By Kelly Landen, Elephants Without Borders
Mid-November, temperatures of 42° Celsius and we are still waiting... "Pula! Pula!" we must chant in hope for Pula! The rains are coming later than hoped for. Humidity is slowly building while the sun still beats heavily overhead. There is no green grass, leaves or vegetation and the herbivores are suffering.

Every afternoon we witness elephant herds slowly making their way out of the forest, hating to cross the road, then quickening their pace towards the Chobe River. They have lost much of their body weight over the season and the calves are tired. It is a wonder that they can survive; some don’t, but most do. So how does the largest land mammal manage to keep cool under such harsh conditions?

Elephants are called pachyderms, which means thick-skinned animals. They are wrinkled in appearance. The wrinkles act as a cooling mechanism by increasing the skin’s surface area and trapping moisture. The trapped moisture takes a longer time to evaporate, therefore trapping more moisture. The trapped moisture is key. However, to cool an elephant by a single degree, you must cool over 6000 kilograms of flesh, which takes a lot of heat transfer! Keeping cool depends on the elephant’s body design. Considering elephants do not sweat, the solution lies within their skin.

The skin is extremely sensitive and can be damaged by the sun’s UV rays. Yes, elephants can get sunburn. Elephants without regular mud baths to protect from burning, an elephant’s skin would suffer serious damage.

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