

# **Chapter 1**

## **Six kingdoms of life?**



## 1.1 Plantæ

**T**HE CLASSIC kingdom *Plantæ* (Haeckel, 1866) include all the multicellular green plants (*Viridiplantæ* in Latin) as flowering plants, conifers, ferns, mosses and green algae. The number of species are estimated<sup>1</sup> around 300,000 to 315,000. Usually red or brown seaweeds like kelp, fungi and bacteria have excluded from this group. This kingdom really exists since Carolus Linnæus (1707–1778) who divided the natural world into animals, plants and minerals. The kingdom *Animalia* and *Plantæ* remained in use by modern evolutionary biologists until some years.

But now, both kingdoms are considered only two branches of the unicellular kingdom *Protista* or *Protozoa*<sup>2</sup>. Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

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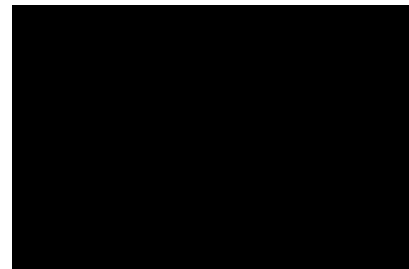


Figure 1: *Vallisneria spiralis* from *Icones plantarum*, vol. II., (Hooker, 1837).



<sup>1</sup> Largely underestimated according to many naturalist.

<sup>2</sup> Although by tradition, inconsistently the status of kingdom is maintained *Animalia* and *Plantæ*.



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## 1.2 Fungi

**L**ARLEGY, organism like *Candida albicans* has been considered different of *Protozoa* and related with green plants. However, today there are evidences that animals and true fungi are indeed closer to each other than to any other group in the eukaryote tree, far from the alveolates and other eukaryotic lineages.

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Table 1: Estimated fungal species.

Authors	Species
Bisby and Ainsworth (1943)	$10^5$
Martin (1951)	$2.5 \times 10^5$
Hawksworth (1991)	$1.5 \times 10^6$
O'Brien <i>et al.</i> (2005)	$> 3.5 \times 10^6$



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