

NEW YORK'S FOREST AND FORESTERS: GLIMPSES INTO HISTORY

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This is a collection of articles that originally appeared in issues of the New York Forester, a publication of the New York Society of American Foresters (NYSAF) during the time the author served as Historian for the organization. They were developed to show members how the organization had changed over its 100-year life span, to show how events in and around New York State evolved to affect the forests of the State, and to entertain anyone inclined to read a short article. More extensive treatments of New York State, its history and geography exist elsewhere. It is hoped that these short articles can provide a brief look into New York history and perhaps stimulate further inquiry. Many other articles could be developed in each section, but these are the topics that I wrote about at a particular time, often spurred on by a particular issue that came up or discussion with other foresters or legislators.

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SECTION I: FOR AND ABOUT NYSAF



Changes in NYSAF over 100 Years

On April 25, 1915 ten members of the Society of American Foresters met at the Hotel Onondaga in Syracuse, NY to consider forming a section in New York State. Discussions about forming a New York section were ongoing for some time with strong opinions both pro and con. Those for forming a section argued that many foresters in New York could not attend national meetings and there was also a need for a focus on New York State issues. Those opposed suggested forming a larger, possibly multi-state section and delaying final action until opinions of all members in New York could be obtained. A vote was taken with all in favor, but no strong urgency expressed. Activity continued and by 1918 the New York section of the Society of American Foresters (NYSAF) was officially formed with Clifford Pettis as its first chair.

Over the last 100 years the NYSAF has grown and changed. The type of person joining changed as did the issues faced by the organization. In 1920 NYSAF had 34 members. By 1950 membership had increased to 417 and in 1985 membership increased to 624. Membership as of 2020 is around 380. In the 1980's the sections within the Society of American Foresters were changed to state, or multi-state societies. Accordingly, the New York section became the New York Society of American Foresters.

Early in the 1900's foresters in New York State were employed largely by the New York Conservation Department (renamed NYS Department of Environmental Conservation in 1971), private industry, primarily the larger pulp and paper firms and other large wood-using companies, and academia (Syracuse and Cornell). In the 1960's only 4 professional consulting foresters operated in the State (*from personal knowledge of the author*). For many decades, the Conservation Department foresters focused on acquisition and management (primarily reforestation) of state forest lands. Following passage of the New York Forest Practice Act in 1946, hiring by the Department increased and attention shifted to the private forest lands across the State. Salvage of hurricane damaged forests in the Adirondack Forest Preserve in 1950 also increased Department employment. Following the State fiscal problems of the 1970's hiring decreased and opportunities created for private consulting foresters. Today, membership consists of publicly employed foresters, those working for industry, private consultants, academia, and foresters with nonprofit organizations.

Students were always invited to NYSAF meetings, but few attended during the first 50 years. The last 40 years has witnessed a great increase in student attendance (from SUNY College of Environmental Science and Forestry, NYS Ranger School, Paul Smiths College, SUNY Morrisville, and others). This resulted from increased attention to student interests, recognition that the continued life of the

organization is dependent on newer, younger members, and formation of student chapters at the colleges. These shifts in membership also changed the emphasis placed on issues considered by NYSAF.

NYSAF has taken up two types of issues over the last 100 years, technical and policy. Rebuilding the forestry community following World War I became a chief item of concern after formation of the section in 1918. A similar concern followed World War II in the late 1940's.

Passage of the Hewitt Act by the New York legislature in 1930 led to massive reforestation on state-acquired abandoned farmlands. Methods of tree planting, characteristics of different species, and combatting difficult spring weather were of particular concern. Following enactment of the Forest Practice Act in 1946, issues included how to motivate private landowners to manage their lands, efficient ways of measuring timber, and preparation of management plans. Free tree seedlings were distributed by the State in the 1950's and early 1960's to cooperating landowners. A question raised by NYSAF and debated at meetings was, "what was the Forest Practice Act for."

The forestry profession has embraced new technologies and sessions at NYSAF meetings have included more of these. In addition, more emphasis has been placed on effective communication by foresters, dealing with local government, and other human resource technical skills. A question that arises is "Is it appropriate for NYSAF to engage in anything that might look like lobbying?" NYSAF's current position is that providing information to legislators is appropriate but taking a stance on any proposed bill must be carefully done. As membership diversity increases it becomes more difficult to achieve complete agreement on many issues.

From its beginnings until the 21st century two statewide meetings have been held each year. Summer meetings concentrated on field trips and rotated around the state. Winter meetings, while rotating around the state for many decades finally settled on Syracuse as a central location. Attendance at summer meetings was always lower than at winter meetings and with local chapters conducting field-oriented sessions the need for statewide summer meetings declined and ceased in 2001. Our state society has been active at the national level, hosting several annual national meetings in 1937, 1956, 1974, 1987, and 2002.

NYSAF has grown in members over the years and more importantly, in the diversity of its members. Members are often affiliated with other professional groups with issues and concerns overlapping. Joint meetings have been held with organizations such as the Wildlife Society, New England SAF and at the local chapter level, with the New York Forest Owners Association. In addition, NYSAF was a member of the New York Coalition of Forest Resource Organizations during its brief existence in the early 21st. century.

One of the enduring aspects of NYSAF is its function as an effective social network mechanism. Social networks of course, were not invented with the internet or electronic social media. Every organization can be an effective way for members to learn from each other and to share personal and professional information. One need only stand around at NYSAF meeting coffee breaks to witness the spirited discussions and connections our organization fosters. For many years after its formation in 1945 the *New York Forester* featured news from around the State featuring the activities of foresters from various regions. The publication featured both personal and professional information.

What lessons can we learn from our NYSAF history? Several things are evident. First, the organization must change and evolve as society and the forest changes around us. Second, members will

be attracted to the organization if they see personal gain. Once people joined organizations (churches, fraternal groups) out of a sense of “one ought to do this”. Today the social scientists tell us that it is more of a “what’s in it for me” attitude. Third, networking with other groups is vital if NYSAF wishes to advance its professional agenda. The process of meeting and interacting with people with different agendas produces enlightenment for both parties. Finally, in today’s complex world, there is a great need for professionals to come together. NYSAF has served that need for 100 years, and with energetic and devoted members, can continue to thrive for the next 100 years.

Birth of the New York Forester Magazine

The Society of American Foresters was formed in 1900. In 1918 the New York Chapter (now the New York Society of American Foresters) started. And in 1944 our magazine the *New York Forester* was started. The first issue (Volume 1 Number 1) came out in April 1944. A standing committee of six people, geographically distributed within the State, was set up to collect information and handle publication. The editor for the first two issues was Ralph Hosmer, at Cornell University, followed by R. Milton Hick, district forester, NYS Conservation Department, at Oneonta. Publication was handled by Ralph Hutchinson, Secretary-Treasurer of the New York section, at the New York State College of Forestry at Syracuse. For many years, the magazine came out bimonthly in a typewritten format. The purpose of the *New York Forester* was stated as, “fostering a spirit of comradeship among foresters” and to “disseminate a knowledge of the achievements of forestry.” It also kept members of the Section in close touch with one another and informed about happenings and trends in forestry in New York State, and the Northeast. It was a regional supplement to the existing *Journal of Forestry*. (*Material taken from the April 1944 issue*).

It is extremely enlightening to browse through these early issues and get a glimpse at what life was like 60 years ago. The annual meeting of the New York section in 1944 was held in Albany and “between 60 and 70 men were in attendance.” One of the important procedural matters decided at the meeting was to alternate winter meetings between Albany and Syracuse with summer meetings across the State. (*Author’s note: The summer/winter meeting schedule continued until 2001 when it was decided to have just one statewide winter meeting with chapters holding meetings at other times at their discretion.*)

A second motion put forth at the 1944 meeting by “James D. Pond, on behalf of a group of the younger members” stated in part that the New York section of SAF “goes on record as favoring a constitutional amendment to Article XIV of the State constitution to permit scientific management of the Forest Preserve.” A highly animated discussion seems to have followed and several older members urged delay and further study, but the motion carried 26 to 21. (*Author’s note: However, at a subsequent meeting it was agreed to delay any further action on this item.*)

World War II was very much on the minds of, and influencing, foresters during 1944. The federal Timber Production War Project promoted lumber and wood products manufacturing to aid the War effort. Manpower shortage was a major obstacle to production. In the first issue of the *New York Forester* mention was made of using German prisoners of war (about 1000) at Pine Camp (*Author’s note: now part of Fort Drum*) for woods work and St Regis Paper Co. indicated it might use 200 prisoners on their lands around Croghan.

News from around the State was a major feature of the *New York Forester* for many decades. Again, in 1944 much of the news concerned men absent due to World War II. However, other items now almost forgotten, were mentioned. Blister rust work through Ribes eradication was taking place across the State (*White pine blister rust*). Spring planting was also in full swing on state-held reforestation lands with hundreds of thousands of various coniferous species planted.

Extractive or exploitive logging was mentioned in several regions around the State. Correspondents stated that landowners had little interest in growing timber as an investment and would rather liquidate. It was advocated that foresters draft legislation to make timber growing an attractive investment. From Warren County, Cliff Foster, at Pack Forest, stated "It is my considered judgement that we have in eastern New York today all the necessary elements to make timber growing a feasible business undertaking for private capital, except legislation which will ensure reasonable taxation and provide low interest loans for financing improvements. If the foresters are unable to make feasible and practical recommendations to correct the trouble is there any hope that it can be corrected by anyone else." (*Author's note: One wonders if things have changed much over the last 77 years!*)

50 and 60 Years Ago (from 2007); News from Around the State

For many years, each issue of the New York Forester carried a series of short articles reporting on events happening around the state. These articles contained notes of what different people in forestry were doing and important events in the area. It is interesting and perhaps instructive to review some of those columns for the years 1947 and 1957.

For May 1947, the Albany area news, reported by Ed Littlefield (supervising forester with the Conservation Department and later Director of the department's Division of Lands and Forests) reported that 12 and half million tree seedlings were shipped out of state nurseries this spring with six million going to state land and six and a half to the public. The "Postwar Program" on state forests was well underway and many districts reported large amounts of tree planting and thinning of plantations planted in the 1930's.

Milt Hick, then editor of the New York Forester (and District Forester for the NYS Conservation Department in Oneonta) penned an editorial bemoaning the lack of markets for wood. He pointed out that the NYSAF had recently completed a program aimed at better forest management practices, but utilization efforts were lacking. Paper firms were clamoring for fiber, but he did not see much activity in central New York and called for the NYSAF to establish a committee on markets and marketing of forest products. Cliff Foster, then Director of the College of Forestry Pack Demonstration Forest at Warrensburg reported that a two-man truck mounted sawmill capable of producing 500 board feet of lumber per hour from 8-foot pine logs was in operation on the Forest. On a related note, Harry Holcomb, Conservation Department Blister Rust leader in Malone, reported that White Pine there was being heavily cut for pulpwood and that he had sawn a bolt of Scots Pine and found the lumber quite good. He was advocating using Scots Pine lumber for crates needed by the large number of potato and other vegetable growers in northern New York. Josh Cope (then Extension Forester at Cornell) reported that he felt that ash was our most valuable hardwood and that grown on good moist sites it will do well. He felt that western New York offered excellent sites for growing white ash.

Reorganization of the Otsego Forest Products Cooperative was noted in the August 1947 issue. The loan from the U.S. Government had been satisfied and the Co-op was wholly owned by the members. Interestingly, 10 years later in the August 1957 issue of the NY Forester it was reported that Bob Williams (who was the last forester to work for the Otsego Forest Products Co-op. which closed in 1962) had just left and joined the Conservation Department as forester.

Also reported at the end of the August issue was an important notice that the NYSAF Executive Committee will propose at the summer meeting that the NYSAF by-laws be changed increasing dues for NYSAF from the present level of \$1.00 per year to \$1.50 per year.

Moving ahead to the May 1957 issue of the NY Forester one sees a report from the newly formed "Museum Committee". This committee chaired by John Curry (forester with Whitney Industries) was formed to provide liaison with museums interested in forestry and the forest industries. It was noted that the main buildings of the Adirondack Museum at Blue Mountain Lake were nearing completion and would be open to the public this year.

Bill Petty, correspondent for the Adirondack area, noted that Don Peterson, formerly district forester with Hammermill Paper Company joined the staff of Adirondack Forestry, Inc. working with owner Dave Strong. Don later took over the firm and remained one of our active "senior" NYSAF members for many years.

Big changes were reported by Milt Hick for the Oneonta office of the Conservation Department. Charlie Boone, who was then editor of the New York Forester was promoted to Supervising Forester in Albany. (Charlie subsequently served as head of the Bureau of State Forests and then of Fire Control. After retirement he continued to be active in NYSAF for the rest of his life.) Fred Johnson transferred in from the Jamestown office. (Fred worked in Oneonta for many years, then was promoted to District Forester in Lowville.) Meanwhile Charlie Kresge was promoted to District Forester in Bath. (Charlie had been one of the original "Farm Foresters" working with the federal government who were then incorporated into the Conservation Department, with the advent of the Forest Practice Act in the late 1940's.)

From the Black River area Al Roberts (later to be District Forester in the Cortland office of the Conservation Department) writes that Dick Lea was a newcomer to the area serving as the area manager for Diamond Match Co. and is buying red and white pine pulp for the Ogdensburg mill. This finally provided a market outlet for plantation thinnings in the area. (Dick worked with Diamond for many years then came to the College at Syracuse, ESF, where he was on the faculty teaching various courses until his retirement.) Also reported was that the Army has finally set up a permanent forester position at Camp Drum (now Fort Drum) and Ralph Petrie who had worked for Draper Corp. out of Tupper Lake will be the forester. Plans call for selling about a million board feet of hardwood stumpage per year. Paul Zang (active NYSAF member) was the post forester for many years after Petrie.

From Cornell University Larry Hamilton reported that Cornell had completed its first maple syrup operation under leadership of Bob Morrow (he and Larry were faculty members at Cornell). For the Syracuse area Ray Benson (Onondaga County forester) reported that the Longhouse Chapter had a dismal attendance at its chapter meeting and was considering disbanding the chapter. (Chapters in NYSAF have undergone many "ups and downs" over the decades and happily they are flourishing at present.)

Publicity 65 Years Ago

An interesting report by the NYSAF Publicity Committee appeared in the New York Forester on May 1956 (Vol. XIII No. 2). To read it is very instructive. The highlights of the report are reproduced here in the hope that it might spur more publicity efforts today.

The objectives of the Committee were: 1. Getting the public better acquainted with professional foresters and their work; 2. Making better publicity use of committee reports and papers presented at section meetings; 3. Getting out information regarding professional forestry throughout the year; 4. Completing summer and winter meeting programs two months in advance to permit fuller planning for newspaper, radio, and T.V. coverage.

Activities of the Committee included newspaper articles, radio, and TV. Curt Bauer arranged for a release of Ed Littlefield's "Growing Douglas-fir in New York" in the New York Christmas Tree Growers Association and a condensed version in the Chautauqua Farm Bureau News. Floyd Carlson and Charlie Baker prepared a story for the membership on the summer meeting and a press release on the Longhouse chapter meeting of October 20. The committee prepared two state-wide press releases on the winter meeting and a special to the New York Times. The NYSAF had considerable activity on sponsored radio broadcasts on station WPTR, Albany. At the summer meeting, Jack Barrett and Charlie Baker had a radio interview on station WCHN, Norwich. A 30-minute tape recording of the winter meeting was being made by station WROW, Albany and station WIBX is using three five-minute talks following the meeting. Station WGY, Schenectady through Don Tuttle, supervisor of the Farm Program is announcing the winter meeting and working with Bill Duerr on a summary of the winter meeting. Dave Cook and Charlie Barr appeared on TV station WRGB to announce the winter meeting and discuss forest plantations in New York (plantations were the themes of the winter and summer meetings that year).

The committee made several recommendations in its report. First was the need for better follow-up on papers presented at the winter meetings with at least four state-wide press releases. Second, more publicity must be given to the work of the NYSAF Committees such as Insects and Disease, Research, and others. The activities of the Executive Committee make for good press releases. Third, local chapter secretaries are to be encouraged to send news to the local media. There is too much talking to ourselves.

These thoughts seem vaguely like ones expressed by our NYSAF members today. Hopefully, we can learn from history and perhaps restore some of the ideas expressed a half century ago.

Issues Considered by NYSAF Over the Years

The history of the New York Society of American Foresters (NYSAF) has many dimensions. A useful way to examine the history is to consider the various issues that have held the attention of NYSAF over the years. These issues arise from New York's changing social and economic environment, changes in the forest conditions and ownership, shifts in demands on forests, and changes in the NYSAF membership. The NYSAF membership has often been divided on the best actions to take on many of these issues.

In the early 20th century and continuing up to the present, the forests of New York regrew following farmland abandonment and change in timber harvesting practices. Passage of the Hewitt Act by the New York legislature in 1930 led to massive reforestation on state-acquired abandoned farmlands. Methods of tree planting, characteristics of different species, and combatting difficult spring weather were of concern at summer and winter meetings of NYSAF. Coincidentally natural forests were growing up on abandoned farmland and cutover woodlots. While the emphasis in the 1930's and 1940's was on reforestation, emphasis in recent decades shifted to sustainability and regeneration. NYSAF looked at ways to improve markets for thinnings that would allow landowners to profitably conduct stand improvement. NYSAF encouraged hardwood and softwood pulpwood, or other low-grade markets and devoted meetings to the problem of low-grade small-diameter utilization. However, over time these trees grew into sawtimber-sized trees. The emphasis then shifted to timber harvesting practices. Various studies, supported in part by NYSAF, attempted to assess the kind and amount of various types of harvesting from exploitive to careful long-term sustainability. Members were often divided on what constituted destructive cutting and still today a clear consensus has been difficult to achieve.

Insects and diseases are a continuing issue. Almost every year some attention is given to the latest problem and several special reports on various pathogens have been prepared for NYSAF.

Policy issues have always been of concern to NYSAF. Early on, the Forest Preserve was actively discussed, and various positions taken by the members. Industry foresters, primarily in the Adirondacks were concerned with the Forest Preserve and this issue continues to be of concern to NYSAF. However, recent changes in the operation of the Adirondack Park Agency have decreased the angst felt by many.

Forest taxation is a continuing issue. Enactment of the Fisher Forest Tax Law was a partial victory with an even bigger win seen with enactment of section 480a of the Real Property Tax Law in 1971. However, there is still much concern around property taxes on forest lands across the State.

The issue of licensing foresters has existed since the early life of NYSAF and continues to emerge. In the late 1960's a delegation from NYSAF brought legislation to the State Education Committee. In the 1970's and 1980's more bills were proposed by NYSAF, some considered by committee and some even reported to the floor of the legislature. However, no law has been enacted. Legislators often point to the need to establish how legislation would help public safety. Other organizations have often opposed forester licensing for fear of creating restrictions on land management.

With the rise of private consulting foresters as a large part of NYSAF membership, discussions often turned to methods for charging fees. For example, when consulting on timber sales should foresters charge by the hour or by a percentage of the estimated stumpage value for harvest; should management plan preparation fees be based on acres or hours spent on plan preparation. These discussions were, and are, useful, but questions arose as to the appropriateness of discussing fees and related financial considerations at SAF meetings. National policy and NYSAF bylaws preclude such discussions.

How to deal with legislators and how NYSAF can affect public policy have long been topics at annual meetings. In the 1920's and '30s many advocated for different policies for the Adirondack Forest Preserve. Others advocated a hands-off policy regarding the Preserve lands. The question that has always arisen is, should NYSAF engage in anything that might look like "lobbying?" NYSAF's current position is that providing information to legislators is appropriate but taking a stance on any proposed bill must be carefully done. However, as membership diversity increases and society in general becomes more vocal and engaged in public policies, it becomes more difficult to achieve complete agreement on many issues.

Land subdivision has been going on in New York State since Colonial times when the large land grants were parceled out to settlers. In the mid- and late 20th Century many small farms and homesteads were combined into larger farms and forest holdings. More recently many of these same tracts have been divided into small home sites, hunting camps lands, and other forest recreation uses. It is a difficult issue for NYSAF since on the one hand, these areas can be managed with modifications in our practices, while on the other hand, many people see the loss of the usual inventory and harvesting practices as a severe blow to sustainable forestry. Associated with this are the definitions of sustainable forest management and other well-meaning but diffuse terms which NYSAF will continue to debate.

Issues considered by the NYSAF are important in bringing together our members. Unanimous agreement rarely occurs but the process of discussion, debate, and information sharing leads to a stronger organization. Even the original proposal to form a New York SAF section put forth in October of 1915, met with varied opinions as noted in a previous article.

The Changing Concerns of New York Foresters

Looking back at earlier concerns of foresters and the changes over the century is illuminating. One of the first activities of the NYSAF in 1914 was to set up a committee to coordinate the installation and measurement of forest sample plots throughout the State. This is one example of the concern of foresters for good research and pursuing a democratic approach to the study of forestry problems in New York State. It appears that in the early years the New York section of SAF had a sense of caution, ever mindful of the early “protectionist” attitude of many New Yorkers toward the forests (ala formation of the Forest Preserve).

One of the factors that colors the efforts of many of the founders of NYSAF were their close ties to Gifford Pinchot. Many of the early members had worked with Pinchot in the newly formed US Bureau of Forestry (later Forest Service in the USDA).

Technical problems seem to have been the focus of many early meetings. In the early years winter meetings were moved around the State but then settled down to Albany or Syracuse. Summer meetings held in various locations throughout the State, featured visits to wood-using firms, and other field applications. Reforestation was a major concern and New York State was a leader in early public efforts with passage of the Hewitt Amendment in 1930. The abandoned agricultural lands arising from the Great Depression were of major concern. To make them “more productive” reforestation with conifers was the solution.

Before World War II most foresters were employed by the State or federal programs primarily in reforestation or land acquisition for the State Reforestation Areas (now called State Forests). In addition, the Civilian Conservation Corps, started in 1933 created a need for many more foresters as camps sprung up across the State. Industrial employment was small but growing. The Empire State Forest Products Association reported its industrial members employed only 11 foresters in 1944. By 1956 there are 43.

Policy issues were of concern as the years went on. Work by the NYSAF and State government laid the basis for more employment for foresters and a new set of concerns through passage of the New York State Forest Practices Act in 1946. At the summer 1944 meeting of the NYSAF at Old Forge, the committee on Forest Practices (there were many specialized committees in NYSAF in the early years) chaired by Svend Heiberg, presented a report on minimum standards of Forest Practices for New York. This report adopted unanimously by the members formed the basis for the forest practice standards incorporated into the Forest Practices Act. Foresters in New York State now turned much of their attention to the unique issues surrounding private non-industrial forestry and management of small-sized woodlots.

In more recent decades, concerns shifted from reforestation to management of the growing acreage of pole-sized conifer plantations and pole-timber natural hardwoods growing on the abandoned agricultural land. Calls for new markets for low grade trees were often raised. This issue is still around but increased demand for biomass has created some markets.

Licensing, or registration of foresters has been a topic taken up by NYSAF many times, starting in the 1920's. There is never complete agreement by the members as to the details of who should be licensed and how to go about it. The state legislature has been reluctant to move bills forward without a clear understanding of how the “public interest” is served by licensing foresters. At present, the issue has faded behind many other concerns.

The NYSAF took a wider view of forest practices in the 1970's with the shift to greater environmental concerns. Stream quality, managing for landscape diversity, and protecting endangered

species were topics at annual meetings. Along with a wider set of topics, the membership has also changed. Private consulting foresters now comprise a major part of the membership whereas in the 1950's there were only 4 private consultants operating in the State (*to the best of the author's knowledge*). Industry foresters have also increased in number. The duties of publicly employed foresters have changed and the numbers have declined.

Caution still pervades the viewpoint of the New York SAF. Policy positions on many major issues have been developed and others are under consideration. Working with other organizations, especially the Empire State Forest Products Association and the New York Forest Owners Association and through the annual Forestry Awareness Day and other events, the policy positions of NYSAF are being put forth. It will be interesting to see what the next 10, 20, or 50 years will bring.

Previous National SAF Conventions in New York State

A Souvenir Issue of the *New York Forester* published for the 1957 Syracuse convention featured articles on the history of New York Forestry, the development of the NYSAF, and an article entitled "Looking Ahead," by William Foss, then Director of the Division of Lands and Forests in the NYS Conservation Department, and Joseph Illick, then Dean Emeritus of the New York State College of Forestry. Director Foss and Dean Emeritus Illick predicted:

- an increase in New York's forests and that within several decades our forested lands might reach 15 million acres (*author's note: it is now 18.7 million acres*); and substantial increases to the Forest Preserve and State Forests;
- more intensive management and utilization of private lands, largely because of more public programs for advice and assistance, and the growing number of consulting foresters;
- increased pressure for recreational use and more emphasis on watershed management;
- increased public education about controlling fires;
- continued use of pesticides for insects and disease, and the use of biological controls and management techniques to produce stand conditions unfavorable to insects and disease.

The 1974 National Convention was held in New York City. The Convention's theme was "Emerging Forestry Issues for Urban America". Curt Bauer was Chair of the Program Committee. Speakers at the Monday plenary session addressed this topic from industry, education, and government viewpoints. Tuesday featured a field trip for all attendees to Sterling Forest. Wednesday featured sessions including Energy Shortage Implications (*author's note: this was during the first oil embargo of the 1970's*), Alternatives to Wood Products, Municipal Watershed Management, and the Adirondack Park Agency: A New Approach (*author's note: the APA had just been formed*). Some NYSAF members still remember the work involved with the meeting. Charlie Boone was Chair of the Arrangements Committee and NYSAF volunteers handled accommodations, signage, finance, audio-visual press room arrangements, and much more.

One of the unique aspects of operating in New York City were the number of different unions that had to be involved in moving equipment from a street-side loading dock to its final setup in the Exhibit Hall. In addition, getting dignitaries to and from the airports proved to be quite a challenge. The deputy Mayor of New York City addressed the convention and cited the budget of the City as being among the 10 top governmental budgets in the world! An interesting article in the *New York Forester* Anniversary Issue for the Convention discussed the "New Forest Landowner" and mentioned that the new owner came "from the city" and did not adhere to the philosophy that "It's my land, I can do what I want with it." Instead, Don Whittemore, author of the article, stated, *"these new owners will accept the concept that they should manage their forest land in a manner compatible with the public interest."*

The next National SAF Convention held in the State was in Rochester in October 1988. The

theme was "Healthy Forests, Healthy World." Ross Whaley was General Chair and Ed White was Program Chair. The biophysical and socioeconomic dimensions of healthy forests were covered in both the plenary and concurrent technical sessions. Again, members of NYSAF made the Convention a success. The call for volunteers stated, *"As in the case in 1974, more than 200 NYSAF members will be required to handle the arrangements and the program. It's a big effort, but we've done it before and we'll do it again."* NYSAF members chaired several of the concurrent technical sessions and organized many different field trips. Fall colors and a sunny day helped to make all the trips a success, many of which included a stop at a winery later in the day! A post-convention tour featured various stops along the way to explore "New York Forestry."

New York's most recent SAF National Convention occurred in Buffalo in the Fall of 2003. Some notable changes occurred from previous conventions. The national SAF office handled many of the arrangements and technical aspects of the convention. However, the NYSAF developed the theme, prepared field trips, decided on various activities such as open forums, and a multitude of other support activities. Again, it was a big effort but as always, rewarding for those who got involved, and it gave us a chance to put New York forestry on the national agenda!

SECTION II: NEW YORK STATE INDUSTRIES



100 Years and Still Going Strong: The Empire State Forest Products Association

In 1906 a group of lumbermen, sawmill owners, and paper company executives in New York formed the Adirondack Lumber Manufacturers and Shippers Association. In 1909 that organization changed its name to the Empire State Forest Products Association (ESFPA). In 2006, ESFPA celebrated its one hundredth anniversary. Over the century the Association has grown to be a major force in New York State. ESFPA has been linked to the New York Society of American Foresters. Members and officers have been active in both organizations. The issues that ESFPA has addressed, its changes over the last century all mirror the forestry scene in New York.

One of the earliest concerns of ESFPA and a long-continuing one is the Forest Preserve. One of the major reasons for establishing the Forest Preserve in the Adirondacks was to preserve and protect the headwaters of the Hudson River for New York City water supplies. Interestingly, ESFPA has always had included in its statement of objectives, "...the conservation and development of waterpower in the State of New York..."

Forest taxation has been a major concern of ESFPA over the century. The Association supported the original Fisher Forest Tax Law but noted even at its enactment in 1928, some deficiencies. However, it would not be until the 1970s that section 480a of the Real Property Tax Law, supported by ESFPA, addressing some of those deficiencies, was enacted. More recently ESFPA was the major coordinating group to gather many other organizations including NYSAF to rally support for reimbursement to local governments for exemptions granted under 480a.

From the formation of ESFPA until 1981 the only full-time paid staff that ESFPA had was a clerk in the Albany office. Much of the work now done by the Executive Director and other staff was carried out by volunteers and two notable secretaries: A.B. Recknagel, from 1917 to 1948, and N. C. Brown, 1948 to 1961. A.B. Recknagel was on the faculty at Cornell University and a member of NYSAF. N.C. Brown was a faculty member at the New York State College of Forestry at Syracuse and active in NYSAF. Indeed, it was the efforts of these two dedicated individuals that held the Association together. The 1960s and early 1970s were largely years of inactivity by ESFPA and membership declined. However, in the 1970s several major issues faced the forest industry: The Temporary Study Commission on the Adirondacks was proposing major changes, existing truck weight laws were being rigorously enforced, property taxes sharply escalated. Neil Gutchess, with Gutchess Lumber in Cortland NY saw the

need for a strong political voice in Albany. He enlisted the help of Bob Potter from Potter Lumber in Allegany NY and together they convinced many lumber firms in the state to join ESFPA.

The influx of new firms also changed the orientation of ESFPA. The Adirondacks and the paper industry had long dominated ESFPA activities. It was Howard Hanlon, in 1957 who suggested that ESFPA stationary be changed and that the statement “. forests in the Adirondacks” be changed to forests in New York State.

ESFPA has had five outstanding full-time Executive Vice-Presidents since 1981. Steve Wolfram hired in 1981 brought a background in the forest and wood-using industries. He got ESFPA into the legislative scene in Albany and started using forestry student interns from the SUNY College of Environmental Science and Forestry at Syracuse to help with the growing workload. Robert Stegemann, the next Executive Vice-President served from 1985 to 1991. Bob brought a background in forestry economics and initiated efforts at the local level and cooperation with other organizations. Under Kevin King, previous efforts continued, and more educational efforts aimed at both legislators and the public were initiated. After Kevin left for a position with the New York State Department of Agriculture and Markets, Eric Carlson was hired. Following that John Bartow, the present Executive Director was hired. Over the years all Executive Directors have maintained close contacts with NYSAF to the mutual benefit of both organizations.

ESFPA has worked with many other forestry organizations throughout its history. In 1956 the Tree Farm system was finally initiated in New York with ESFPA as a co-sponsor. For many years leaders in the New York State Conservation Department (now NYSDEC) were featured speakers at Association annual meetings. In 1957 all ESFPA members were invited to attend the national meeting of the Society of American Foresters held in Syracuse. The annual legislative day in Albany each spring, started by ESFPA, has grown to a major event as the annual Forestry Awareness Day.

As ESFPA looks toward the next hundred years it faces changes in the industry, in forest ownership, and in the national and world economy. It is striving to meet the challenges and continue to serve as spokesperson for forest industry. *(For more information about the history of ESFPA, see, The Empire State Forest Products Association: The First Hundred Years, by Hugh Canham. A limited number of copies are available from ESFPA, 47 Van Alstyne Drive., Rensselaer NY 12144, or through local libraries)*

Hemlock and Leather

Leather is one of the most versatile and widely used materials. Since the dawn of history humans have clothed themselves in leather, walked on it, and used leather in many other ways. More recently other materials have supplanted leather. Synthetic materials are now used in many shoes and boots. Nylon, reinforced cotton, and other newer materials have replaced leather coats. However, at one time the manufacturing of leather goods was an economic engine sustaining many communities in the northeastern United States. An essential step in leather manufacturing is tanning the animal hides to render them supple, waterproof, and free from mold. Here in the northeastern United States tannin obtained from our native hemlock was the basis for a short lived but thriving industry.

The historical process to convert animal hides to useable leather involves several steps. After the skin (hide) is removed from the animal it is dried and treated (salted) to preserve it. After shipping to a tannery, the hide is soaked in water to remove the salt and soften the hide so that flesh and other fatty materials could be removed (fleshing). Next hides are soaked in lime for several days to swell them and aid in removal of hair and fur (liming). After washing, hides are treated with an acid solution and often

split to produce two sides. Hides are now ready for tanning. Tanning involves soaking hides in vats containing a liquor of water infused with tree bark from which the natural tannins have been leached. Tannins are complex soluble substances that combine with proteins in the leather to form insoluble substances which preserve the leather and hinder decomposition. Hemlock bark contains good quantities of tannins that give the leather a distinctive color. After tanning the leather can be worked into finished products.

Early European settlers to North America brought with them knowledge of leather tanning. At first almost every farm and homestead prepared their own leather from slaughtered domestic or wild animals. However, with the rise of cities and general specialization of work, leather tanning quickly developed into its own industry. The Dutch built a tannery in 1638 in New Amsterdam. New York City was the major center of tanning in an area known as “The Swamp”, located on the east side of Manhattan near the present-day Brooklyn Bridge. It was an ideal location since hides could be shipped in from foreign sources and water was readily available. The limiting factor was the distance that bark had to be transported. The area became a concentration of tanneries and leather goods manufacturers, gaining its name from the constant odor of curing animal hides and the quantities of wastewater with organic matter discharged into the waterways. However, large groves of hemlock, the favored species for bark, were not near New York City but further upriver in the Catskills, Adirondacks, New England, and Pennsylvania. This coupled with rising local displeasure with the horrible conditions of “The Swamp”, led to development of tanneries across much of the Northeast wherever hemlock forests were prevalent.

Obtaining bark from hemlock trees is relatively straightforward. One way is to girdle the tree in the spring when the bark is loose or “slipping” making a series of cuts through the bark at four-foot intervals. Another way that became most used was to cut down the tree and then peel the bark off as far as practicable, cutting it into four-foot strips. After removing the bark, it was placed on the ground with the inner, or flesh, side of the bark facing up to hasten drying and prevent formation of molds. Bark was then stacked in large piles off the ground for further drying and to await transport to the tannery. Bark was heavy and bulky, hand loaded onto wagons or sleds pulled by horses to the tannery. Shipping large distances in the 1800’s was costly. In contrast, shipping salted hides was easier, hence tanneries preferred to locate close to hemlock stands and on a water body: river or lake. At the tannery bark was ground or shredded and placed in a series of heated water filled vats. Using a passive method required about 4 days to extract the tannins, steam infusions halved the time. Spent bark was dried and used for fuel to heat the tanning vats or discarded. Hemlock timber was used for local construction but not especially preferred, giving way to white pine for buildings or hardwoods for other uses. In many instances the wood was left to rot in the woods; bark was the desired product. Interestingly, today, wood is usually the desired product and disposal of bark may be a difficulty.

In the mid 1800’s fortunes were made and then quickly lost as various entrepreneurs took advantage of the lucrative trade in leather. Entire communities developed around the tanneries, some of which still exist today while others have vanished. William Edwards was the first large-scale tanner in the Catskills. Raised in Massachusetts where he had made and lost several fortunes, Edwards built a tannery in 1817 on the Schoharie Kill at what is now the village of Hunter. Business was good but Edwards expanded too much and took on too much debt. In 1839, a mere 20 years after starting, Edwards was once again in dire straits, filing for bankruptcy and closing the plant. Despite his flamboyant behavior he did bring several innovations into the industry and set the way for other tanners.

Other towns in the Catskills developed around the industry. Tannersville, known today as a resort, was originally a home for many of the immigrant settlers who found work in harvesting hemlock and working in the local tanneries. Rufus Palen constructed a tannery at the present day Palenville. Zadock Pratt established the largest tannery in the Catskills in 1825. He was a quite different person from Edwards and looked to develop the town around the mill. Prattsville survives today as a testament to his efforts even

though the tannery lasted only 20 years, closing in 1845. By then 2000 people lived in the community, sustained by employment at Pratt's tannery. In addition to the village, the surrounding forests felt the impact of Pratt, Edwards, and others. Hemlock stands were quickly cleared, bark stripped and most of the wood left to rot. Panshin et al (in their text on Forest Products) state 2 men could fell trees and peel 2 or 3 cords of hemlock bark per day. Steuding (in *The Heart of the Catskills*) estimates that in its 20-year history the Pratt tannery alone reportedly used 100,000 cords of hemlock bark from an estimated 400,000 trees. He estimated that during the heyday of the tanning industry in the Catskills with as many as 64 tanneries operating, 70 million hemlock trees were harvested for bark. In 1868, in Sullivan, Greene and Delaware counties alone an estimated 2 million hides were tanned.

The accessible hemlock stands in the Catskills were cut out and tanners felt a severe loss of material. The industry looked to the Adirondack foothills for further supplies of hemlock. Here water was also plentiful, and the Erie Canal and emerging railroads facilitated shipment of hides in and leather out. Also important were plank roads; rough tracks with rough lumber usually from hemlock, laid down on which a horse could pull the heavy wagons or winter sleds loaded with bark. These plank roads were an important use for otherwise low value hemlock wood. Similar situations existed in New England and Pennsylvania, where early tanneries located near the seacoast gave way to newer ones further upriver into the mountains. In all areas communities sprang up around the tannery. Within a broadly defined Adirondack region, McMartin (in *Hides, Hemlocks and Adirondack History*) gives the figure of 153 tanneries in 1850; a number which had shrunk to 112 by 1880, of which roughly half were also large manufacturers of finished leather goods. The towns of Johnstown, and Gloversville still retain some of this leather manufacturing although the tanneries have long since disappeared. Tanneries existed in almost every county in northern New York. Major concentrations could be found along the Black River and West Canada Creek, also in Warren and Saratoga Counties and as far north as Essex County.

Life in a tannery town was tough. The work was hard, involving much manual labor. Living next to a tannery meant the constant stench of curing leather and stagnant pools of waste material. Streams became heavily polluted and hillsides were denuded of hemlock. However, it provided a living, often for immigrants. The industry also gave local farmers a market for the hides of slaughtered animals. It is said that the Civil War was won by the Union soldiers walking largely in leather boots made in the northeast. Indeed, much of the leather produced across the northeastern United States went into shoe and boot leather.

By the 1900's New York's had lost its lead in the tanning business to Pennsylvania. Also, the industry had changed, the world had changed and people's attitudes toward heavily polluted streams and obnoxious odors had also changed. Many factors working together spelled the end of the northeastern US tanning industry and ended the harvest of hemlock for tanbark. The removal of accessible hemlock has been mentioned. This was an important factor. However, this was accompanied by better transportation methods (rail and highway) which lowered the cost of shipping bark and freed tanneries from locating close to a bark supply. Bark from tropical species was imported from other countries yielding different kinds of leathers with different colors and properties that suited the changing tastes of consumers. Chemical processes using chrome for tanning replaced some uses of tree bark. Other oils, aldehydes, and synthetics replaced plant tannins. The overall concentration and mechanization within manufacturing placed leather tanning at a disadvantage with its heavy dependence on manual labor. Consumer tastes and preferences were also changing. Leather goods were giving way to cottons, wools, and the myriad of synthetic fabrics used in clothing and shoes. The overall economic conditions of the late 1800's was another major factor leading to the demise of the tanning industry in the northeast. Capital was harder to obtain, depressions and skepticism had set in. Businesses were closing. The tanning industry based on hemlock bark substantially ended by the beginning of the 20th century although some plants in New Jersey used bark until the 1920's.

What happened to the hemlock stands? Early writers bitterly lamented what they felt was the destruction of our lovely and majestic hemlock forests that had stood for hundreds of years. They saw denuded hillsides with rotting hemlock trees stripped of their bark. This fear fed into the popular view at the beginning of the 20th century that the country had lost its forests forever. Indeed, hemlock forests harvested for bark were ruthlessly clear-cut and cutover areas did not regenerate immediately. Soil erosion and silted streams were seen near many tanneries. As the tanneries went out of business, sometimes hemlock bark piles were left to rot in the woods. As recently as our present generation one could sometimes see the remains of these abandoned bark piles.

However, hemlock came back. Today, one can travel almost any road in Pennsylvania, New York, and across New England and spot the distinctive hemlock trees peeking out of a mixed northern hardwood forest. In gullies and poorly drained areas hemlock competes better than many other species and is often found in almost pure stands. A hemlock swamp is a familiar sight to anyone who has hunted deer or trekked through our woods and mountain areas. That the hemlock has returned is not due to the activities of the tanners but due to the inherent biological ability of the species to survive. Today hemlock timber is harvested for lumber and wood pulp. Although the wood is difficult to finish, in a rough state it makes good construction dimension timber. Hemlock's use for wood pulp is a recent development and Finch Paper Co. in Glens Falls New York has based its entire paper making operations on hemlock. The logs can be obtained much cheaper than other species and it can be used to produce good quality papers. Much high-quality hemlock from New York and New England is also going to Canada in the export market.

(Based on article by the author in Northern Woodlands magazine, Winter 2009 issue)

The Palatines of New York and Pine Tar

The April/May 2009 issue of the Journal of Forestry contains an article entitled, *German Impact and Influences on American Forestry until World War II*. The author details much of the effects of both German immigrants and professionals on the early thinking about forestry in the USA. Included is mention of Bernhard Fernow. Also mentioned are the Palatinates. However, an essential link between the Palatinate immigrants and forests is omitted.

In the late 1600's and early 1700's the Palatinates, located in the southwestern part of what is now Germany, were persecuted for their religious beliefs, being principally Lutheran in what was still a heavily Roman Catholic state. Many found sanctuary by fleeing to England.

England, at that time, was facing a shortage of pine tar, turpentine, and resin from unrest in the Baltic, principal source of pine-based navel stores for England. Consequently, the British government decided to set up a navel stores operation in the New York colony. To tap the trees and manufacture the navel stores from the pine pitch they used the refugee Palatinates. In 1709 a party of Palatinates were shipped to the New York colony and set up a community at Newburgh on the Hudson. The following years more arrived and settlements established on both sides of the River, including New Paltz, Rhinebeck, and Germantown.

It was soon discovered that the native eastern white pine (*Pinus strobus*) did not work for producing pine pitch nearly as well as the hard pines growing in southern colonies, or those growing around the Baltic in Europe. The navel stores program was abandoned soon after it started, and the German immigrants were left on their own. Not feeling particularly welcomed by the mainly Dutch and English settlers, most migrated further up the Hudson, into the Mohawk valley and down Schoharie Creek. The settlements of Middleburgh, Palatine Bridge and Germann Flats (now Herkimer) evolved.

Today the descendants of these early immigrants are fully a part of New York citizenry. However, many Germanic names can still be found throughout the region. What started out as a need for forest products, evolved into a human settlement and became part of the New York culture.

The Wood Chemical Industry in the Northeast: An Old Industry with New Possibilities

With the discovery that crude oil could be refined into a seemingly endless variety of products, petroleum became one of the most important substances on earth. Now, more than a century later, oil has lost some of its allure in the U.S., primarily due to climate change and our overdependence on unpredictable foreign sources.

Today, scientists are scrambling to find alternatives to oil and another fossil fuel, coal. Their search has led back to the source that was once as dominant as oil is today: wood. Beyond being processed into pellets and chips for power and heat, wood has chemical properties that are being explored for various uses. Turning wood into ethanol (cellulosic ethanol) might seem like a new idea, but we have been extracting chemicals from wood for centuries. In fact, long before our society ran on petroleum and synthetic chemicals, it ran on wood.

Wood contains a variety of useful chemicals. In colonial times, the Northeast's European settlers were faced with a nearly unbroken forest that was in the way of the agricultural pursuits that would make their existence here possible. Over the next centuries, in the process of clearing the land for agriculture, these settlers fulfilled their need for heating and cooking wood, and they also burned piles of wood for the ashes, which they soaked in water and filtered to make lye (potassium hydroxide), saltpeter (potassium nitrate), and potash (potassium oxide). The lye was used to make soap, which was used commercially to clean wool both here and abroad. (Europe, having turned its forests into sheep pasture, was desperate for lye.) Saltpeter was used to cure food and make black powder.

Another product from the millions of acres of Northeastern hardwood forests was charcoal, which had been in use in Europe for hundreds of years for refining iron ore. (Charcoal burns hotter, cleaner, and longer than wood; to smelt iron you need intense, even heat.) Charcoal kilns quickly developed throughout the region, especially in Vermont, Massachusetts, and New York.

Manufacturing charcoal involves heating wood in a closed environment with limited oxygen. Through the heating process, moisture and gases are removed from the wood. Early charcoal kilns were simple affairs, little more than earthen pits where wood was ignited, then smothered with sand. Later kilns were built of stone, and then brick.

In these early kilns, the gases created by the burning process were simply lost into the atmosphere. In time, charcoal makers developed methods to capture and process these gases into various acids, alcohols, aldehydes, ketones, and other organic compounds. These wood chemicals were key ingredients in many of the day's conveniences – from rubber to paint thinner.

While the chemistry was complicated, the process these early engineers used to refine wood chemicals was straightforward. The primary byproduct of charcoal production was pyroligneous acid (from the Latin *pyr*, meaning fire, and *ligneus*, meaning wood). Pyroligneous acid was created by capturing wood smoke in the charcoal-making process, then condensing it in a copper still, where it became a reddish-brown liquid. The resulting pyroligneous acid was then decanted through a series of pipes; this allowed the insoluble wood tar to settle out. The wood tar was used as a fuel source and as a cure for meat before it was discovered to be carcinogenic.

After it was refined, the pyroligneous acid was neutralized with crushed limestone to create lime acetate. Workers slowly stirred lime into the liquid until it achieved a rich wine-color; this slurry was then piped into an iron still and heated. The vapors were condensed to produce methanol, which could be further refined to make formaldehyde. Besides its use as a preservative, formaldehyde was used to strip lanolin from wool, in early plastics like “Bakelite,” and in adhesives such as Elmer’s glue.

The remaining acetate liquor was piped into large pans where all the liquid was boiled away. The resulting grayish powder, known as acetate of lime, was packed into burlap bags, and sold to textile mills where it was used as a dye fixative. Acetic acid, produced by adding water to the lime acetate, was also used to make vinegar (it is what gives vinegar its sharp smell and taste), cordite, the first smokeless substitute for black powder, and acetone, a popular paint solvent. Eventually the chemical byproducts created in the charcoal making process became more valuable than the charcoal itself. The industry came to be known as the “acid-wood” industry.

Distilling Wood

The acid-wood industry became firmly established in the Northeast in the 19th century. In 1830, James Wood successfully manufactured pyroligneous acid at Northampton, Massachusetts. John Turnbull, of Scotland, settled in 1850 at Millburn (now Conklinville) in Broome County, New York, where he built the first successful wood distillation plant to produce acetate of lime. The technology quickly caught on, and by the late 1800s and early 1900s, wood chemical plants were springing up across wide areas of New York, Pennsylvania, and New England.

The region was well suited to produce wood chemicals. There were abundant hardwood forests, and water was readily available. Many of the rural residents welcomed the opportunity for further employment. Manufacturing plants in the Northeast offered ready markets for products along with an ongoing charcoal industry.

The charcoal and acid-wood plants typically used 4-foot lengths of wood in small diameters. Tree tops and waste from lumber production were used in the early kilns, but that source would not suffice for long. With the introduction of more modern plants – called “retorts” – the economies of scale necessitated having a large inventory of wood on hand.

According to Dan Myers, author of *The Wood Chemical Industry in the Delaware Valley*, some big factories owned large tracks of land that they managed for charcoal and sawtimber. The George I. Treyz Company in Cooks Falls, New York, for example, maintained a 25,000-acre woodlot; the high-quality logs were sawed, while the tops and low-grade hardwood were fed into the retorts. Many smaller plants were not associated with a sawmill, though, and these companies simply cut and burned whatever wood they could get their hands on.

Crews of woodcutters cut and processed all the trees in nearby forests. The expansion of the industry in the 1800s and early 1900s provided off-season work to farmers and others. Trees were felled during the winter, yielding wood with low moisture content. Wood was hauled by horse cart and later by rail to the factory site. Here the wood was usually air dried for a year before processing, to further reduce the water content and speed up the cooking time.

Myers states in his book that a plant of average size, burning 36 cords of wood per day, six days a week, burned 11,232 cords of wood a year. Stacked in a four-foot-high block, this wood would have occupied 8 ¼ acres. As you can imagine, the region’s wood resources were strained. Entire hillsides and the areas around the acid-wood mills quickly became denuded; as a result, roads and small railroads developed to haul wood over longer distances. Motorized vehicles in the woods, such as the Linn tractor,

increased the output of the cutters. With the good growing conditions of the northeastern United States, second growth forests quickly returned. Wood cutters returned to the same location after 20 to 30 years to harvest another crop. At the height of the acid-wood industry in the early 1900s in Delaware and Sullivan counties of New York, annual wood consumption is estimated at 190,000 cords, with 3,000 men employed in over 100 plants.

Work in the acid-wood plants was hard and often dangerous. Still, the industry provided many jobs for low-skilled laborers, with a few highly trained persons to engineer the process and run the retorts. Communities developed around the acid-wood processing plants. In the Catskills, places like Cadosia, Horton, and Corbett owe their beginnings to the acid-wood factories that once thrived there. A typical factory town contained simple frame homes without running water or electricity; single men lived in boarding houses. A company store provided food and other necessities. Most of the buildings in town were owned by the company.

Trees were felled and cut up using hand tools, and the wood was placed on wagons by hand. Horses hauled the wood to a truck or rail car where men loaded and unloaded the wood by hand. At the mill, wood was loaded onto carts and wheeled into and out of the retorts by hand.

When finished charcoal came out of the ovens. It was extremely dangerous to handle and had to be cooled, but any sort of breeze could cause the entire load to burst into flame. Reports abound of loads of fresh charcoal exploding from not being sufficiently cooled. One New England driver left his load of charcoal in the wagon for the night, returning the next day to find only the hardware from the wagon left.

Dangerous, dirty work was typical of the great movement of manufacturing across the United States in the early centuries of American industrialization. The acid wood industry suffered along with others. The odor from the acid factories lingered in the air, clung to clothes and skin. Tar from the distillation process was dumped into lagoons or piped directly into rivers. But that was a different age. People were proud of their accomplishments and their industry, and clear-cut forests and air or water pollution were not the issues they would become. Producing an important product, earning a paycheck, and struggling to raise a family were all-consuming activities.

Further refinement

As time went on, better techniques were developed for both charcoal manufacturing and acid recovery. Twentieth century chemical factories featured long horizontal ovens where gases were controlled before being piped into the distillation apparatus. (This was an especially helpful refinement of the process, since early factories featured stills that were housed in a chamber directly above the charcoal processing ovens. This design flaw led to more than one devastating explosion.) Some plants further refined the gases into various products, but others merely shipped the mixed pyroligneous acid to other locations. A complete manufacturing sector rose, including timber harvesting, acid-wood plants, transportation networks, final distillation plants, and allied manufacturing that used the finished wood chemicals.

The heyday of the large-scale wood-chemical industry in the Northeast was from the early 1900s until the 1940s. The nation was expanding, and demand for the products was high. By the time the U.S. entered World War I (1917), the industry had consolidated, and smaller plants had been replaced by larger, more efficient ones. The industry spread west into Michigan and the Lake States. Meanwhile, in the far West and the South, a related industry was developing using softwood (southern and western pine species) to produce turpentine and other chemicals.

Shortly after World War II the industry collapsed. Research in both America and in Europe led to substitution of petroleum-based products for wood-based chemicals. At the time, petroleum provided

cheaper methods of production and was better suited to very large-scale manufacturing. The industrial charcoal market was rendered obsolete by natural gas and by Appalachian coal, which was hotter-burning, longer-lasting, and readily available. Charcoal's principal use became, as today, fuel for outdoor cooking. Some retorts persisted into the 1950s and '60s, but communities declined and acid-wood cutting eventually ceased.

In some parts of the Northeast, the recovery of the forest has been amazing. On better soils with good reserves of basic chemicals (the clay and loam soils found in many hardwood regions), the third or fourth generation forest is thriving. Today, across much of the Southern Tier of New York, into Pennsylvania and in southern New England, stands of even-aged black cherry, oak, and maple are growing on old acid-wood and charcoal clearcuts.

Other areas have not fared so well. Soils of the Adirondack foothills and parts of central New England have not recovered from the years of potash production. These sandy soils have little reserve nutrient capacity, and repeated clearings removed much of the potassium. In the late 1940s, the deficiency was revealed in the stunted growth on many pine plantations established on old farms in the upper Hudson Valley.

Back from the ashes

The acid-wood industry has been forgotten for the last 60 years. To be sure, research into the fermentation of sugars from wood to produce ethanol was done in Europe for many decades, but the availability of cheap petroleum-based gasoline in America hindered research and development. Today, however, there is renewed interest in obtaining vital chemicals from wood and for using wood directly as an energy heat source. Wood-fired electric generating plants are opening in many areas of the Northeast, with the feedstock coming from sawmill residues and wood harvested specifically for "biofuel." This has implications for forest management throughout the Northeast, as it provides markets for what was formerly "junk wood," so thinnings and improvement cuts can be economical. In addition to natural forests, willow is being experimentally grown on old farm fields and harvested for biofuel.

In addition to burning wood for electricity, research has shown that it is technically feasible to produce ethanol from wood, and entrepreneurs are actively developing commercial-scale manufacturing plants. Rebirth of the wood-chemical industry, however, is not a sure bet. It is costly to produce ethanol from wood, and it is economically competitive only when oil prices are high. Events of the recent past have shown that oil prices fluctuate widely. Furthermore, there are social barriers to widespread clear-cutting and to harvesting small trees. Local governments may enact ordinances restricting timber harvesting. What the next 20 to 50 years will bring is unclear.

Wood could very well increase in importance because it has the advantage over fossil fuels of being a potentially renewable resource. With modern production and conversion techniques, it may be possible to recover virtually all of wood's byproducts, reducing fossil fuel use and moving us toward a more sustainable way of life.

Myers, F.D. III. 1986. The wood chemical industry in the Delaware valley. Prior King Press. Middletown NY.

Rolando, V.R. 1992. 200 years of soot and sweat: The history and archeology of Vermont's iron, charcoal, and lime industries. Vermont Archeological Society. Burlington, VT.

Beglinger, Edward. 1956. Hardwood distillation industry. Report No. 738. U.S. Forest Products Lab. Madison, WI.

(also, citations in New York Encyclopedia and Encyclopedia of American Forest and Conservation History and Panshin, Forest products)

Paper presented at the 2010 Conference on New York State History, Ithaca New York June 4, 2010
(Based on article by the author in Northern Woodlands magazine, Winter 2009 issue)

The Otsego Forest Products Cooperative: A Unique Experiment

Otsego County, located on the southern Tier of Central New York State was like many other parts of the State in the 1930's. Farmers, like those across the country, were suffering the effects of the 1929 Great Depression. Agriculture was the predominate economic activity in the County with a typical farm consisting of tilled fields, some pasture, and woodlands. The woodlands, at that time, would have been lands unsuitable for agricultural production. Species in the woods were maple, beech, birch, pine, hemlock, and others. Farmers often turned to their woods for logs to sell for lumber to local mills, firewood, fence posts, or lumber for on-farm construction. Several landowners around Cooperstown became concerned that the condition of the forests was declining and wondered if a better arrangement could be found to provide income to farmers while having timber harvests that sustained and improved the woodlots. R. H. Rogers, a young forester, conducted a study of the possibility of establishing a cooperative.¹ The Cooperstown Chamber of Commerce also became interested and with Rogers, submitted a proposal to the New York State Rural Rehabilitation Corporation. They called for the establishment of a sawmill, other lumber processing facilities, hiring of field persons to educate and aid farmers in harvesting their timber.

In 1935 the Otsego Forest Products Cooperative was formed in Cooperstown NY. The USDA Forest Service was extremely interested in forming forest cooperatives for farmers and others who owned woodlots, modelling them after the then successful agricultural cooperatives. This was also the era when rural electrification cooperatives were being set up by the US Department of Agriculture (one was set up in Otsego County New York and still exists today).

The basic purpose of the Otsego Forest Products Cooperative Association was "*to promote the better care of woodlands and provide for the orderly marketing of forest products through cooperation to eliminate waste... The Cooperative was organized to engage in marketing or selling of forest products and in connection therewith to engage in the production, processing, manufacturing, grading, sorting, or shipping of forest products and to finance said activities.*"² Membership was limited to owners or tenants of land used to produce forest products. Members had to purchase one share of common stock and had voting rights. It was set up like any other cooperative. As landowners sold logs to the cooperative, 5 percent of the receipts were withheld to finance the operation with dividends anticipated as the operation became established.³ The Northeastern Forest Experiment Station of the Forest Service assigned personnel to draw up plans for the processing facility, and to perform timber cruises of member woodlots. The plan was to build a sawmill capable of producing about 2.7 million board feet of lumber annually. A 17-acre site just south of Cooperstown, adjacent to the Delaware and Hudson railroad, was selected for the mill. New York Conservation Department Commissioner Lithgow Osborne, as reported in the *Binghamton Press*, laid the cornerstone of the new mill in 1937 and praised the unique setup of the Cooperative. The *Binghamton Press* on Nov. 13, 1939 reported that the Otsego Forest Products Cooperative was the only setup of its kind in the country.

The country was in the throes of the Great Depression and member farmers could not put up capital to finance construction. The USDA Rural Resettlement Administration took over the functions of the New York State Rural Rehabilitation Corporation and agreed to loan the money for construction. This agency was empowered to loan money for industrial operations that would help struggling farmers. One

of the stipulations of the loans was that local farmers had to be employed for constructing the mill. However, these people were often unskilled at construction. It took much longer than planned to build the mill and get it ready for operation. Meanwhile interest was coming due on the loans. The original plans called for a minimum wage of 25 cents per hour. However, the Rural Resettlement Administration asked the cooperative to pay workers 40 cents per hour. By 1938 no loan repayments had been made and more money was needed. Further federal loans were secured. A small circular mill was put in operation and some lumber was produced but it was not the end of 1940 that a band mill was operating, fully 5 years after the initial formation of the Cooperative.⁴ During World War II Quaker conscientious objectors housed in a nearby camp were used to operate the mill and work on other public projects in the area. While some residents objected to these people as slackers, most seem to have accepted them (*Knickerbocker News*, June 6, 1941).

Management was a problem as was competition from other for-profit mills in the area. However, with the hiring of Mr. J.L. Violette, a competent manager, and the rising demand for lumber fueled by World War II the operation moved ahead. Membership rose from 430 in June of 1940 to 631 by December of that year. By 1949 there were 1026 members (as reported in the *Oneonta Star*, August 18, 1949). These were landowners who had joined and agreed to sell logs to the mill and purchased at least one share of common stock. The USDA Forest Service, in an article in the *Binghamton Press* on February 14, 1948, praised the Cooperative as being the only noteworthy integrated forest products Cooperative with integrated forest management, marketing, and processing.

The Cooperative drew some international attention. In October of 1951, a group of Norwegian foresters visited the Cooperative and toured the members woodlands. Norway had a history of producer cooperatives but especially wanted to see how the United States experiment was working out and what they could learn.

Financial troubles always plagued the mill. Government loans could not be repaid on time. There was excess capitalization and in hindsight a band mill was a poor choice at that time. In addition, the typical family or farm forest owner does not actively engage in management of their woodlot every day. In contrast, they do engage every day in the agricultural part of their operation or other employment. It became difficult to sustain a high level of interest in the Cooperative, unlike the enthusiasm shown in Dairylea and other agricultural cooperatives. At the same time farmers were finding that they got a better return from their labor by concentrating on the dairy operation rather than doing their own logging. Log deliveries slowed down. Consequently, logging crews hired by the Cooperative were employed to obtain logs. In 1948 the first stock dividend was paid by the Cooperative in its 12-year history. The Cooperstown Chamber of Commerce supported the concept of the Cooperative and in 1946 agreed to help in refinancing the Cooperative through bank loans.

At the 1954 annual meeting, manager Violette (as reported in the *Oneonta Star* of May 27, 1954) stated that nationwide too much lumber was being produced and many mills were closing. The Cooperative decided that instead of buying all logs that landowners wanted to sell, the Coop would only purchase those species and grades that could be sold above production costs. This was a reversal of the original objective of working to improve the long-term productivity of the region's woodlots.

In October of 1953, a fire at the mill site destroyed the boiler room, machine shop, and some piles of slab wood. However, the main sawmill building, and inventory of lumber was saved. In 1959, longtime manager J.L. Violette left to take a position with Catskill Craftsman company in Stamford NY. At the 1960 annual meeting, Cooperative president Adelbert Blencoe and the new manager Marshall Green, stressed the need to replace worn and obsolete machinery with modern automatic equipment.

As other for-profit mills became more efficient and modern in operations, interest in the Cooperative as a market for logs declined. Landowners did not see the benefit of getting shares in the business instead of a higher price for logs elsewhere. The Cooperative paid few dividends. In addition, there were other sources of technical assistance available for landowners. The last forester working for them was Robert Williams who subsequently left and became a forester with the New York State Conservation Department. In 1960, speaking at the annual meeting (as reported in the *Oneonta Star* of May 31, 1960) he outlined the services available to private woodland owners in New York State through the New York State Forest Practices Act. Through this program, landowners who agreed to manage their lands sustainably would get free technical assistance in selling timber and other forest management practices. This further lessened the appeal of the Cooperative's forest management assistance.

In early 1962 the Cooperative's mill closed with some thought of reopening but this never happened. The mill and equipment were purchased by Fairbairn Lumber of Margaretville, New York, in 1963 with plans to reopen. For several years, the company used the site a place to buy and accumulate logs for transport to its mill in Margaretville. Today the site is unrecognizable as a mill location. One enduring legacy of the Cooperative for many years was still visible in the woods but that too has faded. The foresters working for the Coop used a durable mixture of milk and red paint to mark timber. Much of that was visible for years afterward.

The overall lesson to be learned is that a forest products cooperative is not like an agricultural one, that careful attention must be given to hiring skilled managers, that interest and activity in family or farm owned woodlots tends to be sporadic, and that competition from normal for-profit firms will probably be too much for a coop to sustain. However, the idea of establishing woodland owner cooperatives is still discussed across the country.

NOTES:

1. R. H. Rogers, *Centralized Management and Marketing Applied to the Woodlands in the Cooperstown Forest Unit*. (unpublished thesis, N.Y. State College of Forestry, Syracuse NY, 1934)

2. James C. Rettie and Frank Ineson, *Otsego Forest Products Cooperative Association of Cooperstown, New York: An Evaluation*. (Agricultural Information Bulletin No. 17, USDA Forest Service, 1950)

3. Ibid.

4. Ibid

In addition, personal communication with Mr. Ron Jennings, Phoenix Mills NY whose father worked at the Coop mill, and the author's knowledge of the region.

*Paper presented at 2019 Researching New York Conference, November 21-23, 2019, Albany New York
A revise version is in print at Forest History.*

Milk Cans and Forestry

Every so often a "Watershed" event takes place in one arena that has profound effects, or "Unintended Consequences" in another seemingly separate universe. Such an event was the replacement of the now long ago, ubiquitous milk cans once used to ship milk from the dairy farm to the local creamery for processing.

From the time that upstate New York farmers started shipping milk to creameries these 80-gallon steel cans were a fixture. After milking the cow, the fresh milk was poured into one of these cans. After the evening milking the cans were stored in a cool place, originally a spring or stream, while in more modern times an electric cooler. After the next morning milking that milk, in cans, and the evening milk, were loaded onto a truck and taken to a local milk processing plant for pasteurizing, bottling, cheese-

making, or conversion to other milk-based products. Every farm had its small “milk house” usually near the road, where the cans were cooled or picked up by a local trucker, or neighbor if the farmer did not haul his own milk. In the early 1950’s some agricultural economists calculated that 20 milk cows were an optimum number for an operating farm. However, change was not far in the future.

Within a decade the bulk milk tank was introduced. Now farmers would store the fresh raw milk in a large stainless steel electrically cooled tank. The milk was held at a constant low temperature. Milk could be stored for a few days but often was still picked up every day. However, the farmer could no longer truck his own milk, instead, specialized trucks were used to pump the milk out of the farm tank into the truck tank. Many farms were visited by a single truck and hundreds of gallons of milk mixed in one truck. This change by itself would seem innocuous but it had far reaching consequences.

More electric power was needed to run the large milk cooling tank. A larger milk house was required. The economies of scale soon pushed the optimal number of milking cows up to 100. This brought the need for more machinery and more labor-saving materials handling equipment. More tractors appeared. Larger glass lined silo were built. Importantly, a good, all-weather access road was needed to get the tank truck to the farm milk house. A final blow was when the milk processing companies finally stopped taking any can milk and required all milk to be delivered in tanker trucks. Many small, local, creameries closed. Milk could now be efficiently shipped for 100 miles to a large central processing plant.

What has all this got to do with forestry? Within a decade, the economics of dairy farming changed. The impact was felt most severely on the hill farms. Those that had survived the depression of the 1920’s found their fortunes quite good during World War II and into the early 1950’s. However, the typical small fields, limited access dirt roads, and lack of sufficient venture capital meant these farms could no longer compete in the marketplace. Farming ceased on many acres. The pastures and later the crop lands reverted to forests as the normal climax cover type in the State. More summer places and vacation homesites came on the market. Foresters found they were dealing with a different clientele. What had been called “Farm Forestry” ever since the 1920’s now became “Private Non-industrial Forestry” and more recently, “Family Forestry.”

Many factors are responsible for the abandonment of land for farming in upstate New York. However, the change in how milk was stored on the farm and then shipped to market was a major one in abandonment of farmland in the last 60 years. What other changes might be on the horizon that historians will look back on in 60 years as having similar dramatic changes in forestry. Will it be the rebirth of “Wood for Energy”, or political forces coupled with government regulations over how and where land can be inhabited and used?

SECTION III SOME NOTABLE PERSONALITIES



NYSAF Honorary Members

In 2006, the national SAF Council approved the bestowing of honorary membership on Ronald Pedersen. Ron is familiar to many NYSAF members: he attended many NYSAF meetings as a guest and has also been a featured speaker. Ron joins five other distinguished persons to whom NYSAF has given honorary membership.

There are currently 45 living honorary members nationwide in SAF. This is a unique honor given to persons who have made outstanding contributions to the field of forestry. Our NYSAF roster includes (in addition to Ronald Pedersen) the Reverend Frank Reed, Francis (Mike) Demeree, John Marchant, and Jack and Harriet Hamilton.

Reverend Frank Reed was a long-time pioneer in working with loggers in the Adirondacks. Following graduation from Union College in 1919 he became the missionary and spiritual leader in the Adirondack lumber camps. He founded the “Lumber Camp News” in 1952 which eventually grew into the present “Northern Logger” magazine. He served as the magazine’s editor until retirement in 1964. With the expanded coverage of the magazine Rev. Reed expanded the scope of his activities to include mills and various other forestry projects in addition to logging activities. His work covered New England and the Mid-Atlantic states. He was part of the planning committee for the first Woodsmen’s Field Day which was held at Old Forge; now an annual event at Boonville. His book “Lumberjack Sky Pilot” and his narrated old films of river driving, and other aspects of early Adirondack logging are classics in forest history. He was a featured speaker at several NYSAF meetings.

Francis (Mike) Demeree was a leader in managing his own approximately 1400 acres of forest lands in Chenango and surrounding counties. He showed many other forest owners what is possible and that sustained forest management with the assistance of professional foresters really does pay off. Born in Harpursville in 1909 Mike spent his life in Chenango County serving as partner in Demeree Chevrolet in Bainbridge, and on several civic and business boards of directors. In the early 1970’s he led the effort to get revisions to the Forest Tax Law and worked with many legislators to continue to push for better property tax laws. He is perhaps the “father” of our section 480a of the Forest Tax Law. He was a member of the New York State Conservation Council and Governor’s Advisory Board and served as

chair of the New York State Forest Practice Board. Mike was three times winner of the Chenango County Soil and Water Conservation District Forestry Award.

John Marchant is another private forest owner who, as a lay person, worked tirelessly to promote forestry and get the name of the New York Forest Owners Association (NYFOA) before the public. He served without compensation as the first Executive Director of NYFOA. During that time, he also served on the New York Forest Stewardship Committee. John provided excellent leadership that led to closer relationships between NYFOA and Cornell Cooperative Extension and the New York State Department of Environmental Conservation. John was featured in the DEC Forest Stewardship video and brought the Master Forest Owner Program to New York. John's leadership gained Forest Service recognition of NYFOA as an effective entity in improving forest stewardship. John also worked with foresters and others to develop computer software for the average forest owner.

Jack and Harriet Hamilton gained NYSAF recognition for their work promoting forestry through their New York State and National Outstanding Tree Farmer awards. They too were featured in the NY Forest Stewardship video, shown in several television stories, and many newspaper articles and features that raised visibility of forestry in New York. Prior to being awarded Outstanding Tree Farmers, they hosted NYSAF on their Tree Farm. Jack has been a leader in the New York Forest Owners Association for decades. He has also been a frequent attendee and participant at many NYSAF meetings.

Ron Pedersen has served the cause of New York forestry for decades. He started his government career as Tax Analyst and then worked on Governor Rockefeller's staff. In 1971 he served as First Deputy Commissioner in the newly formed New York State Department of Environmental Conservation. He next went to the New York State Senate where he was program secretary to the Majority leader, retiring in the 1990's. Throughout his career he was a strong advocate for intelligent professional forestry and was active in the New York Forest Owners Association, Empire State Forest Products Association, and New York Tree Farm system. Ron was president of the New York Forest Owners Association for 6 years. During that time and subsequently he has worked hard to advance forestry in the State. He is active in Forestry Awareness Day and was an active member of the advisory committee on the updated timber theft laws. His property in Broome County serves as another showplace of what is possible on abandoned farmland with over 50 years of sustainable management.

Curt Bauer and Bob Sand: Two Icons of New York Forestry

The year 2005 marked the initiation of the Bauer/Sand Scholarship by our New York Society of American Foresters. The Executive Committee of NYSAF instituted this special scholarship to honor two people who have contributed so much to the furthering of professional forestry in New York and to the continued success of the New York Society of American Foresters. Curt Bauer and Bob Sand had outstanding careers and continued to be active on the professional forestry scene after retirement. Both served in World War II and afterward enrolled in the NYS College of Forestry (now SUNY ESF), both graduating in 1950. They have been active in SAF and other organizations and while following somewhat different careers, their basic beliefs and principles are similar.

Curt Bauer's first job was with the U.S. Forest Service in Montana. However, upon getting engaged he decided that his fiancée would prefer New York to rural Montana so he moved back to New York. Curt always had the idea that you operate best if you know all about what you are doing. He first sought employment with a logging camp in the Adirondacks working as clerk-scaler and later as foreman on one of the last logging camps operated by U.S. Bobbin and Shuttle Co. His on-the-job education continued as a forester with a sawmill in western New York at a time when there were very few professional foresters working for sawmills. He established a forest management program, supervised

logging and land and timber acquisition. During this time, he also sharpened his surveying skills. All this was gainful employment, but by now Curt felt he could set up his own private forestry consulting business, and in 1954 started his own business in Jamestown. At the time he was one of probably only 4 or 5 private consulting foresters in the state.

Much of Curt's consulting work was with private non-industrial landowners. However, as the firm gained reputation some large appraisal contracts developed. Especially important was a detailed appraisal, for tax assessment, of the timber on the over 10,000 acres of Sterling Forest in the Ramapo Mountains. Another notable appraisal was of the timber within the soon-to-be-built Allegany Reservoir in western New York.

Bob Sand, after college, joined Cotton-Hanlon Corporation. He stayed with Cotton-Hanlon for his entire professional career. Like Curt Bauer, he was a pioneer in that very few lumber companies in New York had professional foresters working for them in the 1950's. As Chief Forester Bob purchased standing timber, over 500 million board feet of stumpage during his employment, directed all logging and acquired nearly 50,000 acres of forestland for the company in New York, Pennsylvania, and West Virginia. Over 1 ½ million tree seedlings were planted on company lands under his supervision. Bob's expertise extends into the engineering field and he supervised the construction of lumber sheds, a band mill, and new dry kilns at the company mill sites. He pioneered the use of hardwood weight-scaling and marketing of cull logs for firewood in New York.

Over the years Bob Sand has been continually active in various organizations. He joined the New York Forest Owners Association at its inception, in 1952. He served as Director, President, and Recording Secretary of the organization. The New York Forest Owners Association awarded both Bob and Curt the prestigious Heiberg Memorial Award for their service and dedicated efforts. The New York Forest Owners Association also awarded Bob Sand a special lifetime achievement award in 2003. Bob has also been active in the Tree Farm system serving on the state committee and working as a Tree Farm inspecting forester. On June 20, 1984 he supervised the dedication of 35, 000 acres of Cotton-Hanlon lands to the American Tree Farm System.

Both Bob Sand and Curt Bauer have been strong advocates for their alma mater. Curt served on the College Board of Trustees and was also Chair of the Board for many years. Bob was active in the Alumni Association serving on the Board, Vice-President, and President of the Association. The Alumni Association awarded him their Outstanding Service Award in 2005.

Curt Bauer and Bob Sand were active in our New York SAF for almost 50 years. They are both Fellows in SAF and have served on the Executive Committee, various committees, and as Chairs of New York SAF. Both are well known throughout SAF for their strong advocacy for SAF and professional forestry. Curt also had a major role in organizing and running four national SAF conventions here in New York State.

Curt and Bob always held that foresters must recognize themselves, and act as, professionals. Both had a keen business sense and worked closely with other business professionals including accountants, bankers, lawyers, and others. They viewed forestry in very holistic sense. They kept up with the changes that have taken place over their 50 plus professional years of service.

Curt Bauer and Bob Sand are all about what is good and outstanding about foresters. They contributed so much by giving sound advice, participating in SAF, and lived exemplary personal lives. The scholarship will be awarded each year, as funds build up, to a deserving student majoring in forest land management at the SUNY College of Environmental Science and Forestry.

George Armstrong and New York's Pulp and Paper Industry

George Armstrong was a Professor of Forestry Economics at the SUNY College of Environmental Science and Forestry (SUNY ESF) for 30 years. During his tenure he published widely and taught various courses. A major area of his expertise was in New York's pulp and paper industry. His *Economic Study of New York's Pulp and Paper Industry*, Syracuse NY, 1968, and a companion piece on the *Long-Term Trends in New York's Pulp Industry* (contained in the publication *Long-Term Trends in New York State's Timber Industries and Their Implications*, Canham and Armstrong, Syracuse NY 1968) were major policy setting works of their times.

Armstrong was writing during the period of great transition in both New York's and the nation's paper industry. Production of paper from wood pulp in New York began in 1864 at the Luzerne Mill of the Hudson River Pulp and Paper Company (later incorporated into International Paper Co.) The industry grew quickly and by the late 1800's almost 150 small paper mills were established throughout northern New York on major rivers. By 1905 annual roundwood consumption reached 1302 thousand cords. However, this peak has never been reached again and by the Depression Years of the 1930's consumption had fallen to less than 500 thousand cords. A post-depression surge continued after World War II and by 1952 more than one million cords annually were consumed. Species used greatly changed from early reliance on aspen, then spruce and fir, and finally a major shift to hardwood pulpwood in the 1950's.

Early writers said there was a lack of available wood in the State. Others felt that wasteful cutting methods and poor silvicultural practices depleted stocks of desirable species. Canadian imports were cited by some as a reason for decline. In 1940 a study by the New York State Division of Commerce concluded that the high cost of roundwood in New York relative to other states was the major reason for decline.

Armstrong, however, with his training in industrial development and knowledge of the State was able to put New York's paper industry into broader context. He showed that high wood costs were only a small part of the reason for decline. He pointed to technological development in newer mills being built especially in the South where the use of southern pine opened vast new areas for industrial expansion. Second, he pointed out that modern mills were integrated with paper mills whereas many of the early mills in New York had been strictly pulp producers. Three other events were cited by him as rounding out the context within which New York mills were forced to operate. One was the development of strong markets for paper products outside the northeastern United States. New York City no longer dominated the publishing market. A second factor was the great changes in the kinds and mixes of various wood pulps used in making paper. No longer could the output of one mill suffice to produce the desired kind of paper. Wood pulp from other processes and other regions were imported into modern paper mills and blended into finished paper. Finally, he cited the worldwide chronic excess capacity in the paper industry fueled by continued optimism as to the demand for paper.

Future predictions were not put forth by Armstrong although he came down hard on the need for New York State to critically examine its goals and objectives for industry, its forest resources, and directions to take to assist industry. George left SUNY ESF in the 1980's. He then served as a consultant to many agencies assisting developing nations with their natural resource problems. He was also with the US Agency for International Development (AID) before retiring in 1995.

Dr. Franklin B. Hough: Medical Doctor and Forestry Advocate

The headline might read, “1881, Rural doctor from upstate New York becomes first chief of the U.S. Division of Forestry.” Indeed, foresters in New York and around the country have much to thank Dr. Hough for his pioneering efforts and untiring support for the fledgling profession of forestry over 100 years ago.

Franklin B. Hough was born in Martinsburg, New York in Lewis County in 1822. He became a physician. He was appointed to direct the population census of New York State in 1854 and 1856. While traveling around the state he became interested in natural resources, especially forests and the then rapid depletion of forests through clearing mainly for agriculture. At the 1873 annual meeting of the American Association for the Advancement of Science he urged Congress and the states to enact laws and set up agencies for forest protection. The U.S. Congress responded in 1876 by appropriating money for a study by the U.S. Department of Agriculture. Dr. Hough was selected to conduct the study. He traveled around the country, in Canada and Europe. Four volumes entitled, *Report upon Forestry (1878-1884)* called for many of the features of national forest programs we have today: management of federal forest lands, establishment of forest experiment stations, forest education programs for the public.

In 1881, Dr. Hough was appointed the first chief of the newly formed Division of Forestry within the U.S. Department of the Interior. He spent the summer of that year in Europe gathering information about forestry practices. His book, *Elements of Forestry (1882)* was the first practical treatment of forestry in the United States. It is also suspected that while in Germany or soon thereafter he had contact with Bernard Fernow who succeeded Hough as chief of the Division of Forestry, and later as head of the Cornell forestry program. Both Fernow and Gifford Pinchot who then succeeded Fernow as chief of the Division of Forestry, called Hough, “perhaps the chief pioneer in forestry in the United States.”

Hough and Fernow both advocated for the establishment of what today is the Forest Preserve in the Adirondacks, although at the time the character of the Preserve and uses of the land were quite different. Recall, that as originally created in 1892, the lands were to be used, “for the free use of all people for their health and pleasure, and as forest lands necessary to the preservation of the headwaters of the chief rivers of the State, and a future timber supply.” Timber supply was deliberately removed from the final version when the forest preserve was established under the State Constitution in 1894.

Dr. Hough delivered another landmark paper at the 1884 American Forestry Congress, held at Saratoga, New York, entitled, “*The Duty of New York State with Respect to the Management of its Waste Lands and the Encouragement of Forestry.*” His efforts, along with others, led to the establishment of the Cornell forestry school in 1898 although he did not live to see this happen since he died June 11, 1885.

Who Was Martin Faustmann?

Martin Faustmann was a 19th Century forester who lived and worked in the State of Hesse in Germany. He had been trained in the Classical German forestry schools. His work centered around management of the Scots Pine, Norway Spruce, and Larch forests planted in his region, and on management of the native hardwoods, mainly oak, beech, and basswood. As he worked, he also considered the age-old question that has obsessed foresters, namely, how long should the trees be grown before harvesting.

Faustmann took what was considered a revolutionary look at this question, in the 1800's. Faustmann was the first person to quantify the concept of what we now call the Soil Expectation Value

(SEV) or as often called, the Land Expectation Value (LEV). Faustmann argued that the optimal rotation age should be one which maximizes the long run productivity of the site, in value terms. He recognized the role of time and interest rates. He realized that other long-term assets were managed with consideration of the interest, or discount rate. This same concept, he argued, should be applied to forests. The optimal rotation should consider the loss of revenue incurred by delaying the start of the next rotation due to extension of the present one.

A simpler concept is growing trees until the expected percentage increase in value due to growth etc. over the next planning period, drops below the percentage (interest rate) that can be earned by harvesting the tree and investing in an alternative (other funds or a new rotation of young, growing trees). Faustmann argued that we also need to account for the time that all further rotations were delayed by extending the present one. He considered the infinite view. In Faustmann's world, interest rates were stable. The concept was that timber would always be used as it was at present. That is, although history has shown that change is the rule, in Faustmann's time the belief was in constant conditions.

Today, foresters still argue over the best rule for setting timber rotations. The silviculturists have different views than those of the forest economists. Public agency foresters' views differ from those held by industry foresters. Faustmann's theory is still examined and debated. He would be pleased to know he contributed so much yet raised so many further issues and questions.

In the fall of 1999, I was in Germany at a conference honoring 150 years of Martin Faustmann's birth. Many good papers were presented concerning optimal rotation, use of interest rates, and related material. We took a field trip to the castle where Faustmann lived, and many of the forest stands in which he worked. The stands of Scots Pine were quite impressive as were stands of well-tended oak and beech.

A final interesting item is the "Uniform" worn by the 19th Century German foresters. One of the foresters we visited posed for us dressed in the uniform that Martin Faustmann would have worn. The material was wool and leather. It was quite serviceable in the damp, cold day in October when we visited but no doubt hot in the summer.

New York Forestry Leads to National Program

There was a young forester who had just started working for the State of New York. He had received word that the Governor of the State was going to pay a visit to his area, so he arranged for the Governor to see some tree planting taking place on a State Reforestation Area. The day came and the Governor and his entourage pulled up to the entrance to the Forest. The young forester greeted him and was asked to join the governor in his car. They drove up the road and observed the tree planting crew planting an abandoned farm field. The crew was made up of a variety of local hires who were all busy digging holes and planting tree seedlings (red pine). The Governor turned to the young forester and said, "When I am elected President of the United States, one of the first things I am going to do is get a program like this one in New York State going across the country. This is a good way to put people to work and get some conservation work done."

The young forester was Milton Hick, who later became the Conservation Department District Forester for Delaware, Otsego, and Schoharie counties, serving until his retirement in 1965. The year was 1931, and the area was "Otsego No. 1" (an area in northern Otsego county). The Governor was Franklin D. Roosevelt, who the next year was elected President. Shortly after his election he signed the law creating the Civilian Conservation Corps (the CCC).

This incident was told to me by Milt Hick and verified by several of the labor crew who were still employed by the Department in 1964.

SECTION IV CHANGE, COMMITTEES, STUDIES



Catastrophes, Shocks, and Other Disturbances to New York Forests

The forests of New York have constantly been subjected to disturbances, or shocks, as I choose to call them. From an historical perspective I thought it might be instructive to consider the following "Shocks" to the forest resource system of New York State. In the interest of time and space I have not gone back to the Ice Age but rather attempt to chronicle shocks occurring since the late 1700's.

Land clearing and European settlement (late 1700's and early 1800's) - The clearing of land for agriculture was probably the biggest shock New York forests have endured. Also, at this time the forest was first extensively harvested for wood products.

The Erie Canal and Rail Transportation (mid to late 1800's) - These events, while not directly impacting the forests, laid the way for urbanization of the State, plus opening the Midwest for settlement with its more fertile farmland, thus leading to abandonment of land for agriculture in New York and subsequent regrowth of forests. This was a second shock that is still going on today.

Great fires and massive timber harvesting in the Adirondacks (mid to late 1800's, early 1900's) - Today the effects of those early fires are hard to detect but at the time they were a catastrophe. In addition, the massive harvesting of pine, spruce, and fir led to changes in the forest composition, development of new communities, and associated changes.

Creation of the Forest Preserve (late 1800's) - This was a definite shock in that it effectively froze human intervention on millions of acres of forest land. Subsequent species and habitat changes have been shocks to the system.

Invention of the Linn Tractor (1920s and '30s) - This seemingly innocuous invention changed the pace of timber harvesting in the state, particularly in the more remote Adirondacks, and led to more timber being harvested, and at a faster pace. Subsequent species changes and road developments led to habitat changes.

The 1938 Hurricane (1938) - This hurricane was more devastating in New England, but it also affected the forests of New York.

Post-World War II property boom (1950's to the present) - Starting after World War II and continuing through today, there has been a massive shift in the ownership of New York's forests away from farmers to an extremely diverse set of private nonindustrial owners. These new owners with their diverse management objectives, or lack thereof, have produced more changes in New York's forest.

The Chain Saw (1950's and 1960's) - It has been said that the internal combustion engine is one of the greatest inventions of the 20th Century. Certainly, the embodiment of a gasoline engine in a lightweight chain-driven saw has been one of the greatest "Shocks" or events leading to forest change in the world. It was slow to be introduced and articles in the New York Forester magazine from the 1950's and early 60's both praised and denounced the Chain Saw. Some said it was a fad, others praised it, some said it would lead to complete denuding of the State. In any event it revolutionized tree cutting whether for timber harvest, improvement thinning, wildlife habitat, or recreation development.

The 1950 Hurricane (November 1950) - Some people may still remember the 1950 hurricane, not so much for its direct effect on forests but for the subsequent potential fire danger, special legislative bills to allow salvage on the Forest Preserve, and the notorious Cold River Fire that followed. This hurricane probably caused more widespread nonhuman changes in the Adirondacks, than any other event. Hundreds of thousands of acres of spruce, pine, and fir were toppled, often in inaccessible areas. The summer following 1950, much of the Forest Preserve was closed to hikers due to blocked trails and the extreme fire danger. The State legislature passed emergency legislation allowing salvage on parts of the Preserve and several young foresters got their initial experiences with DEC by supervising the harvests.

Use of hardwoods for paper (1950's) - With the invention of the semichemical pulping process, hardwood tree species could efficiently be used for pulp for paper making. There are accounts of foresters girdling or otherwise eliminating hardwoods to favor spruce one year on a stand, then the next year on the very next, adjacent stand, girdling the spruce to favor the hardwoods. The changes in harvesting and forest management have been dramatic.

Gypsy Moth Outbreaks (1960's to 1980's) - The Gypsy Moth caused initial widespread defoliation in eastern New York including the southern Adirondacks, Hudson Valley, and Catskills. We have had the moth with us ever since but recently there have not been the massive defoliations that occurred in earlier decades.

Oak furniture Mania (1970's to the present) - Many foresters can remember when oak was virtually a "weed species" as far as timber was concerned. Its price was like beech and soft maple. Then people's preferences for furniture and cabinets changed and almost overnight loggers were revisiting harvested areas and other stands in search for oak.

Mesoscale Convective Event (popularly known as Microbursts) (summer 1995) - This was another nonhuman weather-related event which, according to Dr. Lee Herrington of SUNY ESF, was a collection of severe thunderstorms causing 100 mph straight line winds that moved across northern New York. The effects were like the 1950 hurricane.

Ice Storm (winter 1998) - Ice storms have affected the forests of New York since the Ice Age! Many north facing slopes on the Southern Tier have visible histories of repeating ice damage. What made the recent one so spectacular was the media attention and its devastating effects on human habitation. The long-term shock to the forest system is currently under study.

The above list demonstrates the multi-faceted nature of shock to New York forests. Human-related events have caused as much change as have weather and other non-human events. Have these shocks been "Good" or "Bad"? This question cannot be answered in this simplistic manner. The value, both in amount and kind, depends on the value system and things that we as humans want from forests. Other events could be listed that are happening right now. For example, unusually early spring and dry weather set conditions for forest fires. The closing of sawmills, and the loss of chip markets will all

produce change in how we manage New York forests and lead to further changes. The Empire Forest is indeed a dynamic system.

The 1950 Hurricane: Effects on New York Forests

The recent spate of hurricanes to affect our region prompts me to recall the big blow of November 1950. Perhaps some of the “more mature” foresters may recall the event but like so many tragedies, it soon faded from memory. However, its effect on forests in the Adirondacks and elsewhere across the State were devastating and very unprecedented legislative actions were taken to alleviate the chaos caused by down trees.

In November of 1950 a hurricane, born in the tropics, came onto land and intensified over Virginia and North Carolina then moved up through Pennsylvania and New York before turning west to Ohio and Michigan. The U.S. Weather Bureau at the time stated that the storm was the most damaging one on record. On Saturday November 25th, the storm reached the Adirondacks with high winds and torrential rain. Trees across northern New York were blown down. Trails were blocked, down trees and branches formed massive tangles. Roads were often impassible. Of immediate concern were the hunters who were in the woods for the last weekend of deer hunting in the Adirondacks. In addition, 151 miles of field telephone lines of the Conservation Department connecting key operational areas with backcountry outposts were down. Adding to the problems, the 148 miles of fire-truck trails across the Preserve were also impassible. Department staff and volunteers quickly mobilized to help hunting parties navigate the blocked trails and roads. All known people in the damaged areas were rescued.

Aerial surveys and ground reconnaissance showed major tree blowdown on 424 thousand acres with most occurring on the Preserve. The storm hit hardest in the central and southwestern Adirondacks, but all areas suffered some damage.

Two future problems were quickly seen: getting access for the hundreds of hiking trails and maintenance truck trails; second, and even more important, the potential for fire in the downed timber. Adding to the problem were isolated trees still standing amid an otherwise flattened area. These remnants could act as lightning rods ready to conduct a strike down to the tinder dry mess below.

Harvesting the downed timber seemed like the logical move but the State Constitution prevents any cutting or removal of timber from the Preserve. Perry B. Duryea, then commissioner of the Conservation Department wrote to the State Attorney General, Nathaniel L. Goldstein, asking for clarification, pointing out that under section 50 of the New York State Conservation Law, *“the power and duties of the department relative to land and forests includes the care, custody and control of the several preserves”* and *“the department requests the Attorney General’s opinion as to whether there is a legal way for the State to use the services of private logging contractors in the salvage of these dead trees and to pay for such services in whole or in part by the disposal of such wastes to them.”*

The Attorney General, while sympathetic to the dilemma of the Conservation Department responded that, *“I find no statutory authority for your Department to sell or otherwise dispose of such trees. For such authority, resort must be had to the Legislature.”*

Subsequently the New York State Legislature, in an unprecedented move, passed laws enabling emergency salvage and set up a Forest Preserve Protection Fund to receive all monies from sale of the downed timber and out of which would come the expenses the Department would have in supervising salvage operations. A technical Forestry Advisory Committee was set up to assist the Department in salvage and fire hazard reduction. Several members of the New York SAF served on that committee. In

addition, several additional new foresters were hired by the Department to survey storm-damaged areas. Many of these new foresters remained on as permanent employees.

The Metropolitan Chapter of NYSAF (New York City area) on December 7, 1950 adopted a resolution urging the salvage of all dead and down timber on state public lands, estimated at that early date to be about 2 million board feet. SAF members were urged to support any worthy salvage bill that developed. The 1951 NYSAF meetings, (winter meeting in Syracuse and summer meeting in Saranac Lake) were devoted to understanding and viewing the extent of the damage. At the winter meeting a special report on insect infestations that could be expected in the extensive down timber was presented by Professor S.H. MacAndrews from the College of Forestry.

The salvage plan looked good on paper but problems quickly arose. One of the biggest problems was getting people to log the downed timber. Initial estimates of the amount of downed, useable timber proved to be too conservative. In some areas much more timber was salvaged than estimated. By 1952, two years after the hurricane, the log yards of the region's paper mills and sawmills were jammed with wood. Much of the still downed timber was infested with insects and fungal rots. Loggers were finding it difficult to harvest any more of the timber and in many areas such as the Cold River region no salvage had been possible.

This is not the end of the story for on July 18, 1953 a thunderstorm with lightning struck the isolated Cold River area in northern Essex and southern Franklin counties. The fire that ensued was one of the last major forest fires that New York has faced.

This article is based on a paper and talk given by the author at the Researching New York History annual conference in November 2011. Pieter Fosburgh editor of the New York State Conservationist from 1946 to 1956 had firsthand knowledge of the hurricane and wrote extensively about it much of which is in his book, (Fosburgh, P.W. The natural thing: the land and its citizens. Macmillan Co. New York 1959). Other sources include the issues of the New York State Conservationist and the author's own recollection of events and discussions with former Conservation Department persons over the years.

Land Subdivision and Consolidation in New York, a 300 Year Activity

Periodically the issue of subdivision of forest land in New York arises in professional circles, sometimes as if this is a new problem foresters and other land planners must confront. However, land subdivision and subsequent consolidation has been going on in New York State since the dawn of European settlements, over 300 years ago. What we see today is but one phase of a continuing change in land tenure and ownership. Various landowner surveys and studies of land transfer records have shown that, on the average, ownership of any given parcel of land might change every 20 years. Along with this goes the possibility of either subdivision, or consolidation of smaller parcels into larger tracts.

Before the Revolutionary War, circa 1776, eastern New York had been divided into large tracts and lands granted, first to Dutch Patroons, later to various English barons. Following the War further land grants appeared, the names of many are familiar today: Totten and Crossfield Purchase, Genesee Tracts, Hardenburgh Patent, Macomb Purchase, Holland Purchase, and others. Owners of these large tracts were mainly interested in selling off parcels or renting out areas to recoup their investment and generate monetary gain. Much of the State, outside the central Adirondacks, quickly became dominated by subsistence farmers, each producing enough from the land to sustain a family and yield some products for exchange. Within the Adirondacks some scattered farms existed with land ownership shifting to various

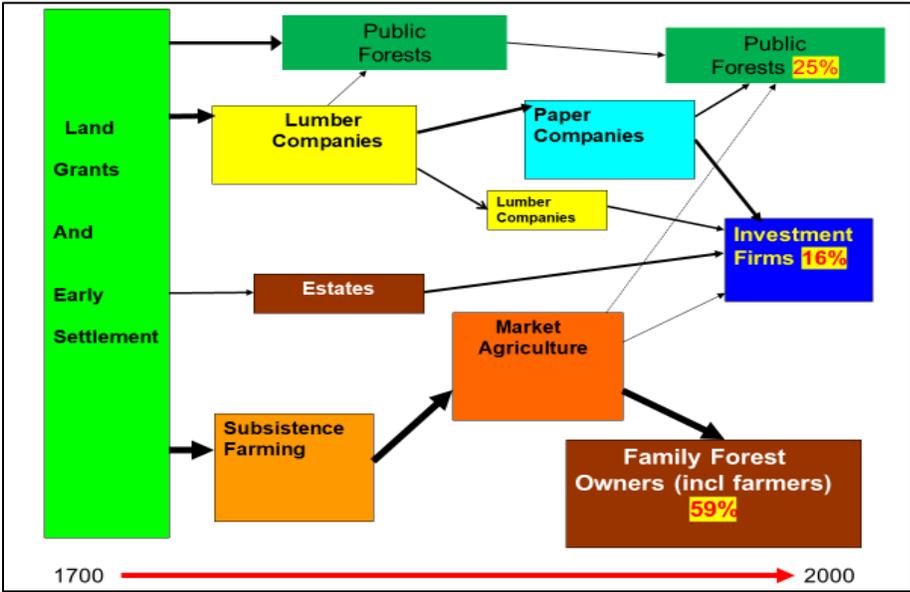
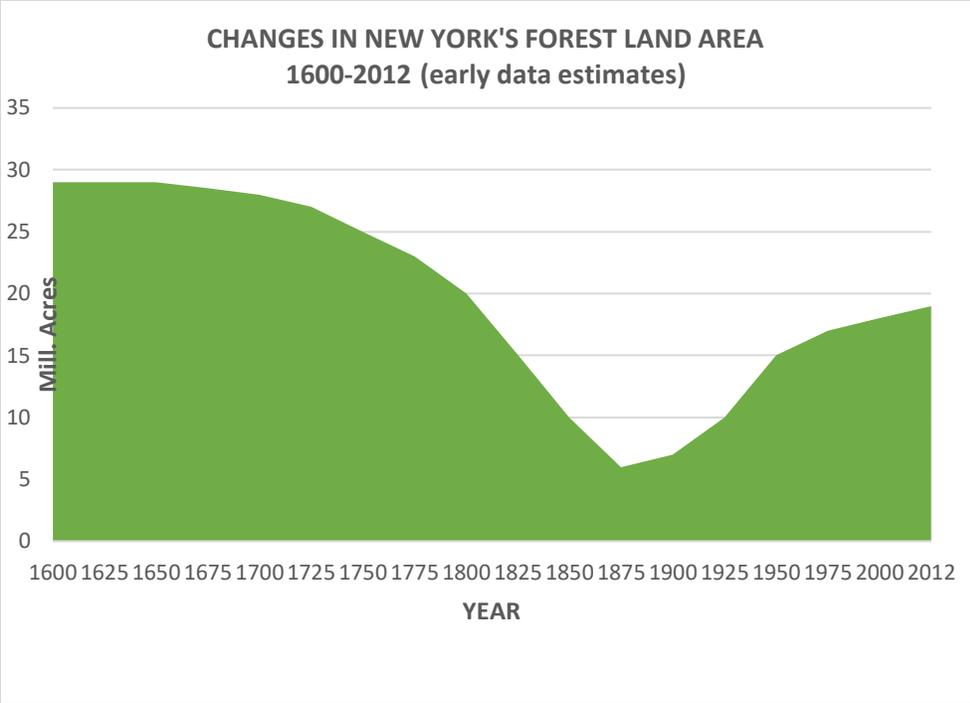
lumber and later, paper companies. From Cranberry Lake to the Hudson River many different companies owned land for production of wood products.

Land clearing and settlement reached a peak in New York State at the beginning of the 20th century. By 1900 only about 20 percent of the State remained in forest (based on various historical records and surveys). Even the higher reaches of the Catskills were often farmed. One old-timer told me that on one mountain a farmer and his wife lived so high up on the mountain that she never left the farm for over 20 years, not even to go to the local village. As foresters we know that forests regrew on much of the land as farming became more market-oriented and many small hill farms were abandoned or consolidated into larger farms. Indeed, where my parents' family farm was, there were 3 small farms on that dead-end dirt road up to the 1940's. But by the mid 1960's these three had been consolidated into one larger farm with surrounding farms also absorbing some of the land.

Ownership objectives also changed, especially for forest lands. In the early 1900's saw logs and other wood products were the principal reasons for holding woodlots on farms. Today, owners of family forests hold their lands for many different reasons, often with wood production way down in priority. Even within the Adirondacks forest ownership objectives have changed. Large tracts formerly held by lumber and paper companies have given rise to investment company holdings. Many of the larger estates and club properties have changed management objectives as clientele change.

The most recent note on my family's former farm is that after consolidation in the 1950's the land remained as an operating farm until the late 1960's and then the fields were rented to an adjacent farmer. More recently that farm also went out of business and much of the land has been sold to a nonresident owner with recreational interests. In other parts of New York mass subdivision of forest tracts has produced housing developments. Often trees remain on parts of these properties, but wood production is not the owner's objective, nor is it economically feasible unless the logger is very innovative.

What the next 20 or 50 years holds is a subject for interesting discussion. I predict that we will see continual subdivision in some parts of the State, and consolidation in other areas. Real estate investment companies may increase their holdings. Conservation easements and land trusts will increase. Foresters have a great opportunity in all areas to address emerging landowner concerns including: Efficiently harvesting a few high-value trees per acre across various small properties; Designing trails for hiking and skiing across small ownerships; Developing management plans that contain maximum flexibility for the short-term with just a 10 to 20-year horizon; Gaining more expertise to deal with return-on-investment and other constraints of real estate investment companies. Becoming more paralegal to help set up land trusts.



Changes in New York's Forest Ownership over 300 Years
(present percentages based on USDA Forest Inventory data)

Coalitions and Cooperation Among New York's Forestry Organizations

Over the last 120 years different forestry-oriented organizations in the State have combined to address the many issues facing New York forestry.

The New York State Forestry Organization was founded in 1905 for all forestry interests in the State to join. Not much is known about the organization except that it was still active in the 1920's when the Empire State Forest Products Association (ESFPA) worked with it to develop a statement of forest policy for New York. ESFPA itself was formed in 1906, originally as the Adirondack Lumber Manufacturers and Shippers Association with the name changed to ESFPA in 1909. The New York State Society of American Foresters (NYSAF) was started in 1918. Other organizations concerned with the Adirondacks and with other parts of forest and related issues also existed at the time, some much older, others formed in this early 20th century conservation era. Interestingly, since its inception, ESFPA has had in its constitution and bylaws an objective to "promote a friendly intercourse between members and to cooperate with others interested in like topics." However, formal cooperation and coordination among organizations seems to have begun after World War II.

In 1957 the national SAF convention was held in Syracuse, and NYSAF invited all ESFPA members to attend the meeting, especially to the property taxes session. In the late 1950's, the New York Forest Industries Council was formed. This partly took the place of ESFPA which was languishing at that time. The Council published several statistical reports until the late 1960's, but then faded as ESFPA and other organizations strengthened.

The 1970's saw the development of regional cooperative groups: Adirondack Study Commission, Catskill Study Commission, Tug Hill Study Commission. Each of these regional efforts brought together people from NYSAF, ESFPA, NYS Department of Environmental Conservation (DEC), wildlife and fisheries interests, citizens groups, recreational associations, State University of New York College of Environmental Science and Forestry (SUNY ESF), Cornell University, New York Audubon, and others. Many different issues were addressed, most of which were strongly forest-related. In addition, in western New York, a regional industry sponsored group, the Forest Industry Resource Study Team (FIRST) came together to work on issues relating to the wood-using industry. This involved representatives from industry, DEC, SUNY ESF, and Cornell Cooperative Extension. In the 1980's a similar group was formed in central New York: Southern Tier Association for Natural Resources Development (STAND). While FIRST existed for a long time and was quite cohesive, STAND had a relatively short life. The region it encompassed may have been too diverse and the many interests it tried to involve were too disparate.

In 1980, DEC embarked on a massive statewide forest planning effort. Under the leadership of Peter Brooks and later, Karyn Richards, many groups were brought together. Several joint planning sessions were held. Reports were prepared, mainly by SUNY ESF and Cornell contractors. These reports were reviewed by the different groups including ESFPA, Audubon, Association for the Protection of the Adirondacks, Wildlife Society, NYSAF, and others. All organizations were invited to intermediate presentations and to provide input to the final plan. Building on this planning effort, a New York State Forest Information Group Round Table was developed under DEC leadership with representatives from many groups. At SUNY ESF, then Dean of Forestry Jack Berglund, saw the opportunity for the College to host a New York Forestry Congress. The first one, in 1982, addressed the issues affecting forest land management in New York and the nation, and what the issues might be in 10 years. The second one, in 1984, focused on resolving conflicts and finding solutions to the issues. These congresses were successful in that they again brought together people from each of the different organizations with forestry interests in the State. However, the second one, in 1984, in discussing conflicts and differences caused some unrest among the participants. Due to personnel changes, no further Congresses were held for many years.

In the late 1990's, following the national Forestry Congress, a group got together to develop plans and agenda for a New York Forestry Congress. Interests from the Adirondacks to New York City, from industry to landowners, public agencies, and colleges, were brought together. However, just before the first assembled event, changes were made to the meeting agenda and overall thrust. This upset the planners and no subsequent events were planned.

Governor Mario Cuomo instituted the Governor's Task Force on Forest Industry in New York in 1986. This again brought together representatives from NYFOA, ESFPA, NYSAF, and others to work on strengthening the wood-using industry in New York. It completed its work with reports and recommendations to the Governor and legislature. Changes in administration in Albany stalled further efforts by the group. However, DEC and the New York State Department of Commerce formed a Forest Resource Development Council in 1990 with the idea of following up on prior work. This group became bogged down in disputes over leadership and did not accomplish much. SUNY ESF formed the Forest Research and Development Center in the 1990's with one of its aims to bring together many different groups to work together on applied problems in New York. It functioned for several years but there was a split between what the researchers wanted to do and what forestry groups in the state saw as applied needs.

Since then, there have been several coalitions brought together, but most for special projects. Notable was the efforts of ESFPA in 1998, under Kevin King, to bring together many different organizations and interests to develop unified proposals for revisions to the Forest Tax Law (sec. 480a). This group was effective in building support in the legislature and finally a bill was passed in 2004. In 1999 The Joint Legislative Commission on Rural Resources brought together representatives of NYFOA, ESFPA, NYSAF, Farm Bureau, loggers, and others in a Task Force to work on timber theft. Legislation was developed and passed in 2003. Senators Patricia McGee and Nancy Lorraine Hoffmann, co-chairs of the Task Force wanted the group to stay together to work on other forestry issues, but no clear consensus emerged.

One of the most successful coalitions for many years, was a steering group for the Forestry Awareness Day. The steering group guiding this annual event was made up of representatives of NYSAF, NYFOA, ESFPA, Watershed Ag. Council, Catskill Forestry Association, and others. The group attempted to bring together all forest related interests in forest policy and raise awareness among legislative leaders. However, differences emerged among the groups as to what specific pieces of legislation might be supported by the coalition. Finally, in 2017, the group disbanded and ESFPA went back to sponsoring Forestry Awareness Day on its own, inviting other organizations to participate if they desired.

What can one glean from the history of forestry coalitions in New York? It appears that the successful ones have had a specific mission. Second, there must be careful attention to nurturing the special needs of each group member. Third, agency and other "turf" issues often lead to coalitions falling apart. Finally, coalitions by nature are broad-based and members must be willing to compromise yet be continually active in the coalition if it is to be successful.

NYSAF and the New York Forest Practice Act of 1946

World War II (1941 to 1945) brought many changes to the United States: freedoms were suspended, many new regulations were put in place for the War effort, government controls were imposed on many industries, food and other material goods were rationed or unavailable. With the end of the War many of these losses were restored. However, many of the ideas and controls imposed during the War led to a mindset by many that continued regulation and better control of private business and interests were

warranted. One of those areas was private forest ownership and management. Some national sentiment arose for regulating how private forest land should be managed and when and how harvests could occur. Individual states often took exception to what appeared as unwarranted intrusion by the federal government into states' rights. Here in New York State those actions eventually led to passage of the New York Forest Practice Act. In the deliberations that preceded passage of the Act the New York Society of American Foresters was heavily involved, starting as early as 1943.

Charles Kresge, a forester then in northern New York, writing in the *New York Forester* in 1944, mentioned the problem of diameter limit cuts followed by pulpwood removal of the remaining trees. He mentioned the need for foresters to draft legislation to make timber growing an alternative investment and if not, "we will see good growing timber liquidated." He also called for lower taxes on forest land. Robert Reed, a Buffalo area forester, reported getting some loggers to practice selective logging and working with them to do more of this. Floyd Carlson then at the College of Forestry stated that, "the responsibility for productive forests is up to professional foresters." Indeed, as early as 1943 the NYSAF Committee on Legislation submitted bill drafts to the New York legislature on State regulation of cutting practices. Due to a false and misleading statements such as requiring a permit from the NYS Conservation Department to cut a tree (which was not in the draft bill but was a rumor circulating around) the bill was not brought out of Committee. However, the NYSAF did set up a special Committee on Forest Practices in New York.

At the 1944 summer meeting of the NYSAF a statement of minimum forest practices was adopted. Included were:

1. Minimum fire control
2. Eliminate grazing by domestic animals wherever the forest soil suffers.
3. Report severe insect and disease outbreaks.
4. Except for forest improvement, cutting will be limited to economically mature trees.
5. Timber harvesting to be done with minimum damage to the residual stand and site.
6. Provisions to be made for restocking.

NYSAF Chairman Floyd Carlson in 1945 called for a forest regulation law for New York to include these minimum forestry standards together with an adequate state forestry service to oversee the law. The Committee on Legislation and Policy further enlarged on this call by recommending establishment of statewide Forest Practices Board together with local Forest Boards. These local, or District Boards as they came to be called, would 1) adopt detailed locally applicable forestry practice rules, 2) oversee provision of adequate technical forestry advice and assistance to private forest owners together with local enforcement of the rules, 3) work to advance the development of forestry in every way, including possible development of forestry cooperatives with proper technical services, and 4) approve individual forest owners management plans. They also called for each District Board to have the services of technically trained foresters from the NYS Conservation Department, and for licensing of forest operators (loggers).

On March 23, 1945, the New York State Legislature passed the Hammond-Demo Bill known as the Forest Practices Standard Act. This incorporated almost all the material developed by the NYSAF. However, Governor Dewey, on April 16, 1945, vetoed the bill. The NYSAF Legislation and Policy Committee continued its work and a revised bill was discussed at a meeting of a New York Joint Legislative Committee in October of 1945. Present at that meeting were state legislators who would eventually sponsor the revised bill, representatives of the NYS Conservation Department, College of Agriculture, College of Forestry, Farm Conference Board, Empire State Forest Products Association, Empire State Grange, and Association of Towns. A revised bill removed wording relating to regulation and substituted cooperation and omitted detailed statements of forest practice standards; these to be developed subsequently by District Boards. The bill was passed by the legislature and signed into law by Governor Dewey. Today that law still exists as the New York State Forest Practices Act. State and District Boards exist but their role has changed. Much of the technical assistance formerly rendered

directly by foresters hired by the Conservation Department (now NYSDEC) has been taken over by private consulting foresters as budgets have become tighter and the philosophy of who should provide landowners with advice and assistance has changed.

The actions of the NYSAF and counterparts in other states, often working with landowner and other civic organizations, defeated the specter of federal regulation and retained some of the cherished freedoms that are a basis of our society.

Councils, Legislative Committees, Task Forces, and Beyond

The New York Wood Products Development Council is the most recent government and private organization group. Commissioner Patrick Hooker, of NYS Department of Agriculture and Markets spoke about the Council at his keynote address at a NYSAF winter meeting in Syracuse. This Council is one of a long line in public efforts to help develop forest-based industry and strengthen the forest resources of New York.

Public actions concerning the forests and forest industry in New York go back to the beginnings of the 20th Century. Early efforts were directed mainly at fire control and protection of the Forest Preserve in the Adirondacks and Catskills. Various other actions occurred such as the Hewitt Act in 1931 which started the State Forests program with reforestation on abandoned farmlands, and the Forest Practices Act in 1946 giving private forest owners free advice and help in managing their lands. More recently the thrust has been at more comprehensive approaches resulting in several committees and task forces set up by the legislature and governor.

In 1951 the New York legislature created the Joint Legislative Committee on Natural Resources. For many years it was chaired by Assemblyman Robert Watson Pomeroy. The Act charged the Committee to “Make a comprehensive study and survey of and with respect to the conservation, preservation and use of the natural resources of this state, its agricultural and forest lands, its fish and game, its waters and the abatement of pollution therein, and the recreational and other uses appertaining thereto.” This Committee conducted many studies including a review of the Forest Practice Act and zoning, or compartmentalization, of the Forest Preserve. Many public hearings were held, and annual reports prepared. The full-time staff consisted of Neil Stout (on loan from the SUNY College of Forestry) and a secretary. Others were hired as needed for studies.

In 1980 the NYS Department of Environmental Conservation undertook a massive planning effort. Background papers were prepared on the history of New York forests, the wood using industries, water, wildlife, and fish, recreational uses, forest insects and diseases, and the history of legislative actions. The final plan contained far-reaching recommendations for diverse actions from those aimed at strengthening the wood-using industry, to development of unit plans for state lands, to continued planning.

In 1987 Governor Cuomo created the Governor’s Task Force on Forest Industry, chaired by Ross S. Whaley, then president of SUNY College of Environmental Science and Forestry. Again, several studies were undertaken, and white papers prepared. Recommendations addressed Business Climate, Land Use and Ownership Stability, Forest Condition, and Education and Public Awareness. One of the Task Force’s major recommendations was that the Governor, “Create a New York State Forest Resource Development Council to advise the Governor on opportunities for promoting forest industry in New York.” This Council was created and functioned for a few years. However, it never got fully organized due to internal conflicts over what state agency would have primary responsibility. Other than a few meetings nothing materialized.

Another recommendation of Governor Cuomo's Task Force was the creation within the governor's office of an Undersecretary for Forest Resource and Industry. This person would coordinate activities of the departments of Environmental Conservation, Agriculture and Markets, Economic Development, and the Office of Rural Affairs. This recommendation was not acted upon.

Other recommendations of the Task Force dealt with property taxes, improving rural transportation routes, expanding education about forest resources in public schools, expanding the periodic forest inventory, and supporting research and development cooperatively by SUNY ESF, NYSDEC, and industry. This latter recommendation was acted upon and for almost a decade the New York Center for Forestry Research and Development, headquartered at the SUNY College of Environmental Science and Forestry directed and sponsored applied research into forest management, economics and policy, wood utilization, and forest health. With budget cutbacks and personnel changes, this ceased until the recent concern over the role of forests in carbon sequestration has revised a slightly changed Center.

The most recent development is the passage in New York State of the Climate Leadership and Community Protection Act in 2019. A Climate Action Council and several Advisory Panels are empowered, one of which is Agriculture and Forestry. This panel has broad membership from many forestry interests across the State. Many of the same issues that have arisen over the decades are being discussed as a newer generation is learning about the dynamics of New York's forest and woodlands. Are these just different people asking the same questions that have surrounded the forest economy for over 100 years? Perhaps, but with the worldwide interest in climate change there is opportunity to further the essential role that forest can play in mitigation of global warming. In New York State, with the backing of the Governor, legislature, and many forestry associations etc. there is an opportunity to continue the development of intelligent forest policy, assist forest landowners to sustainably manage their lands, and inform the citizens of the State of the importance of our forests and woods.