**Max Planck Institute for Evolutionary Anthropology**

**NEWS**
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## Stress in bonobos

**Animals get stressed too. A new study on bonobos, one of our closest living relatives, reveals that life in the rainforest can be stressful.**

The results of the research show that adult males are more stressed when they are close to attractive females (those close to their ovulatory period). Because high ranking males are the ones that are more often in proximity to these females, they exhibit higher levels of stress than low ranking males. Behavioural observation by Martin Surbeck and colleagues from the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, indicate that the males feed less if they are close to attractive females and are also at a higher risk of being victims of aggression from other group members. Both factors can lead to higher stress levels and further studies will investigate the influences of these two factors separately. Stress was measured using cortisol, a hormone that has been established as an indicator of social and physical stress and that can be extracted from urine.

In bonobos dominance relations between the sexes are egalitarian, which means that some females are dominant over all the males. Aggressive behavior from high ranking females can therefore have serious consequences for males and the risks they take to be close to these females must result in a rewarding payoff. It is not surprising that stress was particularly high if sexually attractive females were in the group. During other times, high ranking males were not more stressed than low ranking ones. This is different from other social species in which males have to use constant aggression to maintain their dominance rank further indicating that aggressive behavior plays a minor role in establishing dominance rank among bonobo males.

[MS]

Original publication:

Martin Surbeck, Tobias Deschner, Anja Weltring , Gottfried Hohmann
**Social correlates of variation in urinary cortisol in wild male bonobos (*Pan paniscus*)**
Hormones and Behaviour, May 2012, http://dx.doi.org/10.1016/j.yhbeh.2012.04.013

Image:

Bonobo in Lui Kotale, Salonga National Park, Democratic Republic of Congo (Credit: Tim Lewis Bale, LuiKotale Bonobo Project)

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