

Is it evolution versus religion?

The theory of evolution by natural selection and a belief in god have not always sat well together. Here are some people's views:

"I believe in the word of God as written in the bible - God created the world less than 10 000 years ago"

"Evolution only tells us how the variety of life we see today arose, it has nothing to say about the existence of God"

"Accepting natural selection and believing in God, are not mutually exclusive - evolution by natural selection is God's way of creating a diverse world"

"I don't believe in God. Science and evolution don't allow for the existence of such a being"

The scientific evidence for evolution by natural selection is very strong. Many people, including some scientists, think that evolutionary theory and a belief in God are not exclusive. What do you think?

Do languages evolve?

Fab, groovy, cool, wicked... what is next in the sequence? The way words are used or the meaning they are given is constantly changing. New words, and variations on existing words, are created and may spread into general use. Other words and meanings may fall into disuse. Increasingly, languages are intermixed, with words being shared directly, rather than translated. These variations provide an opportunity for the selection and inheritance of changes.

Researchers have spotted startling parallels between the laws that govern evolution of language and those that govern the evolution of species.



What is a species?

'On the Origin of Species' was published 150 years ago and yet there is still debate over how best to describe a 'species'.

How can you tell when a new species emerges from an old one? Scientists say that when two individuals can no longer mate and produce fertile offspring, then they are different species. This definition cannot be used on a sequence of gradually changing fossils and, as pointed out by Darwin, the identification of when a new species has formed can be arbitrary.

Contrast the following examples of species. Two 'species' of butterfly (Heliconius himera and H. erato) can mate and produce fertile hybrids, but look completely different from one another. Four different species of, seemingly, identical wasps are all pollinators of the same particular species of fig tree, but do not mate with one another.

Crimson-patched longwing butterfly (Heliconius erato)



Microraptor dinosaur

Living dinosaurs?

A strange-looking, pigeon-sized dinosaur may be a clue to how feathers first evolved. The feathers of this dinosaur were useless for flying, but its elaborate tail feathers probably made a striking display. Fossils of feathery, but flightless, dinosaurs are quite common and it may be that feathers first evolved as an insulating layer or for ornamentation. Variations in these early feathers, acted on by natural selection, eventually led to groups of dinosaurs with feathers suited to gliding and flight. So not all the dinosaurs went extinct - some were the ancestors of birds and their descendants are still with us today.