MIDTERM.

office hours tomorrow 9:30-11:30
Thurs 11:30

Red Queen

genetic sequencing?

GWAS - sequences.

genomes + phenotypes

↳ recent studies

GWAS ⇝ G×E "gene × environment"

~~G×G~~ host/parasite

G×G×E.

↳ attachment

Red Queen #2. → ORIGIN and maintenance of sexual reprod.

cost of sex / cost of males

why have sexual reprod at all?

↓

why have 50/50 sex ratio?

Fisher's theory

parthenogenesis. ♀ → ♀

clonal reproduction

recombination ≈

non-selfing hermaphrodites

dioecious / gonochoristic

sexual reproduction

SEXUAL reproduction does not produce new alleles

↳ new genomes

AB, ab

Ab, aB

MULLER'S RATCHET

○○○○✕○○○✕ ←

only works in small populations

RQ and sex.

- sex and parasites

→ what biological processes require the constant generation of genetic novelty (i.e. new genomes)

?

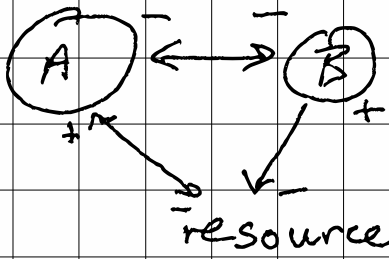
- SNAILS ~ triploid clonal
  - asexual vs sexual
- Potamopyrgus antipodarum
  - trematode parasites.
- Lively, Dybdahl, Jokela
  - * resistance tradeoffs
    - → triploids aren't identical to diploids
    - resistance vs competitive ability
  - * reproductive assurance
    - asexuals more common in low densities
  - * LOTTERY - rare-genotype advantage for environmental conditions

TANGLED BANK -

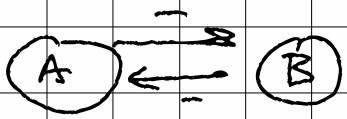
like lottery, but
with a competitive flavour

exploitation,
interference,
apparent
competition.

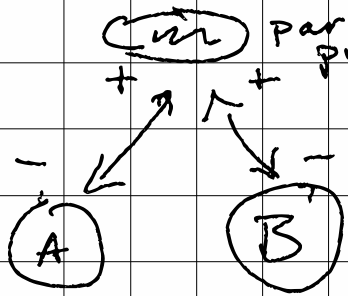
COMPETITION: negative/negative interaction



exploitation



interference



apparent