

Inflatable toad gives small guys the slip

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A cane toad sitting on a keeper's hand at a zoo. The female cane toad can pump herself up to mega-size to throw off smaller males striving to mate with her, Australian biologists reported on Wednesday.

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The unusual tactic suggests that female anurans, as frogs and toads are called, may have far more power to select their sex partner than thought, according to their study, appearing in the British journal *Biology Letters*.

Female cane toads (*Bufo marinus*) are typically choosier than males when it comes to reproduction.

They discriminate among potential mates by approaching the toad with the best call.

But, as they head to a rendezvous with the hunk with the mightiest ribbit, they also have to run the gauntlet of excited rival males.

An unwanted suitor will seek to climb on the female's back, grasping her tightly in the armpit or groin, waiting until she starts laying her eggs in order to fertilise them.

This is where the pneumatic trick comes in, say the scientists, led by Benjamin Phillips of the University of Sydney.

By inflating sacs in her body, the female is able to loosen the grip and the luckless male slides off her body, defeated.

As a result, the female is able to choose the size of her mate, a factor that is important to the species, says the team. [Fertilisation](#) among cane toads is most successful when males and females are similar in size.

Phillips and his two colleagues worked on the small-to-XXXL hunch after noting that the cane toad puffs itself up in the presence of a predator to make itself look scarier.

Female toads likewise inflate at copulation time, but until now this was presumed to be a reflex to being pushed, kicked and occasionally flipped over as panting males wrestled for amorous contact.

Phillips' team went to exceptional lengths to test their hypothesis.

They inflated a dead anuran with a pump to measure the sacs' [air pressure](#).

There was even a touch of toad necrophilia. Male toads were given a jolt of [sex hormones](#) to encourage them to mate with dead females, so that the scientists could measure the strength of the copulatory grip.

In the final phase, nine living females were given tracheal surgery to prevent them from inflating their body -- and turned out to be unable to shake off even the smallest male.

After the experiments, the nine were killed humanely.

The paper suggests that females in other species may similarly use a defence mechanism to help them choose a mate.

"Many of the traits that enable a female to repel a predator also allow her to repel unwanted suitors, and hence facilitate mate choice," it notes.

Cane toads are a notorious pest in Australia. The species, indigenous to Central and Latin America, was introduced in 1935 to help control beetles that threatened sugar-cane crops.

The creature has now spread across most of tropical Australia, killing native carnivores, including crocodiles, snakes and lizards, that cannot tolerate its toxins, and devastating native frogs and [toads](#) through habitat loss.

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