



News from the Forest

November 2003

VFF is about Healthy Forests

We live in a place where a temperate forest really wants to grow. The rich soils, ample and well-timed rainfall, and diverse flora and fauna all conspire to blanket our landscape with a northern hardwood forest that is very capable of constant self-renewal. We can help it stay that way.

Vermont Family Forests exists to help us be better stewards of our forested home. First, VFF offers educational programs, newsletters, and publications that increase our understanding of how the forest keeps itself healthy. VFF also shows us how we can obtain products from the forest without compromising the ecological functions and values by which the forest maintains itself as a healthy ecosystem.

Second, VFF has developed forestry tools and products that encourage the practice of ecologically sustainable forestry. The tools—including checklists, forest management plan templates, inventory systems, natural community mapping, and monitoring protocols—have been independently reviewed and approved by the Forest Stewardship Council. VFF continually upgrades these and makes them available to landowners. VFF also sells products such as scale and grade sticks, boundary marking paint, non-petroleum bar and chain oil, and more to help forest stewards tend their forests well.

Finally, VFF has identified ways to improve the economic returns that landowners receive from ecologically sustainable forestry.



Selling timber as stumpage based on mill scale into an undifferentiated commodity market simply does not pay the bills of forest ownership and stewardship. Through its many demonstration projects, VFF has repeatedly shown that wood from carefully tended forests can be harvested and converted into high-quality products through local value-adding services and that more value can be returned to the forest and the stewards of the forest.

Through its demonstration projects, VFF has identified some real opportunities for improving the connections between the supply of ecologically sustainable forest products with the market demand for them. However, it is now up to commercial entities—existing or forming—to build on the learning of these demonstration projects. An interested subset of VFF's landowners is starting to look into this.

So, what will VFF's function be in connecting wood from healthy forests and the marketplace? In the near-term, VFF will help assemble a

portfolio of what forests in its certified pool "want to yield." This

portfolio will likely consist of marked trees ready for harvest according to VFF guidelines. Eventually the portfolio may include maple products and recreational opportunities.

Another long-term role for VFF in the forest product marketplace could be marketing of Family Forest® brand products. This might one-day be accomplished through licensing of the brand to a commercial entity or entities. Much work needs to be done before this can become a reality.

VFF is up to lots of things. But the primary focus and function of these activities is to conserve the health of the forest. By participating in VFF's educational programs, certified ecoforestry, and/or marketplace adventures, you can do your part to celebrate and conserve the health of the forest and our community.

"May the forest be with you!"

David Brynn

VFF Founder and Addison County Forester

ATTENTION LANDOWNERS: Erosion Control Coming Your Way!

- Are your access roads rutted? Prone to washing out in heavy rains?
- Do they drain directly into water sources?
- Are they lacking drainage features like broad-based dips, water bars, culverts?
- Would you like to add new access trails but aren't sure where or how?

Creating and maintaining good access roads is one of the keys to good water quality and is an issue on many, if not most, private forests.

VFF can to help you build and maintain excellent, affordable access roads.

What we're proposing:

If you think you have some access road work to be done, let us know. David Brynn, Addison County Forester, will walk your land with you, assess your access needs, and let us know how many hours of work your forest needs. We will then pool all landowner access requests and create a work schedule for next summer (when forests are dry) with a local excavator well-versed in VFF standards. Such pooling will allow him to move efficiently from one job to another for as many days or weeks as it takes to complete all access work. This means that your work will be done as quickly and economically as possible.

What you have to do:

Give us a call! VFF will make all the arrangements for site assessment and work scheduling for July or August, 2004. You'll simply pay the excavator upon work completion next summer, and enjoy the fruits of excellent access. It doesn't get much easier than that! ✧

SLIMF Certification Update

In September, 2003, VFF became one of 10 applicants worldwide to receive certification through the Forest Stewardship Council's Small and Low-Intensity Managed Forests (SLIMF) pilot certification program. Our previous SmartWood certification was proving unsustainably costly, causing us to question continued participation in independent certification. SmartWood managers

recognized the problem of high annual costs to low-risk landowners, and developed the SLIMF program, which will require a less intensive, and therefore less costly, auditing process for landowners meeting program qualifications.

We anticipate that participation in this program will lower our annual certification fees significantly. ✧

MARKET NEWS~

Envisioning a Landowner Cooperative

Though landowner cooperatives geared toward creating an economic return from carefully managed forests have sprung up in several states, no such cooperatives currently exist in Vermont. VFF marketing director Netaka White recently coordinated an effort to obtain USDA grant funds to explore the potential for such a cooperative.

Four VFF landowners stepped forward to commit matching funds to the grant and six other VFF landowner families expressed strong interest in participating in a cooperative.

If funded the grant will fund a feasibility study with the following goals:

- To determine a strategy for VFF landowners to increase their economic returns from forest stewardship by aggregating their certified wood and cooperatively carrying it through some or all steps of the local value adding process.
- To further analyze the markets and the local value-adding infrastructure.
- To develop ways to maximize the benefits to the landowners at each step, including developing a process and markets for Family Forest® brand products.
- To identify the most appropriate legal structure for the landowner group.
- To develop a business plan and a marketing plan.

We're awaiting word—expected in early December—from USDA, and we'll keep you informed as plans continue to evolve to bring a supply of certified wood to local markets. ✧

VFF's Community Equity Project

In New England, forestland is becoming increasingly fragmented, with forestland ownership shifting to higher income, often non-resident property owners. VFF's Community Equity Project offers nothing short of a new model for forestland ownership. In the traditional forestland ownership scenario, when a large tract of land goes on the market, it's often sold at top dollar for development. In better case scenarios, local land trusts purchase the development rights on large forested tracts while remaining rights shift to an individual who can afford to buy them. Such an arrangement neither insures that the undeveloped land is managed ecologically nor addresses the current inequities in land ownership that deny poorer community members access to forestland ownership and stewardship.

VFF's Community Equity Project offers another option: **community-ownership conservation**. Under this model, a conservation group purchases a conservation easement on the property that not only buys development rights, but also establishes ecological management on the property in accordance with VFF's Forest Management Checklist.

Working through VFF, individuals can then purchase shares in this property, thereby buying rights to participate in this management, harvest timber, recreate, hunt, and so on. Members would share the costs of management as well as the returns.

Combining conservation and joint ownership has the following benefits:

- The land would be managed according to strict, ecologically sound principles.
- Community members who currently can't buy land would be able to do so without dividing the land into small, independently managed pieces.

- More community members would be connected to the land, and its stewardship, through ownership.
- Large tracts of land would continue as forestland in perpetuity. This is beneficial for conservation purposes; it also adds economic stability for forest-dependent industries, including tourism.
- Community members of limited means could afford to hold the land. Because the cost of the underlying rights would reflect the income-producing potential of the land as managed according to VFF principles, it should produce a return on the investment, after deducting the costs of taxes and management.

If this model can be successfully demonstrated locally, VFF will seek to establish other community-ownership conservation initiatives throughout the state, facilitated by a non-profit organization established specifically for that purpose.

During the past year, VFF made great strides in developing this ownership model.

VFF, under the direction of project leader Deb Brighton, has:

- **Facilitated** several meetings with local conservation organizations to introduce this idea and establish collaboration.
- **Identified** the parcel of land on which to launch the Community Equity ownership model, and begun to develop a conservation partnership with the current owner of this property.
- **Conducted** a forest inventory of the parcel and developed a management plan in accordance with VFF's management checklist and plan template.
- **Worked** with conservation organizations to:
 1. develop new language for conservation easements that clearly protects forest health in addition to limiting development.
 2. develop standards for appraisal of forestland subject to conservation easements.
- **Began** to identify marketing strategies for eventual selling of shares to community members.
- **Established** criteria governing share ownership, including maximum number of shares per household, number of shares reserved for qualified low-income households, and minimum number of shares for community residents.



We will keep you posted about developments in this exciting project! ✧

VFF Director of Marketing Netaka White rests by a sugar maple snag on the parcel with which we hope to launch the VFF Community Equity project.

WORKSHOPS

Deer Hunting 101

“If you aren't hunting with the wind, then you're just walking in the woods.” This was one of the many pearls of wisdom Bill Torrey offered to eager participants in Deer Hunting 101, a workshop co-sponsored by The Watershed Center and Vermont Family Forests.

Many folks associated with TWC and VFF know that Bill is one of Vermont's finest loggers. But on October 25th, sixteen lucky workshop participants discovered that Bill Torrey is also an expert on the white-tailed deer and that he is a gifted and entertaining teacher, able to articulate with equal ease subjects ranging from equipment options to the ethical relationship between hunters and the natural world.

Bill took participants through the forest, showing them where deer had passed by and what habitat features attracted deer. “Deer food is like a nut bowl at a party,” he said. “The best goes first.”



Veteran hunter, Bill Torrey, explains some of the tools and techniques of bow hunting to participants in the Deer Hunting 101 course on October 25, 2003.

Both hunters and non-hunters attended the workshop, and feedback from both was very positive. Non-hunter Barry King said, “For me, the deer hunting course was great... I really enjoyed Bill and his obvious love for the sport and the quarry... I learned a lot of good info about deer behavior.”

This workshop was one of VFF's best ever, ending in the Brynn Family sugarhouse-turned-deer-camp with a warm fire, crusty bread, smoked cheese, tart apples and Karen Torrey's outstanding venison stew. If you missed it, don't worry—We look forward to offering the workshop again next year. ✧

In Other Workshop News

VFF offered a flurry of excellent workshops this fall—Conducting a Biological Inventory on Your Family Forest (see page 4 for article and photos), Natural Community Mapping, Tree Identification, Game of Logging levels I & II, Deer Hunting 101, and Accessing the Family Forest.

More than 75 people took part, and we give our heartfelt thanks to instructors Marc Lapin, Jim Andrews, Jan Decher, Eric Sorenson, Laura French, David Birdsall, and David Brynn. If you missed any of these workshops and are anxious to participate in future offerings, please let us know. Your feedback helps us in planning upcoming events.

We will be offering, through the Colby Hill Ecological Project, an on-going Biodiversity workshop series. This series will provide quarterly, hands-on workshops that will increase your ability to assess your land's biodiversity. This winter, CHEP will sponsor a **tracking** workshop; in spring, we'll offer **birding**; and in summer, a **two-part mapping workshop** in which you'll create a rough natural communities map of your property and learn how to field check and fine-tune it.

Stay tuned for dates for these exciting workshops!

Winter Workshops

Winter Tracking

January 24, 9a.m. – noon. Free (Sponsored by the Colby Hill Fund, Vermont Community Foundation)
Join tracker Greg Borah at Lincoln's Colby Hill Town Forest to practice the art of reading animal sign in winter. Greg performs the large mammal surveying for the Colby Hill Ecological Project and for Forest Watch.

The Art of Maple Sugaring

January 31, 2004 9a.m.-noon. Cost \$15.00

Have you been wanting to learn how to tap your sugar maples and make your own syrup? Just wanting to understand how it's all done? Join VFF at the Elder Family Forest to learn the ropes, including sugaring ecology, equipment options, boiling techniques, and preparations for the season. Bring your favorite maple dessert to share!

Colby Hill Ecological Project

The Colby Hill Ecological Project monitors the biological diversity—plants, amphibians, reptiles, birds, mammals, invertebrates, lepidoptera (butterflies), and odonates (dragonflies)—of 680 acres of private land in Lincoln and Bristol, Vermont. Now entering its sixth field season, CHEP is accumulating information that will help provide baseline ecological data against which the biodiversity, biological integrity, and water quality of other properties in this region can be measured. On September 27, VFF and CHEP sponsored a workshop, *Conducting a Biological Inventory in Your Family Forest: A Case Study of Lincoln's Colby Hill Town Forest*, designed to teach landowners about biological assessments and to encourage them to begin assessing their own land's biodiversity.

CHEP Workshop: Biological Inventorizing is for the Birds (and reptiles and mammals and...)

Sunlight filtered through hardwoods lightly brushed with autumn color, illuminating 25 participants in CHEP's first public workshop, *Conducting a Biological Inventory in Your Family Forest: A Case Study of Lincoln's Colby Hill Town Forest*.

They came on September 27 to walk the woods with ecologist Marc Lapin, mammalogist Jan Decher, and herpetologist Jim Andrews, to learn how these scientists went about assessing the biodiversity of Lincoln's town forest by conducting a rapid ecological assessment (REA), how such an assessment informs land management, and how landowners might undertake a similar process on their own properties.

Marc Lapin gave participants an overview of the parcel, sharing with them his ecosystems analysis that identified the natural communities present, the dominant physiographic features, and the land use history of the area. His analysis also extended to the broader landscape surrounding the town forest, allowing him to place the parcel in an ecological context.

"One of our jobs in natural history," he told participants, "is to think like a member of the natural community—to think like a forest." As such, he pays attention to the variables that matter most forest community members—water and soil nutrients.

Andrews brought participants to a small, wet area—known as a seep—where a few inches of water pooled in a 6x12-foot area. "Pick up a rock," he urged, and participants eagerly turned over wet stones and squealed in delight as glistening, gray salamanders wriggled across the exposed mud.

Jim quickly caught two with a practiced hand and put them into a plastic container. Dusky salamanders, he said as he held up the jar, thrive in seeps like this. What's more, they stick close to home, ranging as little as four to five feet during the year.

This information has big implications for landowners. Fill in a seep like this, or drive logging equipment through it, and that dusky salamander population is gone. And dusksies are just one species that rely on these easily overlooked hotbeds of biodiversity.

Jim minced no words as he drove home to participants the importance of ecological land management. "Habitat is not a renewable resource." At some point, he said, individuals and communities will need to decide where we draw the line to protect habitat.

Jan Decher brought participants to see a trap line he had set the night before to monitor small mammals in the area. Several of the box traps were occupied, and four of the

"Habitat is not a renewable resource."
—Jim Andrews



Because white-footed mice (*Peromyscus leucopus*) and deer mice (*Peromyscus maniculatus*) are so similar in appearance, mammalogist Jan Decher must laboratory-test a saliva sample to accurately identify this *Peromyscus* caught in Lincoln's Colby Hill forest.

occupants were red-backed voles, which Jan had not caught on either of the other two trapping nights.

He pointed out the short-coming of an REA, which offers an incomplete snapshot of biodiversity.

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Left: A garter snake (*Thamnophis sirtalis*) twines through herpetologist Jim Andrews hands as he discusses reptile ecology.

Right: Ecologist Marc Lapin explains to workshop participants how he goes about identifying and mapping ecological features and communities.



CHEP Workshop, continued from previous page

He compared his results on the Lincoln Town Forest with data from the nearby CHEP lands that he has intensively inventoried for 4 field seasons.

The town forest sampling yielded only four small mammal species (including one bat), while the intensive monitoring nearby yielded 17 species, including one state-listed threatened bat species.

Even so, an REA teaches landowners much about their land's ecology and opens the door for further inventorying and study.

Though a permit is required to trap small mammals, Jan encouraged interested landowners to contact local colleges to see if there are graduate students interested in performing such monitoring. ✧

MEET YOUR NEIGHBORS ~ Saturated Soil Salamanders by Jim Andrews, herpetologist

Vermont has three species of salamander that I refer to as the saturated soil salamanders. They are the Spring Salamander (*Gyrinophilus porphyriticus*), Northern Two-lined Salamander (*Eurycea bislineata*), and the Northern Dusky Salamander (*Desmognathus fuscus*). All of them require wet saturated soils and are most often found along small streams or in seepage areas.

Like most other species of salamander, they are not often seen moving about during the day unless it is overcast and wet. Moving during the day would expose them not only to many daytime predators, but also to the possibility of drying out and suffocating. Their permeable skin, through which they breathe, must stay moist. None of these saturated soil salamanders have lungs.

The Spring Salamander is the largest and strongest of the three species and the most intolerant of low dissolved oxygen. It grows to seven or eight inches long and its mottled salmon color, thick body, and strong legs make it easy to identify.

The Northern Two-lined is the most delicate. It is very slender, with a long, thin tail that is bright yellow-orange underneath. It has four spindly little legs and a clearly delineated yellow-brown back with a thin black line on either side of it. It's the most abundant of the three species and can usually be found quite easily by turning rocks or logs in the saturated portions of stream margins and gravel bars. The Northern Two-lined wanders up to 100 feet or more from saturated areas on rainy nights and is sometimes found climbing a few feet off the ground in search of food.

The Northern Dusky Salamander is intermediate in both size and strength. As an adult it may reach a size of five inches. It is a dark brownish-red in color with darker sides and a slightly lighter back (which darkens with age) outlined in black. A light line angles from behind the eye to the corner of their mouth. They have a sturdy, rounded body, and their hind legs are noticeably stronger, longer, and thicker than their front legs. The strong hind legs make them good jumpers, and they frequently will jump out of the hands of an unsuspecting naturalist.



Coming Soon: Biological Inventory Resources Online!

We are in the process of developing materials and references for landowners interested in conducting a biological inventory on their lands, whether on their own or with outside help.

We will be placing these resources online, on the VFF website. If you haven't yet checked out our website, please visit it at www.familyforests.org.

We expect to have these resources available to you by January.

The Northern Dusky requires saturated soil, cover under which to hide, and lots of crevices within the rocks and logs in which to find food. Siltation is a problem for them and all other stream salamanders, because it fills up all the spaces between the rocks where they find their food and escape predators. Unlike the other two saturated soil salamanders, the Dusky primarily lays its eggs out of the water. It usually chooses a mossy log over or very near the saturated soil and lays its round white eggs under the moss.

The mother stays with the eggs and within a few weeks the eggs hatch. The young salamander larva will drop into the

water and then go through their larval stage in the water. By mid-summer of the following year, the young larvae lose their external gills and move out of the water to the saturated soils immediately adjacent to them. While other species may wander extensively in the woodlands, the Northern Dusky rarely is seen more than a foot or two from breeding and foraging areas.

Management Tips

Get to know the seepage areas (even those just a few feet across) and brook edges on your land. Keep them shaded so that the moisture content will remain high and the mosses will continue to grow.

Flag a 100-foot buffer around saturated areas prior to any timber harvesting. Locate roads outside this buffer, and avoid felling trees into buffer area.

Don't drain, ditch, or channelize saturated areas.

Avoid flooding saturated areas by damming drainage.

Keep **livestock and vehicles** out of saturated areas.

Keep **sediments and chemicals** from draining into area. **Use non-petroleum chainsaw bar oil** when cutting in the woods (Available from VFF). ✧

SPOTLIGHT ON VFF'S FOREST MANAGEMENT CHECKLIST

At the heart of VFF's vision of ecological forest management is its Forest Management Checklist. If landowners adhere to these 36 management practices, they will protect water quality, conserve or enhance site productivity, and maintain or improve native biological diversity on their forest lands. Below, we highlight one of the 36 practices, explaining what it's about and how you can achieve it. For a complete listing of the 36 practices, visit our website, www.familyforests.org, under "Publications," or give us a call (453-7728) and we'll mail you a copy.

Biological Legacies, by David Brynn, Addison County Forester

VFF Management Practice: "Biological legacies of the forest community—including coarse dead wood, logs, and snags; trees that are large, living, and old; buried seeds; soil organic matter; invertebrates; sprouting plants; and mycorrhizal fungi—should be protected to aid in post-harvest recovery and to keep the forest from becoming "oversimplified".

Many days are rather uneventful for our northern forests. The wind blows lightly, there may be a bit of rain, and a few insects might chew a few holes in leaves. Nutrients and water are cycled and leaks are minimized. Life is quite stable on the average day in a maturing northern forest.

But forests must be prepared to recover from major disturbance if they are to survive. The disturbance could be a violent windstorm that topples trees and lifts their roots out of the ground. It could be a heavy rain event that tries to pull away soil from the forest. It might be a fire or a prolonged drought that bakes the soil. The disturbance might be timber harvest.

In order to survive and prosper in the face of these events, healthy forests use many tools to aid in recovery. Biological legacies – important in many of the day-to-day functions of the forest – take on special importance when disturbances strike.

In his book, *Forest Ecosystems*, David Perry describes biological legacies as "mechanisms for maintaining threads of continuity and catalyzing system recovery."

The Society of American Foresters defines a biological legacy as "an organism, a reproductive portion of an organism, or a biologically derived structure or pattern inherited from a previous ecosystem."

There are many types of biological legacies. Here's a few of them and why they're important:

Soil organic matter is critically important. When forests experience wind-throw or even heavy cuts, the forest digs deep into the soil organic matter for energy reserves. It can take 15 to 20 years for a forest to replace the soil organic matter used to recover from a disturbance.

Snags provide habitat for many species of birds and mammals. Some ecologists believe that standing dead trees can take as long to fully disappear as they did to grow. Now that is a legacy!

Coarse dead wood can serve as a dam to catch soil. It can also provide cat-ion exchange sites. Coarse dead wood often provides habitat for many species, including red-backed salamanders and millipedes. Even rotten dead wood serves a valuable function by acting as a very effective sponge that holds water for long periods of time.

Large, living, and old trees generally have well developed root systems. They can often withstand very strong winds and then provide ample supplies of seed and shade. And their roots dig deep into the subsoil to extract minerals and nutrients.

The **buried seeds** of pin cherry, elderberry, and raspberry act as band-aids when disturbance strikes. Go to any large and recent clear-cut, and you will likely find large numbers of pin cherry seedlings. They seed of pin cherry can lay dormant in the duff for decades just waiting for the opportunity to germinate and revegetate disturbed sites. By doing so, they reduce nutrient leaks and improve germination conditions for many hardwood species.

Mycorrhizal fungi coexist with forest trees. The fungal mycelium, together with the tree roots, forms a mycorrhiza (fungus-root). This network of roots and mycelium increases the surface area through which trees can take up water and nutrients. The mycelium in turn gets nutrition from the tree. Both the trees and the fungi depend upon this partnership for survival. Protect mycorrhizal fungi and sprouting plants by keeping grazing animals out of your forest and by limiting vehicle traffic to access roads as much as possible. Use VFF's non-petroleum bar and chain oil to prevent pollution in your forest soils.



Vermont Family Forests needs your support!

VFF runs a very lean operation to develop and sustain all the exciting education, forestry, community equity, and marketing projects you're reading about in this newsletter. With your help, we can continue and expand our work to conserve the health of the forest community and, when appropriate, to promote the careful cultivation of local family forests for community benefit. **Please help us carry out this good work.**

Your tax-deductible contributions make our efforts possible. Please consider sending a gift today.

\$25 \$50 \$100 \$500 \$1000 Other _____ Make checks payable to Vermont Family Forests.

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