

How Do Humans Affect Ruby Throated Hummingbirds?

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Abstract

The world is one complex system, where everything affects everything. As humans evolve and advance we cause challenges and harm to other life that we share a planet with. Things like climate change, deforestation, land development, and so much more negatively affect animals. We believe that Ruby Throated Hummingbirds are part of the animals affected. To test this hypothesis, we observed hummingbirds in Providence over the course of three weeks and studied their migration patterns from past years. Through our research and hard work we concluded that our hypothesis was correct.

Research Methods

To determine if our hypothesis was correct

- We researched climate change and abnormal weather that collides with Ruby Throated Hummingbird migration routes.
- We researched Ruby Throated Hummingbird population rates
- We planted a Trumpet Honeysuckle plant and a hummingbird feeder and studied the hummingbirds that pollinated it
- We did extensive research on Ruby Throated Hummingbirds, studying how they live; their habitats, their predators, their food.

How humans are affecting Ruby Throated Hummingbird's habitats

Humans have greatly affected hummingbird migration. As we develop more land, more and more hummingbird habitats are destroyed. Although the hummingbirds are affected by deforestation, they are much more affected by urban development. Ruby Throated Hummingbirds mostly live in places in places like parks, fields, and backyards. When buildings are built over fields and parks, many hummingbirds loose habitat and are left to find new homes. Pesticides are chemicals that make plants grow faster, and look “better.” Pesticides are deadly to pollinators like bees, hummingbirds, and butterflies. As more and more humans begin to use pesticides, more and more plants are rendered useless to pollinators, which cuts off the hummingbird food source.

Results

After doing lots of research, we found that hummingbirds population has been on a decline, likely due to humans. Since 2004, the Ruby Throated Hummingbird population has been on a decline. The average annual population of Ruby Throated Hummingbirds went down about 17% from 2004-2019. Ruby Throated Hummingbirds have also been arriving later and later in Rhode Island every year. In spring of 2014, most hummingbirds arrived around April 15th, but this spring, most hummingbird arrived around April 29, almost 15 days later.



Ruby-throated Hummingbird

SPRING MIGRATION ARRIVAL DATES

- March
- April
- May
- Approximate Western Edge of Breeding Range







<https://www.nature.com/articles/s41598-021-97889-x#:~:text=Contrasting%20the%20trends%20from%20the,range%20in%20western%20North%20America>.

<https://www.hummingbirdcentral.com/hummingbird-migration-spring-2022-map.htm>

<https://bioone.org/journals/the-auk/volume-130/issue-1/auk.2012.12058/Assessing-Migration-of-Ruby-Throated-Hummingbirds-Archilochus-colubris-at-Broad/10.1525/auk.2012.12058.full>