

Size matters... if you're a rodent

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Promiscuity is common among female rodents, leading to competition between the sperm of rival males over who fertilizes the eggs. It now seems that possessing a longer penis may give males an advantage in this competition, according to new research to be published in the March issue of *The American Naturalist*.

Dr. Steve Ramm, an evolutionary biologist at the University of Liverpool, UK, compared the relative size of the penis bone in several mammal groups: "The data for rodents seem pretty clear cut. Species where sexual competition between males is most intense also tend to have the longest penises. But, interestingly, a similar pattern was not detected in either primates or bats."

Understanding the reasons for these differences will require a better understanding of the precise mechanisms through which male rodents benefit from longer penises, something which comparative data alone cannot address.

Overall, the rodent with the longest penis bone relative to its body size in the study was the Western harvest mouse, *Reithrodontomys megalotis*. "Everything's relative of course," explains Dr. Ramm, "so although big for its body size the penis bone in *R. megalotis* is still only 7 to 8 mm long. I don't think the phrase 'hung like a harvest mouse' will be catching on any time soon."

The study of genitalia has a long history in evolutionary biology. Because genitalia evolve very rapidly compared to other body structures, they are

often the only means through which scientists can tell two closely related species apart. Since their primary function is essentially the same in all animals, this great diversity in genital structure has been something of a puzzle. The new research in mammals adds to a growing body of evidence that sexual selection – competition between males and potentially also choice by females – is the driving force responsible.

Source: University of Chicago

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