

Barnacles go to great lengths to mate

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Compelled to mate, yet firmly attached to the rock, barnacles have evolved the longest penis of any animal for their size - up to 8 times their body length - so they can find and fertilize distant neighbours.

Graduate student Christopher Neufeld and Dr. Richard Palmer from the Department of Biological Sciences at the University of Alberta have shown that barnacles appear to have acquired the capacity to change the size and shape of their penises to closely match local wave conditions. When wave action is light, a longer (thinner) penis can reach more mates, but at times of higher wave action, a shorter (stouter) penis is more manoeuvrable in flow and therefore can reach more mates.

The research, published in *Proceedings of the Royal Society B*, suggests that sexual selection - competition with other males, female choice, sexual conflict between males and females - is not required to explain variation in genital form. In barnacles, this variation appears to be driven largely by the hydrodynamic conditions experienced under breaking waves.

Source: University of Alberta

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