

# Urban athletes show that for orangutans, it pays to sway

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To learn about orangutan behaviour, researchers used human parkour athletes as models for orangutans. They measured the energy required to navigate among trees in different ways, such as jumping between them. Credit: SRL Coward and LG Halsey

Swaying trees is the way to go, if you are a primate crossing the jungle. Using human street athletes as stand-ins for orangutans, researchers have measured the energy required to navigate a forest using different strategies and found it pays to stay up in the trees. Their work was presented at the Society for Experimental Biology's meeting in Salzburg, Austria on 2 July 2012.

The findings help us to understand why [orangutans](#) spend most of their lives in trees despite being much larger than other tree-dwelling animals.

It also helps to explain how these primates get by on their diet of mainly fruit, which does not provide a lot of energy.



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Dr Lewis Halsey of the University of Roehampton, who led the study, said: "Energy expenditure could be a key constraint for orangutans – moving through trees could be energetically expensive."

The team found that the most efficient way to cross from one tree to another is usually to sway back and forth on your tree until you can reach the next one. When trees are stiff, it is more efficient to jump.

For heavy primates the tree must be quite stiff before jumping becomes the easier option. According to Halsey: "Heavier orangutans don't jump,

and we may have an explanation why."

To compare the energy required to sway trees, climb trees, or jump from branch to branch, Halsey's team created obstacle courses simulating these activities. But instead of orangutans, the participants were parkour athletes, specially trained street gymnasts with good flexibility and spatial awareness. The athletes wore devices that recorded their oxygen consumption as they proceeded through the activities.

Halsey added: "Because [primates](#) are not easy to work with, estimates of energy expenditure have been very indirect. We have gone a step closer to understanding these costs by measuring [energy expenditure](#) in a model primate – the parkour athlete."

Provided by Society for Experimental Biology

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