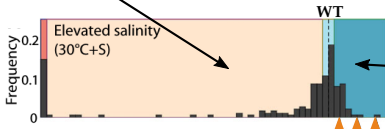


Random mutations



Mutants with a lower growth rate than the wild type

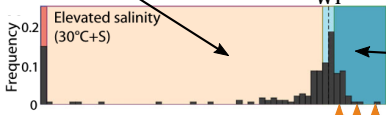


Mutants with a higher growth rate than the wild type

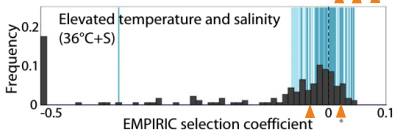
Random mutations



Mutants with a lower growth rate than the wild type



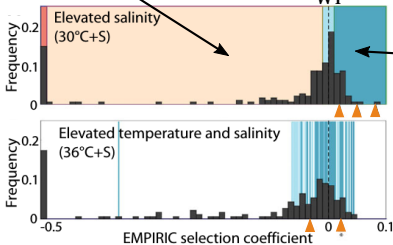
Mutants with a higher growth rate than the wild type



Random mutations



Mutants with a lower growth rate than the wild type



Mutants with a higher growth rate than the wild type

The effects of mutations on growth rate }
The proportion of resistant mutations } change between environments