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# What can genomics and quantitative genetics tell us about sexual selection and its evolutionary significance?

Thursday 30 May 2013, 1pm

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Gould Seminar Room, (Rm 235) Gould Building (Bldg. 116), Linnaeus Way, ANU



Sexual selection is a strong form of selection in natural populations that has long captured the attention of evolutionary biologists. Although its contribution to the evolution of elaborate sexual ornaments and armaments is relatively uncontroversial, the broader spectrum of traits and sequence polymorphisms affected by sexual selection remain poorly understood. Specifically, we lack an understanding of the types of DNA sequence variants favored by sexual selection and whether these are the same as those favored by natural selection. In this seminar, I outline the different molecular approaches we are taking to understand sexual selection at the

nucleotide level in the Australian fruit fly, *Drosophila serrata*. I will integrate our data from candidate gene association studies of sexually-selected traits and sexual fitness, resequencing of an experimental evolution study, and fine-scale mapping via next-gen sequencing to identify a major-effect variant responsible for a latitudinal polymorphism in the sexually-selected cuticular hydrocarbons of *D. serrata* in north Queensland.

Presented by

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This lecture is free and open to the public

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<http://biology.anu.edu.au/News/events-eeeg.php>

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