

## **Official! Size Really Does Matter...**

February 9 2006

Buy your female Valentine a priceless diamond ring and she will be faithful forever... but any cheap gift will lose her attention. Such comicbook logic has yet to be proven among humans, but it's certainly the case in the insect world as University of Derby scientists have been exploring the erm... 'bed-hopping habits' of crickets!

Male crickets naturally manufacture a 'courtship gift' from their abdomens made of a gelatine-like substance.

Now Derby's scientists have discovered a critical link – the bigger the size of the contents of the gift the less promiscuous his chosen female will be!

During intercourse, when the female climbs on top for mating, the male affixes the bag to a hook on her body next to her reproductive system.

After mating, the female cannot resist the gelatine and proceeds to eat the gelatine in the gift while sperm enters her reproductive system.

Having analysed the mating patterns of 18 different species of crickets, the scientists discovered the same 'copulating correlation' in all the crickets.

The biggest gift will mean a female cricket has just one male mate. But the smaller the gift and the female could literally 'bed-hop' with up to 45 partners in her short three-month life.



Dr Karim Vahed, Senior Lecturer in Biological Sciences, said: "It has been known for a long time that males naturally produce these jelly-like gifts which are passed to the female during intercourse.

"What we have done is observe the activities of crickets after mating and the size of the gift determines how promiscuous a female will be. A male Alpine Bush Cricket produces a meagre amount, a gift weighing perhaps just two per cent of its body weight.

"Tests showed these females had up to 45 partners in their lifetimes.

"However, the Spanish Saddle-Backed Bush Cricket generates a gift equivalent to almost a third of its body weight. The female of this species had just one partner.

"In the insect world, females are highly promiscuous. Our tests suggest that in order for guaranteed procreation, the male cricket may craftily also be generating a hormonal chemical into the gifts alongside the sperm and gelatine.

"The bigger the gift, the more chemical may be involved, which manipulates the female's behaviour and puts her off finding other partners."

Source: University of Derby

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