

By: [Gita 2008](#), Science Editor

[Sex Race Is Not Always Won by Aggressive Males](#)

Fruit flies show it

The simple theory of natural selection says that the fittest males will father the next generation. But a new research published in journal PLoS One and carried out by a team at the University of Southern California shows that this is not the real case, explaining a paradox that goes from insects to humans: if the best fighters take the girls, why aren't all males hyperaggressive? But the mating game is more than fighting. Female fruit flies may choose males that win the fights, males who do not fight, and sometimes their choice does not have an obvious reason. This is a step forward in explaining the variation in aggressiveness in many species, humans included. "If aggression makes you more likely to father children, all males should be selected to be very aggressive. Male fruit flies (like humans and other animals) show a lot of genetic variation in aggression, and we wanted to find out why," said lead researcher Brad Foley, a post-doctoral researcher at USC. The authors found that no fighting strategies may function very well for getting a mate, a fact also found by previous researches made for example in lizards (both from [Europe](#) and [North America](#)) and [dung](#) and [sap beetles](#). "We showed in fruit flies that even the most genetically aggressive flies can have an Achilles heel, and lose against males who are (for the most part) wimps. There's no single way to win a fight, or win mates. Females didn't necessarily prefer aggressive males - some males mated less when they lost fights, but some males mated more if they didn't fight. Moreover, different females preferred different males. Unexpected interactions between individuals can define winners and losers (so-called 'chemistry'). In order to understand why flies, and humans, and other animals, are so genetically different from each other, we need to stop imagining there's a 'best' kind of strategy," said Foley.