

Healthy male Bulldog bats have more active sex lives

Photos Bob Cornes



Now researchers of the Leibniz Institute for Zoo and Wildlife Research -scientists found strong support. An IZW-team led by

Simone Sommer and Christian Voigt showed that in lesser bulldog bats (*Noctilio albiventris*) that males with a high variability within the immune genes of the "major histocompatibility complex" (MHC), crucial for the immune defence against pathogens and parasites, had more reproductive success: Males with "good" MHC genes have to invest less energy into the defence against pathogens,

particularly parasites.

The more spikes in the antlers of a male deer and the more eyes on the peacock's tail, the greater the success with females. The "good genes" hypothesis assumes that the attractiveness of males is associated with good genes passed on to offspring.

Tropical bats have been recently identified as a major reservoir for many dangerous pathogens, such as SARS, Ebola or Nipa viruses. Yet, quite often tropical bats seem to remain unaffected by these viruses, even though humans and non-bat wildlife species may develop severe

symptoms. The IZW researchers therefore asked whether there is anything special about the immune gene constitution of tropical bats, and whether bats have specific evolutionary adaptations to protect themselves against seemingly dangerous pathogens or parasites.

They showed that the expression of immune genes (*Ed ie whether a particular gene is switched on, I could have a gene for developing a good sun tan but it won't be expressed in the weather we have ben having of late*) influenced the degree of parasitic infestation by ticks and bat flies. Males that suffered severely under parasites possessed unfavorable immune genes. They were also less often reproductively successful and therefore did not pass on their "bad genes" to the next generation.

Immune genes also affect the odor profile of animals. Female bulldog bats might use olfactory cues to select males as mates which carry the beneficial immune gene constitution ,

Source Science Daily (May 16, 2012) <http://www.sciencedaily.com/releases/2012/05/120516195451.htm>

Editor's Note Or maybe sex is good for turning on immune genes



Bulldog Bats are so called because they are a very "jowly" bat. They trawl over the surface of the water to catch fish. They have enormous cheek pouches in order to be able to deal with these fish. They also have enormous feet, all the better to catch fish with

