

The Global Error

In the empty void of space, our sun began to shine 4.5 billion years ago. Formed from its nebula, Earth, originally a sphere of molten rock, transformed into the planet we live on today. Slowly, life began to evolve, and microorganisms transformed into intelligent life, which was nurtured until our civilization developed. However, our world is now under threat from the very creatures that it raised from our dawn. Some relentlessly exploit its resources, destroying the homes of others to do so, while constantly denying the fact that they are taking an active part in the destruction of their home. If we fast forward to the future, these events can have severe repercussions. Destruction of forests can lead to another great mass extinction, and Earth, the only haven for life that we know of, could transform into a planet like our desolate neighbors, Venus and Mars, where no life that we know of is able to survive.

In the summer of 2015, I visited the Amazon basin and was amazed by the diversity of the life there, each creature depending on others in a way that almost everything was interconnected. Life thrived, from squirrel monkeys and birds in the leafy canopy to caimans and piranhas swimming in the lakes. It was impossible to ignore the evidence of many more societies than we usually consider using this as their home. However, there was still evidence of destruction caused directly by humans. Companies drilling for oil had set up massive areas to burn off the natural gas released, and these flares were attracting and killing insects, one of the most significant animals in the region. These formed the basis of life for everything else, providing food directly and indirectly, while also working to break down dead organisms and perform many other vital tasks. If the population of these insects decreases, as it is beginning to

do, a valuable keystone will be removed from the food web, and the careful balance that has formed over millions of years will fall apart.

However, one does not need to visit a rainforest to see many species interacting. This miracle can be seen in virtually any open space, as animals depend on one another for food and other resources, from a city park to a backyard. For example, two birds chose an herb pot as a place to raise a nest in my backyard, and I was able to watch their children's growth from light blue eggs to adult birds. Even simply looking at an oak tree, one can realize how vital one tree can be to an entire community. Birds look for places to nest and raise their young, while squirrels simultaneously take and bury acorns, accidentally planting more trees in the process that will sustain another generation. At the same time, they are always wary for predators that depend on them for food. Each of these, composed of billions of cells working together to do everything necessary for life, such as processing food into energy and controlling small impulses that tell muscle cells whether to relax or contract, all are vital to the hundreds or even millions of others, striving to survive, that could never exist without them. It is a testament to the work of natural processes that all of these miniature life-forms are capable of working together to form something greater.

All of this life, though, is threatened by human expansion. Oil drilling and oil spills, such as the well known *Deepwater Horizon* spill, are only the tip of the iceberg. Mass logging, the removal of our most vital resource on Earth, and use of energy production technologies that we must change are resulting in a global catastrophe. It is estimated that Earth's temperature will rise by 5.5° Celsius by 2100. This will result in massive sea level rise and flooding as the ice

sheets melt, and many other animals will be driven to extinction as their homes are destroyed.

This can only culminate in our eventual extinction, the ultimate example of irony.

Now, imagine living in a world where we are aware of the damages we can cause and take steps to prevent them and repair past harms. A world where we have finally learned to coexist with other species while the Earth remains, and continues to be, a refuge for life, blanketed with the green of chlorophyll. This might seem futuristic; however, it is possible in the near future if we make the effort to live in a better world.