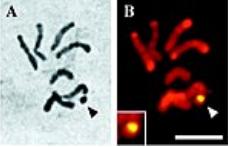
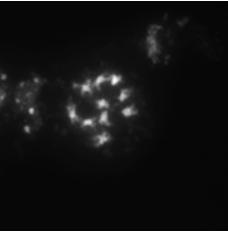
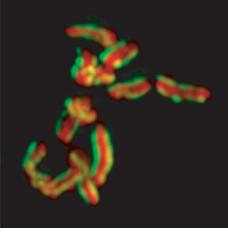
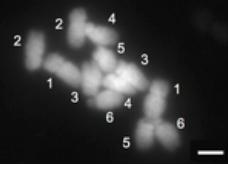
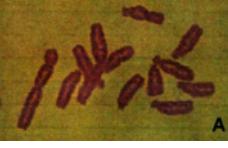
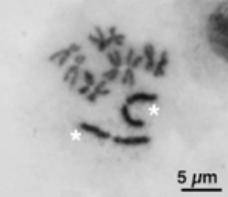
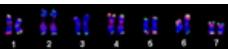
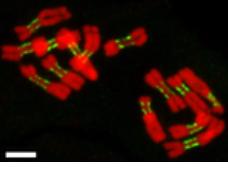
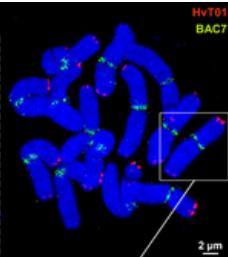
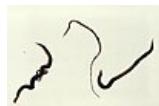
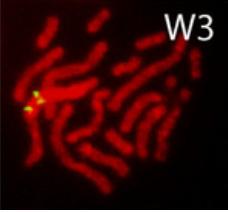
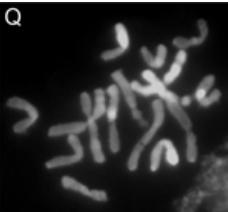
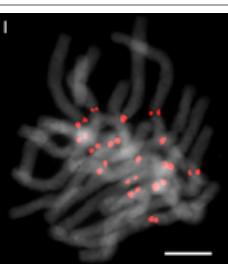
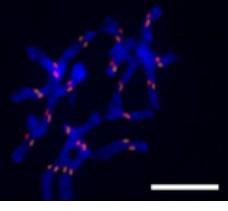
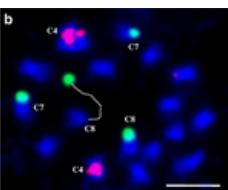
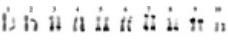
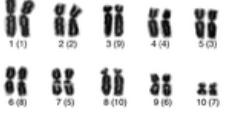
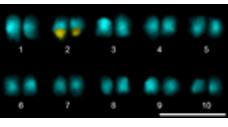


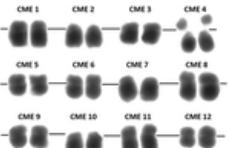
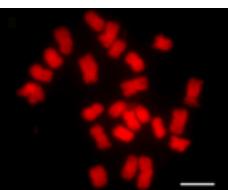
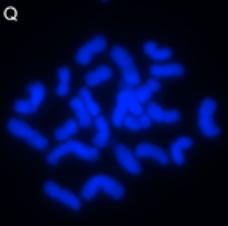
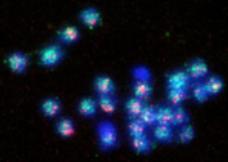
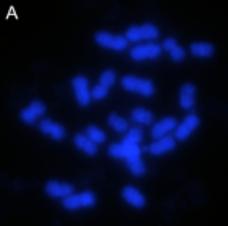
| S. No. | Organism<br>(Scientific name)                            | Chromosome number | Picture   | Karyotype | Notes  | Source |
|--------|--|-------------------|---|-----------|--|--------|
| 1      | <u>Jack jumper ant</u><br>( <i>Myrmecia pilosula</i> )   | 2/1               |   |           | 2 for females, males are haploid and thus have 1; smallest number possible. Other ant species have more chromosomes. <sup>[5]</sup>        | [5]    |
| 2      | <u>Spider mite</u><br>( <i>Tetranychidae</i> )           | 4–14              |   |           | Spider mites (family Tetranychidae) are typically haplodiploid (males are haploid, while females are diploid) <sup>[6]</sup>               | [6]    |
| 3      | <u>Cricotopus sylvestris</u>                             | 4                 |   |           |  | [7]    |
| 4      | <u>Oikopleura dioica</u>                                 | 6                 |   |           |  | [8]    |
| 5      | <u>Yellow fever mosquito</u><br>( <i>Aedes aegypti</i> ) | 6                 |   |           | The 2n=6 chromosome number is conserved in the entire family Culicidae, except in <i>Chagasia bathana</i> , which has 2n=8. <sup>[9]</sup> | [9]    |
| 6      | <u>Indian muntjac</u><br>( <i>Muntiacus muntjak</i> )    | 6/7               |   |           | 2n = 6 for females and 7 for males. The lowest diploid chromosomal number in mammals. <sup>[10]</sup>                                      | [11]   |
| 7      | <u>Hieracium</u>   | 8                 |   |           |  |        |
| 8      | <u>Fruit fly</u><br>( <i>Drosophila melanogaster</i> )   | 8                 |   |           | 6 autosomal and 2 allosomic (sex)  | [12]   |
| 9      | <u>Macrostomum lignano</u>                               | 8                 | <br>A small, elongated, translucent worm-like creature with a distinct head and tail, resting on a light-colored surface. |           |  | [13]   |

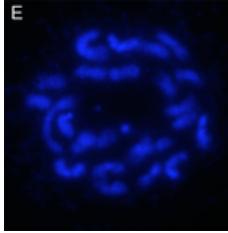
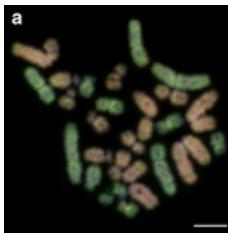
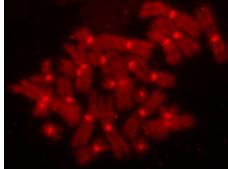
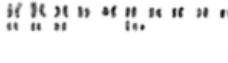
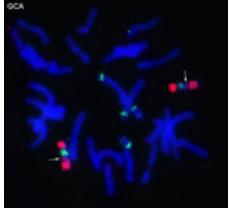
| S. No. | Organism<br>(Scientific name)  | Chromosome number | Picture   | Karyotype  | Notes   | Source               |
|--------|--|-------------------|---|--|---|----------------------|
| 10     | <u><a href="#">Marchantia polymorpha</a></u>                               | 9                 |    |    | Typically haploid with dominant gametophyte stage. 8 autosomes and 1 allosome (sex chromosome). The sex-determination system used by this species and most other bryophytes is called UV. Spores can carry either the U chromosome, which results in female gametophytes, or the V chromosome, which results in males. The chromosome number $n = 9$ is the basic number in many species of Marchantiaceae. In some species of Marchantiaceae, plants with various ploidy levels (having 18 or 27 chromosomes) were reported, but this is rare in nature. | <a href="#">[14]</a> |
| 11     | <u><a href="#">Thale cress<br/>(Arabidopsis thaliana)</a></u>              | 10                |    |    |   |                      |
| 12     | <u><a href="#">Swamp wallaby<br/>(Wallabia bicolor)</a></u>                | 10/11             |   |   | 11 for male, 10 for female  | <a href="#">[15]</a> |
| 13     | <u><a href="#">Australian daisy<br/>(Brachyscome dichromosomatica)</a></u> | 12                |  |  | This species can have more B chromosomes than A chromosomes at times, but $2n=4$ .  | <a href="#">[16]</a> |
| 14     | <u><a href="#">Nematode<br/>(Caenorhabditis elegans)</a></u>               | 12/11             |  |  | 12 for hermaphrodites, 11 for males   |                      |
| 15     | <u><a href="#">Spinach<br/>(Spinacia oleracea)</a></u>                     | 12                |  |  |   | <a href="#">[17]</a> |
| 16     | <u><a href="#">Broad bean<br/>(Vicia faba)</a></u>                         | 12                |  |  |   | <a href="#">[18]</a> |
| 17     | <u><a href="#">Yellow dung fly<br/>(Scathophaga stercoraria)</a></u>       | 12                |  |  | 10 autosomal and 2 allosomic (sex) chromosomes. Males have XY sex chromosomes and females have XX sex chromosomes. The sex chromosomes are the largest chromosomes and constitute 30% of the total  | <a href="#">[19]</a> |

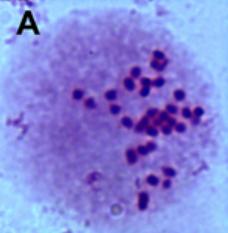
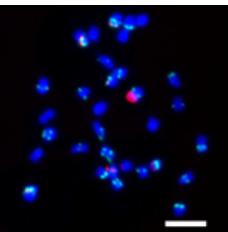
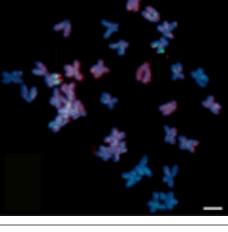
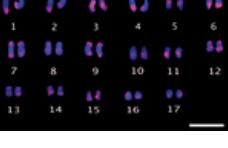
| S. No. | Organism<br>(Scientific name)                           | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|---|-------------------|---|--|---|--------|
|        |   |                   |   |  | length of the diploid set in females and about 25% in males. <sup>[19]</sup>  |        |
| 18     | <b>Slime mold</b><br><i>(Dictyostelium discoideum)</i>  | 12                |    |  |   | [20]   |
| 19     | <b>Cucumber</b><br><i>(Cucumis sativus)</i>             | 14                |    |    |   | [21]   |
| 20     | <b>Tasmanian devil</b><br><i>(Sarcophilus harrisii)</i> | 14                |    |    |   |        |
| 21     | <b>Rye</b><br><i>(Secale cereale)</i>                   | 14                |    |    |   | [22]   |
| 22     | <b>Pea</b><br><i>(Pisum sativum)</i>                    | 14                |   |   |   | [22]   |
| 23     | <b>Barley</b><br><i>(Hordeum vulgare)</i>               | 14                |  |  |   | [23]   |
| 24     | <b>Aloe vera</b>  | 14                |  |  | The diploid chromosome number is $2n = 14$ with four pair of long acrocentric chromosomes ranging from $14.4 \mu\text{m}$ to $17.9 \mu\text{m}$ and three pair of short sub metacentric chromosomes ranging from $4.6 \mu\text{m}$ to $5.4 \mu\text{m}$ . <sup>[24]</sup> | [24]   |
| 25     | <b>Koala</b><br><i>(Phascolarctos cinereus)</i>         | 16                |  |  |   |        |
| 26     | <b>Kangaroo</b>   | 16                |  |  | This includes several members of genus <i>Macropus</i> , but not the red kangaroo ( <i>M. rufus</i> , 20)   | [25]   |
| 27     | <b>Botryllus schlosseri</b>                             | 16                |  |  |   | [26]   |

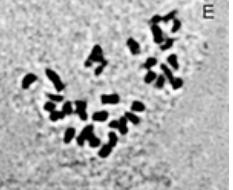
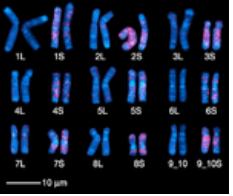
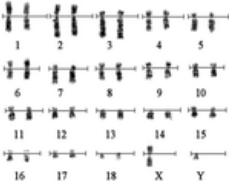
| S. No. | Organism<br>(Scientific name)               | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|---|-------------------|---|--|---|--------|
| 28     | <i>Schistosoma mansoni</i>                  | 16                |    |    | 2n=16. 7 autosomal pairs and ZW sex-determination pair. <sup>[27]</sup>   | [27]   |
| 29     | Welsh onion<br>( <i>Allium fistulosum</i> ) | 16                |    |    |   | [28]   |
| 30     | Garlic<br>( <i>Allium sativum</i> )         | 16                |    |    |   | [28]   |
| 31     | Itch mite<br>( <i>Sarcoptes scabiei</i> )   | 17/18             |   |   | According to the observation of embryonic cells of egg, chromosome number of the itch mite is either 17 or 18. While the cause for the disparate numbers is unknown, it may arise because of an XO sex determination mechanism, where males (2n=17) lack the sex chromosome and therefore have one less chromosome than the female (2n=18). <sup>[29]</sup>   | [29]   |
| 32     | Radish<br>( <i>Raphanus sativus</i> )       | 18                |  |  |   | [22]   |
| 33     | Carrot<br>( <i>Daucus carota</i> )          | 18                |  |  | The genus <i>Daucus</i> includes around 25 species. <i>D. carota</i> has nine chromosome pairs ( $2n = 2x = 18$ ). <i>D. capillifolius</i> , <i>D. sahariensis</i> and <i>D. syriacus</i> are the other members of the genus with $2n = 18$ , whereas <i>D. muricatus</i> ( $2n = 20$ ) and <i>D. pusillus</i> ( $2n = 22$ ) have a slightly higher chromosome number. A few polyploid species as for example <i>D. glaucoides</i> ( $2n = 4x = 44$ ) and <i>D. montanus</i> ( $2n = 6x = 66$ ) also exist. <sup>[30]</sup> | [30]   |
| 34     | Cabbage<br>( <i>Brassica oleracea</i> )     | 18                |  |  | Broccoli, cabbage, kale, kohlrabi, brussels sprouts, and cauliflower are all the same species and have the same chromosome number. <sup>[22]</sup>  | [22]   |

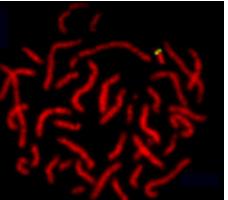
| S. No. | Organism<br>(Scientific name)   | Chromosome number | Picture   | Karyotype  | Notes  | Source |
|--------|---|-------------------|---|--|--|--------|
| 35     | <b>Citrus</b><br>( <i>Citrus</i> )                                    | 18                |    |    | Chromosome number of the genus <i>Citrus</i> , which including lemons, oranges, grapefruit, pomelo and limes, is $2n = 18$ . <sup>[31]</sup>   | [32]   |
| 36     | <b>Passion fruit</b><br>( <i>Passiflora edulis</i> )                  | 18                |    |    |  | [33]   |
| 37     | <b>Setaria viridis</b><br>( <i>Setaria viridis</i> )                  | 18                |    |    |  | [34]   |
| 38     | <b>Maize</b><br>( <i>Zea mays</i> )                                   | 20                |    |    |  | [22]   |
| 39     | <b>Cannabis</b><br>( <i>Cannabis sativa</i> )                         | 20                |    |    |  |        |
| 40     | <b>Western clawed frog</b><br>( <i>Xenopus tropicalis</i> )           | 20                |   |   |  | [35]   |
| 41     | <b>Australian pitcher plant</b><br>( <i>Cephalotus follicularis</i> ) | 20                |  |  |  | [36]   |
| 42     | <b>Cacao</b><br>( <i>Theobroma cacao</i> )                            | 20                |  |  |  | [37]   |
| 43     | <b>Eucalyptus</b><br>( <i>Eucalyptus</i> )                            | 22                |  |  | Although some contradictory cases have been reported, the large homogeneity of the chromosome number $2n = 22$ is now known for 135 (33.5%) distinct species among genus <i>Eucalyptus</i> . <sup>[38]</sup> | [39]   |
| 44     | <b>Virginia opossum</b><br>( <i>Didelphis virginiana</i> )            | 22                |  |  |  | [40]   |

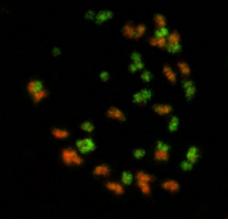
| S. No. | Organism<br>(Scientific name)                                     | Chromosome number | Picture   | Karyotype  | Notes   | Source   |
|--------|---|-------------------|---|--|---|----------|
| 45     | <b>Bean</b><br>( <i>Phaseolus</i> sp.)                            | 22                |    |    | All species in the genus <i>Phaseolus</i> have the same chromosome number, including common bean ( <i>P. vulgaris</i> ), runner bean ( <i>P. coccineus</i> ), tepary bean ( <i>P. acutifolius</i> ) and lima bean ( <i>P. lunatus</i> ). [22] | [22]     |
| 46     | <b>Snail</b>  | 24                |    |  |   |          |
| 47     | <b>Melon</b><br>( <i>Cucumis melo</i> )                           | 24                |    |    |   | [41]     |
| 48     | <b>Rice</b><br>( <i>Oryza sativa</i> )                            | 24                |    |    |   | [22]     |
| 49     | <b>Silverleaf nightshade</b><br>( <i>Solanum elaeagnifolium</i> ) | 24                |   |  |   | [42]     |
| 50     | <b>Sweet chestnut</b><br>( <i>Castanea sativa</i> )               | 24                |  |  |   | [43]     |
| 51     | <b>Tomato</b><br>( <i>Solanum lycopersicum</i> )                  | 24                |  |  |   | [44]     |
| 52     | <b>European beech</b><br>( <i>Fagus sylvatica</i> )               | 24                |  |  |   | [45]     |
| 53     | <b>Bittersweet nightshade</b><br>( <i>Solanum dulcamara</i> )     | 24                |  |  |   | [46][47] |

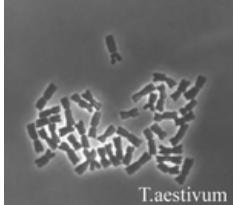
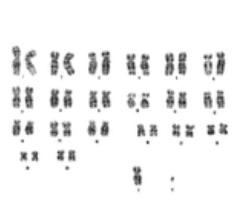
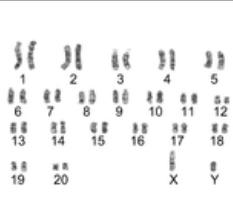
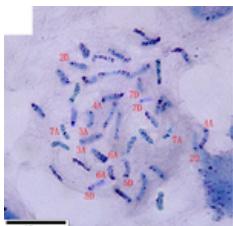
| S. No. | Organism<br>(Scientific name)                           | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|---|-------------------|---|--|---|--------|
| 54     | Cork oak<br>( <i>Quercus suber</i> )                    | 24                |    |    |   | [48]   |
| 55     | Edible frog<br>( <i>Pelophylax kl. esculentus</i> )     | 26                |    |    | Edible frog is the fertile hybrid of the pool frog and the marsh frog. <sup>[49]</sup>  | [50]   |
| 56     | Axolotl<br>( <i>Ambystoma mexicanum</i> )               | 28                |    |    |   | [51]   |
| 57     | Bed bug<br>( <i>Cimex lectularius</i> )                 | 29–47             |    |    | 26 autosomes and varying number of the sex chromosomes from three ( $X_1X_2Y$ ) to 21 ( $X_1X_2Y+18$ extra Xs). <sup>[52]</sup> | [52]   |
| 58     | Pill millipede<br>( <i>Arthrosphaera magna attems</i> ) | 30                |   |  |   | [53]   |
| 59     | Giraffe<br>( <i>Giraffa camelopardalis</i> )            | 30                |  |  |   | [54]   |
| 60     | American mink<br>( <i>Neogale vison</i> )               | 30                |  |  |   |        |
| 61     | Pistachio<br>( <i>Pistacia vera</i> )                   | 30                |  |  |   | [55]   |
| 62     | Japanese oak silkworm<br>( <i>Antheraea yamamai</i> )   | 31                |  |  |   | [56]   |
| 63     | Baker's yeast<br>( <i>Saccharomyces cerevisiae</i> )    | 32                |  |  |   |        |

| S. No. | Organism<br>(Scientific name)   | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|---|-------------------|---|--|---|--------|
| 64     | European honey bee<br>( <i>Apis mellifera</i> )                       | 32/16             |    |    | 32 for females ( $2n = 32$ ), males are haploid and thus have 16 ( $1n = 16$ ). <sup>[57]</sup>   | [57]   |
| 65     | American badger<br>( <i>Taxidea taxus</i> )                           | 32                |    |  |   |        |
| 66     | Alfalfa<br>( <i>Medicago sativa</i> )                                 | 32                |    |    | Cultivated alfalfa is tetraploid, with $2n=4x=32$ . Wild relatives have $2n=16$ . <sup>[22]</sup> | [22]   |
| 67     | Red fox<br>( <i>Vulpes vulpes</i> )                                   | 34                |    |  | Plus 0-8 B chromosomes.   | [58]   |
| 68     | Sunflower<br>( <i>Helianthus annuus</i> )                             | 34                |   |   |   | [59]   |
| 69     | Porcupine<br>( <i>Erethizon dorsatum</i> )                            | 34                |  |  |   | [60]   |
| 70     | Globe artichoke<br>( <i>Cynara cardunculus</i> var. <i>scolymus</i> ) | 34                |  |  |   | [61]   |
| 71     | Yellow mongoose<br>( <i>Cynictis penicillata</i> )                    | 36                |  |  |   |        |
| 72     | Tibetan sand fox<br>( <i>Vulpes ferrilata</i> )                       | 36                |  |  |   |        |
| 73     | Starfish<br>( <i>Asterioidea</i> )                                    | 36                |  |  |   |        |

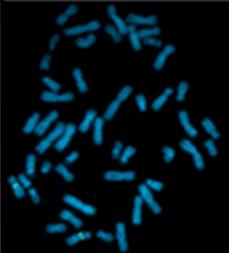
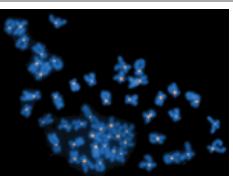
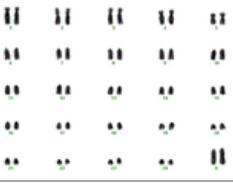
| S. No. | Organism<br>(Scientific name)                                  | Chromosome number | Picture   | Karyotype   | Notes | Source |
|--------|--|-------------------|---|---|-------|--------|
| 74     | <b>Red panda</b><br>( <i>Ailurus fulgens</i> )                 | 36                |    |   |       |        |
| 75     | <b>Meerkat</b><br>( <i>Suricata suricatta</i> )                | 36                |    |   |       |        |
| 76     | <b>Cassava</b><br>( <i>Manihot esculenta</i> )                 | 36                |    |  E  |       | [62]   |
| 77     | <b>Long-nosed cusimanse</b><br>( <i>Crossarchus obscurus</i> ) | 36                |    |   |       |        |
| 78     | <b>Earthworm</b><br>( <i>Lumbricus terrestris</i> )            | 36                |    |   |       |        |
| 79     | <b>African clawed frog</b><br>( <i>Xenopus laevis</i> )        | 36                |  | <br>1L 15 2L 25 3L 35<br>4L 45 5L 55 6L 65<br>7L 75 8L 85 9,10 9,10G |       | [35]   |
| 80     | <b>Waterwheel plant</b><br>( <i>Aldrovanda vesiculosa</i> )    | 38                |  |   |       | [36]   |
| 81     | <b>Tiger</b><br>( <i>Panthera tigris</i> )                     | 38                |  | <br>1 2 3 4 5<br>6 7 8 9 10<br>11 12 13 14 15<br>16 17 18 X Y       |       |        |
| 82     | <b>Sea otter</b><br>( <i>Enhydra lutris</i> )                  | 38                |  |   |       |        |
| 83     | <b>Sable</b><br>( <i>Martes zibellina</i> )                    | 38                |  |   |       |        |

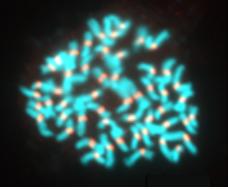
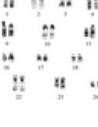
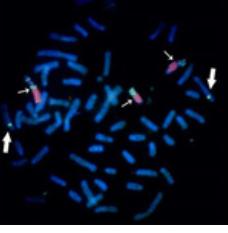
| S. No. | Organism<br>(Scientific name)                                | Chromosome number | Picture   | Karyotype  | Notes            | Source |
|--------|--|-------------------|---|--|------------------|--------|
| 84     | Raccoon<br>( <i>Procyon lotor</i> )                          | 38                |    |  |                  | [63]   |
| 85     | Pine marten<br>( <i>Martes martes</i> )                      | 38                |    |  |                  |        |
| 86     | Pig<br>( <i>Sus</i> )  | 38                |    |    |                  |        |
| 87     | Oriental small-clawed otter<br>( <i>Aonyx cinerea</i> )      | 38                |    |  |                  |        |
| 88     | Lion<br>( <i>Panthera leo</i> )                              | 38                |    |  |                  |        |
| 89     | Fisher<br>( <i>Pekania pennanti</i> )                        | 38                |   |  | a type of marten |        |
| 90     | European mink<br>( <i>Mustela lutreola</i> )                 | 38                |  |  |                  |        |
| 91     | Coatimundi   | 38                |  |  |                  |        |
| 92     | Cat<br>( <i>Felis catus</i> )                                | 38                |  |  |                  |        |
| 93     | Beech marten<br>( <i>Martes foina</i> )                      | 38                |  |  |                  |        |
| 94     | Baja California rat snake<br>( <i>Bogertophis rosaliae</i> ) | 38                |  |  |                  | [64]   |

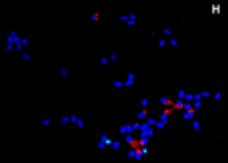
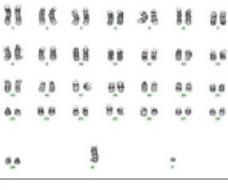
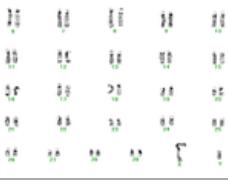
| S. No. | Organism<br>(Scientific name)                              | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|--|-------------------|---|--|---|--------|
| 95     | American marten<br>( <i>Martes americana</i> )             | 38                |    |  |   |        |
| 96     | Trans-Pecos ratsnake<br>( <i>Bogertophis subocularis</i> ) | 40                |    |  |   | [65]   |
| 97     | Mouse<br>( <i>Mus musculus</i> )                           | 40                |    |    |   | [66]   |
| 98     | Mango<br>( <i>Mangifera indica</i> )                       | 40                |    |  |   | [22]   |
| 99     | Hyena<br>( <i>Hyaenidae</i> )                              | 40                |   |  |   |        |
| 100    | Ferret<br>( <i>Mustela furo</i> )                          | 40                |  |  |   |        |
| 101    | European polecat<br>( <i>Mustela putorius</i> )            | 40                |  |  |   |        |
| 102    | American beaver<br>( <i>Castor canadensis</i> )            | 40                |  |  |   |        |
| 103    | Peanut<br>( <i>Arachis hypogaea</i> )                      | 40                |  |  | Cultivated peanut is an allotetraploid ( $2n = 4x = 40$ ). Its closest relatives are the diploid ( $2n = 2x = 20$ ). [67] | [67]   |
| 104    | Wolverine<br>( <i>Gulo gulo</i> )                          | 42                |  |  |   |        |

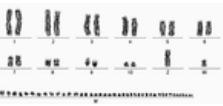
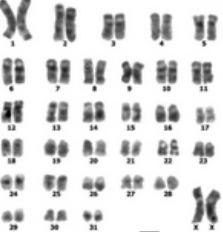
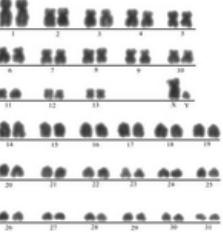
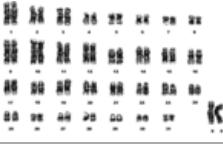
| S. No. | Organism<br>(Scientific name)                              | Chromosome number | Picture   | Karyotype  | Notes  | Source |
|--------|--|-------------------|---|--|--|--------|
| 105    | <b>Wheat</b><br>( <i>Triticum aestivum</i> )               | 42                |    |    | This is a hexaploid with $2n=6x=42$ . Durum wheat is <i>Triticum turgidum</i> var. <i>durum</i> , and is a tetraploid with $2n=4x=28$ . [22] | [22]   |
| 106    | <b>Rhesus monkey</b><br>( <i>Macaca mulatta</i> )          | 42                |    |    |  | [68]   |
| 107    | <b>Rat</b><br>( <i>Rattus norvegicus</i> )                 | 42                |    |    |  | [69]   |
| 108    | <b>Oats</b><br>( <i>Avena sativa</i> )                     | 42                |   |   | This is a hexaploid with $2n=6x=42$ . Diploid and tetraploid cultivated species also exist. [22]   | [22]   |
| 109    | <b>Giant panda</b><br>( <i>Ailuropoda melanoleuca</i> )    | 42                |  |  |  |        |
| 110    | <b>Fossa</b><br>( <i>Cryptoprocta ferox</i> )              | 42                |  |  |  |        |
| 111    | <b>European rabbit</b><br>( <i>Oryctolagus cuniculus</i> ) | 44                |  |  |  |        |
| 112    | <b>Eurasian badger</b><br>( <i>Meles meles</i> )           | 44                |  |  |  |        |
| 113    | <b>Moon jellyfish</b><br>( <i>Aurelia aurita</i> )         | 44                |  |  |  | [70]   |
| 114    | <b>Dolphin</b><br>( <i>Delphinidae</i> )                   | 44                |  |  |  |        |

| S. No. | Organism<br>(Scientific name)                            | Chromosome number | Picture | Karyotype                              | Notes   | Source |
|--------|--|-------------------|---------|--|---|--------|
| 115    | Arabian coffee<br>( <i>Coffea arabica</i> )              | 44                |         | <br>Normal 2n=44                       | Out of the 103 species in the genus <i>Coffea</i> , arabica coffee is the only tetraploid species ( $2n = 4x = 44$ ), the remaining species being diploid with $2n = 2x = 22$ . <sup>[71]</sup>   |        |
| 116    | Reeves's muntjac<br>( <i>Muntiacus reevesi</i> )         | 46                |         |  |   |        |
| 117    | Human<br>( <i>Homo sapiens</i> )                         | 46                |         | <br>44 autosomal and 2 allosomic (sex) |   | [72]   |
| 118    | Olive<br>( <i>Olea Europaea</i> )                        | 46                |         |  |   |        |
| 119    | Nilgai<br>( <i>Boselaphus tragocamelus</i> )             | 46                |         |  |   | [73]   |
| 120    | <i>Parhyale hawaiensis</i>                               | 46                |         |  |   | [74]   |
| 121    | Water buffalo (swamp type)<br>( <i>Bubalus bubalis</i> ) | 48                |         |  |   |        |
| 122    | Tobacco<br>( <i>Nicotiana tabacum</i> )                  | 48                |         |  | Cultivated species <i>N. tabacum</i> is an amphidiploid ( $2n=4x=48$ ) evolved through the interspecific hybridization of the ancestors of <i>N. sylvestris</i> ( $2n=2x=24$ , maternal donor) and <i>N. tomentosiformis</i> ( $2n=2x=24$ , paternal donor) about 200,000 years ago. <sup>[75]</sup>                    | [75]   |
| 123    | Potato<br>( <i>Solanum tuberosum</i> )                   | 48                |         |  | This is for common potato <i>Solanum tuberosum</i> (tetraploid, $2n = 4x = 48$ ). Other cultivated potato species may be diploid ( $2n = 2x = 24$ ), triploid ( $2n = 3x = 36$ ), tetraploid ( $2n = 4x = 48$ ), or pentaploid ( $2n = 5x = 60$ ). <sup>[76]</sup> Wild relatives mostly have $2n=24$ . <sup>[22]</sup> | [76]   |

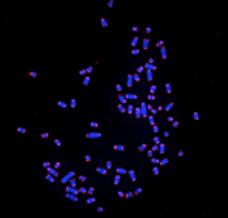
| S. No. | Organism<br>(Scientific name)                                      | Chromosome number | Picture   | Karyotype  | Notes | Source   |
|--------|--|-------------------|---|--|-------|----------|
| 124    | <b>Orangutan</b><br>( <i>Pongo</i> )                               | 48                |    |    |       |          |
| 125    | <b>Hare</b><br>( <i>Lepus</i> )                                    | 48                |    |  |       | [77][78] |
| 126    | <b>Gorilla</b><br>( <i>Gorilla</i> )                               | 48                |    |  |       |          |
| 127    | <b>Deer mouse</b><br>( <i>Peromyscus maniculatus</i> )             | 48                |    |  |       |          |
| 128    | <b>Chimpanzee</b><br>( <i>Pan troglodytes</i> )                    | 48                |   |   |       | [79]     |
| 129    | <b>Eurasian beaver</b><br>( <i>Castor fiber</i> )                  | 48                |  |  |       |          |
| 130    | <b>Zebrafish</b><br>( <i>Danio rerio</i> )                         | 50                |  |  |       | [80]     |
| 131    | <b>Woodland hedgehogs</b><br><u><i>Erinaceus</i></u>               | 48                |  |  |       | [81]     |
| 132    | <b>African hedgehogs</b><br><u><i>Atelerix</i></u>                 | 48                |  |  |       | [82]     |
| 133    | <b>Water buffalo (Riverine type)</b><br>( <i>Bubalus bubalis</i> ) | 50                |  |  |       |          |
| 134    | <b>Striped skunk</b><br>( <i>Mephitis mephitis</i> )               | 50                |  |  |       |          |

| S. No. | Organism<br>(Scientific name)                      | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|--|-------------------|---|--|---|--------|
| 135    | Pineapple<br>( <i>Ananas comosus</i> )             | 50                |    |  |   | [22]   |
| 136    | Kit fox<br>( <i>Vulpes macrotis</i> )              | 50                |    |  |   |        |
| 137    | Spectacled bear<br>( <i>Tremarctos ornatus</i> )   | 52                |    |  |   |        |
| 138    | Platypus<br>( <i>Ornithorhynchus anatinus</i> )    | 52                |    |     | Ten sex chromosomes.<br>Males have<br>$X_1Y_1X_2Y_2X_3Y_3X_4Y_4X_5Y_5$ ,<br>females have<br>$X_1X_1X_2X_2X_3X_3X_4X_4X_5X_5$ . [83]   | [84]   |
| 139    | Upland cotton<br>( <i>Gossypium hirsutum</i> )     | 52                |    |   | This is for the cultivated species <i>G. hirsutum</i> (allotetraploid, $2n=4x=52$ ). This species accounts for 90% of the world cotton production. Among 50 species in the genus <i>Gossypium</i> , 45 are diploid ( $2n = 2x = 26$ ) and 5 are allotetraploid ( $2n = 4x = 52$ ). [85] | [85]   |
| 140    | Sheep<br>( <i>Ovis aries</i> )                     | 54                |  |   |   |        |
| 141    | Hyrax<br>( <i>Hyracoidea</i> )                     | 54                |  |   | Hyraxes were considered to be the closest living relatives of elephants, [86] but sirenians have been found to be more closely related to elephants.  | [87]   |
| 142    | Raccoon dog<br>( <i>Nyctereutes procyonoides</i> ) | 54                |  |  | This number is for common raccoon dog ( <i>N. p. procyonoides</i> ), $2n=54+B(0-4)$ . On the other hand, Japanese raccoon dog ( <i>N. p. viverrinus</i> ) with $2n=38+B(0-8)$ . Here, B represents B chromosome and its variation in the number between individuals. [88][89]           | [88]   |
| 143    | Capuchin monkey<br>( <i>Cebinae</i> )              | 54                |  |  |   | [90]   |

| S. No. | Organism<br>(Scientific name)                            | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|--|-------------------|---|--|---|--------|
| 144    | <b>Silkworm</b><br><i>(Bombyx mori)</i>                  | 56                |    |    | This is for the species mulberry silkworm, <i>B. mori</i> ( $2n=56$ ). Probably more than 99% of the world's commercial silk today come from this species. <sup>[91]</sup> Other silk producing moths, called non-mulberry silkworms, have various chromosome numbers. (e.g. <i>Samia cynthia</i> with $2n=25-28$ , <sup>[92]</sup> <i>Antherea pernyi</i> with $2n=98$ . <sup>[93]</sup> ) | [94]   |
| 145    | <b>Strawberry</b><br><i>(Fragaria × ananassa)</i>        | 56                |    |    | This number is octoploid, main cultivated species <i>Fragaria × ananassa</i> ( $2n = 8x = 56$ ). In genus <i>Fragaria</i> , basic chromosome number is seven ( $x = 7$ ) and multiple levels of ploidy, ranging from diploid ( $2n = 2x = 14$ ) to decaploid ( <i>F. iturupensis</i> , $2n = 10x = 70$ ), are known. <sup>[95]</sup>  | [95]   |
| 146    | <b>Gaur</b><br><i>(Bos gaurus)</i>                       | 56                |    |  |   |        |
| 147    | <b>Elephant</b><br><i>(Elephantidae)</i>                 | 56                |   |  |   |        |
| 148    | <b>†Woolly mammoth</b><br><i>(Mammuthus primigenius)</i> | 58                |  |  | extinct; tissue from a frozen carcass   |        |
| 149    | <b>Domestic yak</b><br><i>(Bos grunniens)</i>            | 60                |  |  |   |        |
| 150    | <b>Goat</b><br><i>(Capra hircus)</i>                     | 60                |  |  |   |        |
| 151    | <b>Cattle</b><br><i>(Bos taurus)</i>                     | 60                |  |  |   |        |
| 152    | <b>American bison</b><br><i>(Bison bison)</i>            | 60                |  |  |   |        |
| 153    | <b>Sable antelope</b><br><i>(Hippotragus niger)</i>      | 60                |  |  |   | [96]   |

| S. No. | Organism<br>(Scientific name)                                     | Chromosome number | Picture   | Karyotype  | Notes   | Source |
|--------|---|-------------------|---|--|---|--------|
| 154    | <b>Bengal fox</b><br>( <i>Vulpes bengalensis</i> )                | 60                |    |  |   |        |
| 155    | <b>Gypsy moth</b><br>( <i>Lymantria dispar</i><br><i>dispar</i> ) | 62                |    |  |   |        |
| 156    | <b>Donkey</b><br>( <i>Equus asinus</i> )                          | 62                |    |  |   |        |
| 157    | <b>Scarlet macaw</b><br>( <i>Ara macao</i> )                      | 62–64             |    |    | [97]  |        |
| 158    | <b>Mule</b>   | 63                |    |  | semi-infertile (odd number of chromosomes – between donkey (62) and horse (64) makes meiosis much more difficult) |        |
| 159    | <b>Guinea pig</b><br>( <i>Cavia porcellus</i> )                   | 64                |   |   |   |        |
| 160    | <b>Spotted skunk</b><br>( <i>Spilogale x</i> )                    | 64                |  |  |   |        |
| 161    | <b>Horse</b><br>( <i>Equus caballus</i> )                         | 64                |  |  |   |        |
| 162    | <b>Fennec fox</b><br>( <i>Vulpes zerda</i> )                      | 64                |  |  | [98]  |        |
| 163    | <b>Echidna</b><br>( <i>Tachyglossidae</i> )                       | 63/64             |  |  | 63 ( $X_1Y_1X_2Y_2X_3Y_3X_4Y_4X_5$ , male) and 64 ( $X_1X_1X_2X_2X_3X_3X_4X_4X_5X_5$ , female) <sup>[99]</sup>    |        |
| 164    | <b>Chinchilla</b><br>( <i>Chinchilla lanigera</i> )               | 64                |  |  | [60]  |        |
| 165    | <b>Nine-banded armadillo</b><br>( <i>Dasypus novemcinctus</i> )   | 64                |  |  | [100]   |        |

| S. No. | Organism<br>(Scientific name)                          | Chromosome number | Picture   | Karyotype  | Notes | Source |
|--------|--|-------------------|---|--|-------|--------|
| 166    | Gray fox<br>( <i>Urocyon cinereoargenteus</i> )        | 66                |    |  |       | [98]   |
| 167    | Red deer<br>( <i>Cervus elaphus</i> )                  | 68                |    |  |       |        |
| 168    | Elk (wapiti)<br>( <i>Cervus canadensis</i> )           | 68                |    |  |       |        |
| 169    | Roadside hawk<br>( <i>Rupornis magnirostris</i> )      | 68                |    |  |       | [101]  |
| 170    | White-tailed deer<br>( <i>Odocoileus virginianus</i> ) | 70                |    |  |       |        |
| 171    | Black nightshade<br>( <i>Solanum nigrum</i> )          | 72                |   |  |       | [102]  |
| 172    | Tropical blue bamboo<br>( <i>Bambusa chungii</i> )     | 64-72             |  |  |       | [103]  |
| 173    | Bat-eared fox<br>( <i>Otocyon megalotis</i> )          | 72                |  |  |       | [98]   |
| 174    | Sun bear<br>( <i>Helarctos malayanus</i> )             | 74                |  |  |       |        |
| 175    | Sloth bear<br>( <i>Melursus ursinus</i> )              | 74                |  |  |       |        |
| 176    | Polar bear<br>( <i>Ursus maritimus</i> )               | 74                |  |  |       |        |

| S. No. | Organism<br>(Scientific name)                             | Chromosome number | Picture   | Karyotype  | Notes  | Source |
|--------|---|-------------------|---|--|--|--------|
| 177    | <b>Brown bear</b><br>( <i>Ursus arctos</i> )              | 74                |    |  |  |        |
| 178    | <b>Asian black bear</b><br>( <i>Ursus thibetanus</i> )    | 74                |    |  |  |        |
| 179    | <b>American black bear</b><br>( <i>Ursus americanus</i> ) | 74                |    |  |  |        |
| 180    | <b>Bush dog</b><br>( <i>Speothos venaticus</i> )          | 74                |    |  |  |        |
| 181    | <b>Maned wolf</b><br>( <i>Chrysocyon brachyurus</i> )     | 76                |    |  |  |        |
| 182    | <b>Gray wolf</b><br>( <i>Canis lupus</i> )                | 78                |   |  |  |        |
| 183    | <b>Golden jackal</b><br>( <i>Canis aureus</i> )           | 78                |  |  |  | [98]   |
| 184    | <b>Dove</b><br>( <i>Columbidae</i> )                      | 78                |  |  | Based on African collared dove   | [104]  |
| 185    | <b>Dog</b><br>( <i>Canis familiaris</i> )                 | 78                |  |  | Normal dog karyotype is composed of 38 pairs of acrocentric autosomes and two metacentric sex chromosomes.<br>[105][106] | [107]  |
| 186    | <b>Dingo</b><br>( <i>Canis familiaris</i> )               | 78                |  |  |  | [98]   |
| 187    | <b>Dhole</b><br>( <i>Cuon alpinus</i> )                   | 78                |  |  |  |        |
| 188    | <b>Coyote</b><br>( <i>Canis latrans</i> )                 | 78                |  |  |  | [98]   |