



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)

/ Publications of IISER Mohali (/jspui/handle/123456789/4)

/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/4479>


Title:	Divergence of responses to variable socio-sexual environments in laboratory populations of <i>Drosophila melanogaster</i> evolving under altered operational sex ratios
Authors:	Maggu, Komal (/jspui/browse?type=author&value=Maggu%2C+Komal) Ahlawat, Neetika (/jspui/browse?type=author&value=Ahlawat%2C+Neetika) Arun, Manas Geeta (/jspui/browse?type=author&value=Arun%2C+Manas+Geeta) Meena, Abhishek (/jspui/browse?type=author&value=Meena%2C+Abhishek) Prasad, Nagaraj Guru (/jspui/browse?type=author&value=Prasad%2C+Nagaraj+Guru)
Keywords:	Copulation duration <i>Drosophila melanogaster</i> experimental evolution operational sex ratio
Issue Date:	2021
Publisher:	Evolution
Citation:	Evolution, 75(2), 414-426.
Abstract:	Post-copulatory sexual selection (PSS) is an important selective force that determines fitness in polyandrous species. PSS can be intense in some cases and can drive the evolution of remarkable ejaculate properties. In males, investment in ejaculate plays an important role in the outcome of PSS. Thus, males are expected to adaptively tailor their ejaculate according to the perceived competition in their vicinity. Plastic responses in ejaculate investment to variation in intrasexual competition are disparate and widespread in males. We investigated the evolution of plasticity in reproductive traits using <i>Drosophila melanogaster</i> populations evolving for more than 150 generations under male- or female-biased sex ratios. When exposed to different numbers of competitors early in their life, males from these two regimes responded differently in terms of their copulation duration and sperm competitive ability. In addition, the effect of this early life experience wore off at different rates in males of male-biased and female-biased regimes with increasing time from the removal of competitive cues. Furthermore, our study finds that males change their reproductive strategies depending upon the identity of rival males. Together, our results provide evidence of the evolution of male reproductive investment that depends on socio-sexual cues experienced early in life.
Description:	Only IISER Mohali authors are available in the record.
URI:	https://doi.org/10.1111/evo.14138 (https://doi.org/10.1111/evo.14138) http://hdl.handle.net/123456789/4479 (http://hdl.handle.net/123456789/4479)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format

Need To Add...Full Text_PDF..pdf (/jspui/bitstream/123456789/4479/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF..pdf)	Only IISER Mohali authors are available in the record.	15.36 kB	Adobe PDF	View/Open (/jspu
--	--	-------------	--------------	----------------------------------

[Show full item record \(/jspui/handle/123456789/4479?mode=full\)](#)

 [\(/jspui/handle/123456789/4479/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.