Large animals that inhabit the desert have evolved a number of adaptations for reducing the effects of extreme heat.

One adaptation is to be light in color, and to reflect rather than absorb the Sun's rays.

Desert mammals also depart from the normal mammalian practice of maintaining a constant body temperature.

Instead of trying to keep down the body temperature deep inside the body, which would involve the expenditure of water and energy, desert mammals allow their temperatures to rise to what would normally be fever height, and temperatures as high as 46 degrees Celsius have been measured in Grant's gazelles.

The overheated body then cools down during the cold desert night, and indeed the temperature may fall unusually low by dawn, as low as 34 degrees Celsius in the camel.

This is an advantage since the heat of the first few hours of daylight is absorbed in warming up the body, and an excessive buildup of heat does not begin until well into the day.

Another strategy of large desert animals is to tolerate the loss of body water to a point that would be fatal for non-adapted animals.

The camel can lose up to 30 percent of its body weight as water without harm to itself, whereas human beings die after losing only 12 to 13 percent of their body weight.

An equally important adaptation is the ability to replenish this water loss at one drink.

Desert animals can drink prodigious volumes in a short time, and camels have been known to imbibe over 100 liters in a few minutes.

A very dehydrated person, on the other hand, cannot drink enough water to rehydrate at one session, because the human stomach is not sufficiently big and because a too rapid dilution of the body fluids causes death from water intoxication.

The tolerance of water loss is of obvious advantage in the desert, as animals do not have to remain near a water hole but can obtain food from grazing sparse and far-flung pastures.

Desert-adapted mammals have the further ability to feed normally when extremely dehydrated, it is a common experience in people that appetite is lost even under conditions of moderate thirst.