The New York Forest Owner

A Publication of The New York Forest Owners Association

May/June 2001

NEW YORK FOREST OWNERS ASSOCIATION
GROWING TOMORROW'S TREES TODAY
FOUNDED 1963

Volume 39 Number 3

In This Issue . . .

The New York
Forest Owner

A PUBLICATION OF THE NEW YORK FOREST OWNERS ASSOCIATION

The New York Forest Owner is a bi-monthly publication of The New York Forest Owners Association, P.O. Box 180, Fairport, N.Y. 14450. Materials submitted for publication should be sent to: ***Mary Beth Malmsheimer****, Editor, The New York Forest Owner, 134 Lincklaen Street, Cazenovia, New York 13035. Materials may also be e-mailed to mmalmshe@syr.edu. Articles, artwork and photos are invited and if requested, are returned after use.* ***The deadline for submission for the July/August issue is June 1, 2001.***

Please address all membership fees and change of address requests to P.O. Box 180, Fairport, N.Y. 14450. 1-800-836-3566. Cost of individual membership/subscription is $20.

www.nyfoa.org

COVER: Neil Pedersen is extracting the core from the increment borer of a newly found black gum tree in Greenfield, NY. See page 6 for the full article on the finding of this old growth tree. Photograph courtesy of John Hastings.

From The President

I wonder if New York forest owners – individuals, corporations, and governments – are in some way less proud of their stewardship than folks in some other states, or perhaps not as confident in the practices being carried out. On the other hand, it may just be we are not as demonstrative as others, and hence, may be missing some opportunities to cultivate the understanding and support of motorists.

While driving through the Carolinas, Florida and Georgia last February, Peggy and I again remarked about the number of positive reminders along the road to the importance of forest management and stewardship. Perhaps you've seen some of these small, tastefully done signs, carefully placed as reminders without being scenically intrusive.

Our favorite is "Caring for the Forest and All it Produces." A straightforward, positive statement, which can stir a wide variety of thoughts. What comes to your mind – birds, firewood, solitude; timber, deer, smells; porcupines, fenceposts, satisfaction; income, grouse, snow shoes; flowers, ferns, ground pine; writing paper, 2 x 4s, or Christmas trees and children? Try making your own list.

"Watch us Grow Trees" is a great message too. Others contribute to your well being by growing tomatoes, apples or carrots. I grow trees. When they are "ripe" they contribute many products that you use every day. While they are growing, they help our water supply and turn carbon dioxide (a human waste) into the oxygen we need. Trees start small and with time and tender loving care grow up – a life cycle with which we are all familiar. Perhaps that is what the Georgia Association of Consulting Foresters had in mind when they put up this sign: "New Forest Being Born – Watch it Grow." I like that image.

The Georgia Forestry Commission authored several signs we like, such as "Georgia's Favorite Color – Forest Green." They also reminded us that "Trees Grow Jobs," and made recommendations such as "Idle Acres? Plant Trees."

Some industrial landholders take the trouble to explain when trees were planted, thinned, targeted for harvest and other information, again stressing the cyclical nature of raising wood products. These messages let people know that growing trees is a serious long-term endeavor and that wood products don't just "happen."

Skeptics may argue that many of those signs are designed to go with the southeast's softwood industries and are not suitable for the northeast. Sure, some of the signs best describe plantation farming, and no one is suggesting that "Prescribed Burning for a Healthy Forest" is a sign designed for New York. That sign's message is, however, a statement of established practice in Georgia, and its owner isn't shying away from making a positive statement regarding a sensitive subject.

Simply put, I am suggesting that there are additional opportunities for informing the motoring public of what they are looking at as they drive by. As New York's forest owners – individuals, corporations, and governments – we need to take every opportunity to raise the level of awareness of the traveling public as to the environmental, economic and social aspects of caring for our forests, and all that they produce. Those with forested frontage on secondary roads might consider the possibilities – how many people drive by every week?

–Ron Pedersen
President

Join!

NYFOA is a not-for-profit group of NY State landowners promoting stewardship of private forests. Stewardship puts into practice knowledge of forest ecosystems, silviculture, local economies, watersheds, wildlife, natural aesthetics and even law for the long term benefit of current and future generations. NYFOA, through its local chapters, provides this knowledge for landowners and the interested public.

Join NYFOA today and begin to receive the many benefits including: six issues of ***The New York Forest Owner***, woodswalks, chapter meetings, and two statewide meetings for all members.

I/We would like to support good forestry and stewardship of New York's forest lands

( ) I/We own _____acres of woodland.
( ) I/We do not own woodland but support the Association's objectives.

Name: _____

Address: _____

City: _____

State/Zip: _____

Telephone: _____

County of Residence:_____

County of Woodlot: _____

Referred by: _____

Annual Dues (Please Circle One):

Student	$10
(please provide copy of student ID)	
Individual	$20
Family (co-owners)	$25
Contributing	$30-$100
Sponsoring	$101+

Please make check payable to **New York Forest Owners Association**, or, if you prefer, by check payable to NYWS (New York Woodland Stewards, Inc., a tax deductible foundation), including any contribution in excess of your NYFOA membership and send to:

NYFOA
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Fairport, New York 14450
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In The MAIL

Controlling Deer Population

Both recent numbers of the *Conservationist* and *The New York Forest Owner* contain lamentations about the numbers of deer haunting our highways and creating as serious a threat to our forests as all other pests put together.

I am ashamed now that for 30 or so years my lands were part of a community posting scheme whose purpose was not to control deer but to control hunters.

Twelve years ago I switched posting signs. The new ones in effect welcome hunters, asking them to get written permission from me that relieves me of liability, take all the deer they legally can, and leave some in my freezer.

The posting has been very successful. Some 60-70 hunters come for permits each season. They are well-spoken and appreciative. Some have been coming from the start. Last fall they reported taking 32 from about 1,000 acres, all of them nicely fattened on seedlings of oak and ash.

Last year's hunters included two from Holland and four from Ecuador. The Dutchmen did all right, but the Latinos prowled about for five days without as much as putting an arrow into deer flesh.

Unfortunately my neighbors think to protect their woodlands by posting against hunting instead of for hunting.

I believe that forest owners are responsible for their property, including keeping deer numbers under control. Moreover that control needs more effective means than increasing sporting license fees or legalizing more bowmen, cross or long.

– Henry S. Kernan
South Worcester, NY

NYFOA Scholarship Fund

As of April 1, 2001, the NYFOA Endowed Scholarship Fund that is administered by the SUNY ESF College Foundation, Inc. has a fund balance of $20,908.85.

LOSS OF OLD GROWTH

Nearly forty years ago, Verner Hudson of Elbridge, NY agreed to become a Forest Practice Act (1947) Cooperator and undertook a program of improving his forested land for wood products. Shortly after, he joined the New York Forest Owners Association and thus began a career of helping himself and others become better stewards of their property.

Vern served as Onondaga County's representative to the NYS DEC Region 7 Forest Practice Board (FPB) for over 25 years, 15 of which he represented the Region FPB to the State Forest Practice Board where he was elected Treasurer and the state board's representative/advisor to the NYS DEC Fish & Wildlife Act Management Board. His leadership and influence as advisor to DEC was significant and accomplished with enviable style. He championed RPTL Section 480a and subsequent Bills of Revision, Right to Practice Forestry Legislation, owner-favorable amendments to the General Obligations Law and innumerable recommendations for cost-sharing programs for private owners.

In 1988, Tree Farm recognized Verner Hudson as NYS Outstanding Tree Farmer of the Year. Vern became a Master Forest Owner in 1992 and in 1993 held NYFOA's first Family Forest Fair followed by two more in subsequent years at his "Gurnee Woods" farm. Also, in 1994 Vern and his wife, Marjorie, were Grand Parade Marshals for the 47th Annual Woodsmen's Field Days in Boonville.

For these accomplishments and Verner's dedication to forestry, NYFOA recognized him with the Heiberg Award in 1997.

It is with great sadness that we report Verner's death in Florida while visiting his daughter, Clara (former NYFOA Treasurer) and son-in-law, Bill Minerd (former NYFOA President) March 7, 2001.

Contributions may be made care of John Druke, 6341 Kirkville Road, Kirkville, NY 13082.

-Dick Fox

The Bear Facts

KRISTI SULLIVAN

Spring is upon us and chances of viewing a wandering black bear are greater at this time of year. Although not true hibernators, bears sleep soundly through the winter in nests or dens in hollow stumps, caves, and under trees. As the weather warms, bears awaken and begin to search out sources of food. Other activities, including males searching for females and yearlings leaving their sow's home range, also increase the distance that bears travel at this time of year.

Approximately 5,000-6,000 black bears inhabit New York State. Bears are most common in the heavily forested areas of the Adirondack, Catskill and Allegany ranges. However, an increase in forest cover in other parts of the state where fields are reverting to forest is creating additional habitat, and bears are being seen in new areas with increasing frequency.

Bears are omnivorous and will eat almost anything including plant buds, leaves, stalks, fruit and nuts, as well as insects, meat, and even garbage. Their opportunistic feeding habits often bring them into conflict with people as they discover "free" sources of food like bird feeders, compost bins, garbage or pet food. To avoid conflict with bears the best strategy is to eliminate all potential food sources.

Discontinue bird feeding for the spring. Bringing feeders in for the night may be helpful, but remember that bears will be attracted to the seed that has spilled on the ground. Keep garbage cans inside a garage or shed instead of leaving them outdoors, and avoid feeding pets outdoors. Remove grease cans from outdoor grills after every use and turn the grill on "high" to burn away remaining tidbits of food.

Although viewing a bear up close can be a thrilling experience, bears that become accustomed to receiving food from people often develop troublesome habits as they continue to seek food from inappropriate sources. This behavior can be dangerous for bears as well as people. Bears that are accustomed to being near people are at greater risk of being hit by a car or being shot illegally. In addition, regularly feeding on improper foods can lead to dietary deficiencies. As with all wildlife, these spectacular creatures should be respected, and are best admired from a distance.

Kristi Sullivan is a Wildlife Communications Specialist at Cornell University.

Foresters Branch Out with Old-Growth Database

JIM ROGALSKI

A scraggly old tree with a nasty bump on its trunk growing in a remote swamp in Greenfield, NY is the inspiration for a soon-to-be first-ever national database.

Keith Argow, president of the Washington, D.C.-based National Forestry Association (NFA), said he started creating a database of old trees, inspired by news of a 553-year-old black tupelo tree growing on state forest land off Cohen Road. That tree is believed to be the oldest known living tree in New York state, but since there is not a formal database on old trees it is difficult to know for certain.

There are national databases for largest trees and historic/famous trees, but none for oldest trees. Old tree records are kept informally by researchers and others.

An old burl protrudes from the trunk of what may be the oldest tree in New York State – a black gum of 550+ years.

"That (tupelo) tree pushed me over the edge," Argow said from his Washington, D.C., office, where he directs the nonprofit agency that promotes forestry education in all 50 states. His agency is setting up an advisory council that will include the University of Arizona Tree Ring Research Lab and the Rocky Mountain Dendrochronology Lab to keep a formal database of the oldest trees in every state.

"It's very exciting," said 33-year-old researcher Neil Pederson, who found the old growth tree in Greenfield last fall. "A database like this will really help people who work with trees. I think we may be surprised at just how long some trees can live."

In February, while Argow was busy marshaling the forces to launch the database project, Pederson, a Ph.D. candidate at Columbia University, strapped on snowshoes and hiked with a trio of state foresters to the now-famous black tupelo for further study.

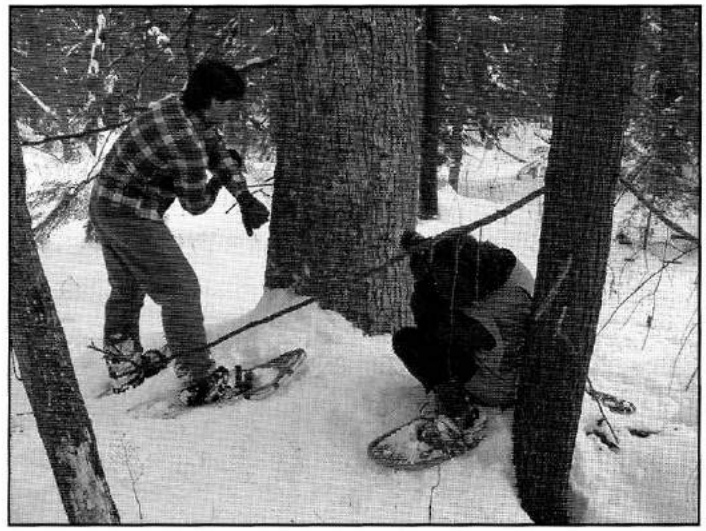
Armed with a tape measure, boring rod and other work essentials, Pederson visited the unfrequented stand of some 30 old-growth trees for the first time since the fall when he discovered them and took boring samples. It was his first visit to the state's oldest known living tree since it was informally confirmed as such in January.

"This is definitely the time of year to see them – there are no mosquitoes," Pederson quipped as he stood next to the tree that has been scientifically proven to date back to 1448. That's 44 years before Columbus sailed the ocean blue.

With Pederson were state Department of Environmental Conservation foresters, John Hastings, Tad Norton and David Lee. Hastings, the Saratoga County forester, originally pointed Pederson to the possibility of the old growth trees in the area based on a tattered 1940 map.

Hastings said the land around the trees likely will be designated as protected under the new forest management plan he is creating for Saratoga County's 3,000 acres of state forest.

Neil Pedersen (left), Times Union Photographer Cindy Schultz, and reporter Jim Rogalski in a group of black gum trees



Neil Pedersen (left) is taking an increment boring of a black gum (Nyssa sylvatica) as Cindy Schultz is taking a picture.

Pederson is a doctoral candidate at the Tree Ring Laboratory of Lamont-Doherty Earth Observatory at Columbia University. His project is to study the influences of climate on trees growing at or near their range limits in the Hudson Valley.

Argow said the new database will work this way: individuals will notify his agency of a tree they think is particularly old, and the NFA will dispatch a local forester to study it. Data will be reviewed and verified by a national review board of tree-dating professionals, and certificates will be issued to mark the significance of the tree.

"We'll fund it ourselves," Argow said. "We hope other partners eventually will include the National Arbor Day Foundation."

Jim Rogalski is a staff writer with the Albany Times Union. This article originally appeared in the Albany Times Union on February 11, 2001 and is reprinted with their permission.

Splendid Splinter

Facts on the state's oldest known living tree:

- Type: Black tupelo (black gum)
- Location: Off Cohen Road, Greenfield, NY
- Height: 55 Feet
- Diameter: 26.6 inches
- Circumference: 7 Feet
- Notable Characteristics: Large bump or burl, about seven feet up the trunk; the crown consists of tight, crooked branches that more resemble a bonsai tree than a maple.

Source: John Hastings, State forester for Saratoga County and NYFOA member

New York's Paper Industry

Hugh O. Canham

The paper industry in North America started on the upper Hudson River in New York State. And, until very recently, New York State was the headquarters of one of the largest paper companies in the world. These two events characterize the paper industry's reign in New York State: early start, a leading state, declines. The recent closures of several New York paper mills call for examining this industry and the reasons that the State has lost its premier place as a paper producing state. Of particular note are the impacts of the changing dynamics of the paper industry on the forest resource. With the bulk of New York's forest land in nonindustrial private ownership the question becomes, what is the impact on private forest owners?

The fledgling paper industry in North America differed from its European counterpart. Here wood was in abundance; primarily spruce and balsam fir that could easily be ground into individual fibers and combined with the abundant water resource available to make a very useful grade of paper. Producing this paper also required large amounts of energy but this was also available from the falling water in the many rivers of New York State. Thus, in 1869 the Hudson River Paper Company, now International Paper Company, built a mill on the upper Hudson River at the village of Corinth. By the end of the 1800's there were close to 150 pulp mills in the state. Developments in new technologies and changing fortunes led to changes over the next 70 years. By 1939, there were 42 wood pulp and paper mills operating in New York State. These were located primarily in Northern New York with others around the Niagara Falls area (Figure 1). Northern New York contained three essential ingredients for papermaking: water, energy, and an abundant supply of spruce and fir. In addition, the region was close to the nation's major paper markets, New York City, Boston, and the other growing eastern cities.

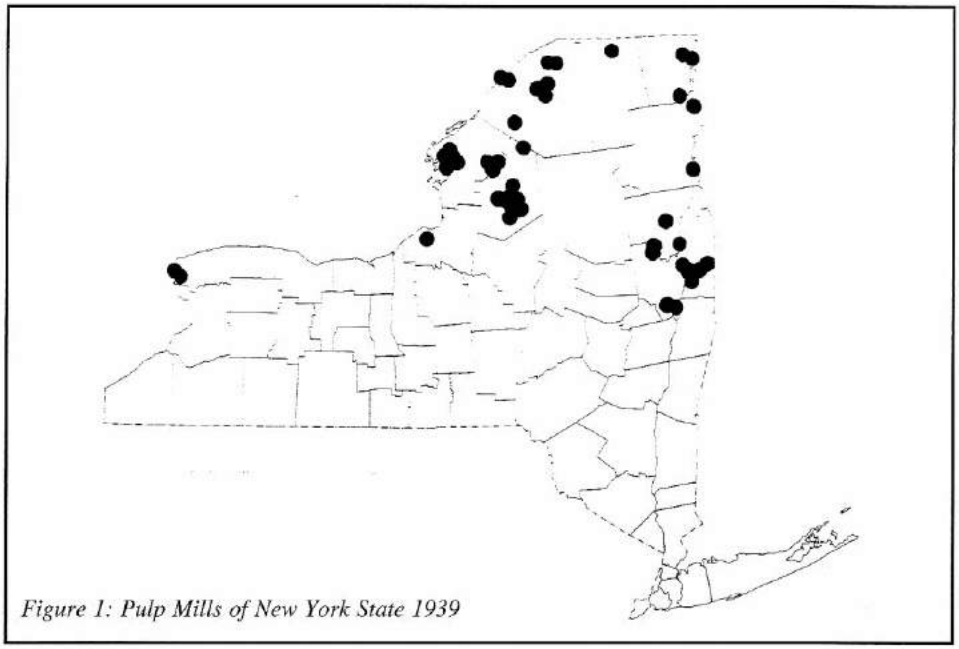


Figure 1: Pulp Mills of New York State 1939

Until the early 1950s, spruce was the principal species used to produce paper. Some balsam fir was also used and specialty mills used poplar (aspen, cottonwood). What was required were species that could easily be separated into individual fibers and had a high concentration of cellulose but low amounts of lignin and other substances not useable for paper. Papermaking soon became a big industry. Although the early mills were small compared to the huge mills that are now state-of-the art in today's paper industry, the industry realized that insuring a steady supply of wood was essential. A paper mill generally operates 24 hours a day for extended periods. Indeed, it is a major operation to shut down and start up a paper mill. To insure wood supply, the companies purchased and managed large tracts of land, principally in northern New York. Finch-Pruyn became one of the major landowners in the Adirondacks, and still is. St.Regis Paper Co., Gould Paper Co., International Paper Co. all acquired thousands of acres. The softwood resource was cut and floated downstream to the mills. Glens Falls became a major "papermill town" as did Newton Falls, and Lyons Falls in the Tug Hill/western Adirondacks region.

In the 1950s a new process was developed, largely through research done in New York State at the College of Forestry in Syracuse that made the commercial pulping of hardwood species feasible. Almost overnight, in New York State, the makeup of the pulpwood harvest dramatically changed (Figure 2). Softwood harvest dropped and hardwood rose. Whereas in 1950, softwood pulpwood accounted for 80 percent of total pulpwood consumed by New York mills, by 1960 it had dropped to 60 percent with hardwoods replacing softwoods. A wide variety of

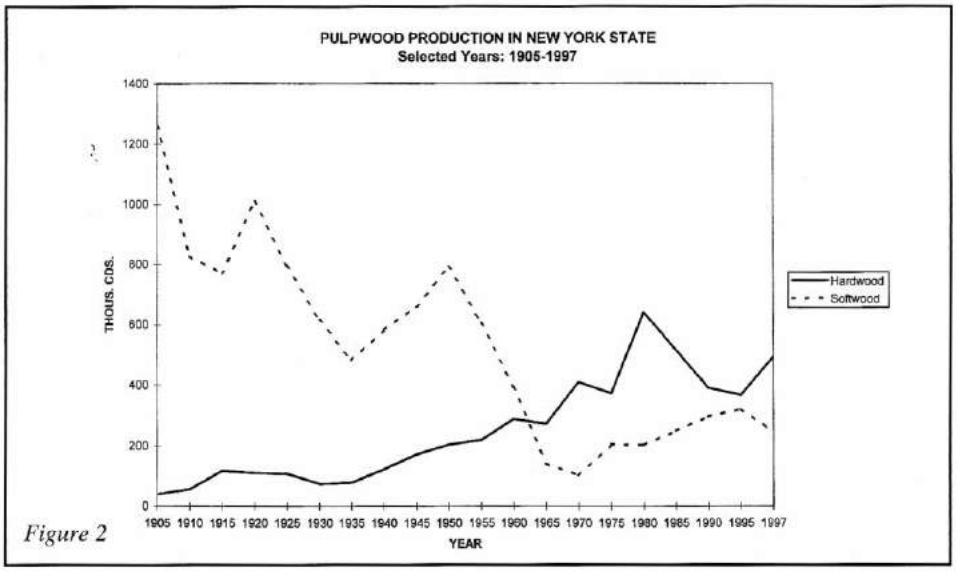


Figure 2

hardwoods could be used although oak and cherry were not favored due to their interaction with various metals and bleaching and pulping difficulties. Today softwoods comprise 33 percent of the pulpwood consumed and hardwoods 67 percent.

However, the Nation was also changing. In the western United States, abundant supplies of large softwood were becoming available. The southern United States was also developing and as further research led to more technological developments the vast southern pine resource across the South became the growth center of the paper industry. As is so often true in manufacturing, newer regions and newer mills are built with the latest technology. Furthermore, in papermaking there are tremendous economies of scale. Put simply, this means it is much cheaper per ton of paper to produce paper in a mill that has the capacity to produce 800 tons per day than in an older mill producing only 100 tons per day.

New York State mills found themselves in a tight competitive situation. By 1964 only 16 primary paper mills (mills that take in wood and produce paper) remained (Figure 3). However, the amount of wood consumed remained about the same. What had happened was that many smaller mills had closed and those remaining had expanded or consolidated. These changes continued and by the 1990s, only 6 mills were left (Figure 4). These mills are still located in and around the Adirondacks. However, many of these latter day mills use hardwood or hemlock, species available across the entire northeastern United States. And energy is usually provided from petrochemical or wood fired electric generators onsite. Their location is, however, still tied to abundant water supplies.

By today's standards, many of the mills operating in New York State in the 1990s were older, smaller, and ran slower than the average in the industry. However, New York State is still located close to major markets. The paper companies responded by finding niche markets and producing specialty papers. This enabled them to compete with other regions.

Not only did the American paper industry expand during the 20th century but across the world paper production greatly increased. Profits were "plowed back" into newer bigger paper machines. New ventures were started in the tropics, wood was imported from the southern hemisphere. The result, on the eve of the 21st century, was a world-wide glut, or overabundance of paper. As always happens, when supply increases but demand does not, price falls. The paper industry has suffered several price drops. At the same time energy prices have increased

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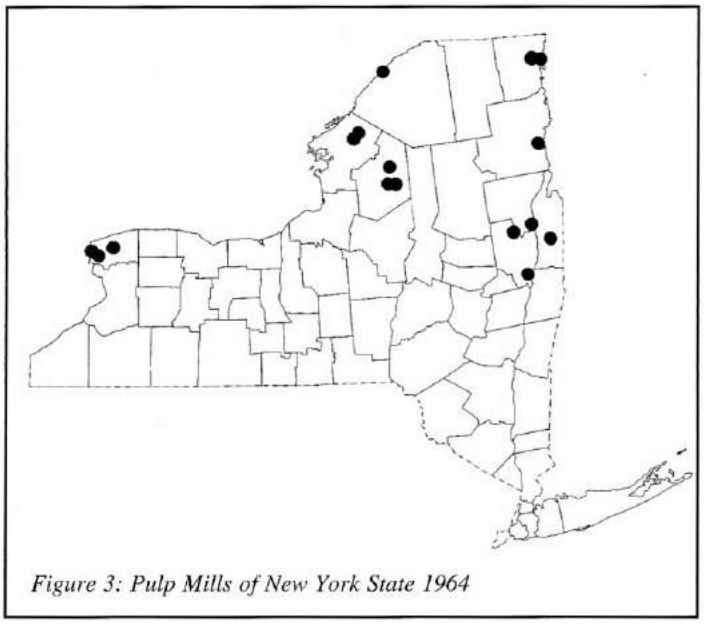
Figure 3: Pulp Mills of New York State 1964

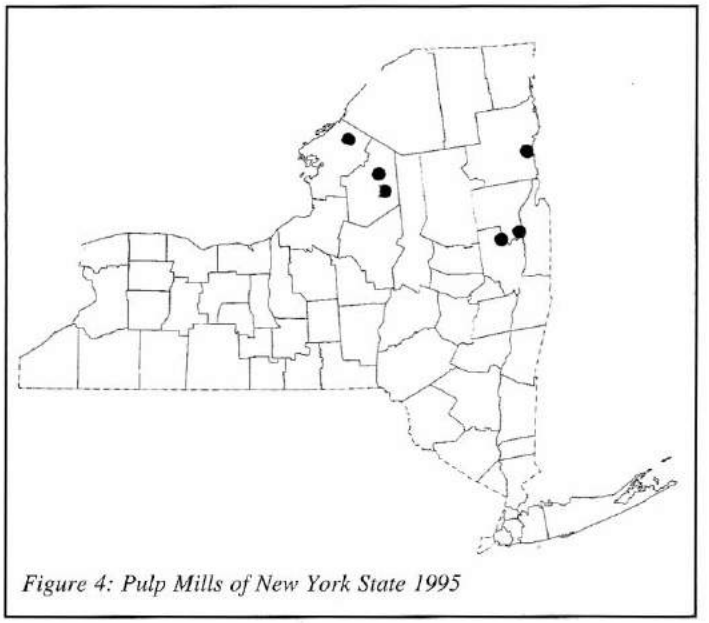
Figure 4: Pulp Mills of New York State 1995

New York's Paper Industry (continued from page 9)

and compliance with tightening environmental constraints have taken their toll on corporate profits. Eventually something had to give. The slowdown in the economy in the latter part of 2000 was only the "straw that broke the camel's back" of the industry. In retrospect, other earlier signs of eventual mill closure could be seen – selling assets, not replacing old machinery, lower capital investment than in other regions of the country. Over the last year 3 mills have closed: Lyons Falls Paper Co. in Lewis County, the Champion Paper Co. mill at Deferiet in Jefferson County, the Appleton Paper Co. mill at Newton Falls in St. Lawrence County.

What are the impacts of all the dynamics of the paper industry on private nonindustrial forest management? When softwoods were the primary resource there was little effect. However, those landowners with substantial softwood plantations, and notably, the State of New York with the extensive State Forests, enjoyed a time of prosperity from the 1960s through the 1990s by being able to economically thin the plantations. Pulpwood production from plantations in the northeast will never be as profitable as in the south. However, the pulpwood market allowed no-cost, or extremely low-cost, thinning to be conducted.

With the advent of hardwood pulpwood markets it was thought that hardwood thinnings (timber stand improvement cutting) would be feasible. Foresters in New York State have complained for decades and decades over the absence of markets for small-diameter hardwoods. However, hardwood pulpwood, while it can be produced from just thinnings, can also be very nicely produced from straight crop-trees. This tends to be true of most markets for small diameter wood. The intermediate product can take over and become the dominant product. However, when a combined sawlog and pulpwood market exists, as has been true in much of the Adirondacks and Tug Hill region, very intensive forest management becomes feasible and long-term production of valuable sawtimber is possible through integrated harvests for both products. No doubt, the recent mill closures will dampen the financial profitability of timber management and alter owners' plans for managing their lands.

Changes in the paper industry outside New York State have also affected New York. Changes in technology in Pennsylvania paper mills ended the market for sawmill residues across much of the Southern Tier region of New York State. Being able to profitably dispose of slabs and edgings by converting them to useful chips for the paper industry improved the profit margins of many sawmills. The loss of this market lowered the mill's profitability and, in turn, forced the mills to reduce payment for logs and restrict their purchases of low grade logs. This restricts forest management alternatives and returns to landowners

On a brighter note, however, one notices the decision to build particle-board mills in northern New York State. These mills will utilize wood material similar to pulpwood. In addition, other areas of the state may fall within the wood-shed of possible other chipboard and related products mills outside the State.

In the lumber industry many new technological changes are occurring. Sawmills are now utilizing trees that just a few years ago were barely considered suitable for pulpwood. New edgers, trimmers, resaws, and finger-jointed glued panels offer opportunities for furniture companies in New York to obtain much better utilization of the timber resource. More species are being used, for example, red maple (acer rubrum). These developments suggest that the outlook for forest management opportunities in New York State can be good, provided the social costs, energy costs, and regulatory climate, in the state remain competitive. Finally, remember, the northeastern United States can grow wood fiber. Some worldwide analysts predict that North America, especially the hardwood region, may become a major "woodbasket" to the world.

Hugh Canham is a Professor of Forest Economics at SUNY ESF and a member of the NYFOA Executive Board.

NEWS & NOTES

Chapters Host NYFOA Booth

The CDC and SAC hosted a NYFOA and MFO display at the Woodworkers Showcase in Saratoga Springs on March 24 and 25. The exhibit proved to be very popular with the more than 6,000 attendees. Thanks to volunteers: **Peter Gregory, Polly** and **Erwin Fullerton, Dave** and **Jane Jenks, John** and **Kristine Wiley, Bob Manning, Roy Esiason, Rolf** and **Debra Wentorf, Cindy King, Tom Dandrew, Bill Millington, Jan Storm,** and **Hans Kappel.**

Dale Bosworth Selected As USDA's New Forest Service Chief

Agriculture Secretary Ann M. Veneman announced the selection of Dale N. Bosworth as the new chief of the Forest Service. Bosworth succeeds former chief Mike Dombeck who retired from federal service on March 31st.

"Dale Bosworth is a veteran forester who has devoted his career to the Forest Service," said Veneman. "His background and experience will make him a great addition to our team. I am pleased to announce his selection as the 15th chief of USDA's Forest Service." Bosworth currently serves as regional forester for the Forest Service's Northern Region, which includes northern Idaho, Montana, North Dakota and northwestern South Dakota. As Forest Service chief, Bosworth will oversee an organization of over 30,000 employees and a budget of $4.6 billion.

Aerial Photos

Yet another extremely useful website – *http://www.apfo.usda.gov/.* Aerial photos are especially useful in determining boundary lines as old hedgerows, fields, lanes, and other landuses are visible on the older photos. Another good use is a means by which to estimate stand size (have a highschool student help you with the geometric formulas to calculate area). All ordering information and forms are on this site as downloads using Adobe Acrobat Reader (which can be downloaded from the site free of charge).

The US Mail address is: USDA Aerial Photography Field Office, Sales Branch, 2222 W. 2300 South, Salt Lake City, UT 84119-2020. Customer Service: 801/975-3503.

DEC's Tree & Shrub Seedling Sale Underway

The New York State Department of Environmental Conservation's (DEC) annual sale of tree and shrub seedlings will continue through the month of May. The program offers low-cost planting materials and is designed to encourage landowners to enhance New York's environment.

DEC's Saratoga Tree Nursery produces more than 30 species of trees and shrubs, many native to New York, for planting on public and private land. The minimum order is 100 seedlings which require approximately one-quarter acre of planting space. A mixed packet of 20 wildlife shrubs is available for homeowners to attract song birds to their yards.

Landowners can obtain planting advice from their nearest DEC forestry office or from a private forestry consultant. The bulletin "Trees and Shrubs" which is available from the Saratoga Nursery or any DEC office, contains helpful information on tree planting and a list of available species and prices.

To order seedlings, call the Saratoga Tree Nursery weekdays between 8 a.m. and 5 p.m. at (518) 587-1120.

NYFOA AWARDS

During the annual Spring Meeting John Hastings, Jill Cornell and Billy Morris were presented with awards from NYFOA. The articles here contain a portion of the presentation to the individuals. The 2001 NYFOA Awards Committee was chaired by Robert M. Sand and consistied of Michael Greason Eileen Schaefer and Don Wagner.

Heiberg Memorial Award Presented To John T. Hastings

Bob Sand presented John Hastings with the 2001 Heiberg Memorial Award.

Each year the New York Forest Owners Association presents the Heiberg Memorial Award to recognize outstanding contributions to forestry and conservation in New York State. The award memorializes Svend O. Heiberg, a renowned Professor of Silviculture at the NYS College of Forestry (now the SUNY College of Environmental Science and Forestry), who was responsible for proposing the establishment of a forest landowner association in New York State 39 years ago. With Hardy Shirley, Dean of Forestry, Professor Heiberg began the meetings that eventually organized NYFOA.

This year at its March 17th Annual Meeting, attended by his family, colleagues, and many friends, NYFOA presented the Heiberg Memorial Award to John T. Hastings for his distinguished career in forestry.

John Hastings is a sixth generation Adirondacker with deep roots in Warren County and the area encompassing Warrensburg. After graduating from high school, John attended SUNY Stony Brook for one semester before transferring to the NY State College of Forestry, where he earned his B.S. in 1970. After graduation John's career included many different experiences including service in the US Army, working at Pack Forest, a job with the DEC at Cortland, and working as a field researcher on Adirondack land slides. John then accepted a DEC appointment in 1974 at Warrensburg, NY, his home and first love.

Over the years John has been both a dedicated and hardworking service forester. In 1977 he developed and implemented the first Forest Management Plan for the City of Amsterdam's Glen Wild Watershed, a 6,000 acre tract straddling the townline between Edinburgh and Providence in Saratoga County.

Throughout the 80's to the present, there have been years of association with the American Tree Farm System that was recognized by Hard Hat Awards, including Bronze, Silver, Gold and Gold Plus. Then in '93, '95 and '98 he was recognized as the Outstanding Tree Farm Inspector of the year for New York State.

John owns and manages a 30 acre Tree Farm consisting of Northern hardwoods and Red oak stands in Washington County. He has thinned twice for pulpwood and plans a marked timber sale in five years. John has been a member of NYFOA for years and was instrumental in the formation of the Southeastern Adirondack Chapter (SAC). He became editor of the SAC Newsletter in 1991, a position he continues to hold. John has provided leadership for all aspects of SAC and for six years he was duly elected to serve as a NYFOA Board Member. His list of volunteer commitments is endless.

NYFOA applauds the accomplishments of John Hastings, a dedicated professional, who by significant measure of volunteer leadership, rightly deserves this NYFOA appreciation, a token acknowledging a distinguished career filled with years of contributions and service to forestry and conservation in New York State.

Special Recognition Award to Jill Cornell

Periodically NYFOA will present a Special Recognition Award to an individual who has contributed their time and efforts for the good of the organization. During this year's annual Spring Meeting, NYFOA presented the award for the year 2001 to Jill Cornell, a dedicated NYFOA leader and a well-known person across New York and many Northeastern states.

Jill has been a member of NYFOA since 1992. She has been an active member with the Capital District Chapter (CDC) serving first at CDC Vice Chair and then succeeding to the CDC Chair. Jill also chaired the Family Forest Fair in 1997 and again in 1998.

For years she has given both time and expertise in a number of NYFOA leadership roles, beginning with her election in 1996 as a member of the Board of Directors. This year, Jill leaves the Board after having served with distinction over the last six years. In April 1997, Jill became NYFOA President and served for two eventful years.

Cornell is a Master Forest Owner and has 50 acres of managed forest property. She was Director on the New York Tree Farm Committee from 1996-99. In 1997 she became Northeastern Regional Vice President for the National Woodland Owners Association, and has served as the only President of the New York Woodland Stewards, Inc. since its establishment in 1997. She has written numerous articles for the *New York Forest Owner* and produced a Tree Farm Video entitled "Managing the Equity in Your Woodlot."

Jill has devoted both significant time and much talent to advance many organizations. Her commitment to NYFOA has been more than a full measure. NYFOA wishes to recognize her many contributions with a token of appreciation by presenting the 2001 NYFOA Special Recognition Award. Congratulations Jill!

Heiberg Award Recipients

1967	David B. Cook
1968	Floyd Carlson
1969	Mike Demeree
1970	No Award
1971	Fred Winch, Jr.
1972	John Stock
1973	Robert M. Ford
1974	C. Eugene Farnsworth
1975	Alex Dickson
1976	Edward W. Littlefield
1977	Maurine Postley
1978	Ralph Nyland
1979	Fred C. Simmons
1980	Dr. William Harlow
1981	Curtis H. Bauer
1982	Neil B. Gutchess
1983	David W. Taber
1984	John W. Kelley
1985	Robert G. Potter
1986	Karen B. Richards
1987	Henry G. Williams
1988	Robert M. Sand
1989	Willard G. Ives
1990	Ross S. Whaley
1991	Robert S. Stegemann
1992	Bonnie & Don Colton
1993	Michael C. Greason
1994	Douglas C. Allen
1995	John C. Marchant
1996	Harriet & John Hamilton
1997	Vernon C. Hudson
1998	Peter S. Levatich
1999	James E. Coufal
2000	James P. Lassoie
2001	John T. Hastings

Outstanding Service Award Recipients

1978	Emiel Palmer
1979	Ken Eberly
1980	Helen Varian
1981	J. Lewis Dumond
1982	Lloyd Strombeck
1983	Evelyn Stock
1984	Dorothy Wertheimer
1985	David H. Hanaburgh
1986	A. W. Roberts, Jr.
1987	Howard O. Ward
1988	Mary & Stuart McCarty
1989	Alan R. Knight
1990	Earl Pfarner
1991	Helen & John Marchant
1992	Richard J. Fox
1993	Wesley E. Suhr
1994	Alfred B. Signor
1995	Betty & Don Wagner
1996	Betty Densmore
1997	Norman Richards
1998	Charles P. Mowatt
1999	Eileen and Dale Schaefer
2000	Erwin and Polly Fullerton
2001	Billy Morris

Billy Morris Receives NYFOA Service Award

The twenty-fourth New York Forest Owners Association (NYFOA) Outstanding Service Award was presented to Billy Morris at the 2001 Annual Meeting. The award, which recognizes outstanding service to the NYFOA membership, acknowledges Morris' many contributions of time, energy and talent over the years to NYFOA.

Morris was born in Cattaraugus County and as a youth helped his father thin the farm woodlot. This early introduction to woods work kindled his love for the forest. Later, this same woodlot helped finance his education after high school. In 1965 Billy began his career in forestry at Paul Smiths College, then enrolled at SUNY ESF to earn a B.S. degree in Forestry in 1969.

Billy's first job was with the *Northern Logger Magazine* in Old Forge, NY. He then accepted a position with the former New York State Conservation Department, now known as the New York State Department of Environmental Conservation, or DEC. His career with the DEC has spanned 31 years.

Morris is a conscientious professional forester. He has dedicated his career to being a champion of the private woodland owners in the Finger Lakes. He works out of Region 8 of the DEC and is well known throughout his circle of travel. He counts many NYFOA members as personal friends and is a volunteer participant, speaker or woodswalk leader for many NYFOA events. He volunteers these same efforts for the Soil & Water Districts, Cooperative Extension, 4-H and the Master Forest Owner program at Cornell's Arnot Forest.

Billy Morris receives the NYFOA Service Award from NYFOA Vice President Jim Minor

He is an active member of the Western Finger Lakes Chapter of NYFOA, a prior member of the Society of American Foresters and an outstanding supporter of the New York Tree Farm Program.

The NYFOA membership sincerely appreciates all of the contributions of time, talent and energy Billy Morris has provided over the years to the organization. Congratulations and thank you for your years of service to NYFOA.

Carbon, Climate Change and Forests

Todd Mathes and Robert Malmsheimer

Today, more than ever, the traditionally inextricable link between air pollution, climate change, and forestry is disappearing. On January 22, 2001, an international panel of scientists released what the United Nations considers the most comprehensive investigation of the global warming theory to date. The scientists' findings include a stern warning that air pollution will cause dramatic and potentially harmful changes in weather patterns during the next century. The natural and ongoing sequestration and storage of human-made atmospheric carbon-based emissions by forests may present forest landowners with a new opportunity. If carbon sequestration markets develop, private forest landowners may receive compensation for their forests' sequestration and storage of atmospheric carbon. However, policy makers must address many issues before these markets will develop.

Global Warming, Sequestration, and Storage

Carbon-based gases in the atmosphere are some of the atmospheric gases responsible for what scientists call the greenhouse effect. Solar radiation reflected off the earth's surface trapped by carbon-based gases warms the atmosphere. Although the greenhouse effect retains atmospheric heat that allows earth's life to flourish, an accumulation of excess carbon-based gases can increase the earth's warming beyond natural fluctuations.

Forests mitigate global warming by sequestering and storing carbon-based atmospheric gases. Sequestration is the physical act of removing carbon-based gases from the atmosphere during photosynthesis. Tree foliage exposed to sunlight converts carbon to new growth through photosynthesis by separating atmospheric carbon-based gases from air, converting these gases to a carbohydrate, and storing carbohydrates in new growth. Forests store carbon in woody debris, forest litter, root biomass, and mineral soil, until these materials eventually decompose and release the carbon back into the atmosphere.

International Carbon Policy

Nearly 150 countries met in 1997 to discuss goals and methods to reduce greenhouse gas emissions. The resultant treaty, entitled the Kyoto Protocol, commits participant countries to reduce their carbon-based emissions by an average of 5% below 1990 levels by 2010. Articles 3.3 and 3.4 of the Protocol address and promote the use of forests to sequester and store carbon. These articles state that Protocol members will inventory carbon stocks, record changes in these stocks, and if desired, implement an offset system. An offset system allows a country to attain Protocol carbon-based gas emissions standards by using carbon sequestered and stored by its forests to offset human-made emissions.

The Kyoto Protocol established a general framework for carbon sequestration policy. However at a November 2000 follow-up meeting in the Dutch city of The Hague, the meeting's negotiators failed to agree on how nations would count forest-based carbon sequestration toward emission reduction quotas. Negotiators have scheduled future meetings aimed at developing an implementation strategy for the Protocol later this year.

National Carbon Policy

In March 2001, President Bush announced he would not seek ratification of the Kyoto Protocol. However, EPA administrator Christine Whitman has stated that she is optimistic that the U.S. can work with our allies through international processes to "develop technologies, market-based incentives and other innovative approaches to global climate change."

Following Kyoto, national policy efforts to provide incentives to the forestry community for mitigating global warming emerged in Congress. Republicans and Democrats sponsored eight carbon sequestration credit, tax incentive, and/or research bills during the 106th Congress. Three of these bills illustrate the breadth of potential legislation. Senator Murkowski (R-AK) introduced the "Energy and Climate Policy Act of

1999," which would encourage research and development in climate technologies and the voluntary inventorying of greenhouse gases. Senator Roberts' (R-KS) "Carbon Cycle and Agricultural Best Practices Research Act," would direct the USDA's Natural Resource Conservation Service to increase research and extension efforts while focusing on improved soil carbon sequestration through best management practices. Senator Craig (R-ID) introduced the "Climate Change Energy Policy Response Act" which would attempt to strengthen the science behind global warming mitigation strategies.

This year, Senator Wyden (D-OR) proposed the "Forest Resources for the Environment and the Economy Act," which would establish a landowner carbon sequestration payment system. This bill would establish carbon sequestration measurement and reporting protocols through state forestry agencies. Wyden's bill would encourage sequestration on under-producing forested lands through the creation of a carbon storage program modeled after Oregon's Forest Resource Trust. Oregon established the Trust in 1993 to encourage the forestation of under-producing lands – lands capable of growing forests but not currently occupied by a manageable forest. Administrators later amended the Trust to supply landowners funds for future carbon dioxide emissions offsets. The Trust operates as a carbon exchange. Carbon emitting industries, namely power utilities, pay money into the Trust. In return these industries can offset their carbon dioxide emissions. The trust then uses this money to pay landowners up to 100 percent of their forestry plan's forestation costs, such as site preparation, tree planting, seedling protection, and competitive release practices.

Carbon Sequestration Payment Issues

If policy makers can establish carbon sequestration offset markets, atmospheric carbon emitters may compensate New York's forest landowners for providing carbon sequestration services. However, policy makers must address scientific, economic, and political carbon sequestration issues before the establishment of these markets.

Scientists are still learning how atmospheric carbon is stored in forests, especially forest soils. The amount of carbon sequestered by forests varies by forest type, cover, density, and geographic location. While carbon estimates are available for some forest types, scientists are still developing data for others. Atmospheric carbon emitters, and landowners need this information to determine the carbon sequestration offset ability of specific forest parcels.

Policy makers also need to address economic payment and market questions. For example, should forest landowner payments be modeled on the Oregon model where landowners receive forestation assistance or should landowners receive unrestricted payments? Another question concerns carbon sequestration markets. Large and industrial forest landowners may sequester enough carbon-based emissions that their owners can individually negotiate sequestration payments with carbon emitters without government assistance. High transaction costs may prohibit individual nonindustrial private forest landowners from direct negotiations with carbon emitters. These landowners may need either the government to establish a market for sequestration credits where they could "sell" their credits, or they may need to form cooperatives or other mechanisms to overcome high individual negotiation transaction costs.

Finally, if the U.S. enters into an international climate change agreement, whether it is the Kyoto Protocol or some other agreement, international policy makers need to agree on how forest-based carbon sequestration will offset nations' human-made emissions. The offset question was one of the most contentious issues at the Hague meeting. While the U.S. proposed that nations should receive offset credit for existing forests, delegations from the European Union disagreed on how much such credit should be worth.

Conclusion

As scientists continue to validate climate change predictions of adverse impacts, national and international policy makers will increase regulatory pressure on atmospheric carbon-emitting industries. Industries faced with regulatory pressure to decrease carbon-based emissions will attempt to offset their emissions. One potential offset is forest sequestration credits.

Scientists are learning how forests sequester and store carbon-based gases. If atmospheric carbon emitters are going to compensate forest landowners for providing this public benefit, policy makers must encourage the development of markets for this benefit. While some policy makers understand the relationship between carbon, climate change and forests, many do not. The forestry community needs to educate policy makers and the public about how forests offset the impact of human-made carbon-based emissions.

Additional Resources

Forest owners interested in Oregon's Forest Resource Trust should read "Carbon Sequestration: A working Example in Oregon" in the September 2000 issue of the *Journal of Forestry*. The *Journal of Forestry's* September 2000, and March and April 2001 issues contain numerous articles on forests, carbon, and global climate change. We also recommend:

www.safnet.org: An excellent source of carbon sequestration policy news and forestry policy news.

www.americanforests.org: This website contains a special section dedicated to carbon sequestration, and interactive tools that show forests' role in mitigating climate change.

www.globalwarming.org: An independent source of global warming policy and economic issues.

www.nrbp.org/pub17.pdf: This site contains the research report, "The Role of Northeastern Forests and Wood Production in Carbon Sequestration."

Todd Mathes is a student at SUNY ESF. He served as a policy intern at the National Association of State Foresters in Washington, DC. Robert Malmsheimer is an Assistant Professor of Forest Policy and Law at SUNY ESF.

The Insect Egg

DOUGLAS C. ALLEN

Every insect begins life as an egg, the dimensions and appearance of which are determined by the size and habits of each species. The structure of the egg shell, called a chorion (core-ee-on) by entomologists, is very complex. It must allow for exchange of oxygen and carbon dioxide, yet minimize loss of moisture. The shell may be relatively thick, as in the case of a wood borer that oviposits (i.e., deposits the egg) beneath or within tree bark and many defoliators whose eggs are exposed for extended periods on leaves or twigs. The eggs of species that oviposit in or on a less harsh substrate require relatively little physical protection and, accordingly, have a thin shell. For example, blow fly eggs deposited in an animal carcass or the eggs of a parasitic wasp placed inside a host caterpillar are immersed in a moist, pliable food source. Similarly, egg color varies with oviposition (egg laying) habits. Eggs deposited on foliage are often green or yellowish, those that occur on host bark are most often a shade of brown and eggs found beneath bark or in wood are white to off-white.

The **fecundity** (fee-cund-i-tee) or number of eggs per female also differs from one species to another due to dissimilarities in life history, traits or behavior. This characteristic can also vary for a given species when changes occur in the quantity or quality of available food. Extreme examples of fecundity are a termite queen who produces hundreds of thousands of eggs during her lifetime, compared to a solitary wasp that may deposit only 20 to 25 eggs. The difference in these examples is tied to insect behavior. The termite queen is one of four social castes in a well organized colony. Her sole purpose is to produce eggs; everything else is done for her. Each paper wasp female, on the other hand, must prepare and provision a nest prior to egg laying. This major commitment of time and energy is, in part, responsible for restricting her ability to produce eggs.

Oviposition behavior also varies markedly throughout the insect world. Most commonly eggs are deposited singly (Figs. 1-3), in loosely formed clusters (Fig. 4) or compact masses

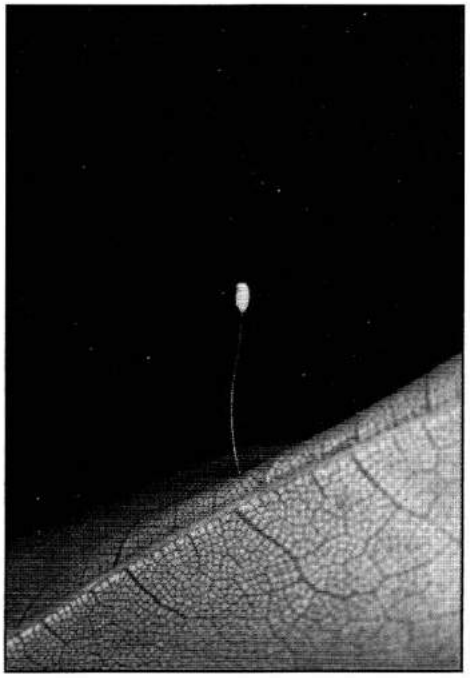

Figure 2 *A lacewing egg. Note the silk "stalk."*

(Figs. 5,6). Special accessory glands associated with the reproductive system may produce a glue-like substance which tightly adheres the egg to a substrate, such as foliage or bark. Accessory glands of the forest tent caterpillar (see Forest Owner Sept./ Oct. 1992) produce a varnish-like material that coats the egg or egg mass, which helps to conserve moisture. Substances produced by the accessory glands to protect eggs of other species include foam-like materials, silk and

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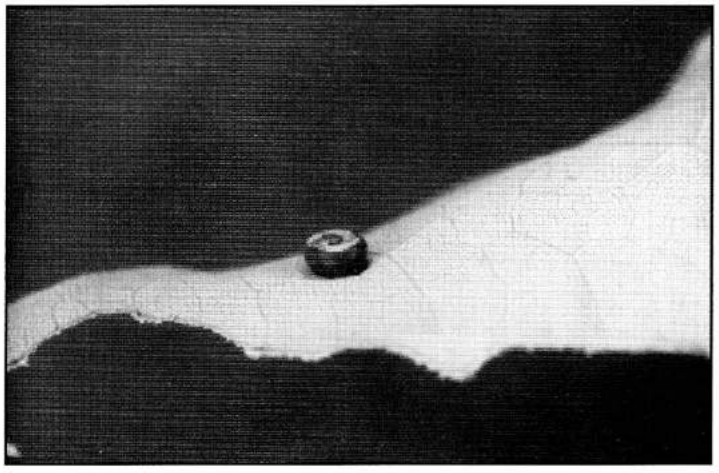


Figure 1 *A saturniid egg, most likely the luna moth.*

Figure 3 *An egg of the yellow birch leaf folder on top of a major leaf vien.*

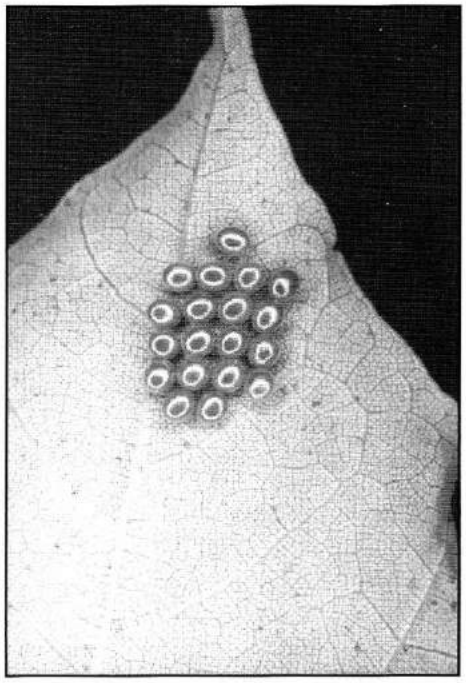


Figure 4 *Cluster of greenstriped mapleworm eggs.*

Figure 5 *Egg mass of the spruce budworm on a fir needle.*

gelatinous compounds. One of the most bizarre oviposition habits is practiced by a group of highly predaceous insects known in the adult stage as lacewings. The larval stages, called "aphid lions," are cannibalistic. An adaptation that discourages this self destruction by lacewings is their habit of depositing individual eggs on the end of a long, silk stalk (Fig. 2). When an egg hatches the larva drops and is unable to eat its defenseless siblings, because they are out of reach.

Site selection for egg laying is very casual for some species, in others very exacting. Walking-sticks, for example, simply scatter their eggs over the ground and gypsy moth eggs masses can be found in a variety of locations–on branches, tree trunks, beneath rocks or on the ground attached to any type of debris. Examples of more finicky oviposition behavior are the forest tent caterpillar whose egg masses are almost always tightly bound to one-year-old twigs of the host, the spruce budworm's mass of pancake-shaped eggs that is always deposited on the upper surface of the host needle (Fig. 5), or the yellow birch leaf folder that deposits each egg on top of a large vein on the upper surface of a leaf (Fig. 3).

Insect eggs are exposed to a variety of **natural mortality agents**. For many of our major forest pests, survival during this life stage often determines whether an outbreak will occur, and mortality during this stage often is responsible for the collapse of an infestation. The eggs of many defoliators often serve as hosts for small parasitic wasps. Eggs or egg masses that overwinter on the bark of the host tree, like gypsy moth or some species of tussock moth, for example, are subject to predation by chickadees, nuthatches and other insectivorous birds that glean this substrate for food. Eggs in more cryptic locations, such as those of bark beetles which often are deposited in inner bark, also are subject to parasitism and predation. For example, mites and the larval stages of many predaceous beetles prowl bark beetle galleries in search of food. Finally, eggs may be killed when exposed to excessively cold winter temperatures.

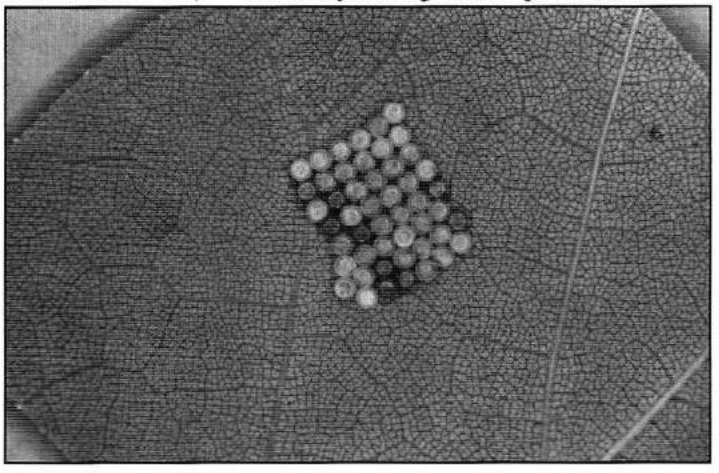
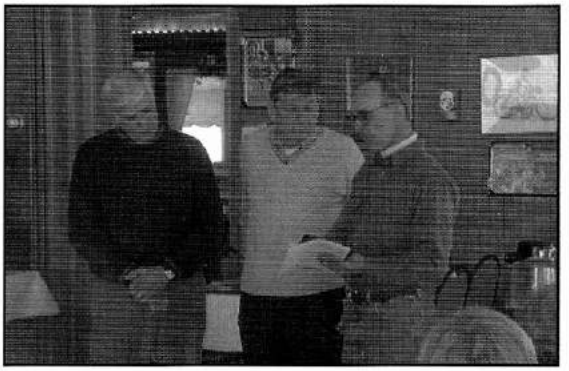


Fig. 6. Egg mass of the orangehumped mapleworm. Dark eggs are parasitized by a wasp.

This is the 56th in the series of articles contributed by Dr. Allen, Professor of Entomology at SUNY-ESF. It is possible to download this collection from the DEC Web page at: http://www.dec.state.ny.us/website/dlf/privland/forprot/health/nyfo/index.html.

John Druke of CNY NYFOA Receives Donald Stearns Forestry Award



Carl Stearns (MFO and son of Donald Stearns), John Druke, and Ernest Hammerle, DEC Region 7 Senior Forester.

For the tenth year, the Donald E. Stearns Memorial Forestry Award was presented at the Madison County Soil and Water Conservation District Annual Conservation Farmer of the Year Dinner. This was one of two different awards presented to people who have furthered the cause of natural resource stewardship in Madison County. The event was held on February 22nd at Quack's Diner in Madison County. This year's recipient, John Druke, is chairman of the CNY Chapter of NYFOA and with his wife Martha, owns a 280-acre forest in Georgetown, Madison County, NY.
This was not the first time that the forestry award was presented to a NYFOA member, but with half a dozen CNY chapter members present to honor John, it was a prime opportunity for the gathering's awareness of NYFOA's goals and programs. John spoke to the gathering about NYFOA after receiving his plaque from DEC Senior Forester Ernie Hammerle. Ernie described the objectives of the Donald Stearns Forestry Award, which is the recognition of one person each year that, through actions or research, exemplifies admirable forest management practices or in other ways encourages sustainable use of forest and natural resources. His citation read as follows:

The year 2001 recipient of the Donald E. Stearns Memorial Forestry Award is John Druke. John resides near Kirkville and owns 277 acres of mostly forest land in the Town of Georgetown, Madison County. John and his family have been managing this land for multiple purposes of timber production, wildlife habitat improvement and recreation using good forest stewardship principles.

Trees have been sold for harvest, harvested for home firewood, and planted and sheltered to insure survival, clearings have been created for habitat diversity and trails are maintained. These accomplishments alone might be enough to merit the award for John, but much more credit is due for his volunteer efforts in spreading the message about forest stewardship to others.

John is a Master Forest Owner and a chair of the Central Chapter of NYFOA. During his tenure as chair, the chapter has implemented an outreach campaign targeting forest landowners who have never received professional forestry assistance. The key component of this effort is workshops, free of charge to landowners. Also, when the Chapter has had "wood walks" on members' lands, John has opened these up to non-members.

John's gentle, consistent leadership promotes teamwork and encourages others to follow. John is a leader who knows the way, goes the way and shows the way.

Submitted by Rich Taber and Carl Stearns, CNY chapter members.

Forest Fragmentation

Proceedings of the Forest Fragmentation 2000 Conference held in Annapolis, MD on September 17-20, 2000 feature an 11-page summary of the data that was presented regarding forest fragmentation trends. The overall conclusion was that private forests are being "nibbled" to death by Dynamic Unintended Consequences (DUCs). That is, much of the unremitting movement of America's private forests toward developed uses and smaller fragments comes from DUCs fed by common trends and policies.

What is Forest Fragmentation?

Some forest fragmentation from natural events, such as storms, fires and aging has always occurred and is even necessary for functioning forests. Some human-caused fragmentation is also unavoidable and necessary as populations change, but some is a by-product of choices and policies that stack the deck against keeping land in forest uses. Three familiar human-caused occurrences, commonly called forest fragmentation are:
1. Fragmenting ownership of a large forest tract into several smaller ownerships (also called parcelization);
2. Fragmenting the vegetation of a large expanse of forest into isolated pieces by inserting new uses and different mixtures of plants and animals; and
3. Fragmenting forest uses by converting pieces of land to other uses.

About 3 million acres (a Connecticut-size hunk of forestland) is being fragmented (split into pieces smaller than 100 acres every two years) according to one estimate that was regarded as conservative by most conference attendees. Nearly as much, around 2.4 million acres of forestland, is also being converted to developed land every two years.

Some Dynamic Unintended Consequences (DUCs)

1. Fragmentation rates are increasing faster than population growth. Development-supporting economies keep expanding over the landscape, replacing forest-and-farm-supporting economies. Prior to 1992, each person added to America converted a little less than ˇ of an acre of forest to developed uses. That rate has more than doubled; each additional person causes development of about ˚ an acre of forest now.
2. Subsidized development demands subsidized services, which increases demand for more development. Most residential development costs government more in services than it pays in taxes.
3. Plants and animals thriving on edge and disturbance effects expand; those needing large undisturbed expanses decline.
4. Exotics and invasive weeds replace native systems. Vulnerability to insects and diseases increases. Plantings at developed sites create 67% of invasive exotics in the U.S.
5. Timber harvests "go terminal" in and near developed areas. One last cut is made in preparation for development, then the infrastructures and economic incentives helping keep land in forests disappear. Since this is not accompanied by a reduction in U.S. demand for forest products, imports rise, driving up harvest outside the area while local forests are unused.

What's Feeding the DUCs?

There are more people with more money buying more space, and their choices are supported by transpor-

continued on page 20

Forest Fragmentation (continued from page 19)

tation and communications technology and public policies. The U.S. population is growing and so are incomes and tastes for larger houses and lots. This drives development faster than simple population growth and pushes it out into rural forests and farmlands where the unit price of construction is lower. Huge public investments in improved transportation systems reaching into the countryside, combined with communication technology advances have reduced the need to cluster people and businesses in concentrated urban centers and encouraged peripheral locations for businesses and households. So prosperity and freedom of choice drive some of the sprawl and fragmenting of forests, but strong public policies and market approaches encouraging development push the trends further and faster and often block solutions.

Example

Investing in development is highly rewarded by many government policies; investing in forests is not. Studies consistently show that residential developments get more public services than they pay for while farms and forests get less. On average, farm and forest owners get only $0.34 worth of local public services for every dollar paid in taxes. Owners of residential properties get $1.15 worth of services for every dollar they pay in taxes. Those who inherit valuable land are forced to subdivide it to pay high estate taxes. People who are 65 and older hold 48% of all private timberland acres, meaning that land keeps getting divided among heirs. Owners of high-value land who haven't made complex legal tax-avoidance arrangements before dying leave their heirs with the problem of being forced into selling land and timber to pay high estate taxes.

According to John Greene, a Forest Service researcher, the number and percent of estates owing federal estate taxes has risen in recent years. At the same time, increased prices and urban expansion have driven up the value of both the timber and land components of forestland, pushing more land into higher brackets. Greene estimates that there are

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POSITION ANNOUNCEMENT:

Executive Director New York Forest Owners Association (NYFOA)

Non-profit organization seeks a part-time executive director to help expand outreach programs, support chapter and membership volunteers, and increase membership.

NYFOA, a statewide not-for-profit membership corporation, promotes private forest owners' stewardship through use of desirable woodland practices. Many of its educational programs are conducted by volunteers in 11 regional chapters.

Applicant must have strong communication skills, demonstrated ability to lead organizations and work with volunteers, ability to raise funds, and experience in planning and executing successful action programs. In addition the applicant should be comfortable networking among persons with a range of views, educational levels, and positions and must be willing to market and promote the organization. Familiarity with natural resource issues, organizations and action programs is desirable.

NYFOA will establish a contractual relationship with the successful applicant. He/she will provide own modern office environment and will be compensated by contract up to $25,000 annually. Arrangements for travel and other expenses will negotiated with the contract. Flexible though regular work schedule. Successful applicant is expected to reside in New York state.

Direct requests for additional information to 1-800-836-3566 or nyforestowners@excite.com. Send application letter and resume to NYFOA Personnel Committee, Box 180, Fairport, NY 14450 by *August 1, 2001.*

Woodlot Calendar

August 5-8, 2001 (Sunday-Wednesday)
92nd Annual Meeting of the Northern Nut Growers Association, Inc.

The Northern Nut Growers Association meeting will be held at Cornell University, Ithaca, NY on August 5-8, 2001. There will be 20-25 speakers who will cover all aspects of nut tree growing. Meeting speakers' involvement in nut trees ranges from the backyard grower, to university instructors, to commercial growers, to out of control hobbyist. For more information contact Tucker Hill via e-mail at *tuckerh@epix.net* or by phone/fax at (717) 938-6090. Information is also available on their web site at: *http://www.icserv.com/nnga/.*

Forest Fragmentation (continued from page 19)

presently about 87,000 forest estate transfers annually. He projects that about 2.6 million acres of timber and 1.4 million acres of forestland is sold annually to pay estate taxes, and that at least 350,000 acres is developed annually as a result. Markets for timber products are presently the sole monetary incentives for keeping land in private forests in most cases. Owners generally receive no payment for the other outputs coming from their forests and so have little incentive to consider them when there is an opportunity to cash in development values. Examples of valuable, but uncompensated, forest outputs are: carbon sequestration (see article on page 14), storm water control, clean water protection, wildlife habitat, air quality improvement and a host of other benefits that go to the general public free. These have value as evidenced by the high costs of replacing them with taxpayer-financed engineered systems.

Some Values

Clean Water: Forests in New York's Catskill Mountains provide clean water benefits to New York City equivalent to an initial investment of $6-8 billion, with annual operating costs of $1-2 billion for an engineered system to carry out the same service.

Handling Storm Water: Water retention services lost from developed forests are generally replaced (poorly) by costly-engineered systems.

Solutions?

1. Change government policies that favor development while discriminating against holding land in private forests. This includes changing estate tax rules that are likely to force more sales on inherited forests as values go up.
2. Create market-based approaches that pay owners for environmental values produced by their forests. Encouraging private owners to produce these values is likely to be cheaper than publicly financed, engineered replacements.
3. Expand other innovative approaches, such as the forest bank program and easements.
4. Examine the cost and effectiveness of public purchase and regulatory programs compared to private owners being encourage to maintain forestland through fair taxation and market forces.

For more information on the Forest Fragmentation 2000 Conference, proceedings can be ordered for $50 per copy for conference attendees; $75 per copy for non-attendees. Order from: The Sampson Group, Inc., 5209 York Road, Alexandria, VA 22310. Phone (703) 924-0773, Fax: (703) 924-0588, e-mail: rneilsampson@cs.com; website: www.sampsongroup.com

This article originally appeared in the NYFOA WFL Chapter newsletter.

MAGAZINE DEADLINE

Materials submitted for the July/August issue should be sent to Mary Beth Malmsheimer, Editor, *The New York Forest Owner*, 134 Lincklaen Street, Cazenovia, NY 13035, (315) 655-4110 or via e-mail at mmalmshe @syr.edu Articles, artwork and photos are invited and if requested, are returned after use.

Deadline for material is June 1, 2001.

THE MARKETPLACE

NYFOA member Norman E. Murray has recorded a musical cassette, *I'm a Tree and We're the Forest Families of this Country*, which has been used for enjoyment and teaching in elementary schools around the country. It is a non-profit undertaking, with any profits going to Project Learning Tree. For more information or to request an order form, write U*C Music Division, PO Box 1066, Buffalo, NY 14215. Cost is $3.00 per tape (reduced rates available for multiple tape orders).

NYFOA Merchandise

Display your support of NYFOA—Purchase one of these CLEARANCE items!

50/50 Blend T-Shirts *Ash* – Sizes: XXXL (2) , XXL (1) or Small (2)	$3.00
100% Cotton Collared Short Sleeve Shirts Sizes: XL (1)	$8.00
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