Conference Abstract

A Model for Creating Connections and Building Collections-Based Curricula for Pre-College Educators

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Abstract

Science is increasingly emphasized in high school classrooms and compliments current Science, Technology, Engineering, and Math (STEM) and Science, Technology, Engineering, the Arts, and Math (STEAM) educational initiatives. Successful educational programs and activities must now be aligned to state and national science standards, including Next Generation Science Standards (NGSS). The NGSS contain three dimensions: practices, crosscutting concepts, and disciplinary core ideas. Natural history collections and collections data naturally complement these three dimensions. However, many educators are unfamiliar with collections and unaware of the resources available through data aggregators such as the Integrated Digitized Biocollections (iDigBio). How can we make educators aware of these resources and empower them to implement these resources as educational tools in their classrooms?

At the 2016 Incorporating K-12 Outreach into Digitized Collections Programs workshop and 2017 National Science Teacher Association meeting, iDigBio staff discussed these questions with educational experts from the United States. The consensus was that activities needed to align with appropriate teaching standards, as a bare minimum, and that

building relationships with the target audience was crucial to introducing new educational materials into the classroom. Once educators become comfortable and familiar with new resources via hands-on training, they would be more likely to implement them into their respective classrooms. In July 2018, a 3-day workshop "Drawers, Jars, and Databases: Teaching the Hidden Science of Natural History Museums" was held at the North Carolina Museum of Natural Sciences (NCMNS) in Raleigh. The workshop was designed to serve as a pilot program to determine if training and building of relationships with local educators will increase use of digitized collections data in the classroom. Partners hosting this workshop included staff from iDigBio, the MicroFungi Thematic Collections Network, and NCMNS. This presentation will expand upon methods used to address and achieve workshop goals of increasing the knowledge of natural history collections and collections data, as well as, increasing the competency for implementing collections-based activities utilizing data aggregators in the classroom.

Keywords

Presenting author

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