

Connecticut Envirothon 2013 - 2014 Annual Report



The 23rd Connecticut Natural Challenge !



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. As part of the North American Envirothon program, the Connecticut Envirothon program began in 1992. The 2013-2014 year marked the 23rd year of offering the program to Connecticut high school students.

Steering Committee:

The Connecticut Envirothon Program is guided by a volunteer Steering Committee. This group consists of natural resource professionals from various federal, state and local agencies, and private environmental groups. There are monthly committee meetings and



some of these meetings are held via conference call in an effort to reduce greenhouse gas emissions released due to member travel to meeting locations.

Teams are formed amongst the members of the Steering Committee for each of the Envirothon stations: Soils, Forestry, Aquatics, Wildlife, and a rotating Current Issue (in 2013-14, Sustainable Agriculture). 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 on the day of the competition in May.

"The mission of the Connecticut Envirothon is to promote environmental awareness, knowledge and active personal stewardship among high school students through environmental education and team competition ."

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 working at the competitive event and workshops. The advisory group can also take on new tasks at the request of the steering committee group. Members of the advisory group have been working on standardizing fundraising materials and also offer assistance to station teams and volunteer at the competitive event.

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 (2013-2014):

Peter Picone, Chair	CT DEEP
Chris Sullivan, Vice Chair	CT DEEP
Pam Huntley, Treasurer	USDA Forest Service
Kelly Starr, Secretary	CT River Coastal Conservation District
Barbara Kelly, Coordinator	North Central Conservation District
Kim Bradley	GEI Consultants
Jillian Baker	CT DEEP
Candace Bartholomew	UConn Coop Extension
Jean Cronauer	Northwest Conservation District
Cindy Gaudino	CT Water Company
Ann Gygax	Envirothon Advisor/Retired Educator
Jeff Folger	South Windsor Environmental Planner
Claire Foster	CT DEEP
Scot Frost	UTC Aerospace Systems
Ann Hadley	Manchester Community College
Sean Hayden	Northwest Conservation District
Fred Johnson	GEI Consultants
Lisa Krall	USDA NRCS
Al Levere	CT DEEP
Jean Laughman	Envirothon Advisor/Retired Educator
Adam Maikshilo	USDA NRCS
Tony Mitchell	Envirothon Advisor/Retired Educator
Jean Pillo	Eastern CT Conservation District
Kristen Ponak, Web Designer	GEI Consultants
Rob Rocks	CT DEEP
Laura Rogers-Castro	CT DEEP
Joanna Shapiro	North Central Conservation District
Denise Savageau	Southwest Conservation District
Sarah Smith	Envirothon Advisor/Retired Educator
Jane Seymour	CT DEEP
Greg Watkins-Colwell	Yale Peabody Museum
Carol Youell	Metropolitan District Commission

Registration:

Registration announcements are sent out to all CT schools by the end of August. Schools were encouraged to submit the registration form and entry fee of \$50.00. There are need based scholarships available for registration.

For the 2013 - 2014 program year 43 schools registered (Table 1) to receive study materials, participate in the workshops and attend the field event. This list of schools included several new school registrations that participated at various levels throughout the academic year.

Study Materials:

All essential curriculum materials have been posted on the CT Envirothon website www.ctenvirothon.org, with each station team maintaining and updating their materials list through the webmaster. Materials provided from the stations range from journal articles to fact sheets, from weblinks to powerpoint files, and 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.



Registered schools for the 2013-2104 CT Envirothon.

Bacon Academy	Killingly Agricultural Education Center
Bloomfield High School	Litchfield High School
Bolton High School	Lyme-Old Lyme High School
Choate Rosemary Hall	Manchester High School
Coginchaug Regional High School	Marvelwood School
Common Ground High School	Middletown High School
Connecticut River Academy	Nonnewaug High School
Crosby High School	Northwestern Regional High School
East Catholic High School	Norwich Free Academy
Ellington High School	Old Saybrook High School
Fairchild Wheeler Inter District Magnet Campus	RHAM High School
Farmington High School	Rockville High School
Robert E. Fitch High School	Science & Technology High School
The Gilbert School	Simsbury High School
Glastonbury High School	The Sound School
Greenstreet Homeschooling Cooperative	South Windsor High School
Hartford Magnet Trinity College Academy	Sport & Medical Sciences Academy
Housatonic Valley High School	Two Rivers Magnet High School
Housatonic Valley Agriscience	Wamogo High School
Howell Cheney Technical High School	Wamogo High School Ag/FFA
James Hillhouse High School	Woodstock Academy
	Xavier High School

Workshops:

The 2013 - 2014 program included educational workshops for students and teachers of the Connecticut Envirothon throughout the school year. Five Saturday workshops covering the five subject areas and a teacher orientation were held during the academic year to supplement the study materials provided online. These training workshops give the participants insights to current conservation challenges in the five subject areas. The workshops provide great opportunities for the high school students to interact with the environmental/natural resource professionals and learn not only the facts but discuss career and college opportunities.

Teacher Workshop- September 24, 2013 (Tuesday)- Advisor Orientation from 4 - 6 PM at the Metropolitan District Commission Training Facility in Hartford, CT

Chairman Peter Picone introduced the CT Envirothon Steering Committee that was present and station leaders. This session presented a program overview for each of the participating school advisors. Each of the station teams gave a presentation of their materials and highlighted any new information distributed for the 2013 - 2014 academic year. The upcoming training workshop dates and locations were also highlighted for attendees. Teachers enjoyed a buffet dinner and new advisors connected with experienced advisors for assistance and pointers on running a successful Envirothon team.

Forestry Workshop- October 19, 2013 at the Tolland Agricultural Center, Vernon, CT

Over 210 people including students, advisors and volunteers were present from 32 high schools.

Welcome & Introductions were made by Robert Rocks from the Connecticut DEEP Division of Forestry. The first presenter was Dr. Paul Barten, Professor of Forest Resources at UMass, Amherst, who spoke about *The Sustainable Use and Management of Connecticut's Forest Resources*. Following Dr. Barten's presentation, Joan Nichols, President of the CT Professional Timber Producers Association, lectured on *Connecticut's Logging Industry and CT Grown Wood Products*.



The afternoon field exercises included teaching the students how to pace, practicing tree measurements and tree identification and learning the basics of forest management. The teachers and advisors participated with their teams. The following foresters assisted with the field portion of the program: Jeremy Clark (CT DEEP), Dan Evans (CT DEEP), Andy Hubbard (MDC), Robert Rocks (CT DEEP), Nancy Marek (CT DEEP), Scott Rogers (MDC), and Carol Youell (MDC).

At the end of the workshop, foresters were available to answer questions and provide guidance for those looking to improve their forestry skills.

Soils Workshop - Connecticut Envirothon soils workshop was held **Saturday, November 16, 2013** at the Tolland County Agricultural Center in Vernon. 127 students and 31 teachers and parents representing 25 Connecticut high schools attended. Lectures on basic soil properties, sustainable agriculture and soil health preceded break-out sessions where students practiced identifying soil texture and color; learned about map reading, aerial photography, and soil web applications; participated in a mock soils exam at the soil pit; watched a demonstration of the rainfall simulator; and learned about micro-green production at the center by a program that focuses on training adults with developmental disabilities. Helpers at the workshop included NRCS employees, University faculty, retired Envirothon coaches, and CT NRCS Earth Team Volunteers. Even with the large numbers, the students' dedication to learning ensured that all came away with new knowledge and hands-on experience.



Students from Bloomfield High School answer questions about the soil in the pit.

Wildlife Workshop – March 16, 2014 at Sessions Woods Wildlife Management Area, Burlington

The wildlife workshop had several concurrent activities for the student teams. Students had five wildlife-related talks to choose from and attend. Session topics included: Wildlife that Utilize Habitats Influenced by Agriculture by Mark Blazis (National Science Teacher of the Year and Nature Educator of the Year); Songbird Capture and Banding Techniques by Helen Blazis (Educator and Bird Expert); Identifying Furbearer Skulls by Edmund Smith (Educator at CREC Two Rivers Magnet School; Connecticut Salamanders and Their Conservation



Challenges by Dennis Quinn (Herpetologist); Identifying Furbearers by Master Wildlife Conservationists; Basic Wildlife Concepts: niche, food, cover, shelter and space, and Managing Agricultural Habitats: Benefits and Challenges by Peter Picone (DEEP Wildlife Biologist) and Identifying Wildlife/Furbearers of Connecticut by Master Wildlife Conservationists. Following the workshop sessions, there was a quiz of exhibits that were spaced around the education center. After a 40 minute walkthrough, the group reassembled to go over the answers to the specimens included in the quiz. Over 130 people were in attendance.

Friends of Sessions Woods, Incorporated sponsored (grant for \$250) morning refreshments which included juices, bagels, coffee, hot chocolate, and tea.

Aquatics Workshop

The Aquatics workshop was held on November 9, 2013 at Eastern Connecticut State University in Willimantic. 145 students were welcomed by ECSU Alum, Fred Johnson of GEI Consultants who gave an introduction of the science programs at Eastern. The combination of support from ECSU and various volunteers from many organizations, made for a highly successful, hands-on day. The Aquatics Workshop held a total of ten training sessions, with five concurrent workshops over two session periods. Representatives from UCONN, CTDEEP, Yale-Peabody, CAES, NOAA NMFS, The Maritime Aquarium, GEI Consultants, and the Eastern CT Conservation District instructed and challenged students in subject areas including non-point source pollution to wetlands, watershed dynamics, identification of fish, amphibians, invertebrates, aquatic invasive plants, as well as introduced concepts in aquatic sampling techniques and forms of equipment. Evaluation forms the students and instructors were asked to fill out following the session and independent feedback demonstrated that all involved were very satisfied with the works.



Current Issue Workshop (Sustainable Agriculture)

On March 29, 2014, the Current Issue Workshop on “Sustainable Local Agriculture” was held at Common Ground High School in New Haven. Common Ground School is a distinctive and rare charter school, their “mission is to cultivate habits of healthy living and sustainable environmental practice among a diverse community of children, families and adults.” As a living, working sustainable community and farm the school shares practices and values which are foreign to the typical high school student. As such this venue offered a unique experience for Envirothoners’ to observe the practices of a sustainable high school community/environment.

The workshop topics covered were: Cropping Systems, Soils, Water Use and Pollinators; Social, Economic and Environmental Benefits of Sustainable, Local Agriculture; Sustainable

and Organic Agriculture; Integrated Pest Management. Additionally, Common Ground students led tours of the school and farm and described how the operations of each function as a sustainable community.

Thirty-one school Envirothon teams attended, one school bringing two teams. One hundred and ten Students and 33 teachers participated for a total of 143 attendees at the workshop.

In the workshop evaluation one teacher wrote, “Understanding the social responsibilities of local foods and their benefits will redefine what I teach in relation to food”. Another wrote, “Common Ground School and their students should be very proud of what they are doing.”

Field Event:

(May 23, 2014) The full-day field event was held at The Tolland Agricultural Center in



Vernon, CT. Working with property staff and station leaders, the five station exam areas were spaced out around the Tolland Agricultural Center’s property. Twenty-six schools assembled 41 teams and over 205 students participated in the competition. There were nine “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 from the participating teams learned about Urban Forestry, with a presentation by Charmaine Craig and Ron Pitz from Knox.



Weather conditions were good for most of the competition. Rain began to fall as noon time approached and lightning was spotted so the last testing period was stopped early. Students were able to return to their testing stations to finish their exams after lunch.

Student teams arrived in buses and vans and were guided to the registration table to get their t-shirts, information packet and oral presentation numbers. Everyone assembled in the Tolland Agricultural Center’s main hall for the opening ceremonies and distribution into exam groups.

Each of the stations featured a written exam for the student teams to complete in a collaborative manner. Each station included some hands-on component to 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. This allowed time for decompressing after a mentally taxing morning. A raffle was conducted comprised of several donated items for the students while the exam scores were being tabulated for final tallies.



Once team totals were finalized by the grading volunteers, the teams reassembled to await their scores and accompanying awards. First place was award to Greenstreet Homeschooling Cooperative ; 2nd Place: Housatonic Valley Agriscience and 3rd Place: Litchfield High School. All Connecticut event scores are posted below.

2014 ENVIROTHON						
SCHOOL	AQUATICS	FORESTRY	SOILS	WILDLIFE	ORALS	TOTAL
Bacon Academy	87.0	18.5	66.0	74.0	48.0	293.5
Bloomfield High School	84.0	54.5	77.0	57.0	54.0	326.5
Bolton High School	87.0	60.0	74.0	82.0	85.3	388.3
Coginchaug Regional High School	85.0	75.0	86.0	82.0	85.3	413.3
Common Ground High School	83.0	65.0	73.0	71.0	70.0	362.0
Common Ground High School - Team 2	66.0	43.0	30.0	61.0	54.7	254.7
Connecticut River Academy	72.0	32.5	42.5	81.0	37.3	265.3
Crosby High School	74.0	44.5	52.0	57.0	59.0	286.5
Crosby High School - Team 2	69.0	39.0	54.0	66.0	50.3	278.3
East Catholic High School	58.0	10.0	33.0	76.0	43.7	220.7
Ellington High School	56.0	37.5	33.0	55.0	62.0	243.5
Farmington High School	95.0	84.0	71.0	73.0	47.7	370.7
Glastonbury High School	84.0	60.0	73.0	56.0	41.7	314.7
Greenstreet Homeschooling Cooperative	102.0	70.5	68.0	100.0	90.7	431.2
Housatonic Valley Agriscience	90.0	93.0	76.0	89.0	80.0	428.0
Housatonic Valley High School	87.0	87.5	85.0	82.0	82.0	423.5
Howell Cheney Technical High School	64.0	54.5	69.0	89.0	45.0	321.5
James Hillhouse High School	75.0	43.0	29.5	56.0	52.3	255.8
Litchfield High School	92.0	80.5	85.0	90.0	76.7	424.2
Litchfield High School - Team 2	81.0	57.5	51.0	74.0	79.7	343.2
Lyme-Old Lyme High School - A	94.0	77.0	74.0	70.0	60.0	375.0
Lyme-Old Lyme High School - B	84.0	65.0	70.0	73.0	37.9	329.9
Manchester High School	56.0	38.5	44.0	59.0	27.0	224.5
Marvelwood School	64.0	41.5	61.0	84.0	78.3	328.8
Marvelwood School - Team 2	68.0	58.0	65.5	67.0	0.0	258.5
Nonnewaug High School (RSD #14)	73.0	67.0	64.0	92.0	77.7	373.7
Nonnewaug High School (RSD #14) - Team 2	78.0	46.0	63.0	56.0	57.7	300.7
Northwestern Regional High School (RSD #7)	70.0	59.0	56.0	59.0	0.0	244.0
Norwich Free Academy	81.0	69.5	59.0	75.0	56.0	340.5
Old Saybrook High School	71.0	57.5	39.5	50.0	58.0	276.0
RHAM High School	81.0	38.5	36.0	52.0	44.0	251.5
RHAM High School - Team 2	40.0	64.0	50.0	63.0	29.7	246.7
Science & Technology High School	62.0	36.5	38.0	55.0	40.0	231.5
The Sound School	68.0	42.5	70.5	55.0	70.3	306.3
South Windsor High School	98.0	72.0	83.0	77.0	72.0	402.0
South Windsor High School - Team 2	46.0	26.0	75.0	61.0	70.0	278.0
Sport & Medical Sciences Academy	62.0	52.5	37.0	73.0	35.7	260.2
Two Rivers Magnet High School	59.0	56.5	71.5	65.0	24.7	276.7
Wamogo High School	70.0	66.0	54.5	80.0	68.7	339.2
Wamogo High School Ag/FFA	67.0	69.5	78.0	82.0	54.7	351.2
Woodstock Academy	85.0	66.5	65.0	79.0	69.0	364.5
Xavier High School	88.0	58.0	74.0	84.0	75.7	379.7
Wild Card #1	81.0	70.5	71.0	83.0	0.0	305.5
Wild Card #2	93.0	73.5	74.0	75.0	0.0	315.5
Wild Card #3	97.0	58.0	66.0	84.0	0.0	305.0
Wild Card #4	73.0	59.0	56.0	73.0	0.0	261.0
Wild Card #5	66.0	37.5	38.5	52.0	0.0	194.0
Wild Card #7	56.0	50.5	50.5	66.0	0.0	223.0

National Event and National Steering Committee:

Due to a significant shortfall in funding at the national level, the North American Envirothon had to cancel the 2014 national competition.

In lieu of participation in the National Event, the winning team was invited to participate in a Global Gateway experiential learning weekend with several other winning teams from New England at the Heifer International Farm in Rutland, Massachusetts. In the Global Gateway experience, the team participated in a simulated day and night spent in an impoverished rural farming community in Poland. They participated in chores, slept in simple housing, and cooked a meal in the simulated community.

The Connecticut Envirothon continues to support the North American Envirothon program. The North American Envirothon merged with the National Conservation Foundation, a non-profit, fundraising entity of the National Association of Conservation Districts. This was done to facilitate fundraising efforts to create a more sustainable program after Canon Corporation's significant reduction in funding.

Connecticut Steering Committee member Jeff Folger has been appointed to the newly formed National Operating Committee which is charged with re-developing policies and procedures for the new organization as well as assisting in the operation of the summer competition. Jeff attended the winter meeting in Anaheim, CA and the summer meeting in Chicago.

Through the Operation Committee's efforts, a \$1000 grant was distributed to each of the member States and Provinces for program maintenance and development.

We would like to thank the following organizations and individuals who supported and contributed energy and materials to the 2013-2014 Connecticut Envirothon program:

SPONSORS

Canon USA
Connecticut Council on Soil and Water Conservation
Connecticut Association of Soil & Water Conservation Districts
Connecticut's Five 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
Yale Peabody Museum of Natural History
Environmental Professionals' Organization of Connecticut
Society of American Foresters
Rockville Bank Foundation
New England Chapter of the Wildlife Society
Friends of Sessions Woods
Connecticut Water
GEI Consultants
Farmer's Cow
Metropolitan District Commission
Country Butcher
UTC Aerospace Systems
Palmer Landscaping
Denise Savageau
Ann Hadley
Gunther Family Farm
Tolland County Agricultural Center
National Conservation Foundation – Canon USA

Financial Report:

The Connecticut Envirothon program was financed through donations from private corporations and public organizations. 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; team travel to the national competition and annual national meeting.

A proposed budget for 2014-15 was developed and approved by the Steering Committee at the beginning of the academic year. Both the proposed budget and actual expenditures for 2013-2014 are included on the following pages.



CONNECTICUT
ENVIROTHON
FINANCIAL
REPORT
FISCAL YEAR SEPT 2013 TO AUG 2014

	PROJECTED 14	YEAR TO DATE
RECEIPTS		
Interest	\$50.00	\$19.21
Team Registration \$50 per team	\$1,500.00	\$2,400.00
Team Registration Late	\$0.00	\$150.00
Council on Soil and Water Conservation	\$10,000.00	\$10,000.00
Sponsors	\$15,375.00	\$8,585.14
TOTALS	\$30,925.11	\$21,269.35
	BUDGETED 14	YEAR TO DATE
EXPENSES		
Supplies/Educational Materials	\$1,425.00	\$219.05
General Supplies (binders, paper, etc)	\$600.00	\$99.13
Soils	\$165.00	\$0.00
Aquatics	\$165.00	\$0.00
Forestry (plus \$750 Canon mini-grant 2010)	\$165.00	\$0.00
Wildlife	\$165.00	\$0.00
Current Issue	\$165.00	\$119.92
T Shirts & other merchandizing	\$4,100.00	\$4,409.00
Outreach Materials (Brochure, etc.)	\$500.00	\$0.00
Awards	\$1,000.00	\$566.43
National Dues	\$300.00	\$300.00
National Meeting Travel Expenses	\$900.00	\$1,363.24
Registration for National Event	\$1,000.00	\$0.00
Team Travel to National	\$3,100.00	\$735.00
Field Event	\$6,120.00	\$5,835.03
Lunch	\$4,800.00	\$4,986.50
Breakfast, snacks	\$520.00	\$581.67
Miscellaneous	\$50.00	\$266.86
Workshops	\$1,875.00	\$1,319.89
Soils	\$240.00	\$190.56
Aquatics	\$240.00	\$261.69
Forestry	\$240.00	\$153.34
Wildlife	\$240.00	\$261.14
Current Issue	\$240.00	\$201.60
Map Reading	\$0.00	\$0.00
Teacher Orientation	\$500.00	\$251.56
Judge's Training	\$175.00	\$0.00
Program Assistant	\$4,600.00	\$5,942.45
Web Site/Internet Service	\$905.00	\$627.05
Instate Meetings	\$500.00	\$213.00
TOTALS	\$30,925.11	\$21,530.14



CONNECTICUT
ENVIROTHON
FISCAL YEAR SEPT 2014 TO AUG 2015

**2015 Proposed
Budget**

		<u>PROJECTED 15</u>
RECEIPTS		
Interest		\$50.00
Team Registration \$75 per team		\$3,000.00
Council on Soil and Water Conservation		\$10,000.00
Sponsors		\$15,075.00
	TOTALS	\$28,125.00
		<u>BUDGETED 15</u>
EXPENSES		
Supplies/Educational Materials		\$1,425.00
General Supplies (binders, paper, etc)		\$600.00
Soils		\$165.00
Aquatics		\$165.00
Forestry		\$165.00
Wildlife		\$165.00
Current Issue		\$165.00
T Shirts & other merchandizing		\$4,100.00
Outreach Materials (Brochure, etc.)		\$500.00
Postage		\$400.00
Awards		\$1,000.00
National Dues		\$300.00
National Meeting Travel Expenses		\$1,800.00
Registration for National Event		\$1,300.00
Team Travel to National		\$3,100.00
Event		\$6,120.00
Lunch		\$4,800.00
Breakfast, snacks		\$520.00
Tables, chairs, tent		\$250.00
Sound system		\$50.00
Toilets		\$200.00
Site rental		\$250.00
Miscellaneous		\$50.00
Workshops		\$1,875.00
Soils		\$240.00
Aquatics		\$240.00
Forestry		\$240.00
Wildlife		\$240.00
Current Issue		\$240.00
Teacher Orientation		\$500.00
Judge's Training		\$175.00
Program Assistant		\$4,600.00
Web Site/Internet Service		\$905.00
Mileage		\$200.00
Instate Meetings		\$500.00
	TOTALS	\$28,125.00