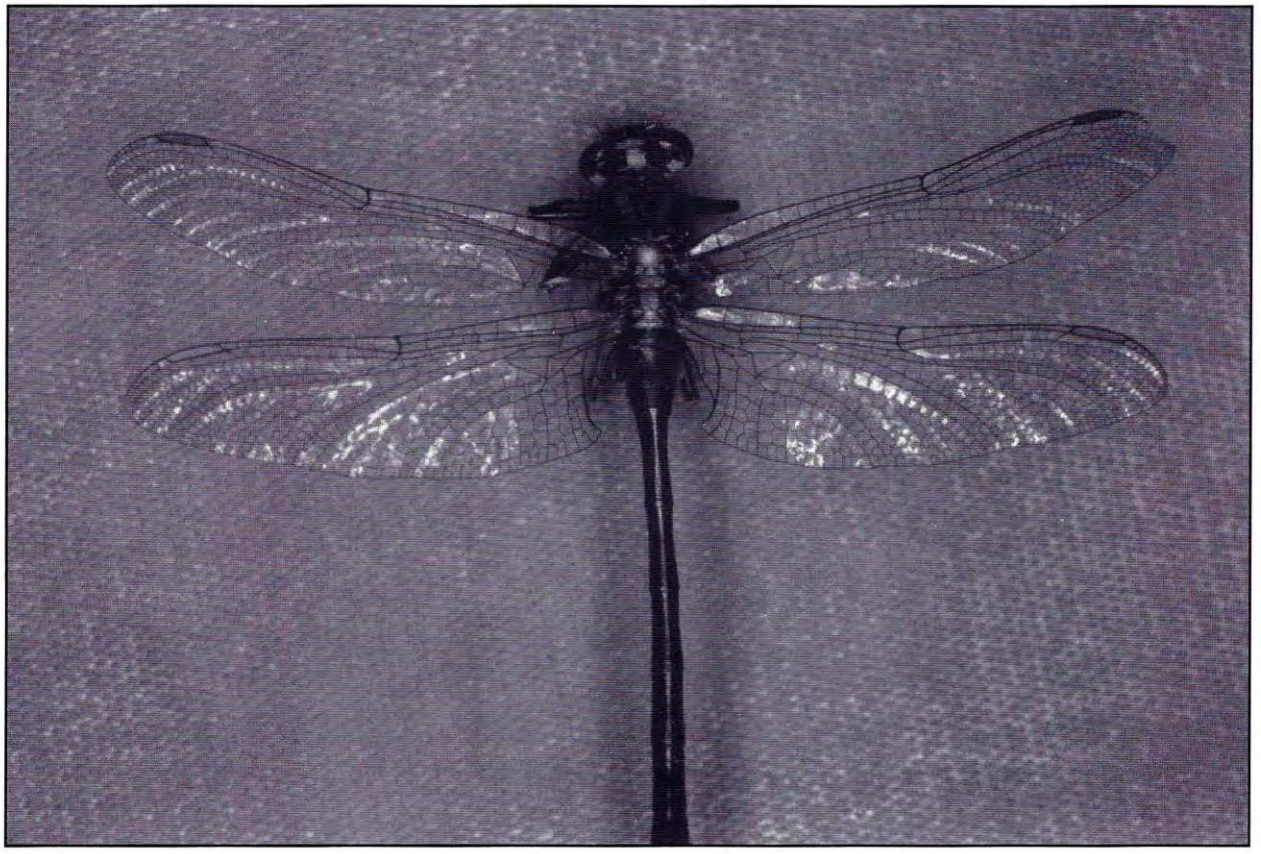
The New York Forest Owner

A Publication of The New York Forest Owners Association

November/December 2001



Volume 39 Number 6

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

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 January/February issue is December 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 family membership/subscription is $25.

www.nyfoa.org

COVER: The cover photo shows an adult dragonfly. For more information on this aquatic insect, and many more, see page 16 for full article. Photograph courtesy of Doug Allen.

From The President

It's exciting to experience growth – in our children, in our relationships and perspectives, in our trees, and yes, even in a corporation.

Approval for matching gifts is a healthy sign of maturity for New York Woodland Stewards, Inc.! New York Woodland Stewards (NYWS) is the charitable educational foundation created by NYFOA and approved by the IRS to receive tax-exempt contributions. Recently, both IBM and Phillip Morris Companies approved NYWS under their matching grant programs. This means that a contribution by present or retired employees of these companies to NYWS is in turn matched by the companies.

We are grateful to these companies and are delighted that NYWS met their eligibility requirements. We thank also the donors, and those who pursued the applications: Phil Walton, NYWS Treasurer, and Jerry Michael, NYFOA Treasurer.

We hope to be approved for matching grants from other companies. If your current or former employer has such a program, please check the article on page 12.

Chapters and their many activities are the lifeblood of NYFOA. For many NYFOA members there could not be a higher calling than directly planning and executing educational programs that make a difference in people's lives, and their resources. They are hands-on experts, and we couldn't do without them. For others, special abilities and interests invite participation in the kind of planning and programming that characterizes state-level committees and board members.

On page nine Hugh Canham presents the continuing need for qualified people to guide NYFOA by serving on state committees or as board members. This is particularly challenging as we move beyond only supporting our chapters in search of new avenues to reach the hundreds of thousands of forest landowners that do not have a source of continuing education.

In addition to installing new directors in the spring, NYFOA presents its annual statewide awards. The "Heiberg Memorial Award," recognizing outstanding contributions to forestry and conservation, honors the late Svend O. Heiberg, Professor of Silviculture at ESF who proposed a private landowners group, giving rise to NYFOA in 1963. We also annually recognize an individual who has made particularly noteworthy contributions to NYFOA and its membership, with the "New York Forest Owners Association Outstanding Service Award." We welcome your suggestions for future awardees.

I want to tip my hat to all in NY and across the country who contribute to "Log A Load for Kids," a nationwide campaign through which loggers and other forest industry people contribute the value of a load of logs, or other amounts, to local Children's Miracle Network hospitals. There are nine such hospitals in NY, each of whom has pledged to provide services regardless of the patient's ability to pay. "Log A Load for Kids" helps meet the financial deficit.

A dunking booth at the Boonville Logger Days is one way New York's forest industry has raised funds – over $12,000 this year alone. The growing support and enthusiasm for this effort is indeed heartwarming. It returns benefits to local communities, while it raises public awareness of the forest industry. Clearly, a win-win effort.

Please give special consideration to the ad on page 15 for gift memberships to NYFOA. These specially priced memberships are a convenient and economical way to introduce friends, neighbors, and other family members to the benefits of belonging to NYFOA. Think out of the box! Do your holiday shopping today! In November!

As I write this, fall colors are gorgeous. As you read this think back. Every season has a beauty of its own. And every season presents opportunities for steps to benefit future generations.

–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	$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
P.O. Box 180
Fairport, New York 14450
1-800-836-3566
www.nyfoa.org

In The MAIL

Letters to the Editor
may be sent to:
The New York Forest Owner
134 Lincklaen Street, Cazenovia, NY 13035
or
via e-mail at mmalmshe@syr.edu

Input on Articles

I should like to add a helpful comment to each of two excellent articles in the September/October issue of our Forest Owner.

Controlling Interfering Vegetation, as described, can be made easier on stems 12 inches or larger by making a horizontal chain saw cut instead of the hatchet frilling. This is done by cutting with the saw a one half inch deep groove. Saw by pulling the saw towards you, stop the saw and step backwards around the tree, then saw again pulling the saw towards you until the groove ends are joined. The groove made this way is free of chips and is also a safer way than pushing the saw forward around the tree. The chip free groove holds the Roundup in a continuous, beautiful bead and you are done. If the groove is deeper, you waste Roundup. If you apply such a groove to a small diameter tree, it will tend to break in a wind storm rather easily after the tree has died. Keeping the tree standing for some years after it has died is good because the dried branches come down one at a time and tend to smash less desirable vegetation below.

Thinning Young Forests mentions "strong crowns" as a quality of acceptable growing stock. Strong, vigorous crowns also have to be "in the forest canopy," which means that those crowns need to have their tops open to the sky, as opposed to having them under the canopy. The latter are called "over topped," or suppressed trees regardless of how strong their crowns might be. The former are the "dominants, or co-dominants" of your forest. The dominant trees have their photosensitive growth hormones in the crown, allowing the tree to continue growing vigorously upward after it has been somehow liberated from its competitors. The suppressed trees will tend to sprout all over the stem after liberation because growth hormones have been diffused in the shaded tree. Such sprouting (epicormic branching) may look fine but the tree will not be valuable as saw timber. Suppressed trees have also been called intermediates, and "once an intermediate, always an intermediate" and therefore unlikely an acceptable growing stock, as defined in the article.

It is great to see "how to do it" articles in the Forest Owner. We need to work much more in the forest, not just talk about how important the forest is.

–Peter S. Levatich
Brooktondale, NY

Another Response to Professional Foresters

The letters to the Editor in the last two issues of our publication have stirred me to write a letter of my own on cull removal at the time of timber sales.

I own a 55 acre woodlot that I purchased in 1955. It had just been cut

continued on next page

over. We did some Timber Stand Improvements (TSI) work and have had two timber sales. Cull removal is always a part of all our timber sales. I believe an outline of our 1992 sale will cover the subject.

The forester called for bids on a very strict contract listing: 467 saw timber trees – 90.8 mbf; 597 pulp or firewood trees – 282 tons; 412 culls.

All marked trees were to be cut. We received six solid bids with a $1,500 deposit. The winning bidder's deposit was to be held as a performance bond until the harvesting job was completed. The top bid was well in line with 1992's top market prices and well above our estimate. Twenty tons of firewood was to be cut and skidded and left at the landing.

The bid was let and the harvesting job was done with practically no damage to the residual stand. All marked trees were cut. Skid roads and landings were smoothed, water bars were placed, etc. and the full deposit was returned to the buyer.

All it takes is an interested owner, a capable forester and a quality buyer and crew. All are available.

I would like to offer you all a woods walk through this 55 acres of tall, straight, good growing Sugar Maple, Black Cherry and White Ash, except my 92 years tell me that I am not quite up to that.

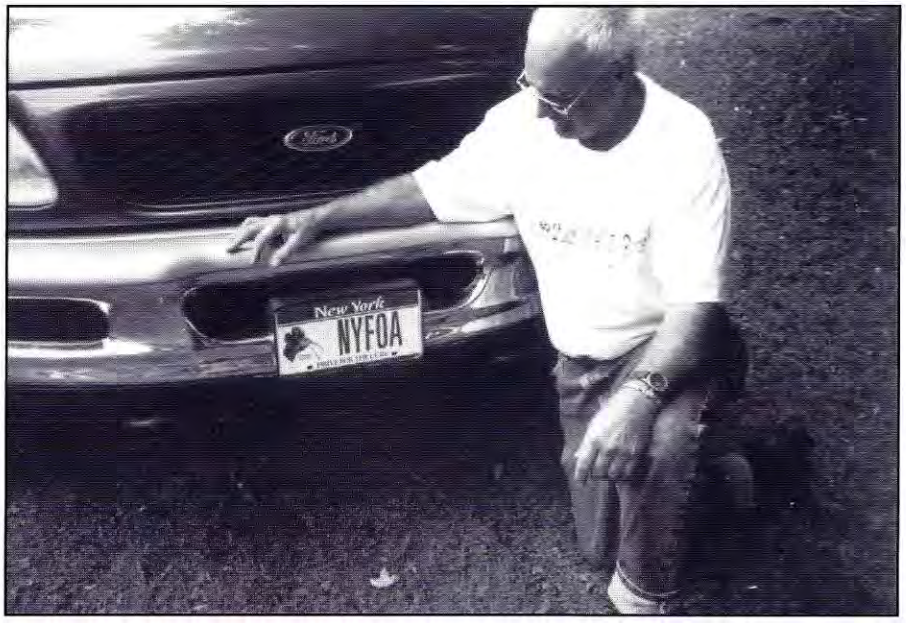
Meanwhile, I send my best regards and warm greetings to all my fellow members in the New York Forest Owners Association.

–F.A. "Mike" Demeree
Bainbridge, NY

NYFOA License Plate

Enclosed is a view of my truck and new license plates (see photo below). I have trouble remembering my license plate numbers so I figured to get some vanity plates. I thought of several options while talking with the motor vehicle department clerk, then I saw new plates on display with a nasturtium flower in the corner. Caption underneath the flower "Conquer Cancer," and across the bottom is "Drive for the Cure." The clerk informed me the plates would be $50.00 extra each year, $25.00 goes for breast cancer research and $25.00 for prostate cancer research. I thought what a great way to have special plates and still donate to a worthy cause (having survived three colon cancer operations). The amazing part is, everyone that sees the plates wants to know what they stand for. So I give my sales pitch for NYFOA.

–Norman Skillman
Bemus Point, NY



NFYOA member Norm Skillman showing off his new vanity plates.

NYFOA Scholarship Fund

As of October 1, 2001, the NYFOA Endowed Scholarship Fund that is administered by the SUNY ESF College Foundation, Inc. has a fund balance of $21,944.30.

Attracting Woodland Wildlife: *A Primer*

By Gary R. Goff

Most NY forest owners value the wildlife on their land more highly than its sawtimber potential. Fortunately, management for either objective can be quite compatible with the other. That is, with careful planning both objectives can be enhanced simultaneously. The purpose of this article is to introduce a few key concepts that can be the basis for further study. Fortunately, scores of excellent publications are available to forest owners interested in improving their lands for wildlife.

The key to viable, sustainable wildlife populations is HABITAT

Most wildlife management is based on creating or preserving habitat. Habitat equates to "home" and consists of the necessities of life – food, water, and cover. Technically there is no such thing as "good" or "bad" habitat per se, as some wildlife species will use even the most barren looking areas. Habitat has little meaning as a general term, but is best associated with a single species or perhaps with a community of species that live in the same ecosystem. Examples include wildlife that live in a wetland or in a mature northern hardwood forest.

As a woodland owner, your goal may be to supply quality habitat for a favored wildlife species. The quantity, quality, spacing, and availability of food and cover will determine how good or suitable the habitat is for specific species of wildlife. Let's use the gray squirrel as an example of a species that you might wish to provide with "good habitat." Squirrels need adequate food supplies year-round. Spring foods can consist of sap, and flower and leaf buds of selected tree species; summer foods might be mushrooms, seeds and berries; and favorite fall and winter foods are apples and nuts. Stable squirrel populations are dependent on a variety of different foods in each season, as the quantity of any one food item will vary year by year. Water is seldom a problem for squirrels, but the provision of a pond, a stream pool, or the deepening of a seep can help ensure an adequate supply. Squirrels need nesting and winter denning cover. Hollow trees supply both of these. The last factor to consider is the spacing or juxtaposition of food, water, and cover throughout your woods. The more interspersed these habitat components are, the larger the population of squirrels the woodlot can support, as each squirrel has all his habitat needs within a relatively small home range.

All habitats have a carrying capacity

A common goal of forest owners is to optimize the number of "favored" wildlife species on their land. That generally means they want to increase the population size, or have their favorite species spend more time on their land. To accomplish this, the habitat needs to be improved to support more individuals. Just as a pasture will support only a certain number of livestock, a woodlot will only support a limited number of any one wildlife species. This concept is called the carrying capacity, or the number of animals of a species that an area of land can support over a period of time. The focus of management should be on limiting factors, i.e., the habitat components that are limiting the growth of the population, or not allowing the carrying capacity to increase. Using squirrels once again as an example, winter dens are often the limiting factor in relatively young woodlots because there are few old, mature trees with suitable cavities. In such woodlots, squirrels frequently build leaf nests that are inferior to cavity dens. In this circumstance, the owner might decide to build artificial dens out of wood or provide other structures that serve as cavities.

It is often impossible to supply all the habitat requirements of a species on one ownership parcel. Deer have a home range of at least 600 acres, a flock of wild turkeys may range over 10 square miles in search of food and cover, and mated pairs of barred owls defend a home territory of 675 acres. Therefore, it is best to focus on providing the habitat component that is in shortest supply in the "neighborhood." To identify the missing component, conduct a driving or walking tour of adjacent ownership parcels and/or obtain an aerial photo of the area and look for missing or limited

habitat components, such as conifer cover, open grasslands, wetlands, mature forests, etc.

Forests are an ever-changing ecosystem

In the previous example, the woodlot would in time grow large, old trees. This points out another important factor to consider when choosing appropriate habitat management practices. All woodlots are part of an ever changing ecosystem, i.e., an interacting system of plants, animals, soil, microorganisms, and climate. Nature generally follows a fairly orderly and predictable process whereby one plant community is gradually replaced by another over time. This process is called natural succession. In time as young forests become older, more and more trees will become larger and start to decay, thereby supplying cavity dens for squirrels and a multitude of wildlife species dependent on tree dens. Here, time works well for the person interested in squirrels. However, the owner interested in wildlife such as ruffed grouse and cottontail rabbits that use early-succession-stage vegetation, would not be pleased with the transformation of a brushlot (good grouse habitat) to a mature forest. The ownership objective might be to hold succession at its current stage or even to set it back to a combination of brush and grasslands. It's true that everything a forest owner does, or doesn't do, affects wildlife because even unmanaged woodlands change over time.

Nature's way of setting back succession is commonly through what people consider natural disasters, i.e., floods, wind and ice storms, fire, and insect or disease epidemics. Flooding by beavers is perhaps a bit more acceptable to our way of thinking, but the results are the same. Each of these forces can rapidly transform a mature forest to a brushlot or a wetland. Such vegetative changes are followed by a corresponding change in the wildlife community inhabiting the area. Similarly, landowners use chainsaws, brushhogs, controlled burns, or perhaps herbicides to set back succession in plant communities with the goal of providing improved habitat for desired wildlife species.

Obtaining adequate regeneration is critical to successful habitat manipulation

Regeneration is the process by which forests are replaced or renewed by natural or artificial means. Cutting or planting vegetation is undertaken to change the age, size, vigor, species, or form of the vegetation that makes up the current land cover. The goal is to provide better cover or food for desirable wildlife species. While the goal is usually laudable, success is often difficult to achieve. A multitude of factors may intervene and lay waste to the best-laid plans. Deer, rabbits and voles typically munch young seedlings. Droughts raise havoc with new tree plantings. Tree and shrub species must be well matched to site characteristics, such as soil type and moisture, growing seasons, and sunlight availability. Natural regeneration through seeds or sprouts is greatly influenced by deer populations, site characteristics, availability of seed sources, competition with other vegetation, timing or season of the cutting or harvest, and existence (or absence) of advanced desirable or undesirable regeneration. Luck will not carry the day, as there are just too many variables that must be controlled and correctly factored into a management plan. Do everything you can to ensure successful tree or shrub regeneration, as failure is just too expensive in terms of squandered time, money, resources and opportunity.

What's a forest owner to do?

As I stated at the beginning of this article, help is available through scores of affordable publications and videos written for private forest owners. Some good references are listed at the end of this article. Landowners should work out a simple, inexpensive, management plan. It's important to determine habitat limiting factors and devise a management strategy or activity to supply the missing component(s).

continued on page 8

Attracting Woodland Wildlife (continued from page 8)

Always work with nature in a manner that complements natural succession rather than attempting to overpower it. Once experience breeds confidence, the complexity and investment of time and effort can increase to address more demanding goals. An example of a relatively high-success, low-input habitat improvement project is the building of bluebird houses. Most "bluebird" project references describe the habitat needs of bluebirds and provide some excellent construction designs for safe, species-specific houses. Projects involving the creation of water or wetland habitats are usually moderately complex and "expensive," but often bring immediate, dramatic, and rewarding results as a different wildlife community moves into the newly established ecosystem.

Finally, perhaps the most ambitious and challenging endeavor is coordinating sawtimber management and eventual harvests with wildlife management goals. The scale of the operation and the magnitude of change will bring about a significant change in the appearance of the woodlot and its suitability for various wildlife species. Still, the change can bring about some great opportunities to diversify woodland vegetation (age, size, species, vigor, spacing, and form), and thereby provide a variety of habitats suitable to more wildlife species. Also, many wildlife species depend on several successional stages through their life cycle and seasons. As an example, wild turkeys benefit greatly from having a combination of open fields, brush, and mature woodlots composed of mixed hardwood species in their home range.

Summary

- Get to know the life cycle and habitat requirements of wildlife species of interest.
- Understand your forest holding and adjacent ownerships to judge the area's habitat suitability for species of interest.
- Identify habitat-limiting factors that seem to be restricting population growth of desired wildlife species.
- Start with relatively sure-fire, low-input management practices to gain confidence.
- As practices become more complex and demanding, learn to work with nature toward achieving your goals.
- Plan and work diligently toward achieving successful regeneration, as changes in vegetation composition will influence your forest for decades.
- Set goals that are compatible and complementary, such as timber harvests that create new habitat for desirable wildlife species and provide other attributes such as access roads, scenic view, wildlife-observation locations, and funds for management equipment.

Gary R. Goff is MFO/COVERTS Program Director and Extension Associate, Cornell University.

Suggested Resources*

Bluebirds in New York. Silverman, B.G. and M.E. Krasny. 1989. 4-H Member's Guide. 21 pp. Cornell Cooperative Extension, Dept. of Natural Resources, Fernow Hall, Ithaca, NY 14853. $2.50. (607/255-2814)

Enhancing Wildlife Habitat: A practical guide for forest landowners. Hobson, S.S., J.S. Barclay, and S.H. Broderick. 1993. NRAES-64. 172 pp. NE Reg. Agr. Eng. Service, Cornell Cooperative Extension, 152 Riley-Robb Hall, Ithaca, NY 14853. $30.00. (607/255-7654)

Enhancement of Wildlife Habitat on Private Lands. Decker, D.J. and J.W. Kelley. 1998 (rev.). IB #181. 42 pp. Cornell Cooperative Extension, Distribution Center, Ithaca, NY 14850. $7.50 (607/255-2080)

Managing Small Woodlands for Wildlife. Gutierrez, R.J., D.J. Decker, R.A. Howard, Jr., and J.P. Lassoie. 1987. IB #157. 32 pp. Cornell Cooperative Extension, Distribution Center, Ithaca, NY 14850. $3.00. (607/255-2080)

Managing Woodlands for Wildlife. Baughman, M., J. Kitts, and L. Wenner. 1993. Item #VH-6214-GG. 24-min. video. Univ. Minn. Extension Service Dist. Center, 20 Coffey Hall, 1320 Eckles Ave, St. Paul, MN 55108-6069. $35.50. (1-800/876-8636 or 612/625-8173)

Wildlife Notebook: Sketches of selected wildlife in New York. Decker, D.J. 1988. IB #210. 76 pp. Cornell Cooperative Extension, Distribution Center, Ithaca, NY 14850. $5.50. (607/255-2080)

Wildlife and Timber from Private Lands: A landowner's guide to planning. Decker, D.J., J.W. Kelley, T. Seamans, and R. Roth. 1988. IB #193. 55 pp. Cornell Cooperative Extension, Distribution Center, Ithaca, NY 14850. $5.50. (607/255-2080)

**All prices include tax, shipping and handling. Make checks payable to either "Cornell University" or "University of Minnesota."*

Internet Resources

The Forest Landowners Guide to Internet Resources: States of the Northeast
www.na.fs.fed.us/pubs/misc/ir/index.htm

www.forestryindex.net

WANTED: A FEW GOOD PEOPLE

HUGH O. CANHAM

The Nominating Committee of NYFOA is looking for suggestions for people to nominate for the Board of Directors. This year we have five positions to fill, four from people whose terms are expiring and one to fill an early resignation.

The New York Forest Owners Association (NYFOA) is an organization of people; private forest owners and others committed to the future of New York's millions of acres of private forest land, over half the land area of the State. The governing body is the Board of Directors, volunteers who have stepped forward to guide NYFOA. There are 12 directors elected statewide, and directors designated by each of the 11 Chapters.

The Board meets four times a year. Board members serve a three year term and can be re-elected for a second term. After that a person must be off the Board for at least one year if they desire to run again.

The Board should be composed of people with expertise and interest in one or more of the functional areas that the Board works with: *Finance, Long-Range Planning, Landowner Outreach, Program, Public Relations, Public Policy, Youth Education, Editorial,* and *Nominating*. NYFOA has a strong set of very active Chapters, each with chapter boards or steering committees, strong leadership and very good ongoing programs. The statewide Board looks beyond the individual chapter region and deals with statewide issues and concerns such as: building the membership, effective contact with public policy-makers, innovative ways of educating the 250,000 private forest owners in the State, and others.

Getting qualified people on the Board is vital to continuing the life of NYFOA. Different people bring new ideas, more talent, and diverse forest owner objectives. Directors need to be willing to speak-up, committed to the mission of NYFOA, and have some expertise and interest in one or more of the needs of NYFOA.

How can you help? Talk to a fellow NYFOA member and suggest someone for nomination to the Board. The Nominating Committee will consider all suggestions and form a slate in keeping with the objectives and current needs of the Board. The final slate of nominees will be listed on a ballot in the January-February issue of the *New York Forest Owner* for voting by the membership. Good people are all over, the trouble is we do not always know about them. Help is always needed. Even if your suggestion is not used for a Director nominee, it may still be useful. An equally important task is giving help and direction to one of the many NYFOA committees and in Chapter leadership.

Send suggestions for board members to Hugh Canham at SUNY College of Environmental Science and Forestry, One Forestry Drive, Syracuse, NY 13210; email: *hocanham@esf.edu*, or telephone, office: (315) 470-6694, home: (315) 457-4972.

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

In This Case, Talk is Far From Cheap:
A Landowner's Role in Extension and Outreach

JOHN MUNSELL AND RENÉ GERMAIN

Imagine that you, and a few other folks, are responsible for communicating information to roughly a half-million people spread out over an entire state. You have limited resources, limited time and a wealth of information to pass on. Sound difficult? It gets worse. Also imagine that the number of people you are trying to reach continues to increase. Forestry extension and outreach specialists in New York State continually face this challenge. As a forestland owner, you may be in a position to help.

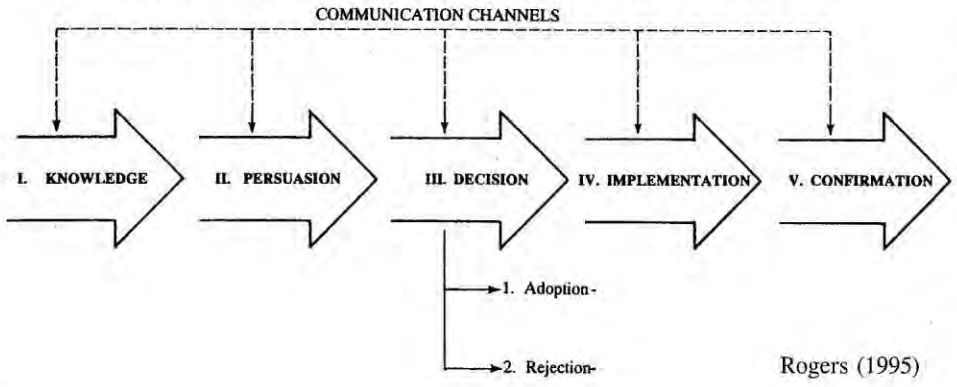
New York State has approximately a half-million forestland owners. Given the seemingly endless migration of people to the rural landscape, one can safely predict that the number of forestland owners will increase. How do our extension and outreach programs spread the "good word about forestry" to the growing pool of forestland owners? This daunting task calls for a science-based approach referred to as *Diffusion of Innovations*. Initially developed for the agricultural sector in the 1950's, *Diffusion of Innovations* is proving quite effective in the forestry sector.

Diffusion of Innovations is defined as the process by which an *innovation* is *communicated* through certain *channels* over *time* among the members of a *social system* (Rogers, 1995). In basic terms, it is how a new idea, concept, or practice spreads throughout a target group of people. Many forestry extension and public outreach programs, which seek to spread new ideas, concepts and practices among the forestry community, have designed their methods based on the *Diffusion of Innovations* theory. Specifically, the *Innovation-Decision* continuum, a diffusion model, is helpful in understanding the adoption process of new ideas, concepts and practices.

The *Innovation-Decision* continuum is defined as: The process through which an individual passes from (1) first knowledge of an innovation, (2) forming an attitude toward the innovation, (3) a decision to adopt or reject, (4) implementation of the new idea, and (5) confirmation of this decision (Rogers, 1995). By applying this continuum in forestry extension and outreach we are able to better understand and measure the adoption of new ideas, concepts and practices among the forestry community. Take, for instance, forestry extension efforts to promote the use of Best Management Practices (BMPs) for water quality among private forestland owners. Using the *Innovation-Decision* continuum, forestry extension and outreach programs can gauge the adoption of BMPs among private forestland owners and, more importantly, identify strengths or weaknesses in their diffusion effort. This is possible by analyzing each component of the *Innovation-Decision* continuum. For example, if some private forestland owners have not received enough information about BMPs, they will lack sufficient knowledge to progress further along the continuum. Consequently, their rate of BMP adoption may not meet expectations. Forestry extension and outreach programs can use this insight to increase time and effort spent towards improving their BMP information campaign.

This fancy theory stuff is all very impressive, but as a forestland owner you may be asking "why is it important to me?" It is important because forestland owners, like you, have a vital role in spreading forestry innovations. Remember that you are one of a half-million. There are only so many forestry extension and outreach specialists to communicate the "good word about forestry." In particular, one method for forestland owners to spread the word about forestry is identified in *Diffusion of Innovations* as interpersonal or word-of-mouth communication.

A Model of Stages in the Innovation-Decision Process



Rogers (1995)

Word-of-mouth communication occurs frequently in our lives. For example, we might use a particular barber or baby-sitter based on a friend or family member's recommendation, or buy a new item that a colleague advocates. On a larger scale, word-of-mouth communication can also bring about change in behavior and thinking among groups of people. This is particularly true when these groups of people share a common trait or interest – such as owning forestland.

Communication networks among forestland owners can help facilitate the adoption of new forestry practices and concepts. Forestland owners tend to trust other forestland owners. Because of this, extension and outreach programs rely on knowledgeable forestland owners to assist in spreading up-to-date information. The effectiveness of this word-of-mouth communication is tough to match. Therefore, it should be every forestry extension and outreach program's mission to encourage as much communication among forestland owners as possible. Cornell Cooperative Extension's Master Forest Owner/COVERTS program stands as an example of word-of-mouth communication in an extension and outreach program.

The Master Forest Owner/ COVERTS program sponsors forestland owners who desire to learn more about new and innovative forestry practices. The three and a half days of education and training are available cost-free to interested forestland owner. The only cost, per se, is the program's request that graduates communicate their newly found knowledge to other forestland owners. The participation of forestland owners in word-of-mouth communication is not confined to this program alone.

As a member of the New York Forest Owners Association (NYFOA), it is possible for you to participate in the forestry extension and outreach process as well. Because of your membership, you receive a wealth of information about topics related to you and your forestland. However, many other forestland owners in New York State are not members of NYFOA. As a fellow forestland owner, you are the most effective tool for communicating the benefits of NYFOA membership and, therefore, increasing the likelihood of other forestland owners to join. With more members, NYFOA becomes more effective in communicating new ideas, concepts and practices related to New York's forestland owners.

In conclusion, the expanding number of forestland owners in New York State increases the challenges faced by our State's extension and outreach programs. In order to improve their ability to reach more forestland owners, these programs have drawn upon science-based theories – such as *Diffusion of Innovations*. Though one may think that these intricate, science-based theories might create a division between extension specialists and forestland owners, in fact the theories promote a closer, collaborative effort between the two. As a NYFOA member and knowledgeable landowner, your collaboration in the forestry extension process is highly desired. A simple place to begin is for you to communicate NYFOA membership benefits to fellow landowners. However, the process does not end there. You have the credentials necessary to pass on, in the most effective way, all of your forestry knowledge to other forestland owners. Are you ready to spread the good word about forestry?

John Munsell is a graduate student and René Germain an Assistant Professor at SUNY-ESF in Syracuse, NY.

Literature Cited

Rogers, E.M. 1995. *Diffusion of Innovations*. 4th ed. New York: The Free Press.

Matching Grants:

A New Source Of Funding For Expanded NYFOA Programs.

Many corporations and institutions offer Matching Grant programs to their active and retired employees. Under these programs, the employer will match contributions made by an employee or retiree to a "qualified" tax-exempt educational or charitable organization. Eligibility criteria vary by employer, but IBM and Phillip Morris have recently qualified New York Woodland Stewards (NYWS) to receive matching grants under their respective programs.

Since NYWS is the fund-raising arm of NYFOA, this development directly supports our plans for increasing services to our membership. If you are a current or retired employee from a company that offers a Matching Grant program, please consider NYWS in your annual contributions budget. Send your company's Matching Grant application form along with your check to the NYWS, PO Box 180, Fairport, NY 14450, and NYWS Treasurer Phil Walton will handle the initial qualification procedure. After your company has qualified NYWS under their program, subsequent applications for matching grants are a simple matter. As additional companies join IBM and Phillip Morris in qualifying NYWS, we will list them in subsequent issues of the *Forest Owner*. What a great way to leverage your support for enlightened forest stewardship!

Woodlot Calendar

November 8, 2001 (Thursday) The NYFOA CNY chapter, Madison County CCE and DEC are sponsoring a presentation on Quality Deer Management by DEC Biologist David Riehlman. The presentation will outline the roles of hunters, farmers, and woodlot owners in stabilizing the whitetail deer herd in New York. It will be held at the Morrisville CCE Agriculture Center at 7:00 pm. For more information contact John C. Druke at (315) 656 2313 or jcdruke@twcny.rr.com

Nature Conservancy to Set Up Forest Bank

HONAKER, Va. – Blazing once-unthinkable trails, the nation's largest private conservation group is going into the logging business.

Long the bane of environmentalists, logging is now considered by some a necessary approach to save regions like the Clinch River Valley, one of the biologically richest watersheds in the country. On those hills grow about 1.2 million acres of valuable woods like oak and hickory. The problem: Much of the valley is owned by small timber owners unschooled in ecologically sustainable forestry.

In a bid to gain control of the large tract with its multiple owners, the Nature Conservancy received approval from the Securities and Exchange Commission to set up Forest Bank LLC, a company that will allow timber owners to "deposit" their logging rights in return for an annual dividend of about 4 percent on the appraised value of their trees. To come up with the dividend, the conservancy will harvest the timber using ecologically sound practices. By 2007, the Forest Bank hopes to sign up to 15,000 acres.

To get the Forest Bank off the ground, the Nature Conservancy, based in Arlington, Va., is providing about $1.5 million in cash and services over the next five years, according to the SEC filing.

Conservation easements rest on the assumption that forest-products companies have the resources to practice sustainable forestry and are also under intense public and market pressures to do so. But such skills and environmental sensitivity are not the norm for many of the nonindustrial private landowners who own about 60 percent of the nation's forestlands. The cultural and environmental challenges these landowners pose to the sustainable forestry movement is being played out in the Clinch River Valley.

Located in central Appalachia, the Clinch River Valley has an economy long dependent on the coal industry. But as coal-mining jobs have fallen, miners have turned to logging, according to Appalachian Sustainable Development, an economic-development agency in the valley.

Untrained in the ways of sustainable forestry, these loggers often rely on techniques that eliminate certain tree species. Favored methods are clear-cutting – clearing all the trees in an area – and "high-grading," a process that takes the most valuable trees in an area and leaves the landowner with a worthless crop.

Unsound forestry also threatens the river system, which is home to about 100 species of fish and the nation's largest population of endangered freshwater mussels, which have descriptive local names like "fine-rayed pigtoe," "rough rabbit's foot" and "spectaclecase." The rains wash sediment off the stripped hillsides and into the river, where it buries the mussels alive.

Property owners participating in the Forest Bank are defined as "partners" who buy "membership units." To join, they must contribute at least 20 acres and have their timber appraised by the Forest Bank, according to the SEC filing.

Landowners can buy one membership unit for every dollar of timber they contribute. Depending on the class of membership – there are three – a landowner will receive 4 to 4.50 cents on the dollar annually.

"It's one of the most creative approaches to helping forest management on private nonindustrial lands that I've seen," says Catherine Mater, a senior fellow at the Pinchot Institute for Conservation, a think tank in Washington, D.C.

Still, the Forest Bank will be a hard sell in a region where cultural identity is rooted to the land. Forest Bank members essentially give up the rights to their property and will have "little or no rights" to manage the company, according to the SEC filing. In addition, landowners can't leave the Forest Bank by buying back their membership units. The landowners' sole power is to fire the management team if it fails to deliver payments for two consecutive years.

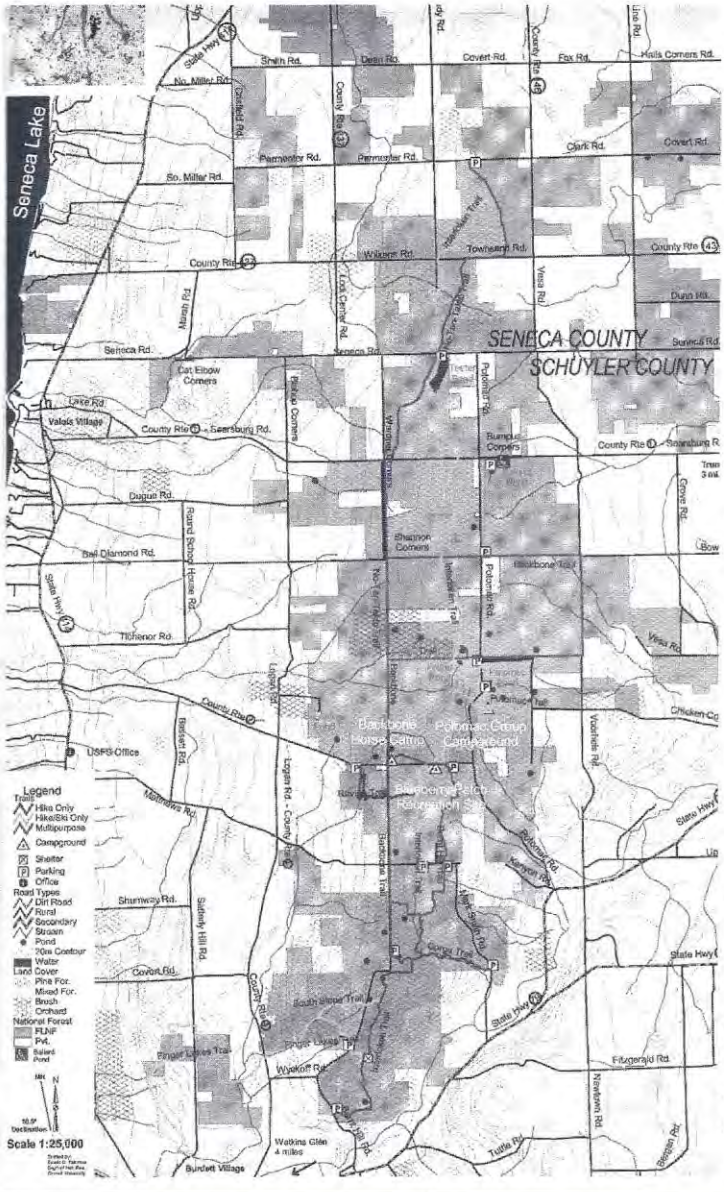
This article originally appeared in the NYS DEC "Watershed Forestry" newlsetter, Vol. 1, No. 4, October 2001 issue.

Finger Lakes National Forest

Henry Kernan

Up-to-date maps of our national forest system now show a tiny green dot between Lakes Seneca and Cayuga in Western New York. The dot gives notice of the Finger Lakes National Forest, whose 16,176 acres were, within living memory, abandoned as nearly useless for farming. They have since so prospered as forest, range and land to which people come to hike, fish, camp and hunt and have received by an Act of Congress a separate and permanent status as a national forest. They lie scattered along the uplands between the lakes and form the Hector Ranger District, the single district of the Forest. They are an administrative unit of Vermont's Green Mountain National Forest.

As an instance of the multiple uses of forest land under federal ownership and management, the Finger Lakes has much to offer of interest and instruction. Most national forest lands were reserved from the public domain and had little evidence of human use. Those purchased in the east had had agricultural rather than forest use.



The history of the Hector Hills began when militiamen of Generals Clinton and Sullivan marched into western New York against the Iroquois who were siding with the British. The soldiers destroyed villages and crops but must have liked what they saw of the landscape. By the 1790s they were back, on grants of 600 acres each, clearing off the forest and plowing the soil. Their crops of hay and grain made them what passed for a living on the frontier.

But those pioneer conditions were hard on the people and hard on the land. Their horse-drawn, lamp-lighted farming was drawing to a close after a century and a half. Throughout the state were millions of worn-out farmland, useless and idle.

In the 1930s, the New Deal's Federal Resettlement Administration bought whole farms in what became the Hector Land Use Area from those willing to exchange what had become lives of poverty and drudgery for a new start elsewhere. The selective buying from willing sellers accounts for the scatter-pattern of ownership of the federal lands.

The Soil Conservation Service first managed the land so bought and applied measures also evident today, red pine on the poorer soils and pasture elsewhere. The spontaneous re-growth of hardwoods is replacing the red pine, now of sawlog size. For nearly 60 years the Hector Cooperative Grazing Association has used and helped maintain the pastures, which are now about one-third of the Finger Lakes National Forest.

By the mid-1950s the Soil Conservation Service had largely completed the work of tree planting and soil erosion control. The U.S. Forest Service took over, tentatively. Something of a crisis took place in 1982. "Experts" of an "Assets Management" program thought the Forest's dispersed pattern inefficient and the location within an agricultural landscape inappropriate. They suggested that the outlying exclaves be sold. Local protest squelched the proposal.

Soon thereafter the Hector Range District received the present further designation as a national forest and a permanent part of the system by the act of Congress.

In fact the Forest's dispersion and location between two comely lakes in a well-cultivated and well-peopled part of the state encouraged use of the resources. The pastures are convenient for stockmen. There are 36 miles of trails for use on foot, hoof and ski but not on wheel. There are 56 ponds and five acres of blueberries for public picking. There are three campgrounds and dispersed camping throughout the forest. Mowing and controlled fires keep the shrub cover on 1,800 acres for the diversity of wildlife. Reminders of the long-gone farm days are the apples and now wild fruits abundant in openings.

As farming ended in field after field, the native hardwoods spread out from roadside and boundary trees and from the woodlots retained for firewood and maple sap. They now cover about 9,000 acres. They are still managed principally to improve the health of the forest and to favor those species with more value for timber, wildlife and visual qualities.

The vocation of the Finger Lakes National Forest is thus quite different from those of most others. The Hector Hills ceased to be wilderness two centuries ago. They have no old-growth timber, no endangered species, and almost no unmanageable risks of fire, all the subject of controversy elsewhere. Here, where not long since were rural slums, is now an enviable medley of public and private land, under forest, range, crops, water, trails, roads and campgrounds. The public evidently approves. Volunteers care for the campgrounds and trails, and in other ways show support through the Friends of the Finger Lake National Forest.

Henry Kernan is a consulting forester in world forestry, a Master Forest Owner and a regular contributor to the Forest Owner.

Aquatic Insects: Important Members of a Forest Community

DOUGLAS C. ALLEN

Insects are amazing animals for several reasons, but one of the most fascinating traits many of them share is the manner in which some families have adapted to living in aquatic systems. Aquatic forms occur in approximately one-third of the major insect groups (Orders). Each has evolved specialized structures and behavior allowing them to use water as a medium for feeding, mating, dispersal or a combination of these activities.

Most people associate common forms such as dragonflies, damselflies, mosquitoes, and black flies with water. Generally, however, they have little knowledge of their habits and are unaware of the many other types of insects that may reside in the stream that passes through their wood lot or that reside in the pond out back. On the other hand, some of our most astute aquatic "entomologists" are fly fishermen! The latter often must select a lure based on a knowledge of which insects are currently active in and around an aquatic system.

Significance

The aquatic stages of many species are important bioindicators of water quality (presence or absence of chemical substances, amount of dissolved oxygen, acidity, etc.) and are symptomatic of the physical conditions of an aquatic system; water velocity, type of bottom sediment, water temperature, and so on. Aquatic insects constitute a principle source of food for many species of fish and vertebrate wildlife. Worldwide, certain aquatic forms are important as vectors of human diseases like malaria, yellow fever or, in our region, eastern equine encephalitis. Many are beneficial because they feed on the adult or immature stages of mosquitoes, blackflies and other annoying insects. In short, they play significant roles in the structure and function of many forest ecosystems.

Terminology

Entomologists use two different terms when referring to the immature stages of insects. The appropiate term is determined by the manner in which a group of insects (e.g., flies, beetles, grasshoppers) grows and develops prior to attaining the adult stage. "Larva" is used when the immature stage occupies a totally different habitat from that of the adult. Wings develop internally during the larval stage, and the larva is completely different in appearance compared to the adult (e.g., caterpillar *vs*

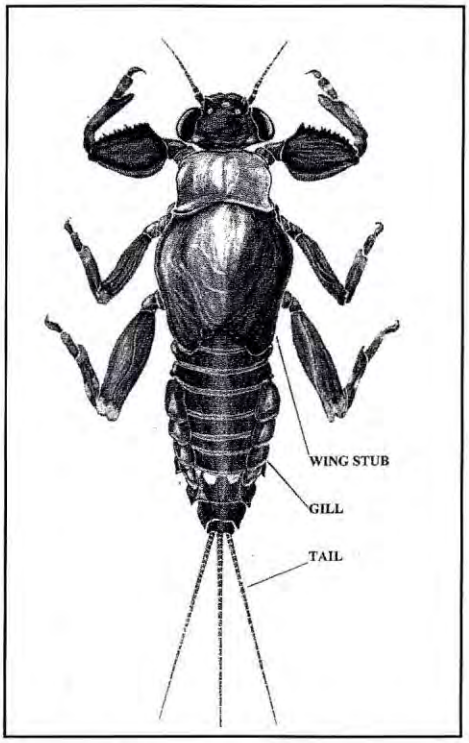


Figure 1 *Top view of a mayfly naiad.*

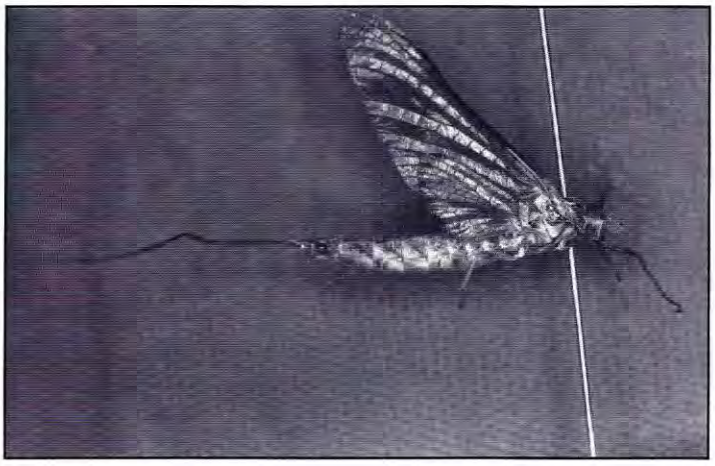


Figure 2 *Mayfly.*

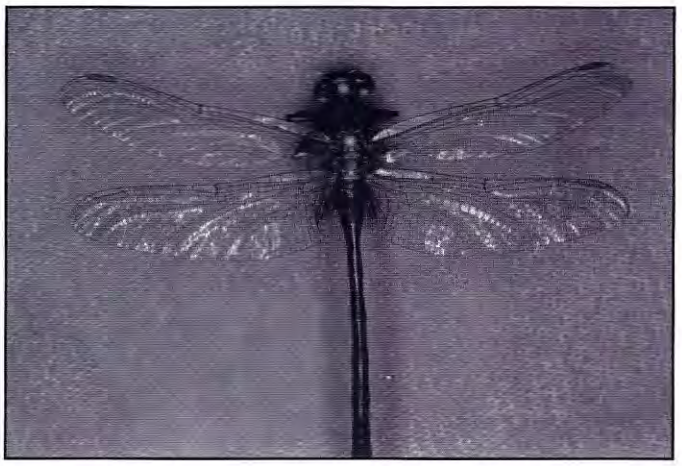


Figure 3 *Dragonfly.*

Figure 4 *Damselfly.*

butterfly). A "nymph" usually occurs in the same habitat as the adult and looks very much like the adult except it is smaller, sexually immature and its externally formed wings are not fully developed (e.g., grasshopper, cockroach, cricket). Aquatic nymphs are called "naiads" (nye-adds) and may look quite different from the adult. These true aquatic forms possess gills, which are outgrowths of the body wall (Fig. 1). These structures are very thin-walled and dissolved oxygen is able to pass from the aquatic environment through the wall into the insect's respiratory system.

Major Groups of Aquatic Insects

Mayfly adults are small to medium sized and delicate looking (Fig. 2). Their front wings are very large and triangular compared to the much smaller, rounded hind wings. All wings are net veined; that is, they have many cross-veins. Three (occasionally two) long, thread-like tails project from the posterior end of the body. At rest, mayflies hold their wings vertically. The immature stage or naiad completes development at the bottom of a stream or pond, after which it floats to the surface where it transforms into an adult. Adult emergence for each species is well synchronized. Consequently, when a "hatch" occurs large numbers may be attracted to lights at night and congregate on windows or the sides of buildings. Mayfly naiads eat plant material and very small invertebrates. They occupy a wide range of stream habitats, depending on the species; from swift moving water with a gravelly bottom, to streams of slower velocity with abundant submerged organic material.

Dragonflies and damselflies are familiar to most forest owners. Adults are large with conspicuous eyes, and their wings often possess attractive colors and markings. Wings are held horizontally (dragonflies) (Fig. 3) or vertically (damselflies) (Fig. 4) when at rest. Both the adult and the naiads prey on insects. After the naiad completes development in the bottom sediment of a pond or body of slow moving water, it crawls out of the water onto vegetation or some other substrate and transforms into the adult. The immature stages are highly predaceous on mayfly naiads and mosquito larvae.

Backswimmers, water striders, and **waterboatmen** are families of true bugs that spend their lives in and on water both as immatures and adults. The nymphs and adults use their sucking mouth parts to prey on small vertebrates (e.g., tadpoles, small fish) and other insects.

As their name implies, backswimmers travel upside down. Their long, wide hind legs are used as oars which allows both adults and nymphs to skim along the surface or swim under water for short periods (Fig. 5). Water striders have very long legs relative to body size and both immatures and adults live on the surface of the water. The body and "feet" on their middle and hind legs are clothed in long, hair-like structures that are difficult to wet and able to trap air. This allows them to skate or scurry across the water surface without sinking.

continued on next page

Aquatic Insects (continued from page 17)

Waterboatmen are also well adapted for swimming. Their sleek somewhat flattened body is equipped with middle and hind legs that are long, flattened and oar-like. Aquatic bugs are unable to breath underwater (therefore, they are called nymphs not naiads). Waterstriders and backswimmers do not need this capability, because they always remain on the surface. Waterboatmen are able to carry a bubble of air on the body or under their wings which allows them to breath for a short time when submerged.

Dobsonfly and fishfly larvae (called hellgrammites) are often used for bait by fishermen. The large, softbodied adults (usually 1.0 inch long) have large, net veined wings (one eastern species has a wing span of 5.0 inches or more) that are held roof-like when the insect is not flying (Fig. 6). Dobsonfly mandibles (mouthparts) are often modified and enlarged into tusk-like structures, quite fearsome to behold! When in flight, these insects flutter around awkwardly and slowly. Depending on the species, immatures live either beneath rocks in fast moving streams or in the bottom sediment of slow moving or still water. All are highly predaceous on other aquatic insects.

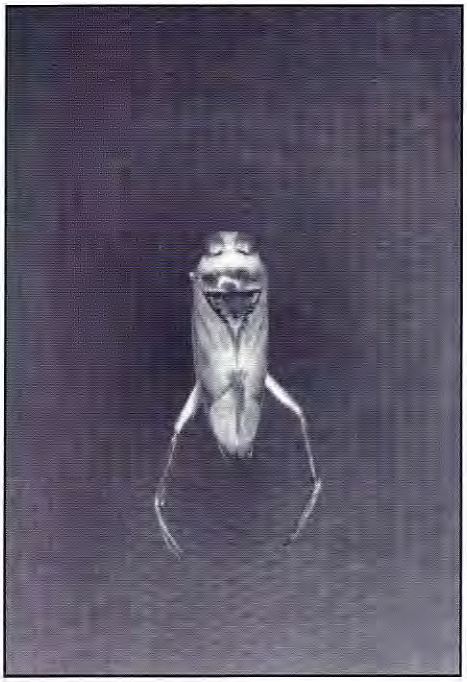


Figure 5 *Top view of a waterboatman.*

Caddisflies comprise one of the most interesting groups of aquatic insects. The dull colored adults are moth-like and usually covered with hairs. The wings are held roof-like when at rest. The larval or immature stages breath through gills and most species are caterpillar-like. Many species construct attractive tubular shelters (cases) from twigs, leaf parts or sand grains. Whatever material is used is held together by silk and has a shape and size characteristic of a species or group of species. Some forms construct nets of silk near the mouth of the case and snare food in this manner, others are free living predators that utilize neither case nor net.

Mosquitoes need no introduction to forest owners! The annoying adults are easily recognized and can be a real nuisance at certain times of the year. The larval stages, however, are less well known. They feed on very small food particles like algae and organic debris and, in turn, are an important source of food for a range of aquatic organisms. Like true bugs, the immature stages of most mosquitoes are unable to breath under water. They must come to the surface where they obtain oxygen through a siphon-like tube at the posterior end of the body. Typically, mosquitoes are associated with still or slow moving water.

Blackflies, on the other hand, are most commonly associated with fast moving streams. Larvae have a disk-like sucker on the ventral surface of the body that is used to attach the insect to a substrate, such as a rock or piece of submerged wood. They have peculiar mouthparts fitted with "brushes" used to filter very small invertebrates and organic material from passing water. The small adults are dark colored and appear hump backed. As most forest owners are well aware, the bloodsucking females can inflict a very painful "bite". When Louis Agassiz, the famed Swiss naturalist and founder of the Harvard Museum of Comparative Zoology, traveled in the Lake Superior region during the 1850s, he exclaimed that "neither the love of the picturesque nor the interests of science could tempt us into the woods so terrible were the black flies!"

Stonefly adults are soft bodied, distinctly flattened, have long antennae and a pair of short "tails" or filaments attached to the posterior end of the body (Fig.7). The latter are usually much shorter and more stout than the tail-like appendages of a mayfly. The naiad is also flattened and has long antennae and a pair of "tails." Naiads usually live in well aerated, clear water and are found beneath stones; hence, the common name. Stoneflies are plant feeders or predators, depending on the species.

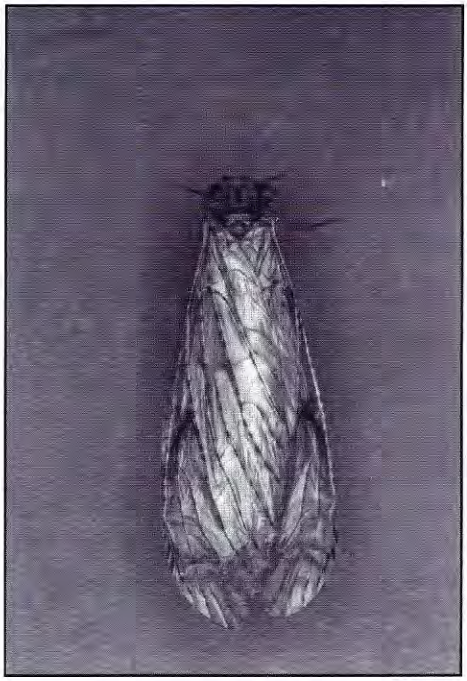


Figure 6 *Dobsonfly.*

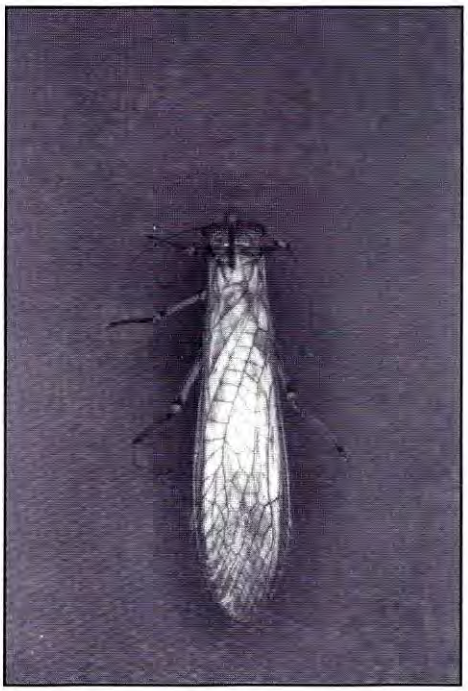


Figure 7 Stonefly.

Approximately 12 families of beetles are aquatic but the two groups probably most familiar to forest owners are the **whirligig beetles** and **predaceous diving beetles**.

The former are oval, black and tend to swim on the surface of quiet water in circles or endless gyrations. Movement is accomplished with distinctly flattened middle and hind legs. A unique characteristic of these beetles is the fact that they have two pair of eyes, one high on the head and the other on the ventral surface of the head. Most species are scavengers. Usually these beetles are associated with ponds or slow moving streams.

Diving beetles are very hard bodied, smooth and oval with hind legs that are flattened and fitted with hairs to facilitate movement in water. Unlike whirligig beetles, they are not restricted to the water surface. Diving beetles have the ability to store an air bubble beneath their wing covers (beetles do not use the front wings for flight, their function is to protect the more delicate hind wings that are used for flying), and this allows them to forage under water for extended periods. Both adults and larvae are highly predaceous. The larvae, called water tigers, are elongate and have hollow, sickle-like jaws that are used to suck out the body fluids of various aquatic animals, including other insects.

Figure 8 Predaceous diving beetle.

This is the 59th in the series of articles contributed by Dr. Allen, Professor of Entomology at SUNY-ESF. It is possible to download this collection from the NYS DEC Web page at: http://www.dec.state.ny.us/website/dlf/privland/forprot/health/nyfo/index.html.

NEWS & NOTES

Free Tree Booklet Available

The National Arbor Day Foundation has published a Conservation Trees Booklet. Topics include how to use shade trees and windbreaks to save energy; how to attract songbirds; how to plant the right tree in the right place; how to plant conservation buffers for streams; how to create living snow fences; the right way to plant trees; the right way to prune trees; and how to get conservation trees for planting. To get this booklet, send your name and address to Conservation Trees, The National Arbor Day Foundation, Nebraska City, NE 68410.

Updated Tax Guide

The updated version of Agriculture Handbook 718, "Forest Landowners' Guide to Federal Income Tax," is now available. This timely guide provides valuable information on financial and tax planning for forest landowners. Topics include property exchanges, casualty losses, conservation easements, self-employment taxes, alternative minimum tax for individuals, Christmas tree production, and a system for record keeping.

This guide is available to download free from the State & Private Forestry Cooperative Forestry website at *www.fs.fed.us/spf/coop/*. Click on "Forest Tax Guide."

The guide is also available for purchase $20 from the U.S. Government Printing Office, 202-512-1800 or *http://bookstore.gpo.gov*. After opening this page, go to "browse a topic," and choose "Taxes." The publication is listed alphabetically under "Forest Landowners Guide to the Federal Income Tax."

Chew on This

In a few years, your chewing gum or toothpaste may be sweetened with wood fibers. Yes, you read that right – wood fibers! Two University of Georgia scientists are studying the feasibility of making xylitol, a sweetener with anti-cavity properties, from wood fibers that are a by-product of paper production. Xylitol resembles table sugar and is equally sweet, but has fewer calories. The sweetener sells for about 16 times the price of table sugar. Finland, the world leader in xylitol production, makes the sweetener from the wood sugars found in birch trees. Scientists are hoping it also can be extracted from hardwood trees in the United States. Xylitol is found naturally in various fruits and vegetables, such as raspberries, strawberries and spinach, but the concentrations are too low for commercial extraction to be practical. The process is already being tested at one Georgia pulp plant.

Sludge Converted to Fertilizer

Paper-mill sludge is being turned into a rich useful fertilizer by a Montgomery County company. Mohawk Valley Organics is creating the fertilizer for use at ball fields, vineyards, and for sale at garden stores The Finch, Pruyn and Co, Inc. plant in Glens Falls supplies 200 tons a day of paper-mill residuals to the 75-acre Mohawk Valley site (which just opened in June) – a former dairy farm. The site is approved to handle 400 tons a day and plans to seek out other mills. New York state devotes $4 to $6 million a year to Empire State Development Corp.'s Environment Investment Program, which helps businesses involved in recycling, solid waste reduction and pollution prevention – Mohawk Valley received $250,000 from that fund. The actual composting process follows old biochemistry lessons and takes about three months to process.

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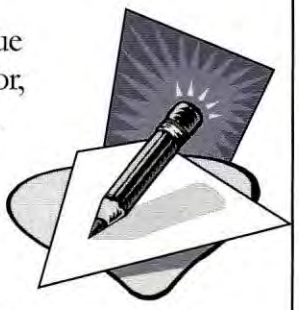
THE MARKETPLACE

MAGAZINE DEADLINE

Materials submitted for the January/February 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.



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