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Extinction of Ancient Species

Extinction is a term constantly used to illustrate a living animal or plant that wipe out from the history of the planet, either because of limit resource or die out instantly due to disease. If many species begin to extinct in a large amount of number at once, then the idea of mass extinction does hold. According to *The Sixth Extinction*, Elizabeth Kolbert emphasizes that the idea of mass extinction is true and continues to hold. For example, in her studies about the relationship between human being and the environment. Kolbert addresses the human behavior to environmental change are the few results to the cause of the mass extinction. For instance, she mentions, ancient species such as huge cats and towering bears begin to wipe out due to slow breed and temperature change. As the proof of the idea of mass extinction does hold, Kolbert travels around the world to studies and examine the fossils of the ancient species and compare it with the present animal. She discovers that the ancient animal and the present animal have some similar and different. For example, Kolbert mentions the difference between the elephant teeth and the mammoth teeth when she says, “Elephants’ teeth (and also mammoths’) are flat on top, with thin ridges that run from side to side. However, Mastodon teeth, by contrast, are cusped. They do, indeed, look as if they might belong to a jumbo-sized human” (Kolbert, p.26). The elephant and the mammoth may look similar, but they have different bone and teeth. Continue with the extinction of the mammoth, Kolbert presents another example of mass extinction, such as the Panamanian golden frog in El Valle. These golden frogs were mass in numbers. Moreover, they are considered the most resilient animals, and capable of surviving in many different environments. However, they begin to die-off because of diseases. After the death of the Panamanian frog, human start to realize the idea of mass extinction can happen anywhere and anytime, even occur to the fittest species. Despite the cause of mass extinction due to diseases and environmental changes, the other cause of mass extinction can take place in catastrophic events, include earthquakes, flood, and massive asteroid that strike the earth. Lastly, Kolbert concludes in her studies that out of the five comparable periods of mass extinction, the sixth extinction is the one that caused by the human. Human changes the world so rapidly and intensely that other species can't keep up.

In addition, before Elizabeth Kolbert addresses the sixth extinction was the one that caused by human, she introduces the 1st four: the Ordovician period, late Devonian, end-Permian, and Triassic-Jurassic period. The first extinction took place in the Ordovician period. For example, Kolbert says, “The first took place during the late Ordovician period, some 450 million years ago, when living things were still mainly confined to the water” (Kolbert, p.6). According to Kolbert, the extinction wiped out almost 86% of life on Earth. The second extinction took place in the late Devonian period around 360 million years ago. It’s estimated that around 75 % of species are killed. The third extinction took place at the end of the Permian period. Kolbert describes this extinction is one of the most destructive because it came close to wipe out the entire earth. For instance, she says, “The most devastating took place at the end of the Permian period, some 250 million years ago, and it came perilously close to emptying the earth out altogether” (Kolbert, p.6). She also mentions, “The event is sometimes referred to as ‘the mother of mass extinctions’ or ‘the great dying’ ”(Kolbert, p.6). The fourth extinction is occurred in the Triassic- Jurassic period between 200 million years ago. An estimated of up to 75% of all species died during the fourth extinction. Further, the fifth extinction took place in the Cretaceous period, when the falling of asteroid hit the earth and kill the dinosaurs. Moreover, a scientist named Alvarez provides an evidence that the dinosaurs went extinct because of the asteroid. For example, Kolbert mentions, “In the gorge, he discovered the first traces of the giant asteroid that ended the Cretaceous period and caused what may have been the worst day ever on planet earth. By the time the dust—in this case, literal as much as figurative—had settled, some three-quarters of all species had been wiped out” (Kolbert, p.71). As proof of to the phenomenon, scientists believe that there is a time on earth that the mass extinction does exist, which wiped out many species almost the same time, rather than dying out gradually over time.

Moreover, in *The Sixth Extinction*, Elizabeth Kolbert analyses the greatest threat to life on earth today are caused by human being. Human has destroyed their own environment by burning fossil fuels, cutting down forests, and pumping carbon dioxide into the ocean. For instance, Kolbert says, “Since the start of the industrial revolution, humans have burned through enough fossil fuels—coal, oil, and natural gas—to add some 365 billion metric tons of carbon to the atmosphere” (Kolbert, p.113). As the result of burning large amount of fossil fuel, human being is making the ocean become more acidic by adding CO2. For example, Kolbert addresses, “Assuming that humans continue to burn fossil fuels, the oceans will continue to absorb carbon dioxide and will become increasingly acidified” (Kolbert, p.114). By adding extra CO2 into the ocean, some of the sea creatures can’t adapt to the changing environment and shortly die out. For example, Kolbert says, “While many species will apparently do fine, even thrive in an acidified ocean, lots of others will not. Some of the organisms that have been shown to be vulnerable, like clownfish and Pacific oysters” (Kolbert, p. 118). Not only ocean acidification is a threat to the life of the sea creature, but also a threat to the life of human in many cases. For example, human is swimming and consuming the water from the ocean. Another threat to the life on earth is global warming. Global warming can harm the species in many ways, such as they can’t adapt to certain temperature changes. For example, Kolbert mentions, “In the popular imagination, global warming is mostly seen as a threat to cold-loving species, and there are good reasons for this. As the world warms, the poles will be transformed. Obviously, any animal that depends on the ice-ringed seals, say, or polar bears—is going to be hard-pressed as it melts away” (Kolbert, pp. 149-150). The temperature changes can have a great impact on the life of the species. Some species can survive in a warm temperature, but other species who lived in the cold temperature are easily die-off because they can’t adapt to the falling temperature.

In the past, women’s role in society is disadvantage than men because of their status. Women are trained up to be obedient to her husband. When coming to marriage, they are assigned by their parent. Women don’t have a full control of their life. For example, in *A Vindication of the Rights of Woman*, Mary Wollstonecraft addresses, “She has only learned to please men, to depend gracefully on them; yet, encumbered with children” (Wollstonecraft, p.1). Women’s role is given birth and took care of the family. They don’t receive much respect form their husband. Women are being treated as labor or servant to their husband family. Moreover, women are subservient to men. However, in the present, women are being treated equally as men. Women can attend college and be independent. For instance, *in How Harvard, Princeton, and Yale discovered women*, Carlos Lozada mentions Harvard, Princeton and Yale begin to accept women to their school. Further, Lozada says, “It is clear that women now will be playing an increasing role of leadership in our society and that Dartmouth can, and should, contribute to their education” (Lozada, p.3). Giving an opportunity for women to attend college, women status begins to recognize in society. Women become less dependent on men. For example, in *All the Single Ladies*, Kate Bolick gives an example of herself being single and success in life. Bolick says, “When I embarked on my own sojourn as a single woman in New York City—talk about a timeworn cliché!—it wasn’t dating I was after. I was seeking something more vague and, in my mind, more noble, having to do with finding my own way, and independence” (Bolick, p.14). Bolick satisfies with her status as being independent and single because it gives her more opportunity to do things that she wants. For instance, Bolick can choose to marry someone or attend college to get a higher education.

In the world today, the human is abuse natural resources. They do all they can for their own profits, and they don't think about how their actions greatly affect our worlds. Human is harmed natural resources by burning fossil fuels, cutting down forests, and pumping carbon dioxide into the ocean. Not only it’s effect on the life of many sea creatures, but also human life. As the sea creature is suffered to adapt to the high level of pH in water, others creature is dissolved in water because of the high level of CO2. Due to the high level of carbon dioxide that human pumping into the water, the ocean become more acidic. With the CO2 that it dissolves in water to form an acid, it’s a high risk that human can make a huge impact on the life of many sea creatures. While some people may receive immediate economic benefits from the activities, but short-term gains cannot recover the negative long-term economic losses. To decrease the consumption of fossil fuel, the human can use bicycle or hybrid car as their transportation. This helps to reduce the level of CO2 that human bump into the water from burning fossil fuel, which can save the life of many sea creatures.

Work Cited

Richter, Viviane. “The Big Five Mass Extinctions.” *Cosmos*, 6 July 2015, cosmosmagazine.com/palaeontology/big-five-extinctions.