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All Mammals Follow the Law of Urination, Researchers Find [Video]

By Staff Reporter



elephant

There are about 4600 species of mammals in the world and all of them follow The Law of Urination. According to a latest study, all mammals, regardless of the bladder size, take an average of 21 seconds to urinate.

Researchers Patricia Yang and colleagues at the Georgia Institute of Technology in Atlanta were actually studying fluid-animal interactions using high-speed cameras. It was during the filming of animals at a local zoo that they realized that all mammals were taking nearly the same amount of time to urinate, **New Scientist** reported.

And, because they are scientists, they decided to do a closer analysis. For their study, they collected footage of urinating animals from YouTube and even filmed dogs, cats, cows and elephants attending to the nature's call. They then combined data about bladder pressure, urethra size and mass of the animal to develop a mathematical model. Researchers found that all mammals follow the law of Urination, which states that every animal of the class takes about 21 seconds to pee.

Check out the video at the end of the article.

Of course there are exceptions to this rule; rats, bats and other small mammals urinate quickly. In elephants, gravity accelerates the urine, so they urinate faster than other mid-sized animals.

Researchers say that their study also explains why some mammals pass urine as small drops while others pee in a continuous stream.

"Our findings reveal the urethra evolved as a flow-enhancing device, enabling the urinary system to be scaled up without compromising its function. This study may help in the diagnosis of urinary problems in animals and in inspiring the design of scalable hydrodynamic systems based on those in nature," the researchers said.

Their study is [available at arXiv.org](http://arXiv.org)

