o Each column is independent

o Maximum information is 2 bits per position, if column is 100% conserved.

$$log_2 (4/1) = 2 bits$$

GUGUUCGCUAC yeast human GCCUUCGGCGC fly **GCAUUCGUAGC** fish **GUUUUCGAUAC** GUCUUCGGAAC orc GCGUUCGCGGC froq GCUUUCGAGGC worm **GUAUUCGUCAC** mouse

sequence profile: 14 bits