



23rd Annual Conference:
ISEA 2020: Vision for the Future
 February 26-28, 2020
 Baylor Research and Innovation Collaborative
 Waco, TX
 100 Research Parkway 76704

ISEA 2020 Conference Schedule At-A-Glance

Start	End	Event	Location
WEDNESDAY FEBRUARY 26			
9:00 AM	4:00 PM	Pre-conference Workshops (pre-registration required)	Mayborn Museum (9-3) and BRIC (1-4)
1:00 PM	4:00 PM	Name Badge pick-up available	BRIC Atrium (1st floor)
5:30 PM	7:30 PM	Opening Night Networking Event	Cameron Park Zoo
		After-hours Meet-Ups	Check Conference App
THURSDAY FEB 27			
Breakfast at conference hotel or on your own			La Quinta Baylor Hotel Indigo
7:30 AM	8:15 AM	Name Badge pick-up available	BRIC Atrium (1st floor)
8:30 AM	9:30 AM	Welcome and Keynote Address	BRIC Symposium 3160
9:45 AM	10:45 AM	Concurrent Session #1	BRIC- 4 session rooms

10:00 AM	4:45 PM	Silent Auction	BRIC ESC Classroom 3662.02
11:00 AM	12:00 PM	Concurrent Session #2	BRIC- 4 session rooms
12:05 PM	12:55 PM	Lunch and Tours of BRIC	BRIC 2160 landing
1:00 PM	1:15 PM	15-minute power talks	BRIC- 4 session rooms
1:30 PM	2:15 PM	All-Conference Partnerships Panel	BRIC Symposium 3160
2:30 PM	3:30 PM	Concurrent Session #3	BRIC- 4 session rooms
3:45 PM	4:45 PM	Concurrent Session #4	BRIC- 4 session rooms
4:50 PM	5:45 PM	Poster Session	BRIC Atrium (1st floor)
6:00 PM	8:00 PM	Dinner and Live Auction	Mayborn Museum
08:30 PM	10:30 PM	After-hours Meet-Up	Brotherwell Brewing

FRIDAY FEB 28			
Breakfast at conference hotels or on your own			
8:00 AM		BRIC Doors Open	BRIC Atrium (1st floor)
08:30 AM	10:30 AM	2-hour Workshops	BRIC- 4 session rooms
10:45 AM	11:30 AM	Digital Appearance by Emily Graslje	BRIC Symposium 3160
11:30 AM	11:45 AM	Closing remarks, business, raffle winners	BRIC Symposium 3160
1 pm	4 pm	Post-Conference Field Trip (pre-registration required)	Waco Mammoth National Monument Lake Waco Wetlands

Pre-conference Events

WalkSTEM Pre-Conference Workshop

1-4 PM, Baylor Research Innovation and Collaborative (BRIC)

Join walkSTEM (<https://talkstem.org/walkstem/>) professionals to explore how you can produce

customized experiences that promote the development of a STEAM lens on the lived world. Any space can be used to develop a walkSTEM tour so this workshop is specifically designed with the goal of easy transfer of walkSTEM methods to any indoor or outdoor space.

Makey-Makey Pre-Conference Workshop

9 AM – 3 PM, Mayborn Museum Complex

Description: Join the Mayborn Museum's Makey

Makey education team for a fun hands-on workshop where you'll learn how to teach Invention Literacy, Making, and Design Thinking using the award winning Makey Makey invention kit. Participants will all get a MakeyMakey kit of their own!

Opening Night Reception

Opening Night Networking Event

Date/Time: Wed Feb 26, 5:30 PM- 7:30 PM

Location: Cameron Park Zoo, 1701 N. 4th Street, Waco, TX 76707

Description: Join us for a fun night of networking courtesy of the Cameron Park Zoo. Come eat and drink under the beautiful pavilion and visit the Herp House, Saltwater Aquarium, and the educational animals at the Ranch House.

Fee: Activities, buffet-style taco bar and two tickets to the cash bar are included with full conference registration.

Thursday one-day registrations do not include this event but tickets can be purchased separately.

Keynote Speaker: Dr. Jennifer DeWitt



Jen is a research and evaluation consultant, specialising in learning and engagement, particularly in informal settings. She is keenly interested in bridging research and practice and has been referred to as a 'friendly academic', embracing the challenges faced by practitioners in the informal sector as they try to make the most of the opportunities they can offer audiences. In addition to her consultancy work, Jen is a Senior Research Fellow at the University College London Institute of Education, where she is a member of the research team developing and applying the concept of science capital, and she has particularly focused on the development of instruments to measure this construct. Her broader research and evaluation interests include learning and engagement in early years, families and school groups in informal environments, including the implications of work on science capital for equitable practice in these settings. Prior to moving to London for her PhD in science education (which focused on school trips to science museums and centers), she worked for the Children's Museum of Houston as their Early Childhood Educator, the New York Botanical Garden and Scholastic.

Jen will be giving the 2020 ISEA Conference Keynote Address on Thursday morning at 8:30 AM in the BRIC Symposium 3160.

Concurrent Session #1, Thursday, February 27 - 9:45am-10:45am

Science in the Hundred Acre Wood (1160.02/.03)

Kenneth Fleming, Science Between the Pages

How many balloons would it take to lift Winnie the Pooh? What is the best adhesive to reattach Eeyore's tail? Explore push and pull forces as we help Winnie the Pooh get out of a tight place. Join us for hands-on activities and demonstrations based on A.A. Milne's classic stories.

The Night Sky: Preserving Dark Skies (Symposium 2160)

Marc Wetzel and Keely Finklestein, University of Texas McDonald Observatory

The dark night sky is a hardly noticed, dwindling natural resource. This session explores the value of darkness at night to our communities, and nature. Participants will learn simple demonstrations and activities to promote dark sky preservation suitable for informal education learning environments.

Fostering the Next Generation of Informal Educators through Partnerships (Region 12 ESC Lab #1 3262.01)

Sandi Cooper, Barbara Purdum-Cassidy, Karynecia Connor, Madelyn Greenleaf, Baylor University School of Education, Rachel Moore, Dr. Pepper Museum

How can we "escape" the reality of planning for the future? How can the next generation of educators influence the future of informal learning experiences? Come join in the quest to "breakout" of this reality through collaboration with partners.

Running and Jumping and Picking Up Sticks: Using "child's passions" to create engaging lessons

(Region 12 ESC Lab #2 3262.03)

Katherine Renee Martin, Partners in Education, Agriculture, and Sustainability (PEAS)

Come explore new ways to infuse lessons with things students already like to do when they are outside and create memorable lessons that are high-engagement, hands-on vehicles for state standards and environmental literacy.

Concurrent Session #2, Thursday, February 27 - 11:00 am-12:00pm

A Pathway to Memory Care and Access Programming (1160.02/.03)

Tonya McDaniel, Dallas Zoo

Access programming provides lifelong learning opportunities for adult audiences to reconnect to your institution's content and mission, and to regain social interaction skills. Explore ways your institution can provide programs to connect to this under-served audience.

Why Should Kids Have All the Fun? Campus Campouts as a Pathway to Nature and Community

(Symposium 2160)

Jennifer Evans and Jordan Joly, Families in Nature

Come learn how you can start a family campout in your school or community with practical tools and lessons learned from FIN's innovative Schools-to-Parks Campout Program, which recreates the best parts of a wilderness campout on-campus in a safe, welcoming and community-building environment.

Emerging Science Identities: The Power of Reflection, Connection, and Inclusion (Region 12 ESC Lab #1 3262.01)

Sierra Berry, Denver Museum of Nature and Science; Miami University

When did you know you were a "science person"? How has your identity as a woman, an athlete, a person of color, or a sci-fi fan influenced the way you learn and love the natural world? Together, we will reflect on our own experiences and discuss how to make scientific discourse more inclusive.

Portal to the Public: Strengthening Public Engagement with Science (Region 12 ESC Lab #2 3262.03)

Sarah Miller, Michael Scullin, Melissa Mullins, Mayborn Museum; Baylor University, Dennis Schatz, Pacific Science Center

Explore ways to build relationships and connect with scientists to increase your institution's opportunities to engage the public on current science research. This session will expand on the Portal to the Public guiding framework and how it is implemented by museum staff and partnering scientists.

Lunch & BRIC Tours, Thursday, February 27 - 12:05 pm-12:55 pm

Buffet-style salad selections and drinks will be provided on the BRIC Second Floor landing.

15-minute Power Talks, Thursday, February 27 - 1:00 pm-1:15 pm

Perceptions of Spiders After Participating in a Community Science Activity (1160.02/.03)

Bria Marty, Kristy Daniel, Texas State University

Spiders are critical in their ecosystems but understudied due to negative perceptions. This talk shares the results of a study that was conducted at Texas State University to assess how a community science activity might influence perceptions of spiders in order to improve conservation in the future.

Birds of a Feather: Evaluation Common Interest Meet-Up (Region 12 ESC Lab #2 3262.03)

Dr. Brooke Miller, The University of Texas at Austin

Are you engaged in evaluation at your institution? Are you thinking about starting evaluation work? Let's get together to share resources and contact information.

Quick Career Advice: Wisdom from ISE Professionals (Region 12 ESC Lab #1 3262.01)

Emily Weerts, Wildly Supportive

Join ISEA Board Member Emily Weerts as she shares out career advice she captured from Informal Science Education professionals from all over the field. Learn about the ridiculous tasks they've had to do to climb the ISE career ladder and what they think folks in this professional field should know.

Deep in the Heart- A Texas Wildlife Story (Symposium 2160)

Jay Kleberg, Fin and Fur Films

Come get a sneak peek at this yet-to-be released documentary which will celebrate Texas conservation success stories while showcasing important ecological issues through the eyes of wildlife and wild places. Discuss with the film's producer how informal science educators might utilize this educational and entertaining resource.

Panel Discussion: Creating and Nurturing Science Learning Partnerships for High Impact, Thursday February 27- 1:30pm- 2:15 pm (Symposium 3160)

Moderator: Charlie Walter, Mayborn Museum

Panelists: Dennis Schatz, Pacific Nature Center and NSTA Board President ;Sarah Coles, Texas Children in Nature Network; Judy York, Educational Service Center Region 12 Science Specialist/LexLabs at the BRIC

Join the conversation with three science education leaders representing national, state and regional efforts to improve science learning. The session will offer insights, recommend tools and strategies, and provide models of partnerships across the formal and informal science education fields.

Special Panelist: Dennis Schatz



Dennis Schatz is Senior Fellow at the Institute of Learning Innovation, as well as Senior Advisor at Pacific Science Center in Seattle, Washington. He is also President of the NSTA (National Science Teaching Association) board of directors.

He led the initial development of the Portal to the Public (PoP) effort, and remains active in the program. PoP is an initiative to develop programs that works with scientists to engage with public audiences regarding current science research and its application.

Dennis is Co-PI of the NSF funded Broader Impact Design (BID) Partnerships project to develop sustained institutional relationships between universities and ISE institutions regarding the delivery of broader impact activities provided by research scientists. He is also Co-PI of the NSF funded On-the-Spot Assessment (OSA) project to develop assessment strategies for scientists to embed in public presentations to assess how well the audience is understanding them.

He was the founding Field Editor of the journal, *Connected Science Learning*, which highlights links between in-school and out-of-school learning. The journal is a joint effort of NSTA and ASTC (Association of Science-Technology Centers). He was also a National Science Foundation (NSF) program officer from 2011 to 2015. Dennis has received numerous honors. Most recently, Asteroid 25232 was renamed Asteroid Schatz by the International Astronomical Union (IAU) in recognition of his leadership in astronomy and science education.

He is the author of 26 science books for children, and co-author/editor of several curriculum resources for teachers. Dennis will be a panelist in the panel discussion and also presents a regular conference session.

Concurrent Session #3, Thursday, February 27 - 2:30pm-3:30 pm

Leaping the hurdles of data collection in Informal Science Institutions (1160.02/.03)

Jenn Idema, Kristy Daniel

Knowing how to overcome challenges that arise during research and evaluation makes informal educators greater assets to their facilities. In this interactive session we highlight common issues ISI face during the data collection process and provide attendees with tips and tricks for getting quality data.

Making Science Learning Lifelong, Lifewide, and Lifedeeep: What We Know About the Importance of Out-of-School (Informal) STEM Learning (Symposium 2160)

Dennis Schatz, Pacific Science Center

This presentation examines the research regarding when and where STEM learning occurs, when it is most important for developing future interest in STEM, and the role of out-of-school STEM learning.

Using Academic Research to Provide Support for Your Organization (Region 12 ESC Lab #1 3262.01)

Dr. Brooke Miller, The University of Texas at Austin

As the need for evaluation increases, so too does the need to justify our programs using the latest academic research. This session will cover how to search for articles, how to read articles, and how to figure out what you are looking for in the first place.

Transforming the Audience Narrative: Engaging in Adult Programming (Region 12 ESC Lab #2 3262.03)

Cindee Millard, Amber Hansen, Mayborn Museum and Dr. Kim McCray, Museum Studies; Baylor University

Join this interactive round-table about redirecting and reframing the audience narrative of museum education programs to include adult learning and engagement along with engaging the college community so that programming is more relevant to contemporary attitudes and presents a more complete, inclusive, and accurate portrayal of museum exhibits and topics.

Concurrent Session #4, Thursday, February 27 - 3:45pm- 4:45 pm

Wild About Science: A Field Experience Collaboration (1160.02/.03)

Leah Kahn, Stephen F. Austin University

Science methodology and field experience professors will share their experiences collaborating with community partners, school districts, gardens staff, state Forestry Service personnel, and Texas Project Learning Tree facilitators resulting in an environmental education outdoor learning event.

Interpretive Basics and Beyond (Symposium 2160)

Melissa Felty, Danielle Bradley, Texas Parks and Wildlife Department

Whether just starting out or a seasoned educator, lets learn tricks of the trade from each other. In this hands-on, interactive session, we will revisit the basics and share interpretive techniques that lays a foundation for delivering a successful program.

The Mayborn as a Learning Lab (Region 12 ESC Lab #1 3262.01)

Sherry DeHay, Lesa Bush, Emily Clark, Dr. Kim McCray, Baylor University Mayborn Museum and Museum Studies Department

Join us for this collaborative session regarding how Museum Studies students and Baylor researchers showcase best practices and the latest scientific research in a real-world setting. Learn how to create informal learning opportunities that are engaging for visitors and rewarding for scientists. This session will showcase practical ways to offer large scale programs without losing your mind in the process!

The Future of ISE POP-UP Session (Region 12 ESC Lab #2 3262.03)

Lucy Hale, Dustin Miller, Kristin Evans

Join us for a special session addressing questions and topics contributed by ISEA 2020 conference participants. Visit the conference app to message your topic suggestions, write them on idea boards posted throughout the BRIC, or contact ISEA board members Lucy, Dustin and Kristin with your ideas! Then, join us as we dissect and discuss your input with audience participation.

Conference Poster Sessions, Thursday, February 27 - 4:50pm- 5:45 pm

BRIC First Floor Atrium featuring Dr. Pepper Float Social

Present Your PhD: Building Better Scientists Through Community Connections and Outreach

Keighley Reisenauer, Ankan Choudhury, Patrick Ortiz, Baylor University

Reimagining Visitor Engagement at the Mayborn Museum

Emily MacDonald, Meg Tucker, Mayborn Museums

ACCEYSS: An Evidence-Based Informal K-12 STEM Curriculum Framework for Community Organizations

Algie Thompson, Dr. Shetay Ashford-Hanserd, Dr. Kristy L. Daniel, Dr. Dana M. Garcia, Dr. Brett Lee, Texas State University

Preservice Elementary Teacher Perspectives of Informal Science Spaces

Dr. Michelle Forsythe, Dr. Yun-Wen Chan, Texas State University

City of Waco Lake Waco Wetlands

Nora Schell, City of Waco

Family Interpretation of Conservation Messaging

Victoria Reyes, Jenn Idema, Kristy Daniel, Texas State University

Making Connections Between Field Investigations in Science and Mental and Physical Health

Mark Broughton, Dallas ISD STEM Environmental Education Center

Access in the Wilderness: Facilitating Neurodiversities in programming

Tiara Chapman, Lewisville Lake Environmental Learning Area

The Power of Partners: the benefits of staff professional learning through colleague partnerships

Sara Pelleteri, Kristin Evans, University of Texas Marine Science Institute/Mission-Aransas NERR

Integrating Formal Science Concepts into Informal Spaces

Dr. Ratna Narayan, University of Texas, Dallas

Science classroom in the Park – Ray Roberts State Park

Tracey Craft, Irving ISD; Rick Torres, Texas Parks and Wildlife Department

Technology Integration in the Outdoors

Mary Davis, Grand Prairie ISD; Mark Broughton, Dallas ISD STEM Environmental Education Center

Matching the Hatch: Using observations in nature to select fishing baits.

Matthew Gaines, Cedar Hill ISD; ZoeAnn Stinchcomb, Texas Parks and Wildlife Department

Frontiers Flight Museum: Teacher Led Program Guide

Brittney Preston, Cedar Hill ISD

Inquiry and Excitement at the Dallas Zoo

Candace Edmerson, Grand Prairie ISD; Colin Johnson, Dallas Zoo

Solving a Rock Mystery

Ana Belmonte, J.O. Schulze Elementary; Anne Marie Fayen, Dallas Arboretum

How to engage students in CS & Engineering education using VR, natural hazards data, & visualization.

Edgar Garza, Texas Advanced Computing Center; Jessica Marquez, Katrina Van Houten, Del Valle High School

Texas Rivers Expedition

Justine Salsbury, El Ranchito; Leah Cuddeback, Miranda Wait, Meadows Center for Water and the Environment

Building State Support for ISE in Texas

Charlie Walter, Mayborn Museum

Education at the Cameron Park Zoo

Holley Day, Sarah Hege

Conference Dinner & Live Auction, Thursday, February 27 - 6:00pm-8:00 pm

Location: Mayborn Museum Complex, 1300 S. University Parks Drive, Waco, TX 76706

Immediately after the poster session, head on over to the Mayborn Museum for dinner, free exploration of the exhibits at the Museum, and an exciting live auction.

Buffet-style build your own bowl dinner and museum admission is included with full conference registration. (Thursday one-day registrations do not include this event but tickets can be purchased separately)

After-hours meet up at Brotherwell Brewing, 400 E. Bridge Street, Waco, TX 76704 is open to all after dinner & the live auction at the Mayborn.

Workshops, Friday, February 28 – 08:30am-10:30am

The Environmental Facilitator: Creating Natural Connections (1160.02/.03)

Patrick Olsen, Nicholas Cowey, Lower Colorado River Authority

Ecopsychology, environmental empathy, experiential education, engaging ecology lesson - all rolled into one!

Join us to learn fun, multi-disciplinary methods of engaging learners of all ages to transcend traditional boundaries and approaches to environmental education.

Science Storytelling Through Shadow Puppetry (Symposium 2160)

Emily Weerts, Wildly Supportive; Katie Struth, 4-H Capital

Join this hands-on session & learn how to tell a science story using shadow puppets. From the journey of a seed to Marie Curie's biography, we'll guide you in making a shadow puppet show that communicates a science concept. Come away with resources & tips to do this accessible activity at your site.

Fields of Dreams: Supporting Early Childhood Educators and Creating Future Lifelong Learners (Region 12 ESC Lab #1 3262.01)

Cheryl Potemkin, Botanical Research Institute of Texas; Amanda McMickle, Anna Lewis, San Antonio Zoo and Dallas Zoo (preschool)

Early Childhood Educators have the greatest impact on lifelong learning, and oftentimes receive little support. We will discuss the challenges ECEs face, and brainstorm how we - as informals and as advocates - can support the efforts of early childhood through a variety of missions and programming. We will also discuss successful tactics of early childhood programs that connect families and caregivers with lifelong learning and parent-buy in.

Social Media Marketing 101: Developing a Strategy, Creating Impactful Posts, and Measuring Engagement (Region 12 ESC Lab #2 3262.03)

Sarah Jenevein, UTeach Institute at the University of Texas at Austin; Michael Malloy, The Thinkery

Despite social media's increasing prevalence, marketing on social media can often end up feeling like shouting into the void. This session will give you the tools you need to make sure that your organization's message gets heard. By the end of this collaborative session, attendees will be able to leverage best practices in order to develop effective social media strategies for their organizations. *Laptops highly recommended for this session"

Featured Speaker: Emily Graslie



Emily Graslie was born and raised in Rapid City, South Dakota. After moving to Missoula, Montana to pursue an undergraduate degree in fine art painting, she fell in love with the campus vertebrate research collection as a place of artistic inspiration. What started off as a passionate volunteering position within a small museum eventually transformed into a full-time career as an advocate for these under-appreciated repositories. Now she lives in Chicago, and works as The Field Museum's 'Chief Curiosity Correspondent,' where she uses a variety of new media to communicate the importance of natural history museums with the world.

Emily will be making a digital appearance on Friday morning at 10:45 AM in BRIC Symposium 3160.

Post-conference Field Trip

Waco Mammoth National Monument and Lake Waco Wetlands Post-Conference Field Trip

Date/Time: Friday Feb 28, 1:00 PM- 4:00 PM

Location: Meet at Waco Mammoth National Monument, 6220 Steinbeck Bend Rd (about 15 minutes from the BRIC), then continue to Lake Waco Wetlands, 1752 Eichelberger Crossing Rd 76633 (20 minutes from Mammoth Site)

Come on a guided tour of one of the country's newest national monuments and learn about the pre-historic dig site and educational programming. Participants will make their own paper microscope <https://www.foldscope.com/> as part of Project PaleoScope. Then we'll caravan out to the Lake Waco Wetlands and learn about the habitat and water-quality benefits of this man-made wetland.

Things to do in Waco

Museums • Nature Centers • Galleries

The Art Center of Waco
Cameron Park Zoo
Carleen Bright Arboretum
Cultivate 7Twelve
Dr Pepper Museum & Free Enterprise Institute
Lake Waco Wetlands
Martin Museum of Art
Mayborn Museum
Texas Ranger Museum
Waco Mammoth National Monument

Around Town

Bear Habitat on Baylor University Campus
Cameron Park Trails
Magnolia Silos
Waco Downtown Farmer's Market (Saturday mornings)
Waco Riverwalk

Coffee & Breakfast Options Near ISEA Hotels

Cafe Cappuccino
Common Grounds Coffee
Dichotomy Coffee
Harvest on 25th
Lighthouse Coffee
Lula Jane's
Pinewood Coffee Bar
Torchy's Tacos
Union Hall

