Lycaon pictus West Africa subpopulation, African Wild Dog
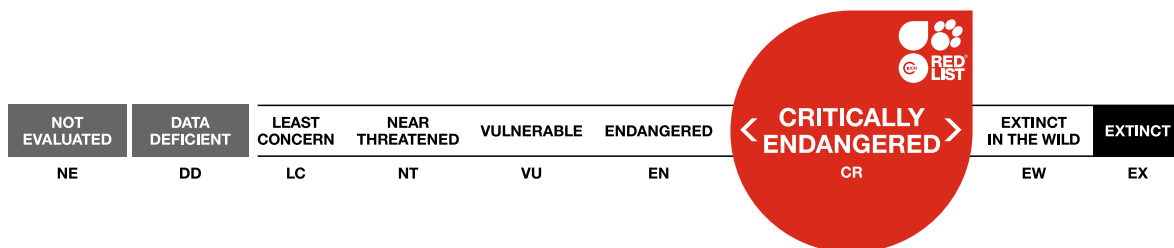
Amendment version

Assessment by: Woodroffe, R. & Sillero-Zubiri, C.

NOT EVALUATED	DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	VULNERABLE	ENDANGERED	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
NE	DD	LC	NT	VU	EN	CR	EW	EX

View on www.iucnredlist.org

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Carnivora	Canidae

Scientific Name: *Lycaon pictus West Africa subpopulation* Temminck, 1820

Parent Species: See *Lycaon pictus*

Common Name(s):

- English: African Wild Dog

Assessment Information

Red List Category & Criteria: Critically Endangered C2a(i); D ver 3.1

Year Published: 2020

Date Assessed: May 18, 2012

Justification:

The population of African Wild Dogs in West Africa is currently estimated at just 70 adults (15 mature individuals) in two subpopulations (see Table 2 in the additional supporting information for the *Lycaon pictus* assessment), and continues to decline as a result of ongoing habitat fragmentation, conflict with human activities, and infectious disease. The population therefore meets the threshold for listing as Critically Endangered under both criteria C (the largest subpopulation numbers 11 mature individuals) and D (since total population size is only 15 mature individuals).

Previously Published Red List Assessments

2012 – Critically Endangered (CR)
https://dx.doi.org/10.2305/IUCN.UK.2012.RLTS.T16991108A16991960.en

Geographic Range

Range Description:

Historical data indicate that African Wild Dogs were formerly distributed throughout sub-Saharan Africa, from desert (Lhotse 1946) to mountain summits (Thesiger 1970), and probably were absent only from lowland rainforest and the driest desert (Schaller 1972). They have disappeared from much of their former range. The species is virtually eradicated from West Africa, and survives only in Senegal and in the W Complex of protected areas in Benin, Burkina Faso and Niger.

The current geographic distribution of African Wild Dogs was estimated using data compiled by the IUCN SSC range-wide conservation planning process for Cheetahs and African Wild Dogs, including regional strategies (IUCN SSC 2008, in prep.) and subsequent associated national action plans (www.cheetahandwilddog.org). Current African Wild Dog range was considered to comprise only the "resident range" identified by participants in the IUCN SSC process: this represents land where

participants were confident that African Wild   Dogs had been confirmed to be resident within the previous 10 years.   Land where residence was not confirmed (e.g., possible range, unknown   range) was excluded.

Country Occurrence:

Native, Extant (resident): Benin; Burkina Faso; Niger; Senegal

Native, Possibly Extinct: Côte d'Ivoire; Guinea-Bissau; Mali; Nigeria

Native, Extinct: Gambia; Ghana; Sierra Leone

Native, Presence Uncertain: Guinea; Togo

Population

In West Africa, the African Wild Dog subpopulation is currently estimated at just 70 adults (15 mature individuals) (see Table 2 in the additional supporting information for the *Lycaon pictus* assessment). This subpopulation continues to decline.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

African Wild Dogs are generalist predators, occupying a range of habitats including short-grass plains, semi-desert, bushy savannas and upland forest. The species mostly hunts medium-sized antelope. Whereas they weigh 20–30 kg, their prey average around 50 kg, and may be as large as 200 kg. In most areas their principal prey are Impala (*Aepyceros melampus*), Greater Kudu (*Tragelaphus strepsiceros*), Thomson's Gazelle (*Eudorcas thomsonii*) and Common Wildebeest (*Connochaetes taurinus*). They will give chase of larger species, such as Common Eland (*Tragelaphus oryx*) and African Buffalo (*Syncerus caffer*), but rarely kill such prey. Small antelope, such as Dik-dik (*Madoqua* spp.), Steenbok (*Raphicerus campestris*) and Duiker (tribe Cephalophini) are important in some areas, and warthogs (*Phacochoerus* spp.) are also taken in some populations. African Wild Dogs also take very small prey such as hares, lizards and even eggs, but these make a very small contribution to their diet.

Generation length

Data on lifetime reproductive success of 19 alpha (breeding) females in western Zimbabwe indicate that 50% of reproductive output was achieved by age 5.5 years (SD 1.35, range 3–8; G.S.A. Rasmussen, unpubl. data). An alternative method, considers the average age of mothers of known litters, without the need for data on lifetime reproductive success. This method gives good agreement with the IUCN recommendations on calculating generation length, indicating a mean female breeding age of 5.7 years from the Zimbabwe dataset. Using this method, data from 18 litters born in Kenya to known-age mothers suggest a mean generation length of 5.0 years (R. Woodroffe, unpubl. data). Both studies suggest a minimum age at first breeding of approximately three years. Based on these data, for convenience we have estimated changes in African Wild Dog populations using a generation time of five years.

Systems:

Use and Trade (see Appendix for additional information)

Across most of its geographical range, there is minimal utilization of this species.

Threats (see Appendix for additional information)

The principal threat to African Wild Dogs is habitat fragmentation, which increases their contact with people and domestic animals, resulting in human-wildlife conflict and transmission of infectious disease. The important role played by human-induced mortality has two long-term implications. First, it makes it likely that, outside protected areas, African Wild Dogs may be unable to coexist with increasing human populations unless land use plans and other conservation actions are implemented. Second, African Wild Dog ranging behaviour leads to a very substantial "edge effect", even in large reserves. Simple geometry dictates that a reserve of 5,000 km² contains no point more than 40 km

from its borders – a distance well within the range of distances travelled by a pack of African Wild Dogs in their usual ranging behaviour. Thus, from an African Wild Dog's perspective, a reserve of this size (fairly large by most standards) would be all edge. As human populations rise around reserve borders, the risks to African Wild Dogs venturing outside are also likely to increase. Under these conditions, only the very largest unfenced reserves will be able to provide any level of protection for African Wild Dogs. In South Africa, "predator proof" fencing around small reserves has proved reasonably effective at keeping dogs confined to the reserve, but such fencing is not 100% effective (Davies-Mostert *et al*. 2009) and is unlikely to be long-term beneficial for wildlife communities.

Even in large, well-protected reserves, or in stable populations remaining largely independent of protected areas (as in northern Botswana), African Wild Dogs live at low population densities. Predation by Lions, and perhaps competition with Spotted Hyaenas, contribute to keeping African Wild Dog numbers below the level that their prey base could support. Such low population density brings its own problems. The largest areas contain only relatively small wild dog populations; for example, the Selous Game Reserve, with an area of 43,000 km² (about the size of Switzerland), is estimated to contain about 800 African Wild Dogs. Most reserves, and probably most African Wild Dog populations, are smaller. For example, the population in Niokolo-Koba National Park and buffer zones (about 25,000 km²) is likely to be not more than 50–100 dogs. Such small populations are vulnerable to extinction. "Catastrophic" events such as outbreaks of epidemic disease may drive them to extinction when larger populations have a greater probability of recovery – such an event seems to have led to the local extinction of the small African Wild Dog population in the Serengeti ecosystem on the Kenya-Tanzania border. Problems of small population size will be exacerbated if, as seems likely, small populations occur in small reserves or habitat patches. As discussed above, animals inhabiting such areas suffer a strong "edge effect". Thus, small populations might be expected to suffer disproportionately high mortality as a result of their contact with humans and human activity.

Conservation Actions (see Appendix for additional information)

A regional conservation strategy is currently being drafted for North and Western Africa subpopulations (see www.cheetahandwilddog.org).

Credits

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Authority/Authorities:	IUCN SSC Canid Specialist Group (foxes, jackals and wild dogs)

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Citation

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External Resources

For Supplementary Material, and for Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.5. Forest - Subtropical/Tropical Dry	-	Suitable	Yes
1. Forest -> 1.7. Forest - Subtropical/Tropical Mangrove Vegetation Above High Tide Level	-	Marginal	-
1. Forest -> 1.9. Forest - Subtropical/Tropical Moist Montane	-	Marginal	-
2. Savanna -> 2.1. Savanna - Dry	-	Suitable	Yes
2. Savanna -> 2.2. Savanna - Moist	-	Suitable	Yes
3. Shrubland -> 3.5. Shrubland - Subtropical/Tropical Dry	-	Suitable	Yes
4. Grassland -> 4.5. Grassland - Subtropical/Tropical Dry	-	Suitable	Yes
8. Desert -> 8.1. Desert - Hot	-	Marginal	-

Threats
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Future	-	-	No/negligible impact: 1
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 2. Species Stresses -> 2.2. Species disturbance		
1. Residential & commercial development -> 1.2. Commercial & industrial areas	Future	-	-	No/negligible impact: 1
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 2. Species Stresses -> 2.2. Species disturbance		
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.2. Small-holder farming	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 2. Species Stresses -> 2.2. Species disturbance		
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 2. Species Stresses -> 2.2. Species disturbance		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.1. Nomadic grazing	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		

2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.3. Agro-industry grazing, ranching or farming	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
3. Energy production & mining -> 3.1. Oil & gas drilling	Future	-	-	No/negligible impact: 1
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.3. Indirect species effects		
3. Energy production & mining -> 3.2. Mining & quarrying	Future	-	-	No/negligible impact: 1
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.3. Indirect species effects		
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Ongoing	-	-	Low impact: 3
	Stresses:	2. Species Stresses -> 2.3. Indirect species effects		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.2. Unintentional effects (species is not the target)	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.3. Persecution/control	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.3. Unintentional effects: (subsistence/small scale) [harvest]	Future	-	-	No/negligible impact: 1
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
6. Human intrusions & disturbance -> 6.2. War, civil unrest & military exercises	Ongoing	-	-	Low impact: 3
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		

Conservation Actions Needed
(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection
1. Land/water protection -> 1.2. Resource & habitat protection
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.3. Habitat & natural process restoration
3. Species management -> 3.2. Species recovery
3. Species management -> 3.3. Species re-introduction -> 3.3.1. Reintroduction
4. Education & awareness -> 4.1. Formal education
4. Education & awareness -> 4.2. Training
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.1. Legislation -> 5.1.1. International level
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level
5. Law & policy -> 5.2. Policies and regulations
5. Law & policy -> 5.3. Private sector standards & codes
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.1. International level
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.2. National level
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.3. Sub-national level
6. Livelihood, economic & other incentives -> 6.1. Linked enterprises & livelihood alternatives
6. Livelihood, economic & other incentives -> 6.4. Conservation payments
6. Livelihood, economic & other incentives -> 6.5. Non-monetary values

Research Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.4. Harvest, use & livelihoods
1. Research -> 1.5. Threats
1. Research -> 1.6. Actions
2. Conservation Planning -> 2.2. Area-based Management Plan
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Amendment

Amendment reason: Correction of coded threats: logging and wood harvesting has unintentional effects on the species, rather than the species being intentionally used for this purpose.

The IUCN Red List Partnership

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