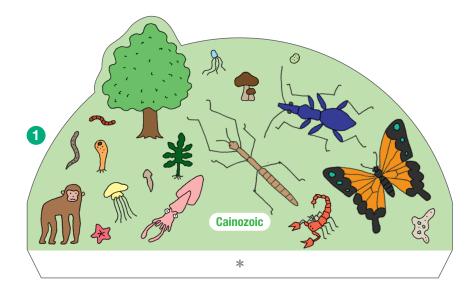
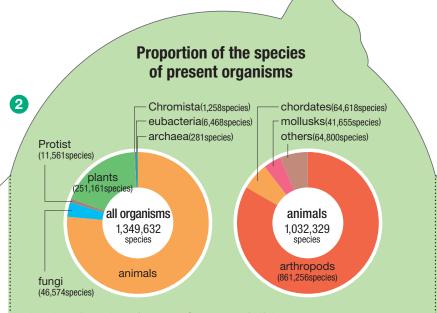
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Number of species referred to 'Catalogue of Life'

## http://www.catalogueoflife.org/col/info/totals

Roskov Y., Kunze T., Paglinawan L., Abucay L., Orrell T., Nicolson D., Culham A., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., Didžiulis V., eds (2013). Species 2000 & ITIS Catalogue of Life, 15th August 2013. Digital resource at www.catalogueoflife.org/col. Species 2000: Reading, UK.

## Side | Global change and appearance and disappearance of life

Continents formation, volcanism, increase in oxygen levels and ice age occurred 2.7 billion years ago in Archaean and 1.9 billion years ago in Proterozoic, therefore the strata of them contain trace fossils of cyanobacteria and eukaryote emerged by the events, respectively. In late-Proterozoic snowball earth events were assumed to occur, then metazoans appeared. From the Paleozoic to the Mesozoic five mass extinction events occurred. Marine organisms were extinct when sea level and continental shelves decreased. Extinction of land organisms was more affected by cooling than dry. Although causal linkage of changes of the earth and organisms is not easy to prove, it captures our imagination.

references: Geological Society of America Bulletin vol.125 no. 7/8 1027–1052 (2013) Science vol.235(4793) 1156-1167 (1987)

The Earth System (3ed), Pearson Education (2011)

Coevolution of life and the earth. Shinichi Kawakami NHKbooks (2000)

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