

EOC Annual Committee Report (December 2021-May 2023)

1. **Date of report:** 05/03/2023
2. **Name of Committee:** LTER Education and Outreach Committee
3. **Name and site affiliation of the Committee Chair (or co-chairs or Executive Board):** Alexandra Rose, Niwot Ridge and McMurdo Dry Valley (NWT, MCM)
Scott E. Simon, Santa Barbara Coastal (SBC)

4. **List of current members:**

Bailey, Amey	HBR	Hinterthuer, Adam	NTL
Baird, Cora	VCR	McDonnell, Janice	PAL
Baldwin, Kara	CDR	McGee, Steven	LUQ
Barale Potter, Caitlin	CDR	Menninger, Holly	MSP
Bestelmeyer, Stephanie	JRN	Morrison, Amanda	ARC
Brickley, Annette	NES	O'Connell, Kari	AND
Brooks, Andrew	MCR	Oehm, Nicholas	FCE
Báez Rodríguez, Noelia	LUQ	Paulenich, Cari	CCE
Eichhorst, Kim	SEV	Rose, Alex	MCM NWT
Franco, Monique	CAP	Schultheis, Elizabeth	KBS
TBD	HBR	Simmons, Beth	FCE
Gavenus, Katie	BLE	Simmons, Danielle	PIE
Haas, Kara	KBS	Simon, Scott	SBC
Hart, Clarisse	HFR	Sparrow, Elena	ARC BNZ
Haukos, Jill	KNZ		
Hinkle, Katharine	HFR		

5. **How membership is determined (identified by sites, voluntary, appointed by the Executive Board, etc)**

Membership includes an education contact at each site (SiteEdRep) and a representative from the graduate student committee. Additional members may be identified by individual sites and by the LTER Communications Office (LNO) from among site personnel who are involved with education.

6. **Meeting frequency:** once/month

7. **Major activities or accomplishments for the year:** This committee continues to be active with high engagement. This past year we have been excited to continue towards a “new normal.” With the return of in person ASM at Asilomar, the committee enjoyed the value of getting together, networking, and forging new relationships. In addition to

the EOCs connecting at ASM, a number of sites were able to bring a total of 12 RET candidates to the conference, as well. Kara Haas (KBS) and her RETs wrote a blog post: <https://lter.kbs.msu.edu/2022/10/building-relationships-by-the-ocean/>. The committee also elected a new co-chair, Alexandra Rose (NWT-MCM), who took over for the exiting Kara Haas (KBS).

- a. Several sites have **new EOC Reps** which we on-boarded this year, including: Holly Menninger (MSP), Liz Schultheis (KBS), Kara Baldwin (CDR), Danielle Simmons (PIE), and Monique Franco (CAP). Sharing resources and examples from site reviews is one of the ways we support each other, which is particularly helpful for new members.
- b. Using Virtual platforms to create resources for remote audiences:
 1. SBC created [VirtualREEF YouTube Channel](#) and [KBS LTER](#) updated theirs once again.
 2. Book series, revived and digitized for the COVID era
 3. SBC developed and held Virtual Teacher PD workshop built around the science of the site and the children's book [Golden Forest](#)
 4. JRN developed a video series and activities related to Jornada book [Asombro | One Day in the Desert](#)
 5. AND partnered with OMSI Science at Home to develop a series of activities used during covid and for homeschoolers. E.g. https://omsi.edu/wp-content/uploads/2022/11/ScienceAtHome_510_Phenology_DIY_OneSheet.pdf
 6. PAL partnered with 18 teachers for an afterschool implementation of the Data to the Rescue: Penguins Need Our Help! afterschool program (developed with an NSF AISL grant). State participation includes: New Jersey, Alaska (including Utqiagvik and Anchorage), Washington, Minnesota, Pennsylvania, Kansas, Michigan, Iowa, Arkansas, Florida, and California. We worked with a broad range of young people from diverse backgrounds, engaging approximately 1,080 young people in grades 5- to 9th. Because students can not visit Palmer, each implementation ended with a Video Teleconference with youth speaking with an early career polar researcher in Antarctica.
 7. JRN and the Asombro Institute for Science Education used the interactive video-based lessons and student science supply kits developed during school closures to provide hands-on ecology lessons to K-12 students in rural areas of New Mexico, far outside the geographic range the site normally covers with in-person instruction.

- c. **ASM supported time to come together** and we focused our time on sharing successes and expertise across the network.
 - i. 12 RETs attended the ASM
(<https://lter.kbs.msu.edu/2022/10/building-relationships-by-the-ocean/>)
 - ii. Kristin Hunter-Thompson from DataSpire offered a data-literacy workshop for attendees
 - iii. Site representatives gave quick site updates at our EOC meeting:
https://docs.google.com/presentation/d/1GM5fEPLo0SdenhBDEc5muiMtOZ29vTy90551PsmleTM/edit?usp=share_link

- d. **Leveraging expertise and opportunity** to expand successful Research Experiences for Teachers (RET) programs. Collaboration around RETs-Cross-site collaboration continued between Andrews Forest (AND), Arctic (ARC) and Santa Barbara Coastal (SBC) successful submission of NSF Award # 2147138 Research Experiences for Teachers Sites in Biological Sciences (BIORETS) proposal: [*Authentic Research Experience for Teachers at LTERs \(ARET@LTER\)*](#). Cohort #1 for the project were selected and two data literacy workshops were held for the candidates in conjunction with Dataspire. Field work is scheduled to take place in July/Aug this summer.

8. Currently active subcommittees or working groups:

The committee decided to revise our working groups to make them more useful as a source of information and expertise within the EOC. “Theme Teams” are comprised of representatives from multiple sites with expertise in a given area. They are expected to present once a year with examples of their work and to populate a folder on the shared drive with resources relevant for other sites wishing to grow their expertise or work in that area.

- a. Theme Teams:
 - i. Art and Data Visualization
 - ii. Teacher PD/SciCom Training
 - iii. REU Community Development
 - iv. Literature/Schoolyard Books
 - v. Marketing/Social Media
 - vi. Collaboration w/Offsite Groups
- b. Research Experiences for Teachers: bioRET proposal submission (see 7c).
- c. Data Literacy:
 - i. Dataspire workshops for ARETs Teachers
 - ii. [LTERdatasets R package](#) with Allison Horst and Julien Brun
 - iii. Continued collaboration between multiple sites that host Data Jams. Discussions included judging rubrics and procedures and evaluation.

- iv. Data Nuggets completed first efficacy study, funded by NSF DRK-12. Continuing program evaluation through new NSF IUSE study.
- d. Professional Development: Online workshops, e.g. see 7biii

9. Priorities for the coming year - request for support from Network office?

- a. Increase cross site collaborations
- b. Develop shared resources available on-line (G Drive) for mid-term site reviews and renewal proposals, as well as other documents that can serve as helpful examples for sites starting new programming that currently exists at other sites.
- c. We will also be supporting theme teams by devoting meeting time to key topics.
- d. Dissemination of digital products and virtual workshops to more participants.

10. Any recent or upcoming changes in leadership, purpose, or process: Yes. At the ASM, the committee elected a new co-chair, Alexandra Rose (MCM), who took over for the exiting Kara Haas (KBS). Scott Simon's term will end in fall 2023. Meeting org changes and theme teams.

11. Do you see specific opportunities for improving network coordination (or coordination with other networks) that are of interest to your committee?

- a. If so, are there specific ways that the network leadership (PIs, LNO) could support your committee to realize those opportunities?
 - i. We would like the resources and opportunity to develop a science education research agenda for work with K-12 students and teachers across the Network.
 - 1. At site reviews we are often asked for evidence of the impact of our programming, but the budget for BI does not support this.
 - 2. In order to have information to guide our Diversity, Equity and Inclusion goals (site-based and network wide) we need a supported effort to evaluate participant experiences and research long-term impacts on participants.
 - a. For example, undergraduate career choices after REUs.
 - 3. Resources are needed for dissemination of all sites' education and outreach products and opportunities. With all of the new digital content (from videos to online lessons) that have been created, we need support in sharing these products more broadly. This could be realized with an information manager type position that is dedicated to working with the EOC through the LNO.
 - 4. It would be wonderful to have an Education/EHR representative on the NSF program officer team.

- ii. We'd like a way (outside of the EOC) for the social scientists on site research teams (including education researchers) across the Network to engage.