

Table 1 – Genomic census for a variety of selected organisms. The table features the genome size, current best estimate for number of protein coding genes and number of chromosomes. Genomes often also include extra-chromosomal elements such as plasmids that might not be indicated in the genome size and number of chromosomes. The number of genes is constantly under revision. The numbers given here reflect the number of protein coding genes. tRNA and non coding RNAs, many of them still to be discovered, are not accounted for. Bacterial strains often show significant variations in genome size and number of genes among strains. Values were rounded to two significant digits.

Organism	Genome size (bp)	Number of genes - Protein coding (total)	Number of chromosomes
<b>Model Organisms</b>			
Model bacteria <i>E. coli</i>	4.6 Mbp <sup>100269</sup>	4,300 <sup>105443</sup>	1 <sup>100269</sup>
Budding yeast <i>S. cerevisiae</i>	12 Mbp <sup>100459</sup>	6,600 <sup>100237</sup>	16 <sup>100459</sup>
Fission yeast <i>S. pombe</i>	13 Mbp <sup>105369</sup>	4,800 <sup>105369</sup>	3 <sup>105369</sup>
Amoeba <i>D. discoideum</i>	34 Mbp <sup>105513</sup>	13,000 <sup>105514</sup>	6 <sup>105513</sup>
Diatom <i>T. pseudonana</i>	35 Mbp <sup>105369</sup>	11,000 <sup>103246</sup>	24 <sup>105369</sup>
Bread mold <i>N. crassa</i>	40 Mbp <sup>103246</sup>	10,000 <sup>103246</sup>	7 <sup>111376</sup>
Nematode <i>C. elegans</i>	100 Mbp <sup>101363</sup>	20,000 <sup>101364</sup>	12 (2n)
Fruit fly <i>D. melanogaster</i>	140 Mbp <sup>111379</sup>	14,000 <sup>100200</sup>	8 (2n) <sup>100201</sup>
Model plant <i>A. thaliana</i>	140 Mbp <sup>111380</sup>	27,000 <sup>100473</sup>	10 (2n) <sup>100474</sup>
Moss <i>P. patens</i>	510 Mbp <sup>104729</sup>	28,000 <sup>111377</sup>	27 <sup>105322</sup>
Zebrafish <i>D. rerio</i>	1.4 Gbp <sup>111374</sup>	26,000 <sup>111374</sup>	48 (2n) <sup>100597</sup>
Mouse <i>M. musculus</i>	2.8 Gbp <sup>100308</sup>	20,000 <sup>100310</sup>	40 (2n) <sup>100335</sup>
Human <i>H. sapiens</i>	3.2 Gbp <sup>111378</sup>	21,000 <sup>100399</sup>	46 (2n) <sup>100426</sup>
<b>Viruses</b>			
Hepatitis D virus (smallest known animal RNA virus)	1.7 Kb <sup>105570</sup>	1	ssRNA
<i>HIV-1</i>	9.7 Kbp <sup>105769</sup>	9 <sup>105769</sup>	2 ssRNA (2n) <sup>105769</sup>
<i>Influenza A</i>	14 Kbp <sup>105768</sup>	11 <sup>105767</sup>	8 ssRNA <sup>105767</sup>
Bacteriophage λ	49 Kbp <sup>105770</sup>	66 <sup>105770</sup>	1 dsDNA <sup>105770</sup>
Epstein-Barr virus	170 Kbp <sup>103246</sup>	80 <sup>103246</sup>	1 dsDNA
Pandoravirus salinus (Largest known viral genome)	2.8 Mbp <sup>109556</sup>	2500	1 dsDNA
<b>Organelles</b>			
Mitochondria - <i>H. sapiens</i>	16.6 Kbp <sup>105470</sup>	13 (+22 tRNA+2 rRNA) <sup>105470</sup>	1 <sup>105470</sup>
Mitochondria – <i>S. cerevisiae</i>	86 Kbp <sup>105471</sup>	8 <sup>105471</sup>	1 <sup>105471</sup>
Chloroplast – <i>A. thaliana</i>	150 Kbp <sup>105918</sup>	100 <sup>105918</sup>	1 <sup>105918</sup>
<b>Bacteria</b>			
<i>C. ruddii</i> (Smallest genome of an endosymbiont bacteria)	160 Kbp <sup>100622</sup>	182 <sup>100622</sup>	1 <sup>100622</sup>
<i>M. genitalium</i> (smallest)	580 Kbp <sup>105492</sup>	470 <sup>105493</sup>	1 <sup>105492</sup>

genome of a free living bacteria)			
<i>H. pylori</i>	1.7 Mbp <sup>105494</sup>	1,600 <sup>105494</sup>	1 <sup>105494</sup>
<i>H. influenza</i> (first free-living organism sequenced)	1.8 Mbp <sup>105491</sup>	2,000 <sup>111382</sup>	1
Cyanobacteria <i>S. elongatus</i>	2.7 Mbp <sup>100527</sup>	3,000	1 <sup>100527</sup>
Methicillin resistant <i>S. aureus</i> (MRSA)	2.9 Mbp <sup>105499</sup>	2,700 <sup>105500</sup>	1 <sup>105499</sup>
<i>C. crescentus</i>	4.0 Mbp <sup>105497</sup>	3,800 <sup>105498</sup>	1 <sup>105497</sup>
<i>B. subtilis</i>	4.2 Mbp <sup>111447</sup>	4,400 <sup>111448</sup>	1 <sup>111386</sup>
<i>S. cellulosem</i> (Largest known bacterial genome)	13 Mbp <sup>104469</sup>	9,400 <sup>104469</sup>	1 <sup>104469</sup>
Archaea			
Nanoarchaeum equitans (smallest parasitic archaeal genome)	490 Kbp <sup>105503</sup>	550 <sup>105502</sup>	1 <sup>105503</sup>
Thermoplasma acidophilum (flourishes in pH<1)	1.6 Mbp <sup>105915</sup>	1,500 <sup>105915</sup>	1 <sup>105915</sup>
<i>Methanocaldococcus (Methanococcus) jannaschii</i> (from ocean bottom hydrothermal vents; pressure >200 atm)	1.7 Mbp <sup>105501</sup>	1,700 <sup>105501</sup>	1 <sup>105501</sup>
<i>Pyrococcus furiosus</i> (optimal temp 100°C)	1.9 Mbp <sup>105916</sup>	2,000	1 <sup>105916</sup>
Eukaryotes - unicellular			
Microsporidian <i>Encephalitozoon intestinalis</i> (smallest eukaryotic genome)	2.3 Mbp <sup>110288</sup>	1,800 <sup>110288</sup>	11 <sup>110288</sup>
<i>Ostreococcus tauri</i> (smallest free living eukaryote)	13 Mbp <sup>101523</sup>	8,000 <sup>105490</sup>	20 <sup>105489</sup>
<i>Plasmodium falciparum</i> (Malaria parasite)	23 Mbp <sup>102127</sup>	5,300 <sup>102196</sup>	14 <sup>102196</sup>
Eukaryotes - multicellular			
Pufferfish <i>Fugu rubripes</i> (Smallest known vertebrate genome)	400 Mbp <sup>100278</sup>	19,000 <sup>111375</sup>	22 <sup>111392</sup>
Poplar <i>P. trichocarpa</i> (first tree genome sequenced)	500 Mbp <sup>105322</sup>	46,000 <sup>111371</sup>	19 <sup>105322</sup>
Sea urchin <i>S. purpuratus</i>	810 Mbp <sup>105517</sup>	23,000 <sup>105518</sup>	42 (2n) <sup>111373</sup>

<b>Corn <i>Z. mays</i></b>	2.3 Gbp <sup>110565</sup>	33,000 <sup>110565</sup>	20 (2n) <sup>105520</sup>
<b>Dog <i>C. familiaris</i></b>	2.4 Gbp <sup>111389</sup>	19,000 <sup>103246</sup>	40 <sup>111393</sup>
<b>Chimpanzee <i>P. troglodytes</i></b>	3.3 Gbp <sup>111390</sup>	19,000 <sup>111372</sup>	48 (2n) <sup>100597</sup>
<b>Wheat <i>T. aestivum</i> (hexaploid)</b>	16.8 Gbp <sup>102713</sup>	95,000 <sup>105448</sup>	42 (2n=6x) <sup>105917</sup>
<b>Marbled lungfish <i>P. aethiopicus</i> (largest known animal genome)</b>	130 Gbp [based on DNA content] <sup>100597</sup>	Unknown	34 (2n)
<b>Herb plant <i>Paris japonica</i> (largest known genome)</b>	150 Gbp [based on DNA content] <sup>110278</sup>	Unknown	40 (2n) <sup>110278</sup>