

Male flies: Not the world's most sensitive lovers

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In order to increase their chances of reproductive success, male flies of the species *Drosophila montana* try to copulate for much longer than the females would like. Researchers writing in the open access journal *BMC Evolutionary Biology* have shown that females engaged in extended intercourse wait longer before they mate again, increasing the first fly's chances of fathering offspring.

Dominique Mazzi, from the University of Jyväskylä, Finland (now at ETH Zurich, Switzerland) and Kirsten Klappert, from the University of St Andrews, UK (now at EAWAG/ETH Duebendorf, Switzerland), led a team of researchers whose experiments explain why males favor longer copulation times. They said, "By inducing a mating delay in the female, the persistent male extends the time over which his sperm is exclusively used to sire progeny, and reduces the likelihood of the female being reinseminated by a competitor".

In *Drosophila montana*, males and females seem to struggle for control over the duration of copulation. Once a female has allowed a courting male to mount, and after an initial phase of apparent harmony, copulating pairs enter an obvious conflict phase. In this phase, females conspicuously attempt to dislodge the mounting male by vigorously kicking with their hind legs, flicking their wings or attempting to move away.

The researchers found that when females were prevented from dislodging the copulating male, matings lasted one-and-a-half times



longer than when female movement was unconstrained. This indicates that female resistance normally shortens copulation duration, although the length of the conflict stage indicates that persevering males who hold on gain a significant extension of copulation time. Protracting copulation in this way does not lead to enhanced insemination, or to increased progeny production from the union concerned. However, if the scientists interrupted copulation early, and other males were available, the <u>females</u> soon mated with another partner.

Extended copulation correlated with the presence of male competitors, suggesting that the male drive to prolong copulation is spurred by the presence of competitors, and is effective in keeping this competition at bay.

Source: BioMed Central (<u>news</u>: <u>web</u>)

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