

Mosquitoes: Do we need them?

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In these days, of pesticides and mosquito control districts, those of us who live in the United States don't have to worry about the risks of being bitten by a mosquito. However, we must not forget about the damage they cause around the world. Unfortunately, these tiny insects kill nearly one million people a year, mostly in countries like Africa. Warming weather and increased travel worldwide have extended the ranges in which mosquitoes, and the sicknesses they may carry, can survive. Because of these reasons it's thought that within the next fifty years a billion more people could be exposed to a mosquito carried disease. So, what would a world without mosquitoes look like? Do we even need them?

Views differ greatly on what life would be like if mosquitoes completely disappeared. It is true, some carry terrible sicknesses and being bitten by a mosquito is hardly an enjoyable experience. However, once you begin to learn more about these tiny creatures, you will understand they are helpful to the health of the environment. As you read, it will be up to you to decide if the advantages that mosquitoes provide outweigh the risks of possible illness or even death.

Usually we only pay attention to the mosquitoes that bite us, because nobody likes the uncomfortable, itchy bump left behind. Worldwide, 3,500 different species, or types, of mosquitoes have been identified; they live in every corner on the world except for Antarctica. Most mosquitoes are completely harmless, only a couple hundred species bite or even bother humans, and only a handful of those can even carry a disease. Also, only female mosquitoes bite for only a brief part of their life, when they need a meal of blood to get the proteins necessary to lay eggs.

It is during this stage of a mosquito's life cycle, when they are trying to make eggs, that they may transfer a disease while taking a blood meal. If a mosquito bites someone who is infected with an illness, that virus or parasite will first multiply in the insect's stomach and then move into their glands that produce saliva. Next, the disease will enter the new victim through the mosquito's saliva during the process of being bitten. It is through the infected saliva, not blood, where these sicknesses are spread. These viruses and parasites have adapted to survive in only certain types of mosquitoes and provide no advantage to them.

However, mosquitoes serve many important purposes in their environments in which they live. Adult mosquitoes help bring pollen from plant to plant as they feed on nectar, the larvae clean water as they feed on dead plant and animal material, and both provide an important food source for many larger animals. Both larvae and adult mosquitoes, just like every other living thing, are an important part of a complex community. Some scientists worry that if the mosquitoes were removed, it could possibly upset the food web and leave many plants unpollinated.

You may ask how large of a part do mosquitoes really play in the environment? In some flooded areas, the amount of mosquito larvae can be so high that they send ripples out across the water. Without these larvae, hundreds of types of fish would have to change their diet in order to survive. The loss of any type of fish, unable to change, would have a negative impact on the food chain. A mosquito's role does not end at the larval stage, as adults, mosquitoes serve as an easy to catch meal for birds, frogs, and spiders, just to name a few.

Animals are not the only living things that depend on mosquitoes to survive, so do plants. Without mosquitoes, thousands of different plants would lose a whole group of insects that move pollen between flowers. Both male and female adult mosquitoes depend on nectar from plants for their energy. As mosquitoes fly from flower to flower to feed, they carry pollen from one blossom to another helping the plants reproduce. By spreading pollen as they feed, it supports the survival of these plants that provide cover and shelter for other animals, especially plants which grow in water and spend much of their lives around.

Not much love is lost between people and mosquitoes; however we must remember they are an important part of the environment. At the very least, these insects are annoying, constantly being bitten can be very frustrating. Do we know how much damage a world without mosquitoes would cause? Could another type of insect simply take its place? We don't know the answers to these questions. Scientists around the world agree that mosquitoes are important, they're just divided as to whether they're worth it or not. Whatever you think, don't expect to read about the removal of all mosquitoes anytime soon, so don't forget your bug spray and avoid being bitten.



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