



# The Quinnehtukqut Connecticut Chapter

The Monthly Newsletter for Events, Information, and Action

## WELCOME TO THE MAY 2018 ISSUE

- **MAY 2018 CHAPTER CHAIR REPORT**
- **APRIL CHAPTER ACTIVITIES**
  - ~ YOUTH CLIMATE ACTION DAY
  - ~ 2018 EARTH DAY CELEBRATIONS
- **CONNECTICUT POLITICS 2018**
  - ~ POLITICAL COMMITTEE UPDATE
- **TAKE ACTION NOW**
  - ~ IN DEFENSE OF THE GREAT INDOORS
- **ENVIRONMENTAL HEAT**
  - ~ POWER PLANT APPROVED WHILE CRICKETS CHIRPED
- **HURRICANE AFTERMATH**
  - ~ THE BEAUTY AND RESILIENCY OF PUERTO RICO
- **BOOK REVIEW**
  - ~ HOW MAMMALS EVOLVED
- **EDUCATIONAL PROGRAM**
  - ~ FARMINGTON RIVER WATERSHED ASSOCIATION (FRWA)
- **SHORELINE GROUP**
  - ~ REORGANIZATION AND LOCAL ISSUES DISCUSSION
- **CONNECTICUT TRAILS DAY 2018**
  - ~ HIKE WITH CT CHAPTER SIERRA CLUB
- **OUTDOOR EVENTS: JUNE**
  - ~ EAT, HIKE AND KAYAK
- **OUR NATURAL WORLD**
  - ~ FINDING PEACE WITH GEESE
  - ~ THE SPOTTED LANTERNFLY
  - ~ AMERICA'S NATIONAL PARKS, FORESTS AND LANDMARKS SPARK A FAMILY'S ADVENTURE
- **REQUEST FOR CONTENT**
  - ~ JUNE/SUMMER CALENDAR
- **TELL A FRIEND**
- **DONATIONS, COMMUNICATIONS TEAM, LEGACY PLANNING, SOCIAL MEDIA**

# MAY 2018 CHAPTER CHAIR REPORT

by Martha Klein

Following the progress of bills in the Connecticut General Assembly is like a roller coaster ride: sometimes it's exciting and other times you feel you might lose your lunch.

An example of the ups and downs in legislative bill making is SB 346, a bill we support. Its title without all the upper case letters is: "An Act Concerning the Threshold for Investigating the Lost and Unaccounted for Gas of a Gas Company." This bill has had its language and title changed. It was originally written to hold gas companies accountable to leak no more than one percent of all gas transported. The threshold has now been raised to two percent. Currently, Connecticut law (PA 14-152) allows gas companies to leak up to three percent before PURA (Public Utilities Regulatory Authority) initiates an investigation. Sadly, the language in the bill is creeping toward the status quo.

## Natural Gas=Methane

Natural gas is ninety seven percent methane. Methane is the second most common greenhouse gas in the atmosphere, and as a short term pollutant, it does the most harm in its ten year lifespan. Methane is one hundred times stronger at holding heat inside our atmosphere than



carbon dioxide. If we hope to mitigate climate disruption, we must reduce methane emissions immediately. Fortunately, State Senator Kennedy who represents Branford, Durham, Guilford, Killingworth and Madison, decided to introduce this bill and is eager to see it pass. He has worked with the CT Chapter Sierra Club and our environmental allies to encourage grassroots activism to influence legislators and pass this bill into law.

As of now, Connecticut has zero tolerance for oil leaks, which is appropriate. Yet there is tolerance for gas leaks. According to PURA, the pipeline safety monitor in our state (authorized by the federal Pipeline Hazardous Materials and Safety Administration), gas leaks are only considered hazardous if they might explode. In their testimony opposing the gas leaks bill, PURA fails to acknowledge that methane causes significant climate disruption, a highly inaccurate way to assess the danger of methane.

Methane has adverse human health effects. It contributes to the formation of ozone smog which causes asthma, and increases the risk of some cancers. The November 2017 study, by the Clean Air Task Force and NAACP entitled, *Fumes Across The Fence-Line* identifies the health impacts of air pollution from oil and gas facilities on African American Communities.

[Fumes Across the Fence Line](#)

### **Climate Change Impact**

In this era of increased climate and weather pattern disruption, when spring wildfires occur in New England, along with drought, increased hurricane activity and other obvious signs of climate change, it is particularly disturbing for regulators such as Katie Dykes, Chair of PURA, to defend leaking pipelines and the “flexibility” of UI and Eversource, to “prioritize and respond to... gas leaks....” instead of repair. Based on the results of the CT Chapter Sierra Club’s 2016 Hartford Gas Leaks Study, the utilities have not made gas pipeline leak repair a priority.

Due to the law passed in 2014 (Public Act No. 14-152), ratepayers (that’s you) are charged for the gas that UI and Eversource lose, so these for-profit companies are not motivated to repair leaks. The current law allows gas companies to leak gas with impunity, and only investigates for leaks that are greater than three percent. The companies don’t have to repair leaks, just monitor and report them.

### **Gas Leak Study Tells the Story**

Our 2016 Hartford Gas Leaks Study found that the amount of leaking methane in Hartford alone could power hundreds of homes annually. Simply repairing the leaks would provide more methane in the system, thus subverting the argument by Eversource and UI that more enlarged gas pipelines are needed. Fixing leaks would take hundreds or thousands of metric tons of methane out of the atmosphere, thus helping to mitigate eventual climate disaster. Lower methane emissions would have a beneficial impact on the public’s health, especially in areas that contain multiple methane facilities, such as compressor stations, power plants, pipelines and meter/regulating stations. Finally, and most importantly in this legislative session focused on financial and revenue issues, fixing leaks would save ratepayers money.

Please call or email your legislator right away before the end of the session, asking for their support for SB 346. Stop the ratepayer subsidized methane leaks now!

For more information on our legislative priorities and advocacy, contact Legislative Chair Angel Serrano, at [aserrano1776@gmail.com](mailto:aserrano1776@gmail.com) or call 860.849.7049.

*Martha Klein is Chair, CT Chapter Sierra Club*

## APRIL CHAPTER ACTIVITIES

### Our Chapter's Busy April

#### Youth Climate Action Day

On April 18, we co-hosted Youth Climate Action Day with CHISPA, CT League of Conservation Voters, Clean Water Action, Greater Hartford Environmental Coalition and many other allies. The day was organized by Alex Rodriguez of CHISPA. These college and high school age activists were inspiring, informative and galvanizing, and numerous legislators came to share their thoughts with this highly energized group.



Youth are truly leading the way at this moment in history which feels pivotal. The number of global climate refugees is climbing, causing displacement, war, famine and drought. Thousands of needless gun deaths waste lives, especially young lives. Health statistics in the United States are worsening, especially for preventable morbidity. The leaders of Youth Climate Action Day understand the issues, and they require no persuading, unlike some among the older generations. The Connecticut Chapter Sierra Club will continue to follow these youth leaders toward a more just and healthy future.



Of interest is that the youth leaders support SB 345, which the CT Chapter also supports, An Act Concerning Climate Change Education In Connecticut Schools. These next generation leaders are smart not only about the issues but about the need for education of their peers and younger students on the real science of climate disruption.

#### Earth Day Celebrations in Connecticut

On April 19, 20, 21 and 22, in celebration of Earth Day 2018, your Chapter brought our Sierra Club message of "Explore, Enjoy and Protect" our land to seven locations throughout the state. From the northwest corner of Norfolk to Niantic, Woodbury, New Haven, Hamden, Avery Point and Farmington, we met Connecticut residents and discussed the environmental issues of the day and encouraged people to register to vote.

[Climate Change Impacts](#)



Photo credit: [uumfe.org](http://uumfe.org)

# CONNECTICUT POLITICS 2018

## Political Committee Update

by Ann Gadwah

The Political Committee of Connecticut Chapter Sierra Club is gearing up for the 2018 election season. Our committee has doubled in size since last month and thank you to all those who have answered the call for volunteers. I am inspired by and appreciative of everyone who has volunteered and know we are going to do great work together.

Our endorsement process for the Connecticut General Assembly has begun. We have already had a few candidates come forward and ask for endorsement consideration. The next few months will be filled with analyzing questionnaires and interviewing candidates, and hopefully endorsing some great environmental champions. It should be both fun and rewarding. There is still room on the committee for any members who are interested.

Finally, we are especially looking for a great candidate to endorse for Connecticut's 5th District in the U.S. House of Representatives. If you are a candidate or know a candidate who would like a Connecticut Sierra Club endorsement for either a state or federal position, please contact Ann Gadwah at [anngadwah@gmail.com](mailto:anngadwah@gmail.com) and we can start the process for you. Here's to a great election season!

*Ann Gadwah is Political Committee Chair, CT Chapter Sierra Club*



Photo caption: Connecticut state flag

## TAKE ACTION NOW

### In Defense of the Great Indoors

by Colin Cogle

When you think of the Sierra Club, you think of the great outdoors. You might picture yourself in a redwood forest, watching one of the ancient trees stretch its limbs upward toward clean and clear skies, the domain of lily white clouds, bald eagles and the occasional wind turbine; and all but feeling the venerable plant pushing its roots through clean soil, down into aquifers as pure as when John Muir walked over them. As you take a picture with your cell phone, you marvel that it reads, "No Service."

It may surprise you that the Sierra Club also takes a stance on the great indoors; specifically, on the Federal Communication Commission's (FCC) reversal of the "net neutrality" rules that required Internet service providers to treat all traffic without discrimination or prioritization. The Sierra Club's Executive Director, Michael Brune, spoke through a press release issued the same day as the repeal: "Today's ruling is nothing short of an assault on our democracy and the right to a free and open flow of information. The fact of the matter is that the Trump administration will stop at nothing to give massive handouts to its biggest corporate supporters no matter the cost."



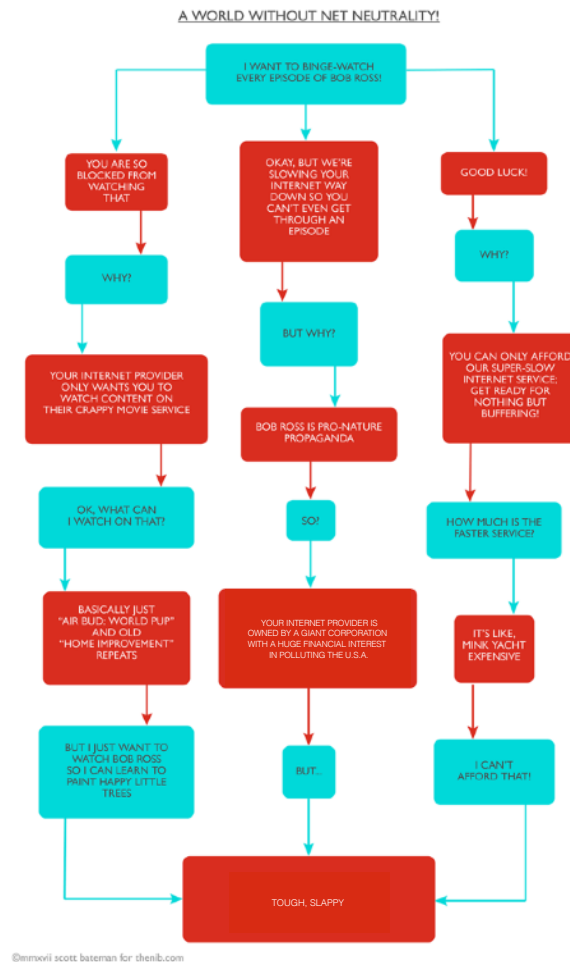
## FCC Policy Change

The FCC had a pro-net neutrality stance as early as 2005. However, the FCC's Open Internet Order in 2015 officially reclassified ISPs as utilities instead of luxuries, that is "common carrier telecommunications services" instead of "information services."

This order followed over ten years of incidents where ISPs were caught throttling or stopping certain traffic. Examples include: Comcast slowed file sharing apps and blocked VPNs; Madison River Communications blocked access to their competitor, Vonage; AT&T required users to buy a more expensive data plan to use Apple's free video chat service, FaceTime; famously, Verizon was caught slowing down traffic from Netflix and YouTube, but not from its own paid video services. All the while, the ISP could do this without telling their own customers. Unfortunately, the 2017 Restoring Internet Freedom Act made these practices legal once more.

## Why Net Neutrality is Supported

Net neutrality was supported by the Sierra Club, the Electronic Frontier Foundation, Netflix, Amazon, Reddit, Facebook, Google, Microsoft, AOL, and countless other Internet companies; along with over 98% of the 1.3 million unique comments posted on FCC.gov (including this author's) during the comment period. Companies opposed to a free and open Internet included Verizon, AT&T, Comcast, Time Warner, Cablevision and FCC Chairman, Ajit Pai. An online poll by the software vendor Mozilla showed 73% of self-proclaimed Republicans supported net neutrality. Regardless, the repeal passed across party lines. As Mr. Brune stated after the 3-2 ruling: "The American people will not be silenced. The Sierra Club and our three million members and supporters stand with all those who will continue this fight to protect a free and open internet."



Not all hope is lost. Less than an hour after the December 14, 2017 vote, the attorneys general of New York and Washington announced intent to sue the FCC. Since then, Connecticut's attorney general, George Jepsen, joined the lawsuit. The case is ongoing.

Meanwhile you can petition your Mayor to support net neutrality. Read more:

[Tell your Mayor to take a stand for net neutrality. Ask them to sign the Open Internet Pledge today!](#)

*Colin Cogle works in Internet Technology and considers himself well versed in net neutrality. Colin is a member of the CT Chapter Sierra Club and a resident of New Milford.*

## ENVIRONMENTAL HEAT

### Power Plant Approved While Crickets Chirped

by Michele MacKinnon

The Cricket Valley Energy Center ([CVEC](#)) power plant, under construction in Dover Plains, New York, could endanger the quality of water and air for many Connecticut residents. Opposition to the project, however, is mounting. More than 135 people filled Sherman's Charter Hall meeting room for "a science-based seminar" on "Cricket Valley Power Plant's Impact on Western Connecticut." The Sunday, April 8 event was hosted by the town's Conservation Commission. Sherman, Connecticut is located just eight aerial miles downwind from CVEC. Kent, New Milford, New Fairfield, Brookfield, Danbury and Ridgefield also face potential health and environmental impacts.

**CRICKET VALLEY ENERGY FACTS**

- 1,100 MW FOSSIL FUEL POWER PLANT POWERED BY SHALE GAS FROM IROQUOIS PIPELINE (EXTRACTED FROM SHALE BY FRACKING IN THE MARCELLUS AND UTICA SHALE REGION)
- 8 AERIAL MILES FROM SHERMAN TOWN HALL – LOCATED AT 2241 ROUTE 22 IN DOVER PLAINS, NY
- CONSTRUCTION BEGAN IN SUMMER 2017; [9% COMPLETE AS OF FEB 2018](#). EXPECTED 40 YEAR LIFE
- [INVESTORS](#) BEHIND CRICKET VALLEY ARE
  - 38% JERA (50% TEPCO (JAPAN, OWNER OF FUKUSHIMA) + 50% CHUBU ELECTRIC POWER (JAPAN))
  - 62% SPLIT AMONG TIAA INVESTMENTS; ADVANCED POWER AG (SWITZERLAND); BLACKROCK FINANCIAL MANAGEMENT INC.; DEVELOPMENT BANK OF JAPAN, INC.; & NONGHYUP FINANCIAL GROUP (UNDER THE DIRECTION OF THE NATIONAL AGRICULTURAL COOPERATIVE FEDERATION OF KOREA)
- LOCATED IN [CAPACITY ZONE G](#). POWER WILL BE SOLD ON THE WHOLESALE ELECTRICITY MARKET.
- LOCATED IN THE GREAT SWAMP & WILL DRAW [31 MILLION GALLONS OF WATER](#) ANNUALLY
- CLASSIFIED AS A "MAJOR SOURCE OF AIR POLLUTANTS" BY EPA\*

permitted tons per year	NOx	PM 2.5	PM 10	HC	CO	SOx	H2S	CO2	VOGs
Cricket Valley	200.0	191.9	191.9		569.9	46.9	19.7	3,597,768.0	60.0

\* IN STATE ENVIRONMENTAL QUALITY REVIEW ON FILE AT DOVERTOWN HALL

Information obtained at Sherman Conservation Commission meeting on April 8, 2018

Photo credit: Michele MacKinnon

## Why does CT Chapter Sierra Club care?

CVEC directly opposes our state's 2018 Legislative goal of "ensuring that Connecticut reaches the greenhouse gas reduction goals set in the 2008 Global Warming Solutions Act. Similarly, [Bridgeport's Harbor Station](#) power plant is set to go on line in 2019, and the new Oxford CVP gas plant goes online this year. The CT Chapter Sierra Club started its Beyond Gas campaign in 2014 to oppose expansion of gas infrastructure in the state, and the Sierra Club opposes the construction of new gas powered plants. This additional energy is not needed in our state or region, and new fossil fuel projects subvert the needed development of renewable energy infrastructure.

A 2012 Cricket Valley Environmental Report, no longer available online, shows the Cricket Valley plant will emit nitrous oxide, carbon dioxide and a host of volatile organic compounds, all known to increase the risk of cancer and respiratory illnesses. CVE will burn 175 million cubic feet of gas daily. Estimating methane leakage at 5 percent and including CO2 from combustion will generate 10 million metric tons of CO2-equivalent pollution annually. Print material provided at the April 8 meeting by the group [Mothers Out Front](#) says "CVEC will add 15 percent more to state [New York] emission levels from the power sector."

## Why should area families care?

Additional Mothers Out Front print material advises over 1,300 schoolchildren attend schools within 4 1/2 miles of the plant. *Stop Cricket Valley*, a group opposing the project, learned CVEC promised \$2.9 million worth of incentives to Dover Plains area schools. CVEC claims winds will blow emissions south, in the direction of Pawling and Brewster, which is contradicted by a [NY State wind database](#) wind rose report (see "[What is a Wind Rose](#)") generated for Dover Plains. The resulting graph shows winds blow southwest to Sherman and spiral out over surrounding towns.



### Customer Wind Resource Report

4/12/2018 09:39:07 AM

Landowner : Town of Sherman  
Location : 9 Route 39 North, Sherman, NY 06784

### Wind Energy Potential

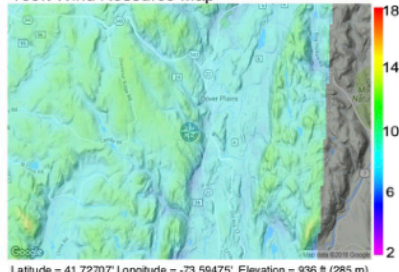
Very Poor  
Below Average  
Average  
Above Average  
High

Recommendation is based on atmospheric models and historical weather data speeds and system productions will vary with terrain, location obstacles, and turbine selection. For more information on the Wind Energy Potential categories, please see the FAQ page. Contact a NYSERDA eligible installer with this wind resource report for further consultation.

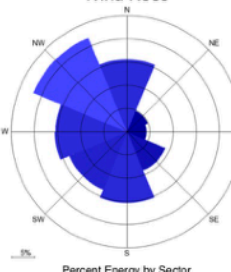
### Estimated Wind Resource and Annual Net Energy

Wind Resource	80 ft (24.4 m)	100 ft (30.5 m)	120 ft (36.6 m)
Average Annual Wind Speed	9.04 mph (4.04 m/s)	9.64 mph (4.31 m/s)	10.18 mph (4.55 m/s)
Annual Net Energy	80 ft (24.4 m)	100 ft (30.5 m)	120 ft (36.6 m)
5 kW Turbine	1800 kWh - 2400 kWh	2400 kWh - 3100 kWh	2900 kWh - 3800 kWh
10 kW Turbine	2600 kWh - 3500 kWh	3400 kWh - 4500 kWh	4200 kWh - 5500 kWh
20 kW Turbine	5900 kWh - 7700 kWh	7600 kWh - 9900 kWh	9300 kWh - 12100 kWh
50 kW Turbine	17500 kWh - 22700 kWh	22800 kWh - 29300 kWh	27600 kWh - 36000 kWh

### 100ft Wind Resource Map



### Wind Rose



**IMPORTANT NOTICE AND DISCLAIMER:** The wind map and wind rose were created by AWS Truepower, LLC using the MesoMap® system and historical weather data. Annual energy estimates were calculated using the local wind resource, estimated loss factors, and the manufacturer supplied power curve. For more information on the program's methodology, please refer to the Help page. AWS Truepower and NYSERDA do not guarantee the above estimates and are not responsible for the contents of this report. For applications requiring greater accuracy, the wind resource estimates should be confirmed by measurement. For more information on NYSERDA wind incentives, please refer to NYSERDA's webpage.



### Why should conservationists care?

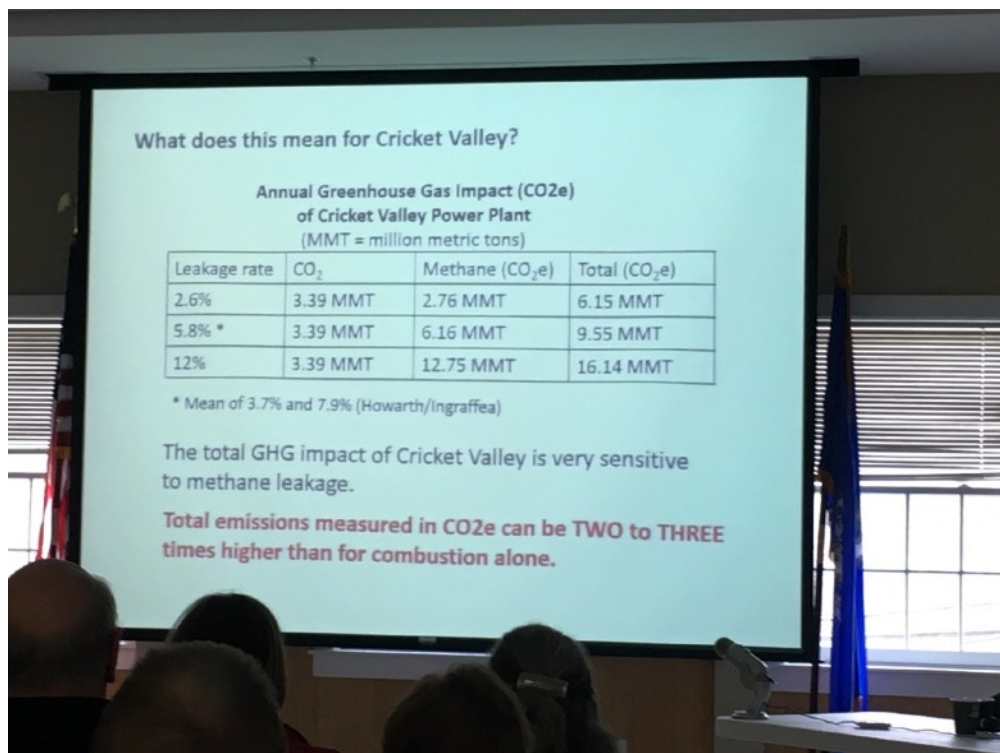
CVEC encompasses 79 acres of the Great Swamp and will draw a gallon per second or 31 million gallons of water annually. The impact of this drawdown remains to be seen, but the scope of potential impact is significant for New York and Connecticut, considering the [Friends of the Great Swamp Organization](#) deems this wetland's "critical function is as an aquifer recharge area" for both states.

### How did CVEC obtain permits?

Currently, there is no law requiring the New York State Department of Environmental Conservation (NYS DEC) to notify nearby towns within the same state, or in a neighboring state, when they solicit public comment, review or permit gas power plants."

The "[Ask Cricket Valley](#)" page on CVEC's website [states](#) they conducted an "extensive public involvement program throughout the environmental review process, significantly exceeding public notification requirements." Yet, Environmental Review [information](#) posted on the same site indicates abbreviated public comment opportunities. A 40-page [Public Hearing Statement Notice document](#) issued by the State of New York Public Service Commission dated February 14, 2013 (pp. 9-10), indicates two members of the public commented, one in favor, the other against, presumably at public meetings conducted by the NYS DEC on June 28 and July 9, 2010. A petition signed by 98 people was also mentioned.

The document begins with the statement "The Commission also grants applicant's [CVEC's] motion for an expedited proceeding pursuant to 16 NYCRR 21.10 and approves a lightened regulatory regime for the new facility." The abbreviated public comment period and "a lightened regulatory regime" may explain why surrounding New York State and Western Connecticut towns have been caught off guard by the Cricket Valley project.



Slide presentation at Sherman Conservation Commission meeting on April 8, 2018  
Photo credit: Michele MacKinnon

The document (p. 7) further mentions, "Cricket Valley anticipates providing the Town of Dover significant financial resources through taxes and a building permit fee." Some of these financial resources appear to have been provided. Documents available at the Sherman meeting indicated a Town of Dover "Community Benefits Agreement" dated December 1, 2016 documents payments made from CVEC to the town totaling \$675,000.

### **Is it too late to stop CVEC and other related projects?**

No. Although construction is 20 percent complete, the plant won't be online until 2020. Towns facing future impacts, both in New York State and Connecticut, must form coalitions of concerned citizens, land preserves, and environmental organizations now to stop the process, and ensure [simliar projects](#) to Cricket Valley never become operational.

Email [stopcricketvalley@gmail.com](mailto:stopcricketvalley@gmail.com) to get involved. [Julie Kushner](#), a Democratic candidate running for Connecticut State Senate, is working with our state's U.S. Representative, who introduced a [bill](#) that would require notice of power plant projects be given to affected towns in the future, regardless of jurisdiction. Passing the bill should ensure another Cricket Valley never receives permits in a process so quiet only crickets can be heard.

Follow our [Facebook page](#) for updates on this story.

*Michele MacKinnon, is a UCONN Certified Advanced Master Gardener, garden educator and speaker from Sherman, CT. To contact MacKinnon please email [beehappygardener@gmail.com](mailto:beehappygardener@gmail.com).*

References from this article:

<https://www.facebook.com/stopcricketvalley>

<https://www.instagram.com/stopcricketvalley>

<https://twitter.com/nocricketvalley>

[stopcricketvalley@gmail.com](mailto:stopcricketvalley@gmail.com)

<https://www.facebook.com/ShermanConservationCommission/videos/1565078263610976/> - meeting link on Facebook

<http://www.cricketvalley.com/ask-cricket-valley/#faq>

*'The Harms of Fracking': New Report Details Increased Risks of Asthma, Birth Defects and Cancer*  
[RollingStone.com 'The Harms of Fracking'](#)

*Wall Street Tells Frackers to Stop Counting Barrels, Start Making Profits*  
*The shale-oil revolution produces lots of oil but not enough upside for investors*  
[wsj.com articles](#)

*A New Fracking Landscape: Report on Recent Science Shows Overwhelming Evidence of Harm*  
<http://www.psr.org/news-events/press-releases/a-new-fracking-landscape.html>

# HURRICANE AFTERMATH

## The Beauty and Resiliency of Puerto Rico

by Ann Gadwah

I recently spent four days in Puerto Rico. I had a wonderful time in a beautiful place, visiting the capitol of San Juan and the west-coast, surfing paradise of Rincon. But the question I get from everyone, which you are probably thinking as well, is “How is it there?”



I would say not as bad as you may think, but not exactly good either. Power was restored everywhere I went (aside from a few traffic lights). I did see damage to houses. Beaches I had previously been able to walk now were gone due to erosion. It was difficult to find certain agricultural products, and the roadside stands certainly had less inventory than my previous visit. Coconuts were in short supply due to the significant tree damage. The island’s tourism season hadn’t been as profitable as in previous years.

### The New Normal

As far as I could tell, life was getting back to normal. Most businesses were open and doing well. The snorkeling and paddle boarding experiences were fantastic on a beautiful calm ocean. The restaurants and bars were packed with people enjoying themselves. The Castillo de Cristobal National Historic Site was crowded with tourists and a cruise ship was docked in San Juan. The Thursday night Art Walk in downtown Rincon was festive. People were in a good mood.

What struck me the most is the incredible resiliency of the Puerto Rican people. A San Juan bartender told us in the aftermath of the hurricane, people in his neighborhood came out of their homes and began collectively cleaning the debris in streets. People would bring huge plates of food to his place to share with everyone gathered there. He wasn’t allowed to sell alcohol, but he might have given a little away.

The man who drove me to the airport said he had to find other things to do besides watch TV or look at his phone when the electricity was out. Star-gazing helped fill the void, especially because you could see them so well without the lights on. He literally found some light in the darkness in the days after a disaster. Both men told their story with wry humor, without complaint or anger. Neither felt particularly unsafe in those early days.



## A Safe Harbor

These are just a couple of examples of the Puerto Rico people coming together as a community, helping each other, finding some good in the bad. It made me realize how important these examples will be for humanity as a warming planet causes more climate chaos. We will have to help and depend on each other if we are to weather the upcoming storms, to remember that we are all in this together.

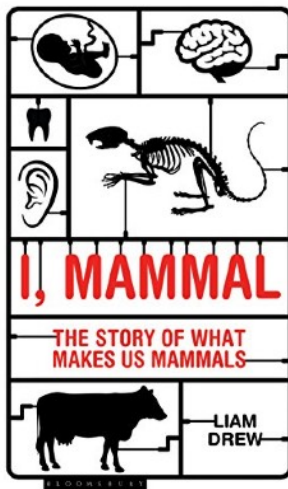
There are several ways you can help with the recovery efforts in Puerto Rico. You could donate to the Hispanic Federation ([hispanicfederation.org](http://hispanicfederation.org)) or the Connecticut Puerto Rican Agenda (<http://www.ctpuertoricanagenda.com>). Both are fantastic organizations addressing the many challenges Puerto Rico is facing. Or make Puerto Rico your next vacation spot. Supporting the local businesses and people will go a long way to help the island recover. And you will be able to see for yourself the amazing beauty and resiliency of the island.

*Ann Gadwah is Political Committee Chair, CT Chapter Sierra Club. Photos were taken by her in April 2018.*

## BOOK REVIEW

### How Mammals Evolved

by James Root



*I, Mammal* by Liam Drew, sheds significant light on what makes homo sapiens stand out as mammals in the vast spread of terrestrial life. In the process, the book sheds some light on our place in nature-especially in energy usage.

This relatively 'hard science' (but quite readable) work focuses on the evolution of the distinctive physiology of mammals and the attendant differentiation, through geological time, from other relatively close cousins in the frame of earthly life (such as reptiles).

Using the materialistic, philosophical lens of Darwinian evolution (only one way of viewing our past), Drew describes an often startling set of changes that occurred with land dwelling 'tetrapods.' These ancestors of both reptiles and mammals originated when the fish-like creatures staggered onto land over 300 million years ago.

### Energy Use in Mammal Evolution

Liam denotes that the central theme of mammalian evolution is enhanced and intensified metabolic energy usage. To explain this phenomenon, he attributes the emergence of characteristic mammalian traits such as specialized jaw structure and dentition, which allows for the more efficient digestion of food, as well as the growth of hair and fur, which helps to hold in and regulate that newly achieved body heat. As a whole this evolutionary dynamic, termed 'endothermy,' appears to have steered a few reptilian appearing 'synapsids' on the path to becoming 'mammals' way back when.



## Reproduction Evolution

Just as prominent and radical as these 'energy' features, are the changes in reproduction that evolved with synapsids in their mammal progression. Outside of genetic analysis and even more so than outward physical appearance, making babies is the key sought by investigators of evolutionary lines. For example, the 'other' mammals, the marsupials, have almost identical counterparts, species by species, to we 'placentals' through 'convergent' or 'parallel' evolution, but handle the fetus development externally, an alien way to us, despite the surface resemblance.

Drew also describes the gradual internalization of the egg, in early mammals, and the concomitant evolution of a mediating placenta that has resulted in a sort of stabilized biological arms race between the fetus and the mother, both of whom in a biologically atavistic fashion, are actually trying to survive the pregnancy despite the other. It would seem lactation (the namesake of the mammal line) and, specifically, the resulting breasts are, most likely, glorified sweat glands (minus the hair follicle) that added in some nutrition to what was originally just an effort to keep eggs moist.

## Lactation and the Platypus

In illustration, an intermediate form of lactation can still be viewed in monotremes (such as a platypus), which are considered a close approximation of the last common ancestor between marsupial and placental mammals. Platypuses help out their young with a thinly, milky substance secreted over a wide area of their bodies.

These evolutionary developments generally offered more options for the survival and reproduction M.O. for incipient mammals. They were freed from the immediate environment, relative to their involuntarily basking reptile cousins, but perhaps with a legacy of aggression with regard to natural resources that has manifested in our wacky selves. *I, Mammal* as advertised, illuminates this particular natural history - and goes beyond in many ways, with regard to general natural history, not mentioned here.

*James Root, a frequent contributor, is a member of CT Chapter Sierra Club who lives in Danbury.*

# EDUCATIONAL PROGRAM

## Farmington River Watershed Association (FRWA)

**Speaker:** Alisa Phillips-Griggs

Water Quality & Projects Coordinator, FRWA

**Date:** Thursday May 10, 2018

**Time:** 7:00pm activist letter writing - 7:30pm program

**Sponsor:** Greater Hartford Group Connecticut Sierra Club

**Location:** Westmoor Park, 119 Flagg Rd, W. Hartford, CT

**Refreshments:** Provided

**Donation:** \$4 requested to defray hall rental

**Questions:** Email Renee [HERE](#)

*Free and open to the public*





## Overview

Alisa Phillips-Griggs will discuss FRWA's work in Connecticut including the annual clean up and volunteer water quality monitoring in our state. She will inform us as to the volunteer opportunities in which we can participate, such as the The Volunteer River Steward Program.

See: [FRWA](#) and [Farmington River Steward](#)



Founded in 1953, FRWA is a citizen-based, non-profit 501(c)(3) organization working on restoration and conservation issues such as water quality, water allocation, recreational usage, open space and wetland, and floodplain protection. FRWA works with federal, state and local governments, business and industry, and the people of the watershed's 33 communities to protect the river and the region's natural resources. FRWA volunteers clean up riverbanks, restore habitat, collect water samples, organize fundraisers, get the word out about pollution

prevention and water conservation, work with town officials, take pictures and videos, and design publications.

## Biography

Alisa holds an M.S. in Geology from Southern Methodist University and a B.S. in Geology from Michigan State University. She grew up in Collinsville, CT. Since March 2006, she has expanded FRWA's water quality monitoring program to include comprehensive macro invertebrate research and an in-house bacteria testing laboratory. She has also initiated numerous programs designed to improve water quality including the state's first unwanted medication collection and several buffer enhancement projects.

## SHORELINE GROUP

### Reorganization and Local Issues Discussion

As the Shoreline Group of CT Chapter Sierra Club reorganizes, it is intent on prioritizing the group's goals and is asking for public input. Please attend the following meeting:

**Date:** Wednesday, May 9

**Time:** 6:30pm

**Location:** Starbucks, 609 Boston Post Road, Madison

#### Issues:

- Plumb Island Preservation
- Oil Drilling in Long Island Sound
- Clean Energy
- Beach Preservation
- How to Reorganize the Shoreline Group for maximum impact

**Contact:** John Dixon at 203.907.7307



# CONNECTICUT TRAILS DAY 2018

## Over 200 Hikes & Outdoor Events Across Connecticut

by Kenneth Selling

The highly popular Connecticut Trails Day weekend is next month, June 2 and 3. This annual statewide celebration of [National Trails Day®](#) offers over 200 FREE hikes, bike trips, nature walks, paddle trips and other events in every corner of Connecticut.

Both Saturday and Sunday, outdoor and environmental groups all across the state are hosting a wide selection of short, medium and long hikes, family outings, nature walks and other outdoor activities. There will be events for families, complete beginners, experienced hikers, buff athletes and everyone in between.

Come celebrate both hidden and well-known trails and sites, while meeting new friends, having fun and getting out for some exercise!

Details on Connecticut Trails Day events are available at: [CT Trails Day](#)

### Hike with CT Chapter Sierra Club

JOIN OUR OWN Sierra Club hike during National Trails Day along a little know loop trail with two lakes, archaeological sites and a surprise view in the middle. The hike explores the full park, over mostly gentle terrain. Expect just a few, very short, semi-steep parts. The pace will be moderate, but we'll stop to admire scenic views and some early historic sites.

#### *Common info for each outdoor event*

**Dress:** Be sure you dress for the weather. We suggest you bring water and a snack and wear the right footwear and clothes for the activity. Bug repellent and sunscreen are advised.

**Free event open to Sierra Club members and the public**

**Sierra Club Outing Waiver:** You may review the waiver by clicking the attachment here: [Waiver](#)

#### Details

**Date:** Saturday, June 2; **Rain Date:** June 3

**Time:** 1:00pm-4:30pm

**Location:** Rocky Hill at Dividend Pond Park/Loop Trail

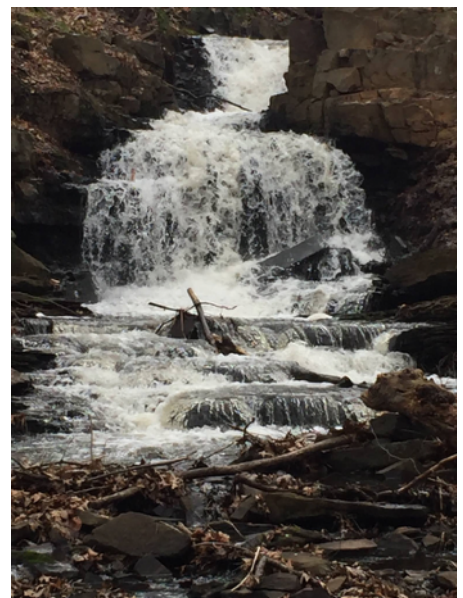
**Meeting place:** Main parking lot is off Old Forge Road. A small gravel lot is on the right, 0.6 miles East of the traffic light at Route 99.

**GPS:** 30 Old Forge Road, Rocky Hill, CT 06067

**Option:** Ice cream stop after the hike.

For more information, see the listing in [Rocky Hill Nature Walk](#)

*Kenneth Selling is a CT Chapter Sierra Club Outings Leader*



Dividend Pond  
Photo Credit: Lori Light

# OUTDOOR EVENTS: JUNE

## *Common info for each outdoor event*

**Dress:** Be sure you dress for the weather and the activity. We suggest you bring water and a snack. Bug repellent and sunscreen are advised.

**Free event open to Sierra Club members and the public**

**Sierra Club Outing Waiver:** You may review the waiver by clicking the attachment here: [Waiver](#)

## Eat, Hike and Kayak

### Hike and BBQ Potluck

**Description:** Join us to relax at this pleasant spot at Northwest Park! Learn about Sierra Club activities in your area and chances to volunteer even a small amount of time to help our environmental efforts. Enjoy a potluck BBQ picnic under our pavilion and then explore the park trails, nature center or museum.

**Sponsor:** Greater Hartford Group Connecticut Sierra Club

**Date:** Saturday, June 9; Rain cancels.

**Time:** 12:00-4:00pm

**Location for GPS:** Northwest Park, 145 Lang Rd, Windsor, CT 06095

**Directions:** From I-91 north, take Exit 38. From I-91 south, take Exit 38A. Turn right at the exit on to Poquonock Avenue (Route 75). Go about 1.5 miles and turn left on to Prospect Hill Rd. Turn right at the second traffic circle on to Lang Road and continue up the road to the Nature Center.

**Parking:** Free parking in the large lot nearby

**Food and Meet Logistics:** A covered pavilion behind the official buildings will be available for our group. There are picnic tables and two BBQ grills set up for the potluck.

Please bring your own place setting and a food dish to share (appetizer, salad, dessert, or other food to grill), serving 8-10. No alcohol permitted.

### Hiking and Biking Options

Hiking and biking is available on several park trails. Dogs are permitted in the park, if kept on a leash and messes are picked up.

**Trail Map:** [Northwest Park Map](#)

### Nature Center and Tobacco Museum Options

Visit the free, on-site nature center and tobacco museum, open 10:00am to 4:00pm Saturdays. For more information visit: [Northwest Park](#)



Tobacco Museum

Photo credit: <https://www.tobaccohistsoc.org>



## Kayak Trip Add-On

**Description:** After a hike and BBQ potluck at Northwest Park, come take a kayak trip! We'll paddle the 243-acre Rainbow Reservoir, tree lined with only a few houses set back from the water. Then we'll head up the Farmington River towards North Bloomfield and even Simsbury before returning to the launch site.

**Date:** Saturday, June 9

**Time:** 4:30pm

**Location:** Boat Launch at 118 Merriman Road, Windsor, CT



Photo credit: Fishing Northeast

**Logistics:** Meet at the boat launch. Map of area and trip route at: [Map](#)

**Parking:** No fee to launch and free parking

**Leader:** Renee Taylor

**RSVP Renee to Kayak:** [mchawigirl@yahoo.com](mailto:mchawigirl@yahoo.com) by Friday, June 8, so she knows whether to bring her kayak



Photo credit: [Pinterest](#)

**Questions:** Renee at [mchawigirl@yahoo.com](mailto:mchawigirl@yahoo.com)

**Important:** Safety vests must be worn at all times. Please no cell phone use on the water.

Rain cancels.

# OUR NATURAL WORLD

## Finding Peace with Geese

by Annie Hornish

When conflicts between humans and Canada geese occur, it's usually due to geese droppings. Although research has not found any significant health threats from goose feces, it still can be a source of public intolerance.

Some offer killing as a solution, but rounding up and killing entire flocks is inhumane and doesn't work, since it simply frees up prime real estate into which other geese will move in. Killing is thus a temporary fix that only creates a cruel and expensive cycle of killing.

### How to Control Geese Humanely

Humane geese control programs combine three methods:

- limiting flock growth through "egg addling" or contraception
- frightening geese humanely, usually with specially trained dogs
- making the habitat unattractive to geese.

Egg addling, done in late March through early May, involves having trained people coat eggs in 100% food grade corn oil, then putting the eggs back into nests so mothers can continue nesting. The oil prevents the eggs from hatching. Contraception with "OvoControl" is also another option, but requires a federal permit.

### Frightening Geese

Geese can be frightened so they decide to leave on their own, but it's vital to do this properly: this should not be done when birds are molting (late June to August) or when adult geese are caring for their flightless goslings. (Geese will protect their young by posturing aggressively, but rarely will attack people.) In both these instances, harassment would be cruel. That's why programs that combine egg addling and humane harassment are recommended: Once geese abandon their nests after a successful egg addling program, they can be humanely scared away from areas where they're causing conflicts prior to their molt season.

### Changing the Habitat

The habitat can be changed to make it unattractive to geese. Kentucky bluegrass ("goose candy") can be replaced with other, less palatable grasses. Tall grasses can be planted next to bodies of water, which will discourage geese from staying around: geese prefer open sight lines between land and water to allow for easier escape from predators.

### Don't Feed the Geese

Public education to not feed geese also plays a role. Human food or commercial poultry feed is not healthful for geese, and can cause "angel wing," a debilitating condition.



Canada geese egg addling  
by a trained volunteer  
Photo credit: John Hadidian/  
The HSUS





Goose and gosling  
Photo credit: Chad Sisneros/

Canada geese are a federally protected species, so killing requires permission by DEEP, who in turn must get permission from the USFWS. Fortunately, geese roundups are rare in Connecticut—in the past three years, only three requests have been granted, and in one of those three, the town ended up choosing to not kill.

Donating the meat to a food bank is a commonly used public relations stunt designed to sanitize the cruelty of roundups. Ironically, donated goose meat is oftentimes found not to be fit for human consumption due to the lead and other contaminants that Canada geese ingest from their ecosystem.

Public education fosters tolerance and appreciation of these pure, majestic birds, making coexistence desirable.

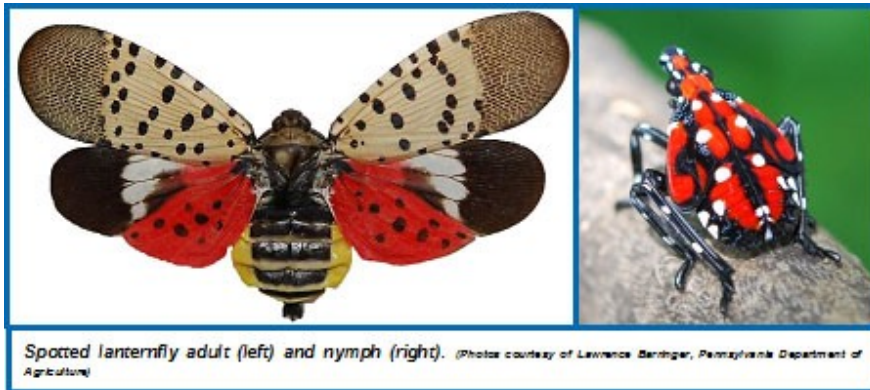
For more information, please visit [humanesociety.org/geese](http://humanesociety.org/geese) or [geesepeace.com](http://geesepeace.com).

Annie Hornish is Connecticut State Director, The Humane Society of the United States  
Contact information: [ahornish@humanesociety.org](mailto:ahornish@humanesociety.org), 860.386.6906

## The Spotted Lanternfly

by Irene Skrybailo

Picture this: It's a perfect fall day, and you're hiking through one of Connecticut's lovely forests. Suddenly, you see spotted plant hoppers congregating on an *Ailanthus altissima* (*Tree of Heaven*). You sigh because you know spotted tree hoppers have become all too common in our new growth forests.



Spotted lanternfly adult (left) and nymph (right). (Photos courtesy of Lawrence Berntger, Pennsylvania Department of Agriculture)

One of the insects flies off. It's about an inch long with very showy markings -- grey, black with a stripe and red wings. It flutters away. You've encountered the spotted lanternfly (*Lycorma delicatula*). The lanternfly's name is a misnomer: the insect tends to hop more than fly, as it is a leafhopper.

### Lanternfly Origins

Where did this beast come from? Plus it's so pretty; how can it be harmful?

Native to East Asia (China, India, Vietnam), which coincidentally is also the home of Tree Of Heaven, its favorite snack here in the U.S., the insect is called "Lanternfly" because at one point it was thought to be luminous, like a firefly (it's not). In its native region, *Lycorma delicatula* has predators that keep its populations in check, but none exist in America.

The pest migrated to Korea in 2007, and was first seen in Berks County, Pennsylvania in 2014. Since then, it has migrated most recently to Frederick County, Virginia (January 10, 2018) and in Delaware County, New York (fall, 2017). There had been hope that the colder winters might kill the pest off, but this does not appear to be the case.

### Impact on Agriculture

There are many invasive species invading our forests, but this one can be especially debilitating for the agricultural industry. *Lycorma delicatula* feeds not just on the Tree of Heaven (if it did, that would be a good thing!), but also on apple, peaches, plums and nectarines, all of which are grown in Connecticut. But most at risk are grapes and hops, which are integral to the state's newly burgeoning wine and artisan microbrew industry.

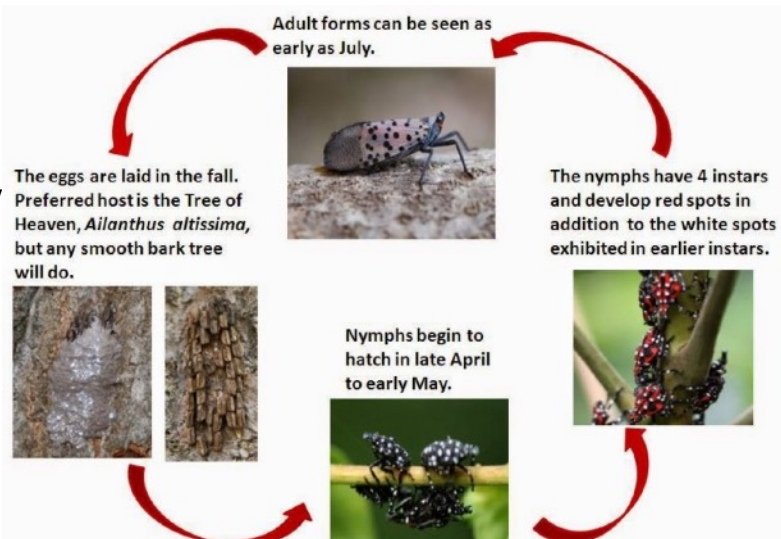
### What you can do about the Invasive Lanternfly

So, what can you do as a hiker and nature lover or as a beer or wine aficionado?

If you see a spotted lanternfly, try and get a photo or preferably a sample.

Eggs: Scrape them off the tree or surface into alcohol or hand sanitizer to kill them. Place in a sealed plastic bag or container.

Nymphs or adults: Preserve in alcohol or hand sanitizer in a crush proof container such as a vial.



Source: PA Department of Agriculture

Contact any of the following about sending in a sample:

- UConn Home & Garden Education Center at 877.486.6271
- [ladybug@uconn.edu](mailto:ladybug@uconn.edu)
- UConn Plant Diagnostic Laboratory at 860.486.6740
- [joan.allen@uconn.edu](mailto:joan.allen@uconn.edu)
- the entomology department at the Connecticut Agricultural Experiment Station

### Possible Solution

Meanwhile, scientists are working on a solution! Dr. Houping Liu, a state entomologist in Pennsylvania, noticed wasps walking around lanternfly eggs. He collected a sample and waited for the eggs to hatch. When they did, they were not lanternflies but *Ooencyrtus kuvanae*, a wasp that is known to lay eggs on butterfly and moth eggs. The wasps lay their eggs in the eggs of the spotted lanternfly, producing newborns that robbed their hosts of nutrients, killing the lanternfly eggs and breaking the cycle. These wasps had been introduced in 1908 to battle the gypsy moth. This story provides hope yet for the stone fruits and vineyards of Connecticut!

More Information:

USDA alert factsheet for the spotted lanternfly

[Factsheet](#)

“Wasps to the rescue!” Article by Dr. Houping Liu [Article](#)

*Irene Skyrbailo is a member, CT Chapter Sierra Club and lives in New Milford.*

## America's National Parks, Forests and Landmarks Spark a Family's Adventures

*For spring break 2018, the Desmarais family headed west to visit four of our country's special destinations. Here's how the family experienced the trip. Allison and Josephine are young teens; Lisa is the Mom.*

### Carlsbad Caverns National Park, New Mexico

#### Allison:

The air starts off hot and dry and then as you hike down into the caverns, it gets cool and humid. You see different rock formations that you can't see in Connecticut. There are markers along the way that explain what you're looking at so you get to learn about new things.



#### Josephine:

The caverns were really cool. Even though it was hot outside, it gets cold in there so you should bring a sweatshirt. The stuff hanging from the ceilings was pretty. It smelled weird though. There's a bat show at sunset (where thousands of bats come out) but we didn't stay to see it.



### Guadalupe Peak, Texas

#### Allison:

I liked the scenery, because it was pretty and breathtaking. There are different plants and animals that you don't see in Connecticut. But this park was unusual because we also got to see pine trees that grew here many, many years ago, and some were able to survive. It's not what I expected to see out in the desert.



#### Josephine:

We had fun looking at the mule deer. (Lisa: Look closely. There was a family of deer following us on our descent, between the switchbacks.) The hike was hot at first but it got cooler as we went up farther. At the top you can write in a book to say you were up there. We were at the highest top of Texas!



**Lisa:**

The three-sided pyramid was placed atop the mountain by American Airlines in 1958, before the park was created. It honors the 100th anniversary of the Butterfield Overland Mail, which ran through the area, as well as the airline's pilots who pioneered airmail service in the United States. If you make it to the top of the peak, sign the log, which is in a container at the base of the monument. [Monument atop Guadalupe Peak marks area's history](#)



**White Sands National Monument, New Mexico**



**Allison:**

It was really fun sledding on the sand! The sand was white and very fine. We ended up taking a lot home in our sneakers. It was a very different park than the ones we are used to! The roads in the park were just sand.

**Josephine:**

It was a very windy day. (Lisa: 40 mph winds the day we were there. The day before was 60 mph winds!). The sand kept whipping our legs and face, and it hurt! The trail markers were a little hard to

find because of all the wind and blowing sand. Some marker poles were getting covered up and you could only see the tops of them. The sledding was good but a little slow. We had a bar of wax to rub onto the bottom of our sleds to help us go faster.

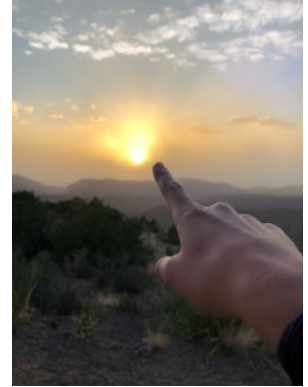
**Lisa:** The visitor center had an excellent presentation. It was interesting to see how plants survive and adapt in the shifting sand, and then go out on our hike and see the reality. And even though everyone disliked the blowing sand (which really did hurt!) it was definitely one the highlights from our trip - especially the sledding.



One picture I include shows a picnic area, with a wind shield for breezy days. It's something I had never seen before. Of course the winds we experienced were too strong to make this picnic area an option!

## Lincoln National Forest, New Mexico

**Lisa:** This park is part of the U.S. Forest Service. During our sunset hike, the kids were trying to have a photo competition.



The second hike was in the evening. While hiking, we love having countdowns on bridges to see if everyone can cross the bridge before zero is shouted out!

*Dennis Desmarais is Vice Chair, CT Chapter Sierra Club.*



## REQUEST FOR CONTENT

All Connecticut Sierra Club members are invited to contribute to our online newsletter, the *Quinnehtukqut*, which posts ten times per year: monthly, with one summer issue for July and August, and one holiday/winter issue for December and January. We accept articles, book reviews, puzzles, events, photos, poems, etc. Articles, limited to 500 words, should be on a subject of local or national interest to the Connecticut Chapter membership. The goal of the newsletter is to inform, educate, motivate and involve our members.

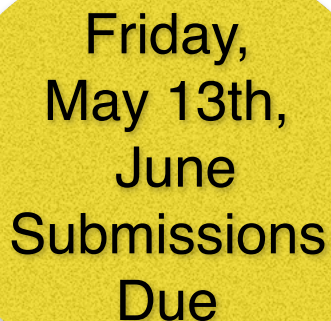
To submit newsletter articles, letters to the editor, etc. for the *Quinnehtukqut*, send to [ctsierraq3@gmail.com](mailto:ctsierraq3@gmail.com). To post information to the website or social media, send content to [connecticut.chapter@sierraclub.org](mailto:connecticut.chapter@sierraclub.org).

Visit our website at [CT Sierra Club](http://CTSierraClub.org). See us on Facebook at [Facebook CT Sierra Club](https://www.facebook.com/CTSierraClub)

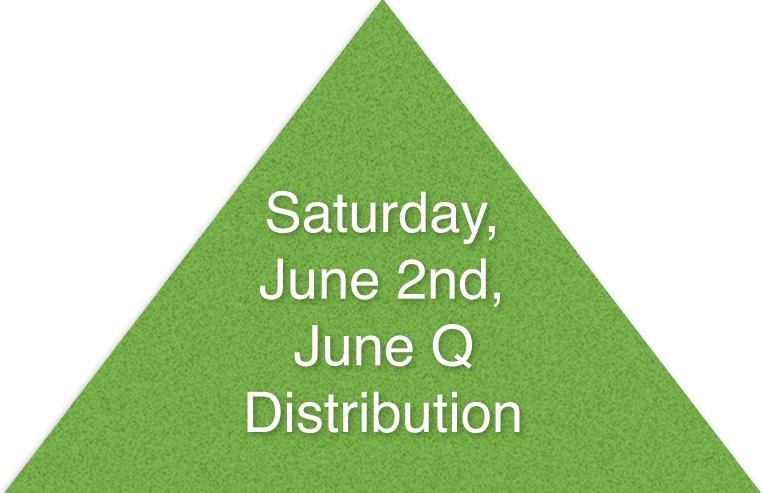
Below is the newsletter calendar for the next two 2018 submission dates. Please read dates carefully. The calendar is intended to make it easier for you to plan your *Quinnehtukqut* contributions for publication.

The *Quinnehtukqut* is distributed at the beginning of the month.

### JUNE CALENDAR



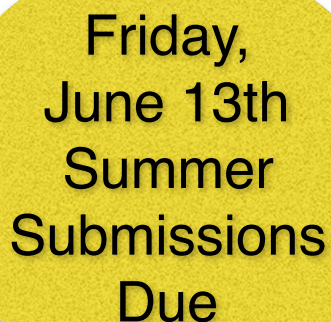
Friday,  
May 13th,  
June  
Submissions  
Due



Saturday,  
June 2nd,  
June Q  
Distribution

---

### SUMMER CALENDAR



Friday,  
June 13th  
Summer  
Submissions  
Due



Saturday,  
July 7th,  
Summer Q  
Distribution

## TELL A FRIEND

Do you agree with the Sierra Club principles of exploring, enjoying and protecting our state, country and planetary environment? Do you enjoy reading the *Quinnehtukqut*? Why not tell a friend? Invite people to join the Sierra Club. It's easy! Go to our website and click the blue **JOIN** or the red **DONATE** button in the upper right corner. Follow the directions.

You can also give memberships as gifts. It's a wonderful way to honor your friends and family, or perhaps enlighten them.

For gift memberships, go to:  
[Gift Memberships](#)



**Help Us Keep Our Programs Running!**

**The Q is brought to you by:**

**Martha Klein**, Communications Chair  
**Helen Applebaum**, Editor  
**Heather Fronczek**, Graphic Designer  
**Jessica Kurose**, Editorial Assistant  
**Dennis Desmarais**, IT Manager  
**Vanessa Woy**, Social Media and Website  
**Roxanne Lapierre**, IT and Website



Explore, enjoy and protect the planet

## Create a Lasting Legacy

By creating a charitable bequest to benefit Sierra Club or your favorite Sierra Club Chapter, you remain in control of your assets during your lifetime and help protect the environment in years to come.

For confidential assistance, contact:  
Sierra Club  
Gift Planning Program  
85 Second Street, Second Floor  
San Francisco, CA 94105  
[gift.planning@sierraclub.org](mailto:gift.planning@sierraclub.org)  
(800) 932-4270



...Your lasting legacy...

## CREATE YOUR LEGACY

To create your legacy go to:

[sierraclubfoundation.org](http://sierraclubfoundation.org)

or email: [gift.planning@sierraclub.org](mailto:gift.planning@sierraclub.org)

Check us out on [Facebook](#) and [Twitter](#)!

