

# Pubic hair provides evolutionary home for gorilla lice

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There are two species of lice that infest humans: pubic lice, *Pthirus pubis*, and human head and body lice, *Pediculus humanus*. A new article in BioMed Central's open access *Journal of Biology* suggests one explanation for the separation of the two species.

In the article, Robert Weiss from University College London describes how he was struck by inspiration while pondering the question of why lice would separate into two groups when our ancestors are quite uniformly hairy, "I was having difficulty envisioning a clear separation of habitats between the groin and other parts of our ancient common ancestor. My 'eureka moment' came, appropriately enough, in the shower: although naked apes have pubic hair, surely our hairy cousins don't?"

*Pthirus pubis*, popularly known as crabs, evolved from the structurally similar gorilla louse, *Pthirus gorillae*. Interestingly however, while genetic analysis carried out by David Reed at the University of Florida indicates that this split occurred around 3.3 million years ago, humans are believed to have diverged from gorillas much earlier - at least 7 million years ago - suggesting that early humans somehow caught pubic lice from their gorilla cousins. Happily, this may not be as sordid as it sounds. According to Weiss, "Before one conjures up a King Kong scenario, it should be noted that predators can pick up parasites from their prey. The close contact involved in human ancestors butchering gorillas could have enabled *Pthirus* to jump hosts, rather as bushmeat slaughter practices allowed HIV to invade humans from chimpanzees in

modern times."

So, while head lice may be viewed as a 'family heirloom', inherited down the generations as humans have evolved, pubic lice may well be a recent and slightly unwelcome gift from the more hirsute branch of our evolutionary family.

More information: Apes, lice and prehistory, Robin A Weiss, *Journal of Biology* 2009, 8:20 doi:10.1186/jbiol1114, [jbiol.com/content/8/2/20](http://jbiol.com/content/8/2/20)

Source: BioMed Central

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