

Supplementary Material

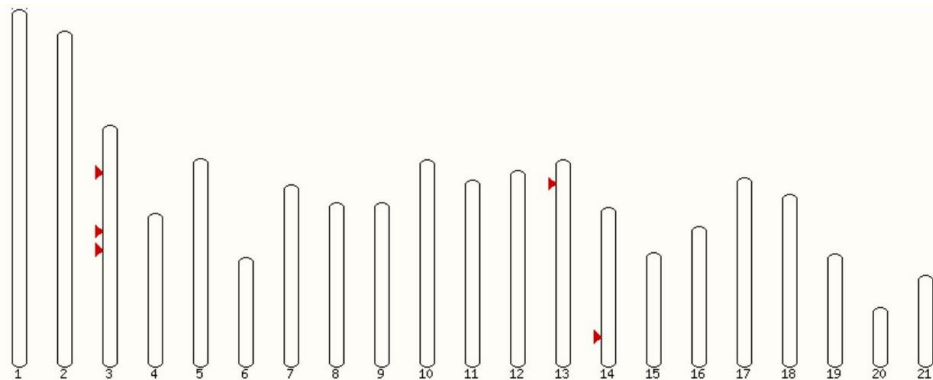


Figure 1. *Tetraodon nigroviridis*, karyogram with labeled 5S rDNA loci (red arrowheads). Note: this species represents one of the smallest fish genomes (C-value, the haploid genome size $C \approx 0.4$) and correspondingly low number of 5S rDNA sites was detected and visualized (of the 80 5S rDNA sites identified by BioMart only five could be assigned to a linkage group and localized on chromosomes).

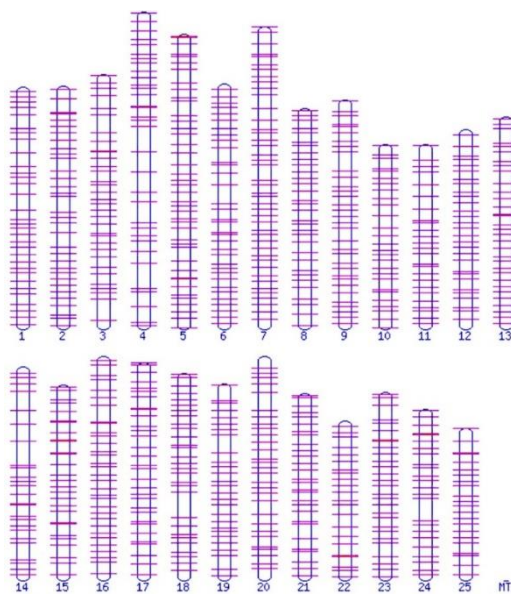


Figure 2. Zebrafish (*Danio rerio*), complete karyogram with labeled 5S rDNA loci (pink lines). Note: this species represents one of the largest genomes among teleost fish ($C \approx 1.7$). Hence, a correspondingly high number of 5S rDNA sites was detected and visualized.

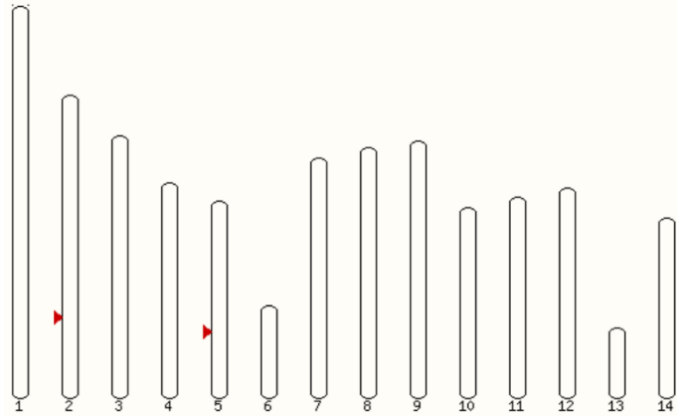


Figure 3. A tunicate sea squirt (*Ciona intestinalis*), $C \approx 0.2$, the thirty-five 5S rDNA site detected on four chromosomes could be assigned to a linkage group.

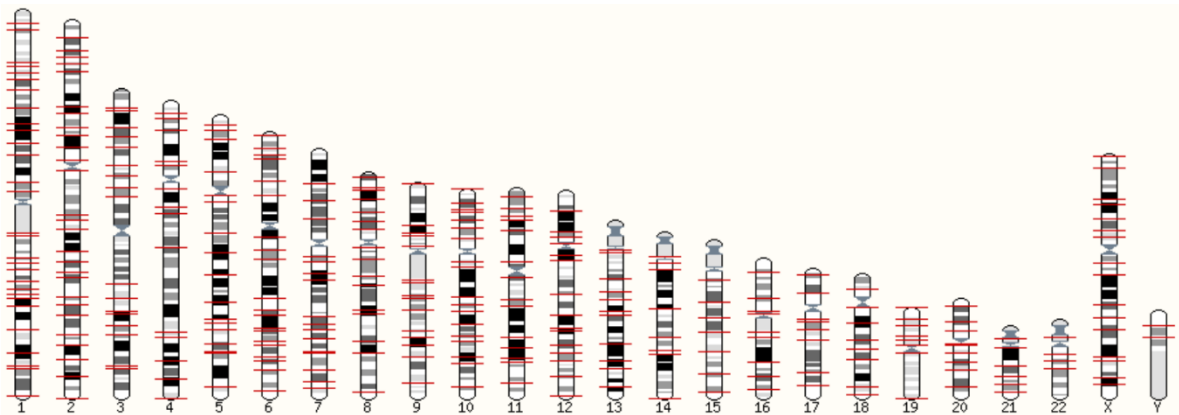


Figure 4. Human genome illustrates here the best assembled vertebrate genome, $C \approx 3.5$. Note: in contrast to fish genomes, the chromosome morphology, i.e. the centromere position, is resolved in human genome, and the GC- and gene rich (black bands), AT-rich and gene poor (white bands), and intermediate regions (grey bands) are discriminated.