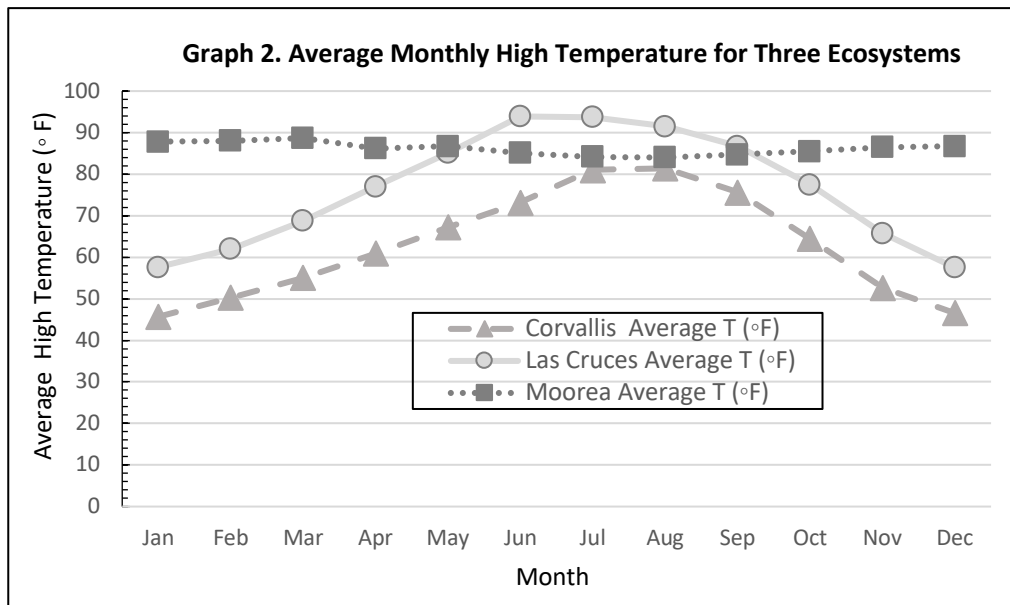
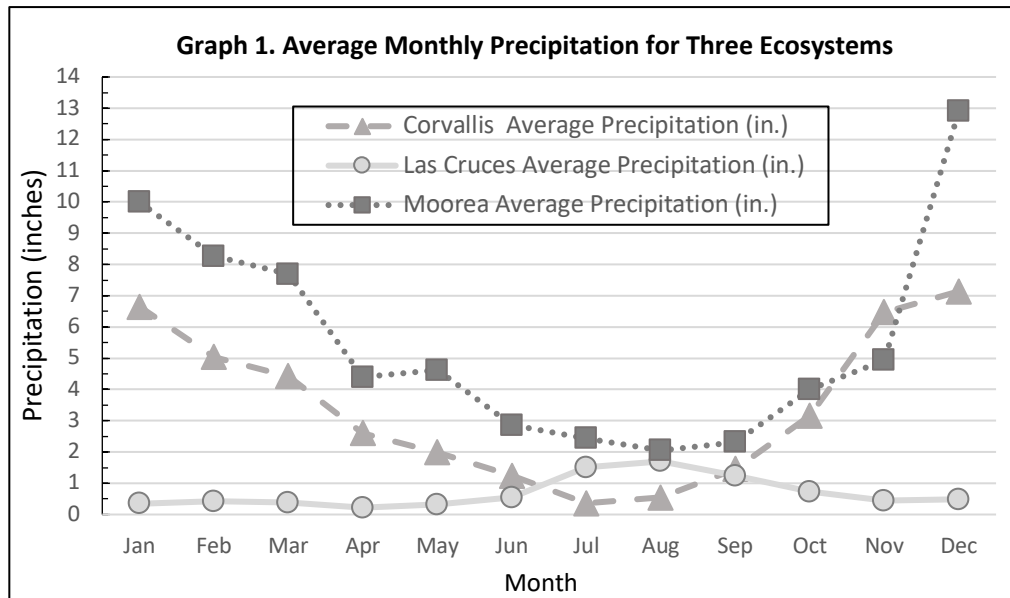


Analyzing Precipitation and Temperature Data

In the book *One Day in the Desert* by Anna Keener, Pen Pals Mariana, Kupe, and Ellie, live in three very different ecosystems. Mariana lives in a desert ecosystem in Las Cruces, New Mexico. Kupe lives in Moorea, French Polynesia, a tropical volcanic island. Ellie lives in Corvallis, Oregon, an evergreen pine forest ecosystem in the Pacific Northwest.



Examine the precipitation and temperature graphs from the locations where Mariana, Kupe, and Ellie live and answer the questions on pages 2-3.



Precipitation and temperature data are from the National Oceanic and Atmospheric Administration's (NOAA) Climate at a Glance website (www.ncdc.noaa.gov/cag/city/time-series) and Weather-and-climate.com.

1. Use Graph 1 to estimate the total precipitation received in one year for each location.

Las Cruces receives a total of _____ inches of precipitation per year.

Corvallis receives a total of _____ inches of precipitation per year.

Moorea receives a total of _____ inches of precipitation per year.

2. Which location has the most total precipitation? _____

3. What is the driest month for each location? What is the wettest month for each location?

Las Cruces Driest Month _____ Wettest Month _____

Corvallis Driest Month _____ Wettest Month _____

Moorea Driest Month _____ Wettest Month _____

4. What is the hottest month for each location? What is the coolest month for each location?

Las Cruces Hottest Month _____ Coolest Month _____

Corvallis Hottest Month _____ Coolest Month _____

Moorea Hottest Month _____ Coolest Month _____

5. What pattern do you notice in the temperature data for Moorea? How does this pattern compare to the temperature data for Las Cruces and Corvallis?

6. You are planning a May vacation to go visit either Mariana, Kupe, or Ellie. Based on the types of temperatures and precipitation levels you like, where would you go? Use the data from the graphs to explain your answer.

7. Kupe observed a mass release of coral polyps in September and October in the ocean around Moorea. Based on these graphs, what is the temperature and precipitation range that may trigger this event?

8. Based on the graphs, what would you expect the average high temperature will be this month in Las Cruces, New Mexico? How much rain would you expect this month in Las Cruces?

Average High Temperature _____ °F

Monthly Precipitation _____ inches

9. Some wildflower seeds avoid dry conditions and high temperatures by remaining in the soil for long periods and only sprouting during periods with high rainfall and cooler temperatures. Based on this observation, what month might you expect to see the greatest display of wildflowers in Corvallis? Use the data from the graphs to explain your answer.