. IBP is best known for its Monitoring Avian Productivity and Survivorship (MAPS) program, a network of approximately 400 standardized stations that use mist-netting to monitor population demographics of target North American land bird species. Banding provides a wealth of critical information on the life histories of individual birds as well as the size, productivity, survivorship, recruitment and migration routes of bird populations.

This seven day course is designed to provide experienced birders with the skills necessary to be certified as banding assistants in standardized research and monitoring programs. Tom Alworth will participate in the course and as a result the Huyck Preserve will become an IBP station with birds being banded annually making the Preserve the first MAPS location in the Northeast.

The Preserve is pleased to have been selected as a training site for IBP and we are excited about future participation in the MAPS program. We are looking for housing for the trainees because we are usually filled to capacity at that time of the year. Please call the Preserve if you could spare a room or two during that week. Thank you.

Help Wanted - The Preserve is looking for a part-time assistant to help out with research and maintenance. The position will involve some manual labor. Possibility of full-time hours for the summer season. Interested parties should contact the Preserve office at 797-3440.



Lab Addition Planned for 1996

The Huyck Preserve and its Biological Research Station has supported research and education in the biological sciences since 1937. Since then, more than 300 scientists have produced over 250 papers, dissertations, and theses based on work done on the Preserve. From 1988 to 1995, 40 Ph.D. level scientists and 32 graduate students have worked on the Preserve and published over 50 papers. The Preserve's education programs have grown as well. Since 1988, about 7500 students and 275 teachers have come here to practice hands-on environmental education. The Preserve's laboratory building can no longer accommodate the researchers and students utilizing its resources. Consequently, the Huyck Preserve applied for and received an NSF grant to upgrade our facilities. The addition (pictured above) to the lab building, to be constructed on the same site that historically held a barn, will more than double our office, laboratory and teaching space. It will also include a natural science library and collection room. Architect Gus Dudley and Board member Paul Baitsholts are contributing time and talent to the project. We expect to break ground as early as the spring but no later than this fall. The \$126,000 grant requires matching funds of about \$42,000. Donations to the laboratory project are tax deductible.

Inventions Galore Richard L. Wyman

The grant from the USDA that I received is to investigate the effects of the predation by salamanders on the invertebrate community of the forest floor and to see how that predation affects decomposition. This is important because a relatively small change in the rate of decomposition over large areas of the Earth can result in huge amounts of carbon dioxide (measured in gigatons or billions of tons) either being held as carbon in the litter or released as carbon dioxide into the atmosphere.

I had proposed that we conduct these experiments in three different beech forests. In each forest we are to install 16 enclosures that measure one meter wide and two meters

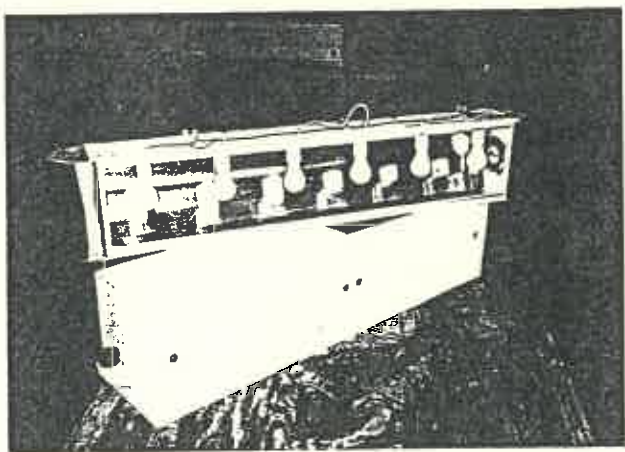
long and we set up an additional eight 100 m² plots. In both enclosures and plots we are manipulating the numbers of salamanders so that we can see what happens when they are there and when they are not. Hence we have 48 enclosures and 24 plots. We sample the invertebrates in the leaf litter before we manipulate salamander numbers, half way through the yearly experiment, and at the end of the year. In the past when we ran this type of experiment we had at most 10 enclosures and no plots. We take a sample of leaf litter, about 500 grams, and four or five of us sit around a table and hand sort the litter attempting to catch by hand anything that moves. It usually requires four people to spend two hours on one sample. Now here is the problem. How could we possibly hand sort samples from 48 enclosures and 24 plots in a timely fashion? It would take 72 times 2 hours to do this or at least two weeks. In reality you can only sit and sort for four or five hours before you start to go crazy so in all likelihood it would take more like three or four weeks. In essence I had proposed to do the impossible. Not an altogether unusual thing for a scientist to propose. That's part of what makes it fun because now you have to come up with another way to do it.

A number of years ago a fellow named Berlese invented a method to drive invertebrates out of soil and litter by placing the sample in a funnel and putting a light bulb above it and a jar of alcohol beneath it. Forest floor invertebrates live in a dark, moist, cool place and so the thought was that the heat and light would gradually dry out the sample and chase the invertebrates out of the bottom of the funnel where they would fall into the alcohol. We have used this technique in the past but it takes about a week to dry the sample thoroughly. Again the Berlese funnel technique would take vastly too much time. The animals we are dealing with are small but big enough to be of interest to a salamander, generally at least a couple of millimeters long including worms, slugs, millipedes, crickets, maggots, and spiders. Spiders present their own problem because in a Berlese funnel they will frequently spin a web at the opening of the bottom of the funnel and catch and eat whatever tries to get out. Not a good idea from my point of view. In addition often the fumes from the alcohol would enter the bottom of the funnel and kill the animals inside the litter. We started with the idea that while the Berlese funnel technique sort of worked it had problems. We had to come up with something new.

A number of years ago I knew a fellow in Nyack, NY, who was a carpenter and a rather ingenious inventor, Bert Posey. He had since moved to a "holler" in the mountains of North Carolina. So I called him up and said, "Hey, why don't you come up here and help me invent some things for this project." He said, "Okay." Bert and I spent the months of July and August inventing several devices to make the project more efficient. The one I'm going to describe is the best or as my daughters like to say "cool".

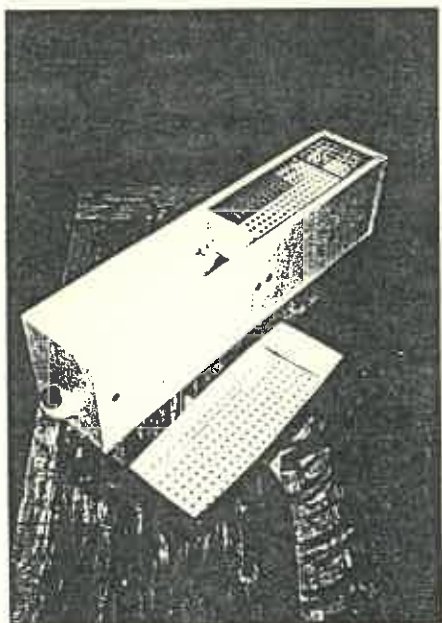
Bert told me, many times, that when you invent you think of every possible way to do it, make plans and then start making whatever it is you designed. You know ahead of time

at the first one is not going to be what you use but it will
each what works and what does not. We began with the idea
at what we needed to do was use the behavior of the animals
to make them want to get out of the litter.



We imagined a long box with the sample of leaves
held several inches above the bottom. In a removable top we
placed a series of 75 and 100 watt light bulbs so that they
could sit a couple of inches above the leaf litter. Because we
needed to dry the litter, water vapor would accumulate in the
box if we did not vent it. We placed a small computer

blowing into
the box at one end
of the top and a
hole covered with
fine mesh at the
other end. The
first mesh we
used was a pair
of Bert's under-
wear cut up. The
litter sits in a
basket held about
half way up in the
box and that has
small holes in the
bottom so the
animals can get
out but the litter
would not fall out



too. The box also has an elevated false bottom made of
aluminum that is about three inches from the bottom of the
box and three inches beneath the basket of litter. At each end
of the box we have elbow pipes sticking out which allows us
to stuff the area under the false bottom full of ice cubes. We
put about an half inch of water on top of the false bottom and
arrange in the water a long piece of absorbable paper (it is
actually dry wall tape). Thus above the leaf litter we have a
not dry and lighted environment thought to be quite nasty by
the bugs. Beneath the leaf litter we have a cool, wet, and
dark environment with a nice long, clean white leaf, thought
to be yummy by the bugs.

We ran several experiments with this using a variety

of kinds of litter and it worked. We now can extract in 24
hours all the invertebrates that are in the litter and that are big
enough to see. We know this because we hand picked the
litter after the experiments to be sure that it worked. We now
can do all the leaf litter samples from a forest in four days.
This winter we are buying animals from biological supply
houses and running additional tests. That is we put in a
known number of things and then run the extractor and see
what we get. In this way we can qualify the effectiveness of
the machine. What I described here is actually the fifth
version, we went through four others that didn't work as well
but they led us to this version. A sixth version may replace
the ice cubes with refrigeration. The Posey-Wyman
Extractor.

Perspectives from the Salamander Crew

In the Summer of 1995 issue of the Forget-Me-Not,
you learned of a grant Rick Wyman received for the study of
salamanders. The project supported by this grant has brought
many new faces and activities to the Huyck Preserve.
Currently, four new employees can be seen buzzing around
Eldridge Lab and the surrounding forest sites collecting data,
learning the process of scientific research, and appreciating the
natural beauty of their surroundings. The members of the
salamander research team bring with them different histories
that shape how they view the Huyck Preserve and their
experience here.

Jean Palange - Living and working on the Huyck Preserve
has offered me a wonderful chance to pursue my academic
interests while relearning to marvel and wonder about
everything outside. I remember playing with salamanders on
family vacations when I was a small child. They were so
interesting to pick up and admire. At the time, I never
imagined I'd be spending several years studying them. After
four years in the classroom studying biology, field research
sounded very appealing. Just in the time spent walking to the
research sites, I notice passing through old fields where trees
are beginning to shade out grasses, moving into a poplar stand
and finally standing under the canopy of a mature beech
forest. Identifying plants, observing deer, turkey, and of
course salamanders has become part of my daily routine.
There's so much to discover on the Preserve, I know my time
here will be rewarding and memorable.

Kelly MacWatters - In the short time I've been with the
Huyck Preserve, I've grown very quickly attached to its
magic. I spent many years traveling and working for the
National Park Service in which I experienced a feeling of
freedom from everyday life that is difficult to explain. For
the past six years, I have been living locally and have been
very busy being a single working mother. I had almost
forgotten how important it was to take a daily walk through
the forest, until I was given the opportunity to work at the

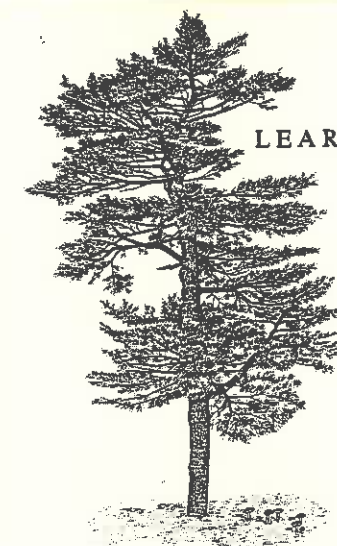
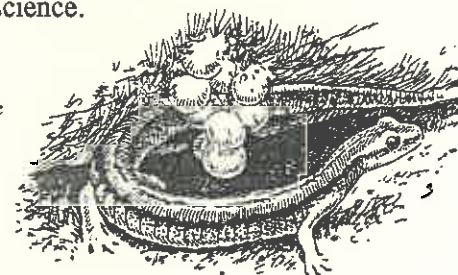
Huyck Preserve. I'm very excited to have a small part in the
research that may someday make a huge difference in ensuring
that my son will also have a place such as the Huyck Preserve
in his future.

Beth Elliott - I really don't remember the first time I visited
the Huyck Preserve. Both of my parents were biologists and
frequently did research here. I often accompanied them and
enjoyed the setting and walking the trails, but I never pictured
myself doing biology. I went to school for theater, and soon
after I graduated, a series of coincidences found me working
here. One of the things I find the most rewarding in working
with this project is learning to think in ways that I never had
to think before. I've always enjoyed and appreciated nature,
but I'm finding that as I learn more about how things work in
a forest, my appreciation of it has grown tremendously.

Ted Watt - My brothers and I grew up summers in the
Village, hiking the Preserve Trails, exploring the Falls, and
swimming and catching bullheads in Lake Myosotis. In many
ways it was an idyllic childhood, especially for us growing up
in the sterile New York City suburbs. The Preserve was
always there for us: acres of woods with wildflowers and
birds to stir our awe, streams and the Lake to fill us with
excitement in discovering new forms of life. Last fall I
moved up to Rensselaerville full-time. There was a chance to
help at the Preserve - as a research assistant on Rick's study
of the connection between salamander populations and global
warming. What a great chance to participate in some real
scientific research, research that contributes in a small but
significant way to understanding the effect we humans are
having as we live our lives on the planet. So each morning
this fall and winter I have spent working, with the other team
members, on the many different research jobs. Translating
the larger scientific questions of the study into day-to-day
tasks is a huge challenge! Making nylon screen mesh bags of
3 gram dry weight samples of leaves from the proper beech
forest for hours at a time ... tracking everything we do in
great detail so we can remember what we did when we're
looking at the data ... identifying individual red-backed
salamanders from photos of their bellies ... all this and a lot
more have been incredibly instructive to me as a biologist and
naturalist. And just think how exciting it will be when we
start looking at the data!

The Salamander Crew hopes that all of you hike the
trails, experience the beauty, and remember the contributions
that the Huyck Preserve makes to our awareness of nature and
knowledge of science.

Red-backed Female
guarding eggs



LEARNING FROM TREES

Strange that so few ever come into the woods to
see how the pine lives and grows and spires,
lifting its evergreen arms to the light—to see its
perfect success; but most are content to behold it
in the shape of many broad boards brought to
market, and deem that its true success.

HENRY DAVID THOREAU

Education Programs

Marilyn Walters Wyman

This spring we will be conducting several outdoor
environmental education programs. Most of our programs are
scheduled in Spring-Fall because of the difficulty predicting
weather conditions in the winter. The schools include
Greenville Elementary and School #19 in Albany.

Tom Alworth continues to coordinate an Animal
Ecology course at the Greenville High School. This is a
college level course he has developed which gives the students
who complete it 3 SUNY (State University of New York)
science credits. It is the only course of its kind in the state.

Tom has also been doing an extended ecology
program with elementary students from Parson's Child and
Family Center located in the city of Albany. This was an off-
shoot of a program he conducted last year at the Parson's
High School.

We will also be hosting several Minds-On science
workshops, coordinated through Mary Ann Ronconi and the
Rensselaerville Institute. These are Junior/Senior High level
workshops which provide hands-on (and minds-on) science
opportunities for regional schools.

Nature Study will continue this summer with sessions
for the younger nature lovers. The programs are held over a
six week period for two age groups, K-3 and 4th grade and
up. Barbara Barrett and Marilyn Wyman will be joined this
year by Ted Watt. This summer we are developing a
wonderful new program for the older group using the book
"On the Far Side of the Mountain" by the distinguished author
Jean Craighead George (see excerpt). The story involves the
adventures of two young naturalists and their journeys which
take them throughout this region including the Huyck Preserve
and Rensselaerville! We plan on recreating aspects of the
book with the children and we are very excited about it.

*I am eager to see Alice, and take
off at a run down a dirt road, then cut
over to Ten-Mile Creek passing through a
forest of yellow birch and maples. I
follow the stream to the falls, a beauty
that splashes down an eighty foot staircase.
The water hums, whispers, and spins
white threads before pooling at the bottom.*

*This is it, I say to myself, this has
to be where Alice is.* Jean Craighead George

Finally we are waiting to hear about a grant we submitted to EPA in collaboration with Arbor Hill Community School, an inner city Albany Public school. The focus of the grant is to expose the students to field biology as a potential career. It will also provide them the opportunity to understand how a research project is developed and implemented while enjoying the natural beauty of the Preserve. We believe it is extremely important that students have these experiences.

Staff

Dr. Richard L. Wyman, Executive Director
Marilyn Walters-Wyman, Educational Coordinator
Thomas Alworth, Assistant to the Director
Carolyn Barker, Admin. Assistant & Newsletter Editor
Jean Palange, Research Assistant, Project Manager
Kelly MacWatters, Research Assistant
Beth Elliott, Research Assistant
Ted Watt, Research and Educational Assistant
Jennifer Frank, Research Assistant
Sandra Alworth, Artistic Educational Consultant

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E.N. Huyck Preserve
PO Box 189
Rensselaerville, NY 12147

Where Have All the Bluejays Gone?

Late last year Barry Kuhar came into the office to ask me if I'd seen any bluejays lately. Thinking about it, I had to admit that I had not. Since then I have asked around Rensselaerville and sure enough - no bluejays. Bluejays are usually quite conspicuous during the winter. Hunters have remarked that the bluejays usually scold them when in the woods, and folks with bird feeders frequently complain about the bluejays dominating the bird feeder area. This year, at least around the Preserve, there are no bluejays. I have no idea what has happened to them. While this has been a particularly bad winter, equally severe weather in the past did not appear to affect them. I am curious to know if the absence of bluejays is common in other areas. Please write to Rick Wyman at the Preserve.



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