



PRESS RELEASE

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During mate competition Bonobo males suffer from psychological stress

Competition for females is energetically costly for males in many animal species. This reflects in an increase of male stress levels in the presence of fertile females, which can be quantified by measuring cortisol level in the urine. In a new study on bonobos, one of our closest living relatives, researchers from the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, find a slightly different pattern: Increased stress levels in the presence of attractive females do not have physiological causes.



Male grooming a female bonobo in the LuiKotale National Park in the Democratic Republic of the Congo. (Credit: LuiKotale Bonobo Project, Zana Clay)

Surprisingly, high ranking males, which as well in bonobos exhibit the highest stress levels during mate competition, have a better energy balance than low ranking males. This indicates that the stress in males around attractive females has psychological causes. Bonobos differ from the better known chimpanzees in that females occupy high ranks within the group. Therefore, bonobo males do not seem to gain much through energetically costly behaviour such as mate guarding or intense aggression and consequently invest less in these behaviours.

“Investing into friendly relationships with females and not competing aggressively with other males does not seem to be free of stress for the males” says Martin Surbeck, a member of the

group that studies the behaviour of wild bonobos in the Congo. For their study the researchers had collected and analysed 260 urine samples from wild male bonobos.

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Urinary C-peptide levels in male bonobos (*Pan paniscus*) are related to party size and rank but not to mate competition

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