Multiple sequence alignment and phylogenetic trees

Stat 246, Spring 2002, Week 5b
A version of the "tree of life"

Obtained from aligned sequences of ribosomal RNA

M. Madigan and B. Marrs, 1997
Species trees and gene trees
(after M. Nei 1987, *Molecular Evolutionary Genetics.*)

Genes can be polymorphic before speciation, in different ways.
Tree topology

Identical:

Not identical:
Tree reconstruction

A B C B A C C A B
Tree reconstruction (2)