

LIFE IN DESERTS

What are deserts?



Any large region where the annual rainfall is less than 10 inches (250mm) is a desert.

This means that deserts have almost no water. Deserts are usually windy, but not

necessarily hot, rocky and sandy, which they usually are. Like the Gobi desert, the temperature there are under freezing for 6 months of every year! But hot deserts have an unbearable



climate, with approximately 40 degrees Celsius in the day, the temperature will drop to freezing point at night! Apart from the sudden change of the temperature, in parts like African and South American deserts, with almost no rain for several years, then a sudden storm may come, bringing a flash flood! Yet surprisingly, all the living things in the deserts have already adapted to these weird conditions and manage to survive healthily there.

Vegetation in deserts (Plant life)



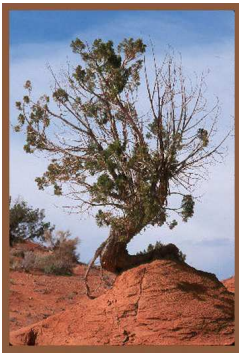
Life in the desert is difficult for plants, since they cannot run and hide in the shade or bury themselves underground like animals. The Sun scorches, and temperatures change from infernal heat during the day to very cold nights. Also, rain is extremely scarce, and when it does come it is always violent and torrential.

In order to survive, desert plants have learnt to be resistant, to wait, and to grow and reproduce quickly when rain does fall. Despite these limitations, desert vegetation is low and sparse. In general, the plants have a dry, spiny look, and trees are very rare indeed (most of them belong to the acacia family).

To endure the driest season, desert plants use three clever tricks: (1) some plants lose their stems and leaves and survive solely through their roots, (2) other plants wither and leave their seeds waiting for the next rainfall, and (3) the true desert plants-the only ones that are permanently visible-have gone through great transformations in order to be able to conserve water the cacti are the most well known of these).

In order to avoid having to share water with other plants, many species have developed toxic mechanisms to repel neighbors and fellow species and keep them off their territory. The result is that the plants stay very away from each other.

Shrubs and Trees



One of the important life groups in the desert is formed by atrophied trees and bushes. They are normally found in sandy deserts, although they are in almost all desert areas.

Trees and shrubs in the desert get water from deep underground, thanks to their very long roots, which can reach up to 246 feet (75 meters). Also, these roots keep the plants held fast to the surface, especially if they manage to get hold of a solid rock.

During the dry season, many of these shrubs and trees have very few leaves if any at all. When the driest season arrives, they lose their leaves and some of their branches and breathe through the porous bark of their trunks. Woody tissue of the trunks and main branches are very strong and main branches are very strong and resistant to the effects of the sun, and some bushes can dry out all the way without dying.

Survival techniques for plants

The authentic desert plants have had to adapt quite a lot in order to survive the scarcity of water.

One survival technique is to absorb all the water available and then store it in succulent tissue. Plants that store water like this are also called succulent, and the most well known of these belong to the cactus family, which includes more than 2,000 different species.

Cacti develop thorns instead of leaves. These thorns are very useful: first, they are hard and very sharp, to dissuade animals that might try to devour a cactus; secondly, they provide shade for the stem and collect the dew; and third, the thorns trap a layer of air around the plant to reduce the amount of evaporated moisture, forming a barrier against the hot, dehydrating air.

Chlorophyll appears on the stems and on the exterior tissue of the plant, since there are no leaves. That way, photosynthesis can be carried out without wasting any water.

The Creosote bush is one of the most successful of all desert species because of its combination of many adaptations. Instead of thorns, it depends for protection on a smell and taste wildlife find unpleasant. It has tiny leaves which close their stomata during the day to avoid

water loss and open them at night to absorb moisture. It has an extensive double root system to accumulate water from both surface and ground water.

Animal life in deserts

Camels

Camel - the amazing ship of the desert. They look weird. They have a furry, sand-coloured coat. And they have a long neck. That's right, they're the camels! Camels are surely the most



well known animals of the desert. They just pop into your mind every time you think about the desert. But how much do you actually know about them? There are 2 kinds of camels, the dromedary and the Bactrian camel. The dromedary originally lives in Arabia and North Africa. It has also been introduced to Australia and America. The dromedary has one hump. Because it lives in the hotter deserts, its coat is not too furry. It was tamed about 5000 years ago in Mesopotamia. The wild ones have been extinct for a long time and now there are only the domesticated ones left. The Bactrian camel lives in the colder deserts of Central Asia and therefore it has a thicker coat to keep it warm. The neck fur is very long and hangs down just like the

hair on our heads! Bactrian camels shed their fur in spring. It has two humps on its back and the people sit in between them. Like its cousin, the Bactrian camel has also been tamed, but there are still a few wild herds in the Gobi Desert. Camels eat tough desert plants. Their humps are not used to store water, but to store fat. When there is no food, they live off the fat in their humps. A starving camel's hump shrink and can even slide down to its sides. They can also go without water for 8 days in the summer, and even 8 weeks in the winter. But when they reach a water source, watch out! They can drink 25 gallons of water in 10 minutes! That's the same as drinking 267 cans of soft drink in 10 minutes! They must be really thirsty! Camels are very useful. Nomadic people of the desert use them not only as transport, but they sometimes eat the camel's meat too. Their milk is drunk and their fur can be woven into cloth. Even their droppings can be used as fuel in fires! Camels can travel over large desert areas carrying 260kg of loads at most. That made them the best type of transportation for crossing the desert. A few decades ago it was impossible for any human to cross the Sahara and Arabian deserts without a camel. Sadly, they are now gradually being replaced by cars and trucks and they are not as important anymore.

Dingo

The Dingo is a wild dog that inhabits the dry plains and forests of Australia. Scientists are not sure of their origins; they may be the descendants of domesticated dogs brought to



Australia over 3,500 years ago. Some Dingos are trained by Aboriginal Australian people as hunting dogs. They also used to be used as living blankets; a cold night was called a "three-dog night."

Anatomy: Dingos are a medium-sized dog. Most Dingos have short, yellowish-tan fur, but it can vary from black to cream colored. It has large ears, sharp eyes, and a keen sense of smell. Adults are about 3 ft (90 cm) long. These dogs don't bark but they sometimes howl.

Hunting and Diet: These wild dogs hunt alone or in small packs. They are nocturnal (most active at night). These carnivores (meat-eaters) eat rats, kangaroos, birds, rabbits, lizards, and some farm animals. They swallow meat in large chunks.



Human life in deserts

Desert conditions are really harsh, there is no permanent water supply and the

weathers are extreme, how can man tolerate this? For example, if a man stays in the desert for the whole day, without any special equipment, he can die immediately by the next morning because of the explosive temperature and the serious shortage of water and salt.

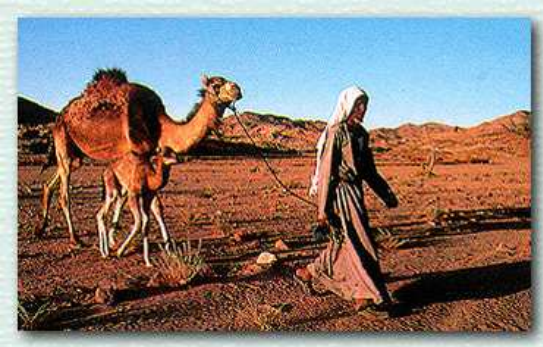
But surprisingly, some men can penetrate and even prosper in deserts!



This is because of cultural adaptations, like water can be obtained by digging or drilling or simply getting water from other places. But the temperature is another problem, therefore clothing is very important.

Loose-fitting, flowing garments are suitable in the intense heat of the desert. But in places with freezing nights, long-sleeved woolen nightshirts will be worn to protect the person from daytime heat and provide warmth in the night. Though there are many ways to solve the problems of living in the arid land, people cannot live in a certain area of the desert permanently, for when the sources of a particular area are used up, then they will have to move to another place to search for sources, therefore they have to live as NOMADS. Nomadism is a cycle, as people move to this place to another, they

may go back to the previous place again after a length of time, for living things there will grow again after some time. But nomadism does not mean a total change of the habitat or unrestricted, unplanned wandering, it just indicates that there are no permanent place of residence. These nomads live very independently in the desert, not needing any help from other places, but domestic stock is most important. The sheep, goats and camels are their food, their traveling tools. Besides of these animals, they hunt for part of the year and others cultivate the land there for growing primitive crops.



The Aborigines

As there are, so many kinds of people who survive in the desert, the Australian Aborigines have lives closest to nature with a nomadic way of life. Almost all these people appear naked or just with plain blankets or cloaks, but surprisingly, relying on their instinctive nomadic abilities and skills for survival, they are the best adapted of all humans to life in the desert! Back to the year 1770, there were about 300,000 Aborigines in Australia, but now, the population has already decreased to 100,000 of them. All divided into different clans or tribes, with

intermarriages between some of the groups, but tribal fights also occurred too. Lives of Aborigines are simple, this can be seen in their



appearance as they possess little property as to make traveling convenient. Men usually carry the important weapons with them, for example: a variety of spears, a

throwing stick and boomerangs. As for women, they bring with them a few stone and bone tools, hollowed-out bowls and baskets for food, also babies if necessary. Though the Aborigines are lagged behind a lot, don't think that they are entire barbarians, in fact, they have their own religion, art and culture. They have a religious mysticism, the 'dreaming' of mythical and actual beings and animals blended together, some were even out of the natural. These men sometimes also come together and have 'meetings' called corroborees, but these were just temporary, they don't camp together for long. A few of the people are hunter-gatherers, in this harsh situation, food- gathering groups are more popular. There are also musician-storytellers whose stories are passed on orally. There are also people with well-developed techniques of cave-painting. As we can see, the Aborigines' lifestyle are still staying at the Stone Ages, as their weapons and tools, their culture are similar to the primitive times. These men had also been

omitted in the Australian population censuses 50 years ago, for the Australian government thought that the Aborigines metaphorically and literally had no civil rights.

Future of Desert Life

Most deserts are rich in resources because they were once fertile land and the dead animals and plants that used to live there had turned into oil and other resources. The Namib Desert has diamonds in it, while there is gold in the Australian Deserts. In Saudi Arabia there are oil fields. Copper, iron, salt and uranium are also found in deserts. Believe it or not, the world's deserts are growing rather rapidly. Every year about 200,000 sq km of the land that borders the deserts become deserts themselves! Desert people speed this up even more by cutting down trees and letting their pack animals graze on the bordering grasslands. Too much intensive farming can also form a new desert. In the 1930s intensive farming and overgrazing in America's southern states formed a desert-like area of barren land called the Dust Bowl.

Word Count: 2,145

