

# Sahara desert



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The Sahara Desert is located in the northern portion of Africa and covers over 3, 500, 000 square miles (9, 000, 000 sq km) or roughly 10% of the continent (image). It is bounded in the east by the Red Sea and it stretches west to the Atlantic Ocean. To the north, the Sahara Desert's northern boundary is the Mediterranean Sea, while in the south it ends at the Sahel, an area where the desert landscape transforms into a semi-arid tropical savanna. Since the Sahara Desert makes up nearly 10% of the African continent, the Sahara is often cited as the world's largest desert. This is not entirely true, however, as it is only the world's largest hot desert. Based on the definition of a desert as an area receiving less than 10 inches (250 mm) of precipitation per year, the world's largest desert is actually the continent of Antarctica at 5, 339, 573 sq mi (13, 829, 430 sq km).

### Geography of the Sahara Desert

The Sahara covers parts of several African nations including Algeria, Chad, Egypt, Libya, Mali, Mauritania, Morocco, Niger, Sudan and Tunisia. Most of the Sahara Desert is undeveloped and features a varied topography. Most of its landscape has been shaped over time by wind and includes sand dunes, sand seas called ergs, barren stone plateaus, gravel plains, dry valleys and salt flats. Around 25% of the desert is sand dunes, some of which reach over 500 ft (152 m) in height. There are also several mountain ranges within the Sahara and many are volcanic. The highest peak found in these mountains is Emi Koussi, a shield volcano that rises to 11, 204 ft (3, 415 m). It is a part of the Tibesti Range in northern Chad. The lowest point in the Sahara Desert is in Egypt's Qattera Depression at -436 ft (-133 m) below sea level.

Most of the water found in the Sahara today is in the form of seasonal or intermittent streams. The only permanent river in the desert is the Nile River that flows from Central Africa to the Mediterranean Sea. Other water in the Sahara is found in underground aquifers and in areas where this water reaches the surface, there are oases and sometimes small towns or settlements like the Bahariya Oasis in Egypt and Ghardaïa in Algeria.

Since the amount of water and topography varies based on location, the Sahara Desert is divided into different geographic zones. The center of the desert is considered hyper-arid and has little to no vegetation, while the northern and southern portions have sparse grasslands, desert shrub and sometimes trees in areas with more moisture.

#### Climate of the Sahara Desert

Although hot and extremely dry today, it is believed that the Sahara Desert has undergone various climatic shifts for the last few hundred thousand years. For example, during the last glaciation, it was bigger than it is today because precipitation in the area was low. But from 8000 BCE to 6000 BCE, precipitation in the desert increased because of the development of low pressure over ice sheets to its north. Once these ice sheets melted however, the low pressure shifted and the northern Sahara dried out but the south continued to receive moisture due to the presence of a monsoon. Around 3400 BCE, the monsoon moved south to where it is today and the desert again dried out to the state it is in today. In addition, the presence of the Intertropical Convergence Zone, ITCZ, in the southern Sahara Desert prevents moisture from reaching the area, while storms north of the desert

stop before reaching it as well. As a result, the annual rainfall in the Sahara is below 2.5 cm (25 mm) per year.

In addition to being extremely dry, the Sahara is also one of the hottest regions in the world. The average annual temperature for the desert is 86°F (30°C) but during the hottest months temperatures can exceed 122°F (50°C), with the highest temperature ever recorded at 136°F (58°C) in Aziziyah, Libya.

### Plants and Animals of the Sahara Desert

Due to the high temperatures and arid conditions of the Sahara Desert, the plant life in the Sahara Desert is sparse and includes only around 500 species. These consist mainly of drought and heat resistant varieties and those adapted to salty conditions (halophytes) where there is sufficient moisture. The harsh conditions found in the Sahara Desert have also played a role in the presence of animal life in the Sahara Desert. In the central and driest part of the desert there are around 70 different animal species, 20 of which are large mammals like the spotted hyena. Other mammals include the gerbil, sand fox and Cape hare. Reptiles like the sand viper and the monitor lizard are present in the Sahara as well.

### People of the Sahara Desert

It is believed that people have inhabited the Sahara Desert since 6000 BCE and earlier. Since then, Egyptians, Phoenicians, Greeks and Europeans have been among the peoples in the area. Today the Sahara's population is around 4 million with the majority of the people living in Algeria, Egypt, Libya, Mauritania and Western Sahara. Most of the people living in the

Sahara today do not live in cities; instead they are nomads who move from region to region throughout the desert. Because of this, there are many different nationalities and languages in the region but Arabic is most widely spoken. For those who do live in cities or villages on fertile oases, crops and the mining of minerals like iron ore (in Algeria and Mauritania) and copper (in Mauritania) are important industries that have allowed population centers to grow.