



# Darwin Day Celebration

Saturday, February 9<sup>th</sup> @ 7:00 PM  
Lawrence University; Appleton, WI  
Science Hall, Room 102

Please join us for this special Darwin Day event on Saturday, February 9<sup>th</sup> at Lawrence University. This event is designed to celebrate Darwin's birthday and contributions to science. All students, educators and scientists are welcome. Food and door prizes will be provided.

## Event Schedule

7:00 PM Keynote Presentations & Discussions (below)  
8:30 PM Movie: *Flock of Dodos*  
10:00 PM Social at the Viking Room on campus

### ***Genetics and Speciation***

Beth De Stasio, Raymond J. Herzog Professor of Science  
& Associate Professor of Biology, Lawrence University

Using one or two recent examples, we will explore the connection between genetic change, phenotypic change, and speciation. Advances in our ability to dissect the genetic component of complex traits such as an organism's morphology and color have allowed scientists to understand the changes that have led to reproductive isolation and subsequent speciation within particular populations. We will discuss the importance of reproductive isolation to speciation and mechanisms by which organisms can be isolated even when living in the same environment. Two examples will be explored.

### ***Evo-devo and its contributions to Darwin's legacy***

Brigid O'Donnell, Postdoctoral Fellow of Biology, Lawrence University

Evolutionary developmental biology (or "evo-devo") is a relatively new field of biological inquiry that elegantly illustrates both common ancestry and descent with modification in organic beings as envisioned by Charles Darwin. Evo-devo has provided us with a powerful perspective to explore the proximate mechanisms underlying the genesis of form as well as the evolutionary "tinkering" of developmental pathways across multiple scales of biological organization (from genes to entire structures!). I will highlight two specific case studies that have supplied exciting insights into the origin and evolution of the phenotype: the origin of body plans and the developmental basis of eyespot patterns in butterfly wings.

### ***Coevolution of hosts and their parasites***

Judith Humphries, Assistant Professor of Biology, Lawrence University

The coevolution of parasites and their hosts is often described as an "Arms Race", where for example, the parasite evolves to increase the probability of infecting its host but in response, the host coevolves to better defend itself against the parasite. This is consistent with the "Red Queen Hypothesis" where both host and parasite must continually evolve in order to maintain fitness relative to each other. The relationship between parasitic brood birds such as cuckoos, and their hosts is often used to exemplify this hypothesis.



Please respond to [president07@wsst.org](mailto:president07@wsst.org) if you plan to attend

**Sponsored by Lawrence University and  
The Wisconsin Society of Science Teachers**

