

NATURE WORKS EVERYWHERE

PRESENTED BY
The Nature Conservancy 

VIRTUAL CAREER FAIR TEACHER'S GUIDE Meet Three Experts Changing the Face of STEM

Grades: Middle School and High School

Purpose: This guide contains information on teacher preparation for the event, including technical information, as well as a variety of student materials, with links to Nature Works Everywhere, EarthEcho International, and other relevant resources.

Description of Event: A career in STEM can be incredibly exciting—especially when it's your job to study American black bears in the Western Great Basin, to advocate for the benefits nature provides to people in cities, or to act as a test engineer on airplane engines.

Join us as we talk to three STEM professionals about their careers in engineering, ecology, and advocacy, and how they got to where they are today. This live event will bring to life the wide array of potential STEM careers for your students, with a specific focus on diversity and inclusion in the field.

Panelists will explore and discuss their journey to becoming professionals, what they love about their work, and what students from all walks of life can bring to STEM fields. Your students will be able to ask questions along the way and interact live with each professional. The discussion will ignite a fire for STEM careers that your students may not have considered yet.



STEM Virtual Career Fair



This event is presented by The Nature Conservancy in partnership with EarthEcho International

Teacher Preparation and Tech Considerations Before the Event

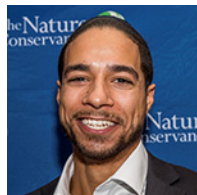
- Check to see if YouTube is blocked at your location. If so, you may be able to request that your district or school's IT person unblock the link to the virtual field trip. Refer to the link you received in your registration email. Be sure to do this several days in advance of the event.
- If your school site is not able to unblock YouTube, register for the field trip anyway and you will be added to a mailing list about the event. You will receive a newsletter when we edit the live recording and place the video on Vimeo (approximately 2-3 weeks after the live event) and you can try viewing it there. If you don't have school access to Vimeo, you can download the video at your home or other location and bring it to school on a USB drive.
- Note that anytime during the live recording, you can press "pause" and come back to the event. It will no longer be live, but your students can pick up where they left off in the event of recess, a fire drill, or any other interruption.
- **Also, note that you can use the same link that was emailed in your registration to view the virtual field trip anytime.** Once the live event has concluded, you can watch it from the beginning. This is helpful if you are showing it to multiple periods or if the time of the live event doesn't work for you.
- Google Hangouts on Air has transitioned to YouTube Live and there are a few changes to the Q and A section. You and your students can now ask questions during the live event by using the "say something" chat box. Note that you do need to be logged into a Google account to be able to enter a question in this chat box.

If you would like to enlarge the screen while watching, click on the "full screen" icon in the lower right hand corner of the screen.

If you would like to ask questions during the event, type them in the "Say something" box.

Detailed Bios and More Information

Blaze Lightfoot Jones-Yellin, The Nature Conservancy – Moderator



Based out of New York City, Blaze seeks to change the world by equipping the next generation of leaders with tools to tackle the greatest challenges facing people and nature. He provides green career development services and inspires action as a motivational speaker. Blaze brings over ten years of environmental youth development experience, helping thousands build leadership skills and lasting connections to nature through hands-on programming.

Blaze is a graduate of Cornell University, senior fellow of the Environmental Leadership Program and coordinates The Nature Conservancy's Leaders in Environmental Action for the Future (LEAF) program in the Eastern United States.

- Follow Blaze on social media at [@blazelightfoot](https://twitter.com/blazelightfoot) (Twitter, Instagram, Facebook, LinkedIn) for tools, tips, and tactics for young and aspiring STEM professionals
- Learn more about the LEAF program <https://www.nature.org/about-us/careers/leaf/index.htm>

Dr. Rae Wynn-Grant, American Museum of Natural History – Panelist



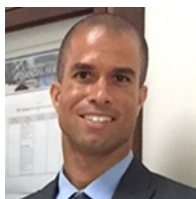
Dr. Rae Wynn-Grant is a large carnivore ecologist with an expertise in using statistical modeling to investigate how anthropogenic factors can influence the spatial patterns of carnivore behavior and ecology. She is currently studying the ecological and social drivers of human-carnivore conflict, and the influence of fine-scale human activity on connectivity of suitable carnivore habitat. Her current field system is the Western Great Basin where she studies a small population of American black bear (*Ursus americanus*). She has worked on similar research questions with African lions in rural Kenya and Tanzania, as well as grizzly bears in the Greater Yellowstone Ecosystem.

An active member of the Society for Conservation Biology (SCB), Dr. Wynn-Grant is the Deputy Chair of the Equity, Inclusion, and Diversity committee, which focuses on providing the tools and strategies needed for SCB to become a model organization for embracing and advancing issues related to equitable opportunity and representation in conservation biology.

Dr. Wynn-Grant received her B.S. in Environmental Studies from Emory University, her M.S. in Environmental Studies from Yale University, and her Ph.D. in Ecology and Evolution from Columbia University. She is currently a Conservation Science Research and Teaching Postdoctoral Fellow with the Center for Biodiversity and Conservation at the American Museum of Natural History in New York City.

- Follow Rae on Instagram and Twitter [@raewynngrant](https://twitter.com/raewynngrant)
- Learn more about Rae's work in "Tracking Bears with Dr. Rae Wynn-Grant" on YouTube <https://www.youtube.com/watch?v=6eG8LAu-m4M>
- Find out what's happening at the American Museum of Natural History <http://www.amnh.org/>

Kahlil Kettering, The Nature Conservancy – Panelist



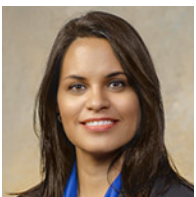
Kahlil Kettering is the Urban Conservation Director for the MD/DC Chapter of The Nature Conservancy. He has been with TNC for two years developing their new urban conservation strategy in DC that is centered on implementing projects that elevate the intersection of quality of life in urban communities and the benefits nature provides to people in cities.

His work focuses on the ability to achieve environmental conservation outcomes through private equity investments via the new Stormwater Retention Credit market in DC, strategic tree canopy expansion and maintenance for the benefit of nature and human well-being, and engaging and training young people as environmental advocates for the future.

Before moving back to his hometown of Washington, DC, Kahlil worked as an environmental analyst in Miami, Florida advocating for the protection and restoration of Everglades and Biscayne National Parks. He has a master's degree in Global Environmental Policy from American University and a master's degree in Public Management from the University of Maryland.

- Learn more about Kahlil's work in Washington, DC in the video "The Power of Nature to Heal DC's Rivers"
<https://www.nature.org/photos-and-video/video/dc-urban-stormwater>
- Follow Kahlil on a journey into DC's sewer system and discover how to make cities more sustainable in the *Nature Works Everywhere* video "Sustainable Cities: Nature-based Solutions in Urban Design"
<https://vimeo.com/155849692>
- Learn more about The Nature Conservancy's work in cities
<https://www.nature.org/ourinitiatives/urgentissues/nature-in-cities/north-america-cities.xml>

Monica Dujic, Pratt & Whitney – Panelist



Monica Dujic is the manager of Assembly Engineering, Systems Engineering & Validation (SEV) at Pratt & Whitney's West Palm Beach, Florida location. She currently oversees all aspects of Commercial and Military engine assembly activity supporting the company's SEV Development Assembly organization worldwide.

Monica has a wide range of experience with numerous engine programs and was the lead test engineer for a number of Airbus A320neo compliance engines. Monica is responsible for managing and developing Assembly Engineers in support of all Pratt & Whitney products. She is also responsible for talent recruiting and mentoring, deployment of technical talent and the integration of resources to support the PurePower® engine programs.

Monica first came to Pratt & Whitney as a participant in the company's co-op program while attending the University of Puerto Rico. Following her graduation with a Bachelor of Science degree in mechanical engineering in 2002, Monica began working for the company full time. While supporting the Systems Engineering Validation organization, Monica continued her education through the UTC Employee Scholar Program (ESP) and went on to earn a Master of Science degree in innovation and entrepreneurship at Rensselaer Polytechnic in Hartford, Connecticut.

- Find out more about Monica's work in engineering in her *STEMExplore* video by EarthEcho International
<https://www.youtube.com/watch?v=gLxMCEIxNPs>
- Explore careers in engineering in *STEMExplore's Cabinet of Curiosities*
<https://www.stemexplore.org/items/raspberry-pi>
- Follow Pratt & Whitney on Facebook and Twitter @prattandwhitney and on Instagram @dependableengines



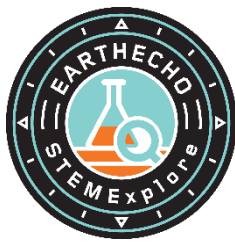
Nature Works Everywhere Resources

www.natureworkseverywhere.org

Learn more about the great work happening at The Nature Conservancy; check out the Nature Works Everywhere website where you can find free videos, virtual field trips, lessons, and more! With over 600 scientists and locations in every state and conservation efforts in 69 countries, Nature Works Everywhere brings the science expertise of the world’s largest environmental organization directly into the classroom.

Meet some of these experts with “Meet the Scientist” videos. Or, take your students a virtual field trip! You’ll go around the world to explore remote tropical rainforests, coastal marine landscapes, and amazing underwater cities. Plus, your students will learn how the Conservancy uses innovative science to protect the lands and waters on which we depend—and be inspired by the career possibilities!

- Lessons and Videos: www.natureworkseverywhere.org/resources/?type=lesson-video
- Meet the Scientist: www.natureworkseverywhere.org/resources/?type=meet-the-scientist-video
- Virtual Field Trips: www.natureworkseverywhere.org/resources/?type=virtual-field-trip-video



EarthEcho International Resources

www.earthecho.org

EarthEcho International’s Founder and President Philippe Cousteau, Jr. has spent his life traveling to the far reaches of our planet, just like his father, Philippe Cousteau Sr., and his grandfather, the legendary explorer Jacques Cousteau, did before him. Now EarthEcho brings modern-day explorers and trailblazers to students and classrooms with *STEMExplore*, a no-cost online destination featuring dozens of relatable, day-in-the-life interviews with scientists and engineers, from science,

technology, engineering and math fields as diverse as dendrochronology, marine biology and electrical engineering.

“At EarthEcho, we work with young people every day who are passionate about making a positive difference in the world around them,” said Cousteau. “One of the main things we hear from educators, counselors and human resource professionals is that they need tools and resources to help prepare these future leaders to achieve their goals. That need is the reason we created *STEMExplore* for students and educators.”

Presented through a Cabinet of Curiosities-themed portal, inspired by the vast collection of items from three generations of Cousteau explorers, *STEMExplore* is designed to ignite the interest of students to study and learn more about STEM careers. Each profile introduces the amazing people that go to work every day in jobs that unearth study, create or protect these kinds of amazing curiosities and tells students how they, too, can become one of them.



Screenshot from www.STEMExplore.org

- Visit the *STEMExplore*’s Cabinet of Curiosities: www.STEMExplore.org

Resources and Articles

Information on STEM Initiatives and Workforce

- Change the Equation – an organization seeking to ensure that every young person in the U.S. is STEM literate
<http://www.changetheequation.org/>
 - This short video (<https://vimeo.com/138813110>) explains how to use Change the Equation’s website *Vital Signs* to explore the state of STEM in your state and search for programs to connect you to STEM initiatives locally and nationwide.
 - Vital Signs Website <http://vitalsigns.changetheequation.org/>
 - Use Vital Signs to show students the demand for STEM workers and projected earnings <http://vitalsigns.changetheequation.org/state/United-States/demand>
- STEM 101: Intro to tomorrow’s jobs, Bureau of Labor Statistics – information on STEM occupations, projected job openings, annual wages, training, and experience.
<https://www.bls.gov/careeroutlook/2014/spring/art01.pdf>
- The Value of a STEM Education Infographic, Edutopia
<https://www.edutopia.org/stw-college-career-stem-infographic>

Mentorship, Resume, Profile, and New Job Tips

- The Scoop: What’s a Mentor and How Do I Get One? by the College Board
<https://bigfuture.collegeboard.org/get-started/building-a-support-network/the-scoop-whats-a-mentor-and-how-do-i-get-one>
- How to Find a Mentor in High School, by Ruby Grace
<http://hbculifestyle.com/high-school-mentor/>
- What Your Resume Should Look Like in 2017, by Kristen Bahler
<http://time.com/money/4621066/free-resume-word-template-2017/>
- Career Experts Makeover these Mediocre LinkedIn Profiles, by Rich Bellis
<https://www.fastcompany.com/3069256/career-experts-makeover-these-mediocre-linkedin-profiles>
- 14 Things Successful People Do in the First Week of a New Job, by Diana Yukari
<http://www.businessinsider.com/first-week-of-a-new-job-2017-1>

Suggested Readings for Teachers and Students

- Diversity in STEM: What It Is and Why It Matters, by Kenneth Gibbs, Jr.
<https://blogs.scientificamerican.com/voices/diversity-in-stem-what-it-is-and-why-it-matters/>
- Diversity in STEM Is a Practical Goal, Not a Moral One, by Erika Hairston
http://www.huffingtonpost.com/the-well/diversity-in-stem-is-a-pr b_10229908.html
- Boosting Science with Diversity, by Vann R. Newkirk II
<http://www.pbs.org/wgbh/nova/next/body/stem-diversity/>