Findings from the Field

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How has climate change affected tree swallow populations in New England?

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“**How has climate change affected tree swallow populations in New England?”**

I have traveled to an unnamed pond that connects to the Powwow River in South Hampton, New Hampshire three times. The trail is surrounded by a marsh area with a wide variety of animal species, the pond is used for irrigation at the nearby Heron Pond Farm. While I was there I observed the tree swallows living in this area. There were two of these great birds living in a dead tree near the end of the trail. Tree swallows are small birds with white underbellies, gray wings, and blue backs. The birds nest in dead trees or holes created by woodpeckers. While I was at the pond, I noticed that there were only a few swallows in the area, even though they arrive in March and normally nest in groups. I suspect climate change has played a role in the decrease of tree swallows populations in the northeast.

Climate change has played a large role in the changing of weather in the northeast. It gets warm earlier, and there is more severe weather plaguing the area. Because of the increase in heat, the swallows travel north earlier to lay their eggs. When they arrive they mate, and subsequently need to feed the offspring. When the birds migrate earlier the insects haven’t spawned yet, and the babies often die from starvation. This damages their population and if the offspring die it will already be too late to have more.

An increase in severe storms also decreases the amount of surviving hatchlings, when there are long rainstorms the birds can’t find insects because of the rain, so the offspring continue to starve. This causes a low turnout of juvenile birds after mating season. If these storms keep forming it is likely that the tree swallows population will continue to decrease. Having offspring is the most important aspect of keeping a species alive, but with only a few offspring, swallows will not be able to survive and find mates. This is important because these are beautiful birds that add a lot to our environment. They control the populations of the insects that they feed on, and regulate the balance of nature.

In conclusion, climate change is a large factor in the decrease of tree swallow populations in the northeast. Change in temperatures has given a rise to earlier migration and an increase in storms that has caused the swallows to not receive the amount of sustenance their juveniles need. I propose that there should be a study that tracks the amount of tree swallows that are living in nest boxes in New Hampshire and also monitor weather patterns. We could use this information to determine if there is a correlation between an increase in storms and a decrease in swallows. This would also be relevant for other birds, because swallows cannot be the only birds impacted by climate change.

A flying tree swallow

Tree swallow nest

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