

Our little life

While hiking recently along the white cliffs of southern England I realized that the chalk beneath my feet was made up of the remnants of billions of micro-organisms laid down on the seabed some 145 to 65 million years ago. Against such an immense perspective I perceived the smallness of my own life.



The Earth formed from the coalescence of gases and dust some 4600 million years ago. It was initially lifeless. Research suggests that single-celled organisms, similar to blue-green algae, appeared some 3600 million years ago. ²

It was much later during the Silurian Period, some 438 to 408 million years ago, that life emerged from its womb in the oceans onto the land. That life was green. Early plants, such as club mosses and forms resembling ferns, began to colonize the Earth during the Devonian Period 408 to 360 million years ago. ² Plants continued to evolve over the millennia to achieve the rich diversity that we see today.

Homo sapiens are late comers to the Earth appearing only some one hundred thousand years ago. ³ In this relatively short time humanity has occupied nearly all parts of the planet. Our intelligence has given us knowledge and power and with these we have achieved "near-absolute domination of the biosphere" ³ - and the ability to destroy:

"Human actions are fundamentally, and to a significant extent irreversibly, changing diversity of life on Earth." 4

Primeval forests once covered 6 billion hectares of the Earth's surface. It is only in the last 10,000 years that humans have begun their widespread clearance. But it is especially in the last 50 years that forests have been systematically felled:

"Forests have fared especially poorly...the global area of forests reduced by roughly half over the past three centuries." 5

"Ecosystems...particularly in the tropics are rapidly being destroyed" 6

Amongst the most important and endangered regions are biodiversity hotspots. These contain high species endemism - that is at least 1500 local plant species. There are some thirty 35 hotspots and most are located in the tropics. Such hotspots although representing a small fraction of the Earth's surface are estimated to sustain over half of the world's terrestrial species. ⁶





"Tropical forests have been diversity hotspots for... 250 million years"

Tropical rainforest "are the most diverse vegetation types in the world." ² Yet despite their longevity and importance such forests are disappearing at an average rate of over 90,000 km² per year.⁵ This loss of this habitat is one of the most important drivers of species extinction.

For example the Brazilian Atlantic forest has been substantially cleared and only some 12% of the original remains. West African rainforests have also been severely reduced and degraded. Islands such as Borneo, Sumatra and New Guinea, while they still retain expanses of forest, are losing it at an alarming rate.⁷

Commercial agriculture is estimated to be responsible for 73% of tropical deforestation for the period 2000 to 2010. $^{\rm 8}$

For example large expanses of the Amazon Rainforest are currently being cleared for industrial-scale cattle ranching and soy cultivation. ⁶ Other important factors include logging, mining, and infrastructure developments. Such "pressures to clear forests are expected to increase" ⁹ and the future does not look bright:

"At current rates of deforestation ...the wet tropical forests of the Amazon and Congo Basin - will be gone by the end of this century." ³

Global deforestation reached 13 million hectares per year in 2010. This mainly occurred in the tropical and subtropical regions. ¹⁰

Are we going to continue with "business as usual" until the last stand of old forest vanishes under the chainsaw forever?



Are we going to remain apathetic while the remaining fragments of primeval forest are cut down ending 250 million years of evolution?

The majestic trees that form the rainforests typically live from 200 to 1000 years. ¹¹ In comparison we can anticipate that "the days of our years are three score and ten." ¹² This short lifespan inevitably determines our very short perspective of time - and our hubris.

Humanity needs to reconnect with the Earth and recognise that our lives are extremely brief and unimportant. Then we may discover the wisdom to exercise humility and restraint and act to protect the Earth's amazing diversity of animals and plants.

"People need wild places...it reminds us that our plans are small and somewhat absurd" 13



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