

Country Profile

Ethiopia

Giraffe Conservation Status Report



Sub-region: East Africa

General statistics

Size of country: 1,127,127 km²

Size of protected areas / percentage protected area coverage: 16%

(Sub)species

Nubian giraffe (*Giraffa camelopardalis camelopardalis*)

Reticulated giraffe (*G. c. reticulata*)

Rothschild's giraffe (*G. c. rothschildi*) - possibly

Conservation Status

IUCN Red List (IUCN 2012):

Giraffa camelopardalis (as a species) – Least concern

Giraffa camelopardalis antiquorum – not assessed separately

In Ethiopia:

Under Article 24 of the Council Ministers Regulations No. 163/2008, a regulation provisioned for wildlife development, conservation and utilization, no person is allowed to hunt species listed in Table 10 of the regulations, which includes giraffe, except with a special hunting license acquired in accordance with Article 22 of the regulations.

Issues/threats

Ethiopia is one of the most densely populated countries in Africa with an estimated population of over 90 million people. Population pressure contributes significantly to environmental degradation in the country (Bekele & Hailemariam 2010). Wildlife populations in Ethiopia have diminished over the past century in diversity, density and distribution as a result of a loss of habitat, illegal hunting, land clearing for farming and land degradation due to overgrazing (Tefera 2011).

Several of Ethiopia's protected areas exist on paper only, while others have declined in size or quality (Jacobs & Schloeder 2001; Hillman 1992, 1993). A nationwide lack of basic development and a diversion of finances towards conflict, contributed to the lack of success of Ethiopia's conservation programmes (Jacobs & Schloeder 2001). Movement and resettlement policies in the mid 1980s involved the forcible uprooting of hundreds of people from the north and their resettlement to the south, leaving people in many areas desperate for food and other resources (Jacobs & Schloeder 2001). Driven by these needs, rural populations sought to access more and more of the fertile lands inside protected areas for cultivation and livestock farming (Bekele & Hailemariam 2010; Duckworth 2002; Jacobs & Schloeder 2001). This has

resulted in a great deal of anthropogenic disturbances and increased human-wildlife conflict within park boundaries (Fust 2009; Duckworth 2002). Former giraffe range has been heavily encroached by human settlement, making loss of habitat one of the greatest threats to giraffe populations in the country (Tefera 2011; Bekele & Hailemariam 2010; Jacobs & Schloeder 2001; East 1999). Restricted distribution and small size of populations make the species more likely to be susceptible to anthropogenic environmental degradation (Tefera 2011).

During the periods of civil unrest, machine guns were readily available through Ethiopia's black market and, as a result, hunting increased throughout the country (Jacobs & Schloeder 2001). Animals most vulnerable to hunting during this time included, among other species, giraffe (Jacobs & Schloeder 2001). The Ethiopian Wildlife Conservation Organisation (EWCO), established in 1965 as a semi-autonomous body responsible for wildlife conservation in Ethiopia, has reported ongoing illegal hunting of wildlife in Mago, Omo and Gambella National Parks – all of which have been important refuges for giraffe (Duckworth 2002; Jacobs & Schloeder 2001). Giraffe are primarily hunted with automatic rifles by tribe members living adjacent to park boundaries for their tail hair, which is used to make strings for the production of highly prized traditional necklaces, and for their meat (Wube 2013). Insufficient human and financial resources are made available for the management of parks (Wube 2013). Protected areas can thus no longer provide sufficient shelter from increasing human effects (Fust 2009).

The absence of a comprehensive land use plan for the country is a major cause for concern (Damtie 2010). Potential future threats include the development of a large scale sugar development scheme by the Ethiopian Sugar Development Agency in the lower Omo Valley, which is envisioned to occupy 150,000 ha, including parts of Omo National Park, Tama Wildlife Reserve and Mago National Park (Enawgaw *et al.* 2011). Additionally, the Gibe III hydroelectric dam with an associated hydropower plant, currently under construction on the Omo River by the Ethiopian Electric Power Corporation, can possibly have major negative environmental implications (Wikipedia 2012). Other potential threats include the mismanagement of environmental resources, i.e. continued expansion of agriculture and other human activities into natural land at local and commercial scale (Bekele & Hailemariam 2010).

Estimate population abundance and trends

Records of giraffe in Ethiopia are mostly anecdotal, often contradicting, and fraught with uncertainty, especially regarding the (sub)species concerned.

Historic

Giraffe formerly occurred in the western and southern lowlands of Ethiopia (East 1999; Yalden *et al.* 1984). As a large portion of the country is covered by high-altitude montane and afroalpine ecosystems, the distribution of giraffe has probably never been much more extensive, being limited by the foothills of the central plateaux, by the dense forests of the southwest and by the Shebelle River (Fust 2009; Yalden *et al.* 1984). According to historical records, Nubian giraffe (*G. c. camelopardalis*) occurred in the western and south-western parts of the country and reticulated giraffe (*G. c. reticulata*) in the south (East 1999; Yalden *et al.* 1984; Blower 1968). The Omo River, which flows into the top end of Lake Turkana (formerly Lake Rudolf), was thought to act as an ecological barrier between the two (sub)species (Yalden *et al.* 1984; Blower 1968).

According to Dagg (1962), reticulated giraffe were abundant along the southern border of the country; occurred in eastern Ethiopia along the borders of the Danakil Desert and in the Ogaden Region. In contrast to East (1999), Yalden *et al.* (1984) and Blower (1968), Dagg (1962) did not refer to the occurrence of Nubian giraffe in the western and south-western parts of the country. Kingdon (1979) suggested that giraffe once extended throughout the Ogaden Region, and included the Danakil Desert as part of their range. However, Yalden *et al.* (1984) indicated that there was no firm evidence to support Kingdon's belief of giraffe incidence in the Danakil Desert; although Hunt (1951) suggested that local place names were indicative of the former presence of the species in northern Somalia. Blower (1968) noted the occurrence of giraffe in the southern Ogaden Region, but did not indicate the (sub)species concerned, and suggested that their continued survival there was doubtful by the late 1960s. Reticulated giraffe occurring in the

Borana Province, in the south of Ethiopia, were also seriously depleted in numbers at the hands of heavily armed local populace and military by the late 1960s (Blower 1968).

A marked decrease in Ethiopia's giraffe populations, mostly as a result of overhunting, was evident by the early 1970s (East 1999). In 1971, the total number of giraffe in Ethiopia was estimated by the government at between 1,000 and 2,000 individuals (Dagg & Foster 1982). Bolton (1973) noted very few sightings from southern Ethiopia and implied a considerable decline in numbers in this area. Large (relative) numbers of giraffe were however observed in the Ubela area during 1973 (Duckworth 1974). Stephenson & Mizumo (1978) estimated giraffe populations in the Omo-Mago-Tama complex (consisting of Omo National Park, Mago National Park and the Tama Wildlife Reserve which links the two) at between 800-1'600 individuals. Yalden (1984) noted that nothing appeared to be known about population numbers of Nubian giraffe in the north western parts of the country.

Recent

Hillman (1993) suggested the prevalence of giraffe in Gambella, Mago and Omo National Parks, as well as in the Yabello Sanctuary, but did not give any indication of the (sub)species or estimated population sizes. An aerial census of the Omo-Mago-Tama complex in 1994 estimated the giraffe population at 200 individuals (Lamprey 1994). Of these, most were documented to occur in Omo National Park, but two herds were also seen in Mago National Park (Lamprey 1994). As a significant number of giraffe were observed on the Tama Steppe, outside of the surveyed protected areas, Lamprey (1994) suggested that the status of the giraffe population in the area might have been healthier than the census data indicated. However, less than 40 giraffe were counted during an aerial survey of Omo National Park in 1996 (Graham *et al.* 1996). East (1999) reported the disappearance of giraffe from Mago National Park and estimated a small and declining population of about 160 Nubian giraffe occurring in the Omo National Park and Tama Wildlife Reserve areas and possibly elsewhere in the country's west and southwest. An estimate of about 140 reticulated giraffe survived in the Borana Province and was reported by local inhabitants to occur in south western Ogaden (East 1999).

Current

Uncertainty remains regarding the current numbers of giraffe in the country as no official census has been undertaken recently. However, large herbivores have almost completely disappeared from Yabello Wildlife Sanctuary in the south of Ethiopia and it is assumed that giraffe have gone extinct there (Borghesio & Giannetti 2005). A few reticulated giraffe might have survived in the Ogaden Region bordering Somalia (Fust 2009); however, there is no recent evidence to substantiate this.

Although East (1999) suggested that giraffe had gone extinct in Mago National Park, incidental observations in 2006 suggested the existence of a remaining giraffe population, looking distinctly different from the animals in Omo National Park on the opposite side of the Omo River (P. Fust pers. comm.). However, in a recent survey of the status of giraffe in Mago National Park and Tama Wildlife Reserve, interviews with park wardens suggested that giraffe no longer exist in Mago National Park (Wube 2013).

A small population of giraffe remains in the Omo-Tama and Borana areas along the border with Kenya (Fust 2009; Renaud 2006). These animals are in a critical situation and very close to local extinction (Renaud 2006). Less than 20 giraffe were observed during an aerial survey of Omo National Park in 2006, indicating that the population has been further decimated over the last decade (Renaud 2006). According to anecdotal information, giraffe still occur in the Tama Wildlife Reserve, but their status is unclear and likely less than 20 individuals (Wube 2013). Controversy remains as to the (sub)species occurring in Omo National Park and Tama Wildlife Reserve. Morphological assessments of the giraffe population indicate that they could possibly be Rothschild's giraffe (*G. c. rothschildi*), and not Nubian giraffe, as previously indicated by East (1999), Yalden *et al.* (1984) and Blower (1968) (Renaud 2006; P. Fust pers. comm.). Attempts by researchers to obtain genetic material for analyses have not been successful to date as the giraffe are not habituated and researchers were not appropriately equipped (P. Fust pers. comm.).

A population of approximately 90 individuals, assumed to be Nubian giraffe, were observed during an aerial count carried out in Gambella National Park in the far west of Ethiopia in 2009 (L. Siege pers. comm.), and therefore estimates of <150 individuals remain.

In summary, current giraffe numbers for Ethiopia are estimated at <150 Nubian giraffe, <20 Rothschild's giraffe (if the populations in Omo National Park and Tama Wildlife Reserve in fact are Rothschild's and not Nubian giraffe) and possibly some reticulated giraffe of which the numbers are unknown, but estimated at <100 individuals.

Future Conservation Management

The following are proposed conservation management options for giraffe in Ethiopia:

- Greater understanding of giraffe population numbers, range and conservation status across the country, including (sub)speciation;
- Development of National Giraffe Strategy for Ethiopia;
- Identification of priority conservation efforts for giraffe conservation, especially for viable remaining populations such as in Gambella National Park; and
- Support to dedicated giraffe conservation, habitat protection, education and awareness initiatives (government, NGO and academic).

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Map

