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## Aggressive sex threatens beetle species

### **Sex is no laughing matter for female seed beetles who are being injured by increasingly aggressive barbed-penised males.**

Scientists at Zurich University, writing in the latest edition of *American Naturalist*, have shown how sexual conflict can have profound consequences for populations.

The barbed penis of the male seed beetle, *Callosobruchus maculatus*, also known as the cowpea weevil, makes it impossible for females to shake off unwanted partners. This is good news for aggressive males, who have higher reproductive rates, but bad news for females, who are injured during sex.

This, the scientists said, can lead to a fatal evolutionary spiral: males become more and more aggressive, while females become more and more injured – and ultimately the species will die out.

“To males, females are an essential, but finite, resource over which they have to compete,” the researchers wrote. “Population extinction owing to sexual conflict can therefore be seen as an evolutionary ‘tragedy of the commons’.”

The tragedy of the commons is a dilemma arising from the situation in which multiple individuals, acting independently and rationally according to their own self-interest, will ultimately deplete a shared limited resource even when it is clear that this is not in anyone’s long-term interest.

In this case, the interest of individual males (having sex) is in stark contrast to the interest of the species (not going extinct).

The scientists did however point out that the evolution of female resistance to counter harassment – for example by avoiding aggressive males – can prevent a tragedy of the commons.

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