

Education resource focuses on teaching population genetics using current research

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Genetics and life sciences instructors, who teach undergraduate students about population and evolutionary genetics, have a new teaching resource: the March 2013 Primer in the Genetics Society of America's journal *Genetics* uses current research on transcriptome divergence in two closely related species of field crickets to explain population genetics.

The Primer, "[Population Genetics](#) and a Study of Speciation Using Next-Generation Sequencing," by Patricia J. Wittkopp, Ph.D., a professor at the University of Michigan, explains how undergraduate instructors can, in their classrooms, use the article, "Patterns of Transcriptome Divergence in the Male Accessory Gland of Two Closely Related Species of Field [Crickets](#)" by Andrés et al., published in the February 2013 issue of *GENETICS*.

The Primer details background information on the *Gryllus firmus* and *Gryllus pennsylvanicus* cricket systems and the use of transcriptome sequence variation to study speciation. Dr. Wittkopp provides cogent explanations of the [sequencing technologies](#) used as well as some of the results of the paper, but leaves most of the results for students to interpret on their own. To give students the tools they need to interpret the data, Dr. Wittkopp provides a concise and accessible overview of the necessary genetics concepts on which the research of Andrés et al. is based. For instructors, Dr. Wittkopp provides guidance on how to use the primary literature in the classroom as well as questions for student discussion.

"By focusing on contemporary scientific literature, students engage in the learning process and are encouraged to make their own [scientific discoveries](#)," said Elizabeth A. De Stasio, Ph.D., a professor at Lawrence University in Appleton, Wisconsin, and editor of the Primer section in the Genetics Society of America's journal, *Genetics*.

Primers are scheduled for the April, May, and June issues of *Genetics*. "Providing valuable educational resources like this, which enhance the quality of genetics education, teaching and learning, is a mission of GSA," said Mark Johnston, Ph.D., Editor-in-Chief of *Genetics*. "These articles help educators engage students in critically analyzing current primary research, a vital part of research training."

More information: Patricia J. Wittkopp. Population *Genetics* and a Study of Speciation Using Next Generation Sequencing: An Educational Primer for Use with "Patterns of Transcriptome Divergence in the Male Accessory Gland of Two Closely Related Species of Field Crickets" *Genetics*, March 2013, Volume 193, Number 3, 671-675.

Provided by Genetics Society of America

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