Good males are bad fathers

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Contrary to predictions, males of high genetic quality are not very successful when it comes to fertilizing eggs. A new study on seed beetles by Swedish and Danish scientists Göran Arnqvist and Trine Bilde shows that when a female mates with several males, the males of low genetic quality are the most successful in fertilizing eggs. The study is published in this week's issue of *Science*.

In almost all animals, females mate with several different males, despite the fact that a single mating is often sufficient to fertilize her eggs. Multiple mating also carries costs to females, such as the risk of catching sexually transmitted diseases.

One commonly held belief is that this behaviour may allow females to choose the sperm of the male with highest genetic quality to fertilize her eggs. Professor Göran Arnqvist from the Department of Ecology and Evolution, Uppsala University and associate professor Trine Bilde from the Department of Biological Sciences, University of Aarhus, have tested this possibility directly for the first time and shown that it is not true.

Their study on seed beetles shows that, contrary to predictions, males of low genetic quality are more successful in fertilizing eggs. Males who gained the highest share of paternity were actually males with low genetic quality. These males also fathered offspring that did less well.

"The results support the suggestion that genes that are good for males may often be bad for their mates. Therefore, in beetles at least, multiple

mating does not award [females](#) with genetic benefits," says Göran Arnqvist.

Source: Uppsala University ([news](#) : [web](#))

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