

Long-term sexual intimidation may be widespread in primate societies

July 6 2017



A female baboon presenting to a male in a form of sexual solicitation (incitation to copulate). Credit: Alice Baniel

After observing the mating habits of chacma baboons living in the wild over a four-year period, researchers have found that males of the species

often use long-term sexual intimidation to control their mates. The findings reported in *Current Biology* on July 6 suggest that this mating strategy has a long history in primates, including humans, and may be widespread across social mammals—especially when males of a species are typically larger than females.

"This study adds to growing evidence that [males](#) use coercive tactics to constrain female [mating](#) decisions in promiscuous primates, thereby questioning the extent of sexual freedom left for females in such societies and suggesting that sexual intimidation has a long evolutionary history in primates—a taxonomic group that of course includes humans," says Alice Baniel at the Institute for Advanced Study in Toulouse, France.

Baniel says she and her PhD supervisors, Guy Cowlshaw from the Zoological Society of London, UK, and Elise Huchard at CNRS in Montpellier, France, were curious about male violence and sexual intimidation in the [baboons](#) living in Namibia in part because no one had ever witnessed a male baboon forcing a female to mate with him. They wondered if males might be coercing females in less obvious ways.

"When I was in the field and observing the baboons, I often noticed that males were directing unprovoked attacks or chases toward females in oestrus," Baniel says. "They also maintained close proximity and formed a strong social bond with one particular cycling female, from the beginning of their cycle until the end."



A male baboon attacking a female. Credit: Alecia Carter

She also noticed that males in those relationships were often aggressive toward their female partners. She wondered whether that aggressive behavior was paying off for the males by winning them more success in mating with those females over the long term.

To explore those dynamics, the researchers collected data on sex and aggression across four years in two large baboon groups. Their studies showed that fertile females suffered more aggression from males than pregnant and lactating females did. In fact, male aggression was a major source of injury for fertile females. Males who were more aggressive toward a certain female also had a better chance to mate with her when

she was close to ovulation.

Males didn't appear to harass females into mating with them or punish them soon afterward, they report. Rather, males appeared to take the long view. They would attack and chase particular females repeatedly in the weeks preceding their ovulation, apparently to increase their chances of monopolizing sexual access to them when the time was right. That behavior, the researchers say, "can be seen as a form of long-term sexual intimidation."

The researchers note that sexual intimidation was already known to occur in chimpanzee societies. The new study shows that the strategy occurs in other primate societies, strengthening the case for an evolutionary origin of human sexual intimidation.



A male baboon displaying his canines. Credit: Alecia Carter

"Because sexual [intimidation](#)—where aggression and matings are not clustered in time—is discreet, it may easily go unnoticed," Baniel says. "It may therefore be more common than previously appreciated in mammalian societies, and constrain female sexuality even in some species where they seem to enjoy relative freedom."

Baniel and colleagues will continue studying their baboons to explore variation in levels of male aggression toward their female mates.

"My feeling was that some males were more aggressive with females than others and that some females were 'happier' than others with their mate-guarding male," she says. "I would like to understand if several mating strategies could coexist among males, i.e., being chosen by [females](#) versus intimidating them."

More information: *Current Biology*, Baniel et al.: "Male Violence and Sexual Intimidation in a Wild Primate Society" [www.cell.com/current-biology/f ... 0960-9822\(17\)30714-5](http://www.cell.com/current-biology/fulltext/S0960-9822(17)30714-5) , [DOI: 10.1016/j.cub.2017.06.013](https://doi.org/10.1016/j.cub.2017.06.013)

Provided by Cell Press

Citation: Long-term sexual intimidation may be widespread in primate societies (2017, July 6)
retrieved 19 April 2024 from
<https://phys.org/news/2017-07-long-term-sexual-intimidation-widespread-primate.html>

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