



**Framingham**  
State University

# Scholars on the Hill

FRIDAY, APRIL 14, 2017

MCCARTHY CENTER, ALUMNI ROOM

2:30 – 3:30 P.M.

**CELTSS** *Center for Excellence in Learning,  
Teaching, Scholarship, and Service*

# Scholars on the Hill

2:30 p.m.	<b>WELCOME</b> Dr. Elaine Beilin Director, CELTSS
2:35 p.m.	<b>PRESENTATION</b> Richard Beckwitt
2:55 p.m.	<b>PRESENTATION</b> Brian Bishop
3:15 p.m.	<b>QUESTIONS AND DISCUSSION</b>

## Presentations

Richard Beckwitt

Genetic origins of white-tailed deer on Nantucket Island: a pretty story ruined by an ugly fact.

White-tailed Deer *Odocoileus virginianus*, the common deer of eastern North America, currently number approximately 2-3000 on Nantucket Island. Although white-tailed deer remains are known from Wampanoag archeological sites on the island, few or no deer were noted by the beginning of the 20th century. In 1922 a single male deer was found swimming in Nantucket sound and brought ashore by island residents. After a few years people on the island imported two female deer from Michigan as companions for the buck that was brought ashore. This scenario implies that the thousands of deer on Nantucket are descended from these

three original animals. This known history of a population is a unique situation where studies on wild vertebrate genetic bottlenecks and founder effect can be conducted. Mitochondria, small organelles found in cells, contain their own DNA. In mammals, this mitochondrial DNA (mtDNA) is maternally inherited (passed down only from the mother to her offspring). This makes mtDNA ideal to test whether the popular story of the origins of white-tailed deer on Nantucket is true. If all of the deer currently on the island are descended from only two founding females, then there should be at most two distinct mtDNA sequence types found in Nantucket deer. Using mtDNA extracted from deer feces, amplified by the polymerase chain reaction (PCR), and sequenced, we found three very different sequences in a sample of six deer from Nantucket. In addition, one of the sequences from Nantucket was identical to a sequence from mainland Connecticut. There are three possible explanations: (1) Deer remained undetected on Nantucket throughout the 19th and early 20th centuries. (2) Deer can occasionally move between Nantucket and the mainland or other islands. (3) Deer have been moved to Nantucket, perhaps by hunters, without public knowledge. We are continuing this work, to examine a larger sample of deer from Nantucket, as well as deer from mainland New England. This will allow us to provide a more complete picture of the genetic origins of white-tailed deer on Nantucket.

Brian Bishop

Research at the Belfast School of Art, Ulster University

During the spring semester of 2016 whilst I was serving as Artist-in-Residence and Visiting Lecturer at the Belfast School of Art at Ulster University in Northern Ireland, I began a new body of creative work and research. In this presentation I will present excerpts from my studio practice documenting the development of the project I undertook in Belfast. Additionally, I will present some contextual background and research into contemporary developments in my discipline from museum exhibitions in London, Dublin, Galway and Munich.