



QUBES

The Power of **Biology** × **Math** × **Community**



NABT

National Association of
Biology Teachers

Design, implementation, and evaluation of faculty mentoring networks: A model for promoting faculty teaching scholarship

NABT Symposium

Saturday, November 5th, 2016

Denver Colorado



Today's Presenters and Discussants

Kristin Jenkins

Gaby Hamerlinck

Arietta Fleming-Davies

Kaitlin Bonner

Kristine Grayson

Dan Pavuk

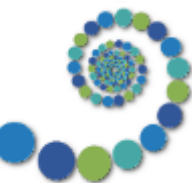
Sam Donovan



Bowling Green State University



Today's Presenters and Discussants & Support Team



NIMBioS

National Institute for Mathematical and Biological Synthesis



QUBES

The Power of Biology × Math × Community

Presenters, Discussants, Support Team, & Partners



QUBES Community



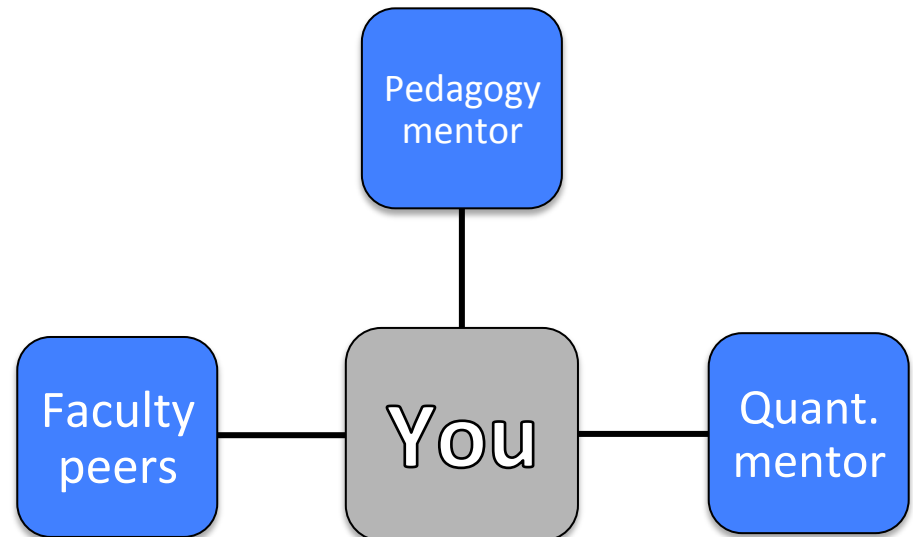
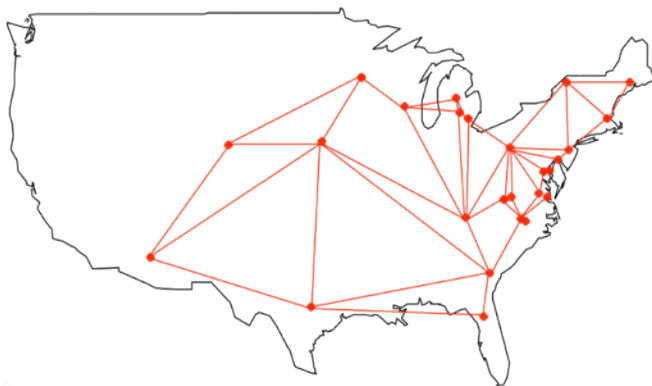
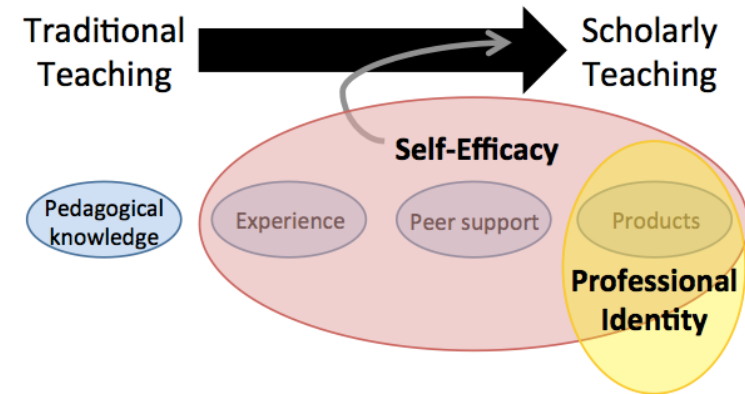
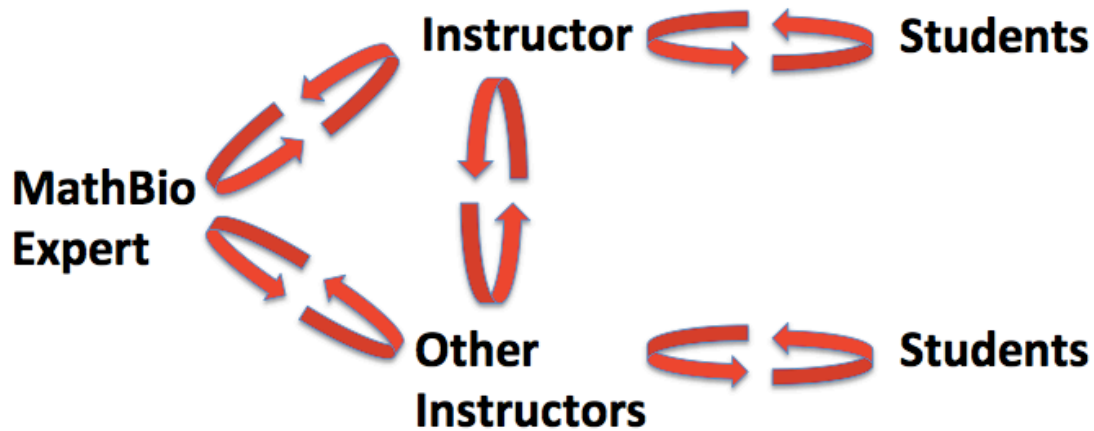
QUBES: a virtual synthesis center for quantitative biology education

**Quantitative
Undergraduate
Biology
Education and
Synthesis**

Synthesis Centers:

- Focus on big challenging problems
- Mobilize a community
 - Coordinate activities
 - Support collaboration
 - Provide key resources

Faculty Mentoring Networks



Want to use real data in your classroom?



Join us at the Ecological Society of America annual meeting to kick-off an online network featuring hands-on, data-driven teaching modules!

Motivating quantitative biology with open-inquiry image analysis



ImageJ
Image Processing & Analysis in Java

Learn the basics of image analysis, teach fascinating biology research stories, and get students motivated to do math and stats!

Teaching quantitative biology with agent-based models and NetLogo



Learn the basics of agent/individual-based modeling, Netlogo programming, and how to get your students using models!

FMN Design

- Build online faculty learning communities.
- Integrate high quality resources and quantitative biology expertise.
- Work collaboratively to pursue a meaningful project.
- Share products and process with the broader community

Anticipated Outcomes:

- faculty empowered to continue using a scholarly approach
- connecting projects with communities
- Open Educational Resources and models for how things can be customized for different teaching settings.

FMN Design

The focus is on supporting faculty participation in a scholarly teaching project

- identifying a need or question to address
- reviewing a variety of existing resources
- learning new tools and techniques
- adopting and adapting materials for your teaching setting
- classroom implementation
- reflection, review and write-up

July 2015	Sep 2015	Nov 2015	Jan 2016	Mar 2016	May 2016	July 2016	Sep 2016	Nov 2016
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14 Agent-Based Modeling (I)

13 DryadLab (I)*

QBIB* 6

5 InTeGrate*

ESA DataDiscovery 16

18 ESA Scaling Up*

AIMS 9

5 DryadLab (II)


Agent-Based Modeling (II) 9

SimBio 14

83 BioQUEST*

Math Anxiety* TBD

10 HHMI*

 = topic-based FMN

 = module-based FMN

* = FMN had an in-person meeting

We are always recruiting for upcoming FMNs and looking for new ideas for programs and partnerships.

QUBES HAPPENINGS

[View all](#)

WORKSHOP

HAPPENING NOW



2016 ASM M(icro)OOCs: Improving Microbiology Students' Quantitative Skills

September 28–December 15

The [fall 2016 ASM M\(icro\)OOCs Course](#) is a four-part webinar series, sponsored by ASM and QUBES focuses on increasing quantitative biology in undergraduate education. Each of the four 60-minute sessions will address common issues around teaching quantitative skills and reasoning, ranging from dilutions to graphing to data analysis.

[Register](#)

FACULTY MENTORING NETWORK

[APPLY NOW](#)

InTeGrate Faculty Mentoring Network

January 02–May 15, 2017

QUBES FEATURED



QUBES Webinar: Metacognition interventions to reduce math anxiety in your students

As part of the Math Attitudes and Anxiety Faculty Mentoring Network, [Dr. Carrie Eaton](#) of Unity College will be giving a webinar on metacognition interventions to reduce math anxiety in your students. Her webinar will introduce participants to metacognitive interventions to help students reflect on their perception of the utility of mathematics and their attitudes towards math.

Date & Time: Tuesday, November 15, 2pm EST (1pm Central/12pm MT/11am PST)

[Learn more...](#)

QUBES BLOG

[View all](#)

Mathematical/Statistical ecology postdoctoral position

We are seeking a postdoctoral researcher in quantitative ecology to support a collaborative project involving investigators Mike McCoy at East Carolina University (<http://mikemccoylab.weebly.com/>), James Vonesh at Virginia Commonwealth University (<http://wp.vcu.edu/voneshlab/>), Ben Bolker at McMaster University (<http://ms.mcmaster.ca/~bolker/>), and Jeremy Wojdak at Radford University (<http://www.radford.edu/~jmwojdak/>).

This is a full-time, twelve-month appointment with the option of renewing for 1 - 2 additional years. The project integrates theoretical and experimental approaches to investigate the importance of predator diversity for food web dynamics and ecosystem function with a focus on a riverine rock pool system.

[Read more...](#)

qubeshub.org

Outline for the remainder of the symposium

- Gaby Hamerlinck will share information about the Data Discovery FMN and some upcoming opportunities.
- Kristen Jenkins will moderate a panel of FMN participants and (near) future QUBES leaders
 - Kaitlin Bonner
 - Kristine Grayson
 - Dan Pavuk
- Arietta Fleming-Davies will share information about the BIOMAPP Project and a short survey
- Wrap up with more information about future directions and how you can participate.