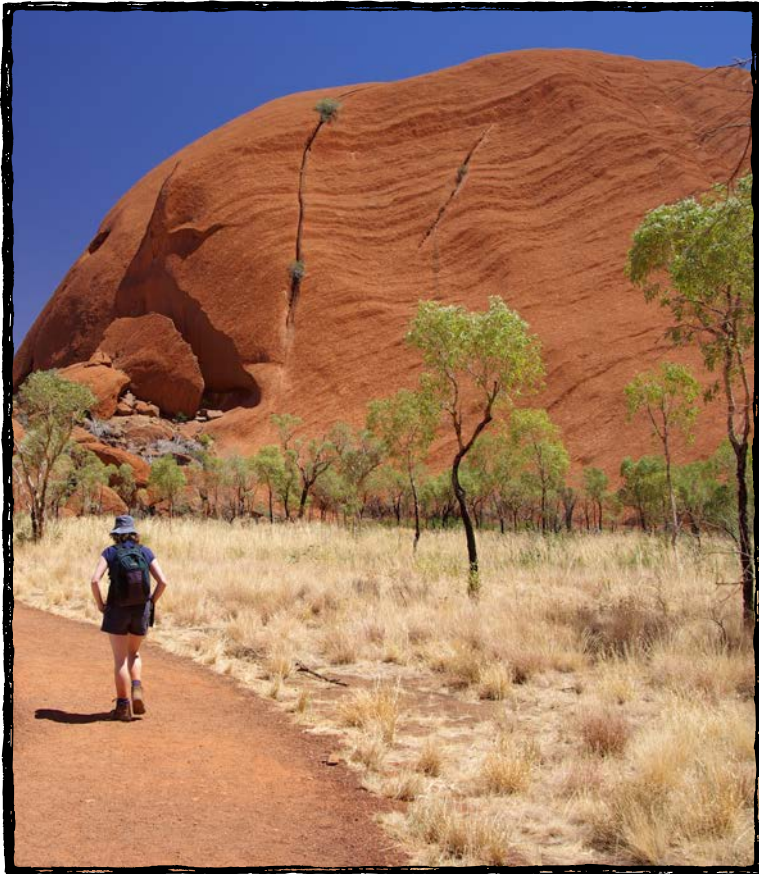


Expedition 25: The Subtropics

A Reading A-Z Level R Leveled Book

Word Count: 807

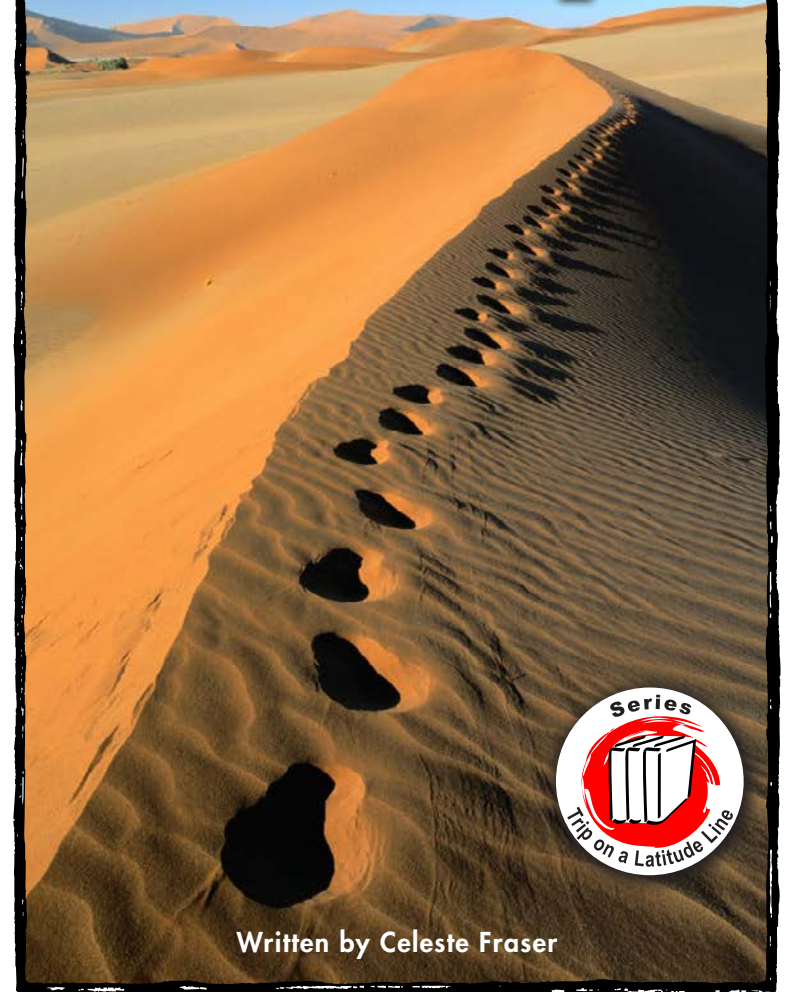



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Expedition 25: The Subtropics



Written by Celeste Fraser

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Glossary

- civilizations** (*n.*) organized societies with advanced forms of government, religion, science, language, art, and learning (p. 9)
- climate** (*n.*) the weather conditions in an area over a long period of time (p. 4)
- desalination** (*n.*) the process of removing salt from something, especially seawater (p. 10)
- descent** (*n.*) a person's origin or background as related to their family, national, or cultural group (p. 11)
- evaporating** (*v.*) changing of water from a liquid state to a gaseous state due to an increase in temperature (p. 14)
- latitude** (*n.*) lines that run east and west on a globe and are used to describe position north or south of the equator (p. 4)
- predictable** (*adj.*) expected; able to be predicted (p. 6)
- preserved** (*v.*) kept free from decay (p. 13)

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Teacher's note: This book is part of the Trip on a Latitude Line series of books on geography and exploration.



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Correlation

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Aboriginal people have been living successfully in subtropical Australia for tens of thousands of years.

Conclusion

During Expedition 25, you discovered that most of the world's deserts are located between twenty and thirty degrees latitude. You learned about some of the climate factors that keep these areas dry, both in the Northern and Southern Hemispheres. You also visited some of the cities at these latitudes. I hope you enjoyed our travels to the desert lands of the subtropics.

Deserts Next to Oceans?

One thing that may seem strange is that both the Namib and the Atacama deserts lie next to oceans. Normally, the waters of the oceans would provide the moisture to create rainfall in the lands next to them. However, in both of these regions, cold currents in the oceans prevent the coastal waters from **evaporating** and forming rain clouds.



Atacama
Desert
and
Pacific
Ocean



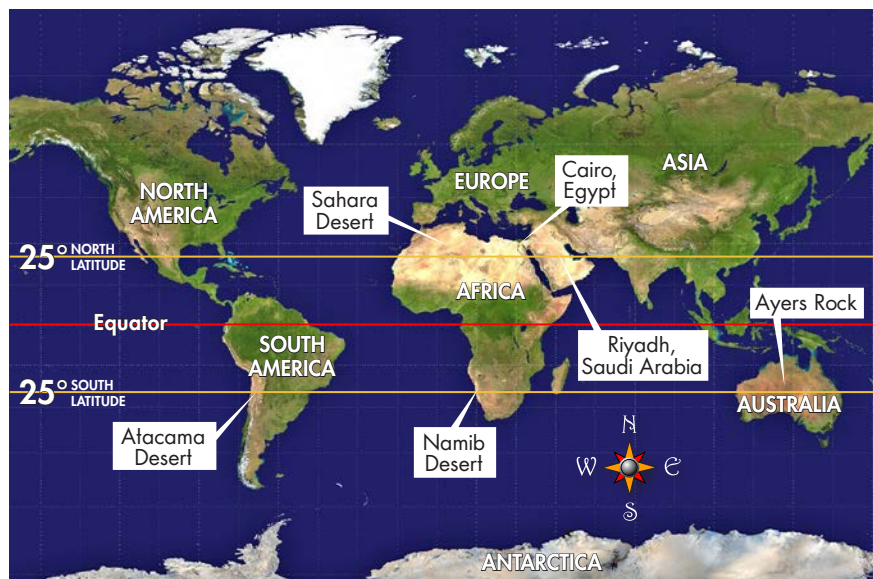
Namib
Desert
and
South
Atlantic
Ocean

Ocean waves crash onto desert shores in the subtropics.



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Expedition 25

On Expedition 25, we'll explore the world at twenty-five degrees north and south **latitude** (written as 25°N and 25°S latitude). On the map above, each of these latitude lines circles Earth about 1,725 miles (2,775 km) north or south of the equator. Even though these latitudes are far apart, the **climate** at both of them is similar because they are the same distance from the equator. What do you think the climate in these areas is like? (Hint: Bring plenty of water—you're going to need it!)

Continuing west at 25°S latitude, you arrive at the Atacama Desert in Chile. In some places in the Atacama, it hasn't rained for over ten years! Scientists have found nine-thousand-year-old mummies of native people in the Atacama that have been perfectly **preserved** in the dry desert air.



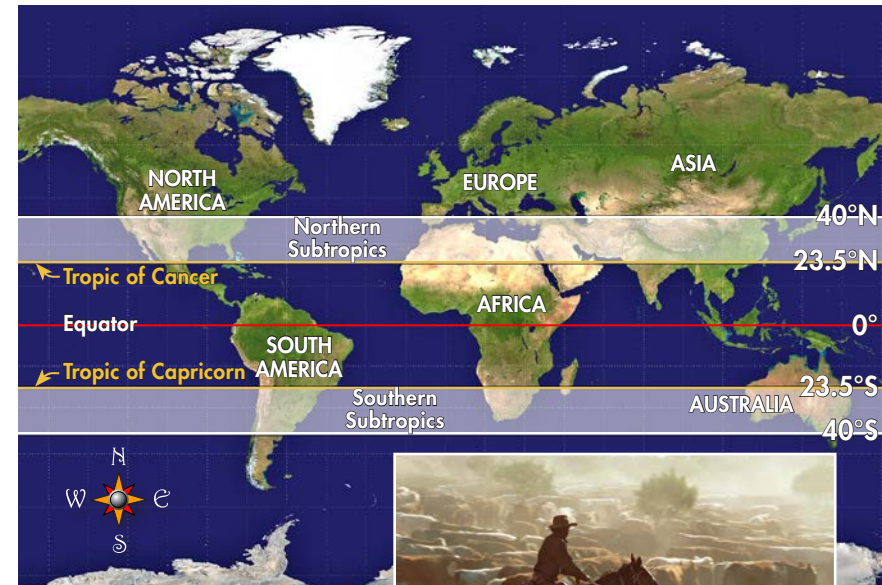
Deep cracks form in the dry mud in the high Atacama Desert.



Most elephants live in grasslands. Namibia is home to some of the only desert-dwelling elephants in the world.

Africa and South America

After flying directly west over the Indian Ocean, you come to Namibia in Africa. The Namib Desert covers much of this country. The desert is home to desert elephants, which roam great distances in search of seasonal water holes.



The subtropics are home to many of the world's great deserts. (Inset) A cowboy herds cattle in Australia.

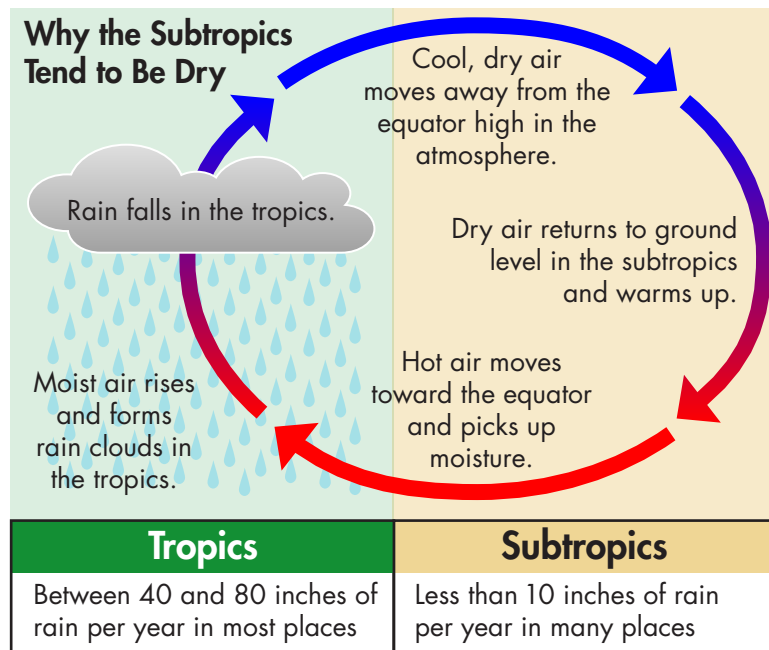


Beyond the Tropics

Traveling at 25°N and 25°S latitude, we're just outside the tropical zone, or tropics, which is the region of Earth that is closest to the equator. The boundaries of the tropical zone are the Tropic of Cancer at 23.5°N latitude and the Tropic of Capricorn at 23.5°S latitude. The regions we'll be traveling to lie in the latitudes just beyond the tropics in the subtropical zone.

Recipe for Making Deserts

Unlike the hot, rainy tropical zone near the equator, the subtropics receive very little rain. That's because high pressure in the atmosphere keeps hot, dry air stuck in place over the subtropics. That same high pressure also keeps rainfall in the subtropics to a minimum—less than ten inches per year in many places. The result of these climate patterns is a **predictable** band of deserts that circle Earth at these latitudes. Hop in the plane and let's go visit some of them!



Ayers Rock is a large sandstone formation.

Deserts in the South *Ayers Rock, Australia*

Crossing over into the Southern Hemisphere, you land at 23°S latitude, in Alice Springs, the heart of Australia's desert lands. Aboriginal people, Australia's first residents, settled here tens of thousands of years ago. You take a jeep across the flat, red desert floor to Ayers Rock, called Uluru (oo-Loo-roo) by the Anangu (ON-ung-oo) people. They consider it a sacred place. Artwork on nearby rock walls illustrates their long history. Other Australians living here are of European **descent** and speak mainly English. Many of their ancestors came to Alice Springs in the early 1900s to mine rubies and gold.

Riyadh, Saudi Arabia—Capital in the Desert

Next stop is Riyadh (ree-ODD), Saudi Arabia, at 24°N latitude. Like Cairo, it is hot and dry. But unlike Egypt, Saudi Arabia has no rivers. Much of the water that people use here comes from underground wells or is pumped from the sea. The people of Riyadh use **desalination** to remove salt from the seawater to provide fresh water for drinking and for watering crops. As in Egypt, most people in Saudi Arabia speak Arabic and practice the religion of Islam.



Riyadh is the capital of Saudi Arabia, with a population of over 4.8 million people.



The Sahara Desert in North Africa is a vast ocean of sand.

Deserts in the North

For hours, you've been flying over northern Africa at 25°N latitude. You are over the world's largest desert, the Sahara. The word *Sahara* means "desert" in Arabic, the language spoken in much of North Africa.

The Sahara is as big as the entire United States. As you look at the desert from high above, you see dunes—huge mountains of sand that look like golden ocean waves—but there are few signs of people.



The Nile River passes through the city of Cairo.

Cairo, Egypt—City on the Nile

You land at Cairo, Egypt, located at 30°N latitude. When you step off the plane, the first things you notice are grit in your mouth and the sting of dust in your nose. Sand from the Sahara swirls through the air and covers everything.

This big capital city is home to several million people. The Nile River flows through the center of Cairo. It is Egypt's main source of water.

The Nile made it possible for one of the world's great ancient **civilizations** to thrive here. You can still see its gigantic monuments on the edge of Cairo—the Pyramids of Giza, which are more than four thousand years old.



The Sphinx, a huge stone figure with a lion's body and a person's head, guards the Pyramids of Giza.