

KBS K-12 Partnership 2018 Spring Workshop – Wednesday, April 18th

**Conservation**

8:00am **Breakfast, Introductions, Announcements Auditorium**

8:30am **Plenary Speaker: Dr. Nick Haddad,** MSU Professor at KBS **Auditorium**

*Biodiversity Conservation in Degraded Landscapes*

9:30am **Concurrent Session Teasers Auditorium**

10:00am **Concurrent Session 1**

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| A. **Digital Data Nuggets: real research, real data, real classrooms** (M,H) Organizers: [Melissa Kjelvik](https://mkkjelvik.wordpress.com/) & Elizabeth Schultheis | **Terrace Room** |
| **B. Designing teacher “cheat sheets” on new or difficult concepts in ecology** (All)  Organizers: Bonnie McGill | **Stack Bldg**  **Room 139** |
| C.  **Social Science in the classroom**  Organizer: Adam Reimer | **Stack Bldg**  **Room 141** |

11:00am **Break**

11:15am **Concurrent Session 2**

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| A. Organizer: | **Terrace Room** |
| B. **The snacks in your backyard: Wild edible plants of Michigan** (H)  Organizer: Danielle Zoellner | **Stack Bldg Room 139** |
| C. **Argumentation: the basics of claims, evidence, and reasoning in elementary classrooms** (E)  Organizers: Sara Syswerda | **Stack Bldg**  **Room 141** |
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12:15pm **Lunch** **McCrary Dining Hall**

1:15pm **Concurrent Session 3**

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| A. **Clip Mobile Challenge, Junk Drawer Robotics** (E, M)  Organizer: Janis Brinn | **Terrace Room** |
| B. **Designing NGSS lessons: Constructing units based on what you want the students to learn without giving away the punchline** (E)  Organizers: Sara Syswerda | **Stack Bldg Room 139** |
| C.  Organizer: | **Stack Bldg**  **Room 141** |

2:15pm **Break**

2:30pm **Concurrent Session 4**

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| A. **Clip Mobile Challenge, Junk Drawer Robotics** (E, M)  Organizer: Janis Brinn | **Terrace Room** |
| B. **A Living Legacy: Trees of the Kellogg Estate** (All)  Organizer: Kara Haas | **Stck Bldg Room 139** |
| C. **Data Nuggets** (M,H) Organizers: Joelyn de Lima | **Stack Bldg Room 141** |

3:30pm **Group Brainstorm – Auditorium**

4:00pm **Evaluation & Adjourn Auditorium**

**The evaluation form can be found online at this link:**

**If you are unable to access the form at the moment, please let a workshop coordinator know.**

**Session Descriptions** (listed in order they occur in the schedule overview)

**Plenary: Biodiversity Conservation in Degraded Landscapes**

*Speaker: Dr. Nick Haddad*

**Digital Data Nuggets: real research, real data, real classrooms** Middle & High School

*Organizers:* [*Melissa Kjelvik*](https://mkkjelvik.wordpress.com/) *& Elizabeth Schultheis*

Students struggling with data? Digital Data Nuggets are free NGSS-aligned resources that help students ask their own questions, explore digital platforms, and utilize reliable sources of LTER data.

**Designing teacher “cheat sheets” on new or difficult concepts in ecology** All Ages

*Organizer: Bonnie McGill*

Wish you could brush up on the nitrogen cycle over a coffee break? Need a quick update on climate science? In this session we’ll brainstorm how to design a series of teacher cheat sheets (actual name TBD) to address common gaps in teacher knowledge that will build their confidence in these topics and help improve their ability to engage with students on these topics. I will bring a rough draft of a sample to share with workshop participants and will elicit your feedback on whether or not this is a useful idea, how to make it more useful, topics for the series to address, level of detail, how to format the text and images, medium for communication (shareable PDF, website, twitter, etc.), how to reach teachers, and everything in between! My personal motivation for this project is to hope to have something in hand to continue to engage with K-12 science educators as I transition from graduate school to a postdoc. I know that “workshop-ing” this with our KBS GK-12 teachers will set me in the right direction!

**Social Science in the Classroom** \_\_\_\_\_ School

*Organizer: Adam Reimer*

**The snacks in your backyard: Wild edible plants of Michigan** High School

*Organizer: Danielle Zoellner*

**Argumentation: The basics of claims, evidence, and reasoning** Elementary School

**in elementary classrooms.**

*Organizer: Sara Syswerda*

In this session, teachers will learn hour to integrate claims-evidence-reasoning into classroom discussions and writing assignments. Teachers will be able to explore what makes good evidence and how to scaffold students towards building more effective scientific arguments. Teachers will be introduced to the KLEWS chart as a scaffold for constructing arguments as a classroom group.

**Designing NGSS lessons: Constructing units based on what you** Elementary School

**want the students to learn without giving away the punchline**

*Organizer: Sara Syswerda*

During this session, teachers will explore backwards design and how teachers can construct units to help students make claims about what is going on based on the evidence you present to them during their units. Teachers will think about the standards in their grades what types of experiences students need to reach those standards.

**Clip Mobile Challenge, Junk Drawer Robotics** Elementary & Middle School

*Organizer: Janis Brinn*

The 4-H Robotics curriculum is a series of activities designed to make STEM engaging and meaningful to youth. The 4-H Robotics activities and projects are based on the National Science Education Standards and Standards for Technological Literacy.  They focus on developing abilities in science, math, engineering, and technology through the Experiential Learning Model of Do, Reflect, Apply.

Web site for the curriculum:  <http://www.4-h.org/resource-library/curriculum/4-h-robotics/junk-drawer-robotics>

**A Living Legacy: Trees of the Kellogg Estate** All Ages Organizer: Kara Haas

In this session, we will investigate the trees of the Kellogg Estate. Many were planted in the late 1920s and are original to the estate. Each tree on the estate has a unique story to tell. Teachers will walk away from this session able to id the trees of the Kellogg estate, with historic photos of trees on the estate, and the ability to take tree measurements.