



The National Institute for Mathematical and Biological Synthesis

cordially invites you to an

Interdisciplinary Seminar

Dr. Maria Servedio

on

“Models and mechanisms of male mate choice”

Tuesday, February 16, 2016

3:30-5 p.m.

Reception & refreshments at 3 p.m.

Hallam Auditorium, Room 206
1122 Volunteer Boulevard



Maria Servedio is a professor of biology at the University of North Carolina, Chapel Hill. Her research centers on determining the evolutionary mechanisms that produce and maintain biodiversity. A particular focus is species-specific mate choice, one of the most powerful and fundamental mechanisms that maintain species integrity for co-occurring and closely related animal species. Another focus addresses fundamental questions in mate choice evolution. In addition to these two major foci, several side projects address other questions of interest in evolution and behavior, including work on the evolution and effects of learning.

Abstract: Male mate choice in polygynous systems differs from female mate choice in fundamental ways. Mathematical models of the process uncover a hidden competition cost that makes the evolution of male preferences very difficult. I will first present a null model that pinpoints this cost. I will then explore three categories of mechanisms that would seem to have the potential to allow male preferences to evolve despite this cost: characteristics of the female trait, characteristics of the male behavior, and alterations of the mating system.

