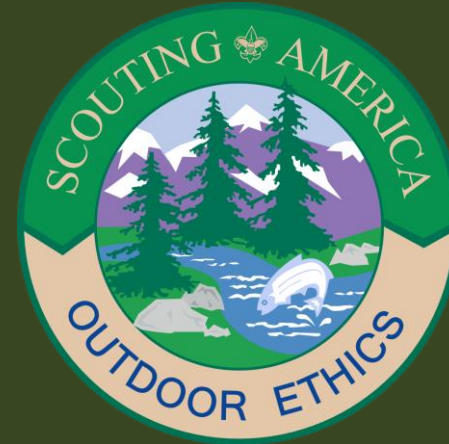




STEM, Outdoor Ethics, and Conservation-- Better together!



Outdoor Ethics & Conservation Roundtable

December 11, 2024



Agenda

- Welcome and opening
- Safety moment-Drones
- STEM, Outdoor Ethics, and Conservation--Better together!
- Announcements
- Closing
- Open discussion



Paul Schimke, National Capitol
Area Council



Pledge

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one Nation under God, indivisible, with liberty and justice for all.





Scout Oath

On my honor I will do my best
to do my duty to God and my country
and to obey the Scout Law;
to help other people at all times;
to keep myself physically strong,
mentally awake, and morally straight.





Scout Law

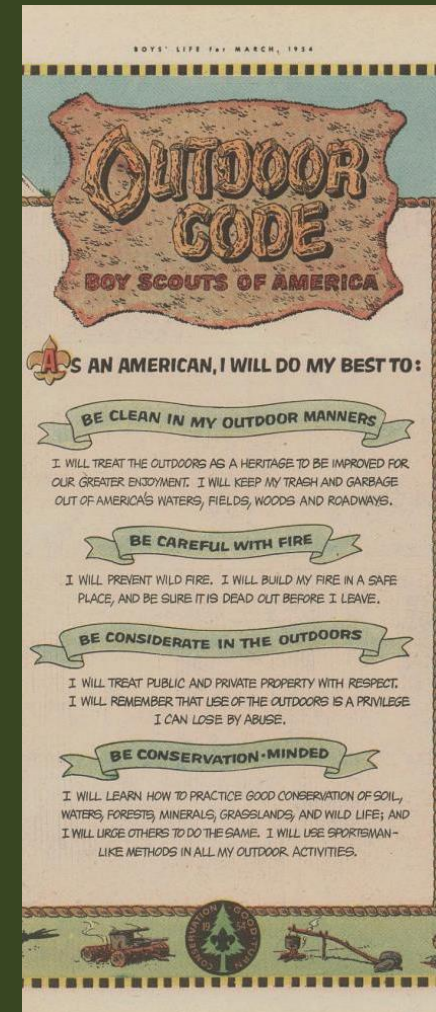
A Scout is:
Trustworthy, Loyal, Helpful,
Friendly, Courteous, Kind,
Obedient, Cheerful, Thrifty,
Brave, Clean, Reverent.





Outdoor Code

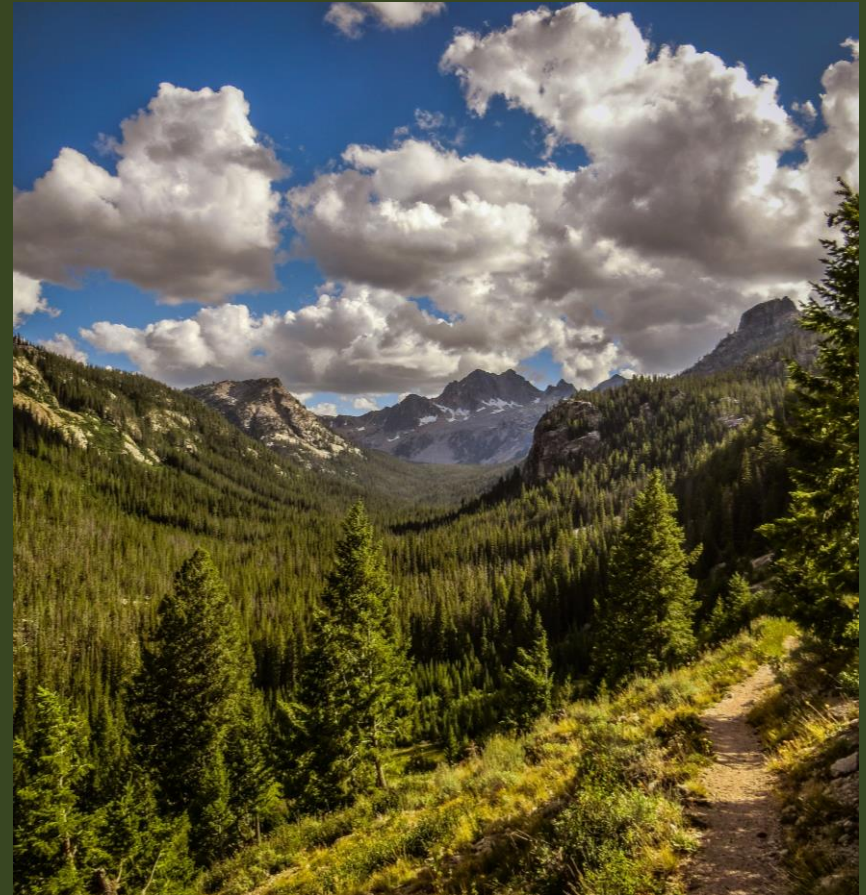
As an American, I will do my best to –
Be clean in my outdoor manners.
Be careful with fire.
Be considerate in the outdoors.
Be conservation minded.





Safety moment Drones in Scouting

Michelle Bierstedt—Sioux Council



Matt Durrant, Crossroads of the West Council



Safety Moment

Drones in Scouting

<https://www.scouting.org/the-recreational-uas-safety-test/>



Flying drones is a fun way Scouts can start learning about robotics, science, technology and engineering. Many camps already offer drone-flying programs

Rules for flying

- Register your drone through the [FAA Drone Zone](#) before you fly if it weighs more than 0.55 pounds.
- Fly only for recreational purposes, not business.
- Present your TRUST completion certificate to FAA or law enforcement officials upon request when you're flying.
- Always keep your aircraft in sight.
- Do not interfere with crewed aircraft and give them the right-of-way.
- Fly at or below 400 feet.
- Get an FAA authorization before flying in a controlled airspace



Aaron on Scouting – July 2021

TREAD Lightly! Responsible Drone Use



DO NOT



Do NOT fly over forest fires



Do NOT fly near wildlife



Do NOT fly dangerously



Do NOT fly over people, property or vehicles



Try NOT to fly within 25 feet of people, property or vehicles



Do NOT fly higher than 400 ft above the ground



Do NOT fly near other aircraft

DO



Keep your drone in sight at all times



Check your drone before each flight, plan your flight and learn from others



Read the manufacturer's instructions carefully



Keep away from airports and helipads



Remember you are responsible for avoiding collisions



You must have an appropriate license for commercial use



Be aware of surroundings

Drone usage is permitted in many areas.

FLYING in National Forests special rules apply to **protect** resources and prevent fires.

Please **remember** the following to improve your visit, and **maintain** the access for future users:

RESPECTED
IS OPEN
drones
ACCESS



STEM, Outdoor Ethics, and Conservation--Better together!

Ron Colletti, Greater St. Louis Area Council
Teresa Colletti, Greater St. Louis Area Council
Lisa Balbes, Greater St. Louis Area Council





STEM, Outdoor Ethics, and Conservation -- Better together!

Outdoor Ethics & Conservation Roundtable
December 11, 2024

Ron Colletti, PhD
GSLAC STEM Comm +
rcollettistl@att.net

Teresa Colletti
GSLAC STEM Comm +
tacolletti@att.net

Lisa Balbes, PhD
GSLAC STEM Comm +
lisa@balbes.com

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Agenda

- STEM in Scouting
- Greater St Louis Area Council STEM programs
- STEM, Outdoor Ethics and Conservation
- Programs with STEM, Outdoor Ethics and Conservation together

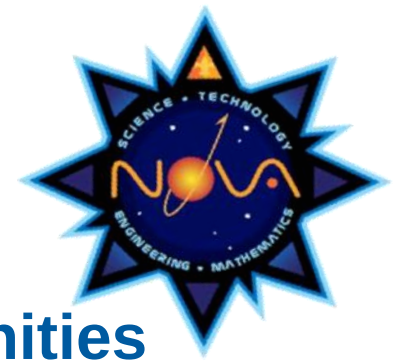


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STEM is in Every Part of Our Lives



- STEM fields offer exciting, fun and rewarding career opportunities
- Even for those not directly involved in STEM fields
- STEM provides important life skills (critical thinking and innovation)
- Understanding of everyday issues
 - covid, food safety, climate change, voting ...

**STEM is
important
for:**

- | | |
|---------------------------|---------------------------|
| ➤ Economic growth | ➤ Creativity |
| ➤ Critical thinking | ➤ 21st-century skills |
| ➤ Teamwork | ➤ Confidence |
| ➤ Project management | ➤ Understanding the world |
| ➤ Real-world applications | |



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STEM Has Always Been Part of Scouting



- Advancement in Scouting has always included STEM-related content



- Scouting focuses on the outdoor program, and STEM is part of the outdoor program as well (Environmental Science, Astronomy, Weather...)
- The Nova Awards Program (launched in 2012) highlights the STEM content in the existing traditional programs and adds new activities and awards.





STEM Still Integral Part of BSA



Important to the future of our Youth and Important to our country

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- June 2022 BSA STEM Nova Program shifts to Council management
- National STEM committee disbanded → a national “***Grassroots STEM in Scouting Working Group***” formed to help support the STEM program for Scouts/Scouters

- Many BSA Councils continue to support STEM activities; including the STEM Nova and Supernova awards
- Several Councils are creating new STEM activity modules

Why?



- 1) Future careers
- 2) Improves STEM literacy
- 3) Appeal to new Scouts (families) → M
- 4) Sponsors/partners for Councils → \$
- 5) More volunteers → ♂

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Agenda

- STEM in Scouting
- **Greater St Louis Area Council STEM programs**
- STEM, Outdoor Ethics and Conservation
- Programs with STEM, Outdoor Ethics and Conservation together



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Greater St Louis Area Council STEM Programs

<https://stlbsa.org/stem/>

2023 Report

OUR MISSION

The BSA's STEM initiative gives Scouts an opportunity to explore science, technology, engineering, and mathematics related concepts and learn how STEM knowledge is used in everyday life and in the professional world. The aim is to expose youth to new opportunities and help build interest in the STEM-related careers that are so crucial to our future economy.



@GSLAC_STEM

@GSLACSTEM



GET IN TOUCH

4568 W Pine Blvd, St. Louis, MO
63108
314-361-0600

Logan Lawrence
logan.lawrence@scouting.org

April Wright
april.wright312@scouting.org

We Are
STEM

SCIENCE, TECH, ENGINEERING, MATH



2023 Annual Report



Greater St. Louis Area Council

SPONSORS

DR. ALBERT EINSTEIN SPONSOR
**GREAT RIVERS CONFLUENCE
FOUNDATION**
World Wide Technology

DR. SALLY RIDE SPONSOR
**Bill Bailey
SPIRE**

THOMAS EDISON SPONSOR
University of Missouri- St. Louis

DR. BERNARD HARRIS SPONSOR
ICL Group
John Allan Love Foundation
Craftsmen Industries
Southeast Missouri State University

DR. CHARLES TOWNES SPONSOR
Daugherty Business Solutions
Southern Illinois University-
Edwardsville
Southern Illinois University-
Carbondale
Lake Land College
Karen Vangyia
Ron & Teresa Colletti



2,877 Scouts

Over 2,800 Scouts attended
Council Based STEM events

108 Leaders

Leaders trained to be NOVA & SuperNOVA
mentors, counselors, and trainers.

\$138K Donations

To STEM to provide area youth more
cost effective programs.

5
STEM
University
Events

5
STEM
Summer
Camps

STEM Trailer
and Van
Visits
169

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Greater St Louis Area Council STEM Programs

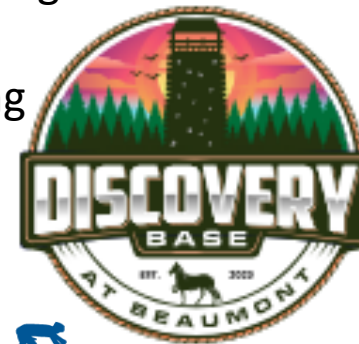
- 3 BSA STEM professionals
- Council STEM Committee
- Nova / Supernova program
- STEM Explorations
- Einstein Recognition Dinner
- STEM merchandise
 - Gateway Traders
- Order of the Arrow
 - Conservation projects
- Ameren Energy Camp
 - Solar farm, camping, merit badges

- Partnerships

- World Bird Sanctuary
- Endangered Wolf Center
- St Louis Zoo
- MO Botanical Gardens
- St Louis Science Center
- Many more...



Leadership Development
Teamwork Building
Outdoor Skills
Horseback Riding
Climbing
STEM
Archery



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GSLAC Camp in Forest Service USDA Newsletter

Search → USDA regional connections vol 5

<https://usfs-public.app.box.com/s/fnds1zhhsdjmjkj40ek9j06bprvwmzqao>

USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE
Eastern Region | Fall 2024



After expanding the Urban Connections program to St. Louis in 2022, City Coordinator Jenniqual "Jaie" Johnson connected with the Greater St. Louis Area Council Scouts of America to broaden access to outdoor recreation and natural resources education through opportunities at Camp Beaumont, using it as a demonstration site for sustainable forest management practices.

Camp Beaumont a 2400-acre property serving the Greater St. Louis Area Scouts on weekends and during the summer. Sitting just outside of St. Louis in High Ridge, Missouri, the camp was first purchased by the St. Louis Area Council 75 years ago, and held its first Boy Scout Summer camp in 1954.

Former scout and volunteer Dr. Joseph Sartorius spoke with us about Camp Beaumont and the vision the organization had for its future. Even though Beaumont is one of the largest Boy Scout camps in the country by usage, the facilities often sat empty during the school year. The challenge became how to get kids to the camp. The answer: Create a sustainable forest that could provide outdoor education programs during the school week for students. The forest could also provide professional development for educators, a program area desperately needed in the St. Louis region, as outdoor education programs have been slowly phased out by school districts due to budget constraints and safety concerns.

This led to the development of Discovery Base at Beaumont, whose mission is "to offer opportunities for the youth in all our communities to experience programs that enhance their lives and open new doors for further exploration." Discovery Base offers a wide array of activities and resources for

groups, including a climbing tower, equestrian center and a nature center. Programming is available for youth from grades four through twelve, and ranges from day trips to multiple-night stays.

In May 2024, Discovery Base at Beaumont hosted nine seniors from the Southern Illinois University Edwardsville East St. Louis Charter High School for a two-night stay. Coming from



The students embark on their horseback ride with Discovery Base staff. Photo courtesy of Greater St. Louis Area Boy Scouts photographer Ron Jennings.

a high school located just across the river from downtown St. Louis, many of the activities available at the camp were a completely new experience for the students.

The students were nervous and curious when they arrived, according to Jesse Engle, the Director of Discovery Base at Beaumont. One student remarked that they had never seen so many trees in one place.

Despite the newness of it all, Engle promised them that she would be with them every step of the way. The students quickly decided to give their all and try the new experiences presented. The students went on group hikes through the woods, participated in teamwork and leadership games, and gathered around a campfire for s'mores, a first for some!

Other activities included horseback riding, archery, woodworking and climbing challenges. One student set a new camp record for the milk crate climbing challenge, with 21 crates climbed, beating the previous record held by a vice principal. Another student was afraid of horses but made the brave decision to climb up and give horseback riding a try. "By the time the student got back from their ride, they were beaming with excitement and accomplishment," Engle said.

Students were also taught blacksmithing and learned how to make a flint pendant, thanks to two brothers and scouts that help at the Discovery Base, Kalki and Ndrrian Devos. The pendants were meant to remind the students of how far they had come in such a short period of time, and representing the fire and passion that they should carry with them on their future journeys.

"This has been one of the best experiences of my life. These kids were incredible," Engle said, about her time with the group.

By the end of their stay at Camp Beaumont, many did not want to leave, and some were already planning for their class reunion to be held at the camp.

"When we arrived, the students were uncomfortable. They were panicked by the warnings about the ticks and the lack of consistent internet connection. They were emotionally exhausted from a tumultuous year. By the time we were leaving, they were all smiles, comfortable, and relaxed. We spent a lot of time together bonding well together," said Southern Illinois University Edwardsville East St. Louis Charter High School teacher Mr. Jonathan Tate. "This experience is one the students will really remember for years to come. There were so many moments of genuine laughter, joy, and comradery."

Top: One student takes on the milk crate climbing challenge.

Bottom: Students help each other scale a wall during a teamwork exercise. Photos courtesy of Greater St. Louis Area Boy Scouts photographer Ron Jennings.





GSLAC STEM Activities

Camp Nova 2024
Bayer entomologists talking about bees



Plant Science Merit Badge workshop





Agenda

- STEM in Scouting
- Greater St Louis Area Council STEM programs
- **STEM, Outdoor Ethics and Conservation**
- Programs with STEM, Outdoor Ethics and Conservation together



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Integrating Council STEM programs with Outdoor Ethics & Conservation

- Often STEM, Outdoor Ethics, and Conservation are separate activities in Scouting
- Not enough to have outdoor activities; need to present STEM background
- Benefits in linking → better understanding of the importance of all three
- Natural fit of STEM with OE and Conservation
 - but requires additional thought and planning



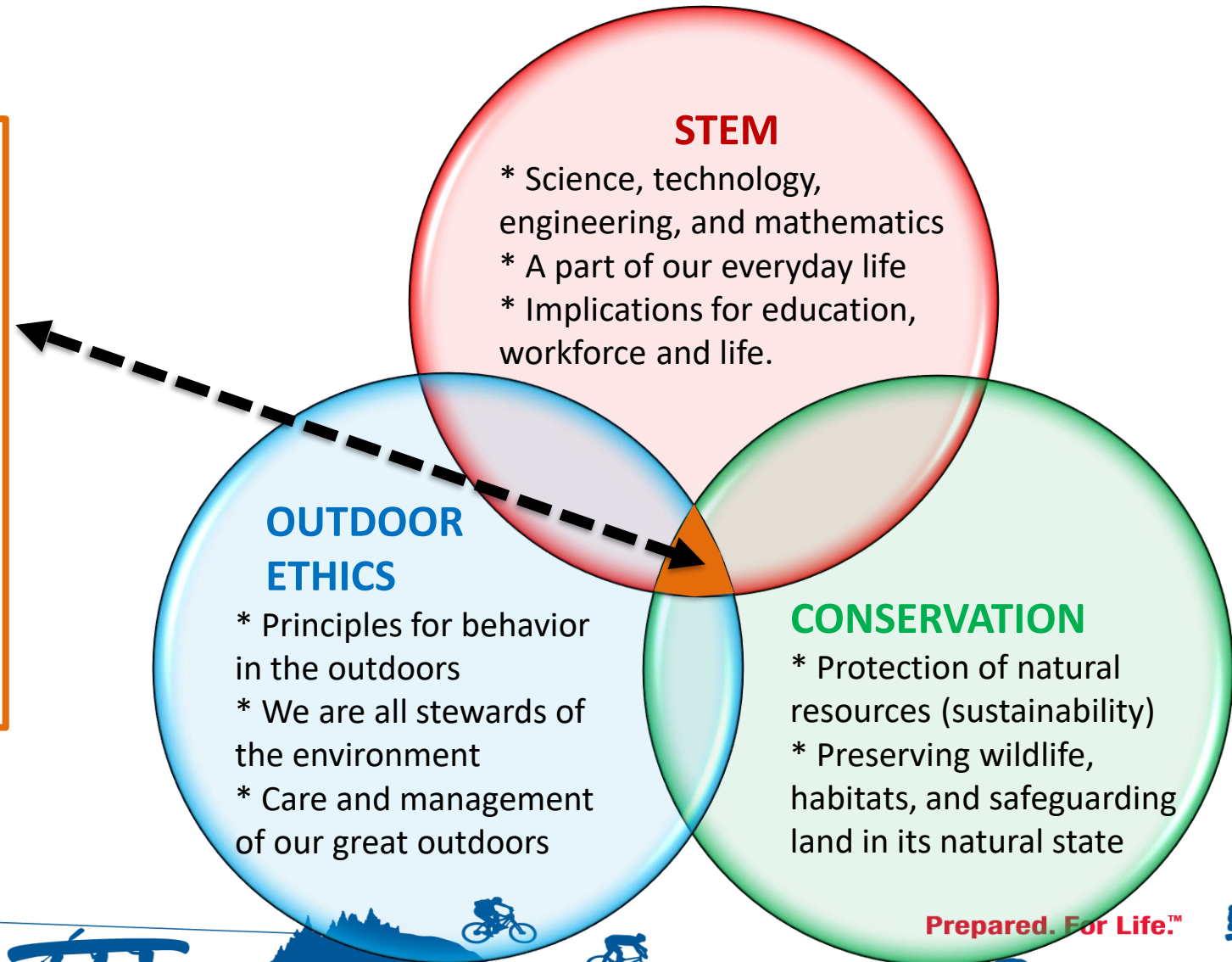
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STEM, Outdoor Ethics, and Conservation

STEM provides the tools and knowledge to understand, monitor, and manage natural ecosystems

STEM acts as a foundation for effective conservation strategies and ethical outdoor behavior



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Key Relationships between STEM and Conservation, and Outdoor Ethics

Understanding environmental issues:

- STEM disciplines (biology, ecology, and geology) study the impact of humans on ecosystems, identify vulnerabilities, and develop strategies.

Monitoring and data collection:

- Remote sensing, GIS, and drones enable efficient monitoring of environmental changes, wildlife populations, and land use patterns.

Sustainable solutions development:

- Engineering and technology to design sustainable infrastructure, renewable energy sources, and waste management systems in outdoor spaces.

Education and awareness:

- STEM education in outdoor programs fosters deeper understanding to promote responsible outdoor behaviors and ethical decision-making.

Wildlife tracking:

- Using GPS collars and satellite data to study animal migration patterns and habitat needs.

Water quality monitoring:

- Employing sensors to track water quality parameters in rivers and lakes.

Forest management:

- Utilizing aerial imagery and GIS software to plan sustainable logging practices.

Trail design and maintenance:

- Applying engineering principles to create environmentally friendly trails that minimize erosion.

Climate change research:

- Use climate models to predict the impacts of climate change on ecosystems and outdoor recreation.



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Agenda

- STEM in Scouting
- Greater St Louis Area Council STEM programs
- STEM, Outdoor Ethics and Conservation
- **Programs with STEM, Outdoor Ethics and Conservation together**



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STEM linked with OE/Conservation

- NCAC - Milkweed-for-monarchs (2017)
- Prairielands Council – Planting for Pollinators (2018)
- Eagle scout projects
 - Pollinator garden
 - Outdoor classrooms
 - Water bars on trails
- Order of the Arrow Lodges
- Scout camp nature centers



- BSA High Adventure Bases
 - Philmont
 - ROCS conservation
 - STEM Treks
 - Order of the Arrow Trail Crew
 - Summit Bechtel Reserve
 - Sea Base
 - Northern Tier



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STEM/OE/Cons Opportunities for Scouts

Perfect times for Scout Activities:

- National Wildlife Week - April 5–9 (2025)
- Earth Day – April 22 (2025)
- Chemists Celebrate Earth Week (American Chemical Society) April 20-26 (2025)
- Arbor Day – April 25 (2025)
- World Bee Day – May 20 (2025)
- Pollinator Week – June 16-22 (2025)
- Various STEM awareness days/weeks events



EARTH DAY

April, 22 - 22, 2025

📍 Everywhere



WORLD BEE DAY

May, 20 - 20, 2025

📍 Everywhere



POLLINATOR WEEK

June, 16 - 22, 2025

📍 Everywhere



MOTH WEEK

July, 17 - 27, 2025

📍 Everywhere





Potential Partnerships

- Both National and Local level opportunities
- National Park Service
- State Park Service
- Bureau of Land Management
- World Wildlife Foundation
- USDA Forest Service
- US Department of the Interior
- US Fish & Wildlife Service



U.S. DEPARTMENT OF THE
INTERIOR
**BUREAU OF
LAND
MANAGEMENT**



U.S. Department of
Agriculture Forest
Service



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Conclusions / Recommendations

- **STEM is an integral part of Outdoor Ethics and Conservation**
- **Increase effort to highlight STEM (education) in Outdoor Ethics and Conservation activities**
 - 1) Collaboration of STEM Committees with OE/Conservation Committees
 - 2) Council STEM committees should form a subcommittee focused on Conservation/OE STEM activities
 - 3) Council Conservation/OE committees should partner with STEM committee or have STEM subcommittee

Greater NY Council -- Joint Comm on Conservation, Outdoor Ethics & STEM

- **Leverage Partnerships with outside Conservation organizations (and with the Order of the Arrow)**



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Questions / Comments



Ron Colletti
rcollettistl@att.net



Teresa Colletti
tacolletti@att.net



Lisa Balbes
lisa@balbes.com

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Announcements



Matt Durrant, Crossroads of the West Council



OutdoorEthics-BSA.org will soon be gone!

- Changing per Scouting America renaming guidance
- New web address will be Scouting-OEC.org
- Moving is a big effort! It will take some
- The changes will happen a segment at a time
- Within a week some web pages will start being redirected
- The goal is to have everything moved by February 1
- OutdoorEthics-BSA.org references will forward automatically for a limited time
- If you have a problem or find anything broken, please let Mark Hammer know at webmaster@scouting-oec.org or webmaster@outdoorethics-bsa.org





2025 Leave No Trace Level 2 Instructor Courses

Dates	Council	Camp	Course Info	Field Experience
March 21-23, April 3-6	<u>Old North State Council</u>	<u>Cherokee Scout Reservation</u> , Yanceyville, NC	Contact: <u>Dr Christopher Cobitz</u>	Backpacking
April 25-27, May 15-18	<u>Baltimore Area Council</u>	<u>Broad Creek Memorial Scout Reservation</u> , Whiteford, MD	Contact: <u>Christopher Castillo</u>	
August 10-15	<u>Cascade Pacific Council</u>	<u>Camp Pioneer</u> , Idanha, OR	Contact: <u>Terri Jackson</u>	
August 3-9	National Council	<u>Northern Tier High Adventure Base</u> , Ely, MN	<u>Info/Registration</u> Contact: <u>Mark Hammer</u>	Canoeing
Sept 12-17	National Council	<u>Philmont Scout Ranch</u> , Cimarron, New Mexico	<u>Info/Registration</u>	Backpacking

Latest Level 2 Course Schedule

http://www.outdoorethics-bsa.org/training/me_courses.php

Dan Howells Scholarship

<http://www.outdoorethics-bsa.org/DanHowellsScholarship.php>



Please send in your photos of Outdoor Ethics education, Conservation projects, or great nature photos you've taken!



Matt Durrant, Crossroads of the West Council



Your feedback is a gift!
Was this roundtable helpful?
What would you like to see
covered in future roundtables?

<https://tinyurl.com/OECCRT>
roundtable@outdoorethics-bsa.org

Feedback!?



Pines above the Snow

“When one pine shows a short year but his neighbors do not, you may safely interpolate some purely local or individual adversity: a fire scar, a gnawing meadowmouse, a windburn, or some local bottleneck in that dark laboratory we call the soil.”

Aldo Leopold, A Sand County Almanac



Matt Durrant, Crossroads of the West Council



January's Roundtable

Scouting for Clean Waterways



Matt Durrant, Crossroads of
the West Council