



AFRICAN WILD DOGS AND CLIMATE CHANGE

African Wild Dogs are directly and indirectly threatened by climate change – Photo: African Wild Dog © Mathias Appel

ABOUT THE AFRICAN WILD DOG

Names:

Scientific: *Lycaon pictus*

English: African Wild Dog

French: Lycaon

Spanish: Licaon

The range of African Wild Dog in southern Africa has decreased to less than six per cent of its historical size. A single pack's territory ranges from 150 km² to 4,000 km², depending mainly on food supply levels. The species' resident ecosystems include upland forests, short-grass plains, bushy savannahs and semidesert climates.

Lycaon pictus have large ears to locate other pack members and facilitate heat loss. They are opportunistic predators which prey upon small rodents, birds, antelopes, gazelles, impalas, kudus and can tackle much larger animals such as wildebeest. *Lycaon pictus* hunt in cooperative packs of 6 to 20 dogs; however, as the total number of wild dogs remaining has decreased to approximately 6,600, the groups are likely to be smaller than those of historical populations.

The pack is dominated by a monogamous breeding pair and the female generally produces a litter of 2 to 20 pups. The pack's hunters will generally let the young, old and sick dogs eat first, occasionally transporting and regurgitating food for those that are not present at a kill. While there are young pups in the group, the pack will stay in one place to rear them. However, at other times, they roam from place to place, rarely staying in one location for more than one night.

Threats due to climate change

Due to the limited availability of literature on this topic, any review of the impact of climate change on African mammals must be done by combining basic information about the biology of the species with climate change projections. Meanwhile, climate change may have the following impacts on *Lycaon pictus*.

As climate change progresses, it is predicted that the Range States of the African Wild Dog will experience increased temperatures and decreased precipitation rates. That said, the African Wild Dog is relatively water-independent and adapted to running for long periods without dehydrating. Additionally, they strategically hunt during the mornings and evenings to avoid peak daytime temperatures. This suggests, therefore, that the African Wild Dog should have a certain resistance to increased temperature and decreased precipitation rates as result of climate change. However, although climate change may not directly affect the African Wild Dogs physiologically, it could have an impact on animals upon which they prey such as drought-sensitive grazers.

Lycaon pictus requires vast swaths of land for hunting and other natural resources such as water. These areas, however, are diminishing, primarily due to human activities such as agriculture, resource extraction and urban sprawl. As humans encroach upon previously uninhabited areas, interactions between humans and African Wild Dogs are becoming more common. The increasing presence of livestock in some of these areas leads to unwanted predation. This often results in the killing of African Wild Dogs as they are perceived as pests. Furthermore, as higher temperatures reduce the availability of vegetation and other natural resources, the competition between wildlife and livestock is expected to increase. Even relatively water-independent species that are tolerant to high temperatures will struggle with the effects of climate change.

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Threats due to climate change

Interspecific competition between larger carnivores is another threat to the African Wild Dog. *Lycaon pictus* occupies the same territories and shares similar diets with other large carnivores such as lions, leopards and hyenas. The relatively small size of African Wild Dogs subjects them to kleptoparasitism, a phenomenon where larger carnivores steal food from those that made the kill. A reasonably large pack would be able to stave off such kleptoparasitism; however, declining population numbers make them more susceptible to this interaction. Growing kleptoparasitism will increase the dogs' need for longer hunting durations, pushing them to hunt during the hot midday hours.

Lastly, the African Wild Dog is threatened by climate change through impacts to the reproductive cycles of lead females, the only females of the pack that produce offspring. It has been discovered that climate change affects their reproductive cycle because due to the dog's reliance on lower temperatures to raise pups. Therefore, continually increasing temperatures will impact negatively on reproduction and stable populations. As climate change creates an environment where such events are more common, the future of African Wild Dog is at risk.

Species Listing

Lycaon pictus was placed on Appendix II of the Convention on the Conservation of Migratory Species in 2009 and is considered 'Endangered' by the IUCN. The first ever analysis of the impacts of climate change on the African Wild Dog is underway by the Zoological Society of London which will provide more knowledge on this topic and help develop mitigation strategies for the survival of this species.

The African Wild Dog is one of the four species covered by the African Carnivores Initiative, which is being run jointly by CMS and the Convention on International Trade In Endangered Species (CITES), the other three being the African Lion (*Panthera leo*), the Cheetah (*Acinonyx jubatus*) and the Leopard (*Panthera pardus*).



Photos: African Wild Dog © Tambako the Jaguar; African Wild Dog pups © Benjamin Hollis

About CMS

The Convention on the Conservation of Migratory Species of Wild Animals (CMS), also known as the Bonn Convention, works for the conservation of a wide array of endangered migratory animals worldwide through negotiation and implementation of agreements and species action plans. It has 130 Parties (as of 1 February 2020).

CMS engages all relevant stakeholders in addressing threats to migratory species in concert with all other aspects of wildlife conservation and management.

CMS Instruments

Animals receive protection under CMS through listing on its two Appendices, through global or regional agreements and through action plans.

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