

Patrick Cannon

2021 National Climate Essay Student Competition: Biodiversity Loss

“Look closely at nature. Every species is a masterpiece, exquisitely adapted to the particular environment in which it has survived. Who are we to destroy or even diminish biodiversity?” - E.O. Wilson

Climate change is a global issue impacting different forms of life throughout our planet. It can be connected to various issues such as global warming, rising sea levels, social justice issues, and a multitude of more. It has substantial amounts of impact on our planet's functions in several ways. Amongst these issues, biodiversity loss poses a threat to all life, being a huge issue affecting our planet on a wide scale. Unfortunately, looking out for the best interest of our planet has become politically corrupt, leaving the future unknown.

We are facing a huge climate crisis worldwide. Biodiversity is extremely ecologically important for species in an ecosystem. Biodiversity is the different biotic factors, represented by the variety of life in an ecosystem. In ecosystems, everything is interconnected. This is supported by the Diversity-Stability theory. Within an ecosystem, biodiversity helps with speed recovery from natural disasters, climate stability, ecosystem productivity, and more. Studies have shown from the University of Michigan's U-M Sustainability department, demonstrating that biodiversity affects ecosystems as those comparable to global warming or air pollution. This means, the adverse effects of biodiversity loss are something that needs to be addressed adequately, that will effectively influence action. Biodiversity also is beneficial to humans. Biodiverse ecosystems have numerous positive benefits such as providing food, producing

oxygen, cleaning water, and controlling disease. Protection of these ecosystems that are enriched with life and provide so much for humans needs to be prioritized.

Pennsylvania is no exception to the tragic loss of biodiversity throughout the world. It is known that more than 25,000 native species throughout the state are dealing with difficulties due to climate change to survive. Some of these vulnerable animals include two-thirds of bird species inhabiting the state. This includes the Pennsylvania state-bird, the ruffed grouse. Environmental issues globally and within the United States are interconnected. Biodiversity loss is commonly due to different aspects of climate change, including deforestation, global warming, and exploitation of natural resources. Each of these is due to human impact. According to Jim Bonner, the executive director of the Audubon Society of Western Pennsylvania, birds prefer cool environments. Unfortunately, due to the greenhouse gas emissions, causing global temperatures to rise higher than ever before, these birds are facing a dangerous future.

What is being done about biodiversity loss in Pennsylvania? There has been a lack of focus on both the effects of climate change and biodiversity loss throughout the state. Policymakers play a huge part in this, as they commonly are deciding to ignore the impacts environmental issues have. The Pennsylvania Department of Conservation & Natural Resources is an effective work focused on conservation loss through Biodiversity Management, their Wildlife Conservation Program, and Pennsylvania Natural Heritage Program. These programs finance research, conduct inventories regarding conservation work, and conduct management activities. While they effectively use adaptation to manage the damage of climate change, little climate mitigation remains to be made globally. Climate mitigation is focusing on limiting climate change and rising greenhouse gas emissions. To effectively stop climate change and prevent biodiversity loss we need substantial change. Laws that regulate different environmental

aspects throughout the planet need to be made. This includes laws prohibiting the destruction of biodiverse forests, limiting greenhouse gas emissions, and more. To efficiently combat climate change, I believe we as a nation must turn to renewable energy.

From the endangered polar bears in the Arctic to the corals in the Great Barrier Reef that are becoming deceased, and even to the Pennsylvania state bird facing endangerment, biodiversity loss is a climate emergency. There needs to be a focus on biodiversity as it's noted to be one of the top five drivers of climate change. Without major changes, the future of our planet and its beautiful biodiversity isn't bright. I strongly believe we need a collaboration of both individual efforts and policy changes to effectively address biodiversity loss. As individuals, some things we can do to promote the protection of species are growing a garden, conserving water use, buying produce locally, and protecting endangered species that are local to you. Another way to take action is by reaching out to policymakers. Voicing your concerns on climate change could influence potential policy creations. But, one of the most effective ways for youth to have impact is through activism. Generation Z can be the generation to influence the prospective changes for the environment. The events that will occur if climate action doesn't take place, will largely impact our future. Which means climate action and the protection of biodiversity is insanely important for our generation, and our biggest weapon is getting our voices heard. In conclusion, biodiversity loss is a detrimental occurrence globally, that needs to be addressed on a wide scale throughout the world.

Sources:

Ad, C. (March 17, 2020) Ruffed Grouse Decline Linked to Loss of Young Forest. Retrieved from <https://timberdoodle.org/news/ruffed-grouse-decline-linked-loss-young->

