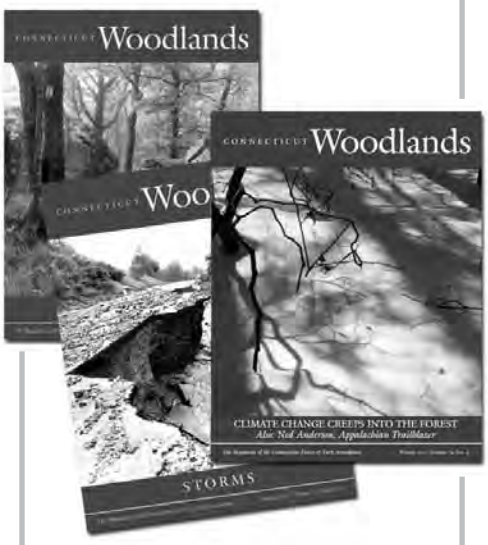
CONNECTICUT Woodlands

# HUNTING AND FOREST HEALTH

ALSO: LEARNING TO APPRECIATE THE ALDER

*The Magazine of the Connecticut Forest & Park Association* Fall 2011 Volume 76 No. 3

## About Connecticut Forest & Park Association and Connecticut Woodlands Magazine




*Connecticut Woodlands is a quarterly magazine published since 1936 by CFPA, the private, non-profit organization dedicated to conserving the land, trails, and natural resources of Connecticut.*

*Members of CFPA receive the magazine in the mail in January, April, July, and October. CFPA also publishes a newsletter several times a year.*

*For more information about CFPA, to join or donate online, visit our website, www.ctwoodlands.org, or call 860-346-2372.*

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CONNECTICUT Forest & Park ASSOCIATION


*State Department of Energy and Environmental Protection's environmental analyst, Douglas Jann, at Fort Trumbull State Park in August, discussed the report the federal government requires to give grants to states for trails.*
*See story, page 25.*

Christine Woodside

### Connecting People to the Land

**Our mission:** The Connecticut Forest & Park Association protects forests, parks, walking trails and open spaces for future generations by connecting people to the land. CFPA directly involves individuals and families, educators, community leaders and volunteers to enhance and defend Connecticut's rich natural heritage. CFPA is a private, non-profit organization that relies on members and supporters to carry out its mission.

**Our vision:** We envision Connecticut as a place of scenic beauty whose cities, suburbs, and villages are linked by a network of parks, forests, and trails easily accessible for all people to challenge the body and refresh the spirit. We picture a state where clean water, timber, farm fresh foods, and other products of the land make a significant contribution to our economic and cultural well-being.

### Connecticut Woodlands

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CONNECTICUT Woodlands

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DEPARTMENTS



*On the Cover*

*A deer hides in the grass at Haley Farm State Park in Groton, a reminder of Connecticut's abundant population. Hunting is not allowed in the park. Hunting of deer in state forests and public hunting lands like Barn Island in Stonington are considered the only ways to control high deer numbers. See the articles beginning on page 6.*

Photo by Larry DeWitt.

CONNECTICUT Forest & Park ASSOCIATION

## PRESIDENT'S MESSAGE

# Consider limited Sunday hunting

BY ERIC LUKINGBEAL

*CFPA President Eric Lukingbeal*

Along with politics and religion, hunting is a risky, controversial topic. Our opinions are based on our notions of right and wrong, and are unlikely to change over time. But, for those of us concerned about the health of our forests, it's a topic we ought to talk about.

The reasons are simple. First, too many white-tailed deer affect forest regeneration, in some areas resulting in virtually complete elimination of the next generation of hardwoods such as oak. Perhaps you've noticed the "haircut" effect at the edges of fields, where browsing deer have trimmed everything from 4 feet on down to the ground.

Second, the most effective (and cheapest) means of controlling the deer population is recreational hunting. The other methods—fencing, repellents, relocation, fertility control, and sharpshooting by hired professionals—are very expensive. Greenwich abandoned sharpshooting after a brief trial when the cost turned out to average $600 per deer. Fertility control works only with isolated populations. Repellents don't work when the deer are really hungry. Fencing and relocation cost too much to be practical on a large scale.

Recreational hunting works, and it's free to the public because hunters pay all their own expenses. The question for the Connecticut Forest & Park Association is whether the state legislature should do more—whether it should pass a law allowing hunting on Sunday. It is legal in 35 states, including Rhode Island and New York. Massachusetts does not allow Sunday hunting either.

Last February, we invited Howard Kilpatrick, the head of the Connecticut Department of Energy and Environmental Protection Deer Management Program, to talk to our board of directors. Mr. Kilpatrick said that deer overpopulation is particularly severe in three management zones known as 7, 11, and 12—in Fairfield County, the shoreline, and most of New Haven County. In those areas, deer populations average 60 per square mile. In a few places (for exaple, on Bluff Point, in Groton), deer number 200 per square mile. A healthy population is 20 per square mile, a level some parts of the state enjoy. Overall, the total state population has been declining since 2000, but in the three regions I cited, it is not.

Mr. Kilpatrick told us he thinks that allowing Sunday hunting in those three regions would be helpful. With appropriate legislation, the Connecticut DEEP commissioner could authorize hunting on private lands and could limit it to bow hunting only. Bow hunters shoot downward from tree stands, at a maximum range of about 25 yards. Connecticut has had no bow hunting accidents. Private landowners would still be able to bar all hunting on their land, as they are able to do now.

There is another aspect to the issue beyond forest regeneration—human health. Deer provide the blood meal from a large mammal that adult ticks need to reproduce. Where deer populations are kept in check, Lyme disease declines.

The CFPA Board of Directors has not formally considered the Sunday hunting issue. Our Policy Committee, working with our lobbyist John Larkin, has held only a preliminary discussion. Its members believe that the state ought to consider allowing Sunday bow hunting only in zones 7, 11, and 12. Hunting would take place on private lands at landowners' discretion. The legislature could authorize the DEEP commissioner to implement such programs and monitor the results.

We'd be interested in your thoughts. We know that Sunday hunting is a very sensitive issue for many CFPA members, and we want to hear from you.

*Eric Lukingbeal lives in Granby.*

## EDITOR'S NOTE

# Imagining an uncomfortable talk with Aldo Leopold

Aldo Leopold was a hunter. The icon of the environmental movement, the man who taught us not to exploit the land but understand its complexities, wasn't a bloodthirsty killer. He believed that hunting taught us the struggles of the natural world that humans belong in, whether we choose to see that or not. As a young forester in New Mexico, Leopold killed a mother wolf and her cubs, believing that wolves as a species were bad, echoing the thinking of the time. Watching the mother die shook him. Eventually, he changed his mind about wiping out a predator species.

If Leopold were alive today and could come to Connecticut, he would not tell us to introduce a pack of wolves into Greenwich. He would say that there's no one answer to this state's question, "What should we do to keep the deer healthy?"

I have often imagined myself squirming if I could meet Aldo Leopold. He'd tell me I spend way too much time thinking about fun in the backcountry and not enough time engaging with its harshness. He's right.

On the hunting matter, I think that Leopold might scold those of us who fervently want diverse, natural lands but who wince at the whole business of hunting. He might say that many of us know little about what it takes to survive on the run for a week or two, that we don't appreciate our food, and that we don't appreciate the messiness of nature.

He might point out that whether we hunt, eat, or buy animal products—or not—to be human in 2011 is to shape animal habitat.

Take myself: I don't hunt and weapons make me uncomfortable. As a journalist I've tried to stand firmly in the middle on the hunting question. But as a citizen, I've killed a lot of animals and failed to think about why all those opossums, raccoons, birds, cats, and snakes ended up under my wheels.

In this issue, I extracted answers, from state hunting staffers, to all of the basic questions about hunting that I've been asking for years. I put them down in one place. I hope that this will demystify hunting a bit.

Connecticut holds no true wilderness, but no resident can escape the reality that we live with wild animals whose habitats we've interrupted and whose health rides on decisions we make and which our ancestors made.

*—Christine Woodside, Editor*
*Connecticut Woodlands*

**COMING IN THE NEXT ISSUE OF**

CONNECTICUT WOODLANDS

*We ask John Hibbard, CFPA's former executive director, about:*

Landowners and lawsuits
Creeping development
Trails in the age of ATVs

*Also: The underground guide to winter trails*

## EXECUTIVE DIRECTOR'S MESSAGE

# You don't have to hunt to appreciate hunting

BY ERIC HAMMERLING

*Eric Hammerling*

My father never took me into the woods with a bow or a gun, nor did he huddle with me behind a blind to get the drop on some waterfowl. I did go fishing in the nearby Housatonic River with my sister (and lots of wiggly night crawlers), but I never understood why some of the other kids in school were so fanatical about hunting.

I began to understand why hunters and anglers are called "the first conservationists" when I was introduced to *A Sand County Almanac* about 21 years ago. Its author, Aldo Leopold, was a generation younger but arguably more significant to 20th century conservation than were Gifford Pinchot, Teddy Roosevelt, or John Muir. Mr. Leopold's legacy includes founding wildlife management science, the modern wilderness movement, the "land ethic," and the "ecological conscience." He also was a catalyst for conserving biological diversity.

The brilliance of *A Sand County Almanac,* first published in 1949, comes from its timeless relevance. I reread my dog-eared copy every two to three years, and each time I find deeper meaning. One enduring section is Mr. Leopold's chronicle of the declining interest in hunting. Current statistics from the U.S. Fish and Wildlife Service support his observations of 60 years ago. Hunters' numbers continue to fall nationally: In 1975, 19.1 million hunted. In 2006, the number was 12.5 million.

Experts hold many theories about why hunting's popularity has waned. Some suggest the causes are higher gas prices, the increased leasing of land by small exclusive clubs, or the posting of "No Hunting" signs in a more thickly subdivided rural-suburban fringe. Others cite the growth of single-parent households lacking fathers to pass down the hunting tradition (most hunters still are men); worsening disconnections between the land and food; and the rising popularity of climate-controlled, insect-free indoor activities such as television, the Internet, video games, and movies. Perhaps it's the obsession with immediate gratification that has diluted our interest in pursuits that require great patience?

Whatever the reasons for the decline in hunting, Mr. Leopold captures a distinct tension between traditional and modern outdoor pursuits in an epic chapter entitled "Goose Music." The following excerpt is one of his most powerful:

> But to those whose hearts are stirred by the sound of whistling wings and quacking mallards, wildlife is something even more than this. It is not merely an acquired taste; the instinct that finds delight in the sight and pursuit of game is bred into the very fiber of the race. Golf is sophisticated exercise, but the love of hunting is almost a physiological characteristic. A man may not care for golf and still be human, but the man who does not like to see, hunt, photograph, or otherwise outwit birds or animals is hardly normal. He is supercivilized, and I for one do not know how to deal with him. Babes do not tremble when they are shown a golf ball, but I should not like to own the boy whose hair does not lift his hat when he sees his first deer. We are dealing, therefore, with something that lies very deep. Some can live without opportunity for the exercise and control of the hunting instinct, just as I suppose some can live without work, play, love, business, or other vital adventure. But in these days we regard such deprivations as unsocial. Opportunity for exercise of all the normal instincts has come to be regarded more and more as an inalienable right. The men who are destroying our wildlife are alienating one of these rights, and doing a thorough job of it. More than that, they are doing a permanent job of it. When the last corner lot is covered with tenements we can still make a playground by tearing them down, but when the last antelope goes by the board, not all the playground associations in Christendom can do aught to replace the loss.

*Eric Hammerling lives in West Hartford.*

Larry DeWitt

*A young buck leaps through vegetation at the forest's edge in Haley Farm State Park. The park, like all state parks, is off-limits to hunting, but the state regulates hunting each fall in wildlife management areas. This animal is a reminder that deer live in robust numbers in Connecticut.*

# "WITHOUT HUNTING, DEER WOULD OVERBROWSE OUR FOREST ECOSYSTEM"

*Connecticut Woodlands Editor* ***Christine Woodside*** *interviews Connecticut's deer biologist,* ***Howard Kilpatrick***

**What is our deer population today?**

We no longer do our statewide aerial surveys, so we don't have any recent estimates. We do know that deer density in Fairfield County, based on a survey we've done over the past couple of years, is estimated at an average of 60 to 70 deer per square mile. That is our highest density. Our lowest density would probably be in the Norfolk area [in the Northwest Corner]. When we did our last aerial survey, it was something between 10 and 15 deer per square mile. That's a range. All the other places fall somewhere in between.

**How about turkey and moose?**

For turkeys, we estimate 35,000 to 40,000 birds. That's really a ballpark estimate based on a few calculations.

For moose, we estimate about 100 in Connecticut, and some of these moose straddle the line, sometimes in Connecticut and sometimes in Massachusetts.

**Are we allowed to hunt moose now?**

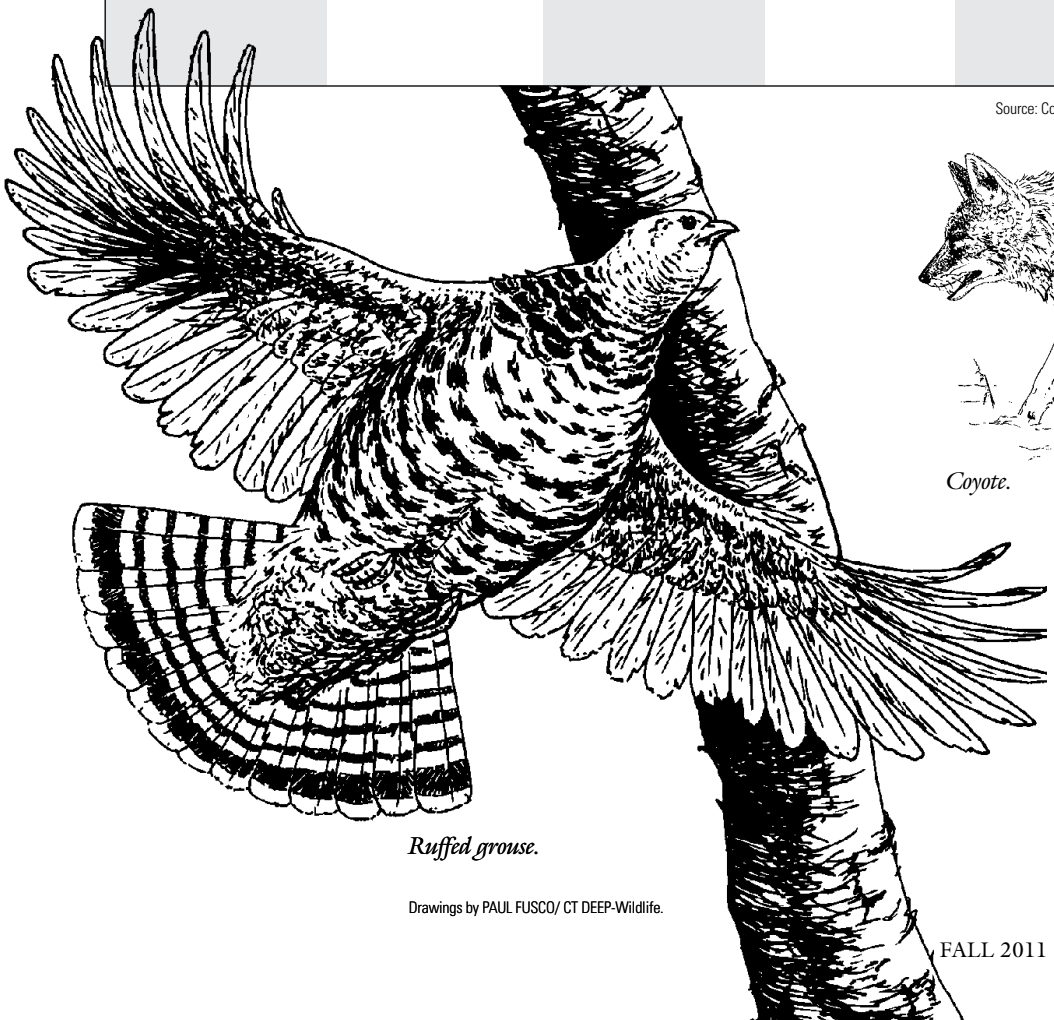
No.

*continued on page 8*

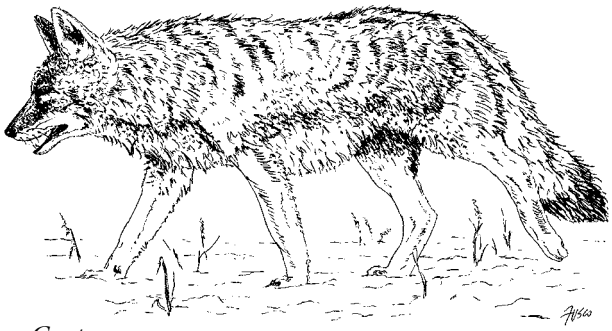
# CONNECTICUT'S HUNTING SEASONS FOR SOME ANIMALS

| ANIMAL | POPULATION | NUMBER HARVESTED BY HUNTERS | FIREARMS SEASON | BOW SEASON | NOTES |
|---|---|---|---|---|---|
| DEER | Varies from high of 60 - 70 per square mile in Fairfield County to 10 -15 in the Northwest Corner | About 12,000 each year. Roadkill, up to 18,000 more | Most areas, Nov. 16 - Dec. 6 | Most state lands, Sept. 15 - Nov. 15 and Dec. 21 - 31 | Only a dozen in late 1800s |
| TURKEY | 35,000 - 40,000 | 64 in fall 2008, 1,245 in spring 2009 (May season) | Oct. 1 - 31 | Oct. 1 - 31 Sept. 15 - Nov. 15 and Dec. 21 - 31 | Native to Connecticut, but land clearing almost wiped out. Wild birds brought back in the 1970s |
| COYOTE | Not known — but very healthy | 267 in 2006-07 | Jan. 1 - April 26 May 30 - Sept. 30 Oct. 15 - Dec. 31 | Jan. 1 - April 26 May 30 - Sept. 30 Oct. 15 - Dec. 31 | Migrated from Canada in the 1950s |
| RUFFED GROUSE | Not known — in decline | Very few; not known as their habitat appears to decline | Oct. 15 - Nov. 30 | Sept. 15 - Nov. 15 and Dec. 21-31 | Native to Connecticut. Forest management helps preserve habitat: forest with some openings |

Source: Compiled by Christine Woodside using government and science sources.



*Ruffed grouse.*



*Coyote.*


For details about hunting seasons and areas, see the Connecticut Department of Energy and Environmental Protection's Hunting and Trapping Guide, available online.

Drawings by PAUL FUSCO/ CT DEEP-Wildlife.

*White-tailed deer. Below, Turkey.*

Drawings by
PAUL FUSCO/ CT DEEP-Wildlife.

## INTERVIEW

*continued from page 6*

**Hunting regulations generally are considered a way to control deer, particularly, which would explode in numbers without hunting. What are the other visible effects of hunting—on trees and plants in the forest, and on other animals?**

Without hunting, deer would overbrowse our forest ecosystem, and there would be less diversity, less structure, and in some situations, the elimination of certain plant species. That's important, because all the other wildlife species share that habitat with deer and depend on that for cover. Deer negatively affect the forest community. They will indirectly be affecting all the other wildlife species that depend on that forest community for nesting, feeding, escape from predation.

By keeping deer populations at reasonable levels, you not only improve the stability of the forest, you reduce human risk of highway hazards and risk of contracting Lyme disease.

**Can you describe what the public hunting lands would look like without hunting? Would the underbrush be eaten up, the forest less diverse?**

You'd have what looks like a park. Parks are maintained; they are open. If you go to a forest where there are too many deer, you can often see a long distance with very little cover on the ground other than grass or birds.

**Some animal activists say that deer hunting ensures that we kill only the healthy, beautiful deer, leaving the unhealthy ones. Is that true? And if there's any truth in that, has the state considered allowing the hunting only of the weak and unhealthy?**

Well, certainly, if an animal is injured, it has a greater risk of being killed by a predator. [Deer have very few animal predators in Connecticut.] However, predators do take healthy, normal, adult deer. So they don't only prey on weak or injured. A hunter can't assess the health of an animal when it's walking through the woods unless there is something blatantly obvious: a broken leg or something like that.

**Don't hunters want the big deer with the big antlers?**

There are some hunters who focus on looking for large bucks, but a lot of hunters shoot plenty of deer that are not big or with antlers. In Fairfield County, where we are encouraging hunters to take antlerless deer, the harvest is skewed toward antlerless deer.

**Most of Connecticut's land is too developed to allow hunting, right? What percentage of our land can we hunt on now?**

We did conduct a survey in the town of Redding. Redding is a relatively developed town in southwestern Connecticut. We're helping them [townspeople] develop a deer management plan. About a third of the private land is open to hunting. About half the state land [in Redding] is open to hunting, and land trust land isn't open to hunting, although it may be in other towns. In these developed towns, the 500-foot-no-firearms-discharge law around houses limits firearms deer hunting. Most of the hunting in these towns is by bow hunting. There is no minimum property size and no minimum distance.

**Is it harder to kill a deer with a bow and arrow?**

Some of the things we have put in place have increased hunters' success significantly. We now allow bait in Fairfield County because, from a management perspective, we knew that we needed to harvest more deer.

**Are there other ways to control deer populations?**

The only other way to be effective is to conduct sharpshoots. There are three entities in Connecticut that can apply for sharpshooting permits: a municipality, a nonprofit landholder association, and a homeowners' association. They can contract to have a sharpshooter shoot deer.

**Can landowners shoot their own deer?**

If they own 10 acres or more and stay 500 feet from a neighbor's house.

**Year after year, various people introduce a bill to the General Assembly to allow Sunday hunting, and, year after year, the bill dies. What's going on here?**

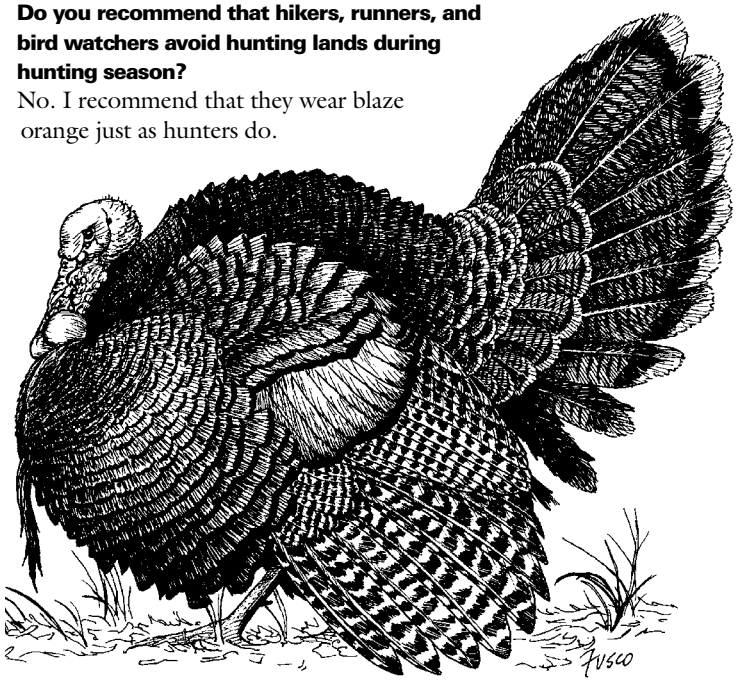
Well, it actually has made more and more progress in recent years. The problem is, folks who may not support it will amend it, and the amendment will be something that is not [related]. Someone will add something like, "The trapping of animals is no longer permitted."

**Has the potential clash of hunters with walkers on public lands affected the outcome of Sunday hunting bills?**

It had initially been a concern. The most recent one was specific to private land only and specific to bow hunting only.

**Do you recommend that hikers, runners, and bird watchers avoid hunting lands during hunting season?**

No. I recommend that they wear blaze orange just as hunters do.



# HUNTING HISTORY IN CONNECTICUT

*The Department of Energy and Environmental Protection's hunter safety staff answers questions*

**When did the state first begin to regulate hunting, and for which animals?**

Historical records suggest that protection for certain species began in the late 1800s. Before 1895, the protection of fish and game was the responsibility of the towns and counties. In 1895, the Connecticut General Assembly established the Commission of Fisheries & Game, which appointed the first "special game protectors." They evolved into today's conservation officers. With the abolishment of the county sheriffs system, the state Environmental Conservation Police are now the longest serving state law enforcement entity in Connecticut.

**Are there private lands where landowners and their guests may hunt all year, and for any species (even animals not covered in the hunting regulations?**

In general, no. The only exception to established seasons for regulated species are on regulated private shooting preserves, where operators may hunt legally propagated game birds (pheasants, chukar partridge, quail, ducks) from September 15 through March 31.

**Have hunters ever injured or killed people while hunting?**

Hunting is among the safest of all outdoor activities and has one of the lowest incident rates for all forms of outdoor recreation. Hunting incidents are rare.

*continued on page 10*

**Connecticut has one of the best safety records among the states. In a 24-year period, Connecticut has had an average of four incidents (all reported injuries while hunting) per year. In the last several years, one or two incidents were reported. This finding should be seen in association with data showing approximately 60,000 firearms hunters and 13,000 archery hunters, who spend a conservative estimate of 789,000+ days afield each year during the various hunting seasons.**

## AS POPULATIONS RECOVERED, STATE LIMITED HUNTING

### 1895 – 1896:

- 49 special game protectors enforced laws to protect game
- Deer population estimated at 12
- State proposed preventing shooting of water birds between March and August
- State proposed prohibiting snares for game birds

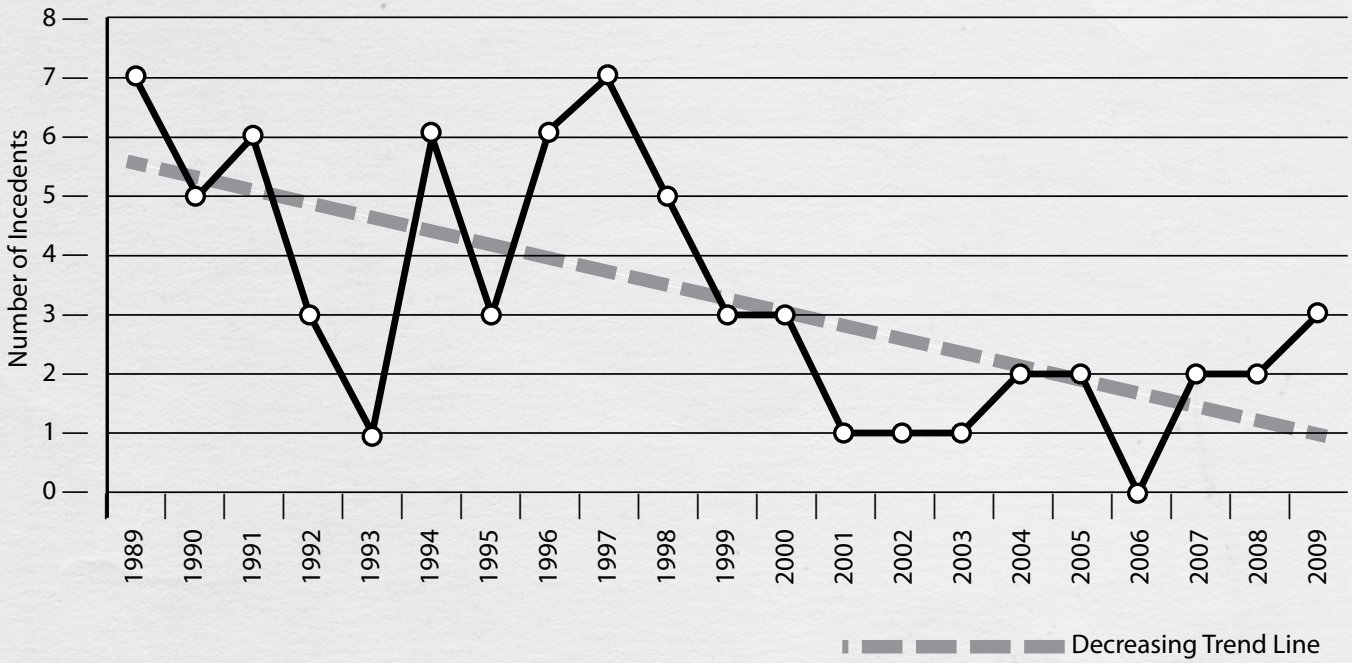
### BY THE EARLY 1900S: CONNECTICUT PASSED LAWS

- Prohibiting Sunday hunting
- Prohibiting destruction of nests and eggs
- Establishing closed seasons for grouse, squirrel, quail, woodcock, pheasants
- Prohibiting songbird possession
- Allowing only landowners to trap or snare wildlife
- Establishing a season for the rail (the bird)
- Establishing methods for taking water birds
- Establishing wildlife refuges
- Requiring permits to collect nests for scientific purposes
- Requiring $1 hunting licenses ($10 to $15 for nonresidents)

### 1915 – 1916:

- The state allowed people to kill deer if they did damage
- 1,689 deer were killed to prevent damage to agricultural crops

## HISTORY OF HUNTING-RELATED INCIDENTS FROM 1989-2009




*Hunting-related accidents have declined 81 percent in 21 years. Of the 68 hunting accidents in that span, 6 were fatal. Of those fatalities, 4 were the result of a hunter failing to identify his target, and 2 were caused by accidental firearms discharges.*

CT DEEP

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**MOST HUNTING INJURIES ARE SELF-INFLICTED OR INVOLVE MEMBERS OF THE SAME PARTY. HUNTERS' SAFETY RECORD HAS IMPROVED SUBSTANTIALLY OVER THE YEARS, LARGELY BECAUSE OF MANDATORY HUNTER EDUCATION, WHICH HAS PRODUCED AN EXTREMELY SAFETY-CONSCIOUS GENERATION OF HUNTERS.**

### HUNTING HISTORY

*continued from page 9*

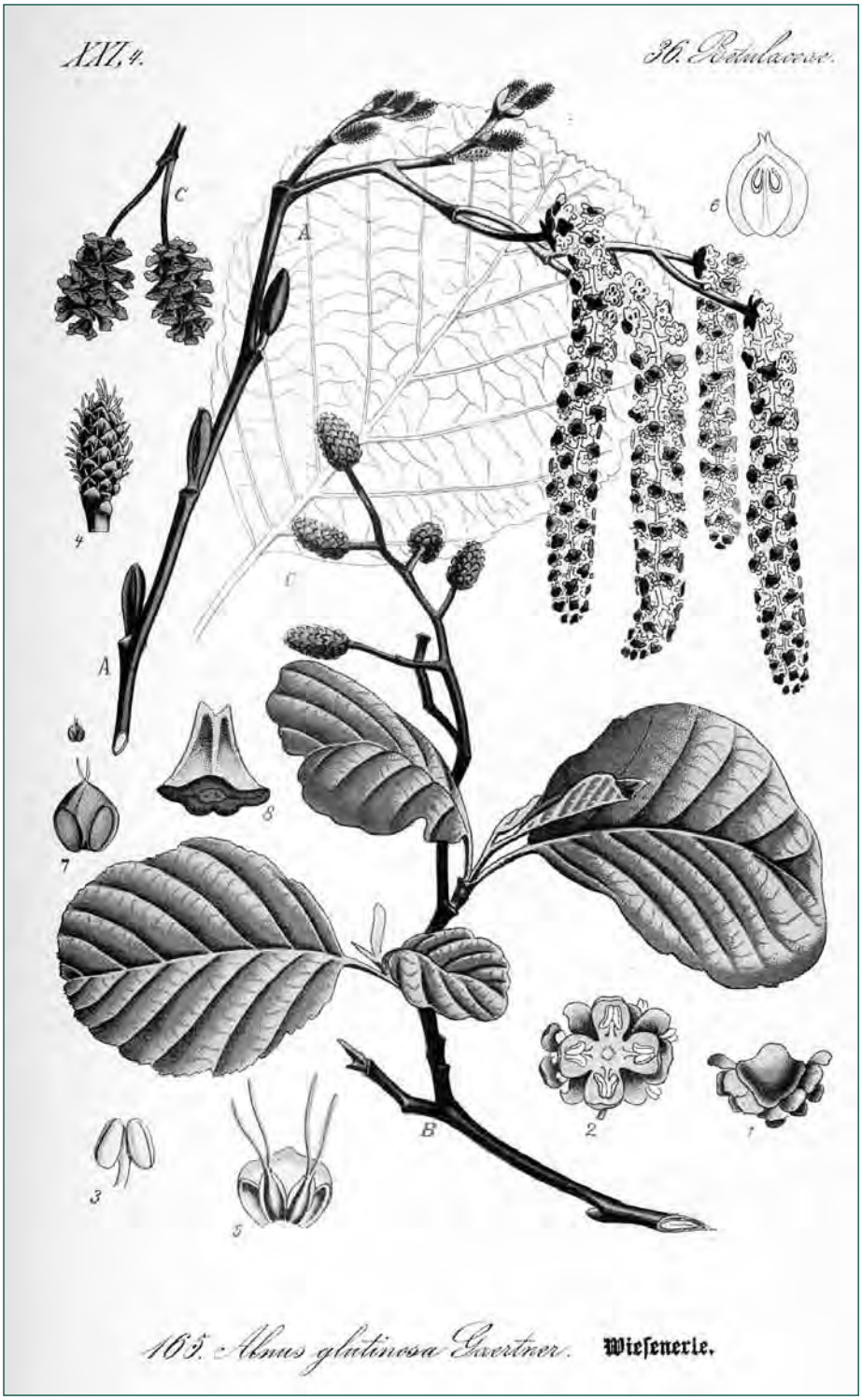
Connecticut has one of the best safety records among the states. In a 24-year period, Connecticut has had an average of four incidents (all reported injuries while hunting) per year. In the last several years, one or two incidents were reported. This finding should be seen in association with data showing approximately 60,000 firearms hunters and 13,000 archery hunters, who spend a conservative estimate of 789,000+ days afield each year during the various hunting seasons.

Between 1982, when collection of hunting-related injury information in Connecticut became standardized, and 2005, 9 fatalities and 91 nonfatal incidents were recorded. Among the fatalities that occurred while hunting, 1 was self-inflicted, 1 was a fall from a tree stand, 2 were from natural causes (heart attack), and 2 were among those illegally hunting. The largest percentage of nonfatal incidents in Connecticut involve relatively minor injuries among upland bird hunters (pheasant, grouse, woodcock, etc.) using shotguns, at distances to the victim of 50 yards or less, where the victim is in the line of fire (while swinging on game, when the victim was out of sight of the shooter).

Most hunting injuries are self-inflicted or involve members of the same party. Hunters' safety record has improved substantially over the years, largely because of mandatory hunter education, which has produced an extremely safety-conscious generation of hunters. The latest data from the International Hunter Education Association indicate a national rate of 6 hunting-related firearms incidents per 100,000 hunters.

In some instances, individuals kill wildlife without regard for law. These persons are poachers. The injuries that occur as a result of their illicit activities should not be characterized as a threat posed by hunters.

*Answers compiled by Charles Bruckerhoff, coordinator of the conservation education and firearms safety program of the DEEP. Answers have been edited for length.*




WIKIPEDIA COMMONS

*This rendering of the alder appeared in a German botany book in 1885.*

# THE ALDER: AN UNSUNG HERO

*It colonizes barren land, improving the soil*

BY DAVID YIH

Consider the humble alder. At first glance, it seems an unremarkable plant, particularly in the eastern United States, where alders are neither trees of towering majesty nor sought-after ornamental shrubs. Of the two species native to the northeast, woody plant specialist Michael Dirr writes, "Neither will take the nursery industry by storm. In fact, I do not know of a nurseryman that grows either." Even tree maven Hugh Johnson admits, "Alders must be the easiest trees to overlook." Yet these remarkable plants have hidden claims to fame with important ecological impacts.

In the Americas, the Incas were the first to recognize the strange ability of alder to make the soil more fertile, though they could not have fathomed the reasons. Analysis of pollen from a lakebed in southern Peru suggests that the Incas practiced an early form of agroforestry, cultivating Andean alder not only for construction timber but to enrich cropland and stabilize soil on eroded slopes. Spanish chroniclers writing in the early 1500s describe an organized Inca tradition of Andean alder cultivation that included the death penalty for unauthorized felling or burning.

How came the humble alder to inspire such draconian protective measures? Wherever alders grow, important changes occur in the soil. Perhaps the single most limiting factor on the ability of soils to foster plant growth is nitrogen. Though abundant in the air, nitrogen is useless to plants unless it can be "fixed"—incorporated into a compound that makes it chemically available to the roots. "The most striking effect of alders on soil is nitrogen enrichment," notes the U.S. Forest Service. "Not only is alder leaf litter rich in nitrogen, but many nitrogenous compounds are heavily concentrated in alder roots and root nodules."

Alders are not alone in their ability to fix nitrogen in the soil. The best-known nitrogen-fixers are legumes, used since ancient

times to increase and maintain soil fertility. But the truth is, none of these plants fix nitrogen at all. Instead, they associate symbiotically with soil bacteria that are the real nitrogen fixers. The plants receive nitrogen from the bacteria, and the bacteria get access to compounds the plant manufactures through photosynthesis. In the case of legumes, the bacteria are known as rhizobia because, although scientists now place them in 12 different genera, all were once grouped in the genus *Rhizobium*. The bacteria that associate with alders, however, belong to a single, unrelated genus, *Frankia*. *Frankia* are actinobacteria and only enter the roots of certain species, mostly woody, known collectively as actinorhizal plants. Once *Frankia* strains enter their roots, actinorhizal plants begin forming root nodules to house them. Not formed otherwise, these nodules are a sure sign of the presence of *Frankia*. Kick aside the leaf litter beneath an alder, and you'll see its orange nodules. Representative species are the native bayberry, sweet gale, sweet fern, and New Jersey tea, as well as the invasive autumn olive and Russian olive.

Dr. David Benson heads the Department of Molecular and Cell Biology at the University of Connecticut and has spent most of his career studying various aspects of *Frankia*. Last winter, after braving yet another of the prodigious snowfalls and muddling my way through the murky, cavernous ground floor of UConn's Biology & Physics Building, I mounted the stairs to his second-floor office with the sensation of coming up for air and sunshine. *Frankia* was named in the 1880s by Norwegian scientist and politician, Jørgen Brunchorst, who believed it was a fungus. Dr. Benson walked me through *Frankia*'s early history. "Nobody knew the relationship of the root nodules to the microorganism, or even whether it was a bacterium all the way up until the 1960s, when it was first shown to be a bacterium by electron microscopy. Until then, it was assumed to be either an actinomycete or a very thin fungus, and nobody really knew which it was."

As a member of the actinomycetes, *Frankia* was recognized to be bacterial in the 1960s. "And then hundreds of people tried to isolate this thing for years and couldn't get it," Dr. Benson said, "because it's so slow-growing that everything else grew before it did, so you'd never find it on an isolation. Then, in 1978, an undergraduate at Harvard Forest in Petersham, Massachusetts, got the first isolate into culture by forgetting about some plates at the back of an incubator. He came back from vacation, and there was something on them."

**IN THE AMERICAS, THE INCAS WERE THE FIRST TO RECOGNIZE THE STRANGE ABILITY OF ALDER TO MAKE THE SOIL MORE FERTILE, THOUGH THEY COULD NOT HAVE FATHOMED THE REASONS. ANALYSIS OF POLLEN FROM A LAKEBED IN SOUTHERN PERU SUGGESTS THAT THE INCAS PRACTICED AN EARLY FORM OF AGROFORESTRY, CULTIVATING ANDEAN ALDER NOT ONLY FOR CONSTRUCTION TIMBER BUT TO ENRICH CROPLAND AND STABILIZE SOIL ON ERODED SLOPES.**

#### Taking Root in Barren Soil

As a result of their nitrogen-fixing effect, alders act as early-succession pioneer species, colonizing even the most barren sites, increasing soil fertility, and enabling other species to move in. Following the catastrophic eruption of Mount St. Helens in 1980 that destroyed 100,000 acres of forest, red alder seedlings quickly appeared in areas inundated by volcanic mudflow, allowing Douglas firs to return to the area. In Alaska, the Sitka alder plays an important role in postglacial forest succession, moving into recently deglaciated terrain that eventually supports spruce forest. And European black alder has been used in the reclamation of strip-mining sites in Kentucky and Ohio, as well as in Europe. Not only does it rapidly colonize disturbed sites, it provides the equivalent of the optimum application of a nitrogen fertilizer, stimulating the growth of other species.

Connecticut alder species play similar ecological roles. A study of nitrogen fixation in speckled alder found that alder-dominated areas in Connecticut accumulate about 75 pounds of nitrogen per acre annually. In Connecticut, we have two shrubby native alders: speckled alder (*Alnus incana ssp. rugosa*), and smooth alder (*A. serrulata*). These have yielded a hybrid, *A. x fallacina*. The European or black alder (*A. glutinosa*), introduced in colonial times, has since naturalized and has invasive tendencies. It earns its glutinous specific epithet by having sticky young leaves, twigs, and catkins. It too has produced a hybrid with *A. serrulata*. All grow in wet places and along rivers and streams, where they are valued for their bank-stabilizing properties. Speckled alder is found throughout Connecticut, including outside of wetlands, whereas smooth alder is a wetlands obligate. European alder is most common in Fairfield County, but a new state champion was recently discovered in Salem by Frank Kaputa of the Notable Trees Committee.

#### Forming Valuable Thickets

Alders foster habitats that are important to a variety of species. Speckled alder frequently reproduces vegetatively, readily sprouting new stems to form impenetrable clonal thickets. Along the northeast coast, speckled alder and smooth alder are the dominant members of a plant community

*continued on page 14*

## ALDER TREES

*continued from page 13*

called the North Atlantic fresh tidal shrub swamp, associated with estuaries from Maine to Delaware.

In Wisconsin and Minnesota, the alder thicket is a designated wetland type, a habitat that supports such state-listed rare plants as sweet coltsfoot, small yellow water crowfoot, and New England violet.

Alder thickets are also important for shrubland birds, which are declining throughout the eastern United States. In a study of New England shrublands, eight bird species showed strong relationships to particular shrub species, including *Spiraea*, willows, and alders, as well as invasive exotic shrubs. One bird, the alder flycatcher (*Empidonax alnorum*), winters in South America and migrates north to breed in thickets of alder or willow. It nests in the fork of a shrub and earns its name by darting out to catch insects in flight. The alder flycatcher and its virtually identical sibling species, the willow flycatcher, are remarkable for being among the few birds differentiated solely on the basis of their songs. The two were once considered a single species, Traill's flycatcher. But, beginning in the late 1950s, research established the existence of two distinct song types, and subsequent experiments showed that the birds sang specific songs regardless of early experience, proving that the songs are innate rather than learned. Scientists see in the flycatchers a "decoupling" of evolving characteristics. U.S. Geological Survey scientist James Sedgwick has said, "In the case of *Empidonax* flycatchers, the evolution of song has outpaced that of plumage and morphology . . . [The] morphologic uniformity contrasts with striking differences in song, pointing to more rapid evolutionary rates for vocalizations."

### Recognizing Alders

Apart from their ecological contributions, alders have lots of interesting peculiarities. Their winter buds, unlike those of most of our trees, are stipitate, each one appearing atop its own stalk (stipe). Once the buds open and new shoots start to grow, another oddity shows up. Most temperate trees do not put out lateral shoots from a twig until the year following the twig's emergence. Alders are among the few trees of temperate forests on which lateral shoots may develop directly from a growing terminal shoot. According to forest ecologist Burton V. Barnes and his colleagues, this growth pattern, called *syllepsis*, "is common in the tropics but rare in temperate forests, although sassafras, alternate-leaved dogwood, and sweet gum [can also] form sylleptic shoots."

If we snoop into their reproductive strategies, we find that alders are among the plants whose inflorescences take the form of catkins, typically long clusters of tiny, unisexual flowers. Alders share this characteristic with the rest of the birch family, as well as with several woody genera, such as willows, oaks, hickories, cottonwoods, mulberries, and sweet fern and a few herbaceous plants, such as nettles. For a time, catkins were thought to be an important synapomorphy, a shared evolutionary novelty indicating relatedness through a common ancestor. Scientists now believe that the catkins of different families came about through evolutionary convergence from multiple independent origins.

Alder catkins are unusual in that they emerge the year before actual flowering. They start their development nine or ten months before pollination, and male catkins continue to grow intermittently during the winter months. Female alder catkins start out stiff and short, looking out over the pendulous male catkins. They will give rise to the single most distinctive feature of alders and the easiest way to recognize them: their woody "cones." Small and roundish, these persist for long periods, so that at any given time you are likely to see both old and new cones on an alder. The small seeds that fall from the cones have wings that help them ride air currents or, in the case of European alder, corky chambers that make them buoyant, allowing for dispersal by floating in flowing water or coasting windblown over the surface of still water.

**SINCE 1958, ALDER HAS BEEN THE PREFERRED WOOD FOR THE CLASSIC FENDER STRATOCASTER AND TELECASTER ELECTRIC GUITARS. ALL THINGS CONSIDERED, IT TURNS OUT THAT OUR MODEST ALDER IS SOMETHING OF A ROCK STAR AFTER ALL.**

ISTOCKPHOTO

### Durable Wood

Humans have had their own varied relationship with alder. The wood is very durable under water, and the piles of the Rialto in Venice and of many buildings in Amsterdam are of alder. Perhaps its strength in water explains the alder's former status in pagan Europe, where it was associated with the Celtic mythological hero Bendigeidfran, giant-king of Britain, whose story appears in the ancient Welsh narratives known collectively as the Mabinogi. In it, Bendigeidfran crosses the Irish Sea on foot and then lies log-like to bridge the Shannon River, allowing his subjects to cross over and confront the enemy. There is also an association with modern-day culture heroes of a sort. Since 1958, alder has been the preferred wood for the classic Fender Stratocaster and Telecaster electric guitars. All things considered, it turns out that our modest alder is something of a rock star after all.

*David Yih is a musician, writer, and avid amateur botanist.*

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# THE CONNECTICUT WINE EXPERIENCE

BY JEAN CRUM JONES

"Can we really produce good quality wine in Connecticut?" Surprised visitors used to ask us this upon discovering our new farm winery in 2004. "Try for yourself," I'd say, pouring a taste sample. I'd see a look of astonishment and hear them exclaim, "It is good!"

Yes, we can produce good wines in Connecticut, but it has been almost a 400-year struggle. Connecticut is located in the great temperate climate belt with other noted wine regions, such as France and Germany. Our land is blessed by proximity to water, moderate temperatures, glacial soils, and abundant sunshine. However, wine farmers have faced multiple challenges in establishing vineyards in Connecticut. Connecticut's experience trying to produce a pleasant, European-style drinking wine is a microcosm of the challenges many other regions of the United States struggled with to reproduce the familiar wines of the Old World homelands. Early New World settlers fully expected to continue their traditional wine drinking habits and were excited about the abundance of native grapevines. The first explorers of the North American continent sent reports of seeing and smelling an abundance of wild grapes everywhere along the Atlantic coastline. So important were grapes to the original Connecticut settlers that they were used to grace the seal of the Connecticut Colony when it was formed in 1665.

At the time of the discovery of the Americas, Europe was experiencing the golden age of wine, and the total grape plantings were almost four times the area of what is planted in Europe today. Average wine consumption was estimated to have been about 40 to 45 gallons per person per year. (Current U.S. consumption is about 2 ½ gallons per person per year.) The alcohol content in wine back then was much lower than it is today.

### A Great Wine Continent

The British founded the Virginia Colony in 1607 to establish great vineyard plantations and a self-sustaining wine colony. Wine was important then and considered a healthful drink. Often, water caused cholera and dysentery, and whiskey and port caused intoxication. For the English crown, the New World seemed to provide an opportunity to be freed from the control of the wine trade by Portugal, Spain, and France.

At first, the new colonists in Jamestown tried to make wine from the native grapes found around their settlement, but the wine had a strong, musky flavor, which they called "foxy." Then, they tried all the different varieties of native grapes they could find to make wine, but all tasted bad. In 1619, eight French winemakers with French vine cuttings were brought over to Jamestown to establish the vineyards. In a few years, most of the imported vines died and those that did survive produced a very poor quality wine. The Virginia Company then mandated the growing of grapes by all heads of household in the colony under the instruction of the French winemakers. Another disaster. Finally, by mid-century, colonists abandoned wine production. The colonists turned to tobacco growing to earn money for the Virginia Company. They produced beer for personal consumption.

Similar failures plagued vineyards along the Eastern seaboard, in-

cluding those of Lord Baltimore and William Penn. Within a few years of planting, the transplanted vines all succumbed to various unfamiliar and uncontrollable maladies. New England residents produced and drank wine from native grapes out of necessity, despite its unpleasant flavor. They usually served it warm and sweet to provide relief from their cold, damp, drafty houses. Apple seedlings came to Massachusetts with English settlers 10 years after the Pilgrims landed. The apple trees flourished and soon, hard apple cider became the iconic New England drink. In other parts of the country, people preferred beer and whiskey. Because the early settlers had not succeeded in growing either native or European wine grapes during the early colonial development period, wine ceased to be a necessary or central part of the American diet.

Many years later, in the 1780s, Thomas Jefferson became a lover of French wines as a result of his stint as special envoy to France. When he became president in 1801, he spent one-third of his salary on imported wines. He tried extensive means to establish American vineyards at his Monticello homestead. Jefferson hired an experienced Italian wine maker plus some Italian workers, but, to no avail. The grape vines would not flourish.

The cause of the failure of the European grapes when transplanted in America was eventually discovered to be a combination of hazards: a tiny insect, called *phylloxera*, as well as various fungus and virus diseases, all native to America, that devastated the European wine grapes.

A huge setback for wine growing in Europe happened when powdery mildew and *phylloxera* arrived in Europe on seedlings brought from America. In 1854, the French grape harvest amounted to less than one-tenth its normal yield. Starting in 1863, in France, *phylloxera* ate its way through the vineyards of Europe, halting production in wine regions for decades. The control of these pests did not begin until 1894 when an American agricultural scientist identified *phylloxera* as a tiny root aphid.

*continued on page 18*

## TO LEARN MORE:

***ON THE WEB*:**

**For info on the Wine Trail, visit ctwine.com or ctvisit.com**

**For more on wine drinking in the past versus today:**

**• www.answers.com/topic/food-and-drink**

**• www.historytoday.com/blog/news-blog/kathryn-hadley/wine-consumption-then-and-now**

***GREAT BOOK*:**

***A History of Connecticut Wine* by Eric D. Lehman and Amy Nawrock, History Press, 2011. Available at many Connecticut wineries or from the publisher.**

*Young grape vines take hold at the Jones Winery in Shelton.*

David Liddy

*continued from page 17*

### A New Beginning

Finally, a French viticulturist began to release cross-pollinated French and American vines. These new hybrid varieties had the wine quality of the European vinifera (wine grape) and demonstrated the *phylloxera* resistance of the American wild varieties. The French also discovered how to graft the vinifera varieties onto the *phylloxera* resistant American roots and eventually they reestablished their famous winery regions, though some traditional grape varieties were lost.

Back in America in the late 1800s, people renewed their interest in grape growing and wine production with the introduction of hybrid European-American varieties. Also, many immigrants from southern and eastern Europe began settling in America at this time. They regarded wine as an essential part of a meal and as an ingredient of healthy living. Many people of Italian heritage settled in Connecticut, and a few started commercial vineyards. By the early 1900s, 500 acres of grapes grew here.

### The American Dark Age of Wine

A temperance movement that had been pushing for alcohol reform since the mid-1800s finally succeeded in passing the Eighteenth Amendment. Prohibition dried up all commercial winemaking from 1920 to 1933. This was a period when some Americans became familiar with Italian foods for the first time because Italian restaurateurs concocted grape "juice" in their storage basements. Even after Prohibition's repeal in 1933, local laws in Connecticut and elsewhere continued to prohibit winemakers from selling. Home winemakers could make as many as 200 gallons of wine a year to share with family and friends. This practice was widespread in Connecticut because so much of the population came from wine-loving cultures. Otherwise, the drinking of imported fine wines was considered a luxury that only the very rich could afford.

### A Wine Renaissance

A new era dawned for wine and for its place at the American table in the 1960s as the American middle class tried to achieve a cultured lifestyle. First Lady Jacqueline Kennedy and chef Julia Child fueled an interest in French food and wine. Affordable jet travel to Europe allowed many middle-class students and tourists to experience the continental custom of drinking wine with meals. California wineries began opening tasting rooms, so visitors could learn more about wine while tasting it in pleasant European-styled settings.

A well-publicized Paris wine-tasting competition of 1976 altered the wine tasting landscape when it demonstrated that California wines could stand toe-to-toe with European wines in quality. Both white and red American wines won the top prizes. Suddenly, American wines had prestige, and America realized it could produce world-class wines. New, better hybrids of wine grapes able to resist the American winter had become available. But, many wine farmers found themselves at a disadvantage because of the Prohibition-era restrictions still placed on them by state regulators. Farmers recognized that to be able to survive as small, start-up wineries, they needed to sell wine and the wine-tasting experience directly to the consumer. That required changes in the law. Pennsylvania passed a farm winery act in 1967. It took more than 10 years before Connecticut passed similar legislation. Getting the bill passed in Connecticut required significant coordination of wine enthusiasts, but was finally well supported because of legislative desires to preserve farmlands and to support a state tourist industry. Governor Ella Grasso signed the Connecticut Farm Winery Act in April 1978.

Within a few years, eight farm wineries opened in Connecticut. Connecticut winemakers benefited from the innovative breeding work of Dr. Konstantin Frank and Cornell University in the New York Finger Lakes region. Dr. Richard Kiyomoto of the Connecticut Agricultural Experiment Station was helpful in selecting appropriate vine varieties for the new Connecticut vineyards. An expensive type of farming enterprise, many of the initial wineries were established by well-to-do individuals, desiring a country lifestyle, who had a deep passion for wine. Only one traditional farmer, Bill Hopkins of New Preston, started a vineyard in the early period, deciding to sell his dairy herd and convert the barn into a winery and tasting room.

Throughout the 1980s, the number of farm wineries remained limited in Connecticut. A November 1991, CBS show, *60 Minutes* dramatically changed the public's interest in wine drinking. The story explained the French paradox—how despite their high-fat diet, the French have a lower rate of heart disease than Americans have. The secret: red wine. Almost instantly, U.S. red wine consumption doubled. Americans took another look at wine as a healthy adjunct to meals.

After the terrorist attacks of 2001, interest in choosing local foods and local wines skyrocketed. The number of Connecticut farm wineries has grown. Many traditional state farmers are finding this style of agriculture an excellent way to diversify their family's farm operation. These farmers have also developed new recipes for wines using fruits they already grow on their farm, such as apples, pears, and berries. There are now 24 farm wineries, each with a distinct personality, linked by the Connecticut Wine Trail. The winemakers meet regularly to improve the quantity and quality of grape growing in Connecticut in their quest to become recognized as a wine region of worldwide note. There is an interesting diversity of wine styles in our cool-climate area, which some experts say resembles the grape growing areas of Chablis and Alsace in eastern France. Certainly, Connecticut's white wines are stellar—fruity, crisp, and refreshing. And, Connecticut's Cabernet Franc wins many plaudits from red wine lovers.

Travel our scenic back roads for a grape experience—sip, learn, and relax at a farm winery. Discover how good our Connecticut wines can be!

*Jean Crum Jones is a registered dietician. Her family runs the Jones Family Farms and the Jones Winery, both in Shelton.*

A TEMPERANCE MOVEMENT THAT HAD BEEN PUSHING FOR ALCOHOL REFORM SINCE THE MID-1800S FINALLY SUCCEEDED IN PASSING THE EIGHTEENTH AMENDMENT. PROHIBITION DRIED UP ALL COMMERCIAL WINEMAKING FROM 1920 TO 1933. THIS WAS A PERIOD WHEN SOME AMERICANS BECAME FAMILIAR WITH ITALIAN FOODS FOR THE FIRST TIME BECAUSE ITALIAN RESTAURATEURS CONCOCTED GRAPE "JUICE" IN THEIR STORAGE BASEMENTS.

# LESSONS FOR TODAY
# FROM THE PEOPLES FOREST CAMPAIGN

*Progress, far from consisting of change, depends on retentiveness.*

. . .

*Those who cannot remember the past are condemned to repeat it.*

—George Santayana

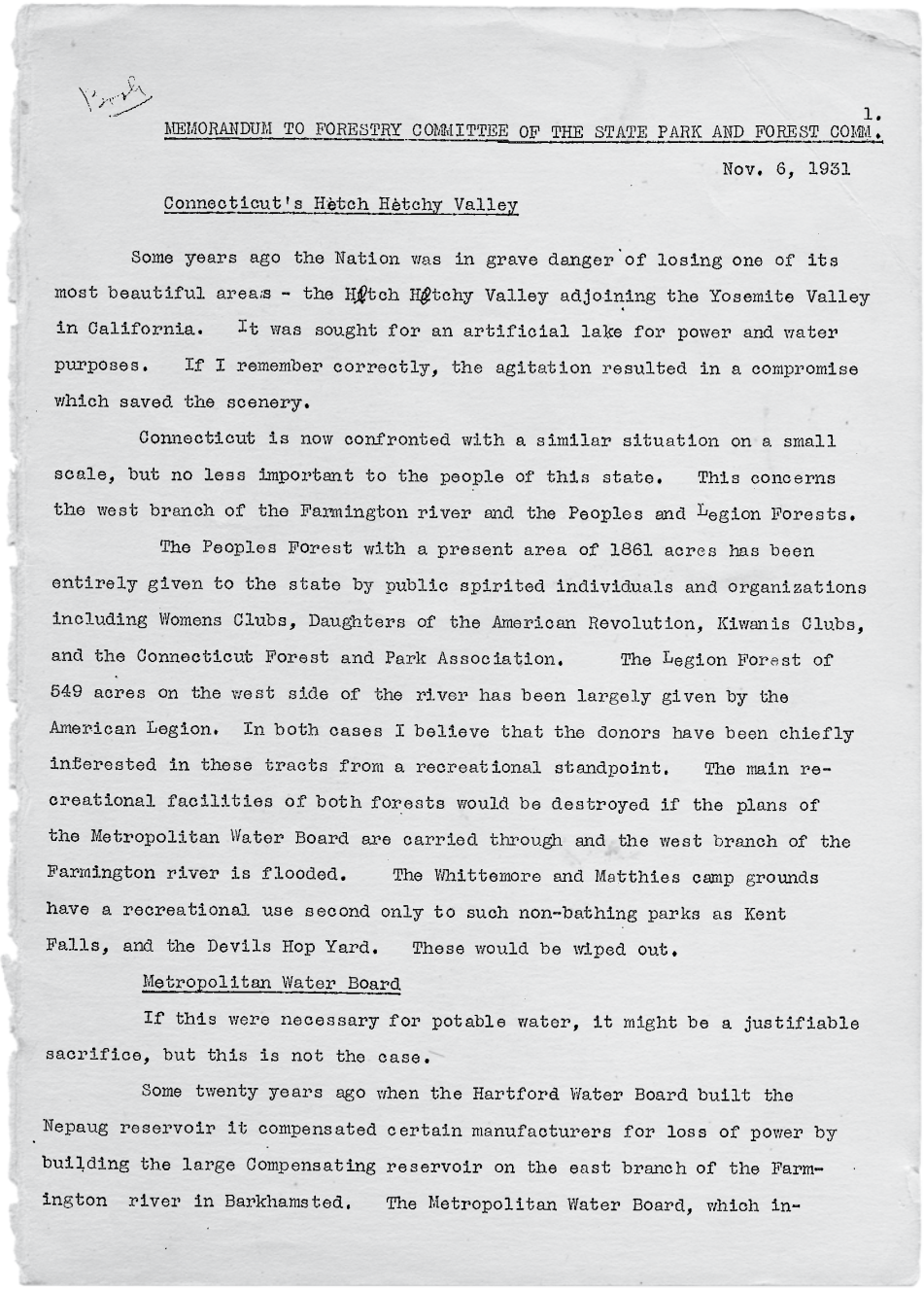
The Connecticut Forest & Park Association's history mirrors the history of conservation in Connecticut. CFPA helped initiate the statewide conservation and science-based forestry movements and continues its leadership today. One result of this longevity is that CFPA holds a wonderful array of primary documents telling this history.

When putting together a package to hand out at the Connecticut Department of Energy and Environmental Protection "Commissioner in Your Corner" event at Peoples State Forest, we came upon a pearl in the CFPA archives. We were looking for minutes and documents on the fundraising that created Peoples. We came across documentation of a forgotten fight to stop a dam proposed on the Farmington River that would have flooded Matthies Grove, one of the most beautiful areas of Peoples Forest today.

CFPA, then as now, takes the long view to conserve special places for future generations to enjoy. We do this with the knowledge that economic and political expediencies may at times conflict with this goal, and our commitment is to stand firm in the face of these ongoing pressures.

*—James Little*

*James Little is the development director of CFPA.*



1.

MEMORANDUM TO FORESTRY COMMITTEE OF THE STATE PARK AND FOREST COMM.

Nov. 6, 1931

Connecticut's Hetch Hetchy Valley

Some years ago the Nation was in grave danger of losing one of its most beautiful areas - the Hetch Hetchy Valley adjoining the Yosemite Valley in California. It was sought for an artificial lake for power and water purposes. If I remember correctly, the agitation resulted in a compromise which saved the scenery.

Connecticut is now confronted with a similar situation on a small scale, but no less important to the people of this state. This concerns the west branch of the Farmington river and the Peoples and Legion Forests.

The Peoples Forest with a present area of 1861 acres has been entirely given to the state by public spirited individuals and organizations including Womens Clubs, Daughters of the American Revolution, Kiwanis Clubs, and the Connecticut Forest and Park Association. The Legion Forest of 549 acres on the west side of the river has been largely given by the American Legion. In both cases I believe that the donors have been chiefly interested in these tracts from a recreational standpoint. The main recreational facilities of both forests would be destroyed if the plans of the Metropolitan Water Board are carried through and the west branch of the Farmington river is flooded. The Whittemore and Matthies camp grounds have a recreational use second only to such non-bathing parks as Kent Falls, and the Devils Hop Yard. These would be wiped out.

Metropolitan Water Board

If this were necessary for potable water, it might be a justifiable sacrifice, but this is not the case.

Some twenty years ago when the Hartford Water Board built the Nepaug reservoir it compensated certain manufacturers for loss of power by building the large Compensating reservoir on the east branch of the Farmington river in Barkhamsted. The Metropolitan Water Board, which in-

# PRUDENCE CUTLER DONATES $250,000 IN MEMORY OF R. DENNIS CUTLER TO CONNECTICUT FOREST & PARK ASSOCIATION

Prudence Pease Cutler of Farmington, a lifelong conservation advocate whose late husband, Ralph Dennis Cutler, spent many mornings on the CFPA's Blue-Blazed Metacomet Trail, has donated $250,000 to the Connecticut Forest and Park Association.

Mr. Cutler died at age 93 in 2006. He was a lifelong Connecticut resident, known in Farmington for taking his two labrador retrievers jogging on the Metacomet Trail. "He ran with his two labs and collected numerous neighborhood dogs as he jogged up to the trail entrance," remembered his daughter, Ruth Cutler, who serves on the CFPA Board of Directors.

"Occasionally he would run into Charlie Kaman, who at the time had the Fidelco Kennel at his and his wife Robbie's home. Charlie would raise his hand and his twelve German shephards would sit as Dad and his motley pack of dogs went by."

Prudence Cutler, known to her friends as Prudy, has devoted much time through garden clubs and the Nature Conservancy to conservation initiatives. Among her many interests over the years are highway beautification—she worked towards a moratorium on highway billboards in Connecticut—as well as a campaign against a highway that would have cut through the Metropolitan District Commission reservoir lands.

*CFPA plans to use the Cutler donation toward its land conservation programs:*

► **$100,000** will be seed money to create a permanent fund dedicated to the monitoring and defense of twenty conservation restrictions (also known as easements) that CFPA holds. This fund will grow through asset appreciation and donations.

► **$100,000** will make it possible to rehire a CFPA land conservation expert for up to five years. A staff member dedicated to CFPA's land conservation programs has been part of the Association's strategic planning since 2002.

► **$50,000** will fund adult educational outreach programs to publicize CFPA, recruit new members, and strengthen the CFPA community around its mission. These programs will reflect the individual goals of CFPA committees. These include the Land, Trails, Education, Development and WalkCT committees.

# NOTABLE CFPA ACCOMPLISHMENTS

## JANUARY 1 – AUGUST 31, 2011

### CONSERVATION ADVOCACY

*CFPA was a leading advocate for the following 3 bills that were enacted into law this year:*

- **Recreational Liability Protection for Municipalities** (P.L. 11-211 ): Maintains and ex-pands access to the outdoors by protecting Municipalities against personal injury lawsuits on recreational lands.
- **10 Mill Forest Conservation** (P.L. 11-198 ): Protects 14,000 acres of forest by keeping the property taxes of forest landowners at the same low rate paid by landowners protecting for-est lands through the P.A. 490 program.
- **Timber Harvest Revolving Fund** (P.L. 11-192 ): Enables the DEEP to recoup revenues from timber harvests on state lands to be used for developing and implementing sustainable forest management plans.

### ENVIRONMENTAL EDUCATION

- **Reached over 45,000 students** through training 186 school teachers, naturalists, youth group leaders and teachers-in-training on Project Learning Tree curriculum;
- **Served on Steering Committee which created the Environmental Literacy Plan for Connecticut** making the state eligible for national environmental education funding, if the No Child Left Inside Act passes.
- **Showcased Goodwin State Forest, Environmental Education Center, and Native Plant Garden in Hampton** as a "destination" through providing over 35 workshops, guided hikes, forestry-related short courses and other programs; and
- **Brought author/naturalist Tom Wessels to Connecticut** to help train participants in "Reading a Forested Landscape."

### LAND & TRAIL CONSERVATION

- **Increased permanent protection of the Nipmuck Trail to 5.89 miles** with a conservation restriction in Willington;
- **Became steward for 36-acre property in Stonington** donated to CFPA by the estate of Wilfred Caron; and
- **Received generous donation from Prudence and the late Dennis Cutler** to partially fund part-time land conservation steward starting in 2012.

### PATHS & PEOPLE (BLUE-BLAZED HIKING TRAILS AND WALKCT)

- **Developed 2 miles of loop trails in Maromas** with assistance from CL&P/NU volunteers;
- **Working on a New England Trail (NET) brochure, new website and launching a pilot program for utilizing the NET** as an outdoor classroom with support from the National Park Service;
- **Created new, easy-to-use online time reporting system** for all CFPA volunteers (last year volunteers reported more than 15,000 hours);
- **Coordinated the largest National Trails Day celebration in the nation** (193 events in 115 towns);
- **Held 17 WalkCT Family Rambles** with 330 participants; and
- **Trained 42 WalkCT Family Guides** including a special session held for Eastern Mountain Sports staff.

Mikael Behrens

*Blaze-orange vests announce your presence in the forests during hunting season.*

# HIKERS AND HUNTERS CAN COEXIST

BY LESLIE LEWIS

Autumn is the season for hunters to be active in state forests and on municipal or privately owned land. It can be disconcerting to hear gunshots or to come across people in tree stands or blinds while you are out for your regular hike (or cycle or horseback ride on multiple-use trails). In many cases, hunting long preceded other recreational activity on open lands, and it is still a treasured pursuit for many. For others, it is a way to put nutritious protein on their tables. Hunting is also a way to help control Connecticut's growing deer population.

Current regulations prohibit Sunday hunting, although many parties continue to debate whether to change that. (See page 4.) Therefore, although hiking on Sundays now ensures no meetings with hunters, the Connecticut Department of Energy and Environmental Protection has the following safety recommendations that will guide you all days during hunting seasons:

► **Wear bright clothing**, preferably florescent orange, to increase your visibility to others. Avoid wearing gray, brown, tan, or white in areas where hunters may be present.

► If you hike or ride alone, **let somebody know where you will be.**

► **Know the area** you will be using and the activities allowed there.

► **Make sure you have the landowner's permission** to use private property.

► **Consider putting a bell on** your horse, dog, or bicycle if you are in the woods during hunting season.

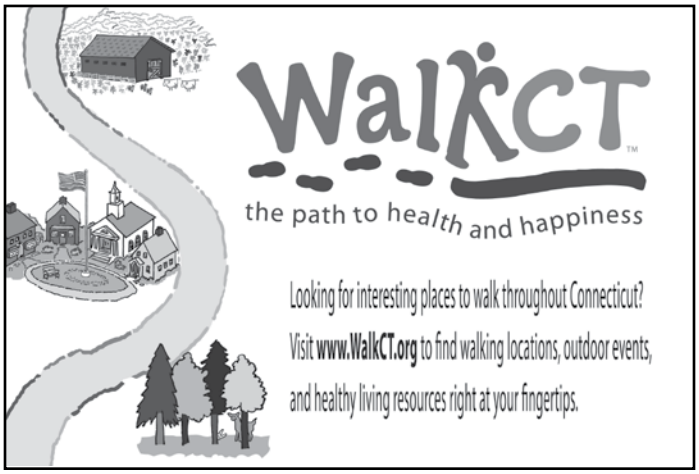
► If you see someone hunting, **call out to identify yourself**.

► Be aware that **peak hunting occurs in early morning and late afternoon**, primarily during the months of October through December. (*For seasons, see our chart on page 7.*)

Hunting accidents are rare in Connecticut, and those involving non-hunters are almost nonexistent. With a bit of forethought and common sense, you can make sure that everyone can enjoy a day in the woods.

*Leslie Lewis is the WalkCT director of CFPA.*





# A DREADED PLANT KILLER ARRIVES IN CONNECTICUT IN A MAIL-ORDER RHODODENDRON

BY ROBERT E. MARRA

The forests and landscapes of the eastern United States are home to a number of important tree and shrub species that are either proven or suspected hosts of the dreaded plant pathogen, *Phytophthora ramorum*, which has been responsible for widespread tree deaths in California, Oregon, and more recently in the United Kingdom. *P. ramorum* (also known as sudden oak death) has turned up before in Connecticut on nursery shipments from the West Coast, during annual surveys, and was quickly eradicated to prevent its release. This year, however, *P. ramorum* turned up at a residential property, in New Haven County, on a mail-ordered rhododendron, with three months passing from the time it was shipped (early April 2011) to the time it was inspected and determined to be infected (early July 2011).

*P. ramorum* is neither fungus nor bacterium, but rather is in an entirely separate kingdom that includes, among other things, red and brown algae and dinoflagellates. The *Phytophthora* genus has as perhaps its best-known member the ignominious species *P. infestans*, cause of potato late blight, which initiated the Irish Potato Famine of the mid-1800s. Since the early 1990s, *P. ramorum* has destroyed tens of thousands of acres of forest along the central California coastline and southwestern Oregon. Its principal host there is tan oak (*Lithocarpus densiflorus*), but its host range is extraordinarily large, at more than 150 species of shrubs, trees, and annuals, spanning diverse plant families. Included in that long list are widespread and important species in the forests and landscapes of eastern North America, such as oaks, maples, hickories, mountain laurel, rhododendrons, viburnums, and lilacs. *P. ramorum* produces girdling, bleeding cankers that can rapidly kill host trees, but on shrubs and understory plants it infects foliage, on which it produces abundant spores of two types: those that can infect immediately, and those that can resist periods of drought, cold, and heat. Bring together the combination of sporulating understory plants, susceptible trees, and a spring-through-autumn climate supremely suited to this (and other) *Phytophthora* species, and you have a "perfect storm" that could make chestnut blight (or emerald ash borer, or Asian longhorned beetle) look like a case of the sniffles by comparison.

The Department of Plant Pathology and Ecology at the Connecticut Agricultural Experiment Station, in New Haven, in partnership with the station's deputy state entomologist and state regulatory personnel, coordinates and takes part in an annual survey of nurseries that import plants from the West Coast. (Connecticut's nursery industry, at more than $1 billion a year, is the country's 10th largest.) Additionally, the experiment station's Molecular Plant Diagnostics Laboratory is one of only 17 labs in the United States certified by the federal government to perform rapid molecular diagnostics for *P. ramorum*.

This year's finding was the result of a "trace forward" protocol initiated by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, the goal being to track down, identify, and diagnose plants that had been shipped after a positive find at the originating nursery and to take immediate action should the pathogen be identified. A retail mail-order nursery on the West Coast, at which *P. ramorum*-infected plants had been identified in a late-spring survey, had unfortunately already shipped host plants, potentially infected, to customers in numerous eastern states, including Connecticut. The response time of the state's inspectors and scientists was commendably rapid: 10 days from the time when, in late June, the state's inspectors located the plant, still in its pot on an exposed patio in the homeowner's back yard, to the positive determination of *P. ramorum* by the Molecular Plant Diagnostics Laboratory on July 5, and confirmed on July 8 by USDA scientists in Belts-

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*P. ramorum-infected foliage from the mail-ordered plant just before it was destroyed. Citizens should remember that other plant diseases and winter injuries can look like this.*

**THE *PHYTOPHTHORA* GENUS HAS AS PERHAPS ITS BEST-KNOWN MEMBER THE IGNOMINIOUS SPECIES *P. INFESTANS*, CAUSE OF POTATO LATE BLIGHT, WHICH INITIATED THE IRISH POTATO FAMINE OF THE MID-1800S.**

ville, Maryland, in compliance with the federal *P. ramorum* protocol. As the inspectors found it, the plant was characteristically symptomatic with dieback, having already lost some of its (presumably) infected foliage. To date, with the trace forward nearly complete, only this single Connecticut plant has been determined to be infected with *P. ramorum*.

Inspectors and regulatory agents have since returned to the site and destroyed all potential host plants within a radius specified by the protocol, and follow-up tests of other plants in the landscape and soil have—*so far*—been negative for the pathogen; federally mandated inspections will continue periodically for at least 2 years. However, in the 3 months that transpired from the time the plant arrived to the time it was removed from the property, it had already been shedding leaves that can reasonably be assumed were heavily loaded with infectious spores. It is also entirely reasonable to speculate that infected leaves from this one plant could initiate an outbreak that in a decade or less could wipe out some of our most important native tree species, such as red and white oaks, and sugar and red maples, conceivably forever altering the composition of eastern North American forests and landscapes.

Worth noting is that *P. ramorum* has already destroyed more than 2,471 acres of Japanese larch plantations in Wales (Japanese larch is grown in the United Kingdom for lumber). *P. ramorum* was first identified in the United Kingdom in 2002 on a single viburnum plant in a garden center in West Sussex, when no larch species was known to be a host of this pathogen. Unfortunately, we now know that larches are highly susceptible, typically succumbing within a year of initial infection.

We can only hope that the Connecticut find of *P. ramorum* was caught early enough and the follow-up eradication and inspection processes were thorough enough that its accidental introduction was averted. Only time will tell.

*Robert E. Marra, Ph.D., is a forest pathologist for the Connecticut Agricultural Experiment Station in New Haven.*

# STATE HOLDS HEARINGS ON OVERDUE PLAN REQUIRED FOR FEDERAL OUTDOORS GRANTS

In August, proponents of parks and recreation used a series of four state hearings about a key outdoors report as a chance to plead for the state to recommit to its Recreational Trails Program. Proponents also asked for help in managing local parks, trails, and open land. Connecticut Woodlands magazine attended the hearing on August 11 at Fort Trumbull State Park in New London.

The state Department of Energy and Environmental Protection's environmental analyst, Douglas Jann, told about a dozen people that night that its Statewide Comprehensive Outdoor Recreation Plan covers general preferences of people, not specific local projects. He therefore tried to direct their comments away from anything specific.

**THE 2005 SCORP REPORTED THAT 86 PERCENT OF HOUSEHOLDS AND 72 PERCENT OF INDIVIDUALS SAID THEY ENJOY RUNNING, WALKING, AND HIKING, THE LARGEST CRITICAL MASS OF INTEREST. IN SECOND PLACE WAS GOING TO THE BEACH: NEXT, HISTORIC SITE TOURING AND SWIMMING.**

The SCORP, as it's known, was a year overdue. Mr. Jann said that the DEEP has lost key staffers in the last year and obtained a one-year extension. He said that he was working on the Connecticut SCORP and that it would be finished before the end of 2011.

He also said that the new report won't be like the lengthy document full of statistics that covered 2005 to 2010 but rather a brief update of the last six years. States must file SCORPs to receive federal funds for outdoor recreation projects. For example, federal funds assisted the building of the new Middle Beach bathhouse at Hammonasset Beach State Park in Madison, and in the future, federal funds could help rebuild another bathhouse in the eroded West Beach end of Hammonasset. The SCORP report proves how popular beaches are with Connecticut residents.

Mr. Jann showed slides reviewing key statistics from the old, 2005, SCORP, but he did not show the public the draft of the new SCORP. The brief outline and links to a public survey can be found online. Visit ct.gov/deep and search for "SCORP."

The 2005 SCORP reported that 86 percent of Connecticut households and 72 percent of individuals said they enjoy running, walking, and hiking. That was the largest critical mass of interest. In second place was going to the beach: 69 percent of households and 68 percent of individuals said they enjoy that. Next in line were historic site touring and swimming.

Facilities people thought were important to develop near where they live, six years ago, included paved multi-use trails and unpaved multi-use trails. People who said they use trails amounted to 52 percent of individuals.

Mr. Jann asked the audience for comments but said they should not talk about local projects unless they represented statewide recreation trends. The audience mostly ignored this request and issued pleas, sometimes heartfelt, for the state's assistance. "I was hoping you could give us some direction," said New London resident Kathleen Mitchell. Representing the group Friends of Riverside, Ms. Mitchell said residents want to have fun by the river, but that the Coast Guard Academy has already taken over half of the park's original 35 acres and now wants more. "This is the only recreation area for children and families in that area," she said. "The Coast Guard Academy has a population of 1,000. New London has a population of 23,000."

Mr. Jann's reply was, "I want to emphasize that we're here for statewide issues."

The president of the Groton Open Space Commission, Joan Smith, pleaded for the state not to end its open space land acquisition fund, and Duncan Schweitzer, president of the Avalonia Land Conservancy, said that despite the DEEP's legacy of starting the No Child Left Inside campaign, people in urban areas don't know how to get to trails and forested areas. "It highlights the need for GIS [Geographic Information Systems] programming," he said.

CFPA Board of Directors member Caroline Driscoll registered the Association's support of the state's Recreational Trails Program, which funnels federal transportation monies through the DEEP and then to cities and towns for trails: "This is the largest and only dedicated funding for trails." A week after the hearing, state unions voted to ratify their contract, and the funds for the trails program appeared secure.


*Photograph of cougar captured on trail camera on January 18, 2010 in Clark Country, Wisconsin.*

Courtesy of the Connecticut DEEP

# Mountain lion wandered to Connecticut from South Dakota

A mountain lion killed June 11 by a sport utility vehicle in Milford had wandered into Connecticut from the Black Hills region of South Dakota, genetic tests revealed. Wildlife officials in Minnesota and Wisconsin had tracked the same animal months before. The mountain lion, long thought extinct in Connecticut, was the same one spotted earlier in June in Greenwich, the Department of Energy and Environmental Protection said.

DEEP Commissioner Daniel C. Esty announced that the animal had traveled more than 1,500 miles, "representing one of the longest movements ever recorded for a land mammal and nearly double the distance ever recorded for a dispersing mountain lion."

He said it was the first time a wild mountain lion, or cougar, was definitely identified here in more than a century, although many people have claimed to see them in all corners of Connecticut.

The U.S. Department of Agriculture's Forest Service Wildlife Genetics Laboratory in Missoula, Montana, conducted DNA tests, concluding that the mountain lion's tissue matches the genetic structure of the mountain lion population in the Black Hills region of South Dakota. Other tests matched the Connecticut lion to DNA samples collected from individual animals found outside of South Dakota. Scientists then found an exact DNA match between the Connecticut lion and one closely watched in Minnesota and Wisconsin between late 2009 and early 2010.

The Midwestern DNA samples were obtained by collecting scat (droppings), blood, and hair found while the mountain lion was snow tracked at locations where sightings of the animal were confirmed. In addition, at least a half dozen confirmed sightings of a mountain lion in Minnesota, Wisconsin, and Michigan are believed to be of the same animal.

Young male mountain lions such as this one do travel far looking for females, but they seldom go more than 100 miles. The path of the mountain lion led Wisconsin biologists to dub the male cat the "St. Croix Mountain lion, " after the first county where a confirmed sighting of it occurred.

A necropsy of the mountain lion, performed at DEEP's Sessions Woods Wildlife Management Area in Burlington, showed the young, lean, 140-pound male mountain lion was not neutered or declawed—characteristics that seemed to indicate it was not a captive animal that had escaped or been released. It had no implanted microchip such as those used in domestic animals. Porcupine quills were lodged in the animal's subcutaneous tissue.

## Malloy will head governors' environmental panel

Governor Dannel Malloy will lead the Natural Resources Committee for the National Governors' Association, which represents the states on Capitol Hill. The Natural Resources Committee covers a broad list of energy, farming, and environmental matters. "While the cost of energy continues to rise—straining family budgets and putting our fragile economic recovery in jeopardy—we must do more to explore different avenues and move toward a clean, green energy future," Mr. Malloy said in a statement. "As a nation, we must continue to advance the clean energy technologies that are the future of job growth and economic expansion."

Founded in 1908, NGA lobbies the federal government and advises its 50 governor members. See nga.org.

# JOHN CUNNINGHAM

John Francis Cunningham, a beloved hike leader and volunteer for both Connecticut Forest & Park Association and the Appalachian Mountain Club, died August 25 at Cobalt Health Care and Rehabilitation Center after a brief illness. He was 81 and lived in Portland.

Mr. Cunningham, the husband for 52 years of CFPA's financial management assistant, Linda Cunningham, was an avid hike leader who led more hikes for the AMC than any other leader for a period of several years.

He was born in Stafford on February 27, 1930, to Anna Depeau and John T. Cunningham. He served in the United States Army of Occupation in Germany during the Korean War. After his honorable discharge, Mr. Cunningham entered the University of Connecticut School of Engineering, from which he graduated in 1957. He immediately went to work for Pratt & Whitney Aircraft in East Hartford, where he stayed for 30 years. At the company, he advanced from being a designer of jet engine test equipment to group leader and supervisor. He was well liked and respected in all those positions.

After early retirement he discovered the woodlands and parks of Connecticut and Massachusetts. Mr. Cunningham is survived by his wife of 52 years, Linda; his daughter Catherine and her partner Michael Melo of Framingham, Massachusetts; daughter Karen and her husband John Helde of Seattle, Washington; a sister-in-law, Mary Cunningham; and several nieces and nephews. He was predeceased by his brother, Richard Cunningham.

He also leaves two very special hiking partners, Dodie Holland and Jack Shea, with whom he spent many hours hiking, laughing and swapping stories. John will also be missed by several "chosen" grandchildren: Christine and Adam Hunt and Heather McDougall.

A memorial service took place September 17 at the First Congregational Church of Portland. Donations may be sent to Connecticut Forest & Park Association for its Hibbard Trust for Land and Trails, 16 Meriden Road, Rockfall, CT 06481 or to a charity of the donor's choice.

*—From online death notice*

# JOHN KELLEY: An Appreciation

BY STEVE FAGIN

As we loped along rolling trails past meadows and fields at Haley Farm State Park in Groton en route to the adjoining shoreline paths overlooking Fishers Island Sound at Bluff Point Coastal Reserve, I reflected that none of us runners would have been able to enjoy such an extraordinarily scenic jaunt if it hadn't been for the boyish figure at the head of the pack.

Johnny Kelley, the celebrated Boston Marathon champion and two-time Olympian, had been coach then of Groton's Fitch Senior High School cross-country team, and I often tagged along for 10-mile training runs when I moved to southeastern Connecticut in the early 1970s.

Kel, who died August 21 at age 80, was more than a runner and coach, though. He was an ardent environmentalist who had been part of a budding movement to preserve the land he and others cherished so passionately.

In the early 1960s, when a developer proposed turning the 267-acre, Colonial-era farm to into a housing development with 425 duplex units for the Coast Guard, then stationed at Avery Point in Groton, Kel helped lead the opposition.

"He started a conservation club with his students from English class as well as the runners in the sports program. Supporters held the big opening rally of the 'Save the Haley Farm' campaign at Fitch. Members of the conservation club acted as guides to take people on tours of the farm property," recalled Sidney Van Zandt of Noank, who recruited Kel to serve on the Groton Open Space Association she helped found.

By staging a rock concert, bake sales and other events, the group was able to raise $50,000 – enough money for the state to agree to buy the farm in 1970.

Today, thanks to such efforts, Haley Farm looks much as it must have in 1648 when Connecticut's first governor, John Winthrop Jr., owned the fields that extend to Palmer's Cove. With its well-groomed paths bordering mammoth stone walls, Haley Farm is one of the region's most popular parks for hikers, dog-walkers and runners.

Among the legions that competed on the cross-country teams Kel coached in the 1960s was Amby Burfoot, a lanky star athlete who also enjoyed long rambles through Haley Farm and Bluff Point. Amby literally followed in his old coach's footsteps by winning the Boston Marathon in 1968, 11 years after Kel's victory.

I became good friends with Amby and Kel, and the three of us often ran together at 800-acre Bluff Point, the largest undeveloped coastal tract between New York and Boston. The state then owned a portion of the property (it eventually acquired the rest of the peninsula) and initially contemplated converting to a Coney Island-style attraction, with a long access road from the highway leading to an amusement park, bathhouses, boardwalk and concession stands.

Fresh from their achievement to preserve Haley Farm, activists prepared to fight this proposal. By good fortune, the state legislature appointed Sidney and Amby to the Bluff Point Advisory Council with instructions to come up with a better plan.

Only a few months later, though Amby, now editor at large of Runner's World magazine, joined the Peace Corps, and Sidney nominated me to take his place on the advisory council. With encouragement from Kel we managed to toss out the initial recommendation and outline a plan to preserve Bluff Point as a natural area. Lawmakers eventually adopted legislation designating Bluff Point as the state's only coastal reserve.

It remains unspoiled today and its hiking trails that lead to a rocky promontory overlooking the water are among the most popular and scenic in Connecticut.

A few hours before Kel's memorial service August 25 I joined Amby and a handful of Kel's old friends for a group run through his old stomping grounds. Though our hearts were heavy our spirits lifted when we talked about Kel's legacy.

Kel really was a modern-day Thoreau, Amby said. "He cared about every living thing."

*To learn about a project to erect a sculpture of Kelley see www.johnkelley.org.*

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# Will you leave Connecticut's forests, parks and trails better than you found them?

**At the Connecticut Forest & Park Association**, we are motivated by this question every day. We benefit greatly from the work of our forebears. For over 100 years, CFPA members crafted and ushered into law measures that preserved many of the parks and forests we love, protected important open spaces, and created many hundreds of miles of trails that we maintain today for the benefit of all.

Sadly, a century's worth of conservation triumphs are now in peril. Budget cutbacks at the state and federal levels jeopardize vital conservation efforts for land, water, wildlife, and trails. Budget crises that were not created by overspending on conservation* are drowning out the long-term desires of the public both for places to recreate outdoors and for the sustainable management of natural resources.

We must do more together to preserve the natural capital that has been built up over generations and now is in danger of being lost.

We ask for your financial investment in this effort. The Annual Fund is a source we depend upon. The needs loom large . . . the work is vital . . . but the rewards to all who love Connecticut's natural assets are incalculable. **Take action to leave Connecticut better than you found it. Please be generous and support CFPA's Annual Fund today.**

* Funding for conservation has remained flat for 30 years (adjusted for inflation) and today represents only 1.1 percent of the federal budget and significantly less than 1 percent of the Connecticut state budget. We will be shining a bright light on this topic in our conservation agenda for 2012.