

~~Gen~~

Mendelian variation

~ individual alleles of large effect

QUANTITATIVE variation

many alleles/loci of small effect.

polygenic risk score

GWAS •

genome wide
association
study

single nucleotide polymorphisms

BIOBANKS

COALESCENT theory

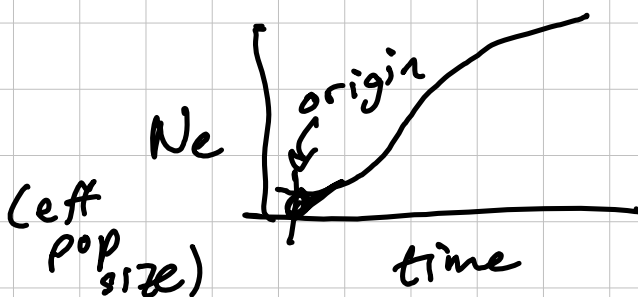
• given a current-day sample of gene sequences,

INFER • when did a particular allele originate?

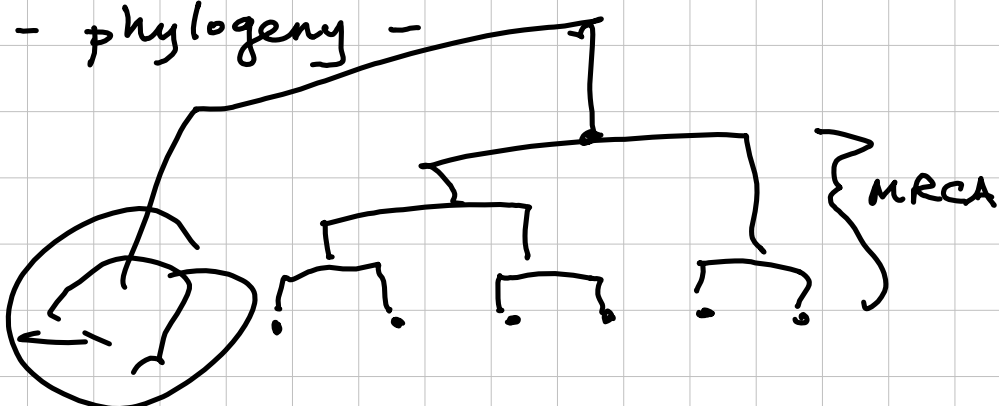
• what is the effective population size of a population over time?

• ? geographic location?

SKYLINE plots



- phylogeny -



EVOLUTION of RESISTANCE (parasites)

• de novo mutation

• selection of standing variation