Mike McPartlin

Analysis on the role of latitude on various weather conditions

Is it really true that the closer you get to the equator, the warmer the temperature? The data gathered in this study seems to confirm just that! Of course, we need to take into consideration that it is now relatively close to equinox, which means that the earth’s rotation is currently on an axis that places the equator nearly perpendicular to the sun. An analysis of the scatter plot graph reveals a general trend line of “the closer to the equator, the warmer the temperature.”

It seems that latitude does not play much of a role on the cloudiness of a city. A quick glance at the scatter plot which compares the amount of cloud cover against the latitude on which a city is located reveals that all lattitudes can be very cloudy, somewhat cloudy, or not cloudy at all. Out of all the data on that particular plot, the only other trend that could possibly be pointed out might be that cities located above sixty degrees north lattitude have a greater chance of being more than 50% cloudy than less than 50% cloudy.

The data in this study seems to show that there are certain lattitudes where lower than 50% humidity is not likely. Of course, this could simply mean that there are few population centers in places where low humidity is the norm at certain lattitudes. This prompted me to do a simple google search of “deserts near the equator”. The top result, from the National Geographic Society seems to conform to my data in asserting that desert conditions are not likely near the equator:

They (deserts) are found along the Tropic of Cancer, between 15 and 30 degrees north of the**Equator**, or along the Tropic of Capricorn, between 15 and 30 degrees south of the**Equator**. Hot, moist air rises into the atmosphere **near** the **Equator**. As the air rises, it cools and drops its moisture as heavy tropical rains.

[desert - National Geographic Society](https://www.nationalgeographic.org/encyclopedia/desert/)

https://www.nationalgeographic.org/encyclopedia/desert/