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## How are temperatures changing how bees pollinate wild blueberries?

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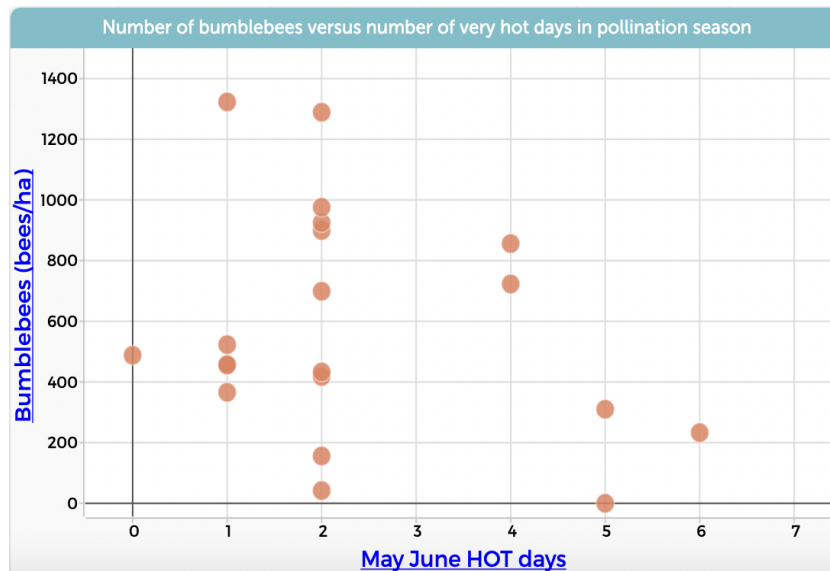
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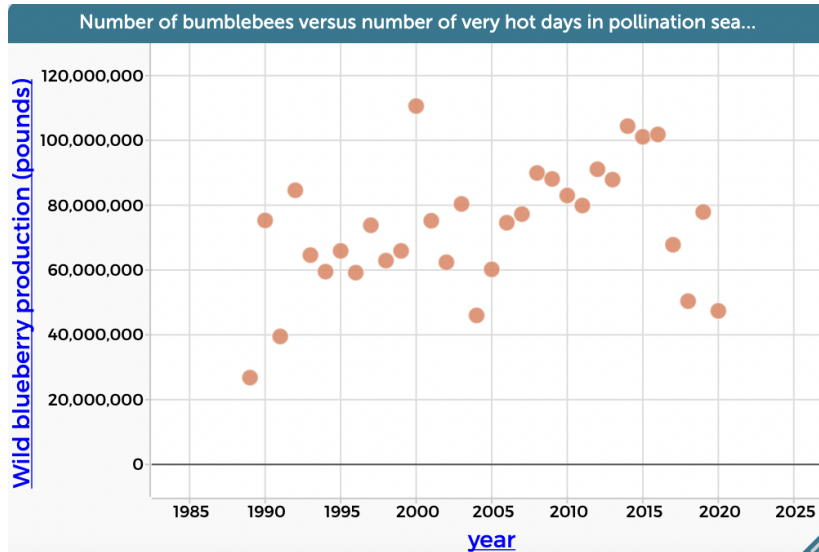
# How are temperatures changing how bees pollinate wild blueberries?

By Kaylee and Brooke

How are temperatures changing how bees pollinate wild blueberries? To answer this question I used bee data from Blueberry Hill, a town owned blueberry field in Winterport, Maine. This data was collected by Francis Drummond. I also used climate data from NOAA National Centers for Environmental Information, Climate at a Glance. I used blueberry data by commercial growers and compiled by New England Agricultural Statistics. This data is reliable for the question because it's about Maine native bees, blueberries, and climate in Maine.



This graph shows how many bumblebees came out in June on hot days. It also shows how many bumblebees came out in may.



This graph shows how many wild blueberries were produced in the past 35 years.

How are temperatures changing how bees pollinate wild blueberries? Temperatures are affecting bees because of the heat. When it gets too hot the bumble bees don't go outside so they stay in the hive instead of pollinating. It's good for the honey bees because they like the heat but they can only pollinate around 1,000 flowers in one day. A bumble can pollinate around 5,000 flowers in a day. We need to have bees so they can pollinate the wild blueberries. This makes me wonder what would happen if the bees don't pollinate the blueberries. For blueberries to grow we need to have bees to pollinate them. Bees need to deposit enough pollen on stigmas during bloom, this can be done by honey bees, managed bees, and wild bees. Even though there are other types of blueberries, wild blueberries are healthier than the others. This is why bees need a certain temperature for them to go out and pollinate the wild blueberries. If the temperatures are not the temperature bees like then we won't be able to have wild blueberries because the bees are not pollinating them.

## Citations

**Bee data:** Drummond, Francis. *Lowbush Blueberry Data*. Final Report on Arthropod Decline, Submitted January 7, 2022.

**Blueberry Data:** New England Agricultural Statistics (NASS). <https://quickstats.nass.usda.gov/>.

**Climate Data:** Climate at a Glance: County Time Series, published March 2022, retrieved on March 11, 2022 from <https://www.ncdc.noaa.gov/cag/>.