



Connecticut



Envirothon

Annual Report

2016-2017



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 2016-2017 period marked the 26th 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 a volunteer steering committee. Called the CT Envirothon Steering Committee, it 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 and some of these meetings are held via conference calls in an effort to reduce greenhouse gas emissions released due to 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.



A team proudly shows their current issue presentation

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 (Soil and Water agricultural Stewardship in 2016-17). 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 because of the time and dedicated efforts of the following members of the Connecticut Envirothon Steering Committee (2016-2017):

Jeff Folger, Envirothon Chair
Kristen Ponak, Vice Chair
Pam Huntley, Treasurer
Ann Gygax, Secretary
Barbara Kelly, Program Coordinator
Candace Bartholomew
Kim Bradley
Greg Watkins-Colwell
Claire Foster
Scot Frost
Ann Hadley
Sean Hayden
Fred Johnson
Lisa Krall
Jean Laughman
Adam Maikshilo
Karen Nelson
Peter Picone
Jean Pillo
Ed Smith
Laura Rogers-Castro
Denise Savageau
Joanna Shapiro
Sarah Smith
Kelly Starr
Chris Sullivan

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



The team prepares for their oral presentation

Registration:

Registration announcements are sent to all Connecticut schools at 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 2016-2017 program year, 38 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 included several new school teams that participated at various levels throughout the academic year.

| | |
|---|---------------------------------------|
| Academy of Aerospace & Engineering (CREC) | RHAM HS Teams 1 & 2 |
| Academy of the Holy Family | Robert E. Fitch HS |
| Avon HS Teams 1 & 2 | Rockville HS |
| Bacon Academy | Rocky Hill HS |
| Bolton HS | Science and Technology HS Teams 1 & 2 |
| Coginchaug Regional HS | South Windsor HS |
| Common Ground HS | Sport & Medical Sciences Academy |
| Connecticut River Academy | Suffield Regional HS/ Agriscience |
| Coventry HS | Thomaston HS |
| Crosby HS | Two Rivers Magnet HS |
| East Catholic HS | Wamogo HS |
| East Lyme HS | Wamogo HS Ag/FFA |
| Ellington HS Teams 1 & 2 | Waterford HS |
| Farmington HS | Woodstock Academy |
| Glastonbury HS | Xavier HS |
| Housatonic Valley HS Teams 1 & 2 | |
| Howell Cheney Technical HS | |
| Lyman Hall HS Ag Science | |
| Marvelwood School Teams 1 & 2 | |
| Newington HS | |
| Nonnewaug HS Vo-Ag | |
| Northwestern Regional HS #7 | |
| Old Saybrook HS Team 1 & 2 | |

Table 1. Registered schools for the 2016-2017 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. 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 2016-2017 program included four Saturday workshops covering the five subject areas. These training workshops give the participants insights to current conservation challenges in the five subject areas. The workshops 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.

Advisor Orientation- September 22, 2016, 4-6 pm at Goodwin College, East Hartford.

Chairperson Jeff Folger introduced the CT Envirothon Steering Committee and station leaders in attendance. This annual program provided an overview during which all of the station leaders presented their materials and highlighted any new information distributed for the 2016-2017 academic year. The upcoming dates and locations of the training workshops were also highlighted for attendees. Kip Kolesinskas, conservation consultant from the American Farmland Trust, gave a presentation on “Agriculture Soil Stewardship.” Teachers enjoyed a light dinner, and new advisors connected with experienced advisors for assistance and pointers on running a successful Envirothon team.



Soils Workshop - October 27, 2016, Tolland County Agricultural Center, Vernon, CT.

Seventy three students and 21 advisors representing 22 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, University of Connecticut, CT Envirothon Steering Committee, Connecticut’s Conservation Districts, the Atlantic States Rural Water & Wastewater Association and CT NRCS’s Earth Team Volunteer program. This year five student volunteers from the Westover Marine Academy Young Marines program attended the workshop along with their advisor Leila Connelly and helped out afterward by filling in the soil pit and arranging chairs. Even with the large numbers in attendance, the students’ dedication to learning ensured that all came away with new knowledge and hands-on experience, according to station leader Lisa Krall, soil scientist with the NRCS.



Forestry and Current Issue Workshop - October 8, 2016, Goodwin College, East Hartford.

Eighty students and 18 advisors attended the Forestry workshop. Robert Fahey of UConn opened the workshop giving a presentation on “Forest Ecology.” State Agronomist James Hyde of NRCS followed with his presentation on “Forests and Soil Health.” Students then had three rooms of hands-on identification workshops to choose from, including 25+ live twig/leaf specimens, 15+ tree woods using crosscut ‘cookies’ and dissecting scopes and 20 tree logs using bark keys. Hannah Reichle of DEEP and student volunteer Ariana Patterson assisted with the indoor workshops.



Two other concurrent presentations were offered, one indoors with David Cappaert, formerly with USDA, on the “Emerald Ash Borer.” The outside hands-on “Forest Measurement” workshop was shepherded by UConn Extension Forester Tom Worthley and State Forester Dan Evans. New station team leader Ed Smith thanks all for making last minute changes as the Hartford Marathon blocked the use of the planned site at Two Rivers Magnet Middle School.

Aquatics Workshop - January 14, 2017 Connecticut River Academy, East Hartford.

Ninety one students and 20 advisors were welcomed by to the event at the beautiful facilities at Connecticut River Academy by Aquatics team leader Kimberly Bradley. Over 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 10 training sessions, with five concurrent workshops over two session periods. Representatives from CT DEEP, Yale University’s Peabody Museum of Natural History, Connecticut Agricultural Experiment Station, Connecticut Sea Grant, Connecticut River Academy, the Town of Greenwich, and Goodwin College instructed and challenged students in subject areas including non-point source pollution, watershed dynamics, identification of fish, amphibians, invasive aquatic plants, freshwater mussels, and freshwater macroinvertebrate.



Cynthia Rabinowitz of ConnSoil, LLC gave an enlightening overview of Permaculture, the current topic for the year. Envirothon's Jeff Folger and Connecticut River Academy's Michele Saulis teamed up to provide river process simulations for students using the school's Em3 River simulation table.

Wildlife Workshop – March 18, 2017, Sessions Woods Wildlife Management Center, Burlington.

Eighty-five students and 17 teachers attended the Wildlife workshop. This training workshop had several concurrent activities for the student teams. DEEP Wildlife Biologist Peter Picone coordinated the workshop and welcomed the students and their advisors. Opening remarks were made by DEEP Commissioner Robert Klee.



Students had six wildlife-related talks to choose from and attend. Session topics included: “Bears In Connecticut: Status and Research Techniques” by Eric Runowicz, DEEP Wildlife Division; “Falconry Basics: Birds of Prey” by Christine Peyreigne and Jon D’Arpino of the Connecticut Falconers Association; “Songbird Banding and Recapture Techniques” by Audubon Connecticut staff; “Permaculture: Rediscovering The Connection Between Agriculture and Culture” by Ray Covino, NRCS District Conservationist; “Monarch Rescue” by Eric Rahn, DEEP Master Wildlife Conservationist; “Identifying Furbearer Skulls” by Edmund Smith, educator at CREC Two Rivers Magnet School; and “Identifying Furbearers” by DEEP Master Wildlife Conservationists. Following the workshop sessions, students took a quiz to identify wildlife exhibits that were spaced around the conservation education center. The students then reassembled to review the answers to the quiz. Friends of Sessions Woods, Inc., sponsored (through a grant) the morning refreshments which included juices, bagels, coffee, hot chocolate, and tea.



Teams gather at Sessions Woods for the Wildlife workshop

Field Event: Thursday, May 18, 2017

The full-day field event was held at the Tolland Agricultural Center (TAC) in Vernon, CT. Working with Envirothon volunteers and station leaders, the five station exam areas were spaced out around the TAC property. Twenty-four schools assembled 36 teams and over 180 students participated in the competition. There were four “wild card teams” comprised of alternates from participating schools, which allowed more students to be exposed to the process of the event and show their knowledge. Advisors of the participating teams attended a three hour workshop about Range Management (the 2018 Current Issue).

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.



Oral Scenario and Presentations: All of the student teams were presented with a scenario in February to “*Develop a permaculture project for their school or town.*” 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 scoring rubric, was added to their other test station scores.

Each of the other four stations 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 at the picnic facilities provided by The Country Butcher. Teams relaxed on the grass and at tables while enjoying the sunny weather. This allowed time for decompressing after a mentally taxing morning. A raffle was conducted comprised of donated items for the students and advisors while the exam scores were being tabulated for final team placements.

Once team totals were finalized by the grading volunteers, the teams reassembled at the Auditorium to await their scores and accompanying awards.



Teams gather for the raffle while team scores are tabulated

First place was awarded to a Housatonic High School team; 2nd place to the Academy of Aerospace and Engineering and 3rd place to a second Housatonic High School team.

National Event and National Steering Committee:

The student team from Housatonic Valley High School in Canaan, CT, attended the North American Envirothon in Emmitsburg, Maryland, from July 23-29, 2017, as Connecticut's representative. They, along with students from 46 states, 6 Canadian provinces and 2 mainland Chinese teams competed in the 30th International Event. They were accompanied by their Teacher/Advisor, Dave Moran, and Chaperone, Melanie Cullerton. The Connecticut team ably represented our State. We thank them and their teacher/advisor 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 Denver, and the summer national event in Maryland, as well as assisting the Housatonic team with registration and travel arrangements.

Connecticut Envirothon received a \$5000.00 Educational Grant from the USDA Natural Resources Conservation Service to assist in program operations.



North American Envirothon participants in Washington DC – July 2017

THANK YOU!

We thank the following organizations and individuals who contributed cash, in-kind, or material donations to the 2016-2017 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
Connecticut Falconers Association
Friends of Sessions Woods

CORPORATE SPONSORS

GEI Consultants
The Country Butcher
UTC Aerospace Systems
Connecticut Water Co.
GEI Employees, Glastonbury Office
Tolland County Agricultural Center
Town of Bethlehem Conservation Commission

Individual Sponsors

GEI Glastonbury Staff
Ann Hadley
Sarah Smith
Blackey Family Foundation

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; travel to the national competition and the annual national meeting.

A proposed budget for 2017-18 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 2016 TO AUG 2017

| | BEGINNING | \$31,361.71 |
|--|--------------------|--------------------|
| | ENDING | \$36,755.02 |
| | PROJECTED 17 | YEAR TO DATE |
| RECEIPTS | | |
| Interest | \$20.00 | \$18.57 |
| Team Registration \$75 per team | \$3,000.00 | \$3,150.00 |
| Misc. Payments | \$0.00 | \$0.00 |
| Council on Soil and Water Conservation | \$5,000.00 | \$5,000.00 |
| Permaculture Grant | | \$3,366.30 |
| Sponsors | \$21,060.00 | \$13,503.81 |
| TOTALS | \$29,080.00 | \$25,038.68 |
| EXPENSES | | |
| Supplies/Educational Materials | \$1,000.00 | \$272.27 |
| General Supplies (binders, paper, etc) | \$250.00 | \$272.27 |
| 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 |
| T Shirts & other merchandizing | \$3,500.00 | \$2,381.00 |
| Outreach Materials (Brochure, etc.) | \$500.00 | \$0.00 |
| Storage Space | \$0.00 | \$0.00 |
| Postage | \$200.00 | \$0.00 |
| Petty Cash | \$0.00 | \$0.00 |
| Awards | \$1,000.00 | \$600.60 |
| National Dues | \$350.00 | \$350.00 |
| National Meeting Travel Expenses | \$1,800.00 | \$1,769.49 |
| Registration for National Event | \$1,800.00 | \$1,800.00 |
| Team Travel to National | \$3,100.00 | \$1,456.02 |
| Event | \$6,350.00 | \$5,427.00 |
| Lunch | \$5,100.00 | \$4,975.00 |
| Breakfast, snacks | \$450.00 | \$452.00 |
| Tables, chairs, tent | \$250.00 | \$0.00 |
| Sound system | \$50.00 | \$0.00 |
| Toilets | \$200.00 | \$0.00 |
| Site rental | \$250.00 | \$0.00 |
| Miscellaneous | \$50.00 | \$0.00 |
| Workshops | \$1,875.00 | \$1,042.73 |
| Soils | \$240.00 | \$111.40 |
| Aquatics | \$240.00 | \$166.29 |
| Forestry | \$240.00 | \$174.13 |
| Wildlife | \$240.00 | \$287.79 |
| Current Issue | \$240.00 | \$0.00 |
| Map Reading | \$0.00 | \$0.00 |
| Teacher Orientation | \$500.00 | \$303.12 |
| Judge's Training | \$175.00 | \$0.00 |
| Program Assistant | \$6,000.00 | \$3,368.55 |
| Program Director | \$0.00 | \$0.00 |
| Web Site/Internet Service | \$905.00 | \$657.01 |
| NCF Diversity Grant | \$0.00 | \$520.70 |
| Mileage | \$200.00 | \$0.00 |
| Instate Meetings | \$500.00 | \$0.00 |
| TOTALS | \$29,080.00 | \$19,645.37 |