

Connecticut Envirothon 2022 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 2021-2022 period marked the 31st year of offering the program to Connecticut high school students attending public, private, agricultural/technical and home school programs. This year also marked our return to an in person competition after being virtual since May 2020.

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.

There are members of the Steering Committee that are Station Leaders for each of the core topics: Soils, Forestry, Aquatics, Wildlife, and a rotating Current Issue (Waste to Resources in 2021-22). These station experts plan the curriculum and training workshops for each of the main subject areas. The station leaders also prepare and administer the station exams during the Field Day competition in May.



Our Steering Committee members and volunteers from the CT DEEP (left photo) and the Eastern Connecticut Conservation District on the day of the Field Day Competition.

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 (2021-2022):

Mindy Gosselin, Program Coordinator	Municipal Wetland Agent
Jane Seymour, Chair	CT DEEP, Wildlife Biologist
Paul Benjunas, Vice Chair	CT DEEP, Outreach Biologist
Chris Sullivan, 2nd Vice Chair & Nat'l Rep	Southwest CT Conservation District
Pam Huntley, Treasurer	USDA Forest Service (Retired)
Karen Nelson, Secretary	Northwest CT Conservation District
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
Frank Cervo, Forestry Station Leader	CT DEEP, Forester
Sherill Baldwin, Current Issue Leader	CT DEEP, Sustainable Materials Management
Lindsay Beutler	Eastern CT Conservation District
Eric Dunnack	USDA NRCS
Fred Johnson	Environmental Consultant
Barbara Kelly	North Central CT Conservation District
Lisa Krall	USDA NRCS (retired)
Jean Laughman	Envirothon Advisor/ Educator, UConn
Kristen Ponak	Jacob's Engineering
Jean Pillo	Eastern CT Conservation District
Denise Sauvageau	CT Association of Conservation Districts; CT Council on Soil and Water Conservation
Joanna Shapiro	North Central CT Conservation District
Ed Smith	Educator
Sarah Smith	Envirothon Advisor/Retired Educator
Leeane Marvin	Northwest CT Conservation District
Melissa Mostowy	Southwest CT Conservation District
Charlotte Pyle	USDA NRCS (Retired)
Ann Hadley	Manchester Community College
Sandy Weiss	CT River Coastal Conservation District

Registration:

Registration announcements were sent to all Connecticut schools at the end of August via email and mail. Schools were 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 required for returning teams. New teams and second teams were not required to pay the fee in an effort to keep students engaged despite the challenging times.

For the 2021-2022 program year, 23 schools representing 33 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.

Academy of the Holy Family	Marvelwood School
Amity High School	Nonnewaug High School
Avon High School	Northwestern Regional HS #7
Bacon Academy	RHAM High School
Coginchaug Regional High School	Rockville High School
Haddam-Killingworth High School	Shepaug Valley School
Holy Cross High School	Sound School
Housatonic Valley Regional	Stafford High School
Jonathan Law High School	Wamogo High School
Killingly Regional Agricultural Education Center	Waterford High School
Lyman Hall Ag Science	Xavier High School

Table 1. Registered schools for the 2021-2022 CT Envirothon

Study Materials:

All essential curriculum materials are posted on the CT Envirothon website (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.

Workshops:

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 that each station would provide a lesson plan in a box delivered to the registered schools to provide hands-on learning experiences. These boxes were normally coupled with an instructional YouTube video or worksheet.

The Aquatics and Current Issue station leaders also collaborated with other environmental professionals to record educational webinars. These were uploaded to our YouTube channel.

The teams also participated in an educational scavenger hunt through the Goosechase platform. Our station leaders created interactive questions relating to their study materials. The goal of this platform was to get students outside in nature putting their knowledge to

the test! Most of the questions asked the students to take a picture of their answer and all other teams could see what was submitted by the other schools.

Soils Station:

Connecticut 2022 Envirothon Soils Station Returns to the Field

Staff members of the US Department of Agriculture (USDA) and the Natural Resources Conservation Service (NRCS) serve as the leaders for the Connecticut Envirothon Soils Station. Their ongoing goal is for each soils workshop to be an exciting, interactive experience, allowing student teams and teachers to learn, collaborate and create together. Since 2020 a small library of virtual soil workshop content has been developed and made available on Envirothon's YouTube channel. The diverse group of presenters in these virtual workshops uses a mix of media, such as embedded StoryMap [videos](#), TED Talk recordings, a soils texturing demonstration and many quick Q & A sessions to enhance teams' understanding of soils station topics. These existing workshops were used primarily for the 2021-2022 school year. In addition, soil scientists gathered, packaged and distributed additional soil texturing materials to teams through Connecticut's five Conservation District offices. Next year the soils team hopes to resume in-person workshops while following public health guidelines and school policies.



Photo of the soil station from the 2021-2022 field day competition

The soils station at the in-person 2022 Envirothon competition featured a nicely dug soil pit where students were asked to estimate soil textures, soil color, and other properties. The exam also featured questions referencing a custom soil survey report for the Tolland Agricultural Center that included land use interpretations relating to this year's theme of "Waste to Resources". While the rain resulted in some soaked contestants (and soggy paper tests), the soils station proctors noted a lot of smiles throughout the morning. It was certainly a lot of fun to see the students enjoying being outside in the field together and competing.



Photo of the soil pit from the 2021-2022 field day competition

Forestry Station:

This year the Forestry Station created and distributed a station workshop kit filled with resources and tools.

Halfway through the year certified forester Frank Cervo became the forestry station leader and created questions to post on the virtual scavenger hunt platform - Goosechase. These questions tested the groups' knowledge of the online study materials, as well as encouraged them to get out into the woods!

The field day competition tested students' skills and knowledge with tree identification and measurement, forest pests and pathogens, silviculture, forest management, and sustainable materials. As always, it was the toughest section of the exam, but the teams did a great job navigating the field exercises despite the rain!

Aquatics Station:

This year, the Aquatics Station expanded on the virtual selections on our CT Envirothon's YouTube channel. We released five videos from three presenters: Introduction to Groundwater by Melissa Mostowy (Southwest Conservation District); Wetlands Introduction Part 1, and Defining Wetlands in Connecticut by Cynthia Rabinowitz (Northwest Conservation District); Meet the Macros, and Functional Feeding Groups and the River Continuum Concept by Heather Geist (Farmington River Watershed Association). All videos were released asynchronously throughout the year, and are located under the [Aquatics Station YouTube playlist found here](#). There are now 13 videos under the Aquatics playlist. The goal for next year is 5 additional videos for a total of 18 instructional videos. While we hope to have in- person workshops next year, increasing this virtual library is an important component moving forward to enhance learning opportunities in aquatics topics.

The field day competition this year was successfully held in-person and included several hands-on components from partner organizations. The Yale University's Peabody Museum of Natural History provided amphibian and fish specimens that students used for identification questions on the aquatics section of the test. Several test questions also referenced a watershed tabletop simulator to explore non- point source pollution and watershed science. The simulator was provided by the Kellogg Environmental Center (CT Department of Energy and Environmental Protection). The Lake Waramaug Task Force also provided two pieces of lake monitoring equipment for the test. Feedback from students indicated that they enjoyed the hands-on components but are looking forward to hands-on instruction next year. The goal for next year is to hold at least one in-person training (possibly two), while continuing to add and reconfigure virtual material.

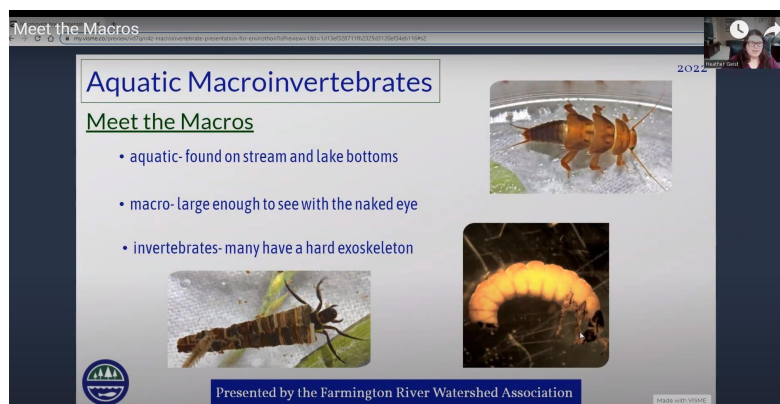
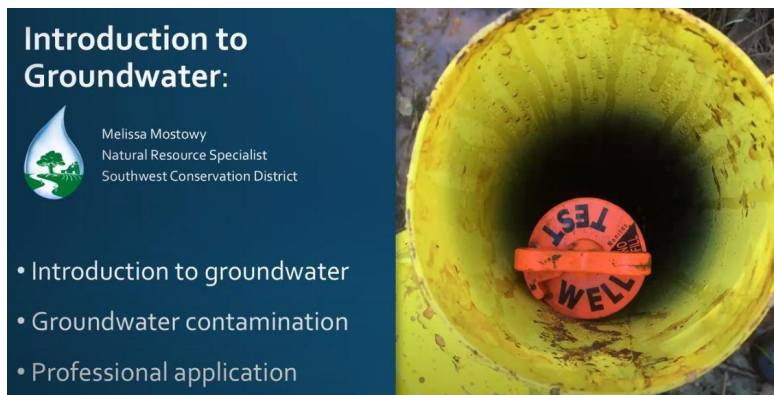


Photo Highlight from Virtual Aquatics Presentations



Introduction to Groundwater:

Melissa Mostowy
Natural Resource Specialist
Southwest Conservation District

- Introduction to groundwater
- Groundwater contamination
- Professional application

The slide features a blue background on the left with a water drop icon containing a tree. On the right, there is a photograph of a yellow bucket with a red cap that has 'TEST WELL' written on it.

Photo Highlight from Virtual Aquatics Presentations

Wildlife Station:

CT DEEP Wildlife Biologist Peter Picone leads the Connecticut Envirothon's Wildlife Station. This year's wildlife training for student teams took place virtually. Students had access to a variety of wildlife-related talks on-line on the Connecticut Envirothon's YouTube channel at <https://www.youtube.com/channel/UCiJB5g6YGbmKe7c8WKdqUdg/playlists>.

Station members distributed two wildlife educational kits to the teams. Laura Rogers Castro (DEEP Natural Resources Educator) created a kit to learn about wildlife that used Connecticut Wildlife magazine exercises and Paul Benjunas (DEEP Wildlife Division) created a kit on reptile identification.

At the May 2022 field day competition, Mr. Picone administered the wildlife test consisting of 50 questions of 2 points each. A practical component of the wildlife test included identification of life-size taxidermy mounts of animals or a skin or skull of an animal. Teams also needed to identify pictures of an animal, sketches or photos of habitat types or match an animal to its habitat requirements. Other sections of the test required teams to identify parts of an animal or be a "detective" to determine what disturbance an animal caused by piecing together evidence presented, and pick an appropriate answer/solution.



Current Issue and Oral Presentations

This year's national current issue topic was "*Waste to Resources*". Throughout the year students were provided with monthly informational documents focusing on different aspects of waste in Connecticut and were able to attend two live webinars hosted by environmental professionals. The link to the workshops can be found here:

<https://youtube.com/playlist?list=PLEtI4ayLNW0-SQYaQRDwQJSB8EDYNEU9I>.

The scenario, derived from the national topic, focused on how to manage one-pound gas cylinders to ensure human safety, environmental protection and resource conservation. Teams addressed this issue by exploring possible solutions and addressing state legislators with a proposal to establish a standard procedure that addresses safety for employees, protects the environment and is cost effective for municipalities.

Traditionally students answered the scenario by creating and presenting a poster board to a panel of judges at the field day competition, however this year, students were asked to create and present a PowerPoint or Google Slides presentation. The format was changed in order to align with the NCF international competition format.

The powerpoint presentations were due the Monday before the competition. On competition day, the teams presented their final presentations and 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. Teams were allowed to use standard notecards for their presentation. In addition to the oral presentation, each team took a written 50 point quiz based on the monthly informational documents that were released throughout the year. The scenario presentation score and written exam score were then added together to create a total out of 150 for the current issue station.

Connecticut Envirothon Field Day Event:

For the first time since May 2019, the field day competition was held in person at the Tolland Agricultural Center in Vernon, CT.

A total of 19 student teams, 1 wild card team, and 1 shadowing team participated in the Connecticut Envirothon in-person competition Event on Thursday May 19th (See Table 2). CT DEEP Commissioner Katie Dykes was also able to attend and give a speech about the importance of teaching natural resources at this level to prepare the students to be future environmental leaders.

First Place was awarded to Housatonic Valley Regional, Second Place was awarded to Marvelwood School Team 1, and Third Place to Nonnewaug High School Team 1.

Team medals and engraved plaques were awarded to the top three teams and all participants received certificates. Engraved plaques were also awarded to teams that achieved high scores on each station test.

Table 2. 2022 Participating Schools

Academy of the Holy Family	Marvelwood School
Amity High School	Nonnewaug High School
Bacon Academy	Northwestern Regional 7
Connecticut River Academy (shadow)	RHAM High School
Haddam-Killingworth High School	Rockville High School
Holy Cross High School	Sound School
Housatonic Valley Regional	Waterford High School
Lyman Hall High School	



Envirothon Chairperson, Jane Seymour, speaking to CT DEEP Commissioner Katie Dykes.

National Envirothon Competition

The student team from Housatonic Valley High School in Falls Village, CT, attended the North American Envirothon in Oxford, Ohio from July 24-30, 2022, as Connecticut’s representative. They, along with students from 35 states and four Canadian provinces competed in the 34th International Event. They were accompanied by their Teachers/Advisors, Dave Moran, and Audra Leach. The Connecticut team ably represented our State. We thank them and their advisors for their dedication and effort. The Connecticut Envirothon continues to support the NCF Envirothon program.

Connecticut Steering Committee member Chris Sullivan is our National Representative and also attended this year’s International NCF Envirothon competition.



The 2021-22 CT Envirothon Champion Team, Housatonic Valley Regional

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
Farmington River Watershed Association

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, for technology to improve program accessibility and development, and for membership, registration and attendance at the national NCF Envirothon event hosted in Ohio in July.

A proposed budget for 2021-22 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 below:

CONNECTICUT ENVIROTHON FISCAL YEAR SEPT 2021 TO AUG 2022		
	BEGINNING ENDING	\$59,234.52 \$59,202.72
	<u>PROJECTED 22</u>	<u>YEAR TO DATE</u>
RECEIPTS		
Interest	\$10.00	\$5.01
Team Registration \$75 per team	\$2,400.00	\$1,425.00
Team Registration Late	\$0.00	\$0.00
Extra Team Materials	\$0.00	\$0.00
T-Shirt Sales	\$0.00	\$0.00
Misc. Payments	\$0.00	\$0.00
Council on Soil and Water Conservation	\$10,000.00	\$20,000.00
Sponsors/Donations	\$21,425.00	\$575.00
TOTALS	\$33,835.00	\$22,005.01
EXPENSES		
	<u>BUDGETED 22</u>	<u>YEAR TO DATE</u>
Supplies/Educational Materials	\$5,500.00	\$1,232.67
General Supplies (binders, paper, etc)	\$250.00	\$122.09
Soils	\$150.00	\$0.00
Aquatics	\$150.00	\$0.00
Forestry	\$150.00	\$110.58
Wildlife	\$150.00	\$0.00
Current Issue	\$150.00	\$0.00
Teacher Orientation	\$500.00	\$0.00
Innovation & Technology	\$4,000.00	\$1,000.00
T Shirts & other merchandizing	\$3,500.00	\$2,851.75
Outreach Materials (Brochure, Social Media)	\$500.00	\$0.00
Storage Space	\$0.00	\$0.00
Postage	\$200.00	\$191.50
Petty Cash	\$0.00	\$0.00
Awards	\$1,500.00	\$733.19
National Dues	\$350.00	\$450.00
National Meeting Travel Expenses	\$2,400.00	\$487.20
Registration for National Event	\$1,800.00	\$1,800.00
Team Travel to National	\$3,100.00	\$4,871.54
Event	\$6,900.00	\$4,695.29
Lunch	\$5,100.00	\$3,500.00
Breakfast, snacks	\$450.00	\$495.29
Tables, chairs, tent, sound system, soil pit	\$1,050.00	\$700.00
Site rental	\$250.00	\$0.00
Miscellaneous	\$50.00	\$0.00
Workshops	\$1,680.00	\$0.00
Soils	\$240.00	\$0.00
Aquatics	\$240.00	\$0.00
Forestry	\$240.00	\$0.00
Wildlife	\$240.00	\$0.00
Current Issue	\$240.00	\$0.00
Map Reading	\$240.00	\$0.00
Judge's Training	\$240.00	\$0.00
Program Assistant	\$4,800.00	\$3,204.15
Program Director	\$0.00	\$0.00
Web Site/Internet Service	\$905.00	\$616.44
Mileage	\$200.00	\$79.52
Instate Meetings	\$500.00	\$0.00
TOTALS	\$33,835.00	\$21,213.25