

Preview of Award 0956129 - annual Project Report

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Cover

Federal Agency and Organization Element to Which Report is Submitted:

4900

Federal Grant or Other Identifying Number Assigned by Agency:

0956129

Project Title:

RCN-UBE: Advancing Integration of Museums into Undergraduate Programs (AIM-UP!)

PD/PI Name:

- Joseph A Cook, Principal Investigator
- Scott V Edwards, Co-Principal Investigator
- Stefanie M Ickert-Bond, Co-Principal Investigator
- Eileen A Lacey, Co-Principal Investigator

Recipient Organization:

University of New Mexico

Project/Grant Period:

05/01/2010 - 04/30/2015

Reporting Period:

05/01/2012 - 04/30/2013

Submitting Official (if other than PD/PI):

- Joseph A Cook
- Principal Investigator

Submission Date:

04/19/2013

Signature of Submitting Official (signature shall be submitted in accordance with agency specific instructions)

Joseph A Cook

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Accomplishments

*** What are the major goals of the project?**

The primary goal of this RCN-UBE, entitled AIM-UP! (Advancing the Integration of Museums into Undergraduate Programs), is to develop a network of educators committed to increasing the use of natural history collections in undergraduate learning. In addition to establishing connections among instructors from diverse institutions, the network seeks to develop novel tools, exercises, and pedagogical perspectives aimed at incorporating the vast physical, genetic, and bioinformatic resources of museums into the undergraduate student training experience.

*** What was accomplished under these goals (you must provide information for at least one of the 4 categories below)?**

Major Activities:

- A Annual All-Hands Meeting museums and bioinformatics (e.g., genetics and genomics)
 - Annual Web-based seminar to multiple institutions
 - Module outlines and development
 - Integration of museum-based teaching to other disciplines
 - Coordination and interaction with other RCNs (CollectionsWeb, ScienceCaseNet) and digital initiatives (e.g., iDigBio, IPlant, TCNs, VertNet, Arctos, MapofLife, TreeofLife)
 - Poster presentations at conferences (e.g., American Indians in Science and Engineering Society annual conference, Evolution Society)

Specific Objectives:

1. develop new ways to use specimens and associated data
2. increase awareness of educational resources contained in natural history collections
3. promote understanding of collections and specimen- based science
4. increase data accessibility/data portals (front end for database)
5. partner with non-traditional users
6. establish international collaborations – (e.g., translate modules into Spanish)

Significant Results:

New Modules (e.g., CoalBall, Reading Primary Literature-an Island Example)

Publications

All-Hands Meetings at Harvard University 10-13 April 2013—exchanges of ideas

Web-distributed Seminars—Genomes and Museums, Spring Semester 2013, Harvard University, University of New Mexico, Occidental College, University of California Berkeley

Art and Biology website, dispersion modules, and short videos of 3 two day workshops.

ASRA (Alaska Summer Research Academy) Plant Genetics Module designed and delivered, 10-day summer course, University of Alaska Fairbanks

Key outcomes or Other achievements:

New modules

Growing recognition of potential use of specimens and associated data in active learning

New ways of integrating different fields into the undergraduate education experience

*** What opportunities for training and professional development has the project provided?**

Ongoing incorporation of new network members is increasing the number of educators aware of the value of natural history collections to undergraduate teaching.

Participation by network members in other RCN's and educational workshops is improving diversity and quality of materials offered by AIM-UP! to assist undergraduate instructors.

*** How have the results been disseminated to communities of interest?**

Continued development of the AIM-UP.org website allows educators and museum professionals to learn about the opportunities, download dispersion and education modules, and interact with others with similar interests.

Presentations at national meetings.

*** What do you plan to do during the next reporting period to accomplish the goals?**

Regular conference calls among PI's

Annual workshop in Feb 2014, UC Berkeley host

Seminar, spring 2014, UC Berkeley host, broadcast to other institutions

ASM workshop submitted for June 2014

Session "Using Online Tools To Make Museum Collections Accessible" at Association of Science and Technology Centers Annual Conference, October 2013

One week course at the Universidad de la Republica, Montevideo, Uruguay (June 1-6 2013)

Two 3-day workshops in Peru at the Universidad Nacional de San Agustin and the Arequipa Museum of Natural History in July 2013.

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Products

Books

Book Chapters

Conference Papers and Presentations

- Kohli, B., J. Malaney, K. Bell, and J. Cook. (2012). *Aim-UP! Integrating museums into undergraduate education*.. Evolution Society., Ottawa, Canada. Status = OTHER; Acknowledgement of Federal Support = Yes
- López, A., Ickert-Bond, S.M. and K. Winker. (2012). *Improving STEM Teaching Through Integrating and Building Natural History Collections: Applications for Understanding Climate Change, Sustainability, and Adaptation*.. American Indian Science and Engineering Society National Conference. Anchorage, Alaska. Status = OTHER; Acknowledgement of Federal Support = Yes
- Winker, K., Ickert-Bond, S.M., and A. López. (2012). *Using Natural History Collections in Biodiversity Research and Education at a University Museum*.. AISES National Conference <http://www.aises.org/nationalconference>. Anchorage, Alaska. Status = OTHER; Acknowledgement of Federal Support = Yes

Inventions

- Nothing to report.

Journals

- Dunnum, J. L., and J. A. Cook. (2012). Gerrit Smith Miller: His influence on the enduring legacy of natural history collections.. *Mammalia*. 76 365-373. Status = PUBLISHED; Acknowledgment of Federal Support = Yes ; Peer Reviewed = Yes ; DOI: 10.1515
- Ho, S-H. and J. A. Cook. (2013). Co-Evolving Pedagogies.. *ARID: A Journal of Desert Art, Design and Ecology*.. 2 (1), 1-8. Status = PUBLISHED; Acknowledgment of Federal Support = Yes ; Peer Reviewed = Yes ; OTHER:

Licenses

- Nothing to report.

Other Products

- Nothing to report.

Other Publications

- Lacey, E., Cook, J., Edwards, S. and Ickert-Bond, S. (2012). *AIM-UP!: Increasing Integration of Museums into Undergraduate Education*. Presentation at ScienceCasetNet meeting. Status = OTHER; Acknowledgement of Federal Support = Yes
- Hanken, J., L. McDade, J. Beach J. Cook, L. Ford, R. Gropp. and B. Theirs (2012). *Implementation Plan for a Network Integrated Biocollections Alliance* (<http://www.aibs.org/public-policy/biocollections.html>). White paper on how to implement

digitization of collections including discussion of education opportunities.. Status = PUBLISHED; Acknowledgement of Federal Support = No

Patents

- Nothing to report.

Technologies or Techniques

- Nothing to report.

Thesis/Dissertations

Websites

- *Advancing the Integration of Museums into Undergraduate Programs*
<http://www.aim-up.org/>

This site provides an overview of activities in this RCN-UBE and includes links of educational modules, activities and resources.