



Colloquium

The Institute Colloquium: Demographic and evolutionary genetics of polymorphic sexual

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Host:

Plant populations of many species are reproductively subdivided into morphologically distinct mating groups. These polymorphic sexual systems have been of considerable interest to evolutionary biologists since Darwin's classic work

Different forms of flowers on plants of the same species (1877). Indeed, many fundamental concepts in genetics, including linkage, supergenes, epistasis and frequency-dependent selection were developed, in part, on early studies of plants with sexual polymorphisms. In this talk I will review our recent studies on two of the most attractive sexual polymorphisms for evolutionary analysis—dioecy and heterostyly—and address several outstanding issues concerned with their evolution and maintenance. For dioecy, I discuss the demographic and genetic mechanisms governing biased sex ratios in populations, and some recent insights into the evolution of plant sex chromosomes. For heterostyly I examine the conditions favouring the evolutionary breakdown of this floral polymorphism, and the demographic and genomic consequences of the transition from outcrossing to selfing. Throughout I stress the importance of intra-specific variation for studies of evolutionary transitions in plant reproductive systems.

Monday, November 11, 2013 04:30pm - 05:30pm

Raiffeisen Lecture Hall, Central Building



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