

FEMALES “ASSIST” SNEAKER MALES TO DUPE DOMINANT MALES IN A RARE ENDEMIC DAMSELFLY: SEXUAL CONFLICT AT ITS FINEST

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Study Description

One common view in sexual selection is that females select the fittest male. By investigating the reproductive behavior of an endemic damselfly, *Calopteryx exul*, in Northeast Algeria, I showed that this is not always the case. To avoid the costly repeated copulations, the female hosting the sneaker’s sperm (low-quality male) tends to avoid the dominant male by landing near another female, which confuses the dominant male who ends up copulating with a different female. Hence, the female indirectly assists the sneaker male. This finding advances our view about the mechanisms underlying the maintenance of phenotypic and genetic variability.



Photo 1. Male *Calopteryx exul* in the Seybouse River, Guelma, Northeast Algeria, in a territorial position guarding a patch of floating leaves where females lay eggs. Photo credit: Rassim Khelifa.



Photo 2. Female (right) *Calopteryx exul* taking a short rest from egg-laying behind a guarding male (left). Photo credit: Rassim Khelifa.



Photo 3. A pair of *Calopteryx exul* in copulation. While the male copulates, he always has an eye on the females in his territory and can stop copulation to chase an intruder male. Photo credit: Rassim Khelifa.

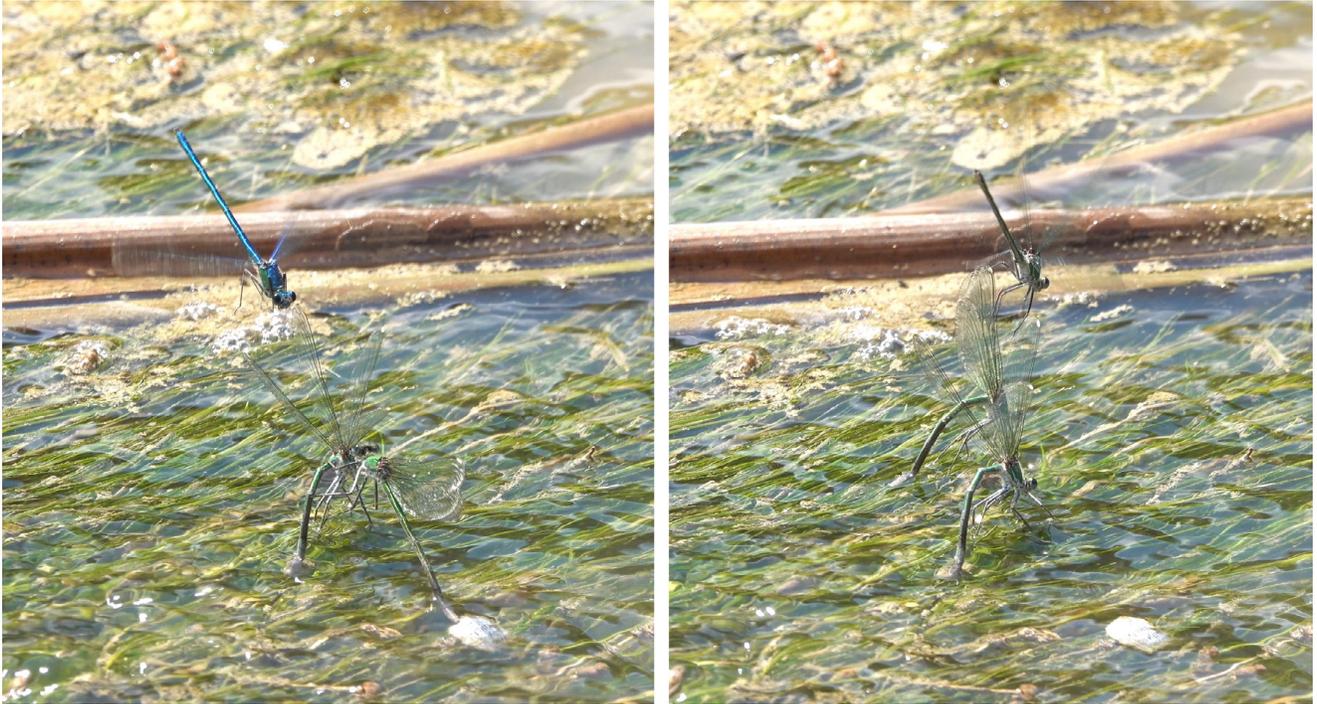


Photo 4. Two females and one male *Calopteryx exul* in the oviposition patch. *Left*: The lower female (hosting the sperm of a sneaker male) has just landed in the territory near the upper ovipositing female. *Right*: The male *Calopteryx exul* is confused and tries to copulate with the upper female, who was last inseminated by him. Thus, the female with the sperm of the sneaker male secures access to the territory without copulating with the dominant male and consequently assists the sneaker male. Photo credit: Rassim Khelifa.

These photographs illustrate the article “Females ‘assist’ sneaker males to dupe dominant males in a rare endemic damselfly: sexual conflict at its finest” by Rassim Khelifa published in *Ecology*. <https://doi.org/10.1002/ecy.2811>