

The New York Forest Owner

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**THE NEW YORK
FOREST OWNERS
ASSOCIATION**

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**The New York
Forest Owner**

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Materials submitted for publication should be sent to: Mary Beth Malmshheimer, 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 January/February issue is December 1, 1999.

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.

COVER: New York College of Forestry students measuring stumpage on state land at Cranberry Lake, New York (date unknown). Photo courtesy of SUNY College of Environmental Science and Forestry Archives.

From The President

Many agencies and programs contact NYFOA because they want to incorporate the views of non-industrial private forest owners (that's us!) in their plans and programs. Some requests come to NYFOA, others come to individual members, but every request is an opportunity for forest landowners to contribute in a thoughtful and knowledgeable way.

The article in this issue by Rolf Wentorf (see page 15) about the Forest Service focus groups illustrates one recent example. Others include DEC's Bruce Williamson's invitation to participate in planning for the Forest Service's next statewide forest inventory and Keith Argow's survey of key national issues for the National Woodland Owners Association.



tion. In addition, many groups at the state and local level encourage NYFOA participation in their meetings, and in many localities there are occasionally public issues of concern to landowners.

Are these important? Yes! Clearly, some are more important than others, and time and interest often dictate which receives attention. But within reason, it just makes good sense for NYFOA, as an organization and through individual members, to participate when it can. Who will speak for private forest landowners, if not private forest landowners?

I can hear critics suggest that a number of such requests are for "window dressing," that the invitation comes from someone who must account to for having touched all the

bases. Perhaps some are, but in my experience most requests for help are genuine and participants find they have a lot to learn from one another.

One might argue that often the "landowner's view" is really just the view of one person—the one who wrote the letter or went to the meeting. That is true—but that's the case for virtually every other participant as well, except in those rare cases in which an organization's specific "position" may be sought (in which case many participants run for cover). I think one can represent a constituency based on personal experience, knowhow, and a common sense understanding of how the constituency in general feels about things.

Last spring, your Board of Directors discussed the need for NYFOA to better position itself to respond to inquiries at the state government level as well as locally. For example, Chapters and members are encouraged to take advantage of opportunities to present forest owners' views—meetings, talk shows, radio listener comment lines, letters to the editor. In general, the feeling was that other interests too often overshadow non-industrial private forest owners. Who will speak for private forest landowners, if not private forest landowners?

Early Alert: Dr. Peter Smallidge, State Extension Forester, is planning a statewide tele-conference next April for landowners. Speakers will be "beamed" into county cooperative extension offices for the main program; locals will be responsible for complementary programming. This can be a great outreach opportunity for NYFOA, and as plans firm up, your Chapter will be kept informed.

As I write this column the hardwoods are displaying their finest fall colors; as you read it Thanksgiving will be upon us with Christmas close behind. With the memories and expectations associated with each of these seasons in mind, I send Seasons Greetings to you all.

– 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.

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In The MAIL



Are Private Foresters Monitored?

I have read a lot of advice in the Forest Owner about the virtue of consulting foresters. I agree that landowners gain by hiring a "good" consultant. However, not all of them seem to work in the best interests of the landowners, as Dick Fox very bravely reminded us (*The New York Forest Owner*, May/June 1999). After all, most of them are nice people and some of them advertise in our publication.

My question is this: Is there any way consulting foresters on the DEC directory of private foresters are monitored? Can they be deleted? How? The NY forest owners have a lot at stake here and I would like to see this discussed. I raised the issue of high grading done by private foresters, done directly against the wishes of a client, at the annual meeting two years ago. It was stated that the DEC was working on the problem. What has developed out of this?

Do not construe this as an attack on all private foresters! I would just like to understand what control exists in cases of rogue behavior. The "good" consultants have just as much to gain

from weeding out "bad" behavior as the landowners themselves.

—James Martin
Muenster, Germany

Gas Companies and Access

I own property that has several gas wells on it operated by a local Gas Company. My concern is that the pipelines that cut through the property allow for unwanted guests (dirt bikes, ATVs, horses, etc.). The unwanted guests follow the same route as the gas tender does. I've posted the property, especially where the traffic is entering, put little barriers as hints, but no luck.

Generally speaking, can I force the Gas Company into gating off these access points? Can they be held liable for damages? The property wouldn't be accessible if it were not for these pipelines. I've talked with the tender and he said he needs to make time when he does his rounds and has no time for opening gates. Basically he said that if I install gates, he'll make a trail around them.

I'm getting rather frustrated with the situation, almost to the point of selling the land. Can you offer any advice?

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SINCE 1964

EPA Proposes New Silvicultural Regulations

ROBERT MALMSHEIMER AND MICHAEL GOERGEN

In August, the U.S. Environmental Protection Agency (EPA) announced a major proposal to clean up the nation's 20,000 remaining polluted rivers, lakes and estuaries. The EPA's proposal includes amending the Clean Water Act's (CWA) regulations to designate silvicultural activities as point source pollutants.

The proposed regulations are so complex and controversial that the EPA extended the public comment period on this proposal until December 22, 1999. After considering these comments, the EPA expects to issue the final regulations next summer. We hope this article will provide readers with an overview of the CWA and the EPA's proposal and its potential impact on silvicultural activities. More information, including how to comment on the proposal, is available at <http://www.epa.gov/owow/tmdl>.

The Clean Water Act

Since 1972, the CWA has provided the EPA with two different, but integrated, programs to cleanup U.S. waters. Initially, the EPA focused its attention on the CWA's technology-based program. This pollution control program uses technology-based standards, such as "best available technology," to regulate the discharge of pollutants before they enter U.S. waterways. Unfortunately, the technology-based program did not clean up many of the nation's waterways to the CWA's minimum standard.

More recently, the EPA combined its technology-based strategy with water quality standards. This united approach regulates both the discharge of pollutants and a waterbody's total water quality. The CWA's water quality standards allow the EPA to set pollution limits, called "total maximum daily loads" (TMDLs), to further limit the discharge of pollutants into waterbodies that do not meet minimum standards. A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. TMDLs also

allocate pollutant discharges between point and nonpoint pollutant sources.

The CWA classifies pollutants as either point source or nonpoint source (NPS) pollutants. Point source pollutants are the end-of-the-pipe pollutants that are generally associated with industry or municipal waste treatment plants. NPS pollutants are pollutants from scattered sources that are usually generated by hydrologic events. Most of the EPA's regulatory effort under the CWA's technology-based and water quality standards programs have been to control point source pollutants. No one is allowed to discharge a pollutant from a point source unless they have a National Pollution Discharge Elimination System (NPDES) permit. Conversely, NPSs of pollution, such as urban and suburban runoff, agriculture, and forestry, have generally been regulated by voluntary methods, such as best management practices.

A New Proposal for TMDLs

Recently, states identified approximately 20,000 individual river segments, lakes and estuaries across America as polluted. To clean up these rivers, the EPA has proposed major changes to strengthen the TMDL requirements. The EPA's proposal requires states to:

1. Prepare comprehensive assessments of their waterbodies,
2. Set caps on pollution and allocate discharges between point and nonpoint sources, and
3. Develop implementation plans.

Within the EPA's massive revision of TMDLs, is a proposal to reclassify water discharges from silvicultural activities as point sources of pollution. Currently, almost all silvicultural activities are classified as NPS pollutants. The EPA's proposal reclassifies discharges from silvicultural activities as storm water discharges. These activities could include site preparation, reforestation and subsequent treatment, thinning, prescribed

burning, pest and fire control, harvesting, surface drainage, and road construction and maintenance. As storm water discharges, the EPA would evaluate silvicultural activities on a case-by-case basis to determine if discharges contribute to a violation of water quality standards or are significant contributors of pollutants. The EPA will consider three factors to make this determination: the location of the activity, the size of the discharge, and the quantity and nature of the pollutants.

The Proposal's Impact

The immediate impact of the EPA's proposal on New York State (NYS) forest owners may be minimal. Unlike other areas of the country, discharges from silvicultural activities are not major contributors to NYS waterbodies' failure to meet water quality standards. Thus, the NYS DEC, which administers the CWA in NYS for the EPA, has little incentive to require forest owners to secure a NPDES discharge permit for silvicultural activities.

However, the long-term impact of this proposal may be more substantial. Currently, silvicultural activities are generally immune from the CWA's requirements. While the EPA "expects that only in extremely rare circumstances" would it require a NPDES permit for discharges from silvicultural activities, this proposal potentially allows states to use the CWA to further regulate forestry activities because the EPA only sets *minimum* water quality standards. Thus, states are free to control the discharge of pollutants more stringently. For example, states could categorically designate discharges from silviculture activities as point sources or subject silvicultural activities to a case-by-case analysis outside the TMDL context. More important, the EPA's proposal demonstrates its approval and expectation that states will monitor, and if appropriate, regulate forestry activities. ⚡

Robert Malmsheimer is an Assistant Professor at SUNY-ESF and Michael Goergen is the Director of Policy for the Society of American Foresters.

Leaf Color Change In Our Hardwood Forests

CHRISTOPHER A. NOWACK

This year, like every year, I consider when, why and how our hardwood leaves change color. Renewed understanding allows me to better appreciate the spectacle. Like many of us with an eye towards the forest, I try to predict where and when the first changes in color will occur. I am usually surprised at both the mix of regularity and variation in color change. Each year is slightly different, if not grandly so, than the previous years—it's part of the spectacle.

Why do leaves change color?

A basic process of life is the production, consumption, and storage of energy. Trees that succeed in life are those that have balanced energy dynamics. Leaf color change is a part of the balancing act. When we see leaves turning from green to some other color, it is an outward sign of a tree's mechanics to conserve energy in preparation for the winter dormant season.

Green color in leaves is a result of green light being reflected by the pigment chlorophyll. The function of chlorophyll, located in the chloroplasts (the photosynthesizing machines), is to capture bits of energy called photons from sunlight. This energy is then used to break down carbon dioxide and water into the basic unit of stored energy for life—sugar.

A high level of energy and nutrients are needed to construct and maintain chlorophyll. Any factor that affects tree growth and its energy balance may affect the dynamics of chlorophyll and the related changes in leaf color. If there are low amounts of

sugar produced during the summer, the ability to maintain chlorophyll is reduced, and the green color begins to disappear early in fall, sometimes even late in summer. Even with high amounts of sugar, chlorophyll still breaks down, it just lasts longer, often until mid-fall.

After the green chlorophyll pigment begins to disappear, other colors that were present all along are unmasked. Different species have different colors: black cherry is yellow, sugar maple is orange, red maple is . . . red. These differences in color represent different adaptations to using light energy.

Yellows are produced by carotenoids, primarily carotene (the same pigment found in carrots—pigments can also be vitamins, it just depends on how they are used) and xanthophyll. These pigments are active in harvesting

light energy in much the same way as chlorophyll. Unlike chlorophyll, the yellow pigments are resistant to breakdown.

Red color is produced by anthocyanins. The function of these pigments is not clear. They are not involved in photosynthesis. Anthocyanin is manufactured daily. It does not last long, often breaking down the same day it was formed unless conditions are just right.

Brown is the final color of leaves. It is the color of death; the end result of the cell death via the process of oxidation.

Why was the leaf color change early this year?

The general expectation for the beginnings of leaf color change varies across the State. We expect leaves to begin changing at a landscape scale in



Sugar maple leaves rimmed in brown, soon to begin changing to a feeble orange in the center—all a function of this year's drought.



mid-September in
the Adirondacks
with peak
color in
early
October.

The pattern
is a week or

so delayed in the Catskills, three weeks
or so delayed for the rest of the State.

This year, we began to see leaves
change color in Central New York in
mid-September, first at the ridge tops,
then progressing through the hillsides
and valleys. The reason—drought. For
much of the growing season the State
was many inches in deficit for water.
In central New York, we were 10
inches short in rain late into the
growing season. It hasn't been this dry
since the big droughts of the 1960s.

Not enough water, not enough
sugars produced (recall that water is a
key element of photosynthesis—the
production of sugars from thin air and
water using the energy of light via the
pigments chlorophyll and the caro-
tenoids), not enough energy to main-
tain chlorophyll. Chlorophyll breaks
down early, yellow and reds are
unmasked, on and on.

A clear sign of the drought effects
on color change was seen in our sugar
maple. Instead of its usual brilliant
fire, it turned a feeble orange with an
ominous brown edging along the leaf
margin—the brown of death, premature

death. Leaves were beginning to die
before they had completed the recy-
cling of pigments and other energy
units.

Why were the colors dull?

Most of leaf colors other than
green are associated with the red
pigment, anthocyanin. The only
exceptions are those species that are
dominated by yellow pigments. Yel-
lows are not likely to be affected by the
drought. Red pigments are sensitive to
drought. Production and expression of
red pigments is keyed to the presence
of sugars in the leaves. Red is best
developed when the summer has been
good for producing sugar, leaving the
leaves healthy late into September.
Even after the leaves have begun to
lose their chlorophyll, photosynthesis
still occurs, and sugars are still pro-
duced. Sunny, warm days promote
these new sugars being formed. Clear,
cold nights slow leaf activity and slow
down the departure of sugar from the
leaves. In general, then, more sugars in
the leaves, more anthocyanins, more
bright, red colors. This summer did not
produce good conditions for chloro-
phyll and anthocyanins. Dull fall colors
were the norm.

Because the effects of the drought
were variable across the state, contin-
gent on whether or not a few stray
thundershowers passed through at
various times, we experienced some
interesting variety in color change,
regionally, county by county, perhaps
even hill by hill. Variety is part of the
spectacle of leaf color change. It's the
same each year . . . or more accu-
rately, its never the same each year.
Dull colors, bright colors, oranges,
reds, yellows, browns, and greens, all
mixed together—it's all spectacular,
everywhere, every year. ⚡

*Christopher A. Nowack is Associate Professor
of Silviculture at SUNY-ESF.*

This House

In fitful flurries
but down to serious depths
the snow had been falling,
and all the week
the valleys were filling,
the roads were deepening,
and boundaries lay lost everywhere.

Like comrades in peril,
the houses huddled together
along disappearing streets,
puffing smoke from chimneys
in friendly signals
that all was warm
and all was safe within.

But this house echoes
all the Christmases past,
with visions of children
though dimly as pale
reflections from an inner looking-glass,
but memory breaks brightly as sunrise,

prompting the ear to recall
small voice sounds and whispers
that have deepened into age,
and for one dark moment
the eye succumbs,
one stubborn tear to
escape and fall in remembering

small faces framed
in frost circled windows,
early morning risers,
softly slippered, descending
expectantly the worn,
carpeted stairs to pause
and lean, brightly gazing downward.

All this is gone
and yet begins again;
for the Weaver is at the loom,
and love is played back
like a long-cherished record
by the children's children
on Christmas day.

—Dorothy Darling
Odessa, NY

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New York's Forests *Then and Now*

PETER J. SMALLIDGE

As I travel around the state and meet other people interested in nonindustrial private forest management, I am continually amazed by the extent of our forested lands. As interesting is the way New York forests change, from north to south and east to west, is the varied history of our forested landscape. By understanding the characteristics of our current forests and how the forest has changed to arrive at its current condition, we can better understand what the forest can provide and how it must be tended.

New York was predominately forested at the time of European colonization. The nonforested areas of our landscape existed as open meadows, pine barrens, lakes, and nonforested wetlands; nonforested areas resulting from soil or topographic features or opened due to a recent disturbance. Our best records suggest that New York forests in the late 1700s and early 1800s were dominated predominately by red spruce and balsam fir at the highest elevations, sugar maple, American beech and yellow birch on good soils, and oaks, hickory, and American chestnut on the drier and warmer sites. White ash occurred as scattered, infrequent trees mixed with other species on fertile soils. Black cherry occurred on a wide range of sites. Certainly other species occurred, approximately 60 tree species in various areas of the state.

As colonists spread across New York shortly after the Revolutionary War, they cleared land in small patches for subsistence farming. As today, agriculture was important to the early colonists of New York, and as the

population grew so did the acres being cropped and grazed. Then as now, New Yorkers used the forest land as sources of lumber and other forest products and as habitat for wildlife, but the early citizens went to great lengths to clear the land of forests as demands increased for agricultural crops.

By late in the 1800s, most of the lands outside of the Adirondacks were being farmed or had been farmed during the previous century. Agriculture continued to dominate the New York landscape, with 75% (22.6 million acres) of the state being used for agriculture. However, many farms were located on soils limited in suitability for agriculture. Beginning in the 1890s, the amount of land in agriculture began to decline and over the next several decades the abandonment of agricultural land peaked and waned depending on a variety of circumstances. On most lands not suited to agriculture or development, the forest began its return. The early successional maples, ash, and aspen with light-weight seeds blew onto agricultural fields starting many of the forests that now cover our state.

The succession of farm field to forest is too long a story for now, but we know that agricultural lands in New York declined from about 75% to 25% by the 1990s with large shifts in acreage from farm to forest. As the forests developed, many species of wildlife expanded their populations into the newly created habitat. Other species, such as the ring-neck pheasant, were introduced to use the grass and shrub habitats that covered the state. The State Conservation Department (now Department of Environmental Conservation) and the Civilian Conservation Corps (CCC) planted red pine, Norway spruce, and eastern white pine to reforest the state, stabilize soils, and reduce erosion. The forests grew, changing from seedlings mixed among grasses and golden rod to saplings, and by 1953 52% of the forests (6.6 million acres, about one-fifth of the state) were classified as seedling- or sapling-sized forest and almost 20% (2.3 million acres) of the forests were "pole" sized (trees between 6 and 11 inches in diameter at 4.5 ft above ground). In 1953, 30% (3.8 million acres) of the forests were classified as sawtimber (greater than 12 inches in diameter).

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You can imagine that the change in the character of the forest was not constant across the state. Areas that seeded into the faster growing but shorter-lived aspen reached pole size sooner, and areas that seeded to sugar maple were slower to reach pole size. Trees in other areas, particularly those having poor soils, may not have grown so quickly or as tall. Thus, our forests have a fairly similar "birth date" but differ depending on the first species to invade and survive and the rate they grew. The forests that started from field have changed through time, and some of the early invaders have died, leaving an opening filled either by the leafy crowns of their neighbors or by seeds and then seedlings from surrounding areas. Many forests around the state are between 60 and 90 years old, ages that reflect the changing land use and history of disturbances.

A common feature of many forests, a result of their originating at the same time in a given area, is that they are even-aged. Even-aged is a term used by foresters to reflect that even though the forest can have trees of different sizes, all trees are approximately the same age. This feature is both interesting and useful. It is interesting that trees of very different sizes (I have seen trees 4 inches in diameter the same age as trees 10 inches in diameter) are about the same age. It is useful because it helps us understand how to manage the forests. The larger trees are those species or individual trees (due to genetics) able to grow

quickly. If we try to manage our even-aged forests by cutting only the largest trees, we remove the genetically best and fastest growing species. We leave behind the "runts of the tree world" that may not be able to utilize the increased soil and light resources available following a timber harvest. This process of taking the largest and best trees and leaving the runts provides interesting food for thought and the topic of a future article.

Our forests today are beautiful, abundant, and productive. Other than the virtual loss of American chestnut by the chestnut blight (caused by the fungal pathogen *Cryphonectria parasitica*), we have all the species present in the 1700s plus a few introduced species—some of which we would be better off without. Our state is 62% forested, 18.6 million acres of our 30 million total acres. Currently, 53% of the forests are sawtimber, 30% are pole-sized, and 17% are seedling or sapling sized. In a state where agriculture once dominated, now only 7 counties have greater than 50% of their land devoted to agriculture. Twenty-five counties have between 50 and 75% of their land as forest, and 10 counties have greater than 75% forest land. Other than the New York metropolitan area, all counties have greater than 25% forest land. The 8 most abundant tree species (in decreasing order) are sugar maple, red maple, eastern hemlock, eastern white pine, white ash, American beech, northern red oak, and black cherry. A

recent economic analysis indicates that the companies that comprise the forest industry employ over 60,000 people, account for 5.6 percent of the state's total manufacturing, and directly contribute \$4.6 billion to New York's Gross State Product.

For all of us interested in forests and forestry, New York is a wonderful place. If you would like additional information on the characteristics of forests throughout the state or in your area, contact your local office of the Department of Environmental Conservation. If you would like more information on your particular forests and how to manage it to meet your objectives, contact the DEC or a professional consulting forester. 

Dr. Smallidge is the State Extension Forester, Cornell University. This article, which is part of a series entitled "Forests for Tomorrow," is available from Cornell Cooperative News Service.



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A long the Finger Lakes Trail: George Fraley: *rara avis*

IRENE SZABO

In western Yates County, at the south end of Canandaigua Lake and smack up against the village of Naples, is the High Tor Wildlife Management Area (WMA), consisting primarily of a monstrous forest rising sharply from the lowlands around Naples Creek, the West River, and the swampy end of that long thin lake. High Tor offers not only a large enough forested oak upland for good hunting, but includes within its boundaries a noteworthy fishing stream, bottomland ducks and warblers along an abandoned railbed. Popular side gullies which are magnets for rock and ice climbers, short stretches of quiet creek suitable for canoeing, and miles of dirt roads open to walkers, horses, and cross country skiers are also included on the huge hill which gives the place its name, and perhaps eight miles of the Finger Lakes Trail for hikers.

It is obvious in many places that the NYS Department of Environmental Conservation (DEC) manages the place for wildlife on the top of the hill. Dug

puddle ponds dot the landscape, tiny tracts have been logged to encourage young trees whose buds and sprouts feed grouse, and other small clearings are planted with Lathco pea, a legume where young turkey forage for insects. The excellent dirt roads, gated against motorized traffic at all borders, were built first from federal Pittman-Robertson funds and later expanded as partial payment-in-kind for logging contracts.

Many other improvements to this WMA have been funded by groups who have put their money where their interests lie. For instance, local chapters of the National Turkey Federation have not only paid for additional ponds and pea plantings but have also purchased property along some of the bottomland streams to add to the state's WMA holdings. Volunteers built and continue to maintain not only the orange-blazed Bristol Hills Branch of the Finger Lakes Trail, which climbs a 600' rise on the steepest face of High Tor, but also several blue-blazed trails to side attractions like Conklin's Gully.

The most dramatically improved approach to the heights of High Tor is from the south side. East Hill Road, which hugs the base of the southern side of the hump, is a side road off County Route 21 to Italy Valley. The last driveway is newly blacktopped and clearly signed as a hiking and skiing trailhead. Near a large sign reminding users to prevent forest fires, fancy "store-bought" reflective signs point the way to paved trailhead parking, and to respective hiking and skiing trails.



George Fraley himself in his fire warden suite with a chain-sawed "Smokey the Bear."

Blue-painted blazes on trees lead the public past manicured lawns, a pond, and a distant view of a large rustic building atop multiple garage doors. The hill begins to rise immediately behind the building where the hiking and ski trails diverge. The latter continue on a gentler slope graded smoothly into multiple switchbacks complete with waterbars artfully sculpted both to guide runoff and to provide fun bumps for cross country skiers on the downhill return. Recent bulldozing work has created wider turns in the upper reaches of the trail and wider steep spots for the safety of descending skiers. A few tiny ponds have also been dug into the slope for wildlife use.

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Partway uphill, in the midst of white and red pine plantations funded by old state reforestation projects (which paid an earlier owner \$10 an acre to plant trees costing \$3 per thousand on steep former sheep pasture) is the tidiest camping area imaginable. Acres of manicured grounds sanitized of every twig, bush, weed or rock spread beneath the dark pines and sport occasional picnic tables, charcoal grills, an outhouse, and a lean-to shelter.

Hold onto your socks, because here comes the most amazing feature of this meticulously improved access into High Tor: it's all on private land! George Fraley moved here to his retirement getaway in the 1980s and has wrought all this himself, with the occasional help of a church group or scout troop for special projects like the lean-to shelter (as his wife Jane says, he STILL has to put toilet paper in the damned outhouse!). The handsome rustic building is their home atop a six-bay garage housing mostly fire-fighting and rescue equipment for DEC properties—because George has two consuming passions: forest fires and public access to open land.

Three short years of working at Lake Placid before World War II somehow created this rare bird that George Fraley has become. He worked on forest fires, ski patrol, and ski slope maintenance which left him with a lifelong commitment to “volunteering”

as a DEC Fire Warden (well, he does get paid \$3.00 an hour during an actual fire, up from the 50 cents he was paid 50 years ago, but training and practice time is unpaid) and to providing a safe place for the public to play. All this, according to George, “while demonstrating that the same piece of land can be used simultaneously for wildlife, forest production, and recreation.” George went so far as to run Monroe County’s only public campground for 35 years . . . for FREE (donations accepted) . . . until water and insurance regulations made it impossible. All that effort was expended in addition to his “day job” at the University of Rochester.

Thus, when the Fraleys moved to their new retirement home and a nearby access for the Finger Lakes Trail to climb up to High Tor was closed by a new landowner of a different spirit, George was inspired to provide a southern route to the top (even though the primary FLT approach had already been moved to the western side). For a man who ran a free public campground, the rest of the improvements came naturally, even to the magnificent extent of grading a trail so nicely that his steep hill could be climbed on skis.

Does the occasional self-centered ninny abuse the privileges offered so openly by George? Of course. Last weekend a father and two children were caught riding bicycles all over the

yard and around the pond, NOT a part of the clearly marked trail. Word of mouth has brought hundreds to camp, hike or ski on Fraley’s hill. Naturally some show up ill-prepared with too much stuff, poorly packed. A few actually have had the gall to whine until George drives their gear up the hill with his tractor! The invention and proliferation of cell phones have also proven a thorn. Three times in the last year 911 callers have been redirected to call Fire Warden George *in the middle of the night* because, after all, who else would rescue them from being lost on the multiple trails atop High Tor?

Nonetheless, somehow George Fraley maintains his sharing and generous spirit despite the very occasional abuse by individuals. Now that he has passed his 80th birthday, nearby FLTC members are helping more and more with trail maintenance. Nevertheless, he still hired a dozer this fall to widen those turns for greater skier safety, and has left money in his will to ensure that the Trail Conference can continue to maintain all the trails of High Tor. ▲

In addition to tending New York trails, Irene Szabo is a member of the Western Finger Lakes Chapter of NYFOA and a Director of the Finger Lakes Land Trust.



A dug wildlife pond up on top at High Tor Wildlife Management Area.



One of the bulldozed switchbacks on the trail leading to the top of High Tor.

New York State is home to 454 species of birds, 242 of which have bred in New York. Some species, such as black-capped chickadees and tufted titmice, are permanent residents and live here year-round. Others breed in New York during the spring and summer and migrate to sunny South or Central America to spend the winter. These birds, such as the wood thrush, ovenbird, and warblers, are called "neotropical migrants." Other birds, such as the American robin or rufous-sided towhee, breed in New York and migrate to a more southerly state for the winter. Such birds are termed "short-distance migrants." A number of species, such as the tundra swan or black-bellied plover, migrate through New York on their way from their winter grounds to their breeding grounds and simply use the State as an occasional rest area. Once in a while, an individual bird or flock of birds that have no official place in New York are blown off-course en route to their destination and we are fortunate enough to be able to view them. Such birds, like the northern wheatear and yellow-billed loon, are termed "accidental" and are a rare site to behold.

New York has a variety of landforms with a diversity of topographic and climatic conditions. Because of the diversity of New York's physical environment, from the Atlantic Ocean to the Great Lakes, the coastal lowlands of Long Island to the high peaks of the Adirondacks, the state supports a variety of vegetation types and provides habitat for many different kinds



MANAGING BIRDS IN NEW YORK

KRISTI L. SULLIVAN

of birds. If you want to view the whole host of species that reside in New York, you will need to do some traveling. However, your backyard, forest land or open field may support dozens of bird species and provide endless opportunities for observation without leaving home at all!

Guilds

A guild is a group of animals within a community (e.g., deciduous forest, meadow, emergent wetland) that uses similar resources in similar ways. Birds are often placed into guilds based on their food preference or feeding habits. For example, some birds eat seeds (granivores), some are insect-eaters (insectivores), and others are fruit-eaters (frugivores). Some insectivores glean insects from the foliage of vegetation, while others "hawk" insects from the air. Some birds feed at ground level, while others feed in the forest canopy or sub-canopy. Birds are also placed into guilds based upon their nesting habits. For instance, some birds build their nests on the ground, some locate their nests in the forest canopy, some nest in shrubs, and others nest in tree cavities. Thinking of birds in terms of the guilds that they belong to helps us to understand the reasons that a particular bird or group of birds may or may not be present in a particular habitat.

Habitat Types

Your property may contain a variety of habitat types including forest, shrubland, grassland, or wetlands. The habitat type will largely determine the kinds of birds that live there. For example, red-eyed vireos, scarlet tanagers and black-throated green warblers live in the forest. Indigo buntings, gray catbirds and song sparrows prefer shrubland. Grassland, such as hayfields, pastures, and fields at airports, support species such as the eastern meadowlark, vesper sparrow, savannah sparrow, and bobolink.

Habitat Structure

In addition to the type of habitat that is present, the structure of the habitat also will influence the kinds of birds inhabiting an area. For instance, within grassland habitat, eastern meadowlarks prefer grass-dominated fields with a thick layer of dead grass and scattered shrubs and forbs for perches. Bobolinks nest in older grassland where vegetation is sparser and dominated by grass and there is a mix of forbs and small shrubs. Grasshopper sparrows prefer fields with short bunch grasses, patches of bare ground, and shrubs or fences for perching. Each of these species prefers grassland habitat with a slightly different structure.

Likewise, vertical structural diversity and patch diversity are very important considerations in managing for forest birds. Vertical structural diversity refers to a forest with a well-developed overstory, understory, shrub, and herbaceous layer.

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Maintaining vertical complexity within the forest allows a variety of birds to coexist. Many birds divide habitat vertically. For example, ovenbirds, scarlet tanagers, and chickadees are all found in mature forests, but ovenbirds feed mostly on the ground, tanagers prefer the canopy top, and chickadees like intermediate heights. More species are able to coexist in a forest with multiple layers than in a forest where all the trees are the same height. Vertical diversity is greatest in forests with a large variety of trees of different ages. Within similar forests, vertical diversity is greater in areas with few deer. Large deer populations often browse and remove the lower layers of vegetation.

Horizontal diversity, or patchiness, refers to the variety, size, and shape of both living and nonliving organisms across an area. Typically, the greater the horizontal diversity, the greater the diversity of birds. Patches can be created by groups of trees of different age and size classes, stands of different types of trees (coniferous versus deciduous), or openings in the forest canopy. Patches may be created naturally (e.g. fire, wind-throws), or they can be created through active forest management.

Other special features within a habitat can provide additional elements that benefit birds. For instance, rotting logs on the ground attract insects and fungi, providing food for birds. Standing snags provide cavities for nesting and additional feeding sites.

Area Requirements

Many migratory songbirds require very large areas of habitat. Such birds are termed area-sensitive species. Typically, area-sensitive species are thought to be forest inhabitants. However, some grassland species, such as the upland sandpiper or Henslow's sparrow, require grassland areas of 100 acres or more. Most area-sensitive grassland species in New York have declined significantly over the past 30 years, due to a decline in the amount of large, contiguous acreage of grassland

habitat available for nesting. This loss of habitat was predominately due to changes in agricultural technology including earlier and more frequent mowing, reversion of farmland to forest, and suburban development.

Area-sensitive forest songbirds, such as the ovenbird, red-eyed vireo, and scarlet tanager, may be absent from small forest patches and reach their greatest abundance in forested areas greater than 250 acres. When larger forests are fragmented into several smaller forests, the habitat needs of these species may not be met, and they may become less abundant or absent altogether. Forest fragmentation results primarily from human modification of the environment. When large forests are fragmented into several smaller forest areas by suburban development or agricultural activity, several changes occur. First, the proportion of edge habitat increases. Subsequently, densities of nest predators such as the American crow, common grackle, raccoon, and opossum increase. These species prey upon both eggs and nestlings. Populations of the brown-headed cowbird, a brood parasite, also increase. Cowbirds never build their own nests but instead lay their eggs in the nests of other birds, which often raise the cowbird young at the expense of their own. Because the cowbird is a relatively "recent" immigrant from the midwest, many eastern forest songbirds have not evolved behavioral strategies to be able to cope with brood parasitism.

Habitat Mixture

Although some species require extensive areas of forest, others need a mixture of habitat types. The wild turkey requires several habitat types and a flock of turkeys may use thousands of acres during the year to meet its needs. For example, they display in fields or open woods during the spring breeding season. Turkeys often nest in brush piles created from logging harvests or blow-downs. During the spring and summer, turkeys

feed on grasses, forbs, seeds, and insects found in fields and forest clearings. However, in the fall, they feed in mature forests containing mast-producing trees, such as oak and beech. Fruits of dogwood, grape and black cherry also serve as fall food for turkeys. During winter they rely on fruits and nuts left over from fall and on green plants and insects found in and around spring seeps, where groundwater emerges at the surface along hillsides and lower slopes.

Observing Birds on Your Property

As noted, the types of birds that will inhabit your property will depend upon the type of habitat, habitat structure, and size of the area. As time goes by and plant succession progresses, bird communities will change. Species that were once common may no longer be present or

continued on page 14

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Managing Birds (con't from page 13)

may be less abundant. New species will appear. Habitat management can help to maintain habitat for a specific species or groups of species. For example, periodic mowing or burning can be used to keep fields from succeeding to shrubland. Timber harvest can be used to create early successional forest or forest openings. Timber stand improvement can be used to allow more light into the forest floor, encouraging the growth of shrubs and understory trees, and increasing vertical diversity. Snags can be left whenever possible to provide homes for cavity-nesting birds.

To safeguard habitat for area-sensitive species, you can avoid creating edge habitat. For area-sensitive grassland birds, fields can be maintained in a shape that will minimize the amount of edge. For instance, square fields have less edge than long, thin rectangular fields. When clearcutting, manage in large blocks of 40 acres or more, if possible. Many species that inhabit early-successional shrub/sapling habitat do better in large clearcuts, and one large clearcut will create less forest edge than several small clearcuts. When large clearcuts mature, they then provide large blocks of habitat for mature-forest birds.

One of the easiest ways to improve bird habitat on your property is to favor trees and shrubs that produce seeds or fruit. Juneberrries, dogwoods, sumac, elderberries, cherries, grapes and blueberries all produce fruit that will be eaten by birds. Birch, alder, and hemlock are just a few species that produce seeds eaten by birds. Food-producing trees and shrubs can be planted or, if they are already present, can be encouraged to grow. Most fruit-producing shrubs require some sunlight to produce fruits. Thinning of mature trees can allow more sunlight to penetrate to the forest floor or understory, thereby increasing fruit production.

Summary

There is no one correct way to manage for birds on your property. An unlimited number of options exist, none of which will benefit all species. Management practices that encourage some birds will discourage others from using an area.

If your property contains habitat that is of special value to birds, such as a 100-acre grassland field, a wetland, or other habitats that are rare or unusual in New York, focus on maintaining those areas. Of the bird species that are decreasing in the northeastern United States, 76 percent inhabit grassland or shrubland habitat. Since the early part of this century, a great deal of farmland has been abandoned and much of the open land that once existed has grown into forest. Therefore, if your property contains grassland or shrubland habitats, try to maintain them. In addition, try to manage your property in the context of the surrounding region. For instance, do you have the only large, contiguous area of forest in the area? Although the amount of forest land has increased since the beginning of the century, suburban development has fragmented our forests into smaller habitat islands. By maintaining large, unfragmented forests, you can contribute to the regional diversity of birds by carefully managing your forest to minimize fragmentation.

Consider the needs of birds in your timber plans. For instance, maintain snags and downed logs whenever possible, and encourage vertical diversity when practical. Manage stands to include a diversity of tree species to provide a variety of food and nesting options. By considering the needs of bird when you manage your property, you will be rewarded with endless opportunities for observation, the ecological benefit of insect pest control, and the satisfaction of knowing that you are helping to safeguard the future of New York's birds. ♣

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Congress Directs USFS to "Promote Sustainable Use of the Eastern Hardwood Resource"

Institute of Hardwood Technology Transfer and Applied Research

ROLF WENTORF

In early August I attended a "focus group," sponsored by the US Forest Service (USFS). The purpose of this meeting was to help the USFS determine what to do with the congressionally created Institute of Hardwood Technology Transfer and Applied Research (IHTTAR). The IHTTAR will combine the U.S. Forest Service Northeastern Research Station, the Economic Action Program, and the Wood Education and Resource Center (WERC).

Eight focus group meetings were held in Pittsburgh, PA. The topics of logging, primary and secondary processing (that would be the mills), state utilization, marketing, extension services, timber land management, consulting, technical assistance, training and workforce development, and non-industrial land owners (that would be NYFOA) were discussed. The purpose of these discussions was to provide feedback concerning "trends," "specific goals," "mission," "scope," "vision," "principles," "program areas" and "potential activities" of the IHTTAR. I was asked to attend the Non-Industrial Landowners (NILs) focus group, which consisted of three university faculty, three lumber company representatives, 3 Forest Service employees, two state department of forestry representatives, and six people associated with forest owners associations, Tree Farm or forestry foundations.

Resource availability (running out of timber) was introduced as a potential concern for the NILs. Since it was central to the IHTTAR mission statement, I asked for their definition of "sustainable." That is, does it refer to biologically stable plant and animal populations, steady state fiber produc-

tion, continuous saw timber removals, economic viability, or the politically desirable, steady employment by local industries? It's easy to imagine how the participants paired off with each definition. We reached no conclusion, and the subject was dropped. I also brought up the subject of public education/discussion of forestry practices. In my view, the sustainability problem is bigger than developing new machinery and processing techniques.

A preprinted handout⁽¹⁾ was provided to participants during the focus group which described possible errors in interpreting Forest Service hardwood timber volume reports. Each report showed that cull trees are increasingly included as growing stock, large cull trees ("wolf trees") are not being removed at harvest, the growth of smaller (pole) sized trees into the timber category is declining, and the instantaneous net timber removal rate is much larger than the average rate computed between survey dates (e.g., timber is being cut today much faster than a 10-year average would suggest). According to the authors of this report these factors should lead to a significantly lower timber growth rate in the next USFS survey. Apparently this is a problem because eastern mills have been increasing their processing capacity.

Attendees were later informed that, as a whole, the loggers and mill owners attending other focus groups believe the sustainability problem is too big for WERC's budget (about \$2 million); wishing instead to concentrate on short term "doable" or measurable projects. Apparently measurable projects may not include working with landowner groups, however, improving the use of the

timber harvested will be a concern of the Northeastern Research Station.

Stewardship Incentive Program (SIP) and Forestry Incentive Program (FIP) funding for Timber Stand Improvement (TSI) was not a relevant area for the IHTTAR, while assistance with income taxes, also endorsed by some of the mill representatives, might be. Of course, the above discussion presumes that the typical NILs concerns revolve around those of the timber industry. In contrast, Gary Goff, Extension Associate at Cornell University, suggests that people requesting Master Forest Owner (MFO) assistance in NYS rank timber production fourth as a forest management objective, which is behind recreation, wildlife and privacy.

The last two components of the IHTTAR may be of interest to some NYFOA members. Their "vision" statement reads "efficient and environmentally responsible use of the eastern hardwood forest that promotes forest health and protects non-consumptive uses and values." Related to this is the 2nd component of the IHTTAR, the Economic Action Plan, which is set to encourage sustainable natural resource economic development (e.g., from small portable bandsaws to Ginseng).

WERC will develop and share IHTTAR information and education, most likely in a web-based format and via interactive satellite video (distance learning). Whether public education will be pursued, through either strong advocacy or providing general forest related knowledge was left unclear, and there was very little interest in the overall focus group reviews for future policy analysis. \triangleleft

Rolf Wentorf is a research engineer at the Scientific Computational Research Center at RPI in Troy NY. He is also on the board of directors for NYFOA and vice-chair of the SAC chapter.

⁽¹⁾ "Pitfalls of Interpreting Hardwood Inventory Statistics," by William G. Luppold and William H. McWilliams, both of the USDA Forest Service.

Insect-Produced Silk

From Textiles to "Tents"

DOUGLAS C. ALLEN

The first thing that comes to mind when most people hear the word "silk" is the lustrous cloth produced by the silk worm industry in China and Japan. For more than 2000 years, the Chinese were the only people who knew the origin of this material. For a time, it was valued at its weight in gold, and disclosing its source was punishable by death! A second common connection people have with this amazing substance is the intricate webs associated with certain kinds of spiders. Silk is produced by just a few groups in the insect world and only two types of forest pests; defoliators whose larval or caterpillar stages give rise to moths, and the larvae of primitive groups of wasps known as sawflies.



Figure 1 Brown to reddish-brown sawfly cocoons (actual length = 1/4")

What is Silk?

Silk originates and is stored as a proteinaceous liquid in modified salivary glands located within the insect head. When there is a need for silk, the liquid is transported via small tubes to the spinneret, a structure that protrudes beneath the mouthparts on the underside of the head. The spinneret of a spider, on the other hand, originates at the end of the abdomen on its lower surface (i.e., the underside of the end of the posterior body segment).

How do Insects Use Silk?

Even though the diameter of a single strand of silk is only a small fraction of that of a human hair, insects can use these fibers, individually or collectively, to accomplish an amazing array of activities that enhance survival.

Many moth and sawfly larvae spin cocoons (Fig. 1) to protect the

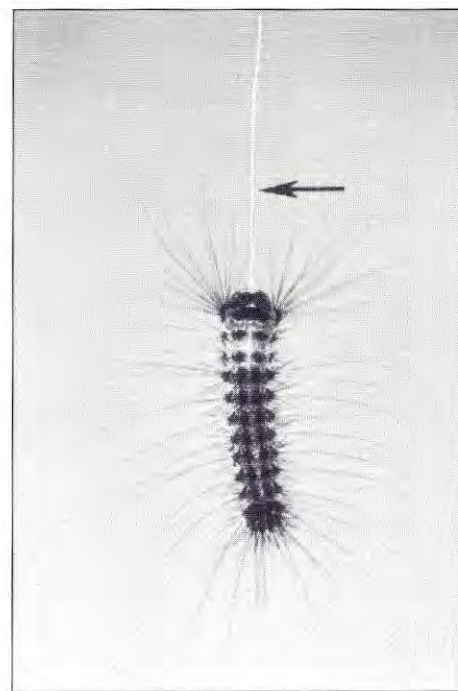


Figure 2 Young gypsy moth larva (1/8" long) in the act of dispersing. Note body hairs and silk "parachute" (arrow).

immobile, defenseless pupal stage during which the mature caterpillar transforms into an adult. A cocoon is spun from a single thread of silk and may incorporate a variety of substances, such as soil particles, leaf tissue, litter, or it may consist of pure silk.

Gypsy moth adults are not able to fly, and this species disperses as a very



Figure 3 Caterpillar resting beneath tent-like sheet of silk.



Figure 4 Shelter of the ugly nest caterpillar (14" long) on a young cherry.

small larva shortly after emergence from the egg. **Dispersal** is accomplished when the hairy, buoyant larva moves to the periphery of the tree crown and is stimulated by air movement to drop on a silken thread (Fig. 2). When the wind is strong enough, the silk strand fractures and acts like a parachute, which may carry the caterpillar several miles. Many other species of moths, to one degree or another, rely on this method of dispersal.

Many moth caterpillars lay down a silk strand wherever they go, and this "life line" functions as a **trail marker** which helps to guide a caterpillar or its siblings back and forth from resting or nesting locations to suitable feeding sites.

Several species of moths, such as the eastern tent caterpillar (*Forest Owner* Sept./Oct. 1992) and fall webworm (*Forest Owner* Sept./Oct. 1993), build silken **tents** to protect the colony from natural enemies and unsuitable environmental conditions, such as heavy rain, desiccating winds or excessive heat. Some solitary

species use a tent-like structure merely to help hold the resting larva in place on the leaf surface (Fig. 3). Others, such as the ugly nest caterpillar (Fig. 4) and cherry scalloped shell moth (*Forest Owner* Nov./Dec. 1993) use silk to incorporate leaves and twigs into a **shelter** of sorts that serves the same function. Many species use silk for **rolling or folding a leaf**, which also affords protection from vagaries of the weather and certain natural enemies (Fig. 5). Even though the leaf may be 100-200 times heavier than the caterpillar, the ingenious insect stretches a strand of silk, which is quite elastic initially, as it is spun out of the spinneret and attaches it to two sides or corners of the leaf to be rolled. As the silk strands contract, somewhat analogous to the action of a rubber band, they draw the leaf together in a manner characteristic of that insect. In the process of unrolling many leaves over the years, I have come to appreciate the strength and toughness of these structures.

When many caterpillars molt they do so on a small sheet of silk, called a **molting pad**, which is spun on a twig or leaf. This platform gives the larva a secure place to attach while undergoing




Figure 5 A maple leafroller.


the delicate business of shedding its skin and forming a new one.

The next time you see a cocoon, rolled leaf or silk nest, take a moment to admire the incredible material and remarkable behavior that make its construction possible! **L**

This is the 47th in the series of articles contributed by Dr. Allen, Professor of Entomology at SUNY-ESF. Reprints of this and the complete series are available from NYFOA. It is also possible to download this collection from the DEC Web page at: <http://www.dec.state.ny.us/website/dlf/privland/linkspag.htm>

NYFOA NEWS

 The NYFOA contest for Chapters collecting the most petitions for the Tree Farm stamp resulted in our sending in 2,725 signatures. The winning Chapters, based on their membership, were South East Adirondack Chapter with 550%, Capital District Chapter with 250%, and Lower Hudson Chapter with 125%. We thank all those who signed petitions especially Ron Cadieux, John Hastings and their Chapter members who were responsible for over 1000 signatures.

 The Asian longhorned beetle, the tree-killing insect that has already led to the destruction of thousands of trees in the Chicago and New York metropolitan areas, has been found in maple trees just four blocks from Central Park.

Hoping to contain the prolific insects before they spread to the world-famous park, workers cut down 13 Norway maple trees on Manhattan's Upper East Side.

This is the first time since the beetles were discovered in the U.S. in 1996 that they have been found in Manhattan. Officials don't know how the beetles got onto the island.

Bears and Cats and Other Things

MARY BINDER

Photos of black bears rubbing against trees, bobcats ready to pounce, and mountain lions with their young were shown to a group of eighty lucky people at the Crandall Library in Glens Falls on a recent Friday in September. This slide show kept even the most fidgety child quiet.

Susan Morse, founder of Keeping Track, an expert tracker and nationally-known wildlife habitat specialist, had taken the vast majority of the photos. Keeping Track provides for wildlife habitat protection through field research, conservation education and planning. The group assists communities by providing training to volunteers which will allow them to determine what species are already making a living in the area.

Wildlife transects are set up and surveyed quarterly. Species such as black bear, fisher, river otter, mink, and bobcat are of special interest because they require larger tracts of land to be successful. The problem of habitat fragmentation has grown so much that planners at the local level need to reduce fragmentation that results from develop-

ment. This will allow a community to plan for keeping the wildlife habitat they already have, and even develop some they don't.

The evening lecture and slide show provided information on animal signs, while a woods walk the following day allowed us to actually see the signs in the woods.

Shakespearian Forester

Susan Morse received her forestry degree from Penn State University and went on to get her Masters in Shakespeare while studying in England. One member of our group successfully prompted her to recite a soliloquy.

During the program we learned to tell the difference between a cat paw print (bobcat, mountain lion) and a dog paw print (wolf, coyote or the neighbors mutt). The dog print allows you to draw an "X" through the area where the pads hit the ground. Also the front toes of the dog are even across the top of the print. The cat print has the middle digit higher than the rest of the toes and no "X" can be drawn between the pads.

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Susan Morse demonstrates how to determine if a bear has taken a bite at a tree trunk. Placing two sticks into the holes created by the bear's teeth will allow you to determine at which angle the bear bit into the tree.



The most dramatic sight was a set of perfect claw marks on a white birch, a favorite of bears in this location. Here a tape measure gives an idea of the diameter of the tree, while also giving some hint at the size of the bear.

After listening to Susan I was thrilled to learn that my wetland is prime habitat for black bear babysitter trees. It seems the sow selects a large tree to scoot her cubs into so she can be free to feed. She usually selects trees near a wetland in the spring because these areas are usually the first to green up and provide food for her. Susan said the cubs will only come down once the mother calls them. The mother may be as far as a mile away while her cubs are safe in the tree. These babysitter trees are evident through the claw and bite marks the sow puts on the tree as she coaxes her cubs down.

We were also shown a "nest tree" made by a black bear. Bears, having the most keen sense of smell, can locate nut trees from miles away. Once a tree is located, for instance a beech tree, the bear will climb the tree and break the limbs of the tree in toward the main trunk. This is not done to make a comfortable place to sleep, but to make for easier eating of the beech nuts. A forester might look upon this as destruction of a crop tree, but a bear does it for practicality.

Susan explained that bears are trying to communicate to others as they claw at

trees, rub up against them, or urinate on them. For example, a sow might be telling others that she has babies and does not want anyone near.


A Forest Runs Through It

The following morning rose bright and clear as about 40 people gathered in a parking lot to car-pool to the site of the walk. Once there, Ron Cadieux, DEC forester from Warrensburg, was more in his element surrounded by northern hardwoods. He had taken the time to walk and flag a route that showed several bear signs.

Sharing venison jerky and "moose droppings" (chocolate covered nuts), we stopped to look at some scat found next to the trail. Susan guided us in the thought process—noting gray hair and small bones mixed in with the scat. We concluded that it was from a coyote. The conversation turned to concern for disease while inspecting such things. Susan joked that she practices "safe scat" as she never touches the scat.

As we continued along the skid trail, bear claw marks could be found

on the bark of many trees. We used a white piece of cardboard as a backdrop to look for the dark bear hairs that might be left behind from the bear rubbing against the tree. The group was impressed by how soft the hair can be.

As the day drew to a close, one member of the group noted that she will never be able to walk in the woods in quite the same way. She will now always be looking for wildlife signs. Should we all be so lucky. 

Mary Binder, a member of the CDC, would like to thank the Crandall Library and SAC for providing funding for the lecture. Funding for the woods walk was provided by SAC and CDC due to a grant received from NYWS.

NYFOA

Scholarship Fund

As of September 1999, the NYFOA Endowed Scholarship Fund that is administered by the SUNY ESF College Foundation, Inc. has a fund balance of \$19,292.

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Seventh Annual ReLeaf Conference

DAVID COLLIGAN

On July 9th and 10th 1999, the seventh annual ReLeaf Conference was held in Buffalo, New York. The theme of this year's conference was "Recreating Forests in Cities; Linking Past to Present." The meeting was attended by more than 150 individuals interested in urban forestry from across New York state and Washington, D.C.

This year's pre-conference workshop, which is always scheduled on Friday morning, was entitled "What To Do When Disaster Strikes." At the workshop representatives of the cities of Rochester, Syracuse, and Watertown told the story of how their response teams swung into action after the tree disasters which occurred in each city recently. Each one presented the coordination of the monumental effort a municipality must make in order to respond in an appropriate fashion to natural disasters.

A lunchtime presentation entitled "Linking Past to Present: The Buffalo Story" was presented by three Buffalonians: Buffalo's past was described by George Schichtel who personally knew several of the former

City Foresters who dealt with the Dutch Elm disease crisis as it was occurring. George described how these wise forestry visionaries selected many different species to be planted so that the City did not replant a monoculture of trees, exposing the City to a potential repeat disaster in the future. George proceeded to explain that in Buffalo's glorious urban forestry past it was known nationally as "The City of Beautiful Trees." Peter Pasnik, the current City Forester, told of the many great tree projects underway in the City involving the City Parks Department, the City Forestry Department, and community volunteers. David Colligan, chairman of the ReForest Buffalo Committee of the Buffalo Green Fund, explained how with the cooperation of the Olmsted Conservancy, the six Olmsted parks in Buffalo are being reconnected with greenways, some which were originally planned by Olmsted himself, some which are replacements for greenways displaced by City superhighways,

and a new greenway link along the waterfront that would not have been possible in Buffalo's industrialized past.

The afternoon workshops included a discussion of tree surveys and master plans, forestry education, problem of sprawl, organizing small communities, and regional grow-out stations. After the afternoon sessions were concluded, tours were arranged which took attendees on tours of the greenway loop around the City, the Olmsted parks, historic Forest Lawn Cemetery, Buffalo in Bloom, and a downtown self-guided walking architectural/urban forestry tour.

The first day concluded with a barbecue at Marcy Casino located in beautiful Delaware Park, a classic example of an Olmsted bucolic park. The guests had a choice of attending the Monet at Giverney exhibit going on at the Albright-Knox Art Gallery, or Shakespeare in the Park, which occurs every summer night in Buffalo.

Saturday, the group took a tour of the Buffalo State campus before breakfast where the arboretum that was planted as part of the original campus



ReLeaf Conference Participants, (L-R) Peter Pasnik, Ron Walkowiak, Ray Smith and Ed Drabek at Schichtel's Nursery.




Enjoying the ReLeaf Conference are (Front row L-R) David Colligan, George Schichtel and Former Buffalo City Forester Ed Drabek. (Back row L-R) Current Buffalo City Forester Peter Pasnik, Ron Walkowiak and Dan Durawa.

was still in evidence together with approximately 7,500 new plantings; all of which were extremely well cared for, well trimmed, and healthy. Those in the group who had been to many New York state campuses were impressed by the quality and workmanship exhibited by the Buffalo State grounds crew.

After breakfast, the group traveled out to Schichtel's Nursery in Springville, New York, approximately 35 miles from downtown Buffalo. At Schichtel's Nursery four workstations were set up to explain the intricacies of tree selection, tree pruning, and tree planting. The workshops had many useful tree tips that all the participants were able to learn from the experts. Schichtel's currently supplies many of the municipalities east of the Mississippi with trees for urban environments and they have developed a reputation as being one of the finest urban tree nurseries in the country. They were very generous with both their time and talents with our group. After the demonstrations were completed, the whole group was treated to a free barbecue sponsored by Schichtel's Nursery and Ecology & Environment, Inc., a Buffalo, New York, corporation specializing in environmental and green industries.

Many people visiting Buffalo for the first time were impressed by the city's grace and charm. The architectural legacy left by some of America's greatest architects was an

added bonus to the beautiful parks and greenway designs of America's most famous and legendary landscape architect, Frederick Law Olmsted, who created six Buffalo parks, and linked them with greenways. The cultural amenities taken advantage of by the group pleased (and surprised!) many of the participants. Those who had any room left in their stomach after the Schichtel's feast were able to attend the "Taste of Buffalo" which featured 55 of Buffalo's great ethnic restaurants all selling their wares on Main Street in downtown Buffalo. Sunday morning, the bus group from New York City took a tour of Niagara Falls prior to returning to New York City.

This conference continued the tradition of the ReLeaf conferences of giving participants an opportunity to "touch and feel" the host community's urban forestry efforts in very significant ways. Everyone in attendance felt that they had an excellent opportunity to witness how Buffalo, New York, is "Recreating a Forest in a City." 

David J. Colligan is a partner in the firm of Watson, Bennett, Colligan, Johnson & Schechter, L.L.P. He can be reached at (716) 852-3540.

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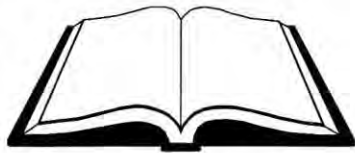
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BOOK Review



SUBMITTED BY JANE GEISLER

Requiem for Nature by John Terborgh, Duke University Professor of Environmental Science & Botany


In Terborgh's book, *Requiem for Nature*, he describes various parks and reserves all over the world and how the tropical forests are being poorly protected. According to Terborgh, sustainable use ("natural" forest management) means exploitation. That is, economic pressures have led to intensive uses of the forest. Sustainable development (outputs balanced by inputs) is therefore unattainable because of population explosion and obsession with maximizing economic growth. He feels reforms are needed.

Terborgh praises the National Park systems of the United States and Costa Rica where federal land ownership stabilizes land use and biodiversity is concentrated. The main theme of the book explains how conservation in the tropics is failing.

Terborgh has spent the last 12 years conducting research in Manu National Park in the rain forest of Peru. There, along with a few other bright spots, are places with more stable governments or where legal conditions need slight changing. These locations include Madagascar, Papua New Guinea, Panama and Costa Rica.

To bring a point closer to home, his descriptions of the pressures on parks all over the world are reminiscent of what is faced by the Appalachian Trail Management Committees: squatters, firewood cutting, illegal lumbering and hunting, intrusive road building, more and more development adjacent to park land, encroachment by scenic view seekers, careless fires, vandalism and communication towers. AT volunteers

must closely watch the trail, its buffer strips and boundary lines carefully in order to preserve the bio-diversity of the system.

According to Terborgh, the social, economic and political conditions are the greatest challenges for conservation. He even goes so far as to propose internationalization of nature protection under the UN; perhaps a Nature Corps (like the Peace Corps) to monitor parks, assist local guards, help with administration and environmental education programs. Yet, Terborgh does not seem optimistic that these proposals will be widely adopted. 

Jane Geisler, a Master Forest Owner, resides in Verbank, NY.

If any NYFOA member is interested in reviewing a book for *The New York Forest Owner*, please contact Mary Beth Malmshemer.

MAGAZINE DEADLINE

Materials submitted for the January/February issue should be sent to Mary Beth Malmshemer, Editor, *The New York Forest Owner*, 134 Lincklaen Street, Cazenovia, NY 13035 or via e-mail at mmalmsh@syr.edu Article, artwork and photos are invited and if requested, are returned after use.



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Please Note: The advertisement below ran in the last issue of *The New York Forest Owner* with an incorrect phone number and e-mail address. We apologize for any confusion.

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Woodlot Calendar

November 13, 1999 LHC Chapter: Woods walk at the Mianus Gorge Preserve in beautiful Bedford, New York at 9 a.m. Admission is free, bring a friend! Todd Baldwin is the warden and will be the guide for the 4 mile walk. (One can shorten or lengthen the walk as desired.)

December 9, 1999 CNY Chapter: Annual Christmas Party at 6:30 pm. The Christmas Party will be held at the Tully Best Western Hotel located at the Tully exit on Route 81.

January 12, 2000 SAC Chapter: Steering Committee Meeting, 7 p.m. at Peter and Betty Gregory's house. We plan to discuss hosting the statewide Fall 2000 meeting; we need committee volunteers! Call Peter for directions. Everyone welcome!

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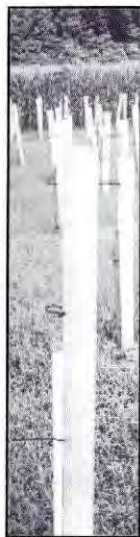
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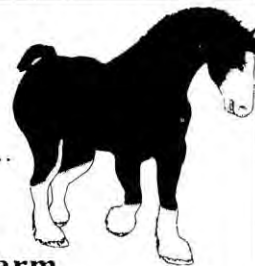
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