

# Connecticut Envirothon 2021 Annual Report



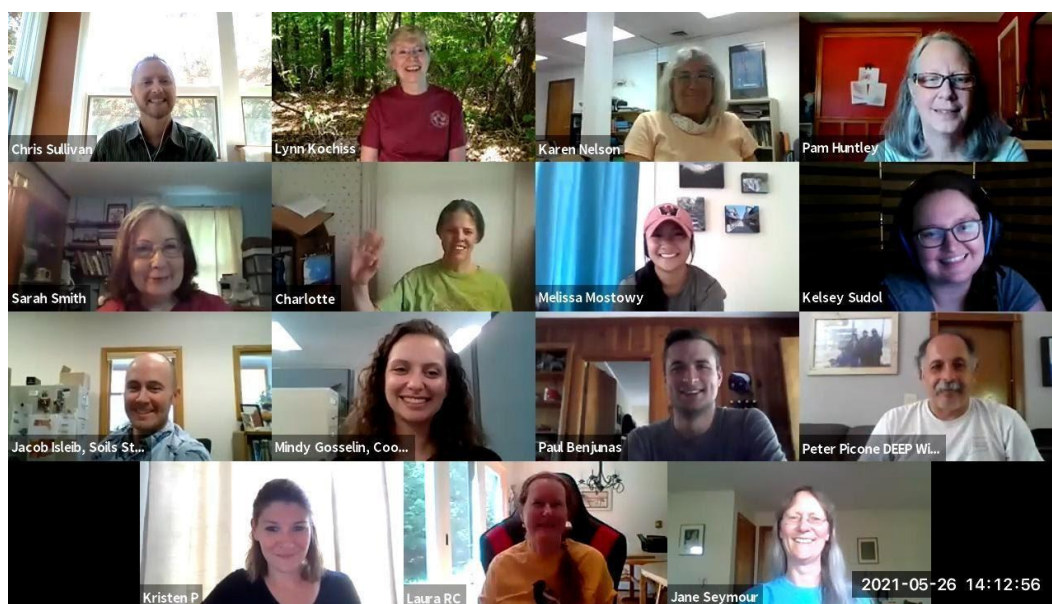
## **Mission:**

The mission of the CT Envirothon program is to promote environmental awareness, knowledge, and active personal stewardship among high school students through educational workshops and team competition. The Connecticut Envirothon program began in 1992 as part of the former North American Envirothon program. The National Conservation Foundation (NCF) now supports similar programs across the United States, Canada and China. The 2020-2021 period marked the 30th year of offering the program to Connecticut high school students attending public, private, agricultural/technical and home school programs.

## **Steering Committee and Station Leaders:**

The Connecticut Envirothon Program is guided by a volunteer steering committee which consists of natural resource professionals from various federal, state and local agencies, private environmental groups, and active and retired educators. Monthly committee meetings are held virtually in an effort to reduce greenhouse gas emissions released when members travel to meeting locations, and due to COVID-19 restrictions.

Members of the Steering Committee form Station Teams for each of the Envirothon workshops: Soils, Forestry, Aquatics, Wildlife, and a rotating Current Issue (Water Resource Awareness, Connections, and Impacts in 2020-21). These station experts plan the curriculum and training workshops for each of the main subject areas. The station teams also prepare and administer the station exams during the Field Day competition in May.



*Some of the CT Envirothon Steering Committee present during one of the monthly conference calls.*

A major reason for the success of the Connecticut Envirothon Program is due to the time and dedicated efforts of the following members of the Connecticut Envirothon Steering Committee (2020-2021):

Jane Seymour, Chair	CT DEEP, Wildlife Biologist
Jean Laughman, Vice Chair	Envirothon Advisor/ Educator, UConn
Pam Huntley, Treasurer	USDA Forest Service (Retired)
Karen Nelson, Secretary	Northwest CT Conservation District
Mindy Gosselin, Program Coordinator	Municipal Wetland Agent
Kelsey Sudol, Aquatics Station Leader	Northwest CT Conservation District
Deb Surabian, Soils Station Co-Leader	USDA NRCS
Jacob Isleib, Soils Station Co-Leader	USDA NRCS
Peter Picone, Wildlife Station Leader	CT DEEP, Wildlife Biologist
Lynn Kochiss, Forestry Station Leader	Educator
Chris Sullivan, Current Issue Leader	Southwest CT Conservation District
Barbara Kelly	North Central CT Conservation District
Fred Johnson	GEI Consultants
Kristen Ponak	Jacob's Engineering
Lisa Krall	Retired USDA NRCS
Jean Pillo	Eastern CT Conservation District
Ed Smith	Educator, Two Rivers Magnet School
Laura Rogers-Castro	CT DEEP, Wildlife Educator
Denise Savageau	CT River Coastal Conservation District
Joanna Shapiro	North Central CT Conservation District
Sarah Smith	Envirothon Advisor/Retired Educator
Paul Benjunas	CT DEEP, Outreach Biologist
Melissa Mostowy	Southwest CT Conservation District
Charlotte Pyle	Retired USDA NRCS
Ann Hadley	Manchester Community College
Frank Cervo	CT DEEP, Forester
Sandy Weiss	CT River Coastal Conservation District
Kelly Starr	CT River Coastal Conservation District

### **Registration:**

Registration announcements are sent to all Connecticut schools at the end of August via email. Schools are encouraged to submit the registration form via Google Forms so they can be added to the CT Envirothon Advisor listserv to receive the most up to date information on the workshops, the CT Envirothon website, and the Field Day competition. This year, the \$75.00 entry fee was waived due to the ongoing COVID-19 pandemic and the effort to keep students engaged despite the challenging times.

For the 2020-2021 program year, 24 schools representing 28 teams registered to receive study materials, participate in the workshops and attend the virtual competition (See Table 1). This list of schools includes several new teams that participated at various levels throughout the academic year.

A. I. Prince Technical High School	Marvelwood School
Academy of the Holy Family	Middletown High School
Amity High School	Nonnewaug High School
Bacon Academy	Northwestern Regional HS #7
Coginchaug Regional	Rockville High School
East Lyme High School	Shepaug Valley School
Farmington High School	Sound School
Glastonbury High School	Stafford High School
Housatonic Valley High School	Wamogo High School
Killingly Agricultural Education Center	Waterford High School
Lyman Hall High School	Wethersfield High School
Lyme - Old Lyme High School	Xavier High School

*Table 1. Registered schools for the 2020-2021 CT Envirothon*

### **Study Materials:**

All essential curriculum materials are posted on the CT Envirothon website ([www.ctenvirothon.org](http://www.ctenvirothon.org)), with each station team maintaining and updating a materials list through the webmaster. Materials provided from the stations range from journal articles to fact sheets, from web-links to PowerPoint files, examples of previous exam questions, and other study guides. This past year (2020-21), the stations updated the materials on their website to make sure all the links were up to date. They also reorganized their materials based on the national NCF objectives and key points for their respective station. The goal of this reorganization was to make the study guides more user friendly and more easily navigable for each station.

### **Workshops Go Virtual:**

With the COVID-19 pandemic extending remote learning into 2021, the Connecticut Envirothon Steering Committee recognized they were going to have to get creative in the planning of pre-competition event workshops. They decided on a monthly workshop series that would be offered the first full week of each month – from December to April – to prepare students for this year’s big event. Each leader for each of the four stations coordinated a mini workshop on their respective day for each monthly series. The station leaders released materials on the website or collaborated with other environmental professionals to host one hour-long virtual workshop webinars. Most stations opted for the workshop webinars, which were recorded and uploaded to our YouTube channel for future reference.

Some of the YouTube statistics from December 1, 2020 to August 4, 2021 are below:

- Total CT Envirothon YouTube Page Statistics
  - Total Views: 1,793
  - Total Watch time (hours): 182.9
  - New Subscribers: 21
  - Closed Captions: 236 views, 20.2 hrs watch time
- Top 5 CT Envirothon YouTube Videos
  - CT Envirothon 2020-2021 Results: 265 Views
  - Challenge of Managing Connecticut Invasives: 214 Views
  - Wildlife Basics: Food, Water, Cover and Space: What are Some of Wildlife's Limiting Factors?: 182 views
  - Climate Change Impacts on New England Lakes and Reservoirs: 133 views
  - Amphibians of Connecticut: Diversity, Identification and Conservation: 96 views
- Device Types of Users
  - Computer: 1,036 views
  - Mobile Phone: 446 views
  - Tablet: 47 views
  - Game Console: 2 views
- By Station:

<b>2020-2021 CT Envirothon YouTube Statistics</b>						
	Videos Posted	Views	Watch time (hours)	Playlist Starts	Playlist views	Live Webinar Attendance
Soils	16	326	29.8	13	20	70
Aquatics	9	525	33	44	101	51
Wildlife	4	564	87.6	21	31	83
Forestry	6	29 (unlisted)	1	12	19	-



## **Soils Station:**

USDA NRCS Connecticut's soils staff served as the lead for the Envirothon's Soils Station. Their workshop goal was to be exciting and interactive – allowing students and teachers to learn, collaborate, and create together. The diverse group of presenters used a mix of media, such as embedded Story Map [videos](#), TED Talk recordings, a soil texturing demonstration, and many quick, live Q&A sessions. This variety of tools made it easy to transition during the webinars and successfully interact with the group to engage and stimulate learning.

Digital workshops were new and different for both presenter and participant; however, the dedication to learning remains the same for all – making the 2021 Envirothon soils workshops a great success.

Soils Station YouTube playlist:

<https://www.youtube.com/playlist?list=PLEtI4ayLNW0-wKLPsoRuflM6fuVNW1ewz>



*Soils Station Co-Lead Jacob Isleib in one of the CT Envirothon videos.*

## **Forestry Station:**

There were no in-person workshops this year due to COVID-19 restrictions as discussed above. As a result, instructional materials were shared virtually at the monthly workshop series and through the forestry study guide web page (<http://ctenvirothon.org/study-guides/forestry/>), and via email. Resources included PDF informational texts, and links to web sites and data, videos, and recorded webinars.



*Forestry Station Leader Lynn Kochiss in one of the CT Envirothon Videos*

The monthly Forestry workshop series were molded around the station's key points: Introduction to Tree Identification, Tree Physiology, Connecticut Forest History, Forest Ecology, Tree Measurement, Trees as Important Renewable Resources, and Sustainable Forest Management.

## **Aquatics Station:**

Three live webinars were held during December, February, and April. Topics included: Invasive Aquatic Plants in Connecticut, An Introduction to Stream Ecology, Climate Change Impacts on New England Lakes and Reservoirs, and Mapping to Analyze Land Use Impacts on Water. Speakers from these presentations included: Greg Bugbee from the Aquatic Invasive Management Program at the CT Agricultural Experiment Station, Matt Goclowski from the CT Department of Energy and Environment Protection Fisheries Division, Ben Burpee from Ecosystem Consulting Services, and Laura Cisneros from the UCONN Natural Resources Conservation Academy.

These live presentations were recorded and placed on the CT Envirothon YouTube channel. During January and March, two materials releases occurred. The first was a 4-part series on lake health and water quality monitoring, filmed by Aquatics Station Leader Kelsey Sudol, of the Lake Waramaug Task Force and the Northwest Conservation District. The second materials release included an additional video on storm water sampling and monitoring, also filmed from the field by Sudol. Certain schools were then able to request water quality testing strips from the citizen science project [Water Insights](#). While the data collection was not successfully completed by the end of the season due to busy schedules,



the distributed test strips will be used in Fall 2021 and will be used for additional data collection.

The goal of the station this year was to adapt to the virtual environment, while exploring the 5 main aquatic objectives. A focus for the materials release was to give students live-action shots of field work. Next year, the aquatics station hopes to provide more guidance on hands-on field sampling and activities for students and to continue to adapt to the online space. The station hopes to build on the many lessons learned this year going forward.

Aquatics Station YouTube playlist:

[https://www.youtube.com/playlist?list=PLEtI4ayLNW0\\_Y59ZQf2s8Bo3o1gWwWmz4](https://www.youtube.com/playlist?list=PLEtI4ayLNW0_Y59ZQf2s8Bo3o1gWwWmz4)



*Photo Highlights from Aquatics Station Workshops by Station Leader Kelsey Sudol*

### **Wildlife Station:**

The Wildlife Station, led by CT DEEP Wildlife Biologist Peter Picone, had 5 monthly workshop webinars on Zoom. These webinars focused on the wildlife station key points. The five live webinars were held monthly from December to April. Topics included:

- Wildlife Basics: Food, Water, Cover and Space: What are Some of Wildlife's Limiting Factors?
- Introduction to the Amphibians of Connecticut
- Managing Invasive Non-natives and Improving Wildlife Habitat using Principles and Practices of Applied Science.



- The Challenge of Managing Eastern Coyote Interactions with the Public in Connecticut's Suburban/Urban Environment.

Speakers who delivered these presentations included environmental professionals Peter Picone and Chris Vann from the Connecticut Department of Energy and Environmental Protection – Wildlife Division, and Herpetologist Dennis Quinn.

These live presentations were also recorded and placed on the CT Envirothon YouTube channel. Wildlife Station YouTube playlist:

<https://www.youtube.com/playlist?list=PLEtI4ayLNW08NWZ4EeOTCpwhhVFRqcZkP>



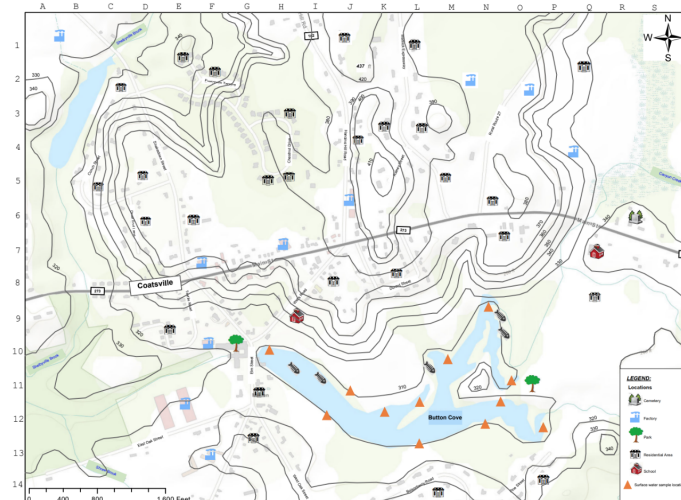
*Wildlife Station Leader Peter Picone in one of the CT Envirothon videos*

### **Current Issue and Oral Presentations**

This year's current issue topic was "*Water Resource Awareness, Connections and Impacts.*" In lieu of having the typical oral presentation based on the current issue scenario, the CT Envirothon challenged this year's teams to create a PowerPoint or Google Slide presentation. For the scenario, each student team represented a team of environmental consultants who were tasked with determining the cause of a fish-kill discovered in the fictional town of Coatsville. The students were given chemical data from mock surface water sources and groundwater samples across the fictional town. Along with the chemical data, the students were also given geographic data in the form of topographic maps, soil maps, bedrock geology maps, and surficial geology maps. The students then analyzed the various lines of data to figure out the source of the contamination and came up with ways to remediate it. The contamination was only in one area of town.

To prepare for their presentations, team members were provided with worksheets that allowed them to practice analyzing topographic maps and soil maps. They also attended an on-line workshop given by two individuals with groundwater expertise who worked in the environmental consulting field. The link to the workshop can be found here:

<https://www.youtube.com/watch?v=rxIBpSjlTNA>



Coatsville Town Map: Surface Water Sample Locations

As with the testing, the students had to “meet” as a team and view materials on virtual platforms such as ZOOM to craft their presentation. The final presentations were judged by individuals from the CT Department of Energy and Environmental Protection and former professionals in several environmental fields. The judges graded each presentation based on a rubric. The final oral presentation score was added to the other four individual test station scores.

### **Connecticut Envirothon Virtual Field Day Event:**

Similar to the 2019-2020 school year, due to the COVID-19 pandemic, the station tests were revised by the Station Leaders to be taken completely online. The testing subcommittee of the CT Envirothon Steering Committee utilized Google Classroom to make the tests available to student teams. Before each test, every team completed an Honors Pledge which outlined the testing expectations throughout each station test.

Each of the four station tests were posted on the Google Classroom for separate 48-hour time periods (2-day time blocks). Within these 48 hours, teams were responsible for coordinating a one-hour time block with their team to complete that test. This schedule allowed for flexibility when finding a one-hour time block to complete the test together. The teams could use platforms such as Zoom to collaborate, with one team member responsible for filling out the test and submitting it for grading. The tests included written questions supplemented with visual images or event videos to enhance the experience. The current issue presentations were due before the station tests commenced on Sunday, May 16.

A total of 12 student teams participated in Connecticut Envirothon’s second Virtual Testing Event from Monday May 17 through Thursday May 27.



*CT Envirothon Chair, Jane Seymour, with the list of schools that competed in the 2021 CT Envirothon virtual competition.*

First Place was awarded to Marvelwood School, Second Place was awarded to Coginchaug Regional High School, and Third Place to Northwestern Regional High School #7. Watch our creative competition results video here: <https://youtu.be/FuVEFj4eXE0>.

Cash prizes and team medals were awarded to the top three teams and all participants received certificates. Engraved plaques were awarded to teams that placed first through third overall, as well as teams that achieved high scores on each station test.

### **National Envirothon Competition:**

Connecticut's 2020-21 Champion Team, The Marvelwood School, represented Connecticut Envirothon at the Virtual NCF Envirothon Competition that was hosted virtually by Nebraska in late July. Marvelwood School placed 35 out of 41 teams overall and received recognition for winning the scavenger hunt contest. Team member, Aiden '23, won the photo contest with a picture of an American Kestrel nestling being banded. Congratulations to Marvelwood and their advisor Laurie Doss!



*The 2020-2021 CT Envirothon Champion Team, Marvelwood School*

# THANK YOU!

We thank the following organizations and individuals who contributed cash, in-kind, or material donations to the Connecticut Envirothon program throughout the past several years:

## **AGENCY SPONSORS**

Connecticut Council on Soil and Water Conservation  
Connecticut Association of Soil & Water Conservation Districts  
Connecticut River Coastal Conservation District  
Eastern Conservation District  
North Central Conservation District  
Northwest Conservation District  
Southwest Conservation District  
Connecticut Department of Energy & Environmental Protection  
USDA Natural Resources Conservation Service  
Society of Soil Scientists of Southern New England  
UConn Cooperative Extension System  
USDA Forest Service  
Yale University - Peabody Museum of Natural History  
Friends of Sessions Woods

## **CORPORATE SPONSORS**

Pratt and Whitney  
GEI Consultants  
UTC Aerospace Systems  
Connecticut Water Co.  
The Country Butcher  
Collins Aerospace Systems  
GEI Employees, Glastonbury Offices  
Tolland County Agricultural Center

## **Financial Report:**

The Connecticut Envirothon program was financed through donations from private corporations and public organizations, including a GoFundMe account. Donations were used to purchase materials for workshops, technology to improve program accessibility and development, membership, registration and attendance at the national NCF Envirothon event hosted virtually by Nebraska in July.

A proposed budget for 2020-21 was developed and approved by the Steering Committee at the beginning of the 21-22 academic year. Both the proposed budget and actual expenditures are included on the following page.





CONNECTICUT ENVIROTHON  
FISCAL YEAR SEPT 2020 TO AUG 2021

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	BEGINNING ENDING	\$58,943.45 \$59,608.01
	PROJECTED 21	YEAR TO DATE
RECEIPTS		
Interest	\$20.00	\$7.47
Team Registration \$75 per team	\$0.00	\$0.00
Misc. Payments	\$0.00	\$0.00
Council on Soil and Water Conservation	\$10,000.00	\$10,000.00
Sponsors/Donations	\$4,000.00	\$150.00
TOTALS	\$14,020.00	\$10,157.47
EXPENSES		
<b>Supplies/Educational Materials</b>	<b>\$5,500.00</b>	<b>\$0.00</b>
General Supplies (binders, paper, etc)	\$250.00	\$0.00
Soils	\$150.00	\$0.00
Aquatics	\$150.00	\$0.00
Forestry	\$150.00	\$0.00
Wildlife	\$150.00	\$0.00
Current Issue	\$150.00	\$0.00
Teacher Orientation	\$500.00	\$0.00
Innovation & Technology	\$4,000.00	\$250.00
T Shirts & other merchandizing	\$500.00	\$0.00
Outreach Materials (Brochure, Social Media)	\$500.00	\$0.00
Postage	\$200.00	\$0.00
Awards	\$1,000.00	\$1,450.46
National Dues	\$350.00	\$550.00
National Meeting Travel Expenses	\$0.00	\$0.00
Registration for National Event	\$1,800.00	\$300.00
Team Travel to National	\$3,100.00	\$0.00
<b>Event</b>	<b>\$6,900.00</b>	<b>\$0.00</b>
Lunch	\$5,100.00	\$0.00
Breakfast, snacks	\$450.00	\$0.00
Tables, chairs, tent, sound system	\$1,050.00	\$0.00
Site rental	\$250.00	\$0.00
Miscellaneous	\$50.00	\$0.00
<b>Workshops</b>	<b>\$0.00</b>	<b>\$0.00</b>
Soils	\$0.00	\$0.00
Aquatics	\$0.00	\$0.00
Forestry	\$0.00	\$0.00
Wildlife	\$0.00	\$0.00
Current Issue	\$0.00	\$0.00
Map Reading	\$0.00	\$0.00
Judge's Training	\$0.00	\$0.00
Program Assistant	\$4,000.00	\$4,472.70
Program Director	\$0.00	\$0.00
Web Site/Internet Service	\$905.00	\$784.41
Mileage	\$200.00	\$0.00
Instate Meetings	\$500.00	\$0.00
TOTALS	\$25,455.00	\$7,807.57