



## **Sable Antelope, *Hippotragus niger***

**Legal Status:** There are 4 recognized subspecies or races of Sable Antelope: **Zambian** (*Hippotragus niger kirkii*), **Common** or **Southern** (*Hippotragus niger niger*), **Eastern** (*Hippotragus niger roosevelti*), and the **Giant** or **Angolan** (*Hippotragus niger variani*). The Kirki, Common, and Northern subspecies are listed in the "Lower Risk-Conservation Dependent" category by C.I.T.E.S, and has no listing in F.W.S. or I.U.C.N. However, C.I.T.E.S., F.W.S., and I.U.C.N. have placed the Giant Sable Antelope in the "critically endangered" category.

**Description:** The Sable Antelope species was originally known to the native African people as "Palahala" in the Swahili language, "Mbarapi" in Kiswahili, "Olgirsauoi" in Masai and Kidorobo, and "Shambe" in Kidigo (Kingdon 1982). Today throughout Africa and the rest of the world, the species is better known by its English derived name, "Sable"- meaning "somber or dark", referring to the species' beautiful dark coat.



**(Mixed Sex Herd: Right to Left—Immature Female, Same Male as above but recently castrated, and Mature Female-Southern Subspecies)**

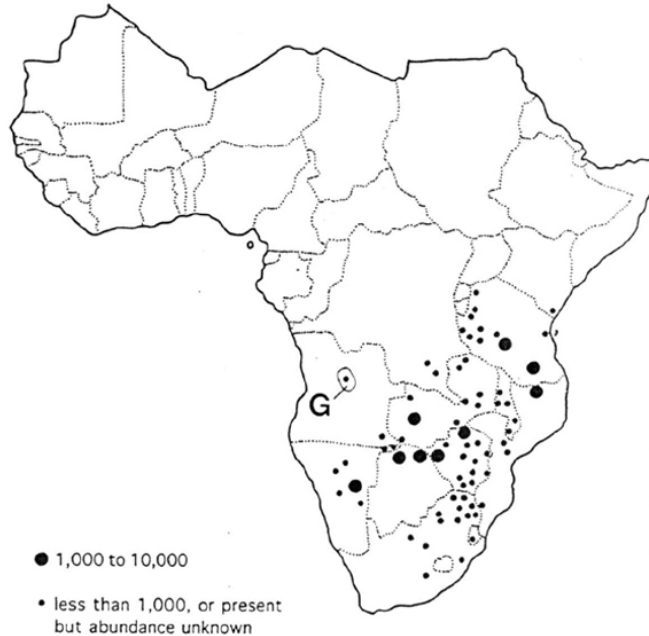
Sable Antelope do not start life with a dark coat. A newborn calf is born with a camouflaging, sandy-brown coat. As the calf grows and achieves status in the herd, its coat will continually darken (Wolfsen 1997). The coat color of adult females and sub-adult males range from a rich-chestnut brown to brownish-black. Fully mature males generally have the darkest coat coloration, brownish-black or a pitch-black color that glistens in the sunlight. The abdominal, rump, and facial areas are a sharp contrasting white color. The coat coloration appears to be under hormonal control. If a mature male is castrated, he will lose the black color and return to a brown color. (Refer to the picture on the following page. The mature female has a darker coat than a newly castrated male.) A black facial stripe, running from the horn base to the nostrils, camouflages the species' large black eye.



The scientific name of the Sable Antelope, *Hippotragus*, is a composite of two Greek words, "hippo"-meaning "horse-like" and "tragus"-meaning "goat". The Sable Antelope appears horse-like in many of its physical features. The ears are long and pointed, averaging 6.3–7.4 inches (16-19 cm.)(Kingdon 1982) in length. They have a mane that starts between their ears and ends between their shoulder blades. The Sable Antelope's mane is denser and stands more upright. The neck is broad and thickly muscled. The tail grows 15-18 inches (38-46 cm.)(Kingdon 1982) long and ends in a small tuft of hair. Sable Antelope have a compact and powerful body stature. The body height, hooves to shoulders, ranges from 46-55.1 inches (117-140 cm.)(Kingdon 1982). The body length, nose to rump, ranges from 77.6–82.7 inches (197-210cm.)(Kingdon 1982). A full grown female weighs around 400 pounds (178 Kg.), while a male can weigh as much as 660 pounds (300 Kg.)(Stuart and Stuart 1989). Both sexes are equipped with large, ringed, sickle-shaped horns that arch over the back. The horns serve as very affective defensive weapons against natural predators and are used in dominance fighting. Male horns generally arch further over the back, and grow longer and thicker than a female's. Horn length varies within a subspecies and between the subspecies. Final adult horn length can range from 40-65 inches (101.6-165.1cm.)(Wolfsen 1997). The Northern subspecies generally grows the shortest horns, while the Giant Sable tends to grow the longest horns (Mochi and Carter 1971).

**Behavior:** Sable antelope are diurnal in nature, meaning they are most active in the daylight. A good reference for Sable Antelope behaviors can be found in [The Safari Companion: A Guide to Watching African Mammals](#), written by Richard D. Estes.

**Range:** Historically the Sable Antelope was found throughout the African Savannah woodlands that once stretched from coastal Kenya to central Angola and extended down to South Africa. The wild population is believed to be stable at this time, estimated around 54,000 individuals total. Today  $\frac{3}{4}$  of this population lives on protected natural habitat in national parks, national game reserves, private game reserves, conservancy lands, and private farms. The remaining  $\frac{1}{4}$  is widely scattered throughout the remaining natural habitat on the periphery of the protected areas (East 1998).



Currently Giant Sable Antelope are found only in central Angola in the Luando Reserve and Kanganjala National Park, indicated by the letter "G" on the map. It is estimated that only 1000 survive.

### **Current Range of Sable Antelope**

(Range map copied from The African Antelope Database 1998, IUCN/SSC Antelope Specialist Group Report, Pp. 224 –227, December 1998 with permission of Mr. Rod East.)

**Habitat:** Sable antelope inhabit dry open woodlands and medium tall grass savannas. They generally avoid dense woodlands and short grass savannas (Stuart 1997).

**Diet:** They graze on a variety of short grasses abundant during the growing season and survive by browsing on herbs, bushes, and trees during the harsh dry season. Sable Antelope have a ruminant digestive system.

**Social Organization:** In the wild adult female and males have different and separate social organizations.

Female Organization-Similar to elephants, Sable Antelope form matriarchal herds comprised of adult females, called cows, immature males, and calves. The highest-ranking female within the hierarchy, called the alpha female, is generally the oldest, healthiest, and darkest colored member of the herd (Thompson 1993). Herd size is generally dependent on the habitat quality and season. At the height of the growth season when food is abundant, herds are smaller around 15 to 25 individuals. During the dry season Sable Antelope form larger herds, up to 300 once reported in

Zambesi. Herds have a home range of 24–80 HA (Grobler 1974). The home range must include a consistent water source and typically overlaps several male territories.

Male Organization-Male offspring are eventually driven out of the female herd around three to four years of age. The newly rejected male offspring joins a bachelor herd of other males, where they continue maturing and practicing their fighting skills. Bachelor herds in the wild can range from 2 to 12 members. Eventually around the age of five or six a male ventures off by himself to find and establish a territory of his own (Novak 1999). Territorial males, called bulls, defend a territory of 25-40 HA (Grobler 1974). The goal of territoriality is to protect an area of land with the best food and water resource that a cycling female will be attracted to. A bull will tolerate other males in his territory as long as they are not sexually mature yet and remain subordinate to him. A bull uses urination and defecation scent markings along his territory's perimeter to warn of all other rival bulls. If a rival male enters his territory, the bull must physically drive the rival off. Fights start by the rivals slowly circling each other, shaking their heads, dropping to their knees, and finally clashing horns. The fight is more of a pushing contest than a slashing battle. The battle rarely ends in death. The biggest, strongest, and healthiest male typically wins. The loser flees the territory.

**(A male urine testing a female's estrous cycle, "flehmen" behavior.)**

Reproduction-Sable Antelope are a polygamous species. They breed seasonally in the wild corresponding with the offspring birth with high food abundance. The time and duration of calving season varies across the range and seems to coincide with the height of the growing season (Novak 1999). In captivity however, food shortages are not a factor and Sable Antelope can breed year round (Thompson, Mashburn, and Monfort 1988). Males become



sexually mature around 1.5 years of age. However, they usually are not physically strong enough to successfully defend a territory. In captivity, males breed at younger ages due to the common management practice of housing only one male per female herd. Females become sexually mature around 19.6 months of age (Dittrich 1972). Studies show more than one period of oestrus and copulation are needed before a female conceives, averaging around 2.5 years of age at birth of her offspring (Dittrich 1972). A female Sable Antelope oestrus cycle is not longer than 36 hours (Dittrich 1972). A receptive female breeds with the bull of the territory that she currently occupies. A cow produces a single calf per year. Estimates of gestation time range from 240–281 days (8.6-9.2 months) (Wolfsen 1997 and Novak 1999). A healthy

calf weighs 28.6–39.6 pounds (13-18 kg.) at birth (Novak 1999).

**Prenatal Care-** A female about to give birth typically isolates herself from the herd in a secluded grassy location. Soon after giving birth, the dam cleans the calf, eats the afterbirth, nurses the calf for a short time, and finally moves the calf a short distance to throw off predators attempting to smell out the newborn. The dam stands guard over the calf, but at a distance of ten or more ten body lengths away. The dam generally stands facing away from her calf. The dam returns to the hidden calf 1 to 2 times a day for nursing. To nurse, she approaches the general area of her hidden offspring. She searches visually first, then vocalizes to stimulate the offspring to stand up and reveal its location (Thompson 1996). The calf will usually choose a new hiding location after each nursing bout. The calf's urine and feces odor is a magnet to predators. If the calf continually moves away from its own urine and feces it will be less detectable to predators (Lent 1974). A calf's scent glands do not function of the first few months of life, thus making the calf harder to detect by its predators (Thenius, Walther 1972 and Spinage 1986). The dull brown coat of the calf acts as camouflage in the brown grass Savannah habitat. A calf remains solitarily hidden for the first two weeks of its life. Calves 2-4 weeks of age still hide solitarily, but begin to choose hiding locations in closer proximity to other hiding calves. By four weeks of age, the calf is fully integrated with the herd, traveling, play fighting with other calves, and sleeping in the protective herd grouping. The calf fully is weaned and independent after 6-8 months of age (Thompson 1996).

**Threats To Survival:** A Sable Antelope's natural predators are spotted hyenas, leopards, lions, dogs, and crocodiles. The young, injured, and old aged are at greater risk of being predated upon. Sable Antelope can live up to 15 to 20 years in captivity (Jones 1983). In the wild, due to disease, drought caused food shortages, predators, and human interference, the average life span is most likely less than that. The Sable Antelope has been eliminated from large areas of its former historical range. As the African population continues to grow, the rate of poaching Sable Antelope for protein-rich meat and the destruction of their natural habitat for more cattle ranches and crop land will continues to grow also.

The future of the 1000 remaining Giant Sable Antelope is unpredictable. Angola has suffered through 20 years of civil war. Until the Angolan government reaches stability and full governing strength, the prospect of establishing insitu and/or ex-situ conservation programs to save the Giant Sable is unlikely. It is believed that no Giant Sable Antelope specimens have ever been imported and held in captivity.

**Zoo Programs:** The North American Regional Studbook for the Sable Antelope has been recently published. As of December 31, 1999, 230 sable antelope are housed in 33 A.Z.A accredited Zoological Facilities throughout the United States and Canada. It is estimate that over 200 more sable antelope currently reside at privately owned game ranges throughout North America, mainly Texas and Mexico

(East 1998).

Due to its color and powerful physic, the Sable Antelope is an impressive addition to any African Savannah zoological exhibit. Large female herds can be housed together in one exhibit. However, due to the aggressive nature, Sable Antelope can present a challenge to captive management (Thompson 1993). An established female herd typically does not accept new individuals into the their herd structure. The introduced individual will be subject to severe and prolonged aggression from the herd members. Occasionally the introduced individual may never achieve a position in the herd. A bull must fight and achieve dominance over a female before he can successfully breed her. Future female offspring typically are allowed to stay in the herd, but male offspring will be housed separately or sold to another facility. Zoos typically maintain genetic variability within the herd by swapping out the breeding bull every two years with a completely unrelated bull to prevent inbreeding.

**Conservation:** The 1998-2001 A.Z.A Antelope Tag has recommended the North American regional population of Sable Antelope to be managed at 200 total individuals in a Population Management Plan (P.M.P). Thus far, the P.M.P has not been developed or set in to motion. Future scientific investigation must be conducted on the genetic taxonomics of the species as a whole. The level of genetic variability between the four subspecies is still in question.

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