

# Indiana Envirothon

Engaging Highschool Students with Natural Resources

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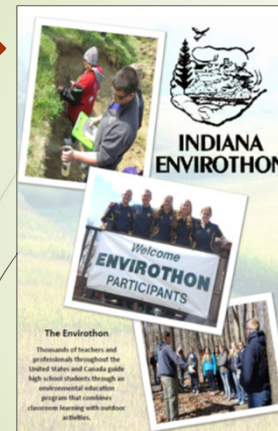
## The Envirothon

**North America's Largest High School Environmental Education Competition**

*"I lean upon the skills and training I learned in Envirothon daily... I remember the energy of the competitions and the topics that widened the eyes of my teammates and peers from across the continent."*

*...I am passionate about the sustainability of the Envirothon competition and experience. I can say with confidence, if it hadn't been for the Envirothon competition, I wouldn't be working for The Nature Conservancy, the largest non-governmental environmental organization on Earth. I owe the Envirothon experience sincere lifelong appreciation and commitment."*

Seth Hardin, Indiana



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## Envirothon Mission:

The mission of the NCF\*-Envirothon is to develop knowledgeable skilled and dedicated citizens who understand natural resources and are willing and prepared to work towards achieving and maintaining a balance between the quality of life and the quality of the environment.

The Envirothon mission is accomplished by developing in young people an understanding of the principles and practices of natural resource management and ecology, and through practice dealing with complex resource management decisions.

Goals and objectives are provided as a guide to develop effective curricula, educational resources, and testing scenarios.

\*National Conservation Foundation, formerly Environmental Olympics, Canon Envirothon or North American Envirothon

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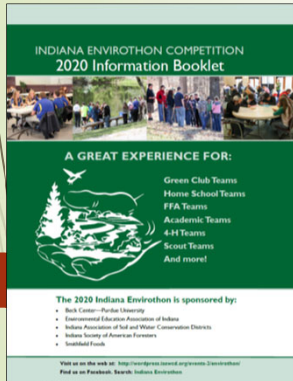
## A Natural Resource Encounter for the Next Generation



Students have fun while becoming environmentally aware during the competition.

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## Envirothon



Teams are made up of 5 high school aged students working together.

Natural Resource topics include:

- Aquatic Ecology
- Forestry
- Soils & Land Use
- Wildlife
- Current Issue: The 2020 topic is Water Resources Management: Local Control and Local Solutions

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## Goals - balancing quality of life and the quality of the environment

- The program's goals are to:
  - Educate future resource stewards
  - Promote E-STEM education (environment, science, technology, engineering and math)
  - Create community awareness
  - Foster appreciation and respect for the natural world and fellow citizens
  - Expand students' knowledge and comprehension skills

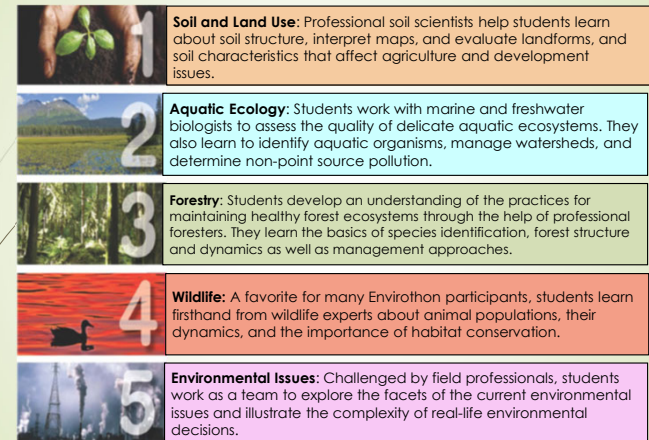
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## Who participates?



- Teachers from science disciplines as well as agricultural, history and cultural studies participate. Some involve their entire classes, other act as advisor to one or two teams of five members as a club or after school activity.
- FFA and 4H teams are a popular venue and advisors or coaches from FFA, scouts or other community service group may participate.
- Open to high school students a team may be sponsored by a high school, home schooled group, agricultural organization, or other group.

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## Envirothon Sponsors

- National Conservation Foundation
- Local Conservation Districts – Indiana Association of Soil and Water Conservation Districts is Indiana's biggest sponsor
- Agricultural, forestry and conservation organizations such as Farm Bureau, Society of American Foresters, and cooperating natural resource agencies who organize and conduct competitions
- Environmental Education Association of Indiana
- Indiana Districts Employee Association
- County Soil and Water Conservation Districts
- Smithfield Foods



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## 2020 CONTESTS & DATES

Teams will select the contest sites of their first and second choice. First choice will be given if space is available based on date registration is received. Two teams per school/organization may register. If additional teams from the school/organization would like to participate, permission must be requested from the regional coordinator and will be based on space availability. Regional Coordinators reserve the right to cancel contest if registration numbers are inadequate.

<b>SOUTHWEST INDIANA</b> March 10, 2020 Warren County 4H Fairgrounds Boonville, IN <b>CONTACT:</b> Jeff Ziskak 1805 Main Street, Mt. Vernon 47620 <a href="mailto:jziskak@swindnet.net">jziskak@swindnet.net</a>	<b>NORTH CENTRAL INDIANA</b> March 18, 2020 Camp Buffalo Morrisville, IN <b>CONTACT:</b> David Zolman 217 E. Bell Drive, Warsaw, 46582 <a href="mailto:davidzolman@ncindnet.net">davidzolman@ncindnet.net</a>
<b>SOUTH CENTRAL INDIANA</b> March 11, 2020 Seymour School—Ag & Farm Research Seymour, IN <b>CONTACT:</b> Christina Bruce 1935 Severn Ave., Bedford 47421 <a href="mailto:christina.bruce@scindnet.net">christina.bruce@scindnet.net</a>	<b>CENTRAL INDIANA</b> March 18, 2020 Conner Prairie Fishers, IN <b>CONTACT:</b> Ginger Davis 1727 Pleasant St., Noblesville, 46060 <a href="mailto:ginger.davis@hamiltoncounty.in.gov">ginger.davis@hamiltoncounty.in.gov</a>
<b>NORTHWEST INDIANA</b> March 11, 2020 Aud M&P Park La Porte, IN <b>CONTACT:</b> Nicole Messer 2857 W. State Road 2, Ste B, LaPorte, 46350 <a href="mailto:nmeser@nwindnet.net">nmeser@nwindnet.net</a>	<b>NORTHEAST INDIANA</b> March 19, 2020 Peabody Library Columbia City, IN <b>CONTACT:</b> Nathan Lantz 788 W. Concession Way, Ste C, Columbia City, 46725 <a href="mailto:nathan.lantz@neindnet.net">nathan.lantz@neindnet.net</a>
<b>EAST CENTRAL INDIANA</b> March 12, 2020 Hoare Arboretum Richmond, IN <b>CONTACT:</b> Lukina Holmea 829 S Round Barn Rd, Ste 1, Richmond 47374 <a href="mailto:lukina.holmea@ecindnet.net">lukina.holmea@ecindnet.net</a>	<b>2020 INDIANA STATE CONTEST</b> April 29, 2020 Beck Center—Purdue University <b>CONTACT:</b> Josh Jordan <a href="mailto:josh.jordan@in.ncindnet.net">josh.jordan@in.ncindnet.net</a>
<b>WEST CENTRAL INDIANA</b> March 19, 2020 Ivy Tech Community College Terre Haute, IN <b>CONTACT:</b> Jan Caine 3241 S 3rd Place, Terre Haute, 47802 <a href="mailto:jacaine@wcindnet.net">jacaine@wcindnet.net</a>	<b>2020 NOT ENVIRONMENTAL CONTEST</b> July 26–August 1, 2020 University of Nebraska Lincoln, Nebraska

## Regional/State Contests

- There are eight regional contests being held in 2020 between March 10-19
- Each contest will send its top teams to the state contest
  - Regional contests with 12 or more teams will send their top 3 teams.
  - Contests with 11 or fewer teams will send their top 2 teams.
- The Indiana State Contest is April 29<sup>th</sup> at the Beck Center at Purdue University
- The 1<sup>st</sup> Place team from the State Contest will represent Indiana at the NCF Envirothon Contest July 26-August 1 at the University of Nebraska.

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## A day at a Regional Envirothon Contest



Registering teams and providing a snack



Introductions, going over the rules, & explaining how the day will go. All electronic devices and study materials must be put away.

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## Interaction and Presentations from Resource Professionals

- At the regional contest, teams rotate through stations where resource professionals speak on each of the 5 resource categories with a 20-25-minute presentation on their topic. Some are outside and hands-on. Some are PowerPoint presentations on the objectives of the topic, or maybe they talk about their career, i.e. what the job of a district forester or soil scientist entails.



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Depending on the contest the teams may break for lunch or take their tests after the presentations. There is one test per resource topic (5 separate tests) with 20 questions each (100 total). Some of the questions are hands-on and require additional materials.



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Grading of tests, and awards to top teams!



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### A day at the Indiana Envirothon State Contest

In the morning -

- Teams take 5 tests (18 questions each) on the 5 resource topics
- Teams take a "tour" of stations with 2 hands-on questions from each of the 5 resource topics
- Through oral presentations, the teams present a solution to the state problem as it would apply to their local community to a panel of 3 resource professionals. *Three panels are used due to up to 21 teams in attendance and time constraints.*
  - The state problem is based on the current issue and provided to the teams once the regional contests have been completed.
- Teams break for lunch as the 3 judging panels provide their scores and the top 3 to 5 teams re-present to a full 9 person judging panel.


**The top 3 teams in the following categories are presented awards:**

- Written test (which includes the hands-on questions)
- Oral presentation
- Overall (best combined scores from the written and the oral presentations)

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### Oral Presentations

- Using the knowledge learned from the core 5 topics, teams are given the opportunity to address a real-world environmental/natural resource issue in their local community.
- Working as a team, they are encouraged to interview community leaders and resource professionals on how they might develop a strategic plan to address the issue, and then incorporate their own ideas to address the issue.
- The team then presents their plan to a panel of judges. The strategic plan must include all five resource areas, a budget, and be capable of being implemented. All five members must participate in the presentation, and then answer questions from the judges.



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## Top Overall Indiana Team represents Indiana at the NCF – Envirothon contest



Rossville FFA team – 2019 Indiana Overall First Place Team

## NCF-Envirothon Annual Competition

- Hosted by a different state or province each year.
- Attended by over 500 students from 46 states, 9 Canadian provinces, and China. The program in China only began in 2016 but is growing fast. Students participate in the event to learn about and compete on environmental ecology and natural resource management.
- The week-long event is packed with hands-on learning about the area's ecology, followed by tests and oral presentations.
- Cash prizes are awarded for scholarships to the top teams. The first-place team receives \$15,000. Second place team receives \$10,000. Several other prizes are given.

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## Coach/Advisor Job Description?

- You need to like kids and be interested in natural resources so you can encourage them.
- Resources are provided and we encourage the students to at have looked them over.
- Invite them to meet with other resource professionals to help inspire them.



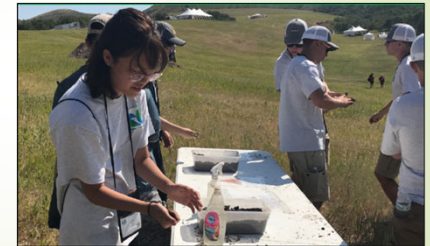
### FORESTRY REFERENCES

- A Landowner's Guide to Sustainable Forestry in Indiana – Part 1  
<https://www.extension.purdue.edu/extmedia/FSN/FSN-180.pdf>
- Importance of Hardwood Tree Planting  
<https://www.extension.purdue.edu/extmedia/FSN/FSN-219.pdf>
- Planting Forest Trees and Shrubs in Indiana  
<https://www.extension.purdue.edu/extmedia/FSN/FSN-098-36.pdf>
- The Practice of Forestry in Indiana  
<http://www.in.gov/for/forestry/4431.htm>
- Hardwood Ecosystem Experiment: Sustaining our Oak-Hickory Forests  
[https://mdc.fao.purdue.edu/Item.asp?Item\\_Number=542.WV](https://mdc.fao.purdue.edu/Item.asp?Item_Number=542.WV)
- 50 Trees of Indiana, T.E. Shaw, Purdue publication 6-49-23-80  
[https://mdc.fao.purdue.edu/Item.asp?Item\\_Number=4-11-80](https://mdc.fao.purdue.edu/Item.asp?Item_Number=4-11-80)
- Indiana Forestry Best Management Practices  
<https://www.in.gov/for/forestry/3897.pdf>
- A Landowner's Guide to Sustainable Forestry in Indiana – Part 5: Forests and Water  
<https://www.extension.purdue.edu/extmedia/FSN/FSN-184.pdf>

### FORESTRY OBJECTIVES

1. Know the parts of a tree and be able to explain the tree's life cycle.
2. Identify common tree species without a key and identify specific or unusual trees & shrubs through the use of a key.
3. Understand the term silviculture and be able to explain the uses of the following silviculture techniques: thinning, prescribed burning, single tree & group tree selection, shelterwood method, clear-cutting with & without seed trees, & coppice management.
4. Know how to use forestry tools & equipment in order to measure tree diameter, height & basal area.
5. Understand how the following issues are affected by forest health & management: biodiversity, forest fragmentation, forest health, air quality, aesthetics, fire, global warming, water quality & recreation.
6. Understand how economic, social & ecological factors influence forest management decisions and policy affect sustainability.
7. Understand the economic value of forests and know many of the products they provide to people & society.
8. Know the typical forest structure: canopy, understorey and ground layers and crown classes.
9. Understand forest ecology concepts and factors affecting them, including the relationship between soil and forest types, tree communities, regeneration, competition, and primary and secondary succession.
10. Understand what forestry best management practices (BMPs) are and how and why they are used to protect the forest and its soil and water resources while harvesting timber.
11. Understand the role of forests in protecting and enhancing water quality and that sustainable forest management is compatible with the protection of water resources.

Thanks for listening and we hope to see you next year at an Envirothon event!



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**For more information on the Indiana Envirothon**

- Check us out at booth #11 & enter to win again!

**Join Indiana Envirothon! We would love to have you!!**

- Find out on the IASWCD webpage under EVENTS

**<http://wordpress.iaswcd.org/events-2/envirothon/>**

- Look for Indiana Envirothon on Facebook

**<https://www.facebook.com/Indiana-Envirothon-427656770407/>**

**Step up everyone and let's guide our future leaders and decision makers to know more about our natural resources, why they are important, and how to manage them for future generations!**



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