

## EVOLUTIONARY ADVANTAGES OF SEXUAL REPRODUCTION EXPLAINED IN PLAIN WORDS

Sexual reproduction appeared about 1.2 billion years ago and spread rapidly in eukaryotes because it provided a great advantage in evolution. The paper by Hickey and Golding ([BMC Ecol Evo, 21:119, 2021](#)) masterfully illustrates this concept. In summary:

- the number of possible genotype combinations is much greater than the population size, that is, any given population contains only a small fraction of potential genotype combinations.
- Sexual reproduction produces genotypes with combinations that did not exist before, on which the selection for greater fitness operates.

In other words, the authors say, it's a game of chance, a lottery.