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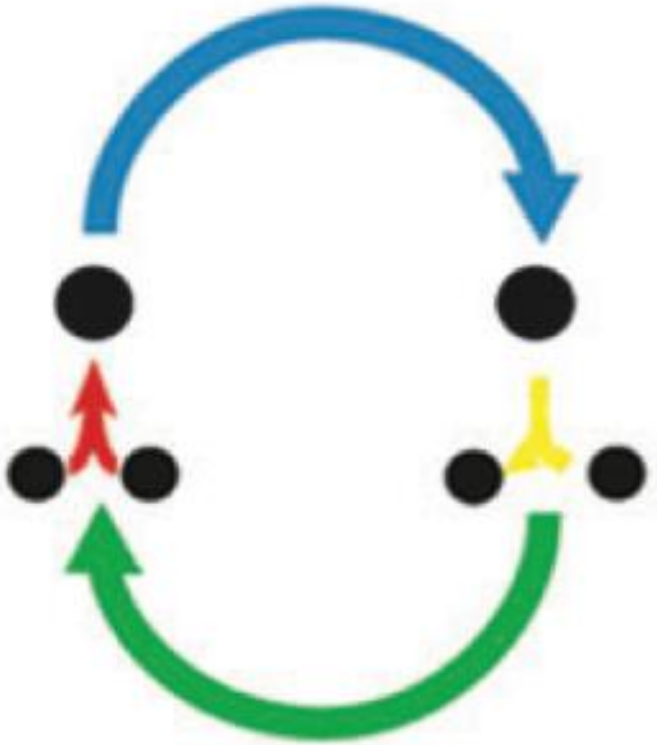
Aula 10

roteiro

- seminário
- sexo e ciclos de vida
- discussão e ensaios

ciclos de vida

- meiose = sexo



The Dynamic Nature of Eukaryotic Genomes

Laura Wegener Parfrey, Daniel J. G. Lahr,* and Laura A. Katz*†*

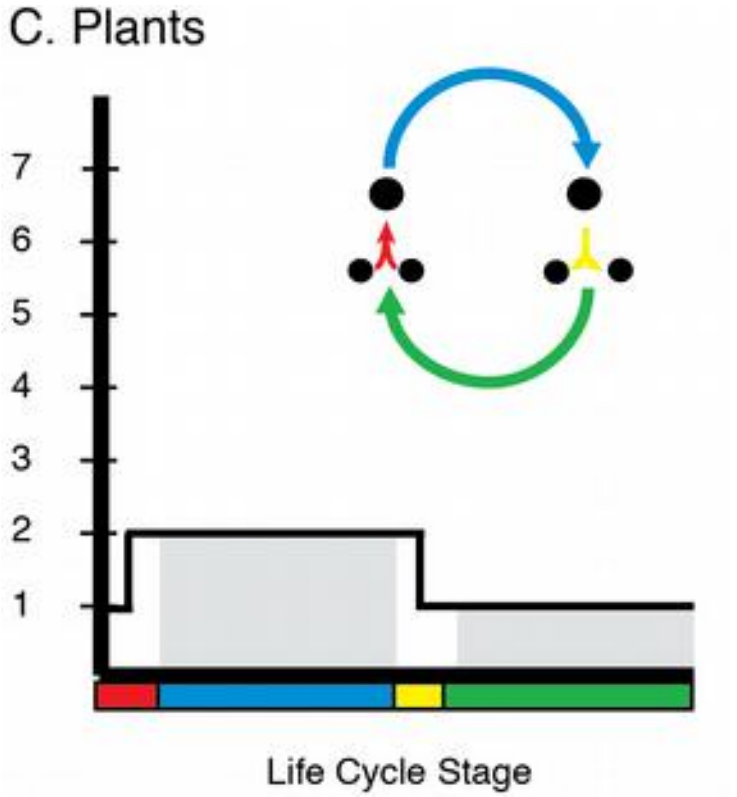
Mol. Biol. Evol. 25(4):787–794. 2008
doi:10.1093/molbev/msn032
Advance Access publication February 6, 2008

meiose

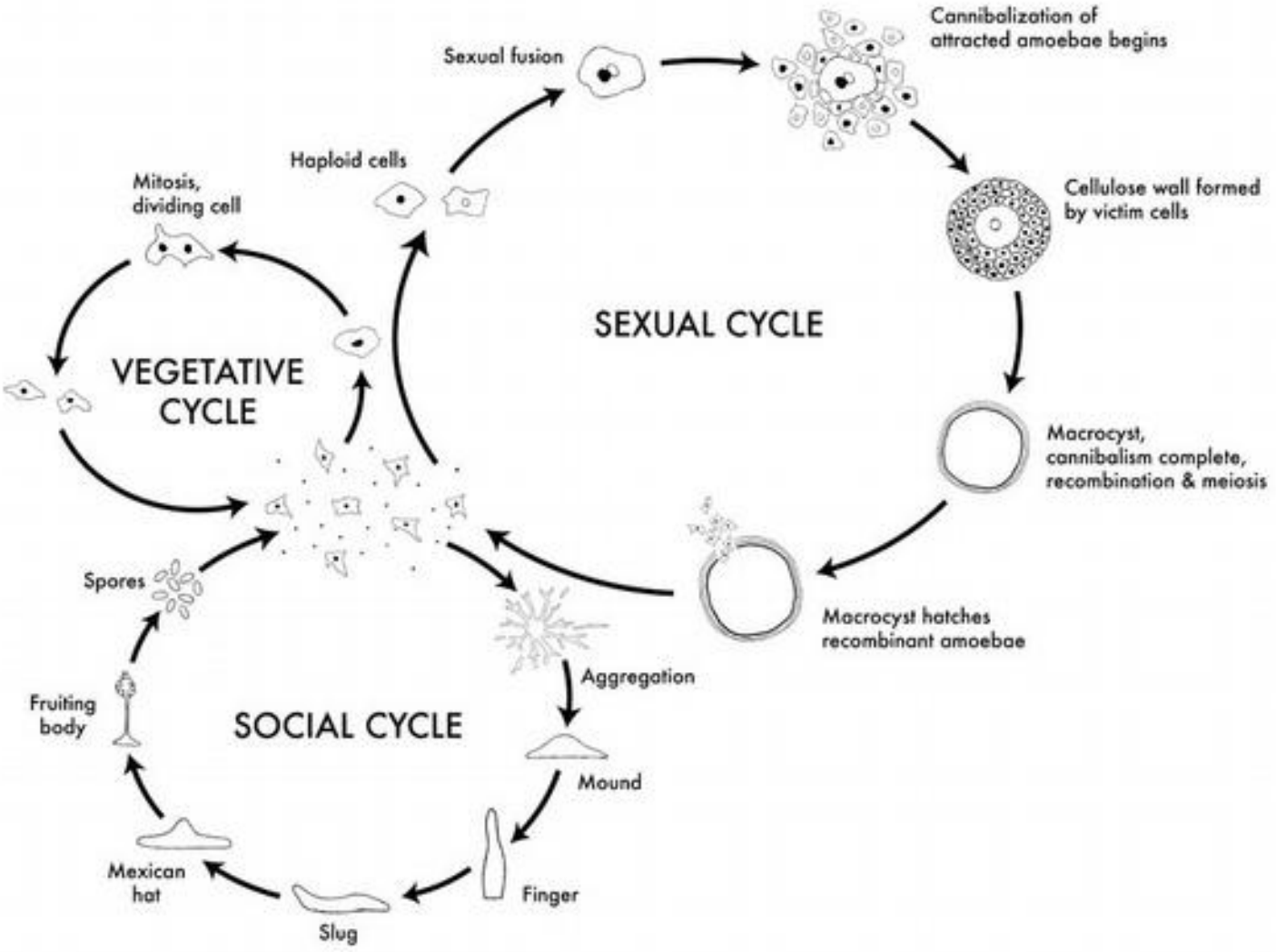
- alternância de gerações
- duas divisões
  - 1. duplicação cromossômica e crossing-over, separação de homólogos
  - 2. duplicação centromérica e separação de cromátides irmãs

plantas

- meiosis followed by nuclear fusion (Kondrashov, 1988)



sexo facultativo



sexo

- explicar origem vs explicar permanência
- custo
  - two-fold cost
  - outros custos
- vantagens
  - Diversidade genética
  - Muller's ratchet

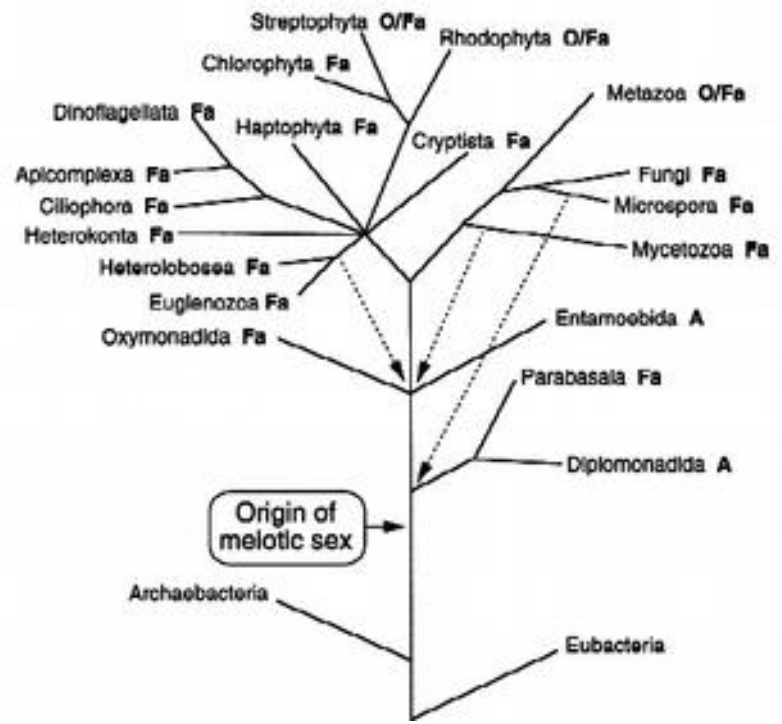
origem

The First Sexual Lineage and the Relevance of Facultative Sex

Joel Dacks, Andrew J. Roger

JOURNAL OF MOLECULAR EVOLUTION

© Springer-Verlag New York Inc. 1999



origem

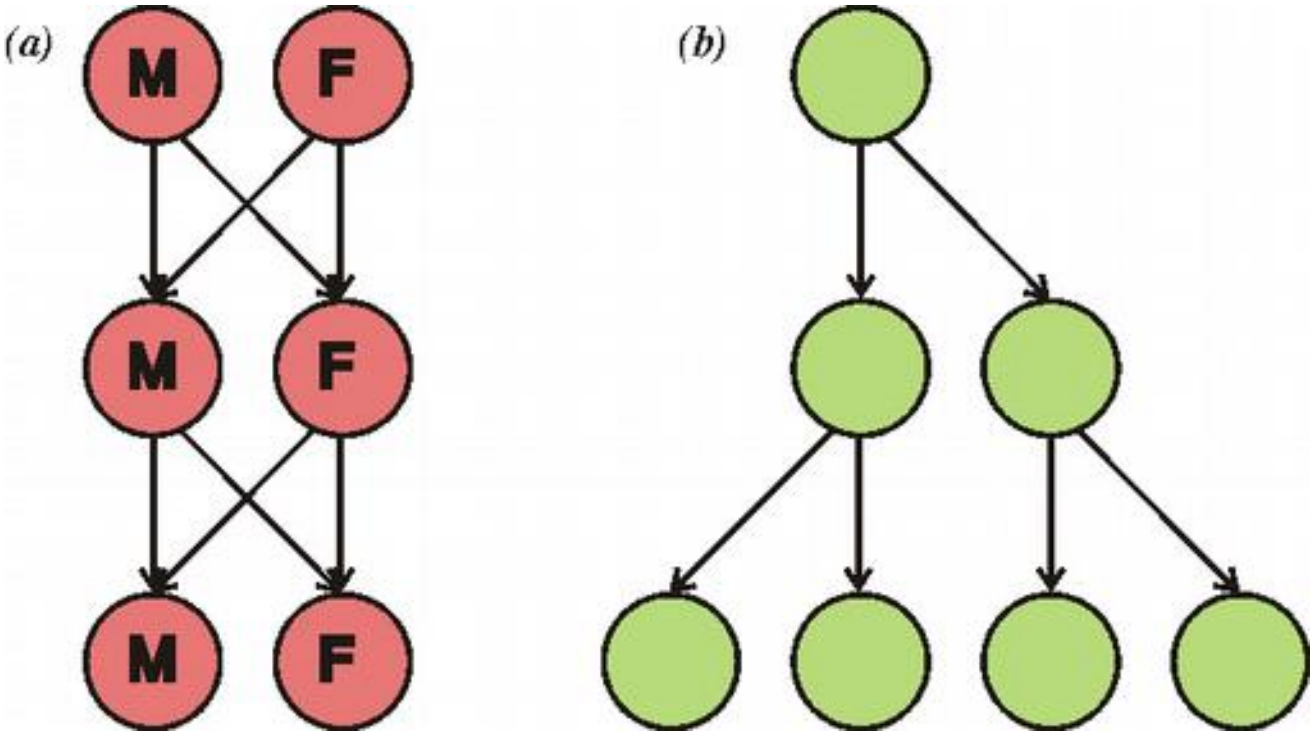
- red queen
- reparo de DNA

two-fold cost of sex

- apenas metade do seu genoma passa

two-fold cost of sex

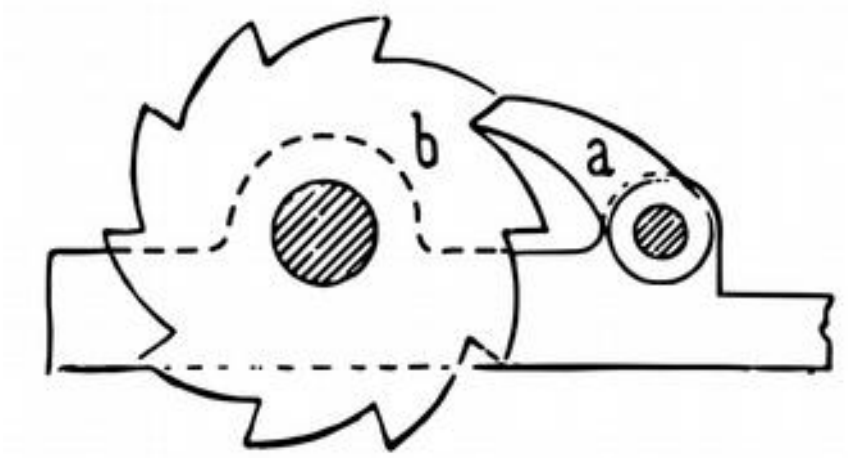
- apenas metade do seu genoma passa



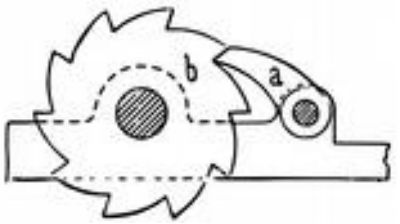
NÃOOOOOO!

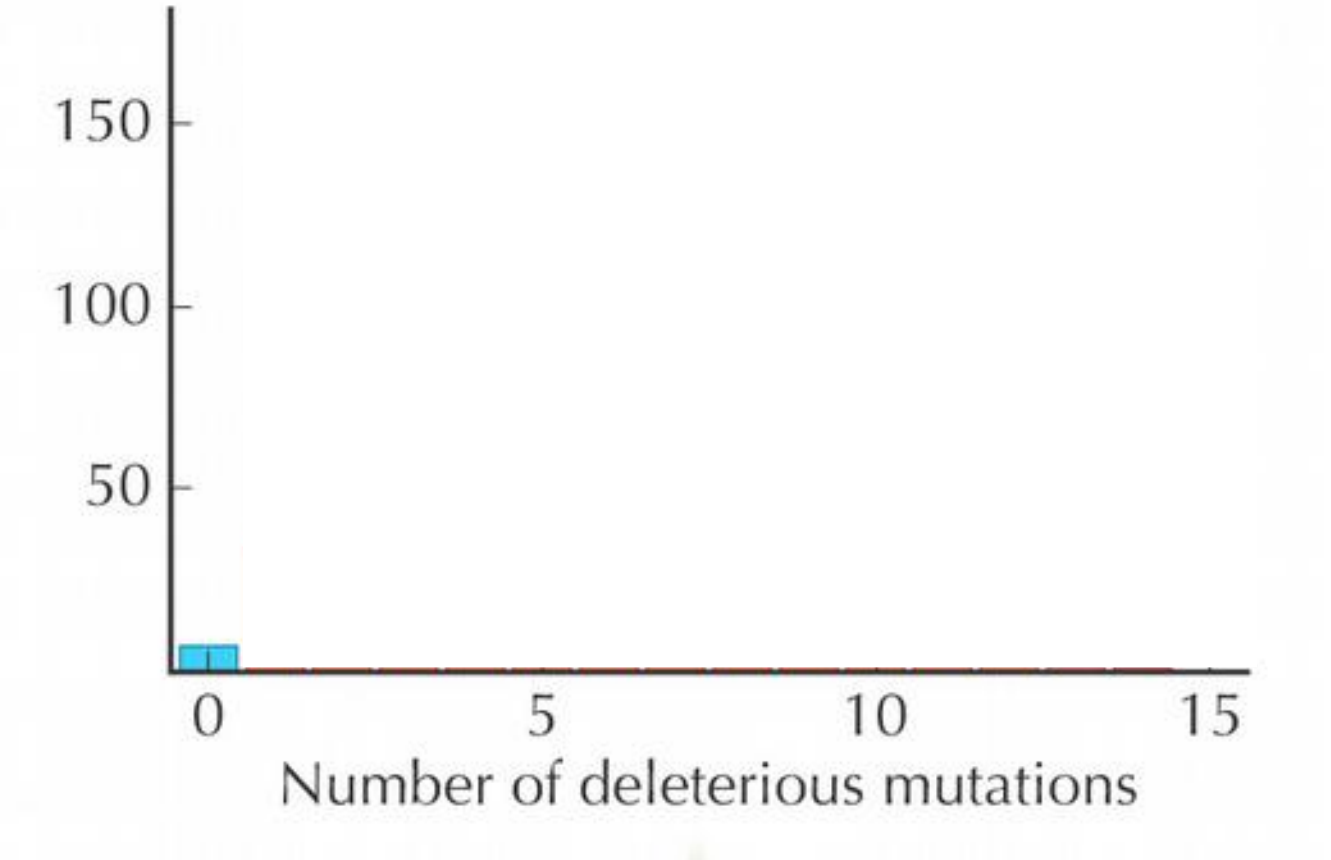
custos do sexo

- inviabilidade de asexuados



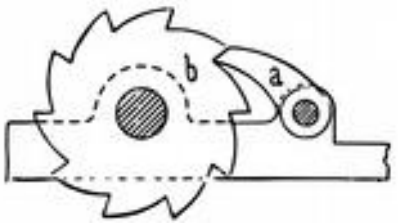
Müller's ratchet

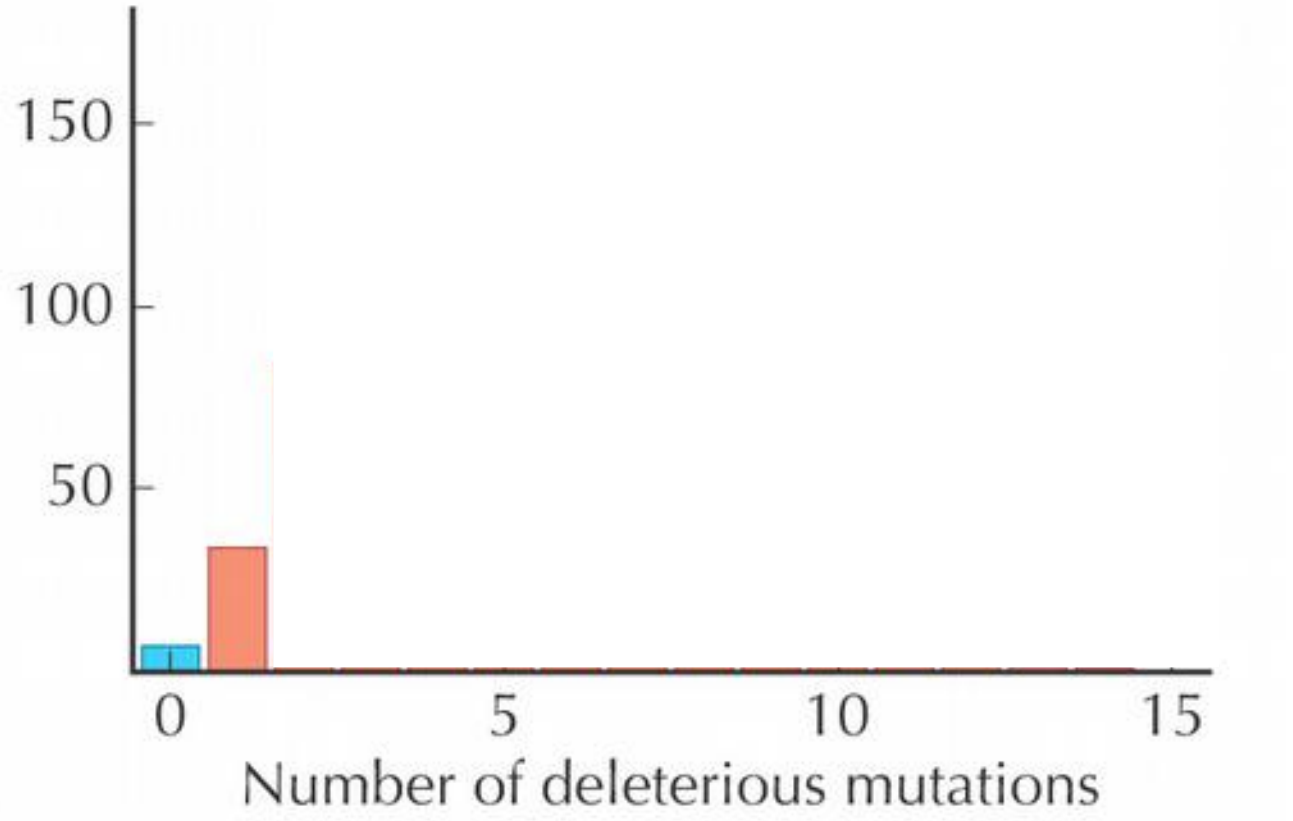




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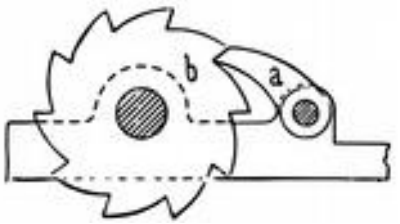
Müller's ratchet

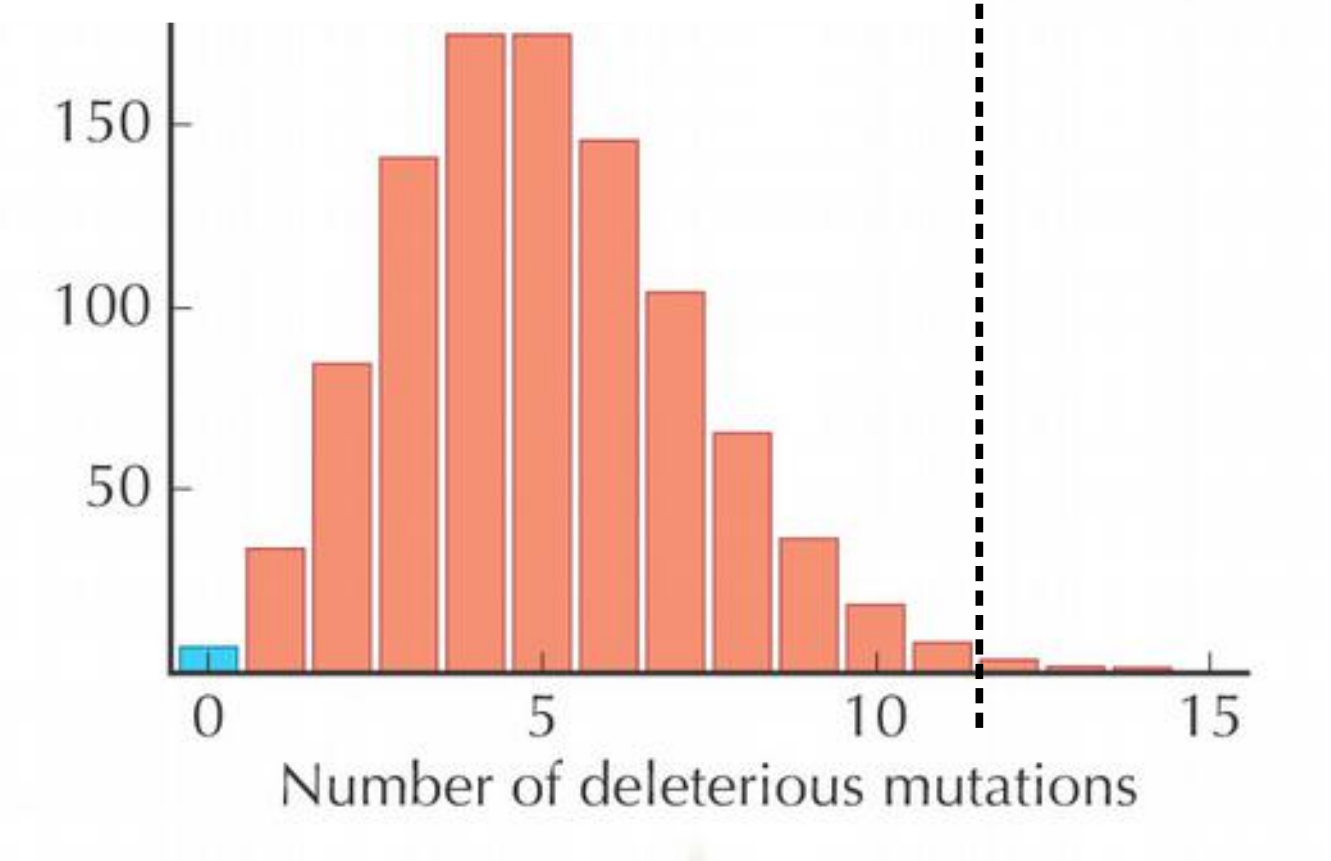




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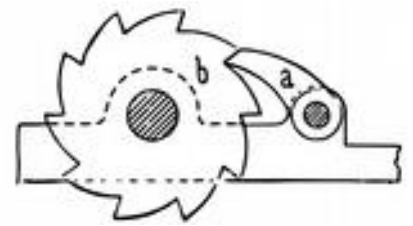
Müller's ratchet

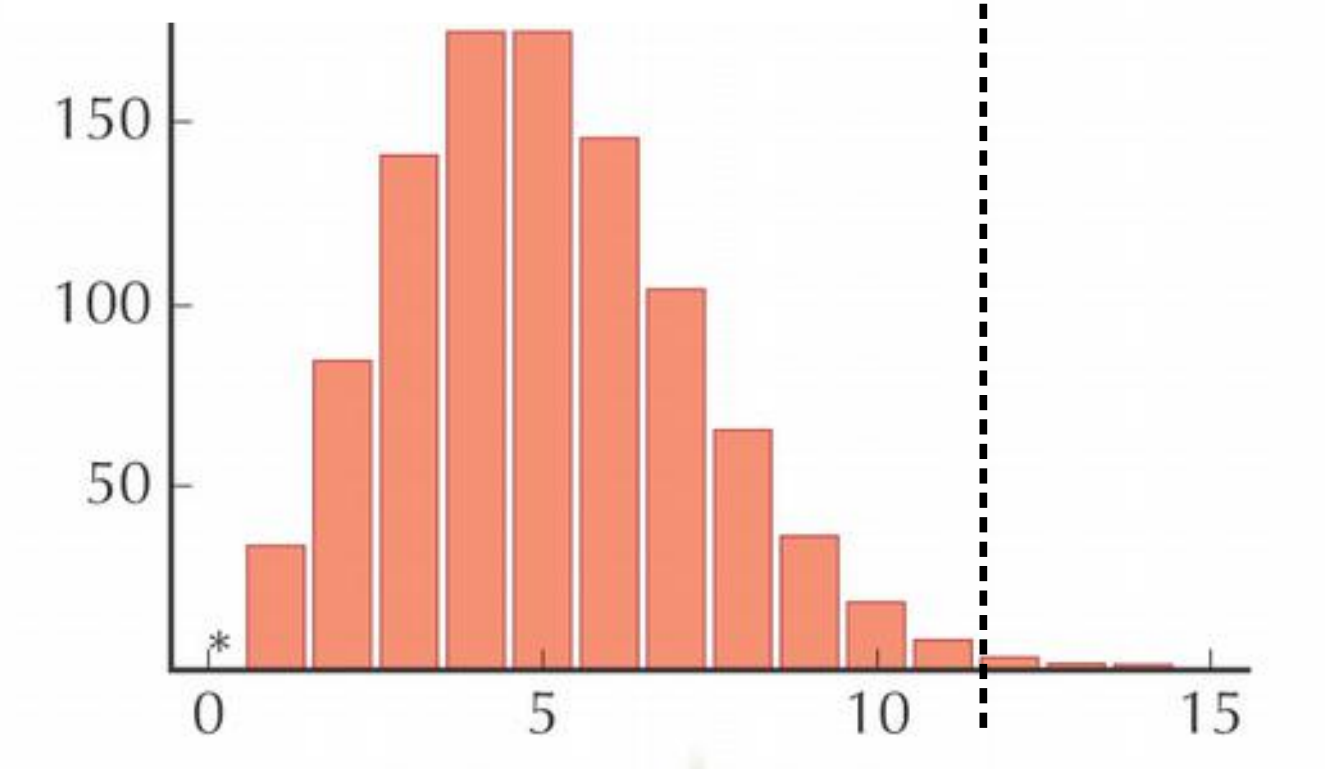




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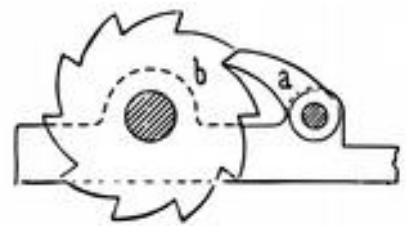
Müller's ratchet

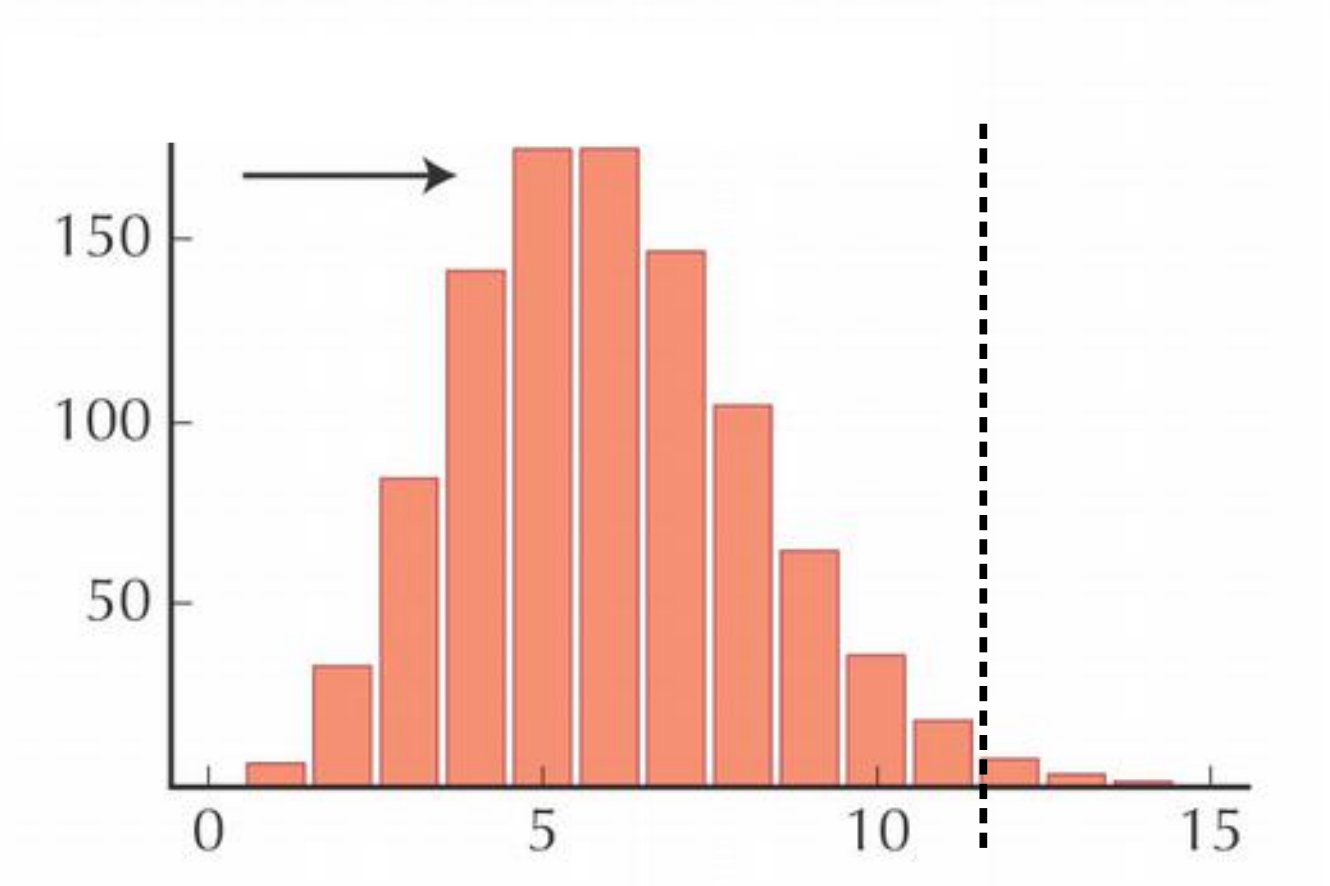




t=1

Müller's ratchet





t=2

Müller's ratchet

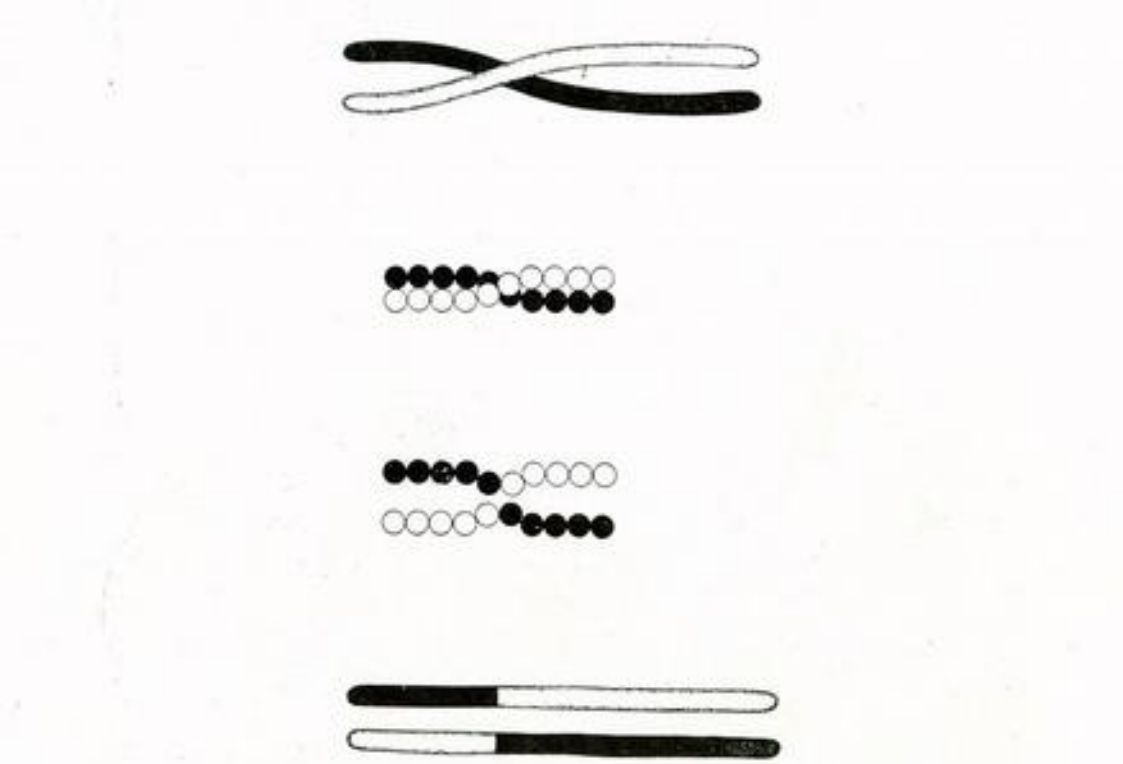


Fig. 64. Scheme to illustrate a method of crossing over of the chromosomes.

Recombination Morgan, 1916

Diversificação

