THE HINDU

FEATURES » **YOUNG WORLD**

Published: September 10, 2015 16:12 IST | Updated: September 10, 2015 16:12 IST | September 10, 2015

One earth, a million species...

• Sharmila Deo



Pink-headed duck once found in India, Bangladesh and Myanmar: Last sighting in India was in 1935. Photo: Special Arrangement

It's been a long journey...more than 16 billion years! That's the Earth as we know it today.

Nowadays, one comes across the word 'Conservation' very frequently....conserve nature, conserve forests, conserve water, and so on. What does conservation mean?

One definition is "act of preserving; guarding, protecting". Most of you would probably have heard of one of the most accepted theories of the formation of the Earth — the "Big Bang Theory", which explains how there was a massive explosion in the universe 16 billion years ago, and the Solar system was formed 4.5 billion years ago.

Life begins

Only 3.9 billion years ago, did life come into existence, in the form of unicellular organisms. According to this theory, life existed only in water in the initial years. From simple cells, to complex ones, and then into different kinds of organisms like algae, life forms began to spread on Earth.

Various plants and animals evolved. After surviving in water for hundreds of centuries, competition between species increased, and their journey moved towards land. The early plants were non-flowering, but as insects and birds evolved, flowering plants came into being.

Then the dinosaurs ruled the Earth for many years, and after their extinction, the evolution of mammals took place rapidly. Around seven to eight million years ago, the first bipeds began to tread the land. Later, many stages of evolution took place, from apes to early stages of humans, and only around 0.1 million years ago did the human species — homosapien — appear on the scene.

This incredible journey of evolution took billions of years, and in the process, many species were born, and became extinct, with newer species taking its place. And this is an ongoing and continuous process.

Today, Earth has a staggering number of plant and animal species. For example, there are over 5000 species of mammals, 10,000 species of birds and reptiles, and 40,000 species of fish!

The plants and animals within each region interact with each other, and also with the non-living factors like land, water, earth, and air. These species and their interactions form an intricate web, and humans too form a link in this fascinating web.

Many species are threatened or are on the verge of extinction only because of human activities. It is difficult to say what the rate of extinction is because no one knows how many species there are in the first place! Yet, studies show that a rate of 100 to 1,000 species are lost per million per year, mostly due to human-caused habitat destruction and climate change. Interestingly, take away the humans of today from this scenario and what is found from fossil records is that less than a single species per million went extinct annually!

Our only hope for future generations to exist is if we start conserving. What would happen if water bodies dry up or get polluted? Or if forests get cut down? What happens to that web if a species becomes extinct?

Can we then, as a race, pause to see if we are able to give these species, and the Earth, and in the process, ourselves, a second chance?

Conservation and Nature is a series brought to you by Kalpavriksh Environmental Action Group

(www.kalpavriksh.org).

Word List

Unicellular: Consisting of a single cell

Organism: An individual animal, plant, or single-celled life form

Extinction: The state or process of dying out or being wiped out

Evolved: Develop gradually

Homosapien: The scientific name for human beings

Printable version | Oct 17, 2015 1:22:05 PM | http://www.thehindu.com/features/kids/a-quick-glance-through-our-planets-evolution/article7636951.ece

© The Hindu