Christopher Lloyd

The species that changed the world

Are you special? Does knowing you are human make you feel superior to other forms of life on Earth? In a list of the world's most successful biological species, would Homo sapiens come top? Christopher Lloyd says it's time we took our place in the league table of life.

I suspect most of us think, at least sub-consciously, that being human makes us rather different from other living things. Just take a look at the world all around. What other species could build a city, repair a broken arm or walk on the Moon? While the evolutionary behaviour of non-human life may be very impressive when it comes to survival in the wild, nothing natural seems to compare with humanity for constructing a world that has truly transformed life on Earth.

What is history?

History is the study of the past only in so far as it concerns *people*. Traditionally, it begins with the earliest civilisations several thousand years ago, even though this represents just 1% of the actual time us hominids have walked the Earth. The planet and other life seldom get a look in.

The challenge of presenting a different view of life drove me to write a world history – one that surveys the history of life from the dawn of evolution to the present day as seen through the lens of 100 different life-forms.

The first half of *What on Earth Evolved? 100 Species that Changed the World* surveys the mechanics of life before mankind, from its earliest replicating molecules in bacteria to the rapid radiation of mammals following the death of the dinosaurs, culminating with the rise of man. Along the way it profiles 50 of the most successful species that emerged as a result of **natural selection** up to the time when prehistoric humans roamed the earth. Fascinating stories affecting planet, life and people abound in species such as influenza, cyanobacteria, slime, sponge, corals, sharks, earthworms, tyrannosaurus, mosquitoes, ants, elephants, rats and humans – to name just a few.

Tyrannosaurus rex – not so dangerous today.

The second part tells the story of how from about 12 000 years ago people introduced new evolutionary forces that were tailored to the creation of human civilisations and societies. From then on the success of many species was based on their ability to impress and accommodate the many needs of humans – from high yielding crops (e.g. wheat, rice, maize) and tame farm animals (e.g. cows, sheep, pigs) to mind-blowing drugs (e.g. cannabis, coca, ergot and poppies), to species that appeal to our senses of sight, taste and smell (e.g. roses, vanilla and lavender). The second part therefore profiles 50 of the most successful species that have thrived in the more modern environment of **artificial selection** up to the present day.

Christopher Lloyd has had a varied career as a historian, a science journalist and a manager of a software company.

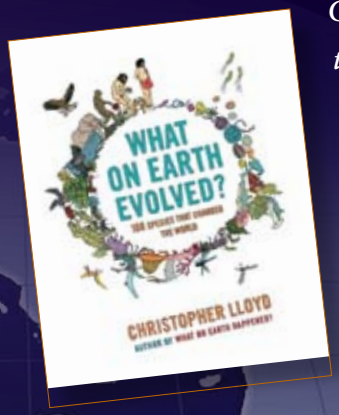
Key words
evolution
natural selection
artificial selection

On the next page you can see how Christopher ranked the top 100 species – the species which have had most impact on Earth.

The **league table** of life

Christopher Lloyd's top ten – you can find the complete list at whatonearthevolved.com.

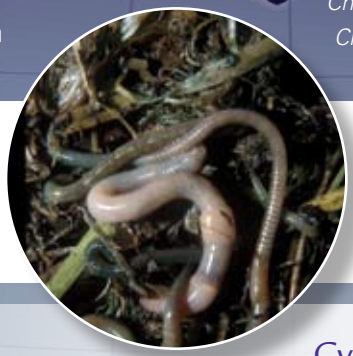
1 Earthworm
2 Algae
3 Cyanobacteria
4 Rhizobia
5 Lactobacillus
6 *Homo sapiens*
7 Stony corals
8 Yeast
9 Influenza
10 Penicillium



Christopher Lloyd has ranked the 'top 100 species' – the scores reflect each species' impact on evolution, the biosphere and humanity are considered alongside their global reach and longevity to give a total mark out of 500. He says: "This is not pretending to be science. Rather, it's a personal way of making the point that humans are not necessarily top of the ladder of life, as traditional history suggests."

Christopher Lloyd's book What on Earth Evolved? 100 Species that Changed the World is published by Bloomsbury.

1
431/500



Where would people be without the constant ploughing of the common earthworm?

3
403/500

Cyanobacteria (blue-green algae) photosynthesise, thus injecting oxygen into the atmosphere.

6
393/500

Homo sapiens, number 6 in the league table of life

7
391/500

Corals build vast underwater cities just as impressive as those constructed by man.

16
323/500

Eucalyptus trees dominate the landscape of the Blue Mountains in Australia.

25
291/500

Ants are almost everywhere – only Iceland, Greenland and a few Pacific Islands have none