

Lyme Disease Primer

Lyme disease, caused by the bacterial spirochete *Borrelia burgdorfer*i (Bb), is the most common insect-borne infection in the United States. Despite increased awareness, the incidence of human infections with Bb has risen steadily over the last 15 years. Moreover, while Lyme disease is primarily localized in a few highly endemic regions in the United States, the geographic range of Ixodes ticks, commonly called Deer ticks, that carry Bb, has been expanding steadily. These indications demonstrate the need for public health awareness of Lyme disease and the development of measures to control the natural reservoirs and the bacteria that causes Lyme disease.

The natural transmission cycle of Lyme disease involves the passage of Bb between ticks and small mammals, usually common rodents such as mice, shrews, and squirrels. Ticks are most commonly infected by feeding on an infected animal at the larval stage of development. Following this initial bloodmeal, the larvae/detach and consequently molt into the nymphal stage during which the cycle of feeding and molting is repeated and the ticks reach adulthood. Both infected nymphs and adults are able to transmit the disease while taking a blood meal, but nymphal ticks most often infect humans. The reason for this is not clear, but pray be due to the seasonality of the tick life cycle (nymphs tend to feed during the summer months). While ticks and mice tend to have limited home ranges, the bacteria are able to disperse for longer/distances by feeding on deer and other large mammals. Feeding of Deer ticks, and consequently the time required to pass on the infection, typically lasts 24 to 48 hours.

continued on pg 2



This the State survey cut for Route 3 near Ship Pond Road in the late 1940s.

Save the Date!

Our Annual Meeting and Potluck will be held on Saturday, August 14 at 6:00 pm at Russell's Great Hall off Halfway Pond Road.

Six Ponders with last names from A to P should bring a desert or salad, and those from Q to Z should bring a main dish. Ice water, hot coffee and tea will be provided. Feel free to bring other beverages of your choice.

Mike Walsh of Greenscapes will be our guest speaker. Plan to share a great dinner, visit with your Six Ponds neighbors, and learn how you can make your yard green, beautiful and low maintenance while helping to protect our fragile water supply.

Trash

Many have observed an increasing problem with trash along both the paved and dirt roads in the Six Ponds area. Take a walk, and it is hard to miss food wrappers, beer cans, brush and assorted other household items dumped by the side of the road.

Last year several Six Ponders began an informal "adopt a stretch of road" program, taking a trash bag along on their walks and making a commitment to keep some small stretch of road litter free. If you have been helping out, or would like to, let us know. If we all do a little bit, the improvement should be noticeable and will be appreciated by everyone.

Long Pond, Little Long Pond, Round Pond, Gallows Pond, Halfway Pond, Bloody Pond

Lyme Disease (cont.)

Adults attach and feed to larger animals and can therefore be transported long distances while attached. Once through feeding, the ticks detach and lay their eggs. While the infection has not been shown to be passed from adult to the newly hatched larvea, any infected animals in the area are potentially hosts that will begin the infectious cycle in the new environment.

Thus far, measures aimed at controlling Lyme disease by limiting exposure to the infected tick vector or reducing deer and rodent populations have been effective in isolated situations but are not possible on a large scale. Use of insecticide-laden bedding materials has proven to be effective at limiting the number of questing ticks in a given area, but does not necessarily reduce the prevalence of Lyme disease in the region. In addition, Lymerix, a vaccine that consists of the outer surface protein A (OspA) of Bb and the only human vaccine, was recently removed from the market. Because of the sociopolitical disturbances and financial burdens that this vaccine generated, the development of a novel human vaccine has been, and will continue to be extremely difficult. In addition, despite controversial evidence, the implications that the OspA protein contained in the vaccine causes arthritis has made use of this protective protein in future therapy very unlikely. As a result, strategies for controlling infection in the wild reservoirs of Lyme disease have become critically important.

There have been several important advancements in the field of Lyme disease research in the past year. Recently, the biannual Gordon Research Conference on the Biology of Spirochetes was held in Ventura, California. The purpose of this meeting, and other Gordon conferences, is to bring the top scientists in the field together to discuss the latest approaches and progress in the field. It was clear that many of the attendees felt that the field has taken a tremendous leap from the previous gathering, and that substantial progress continues to be made.

One of the most critical aspects to understanding the biology of the causative agent, Bb, is the ability to genetically manipulate the bacteria. Much of our understanding of other more common disease-causing bacteria is due to the ability to "knock-out" specific genes and determine their function in the organism. Until recently, the intrinsic character of Bb had prevented successful experimentation of this kind, but due to the work of several groups, these techniques are becoming more accessible. Also of significance, many bacteria related to Bb have been targeted to genome sequencing. This will enable a broad comparison of related functions. In addition, there have been several conventional biochemistry advances that continue to identify critical aspects of Bb biology involved in the transmission and immune evasion strategies employed by the bacteria.

Additionally, many studies have begun to identify factors

necessary for the transmission and colonization of mammals and ticks by Bb. Surface proteins of the bacteria have been shown to be alternatively expressed, depending on the conditions of its surroundings. For example, upon tick feeding, the bacteria in the tick midgut encounter warm, mammalian blood, which is at a lower pH than that of the tick. This change in temperature and pH signal the expression of specific proteins that are required for infection of the mammalian host. Understanding these processes may also allow a better understanding of the expression of proteins within the mammalian host, specifically those implicated in immune evasion and the development of auto-immunity and arthritis.

While work with Lyme disease continues to be a challenging venture and many questions remain unanswered, advancements in the field continue to pave the way for new therapeutic options in the future. Further understanding of the biology of the causative organism and its transmission continues to reveal additional targets for pharmaceuticals and vaccine development. In the mean time, the best way to avoid Lyme disease continues to be individual vigilance when spending substantial time outdoors in highly endemic regions. Wearing of light-colored, protective clothing, use of insect repellents, and doing tick checks continue to be the surest way to avoid infection.

Additional information about Lyme disease and prevention can be found at the Center for Disease Control and Prevention web site:

(http://www.cdc.gov).

Dr Mark Scheckelhoff, B.S., Zoology, Miami University, Oxford, OH; Ph.D, Immunology, University of Cincinnati, Cincinnati OH; Postdoctoral Fellow

Six Ponds Executive Board

Charlotte Russell (President)	508-224-2007
David Buckman (Vice-Presid	lent) 508-224-2642
Peggy Briggs (Secretary)	781-740-9736
Walter Morrison (Treasurer)	508-224-8409
Steve Abbott	Aileen Chase
Jay Kimball N	Iichael McDonough
Doug Post	Roger Monks
Leighton Price	Larry Rosenblum
Judy Savage	

Long Pond, Little Long Pond, Round Pond, Gallows Pond, Halfway Pond, Bloody Pond

A Short History of Pinewoods Camp

This summer marks the 85th year of Pinewoods Camp. Initially known as "Pine Trees Camp", it was founded in 1919 by Helen Osborne Storrow as the very first National Girl Scout Leadership Training School. Mrs. Storrow, a very active supporter of the Girl Scouts, was also involved with the growth and development of country dancing in the U.S. She was the first secretary and later the president of what is now known as the National Country Dance and Song Society (CDSS). From the beginning, Pine Trees Camp included English Country and Morris dancing as part of its early programs.

By 1933, the programs were entirely focused on music and dance. Girl Scout programs continued at the camp for another two years, after which they moved to another nearby Storrow property. In 1935 the name was changed from Pine Tree to Pinewoods Camp. By then CDSS had moved their summer school programs to the camp, and for the next 11 years, Pinewoods was run as an adult dance camp. Sessions were always two and sometimes three weeklong programs. Helen Storrow died in 1944, and left the property to Lily and Rick Conant. The Conants ran the dance camp as a labor of love, often with a deficit and always with little money for capital improvements or maintenance. Over the years, programs expanded to include folk music and chamber music. The camp was also available to other non-dancing groups, and some houses were rented out to families for summer vacation use. The Pilgrim Fellowship held retreats and workshops for teen-agers, and for 30 years Richard Conant hosted a social workers' weekend called the Pinewoods Institute. Gradually programs expanded to include sessions offered by the Folk Arts Center of New England, and Country Dance Society, Boston Centre and the Royal Scottish Country Dance Society.

By 1975, Pinewoods Camp Inc. (PCI) was formed to raise money for the purchase of the camp property. It was made up of representatives of all the current user groups, the Conant Family, and Pond neighbors. The property was purchased from the Conant family in 1976, and PCI has run the property ever since. The first task after the purchase of the property was a campaign to repair many years of deferred maintenance.

Today, with a number of new camper cabins, bathrooms, septic and water systems, rebuilt camp house and dance pavilions, Pinewoods hosts around 140 campers at each of 15 sessions throughout the summer. While our campers are mostly adults, the camp does offer two week long and two weekend family sessions. We are deeply committed to continuing the tradition of traditional music and dance for future generations, and preserving the pristine environment of our very special surroundings. We are also committed to remain at our current capacity, and to carefully design and build any new buildings so that they blend into the "feel" of Pinewoods Camp.

We are able to accommodate a few visitors at our Sunday evening dances between August 1st and August 29th. Each of these nights features a different style of dance, and it is a great opportunity to experience our music up close. Please call Judy Savage at 508-224-4858 ahead of time to let us know if you are interested in coming.

Septic Systems

If you haven't found time yet to reply to the septic system survey, please consider adding that to your summer "to do" list. The more information we can gather, the better we can understand the variety of issues impacting water quality in the area. If you have a question about cesspools, septic systems, inspections, or Title V requirements, please ask. Perhaps we can help answer your questions and educate ourselves and our Six Ponds neighbors in the process.

Dues

Year 2004 dues are now due in the amount of \$10 per family.

Please return your payment in the enclosed envelope. Thank you!

Greenscapes

There will be a presentation by the Green Communities Speaker Series on The GreenScapes (watershed-friendly landscaping) on June 14 At the Plymouth Town Hall at 7pm.

GreenScapes are beautiful landscapes that protect our water. Come learn how to have a beautiful landscape without using excess water and chemicals -- it's a better alternative for you, your wallet, and our environment. Guest speakers Samantha Woods (Executive Director of the North and South River Watershed Associations) and Wendy Garpow (NSRWA and Mass. Bay Program) will describe the evolution or the GreenScapes program, a new outreach program for homeowners on the South Shore developed in conjunction with the water departments of seven towns in the reagion. They will also explain the concepts and principles of the program, which is summarized in a series of nine fact sheets dedicated to watering, mowing, fertilizing, herbicides/pesticides, plant choices, and design.

More information can be found at the Website: www.GreenScapes.org

Help Needed

Any organization is only as strong as its members. In order to succeed, the Six Ponds Association needs to continue to involve active, interested people who want to make a difference. If you have a particular skill, or are simply interested in helping, please let us know. If you can suggest someone you feel would be a strong contributor on the Six Ponds Board, please contact Lois Post of the 2004-2005 nominating committee with your suggestion(s). 508-224-7294; lois@mayflowerweb.com

Winter Visitors

Six Ponds residents here throughout the winter enjoyed seeing bald eagles quite regularly around Long and Halfway Ponds. The bald eagles seem to have moved on in mid to late March, but there was a report of a golden eagle just within the last few weeks. A very bold red fox is quite active in the northern Morgan Road/ Clark Road area, and Eastern coyotes are always a concern.



It's even great here during the winter!

Wind in the Pines

The Girl Scout Council of Southeastern Massachusetts, our Six Ponds neighbor at Camp Wind in the Pines, has been in touch to advise that they frequently have events which may be of interest to Six Ponds members. For example, last summer they had a guided nature walk through WIP to acquaint neighbors with some botany of the area. Many attendees asked to be invited to the next similar event, but WIP does not have their names and addresses. If you would like to be on a WIP mailing list so that you will be informed of coming events, please Contact Arleen Ellis at 800-242-0925 X33 or **aellis@gscsm.org**.

Long Pond, Little Long Pond, Round Pond, Gallows Pond, Halfway Pond, Bloody Pond