



Connecticut Envirothon

Annual Report
2019



Mission:

The mission of the Envirothon 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 North American Envirothon program. The 2018-2019 period marked the 28th year of offering the program to Connecticut high school students attending public, private, agricultural/ technical and home school programs.

Steering Committee:

The Connecticut Envirothon Program is guided by the all-volunteer CT Envirothon Steering Committee, which consists of natural resource professionals from various federal, state and local agencies, private environmental groups, and active and retired educators.

There are monthly committee meetings. Some of these meetings are held via conference calls in an effort to reduce greenhouse gas emissions released when members travel to meeting locations.

In addition to the main Steering Committee, there is an advisory committee that provides support and guidance to the program primarily through correspondence, financial support, and assistance at the workshops and the final May event. The advisory group has also taken on new tasks at the request of the Steering Committee, such as standardizing fundraising materials.



Taking the Aquatics Exam

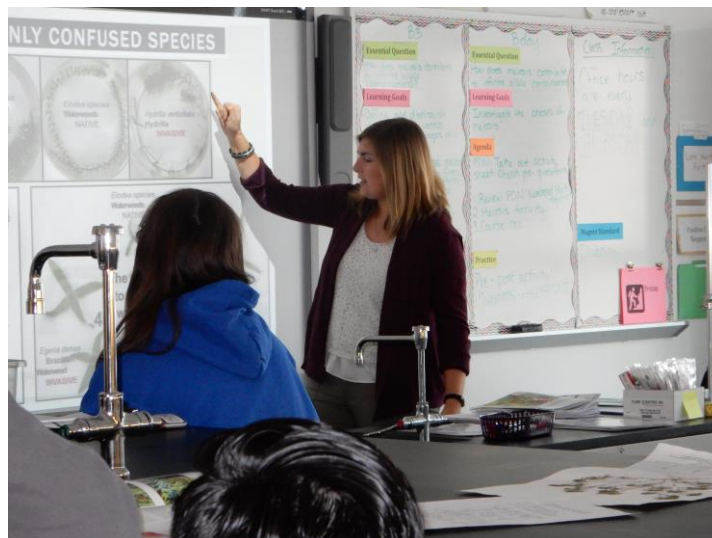
Program Workshops

Station teams are formed from the members of the Steering Committee for each of the Envirothon workshops: Soils, Forestry, Aquatics, Wildlife, and a rotating Current Issue determined by the national organization- *Agriculture and the Environment: Knowledge and Technology to Feed the World* - for the 2018-19 program. 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.

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 (2018-2019):

Jeff Folger, Chair
Kristen Ponak, Vice Chair
Pam Huntley, Treasurer
Peter Picone, Secretary
Barbara Kelly, Program Coordinator
Candace Bartholomew
Kim Bradley
Greg Watkins-Colwell
Scot Frost
Ann Hadley
Fred Johnson
Lisa Krall
Jean Laughman
Deb Surabian
Karen Nelson
Kelsey Sudol
Jean Pillo
Ed Smith
Laura Rogers-Castro
Denise Savageau
Joanna Shapiro
Sarah Smith
Charlotte Pyle
Cynthia Rabinowicz
Lynn Kochiss
Joan Nichols
Eric Hansen
Paul Bunjunas

North Central CT Conservation District
GEI Consultants
USDA Forest Service (Retired)
CT DEEP
North Central CT Conservation District
UConn Cooperative Extension Service
Private Consultant
Yale University - Peabody Museum of Natural History
Collins Aerospace Division
Manchester Community College
GEI Consultants
Retired USDA NRCS
Envirothon Advisor/ Educator, UConnecticut
USDA NRCS
Northwest CT Conservation District
Northwest CT Conservation District
Eastern CT Conservation District
Educator, Two Rivers Magnet Middle School
CT DEEP
Southwest CT Conservation District
North Central CT Conservation District
Envirothon Advisor/Retired Educator
Retired USDA NRCS
Northwest CT Conservation District
Educator
Private Forester
Private Forester
CT DEEP



Registration:

Registration announcements are sent to all Connecticut schools by the end of August. Schools are encouraged to submit the registration form and entry fee of \$75.00. There are need-based scholarships available for registration.

For the 2018-2019 program year, 35 schools representing 45 teams registered to receive study materials, participate in the workshops and attend the field event (See Table 1). This list of schools includes several new school teams that participated at various levels throughout the academic year.

Academy of Aerospace & Engineering	Housatonic Valley Reg. HS
Academy of the Holy Family	Lyman Hall HS & Ag Science
Academy of Science & Innovation	New Fairfield HS
Avon HS	Nonnewaug HS
Bacon Academy	Northwest Regional HS #7
Bolton HS	Norwich Free Academy
Coginchaug Regional HS	Old Saybrook HS
CT River Academy	RHAM HS
Capt. Nathan Hale MS	Rockville HS
Crosby HS	Sports and Med. Sciences Academy
East Lyme HS	Suffield Reg. HS & Agriscience
Ellington HS	Wamogo HS & Agriscience
Farmington HS	Waterford HS
Glastonbury HS	Xavier HS

Table 1. Participating schools for the 2018-2019 program

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. Envirothon programs from other states have linked their station pages to the Connecticut webpage resources to assist their own teams in preparation. This fact alone is testament to the strength of the materials and training provided by the CT Envirothon Steering Committee members.

Workshops:

The 2018-2019 program included four Saturday workshops covering the five subject areas. These training workshops expose the participants to current conservation challenges in the five subject areas. The workshops also provide great opportunities for Envirothon students to interact with environmental/natural resource professionals and learn not only the facts but discuss career and college opportunities. An advisor orientation was also held during the academic year to supplement the study materials provided online.

Forestry and Current Issue Workshop - October 13, 2018

Tolland County Agricultural Center, Vernon, CT.

Joseph Orefice, Ph.D., Director of Forest & Agricultural Operations, Yale University School of Forestry and Environmental Studies, discussed the *Benefits and Applications of Integrating Trees into Northeastern US Agriculture*. This was followed by concurrent sessions with varying topics. Dr. Robert Fahey, Assistant Professor, Department of Forest Ecology and Management, University of Connecticut, shared an *Introduction to Forest Ecology*. Tom Worthley, Assistant Extension Professor, University of Connecticut Cooperative Extension Service and the University of Connecticut Department of Natural Resources and the Environment, discussed *Silviculture Basics*. Joan Nichols, Certified Forester, provided an overview of *Forestry Tools and Logging Equipment* used by foresters.

Hands-on, outdoor sessions included *Tree Measurement Using a Clinometer* led by Joan Nichols, and *Tree ID* led by Ed Smith, Two Rivers Magnet Middle School educator. On display throughout the day were two collections: *CT Forest Products*, provided by Joan Nichols; and *Tree bark, Fruit, and Pest and Disease* samples shared by Ed Smith.



Soils and Advisor Workshop - October 27, 2018

Tolland County Agricultural Center, Vernon.

Forty-seven students and 11 advisors representing 11 Connecticut high schools turned out at the Tolland County Agricultural Center to learn about soils, conservation planning, invasive worms, and more. Following lectures on Connecticut soils, soil properties and water quality, students visited hands-on stations on map reading, soil pit evaluations, soil texture, color, erosion prediction and nutrient management. They also learned how invasive worms can affect soil ecosystems. Volunteers at the workshop included representatives from the Natural Resources Conservation Service, the University of Connecticut, CT Envirothon Steering Committee, Connecticut's Conservation Districts, and the Earth Team Volunteer program. All came away with new knowledge and hands-on experience, according to station leader Deb Surabian, soil scientist with the NRCS.



Learning about soil properties

Aquatics Workshop - January 19, 2019 Connecticut River Academy, East Hartford.

Seventy four students and 15 advisors were welcomed to the event at the Connecticut River Academy by Aquatics team leader Kimberly Bradley. More than 38 volunteers, including presenters and co-presenters, representing a range of state and federal government agencies, academic institutions, and private organizations worked together to make the training a success.

The Aquatics Workshop held a total of 16 training sessions, with eight concurrent workshops over two session periods. Representatives from CT DEEP, Yale University's Peabody Museum of Natural History, the Connecticut Agricultural Experiment Station, Bigelow Brook Farm, and the University of Connecticut instructed and challenged students in subject areas including identification of fish, amphibians, invasive aquatic plants, freshwater mussels, and freshwater macroinvertebrates. Participants were also introduced to aquaponics techniques and the effect of cyanobacteria on water quality.



Wildlife Workshop – March 30, 2019

Sessions Woods Wildlife Management Center, Burlington.

Seventy students and 15 advisors attended the wildlife workshop which had several concurrent activities for the student teams. DEEP Wildlife Biologist Peter Picone coordinated the workshop and welcomed the participants.

Students had seven wildlife-related talks to choose from and attend. Session topics included: “How Integrated Pest Management (IPM) Helps Pollinators in Agriculture.” by Dr. Kimberly Stoner, biologist, CT Agricultural Experiment Station; “Wildlife Management Challenges” by Jon D’Arpino (Deer topic) DEEP wildlife biologist; Chris Vann (Coyote/Bear Nuisance topic), wildlife program biologist; “Falconry Basics” by Christine Peyreigne, CT falconer and CT Falconry Association; “Improving Biological Diversity at Sessions Woods WMA” by Peter Picone, DEEP wildlife biologist; “Managing Habitats For New England Cottontail and Other Young Forest



Specialists” by Andrea Petrullo, DEEP consulting biologist; “Improving Biological Diversity at Belding WMA” by Jane Seymour, DEEP wildlife biologist; “Reptiles of Connecticut: Identification and Natural History” by Paul Benjunas, DEEP seasonal resource assistant/CT Envirothon alumnus); “Identifying Furbearers” by CT DEEP Master Wildlife Conservationists; and “Monarch Butterfly Rescue” by Eric Rahn, CT DEEP Master Wildlife Conservationist. Following the workshop sessions, there was a 40 minute walk through quiz on exhibits that were spaced around the education center. The group reassembled to review the answers to the specimens included in the quiz. A grant from Friends of Sessions Woods, Inc., provided morning refreshments.



Teams gather at Sessions Woods for the Wildlife workshop

Field Event: Thursday, May 16, 2019 Spring Meadow Farm, Tolland.

Student teams arrived in buses and vans and were guided to the registration table to get their t-shirts, information packets and oral presentation numbers. Everyone assembled at the pavilion for the opening ceremonies and distribution into exam groups.

Working with Envirothon volunteers and station leaders, the five station exam areas were spaced around the property of this working farm for a full-day of events. Twenty-eight schools assembled 32 teams and over 180 students participated in the competition. There were four “wild card teams” comprised of alternates from participating schools, exposing additional students to the process of the event and show their knowledge. Advisors of the participating teams attended a three hour workshop about Water Management (the 2020 Current Issue) by professionals from the CT Water Planning Council, the South Central Water Supply, the CT Rivers Alliance, and the CT DEEP.

Oral Scenario and Presentations: All of the student teams were presented with a scenario in January to “*Develop a management plan for a small farm.*” The teams brought their presentation materials with them on the day of the event. This fifth station was an oral presentation of their scenario solution to a panel of judges. Each team’s score, based on a related rubric, was added to their other test station scores.



The other four stations each featured a written exam for the student teams to complete in a collaborative manner. Each station included some hands-on component in their exam questions, ranging from fish identification to measuring board feet of a tree; these tasks challenged the teams on many levels. After the competition, all participants and volunteers enjoyed a BBQ luncheon provided by The Country Butcher at the picnic facilities. Teams relaxed on the grass and at tables while enjoying the sunny weather. This allowed time for decompressing after a mentally taxing morning.

While team scores were finalized by the grading volunteers, the teams reassembled by the pond to await the results and accompanying awards. Students were encouraged to browse an additional display that introduced CT Envirothon members to possible career paths that are enhanced by participating in the Envirothon. The display was supported by a grant from the CT Chapter of the Society of Women Environmental Professionals (SWEPP).



First place in the 2019 competition was awarded to the Housatonic Valley High School team, Falls Village; 2nd place to the Rockville High School team, Rockville; and 3rd place to the Academy of Aerospace and Engineering High School team, Windsor.

National Event and National Steering Committee:

The student team from Housatonic Valley High School in Falls Village, CT, attended the North American Envirothon in Raleigh, North Carolina, from July 28-August 3, 2019, as Connecticut's representative. They, along with students from 42 states, six Canadian provinces and two mainland Chinese teams competed in the 32nd International Event. They were accompanied by their Teacher/Advisor, Dave Moran, and chaperone, Marina Matsudiara. The Connecticut team ably represented our State. We thank them and their teacher/adviser for their dedication and effort.

The Connecticut Envirothon continues to support the North American Envirothon program. The North American Envirothon merged in 2014 with the National Conservation Foundation, a non-profit fundraising entity of the National Association of Conservation Districts, to facilitate fund raising efforts to continue the program.

Connecticut Steering Committee member Jeff Folger has been appointed to the National Operating Committee which is charged with developing policies and procedures for the national organization, and assisting in the operation of the summer competition. Jeff attended the winter meeting in Antonio, TX, and the summer national event in North Carolina, as well as assisting the Housatonic team with registration and travel arrangements.



North American Envirothon participants in North Carolina – July 2019

THANK YOU!

We thank the following organizations and individuals who contributed cash, in-kind, or material donations to the 2018-2019 Connecticut Envirothon program:

AGENCY SPONSORS

Connecticut Council on Soil and Water Conservation
Connecticut Association of Soil & Water Conservation Districts
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
Connecticut's Five Conservation Districts
Yale University - Peabody Museum of Natural History
Friends of Sessions Woods

CORPORATE SPONSORS

Pratt and Whitney
GEI Consultants
The Country Butcher
Collins Aerospace Systems
GEI Employees, Glastonbury Offices
Tolland County Agricultural Center

Individual Sponsors


GEI Glastonbury Staff

A grant from the Connecticut chapter of the Society of Women Environmental Professionals (SWEP) also provided financial support this year. A college fair-like program was held during the Aquatics workshop to expose students and advisors to potential areas of college study and professions that are enhanced by participation in the Envirothon. Representatives from Connecticut colleges displayed information and answered questions about their programs of study that support an interest and careers in natural resources and environmental studies.

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 study notebooks and workshops, T-shirts for the field day, food and refreshments for the field day and workshops, membership and registration to the National Envirothon as well as travel to the national competition and the annual winter meeting.

A proposed budget for 2018-19 was developed and approved by the Steering Committee at the beginning of the academic year. Both the proposed budget and actual expenditures are included on the following page.

	CONNECTICUT ENVIROTHON	
	FISCAL YEAR	SEPT 2018 TO AUG 2019
	BEGINNING	\$38,182.75
	ENDING	\$40,582.53
	PROJECTED 19	YEAR TO DATE
RECEIPTS		
Interest	\$20.00	\$21.67
Team Registration \$75 per team	\$3,000.00	\$2,175.00
Misc. Payments	\$0.00	\$8.00
Council on Soil and Water Conservation	\$7,800.00	\$20,000.00
Permaculture Grant (carried over from 2017-18)		\$4,470.14
Sponsors	\$19,310.00	\$6,970.62
TOTALS	\$30,130.00	\$33,645.43
	BUDGETED 19	YEAR TO DATE
EXPENSES		
Supplies/Educational Materials	\$1,000.00	\$928.46
General Supplies (binders, paper, etc)	\$250.00	\$33.90
Soils	\$150.00	\$0.00
Aquatics	\$150.00	\$0.00
Forestry	\$150.00	\$385.42
Wildlife	\$150.00	\$0.00
Current Issue	\$150.00	\$509.14
T Shirts & other merchandizing	\$3,500.00	\$2,410.00
Outreach Materials (Brochure, etc.)	\$500.00	\$0.00
Postage	\$200.00	\$170.40
Awards	\$1,000.00	\$763.42
National Dues	\$350.00	\$350.00
National Meeting Travel Expenses	\$1,800.00	\$2,484.53
Registration for National Event	\$1,800.00	\$1,800.00
Team Travel to National	\$3,100.00	\$3,194.12
Event	\$7,400.00	\$6,571.98
Lunch	\$5,100.00	\$4,200.00
Breakfast, snacks	\$450.00	\$169.11
Tables, chairs, tent	\$1,000.00	\$1,722.87
Sound system	\$50.00	\$0.00
Toilets	\$500.00	\$480.00
Site rental	\$250.00	\$0.00
Miscellaneous	\$50.00	\$0.00
Workshops	\$1,875.00	\$997.51
Soils	\$240.00	\$571.73
Aquatics	\$240.00	\$101.44
Forestry	\$240.00	\$13.72
Wildlife	\$240.00	\$310.62
Current Issue	\$240.00	\$0.00
Map Reading	\$0.00	\$0.00
Teacher Orientation	\$500.00	\$0.00
Judge's Training	\$175.00	\$0.00
Program Assistant	\$6,000.00	\$4,195.24
Program Director	\$0.00	\$0.00
Web Site/Internet Service	\$905.00	\$682.25
Permaculture Grant		\$236.00
SWEP Funds		\$1,912.49
Mileage	\$200.00	\$0.00
Instate Meetings	\$500.00	\$78.81
TOTALS	\$30,130.00	\$26,775.21