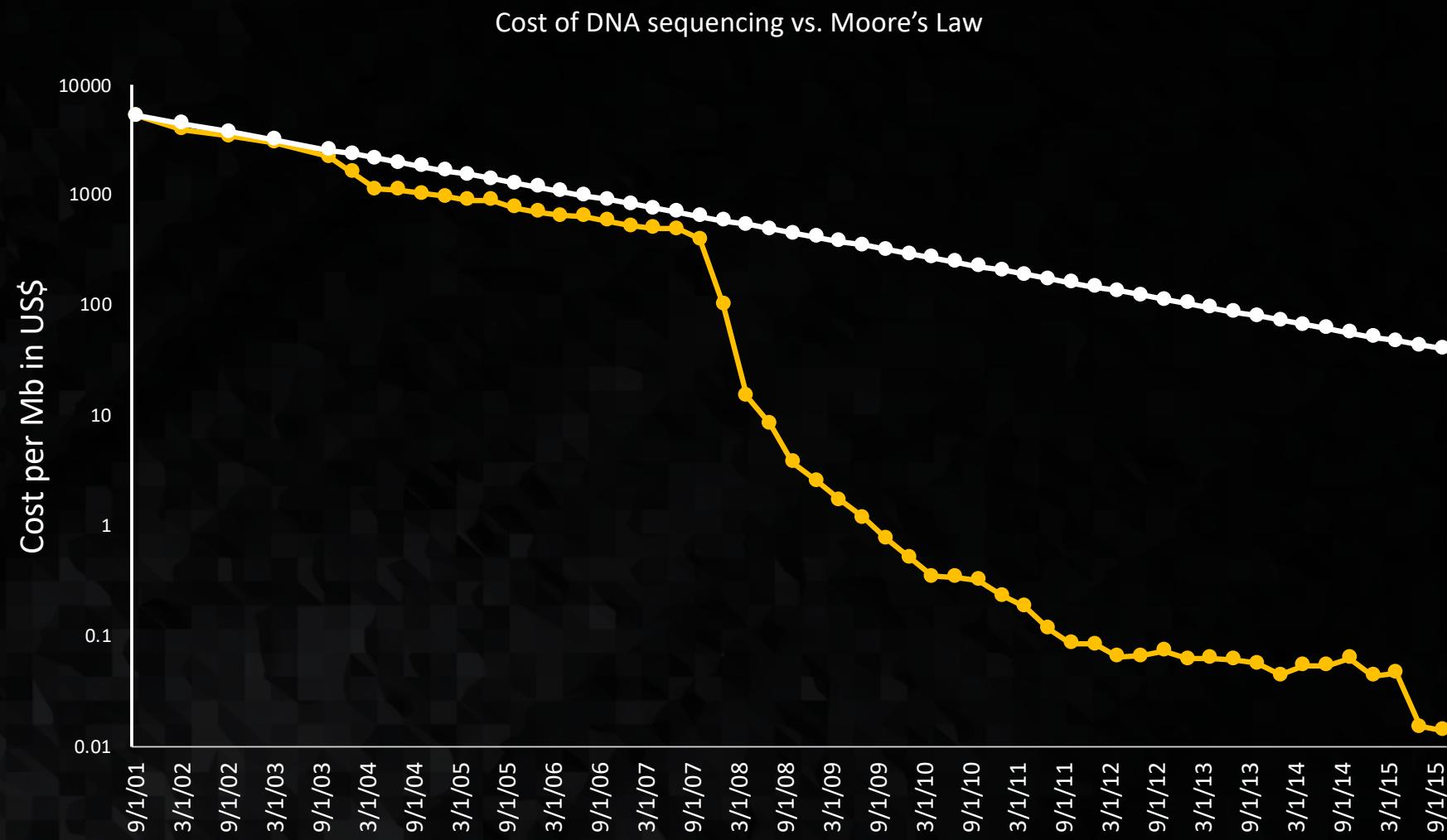


“Advice is a form of nostalgia. Dispensing it is a way of fishing the past from the disposal, and wiping it off, painting over the ugly parts, and recycling it for more than it’s worth.”

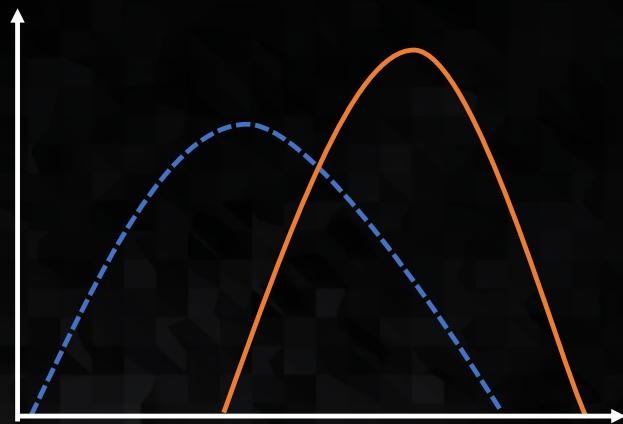
-Baz Luhrmann

The genomic era: powered by NGS

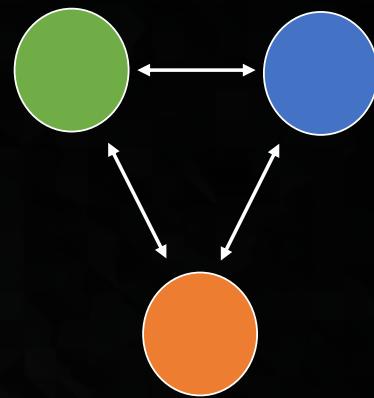


Fundamental biological questions

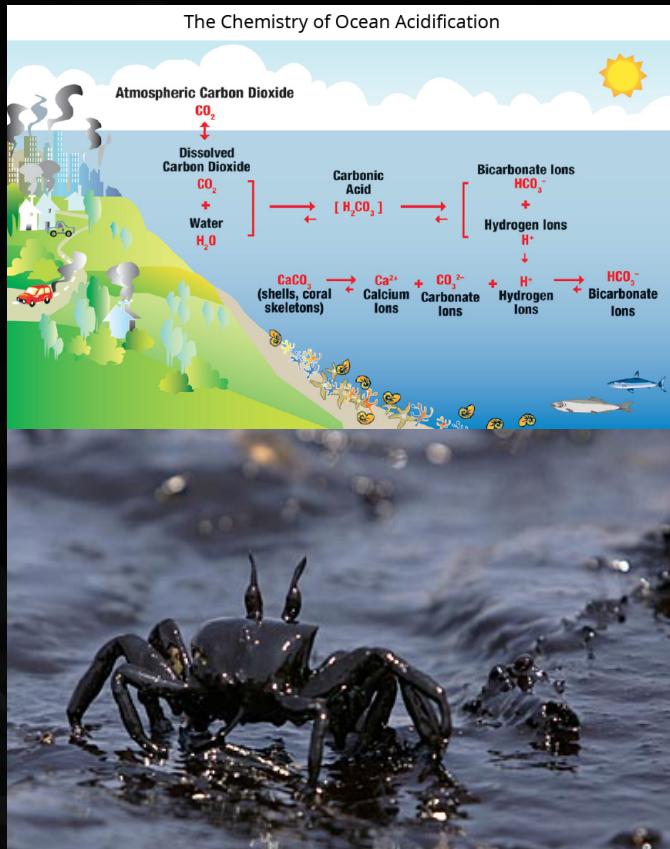
Selection



Connectivity



Evolutionary trajectory of species/populations



For population level inference, genome reduction is needed.

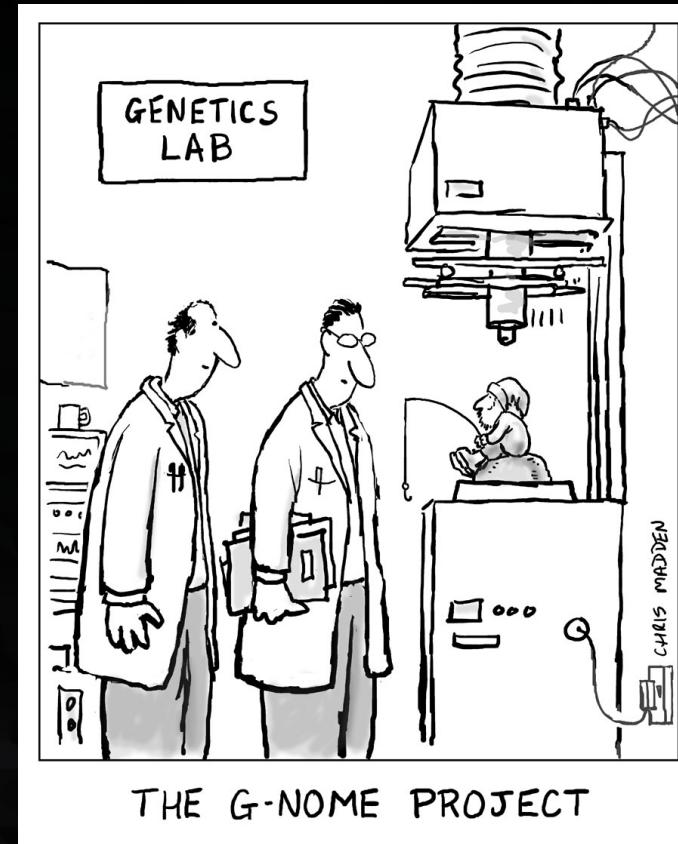
Genome reduction options

- No existing genomic resources

- RADseq
- RNAseq
- Exome capture?
- EpiRAD

- With genomic resources

- Pool-seq
- Low coverage WGS



Goals

- Effectively work in a command-line Linux environment
- Visualize and manipulate multiple next-generation sequencing data formats
- Use and apply the tools and analyses covered in class
- Knowledgeably filter data sets for statistical and bioinformatic artifacts
- Determine loci potentially under selection and estimate population genetic parameters with both neutral and putatively adaptive loci
- Produce a completely open and repeatable documentation of a complete population genomic analysis

