



Colloquium

Institute Colloquium: Two flies on an island: Speciation in African *Drosophila*

Jerry Coyne

The University of Chicago

Host:

The genetic basis of morphological, behavioral, and reproductive differences between species can give us clues about the evolutionary processes that yield new species. In this talk I summarize ten years of work on two closely related species of *Drosophila* that live on the oceanic island of Sao Tome, 250 km off the coast of Gabon. After describing the numerous reproductive barriers, both ecological and physiological, that separate these species, I summarize the genetic basis of their differences in pigmentation and of their sexual isolation and the sterility of male hybrids. Because the species form hybrid zones where their ranges overlap, we also can measure the degree of introgression between the two species, and show that it differs markedly depending on the region of the genome analyzed. There are not "islands of speciation" but rather "islands of introgression". Finally, I describe the hybrid zones between these species and the role of hybridization in producing heightened reproductive isolation ("reinforcement"). The presence of a hybrid zone in an area inhabited by only one of the two species presents us with an unsolved puzzle.

Monday, October 15, 2012 04:30pm - 05:30pm

Raiffeisen Lecture Hall, Central Building



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