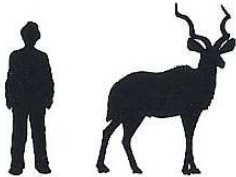



**Module 3.8, Handout #12: Species fact sheets (examples – Kudu
and Hippopotamus)**

	
Mass ♂ 230 (190 – 305) kg ♀ 157 (120 – 210) kg	
Length of horns (male only) Average ± 120 cm Record 187.64 cm	
Habitat Savanna woodlands, including rocky areas and slopes, and vegetated ephemeral rivers in desert landscapes.	
Food Browser (60-70%) – leaves, growth tips of shrubs & trees, pods, flowers – sometimes fresh green grass and forbs - 3.5 to 5.5 kg/day	
Water dependent Drink 7-9 l/day during hot dry season.	
Population dynamics Life expectancy: ±15 yrs Gestation period: 210-225 days ♀ first calve at 2-3 yrs ♂ sexually mature at 3 yrs, but first breed at ±6 yrs	
Enemies Lion, leopard, cheetah, spotted hyaena, African wild dog and poaching by people, including snares and shooting. Caught in fences. Vulnerable to rabies & anthrax.	
National population 352,000 Parks: 3,500 Communal N red line: 1,600 Communal S red line: 1,000 Freehold: 346,000	
Spoor	 <div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">6-9 cm</div> </div>

Kudu

Tragelaphus strepsiceros



Habits Live in small herds comprising a territorial bull with breeding cows and calves of up to about 10 animals (usually 4-6 animals, but up to 25 animals recorded). These herds occupy ranges of about 600 ha depending on habitat and rainfall – larger in drier conditions, but wander widely, often returning to core area. Young males leave breeding herd at 2-3 years old. Bulls form bachelor herds of 2-6 animals. Cows give birth to a single calf, which is hidden in dense vegetation for about 10 days before joining a nursery herd. Kudu are most active in morning and late afternoon. Become more nocturnal where hunted. Feed up to 1.8 m in height on bushes and trees, usually for up to only one minute on each. If leaves are out of reach bull will break down branches with horns. Jumps over fences.

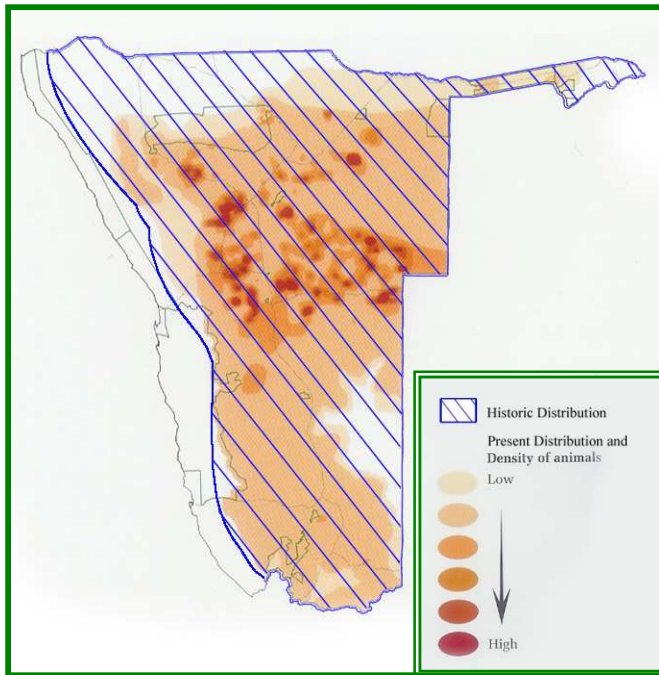
Mean natural population increase Where not too many predators ±20% per year but ranging from 13% in drought conditions to 28% under favourable condition. Where predator numbers are high (in national parks) ±15%.

Human-Wildlife Conflict Low conflict – raid crop fields and gardens. Vulnerable to rabies – sick animals and animals that have died of unknown causes should be avoided.

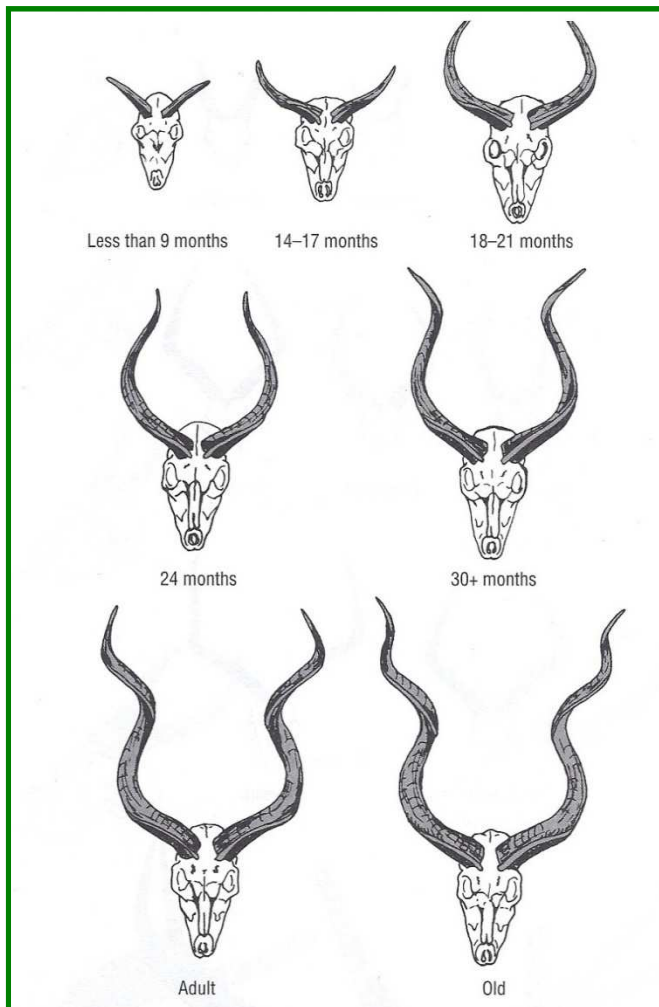
Ecological value Kudu occupy a unique browsing niche, above the smaller browsing antelope and domestic small-stock and below the giraffe. They also absorb predator pressure from higher value species. Their numbers have increased significantly in Namibia as a result of (a) provision of water and (b) bush encroachment.

Economic value Their majestic appearance makes them important for tourism and the male's horns make them sought-after trophy animals. There is a small live sale market. Their meat is highly regarded. The carcass weighs 57% of the live animal, and the lean meat yield is 45.5% of live weight (average lean meat yield of Kudu bull about 107 kg), with only about 1.3% fat content. In terms of high quality meat production, the Kudu carcass is more productive and healthy than any domesticated animal.

Management objectives (a) build population to carrying capacity, (b) manage for visible tame animals in tourism zones, (c) trophy hunt old bulls, up to about 2% of population, (d) harvest animals for meat



Historic distribution and present day abundance of Kudu in Namibia



(depending on climatic and veld condition, use 8% as a guide for meat harvest level), (e) where conditions allow, consider using premium / sport hunting to harvest (to earn additional income), (f) look at adding value to meat through biltong and smoking where appropriate, (g) process and store hides carefully for sale, and (h) monitor Kudu population (numbers, distribution, age-sex ratios and trophy quality) as part of overall monitoring process and use the information to make wise management and quota decisions.

Further reading

Apps, P 2000. *Smithers' Mammals of Southern African: A Field Guide*. Struik Publishers, Cape Town.

Bothma J du P & du Toit, JG (Eds) 2010. *Game Ranch Management*. Van Schaik Publishers, Pretoria.

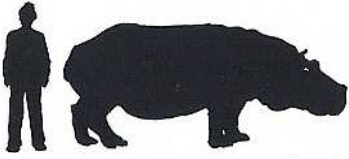
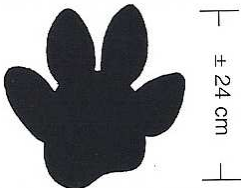
Cillié, B 2009. *The Mammal Guide of Southern Africa*. Briza Publishers, Pretoria.

Skinner, JD & Skithers, RHN 1990. *The Mammals of the Southern African Subregion*. Second edition. University of Pretoria, Pretoria.

Environmental Information Service Namibia:
<http://www.the-eis.com/>

Age determination of Kudu bulls based on horn development

(Adapted from Simpson 1966 in Bothma J du P & du Toit, JG (Eds) 2010. *Game Ranch Management*. Van Schaik Publishers, Pretoria.

	
Mass ♂ 1,546 (970 - 2,000) kg ♀ 1,385 (995 - 1,675) kg	
Length of canine (tooth) Average ± 60 cm Record 163.83 cm	
Habitat Permanent wetlands (rivers, side channels and lagoons) in which they can submerge mainly during the day, often sunbathing on banks and sandbanks; emerging in late afternoon and evening to graze, often several km from water.	
Food Low-selective short grass grazer – up to 150 kg each night.	
Population dynamics Life expectancy: 40-50 yrs Gestation period: 7.5-8 mths Age at sexual maturity: 8 yrs Full reproductive capacity: 10 yrs Fecundity: 0.5 calves/female/yr Adult mortality: 3% First year mortality: 12% Second year mortality: 6%	
Enemies Young are vulnerable to crocodiles in water and lions on land, while all ages are vulnerable to poaching by people.	
National population About 1,500 animals, 250 in Kavango, 900 in Kwandu & Mamili, 255 in Chobe/Linyanti & 17 in Zambezi. Individual animals in Kunene. Extinct in Lower Orange River.	
Spoor	

Hippopotamus

Hippopotamus amphibious



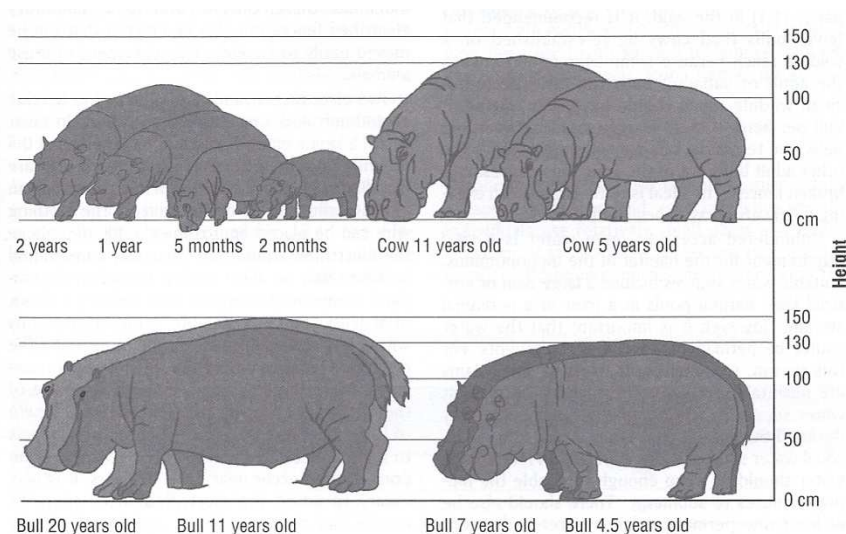
Habits Live in groups (pods) of about 6 up to 45 animals containing females and their offspring, young males and a dominant bull that defends the pod's stretch of water as a territory to monopolise access to the cows. Territories do not extend beyond the water. Can stay under water for more than 6 minutes. Surfaces to breathe often with just their nostrils breaking the surface. Mating and giving birth takes place in water, the latter in dense reedbeds or similar cover.

Human-Wildlife Conflict One of the most dangerous animals in Africa, especially cows with calves, in both water and on land. They can run at up to 30 km/hour for short distances. Although their natural food is mainly grasses and sedges, they will eat maize, sorghum, sugar cane, pumpkins, melons, beans and other vegetables and can devastate crops planted close to water. It is not advisable to plant crops near to permanent water or to walk about in the evening and at night is areas likely to be frequented by hippos.

Ecological value Hippos provide important ecological services to wetlands by keeping important water channels open and importing nutrients through defecating in the water. They also create "lawns" through their grazing habits, which create important habitats for other species. Hippos are currently classes as "Specially Protected" under Namibian legislation, and listed on Appendix II of CITES.

Economic value Hippos are important for tourism, trophy hunting and have the potential to contribute to a live capture and sale market. They also provide large quantities of meat, fat and skin (hide – which can be split into a number of layers). They are important at traditional/cultural events and parts are used by traditional healers and sangomas. A combination of uses is recommended, based on regular population monitoring and quotas.

National management objectives Because many of Namibia's Hippos live in rivers forming international borders with neighbouring countries, they should best be managed under transboundary arrangements. Namibia's Management Goal for Hippos is "To maintain and increase the population whilst using them sustainably for the benefit of local people". Good wetlands management is a prerequisite for healthy hippo populations.



The growth of a Hippo with age

(Furstenburg 2006 in Bothma J du P & du Toit, JG (Eds) 2010. Game Ranch Management. Van Schaik Publishers, Pretoria.

Further reading

Apps, P 2000. Smithers' Mammals of Southern African: A Field Guide. Struik Publishers, Cape Town.

Cillié, B 2009. The Mammal Guide of Southern Africa. Briza Publishers, Pretoria.

Bothma J du P & du Toit, JG (Eds) 2010. Game Ranch Management. Van Schaik Publishers, Pretoria

Martin, RB 2005. Background Study on Hippopotamus. Study conducted for the Transboundary Mammal Project of the Ministry of Environment and Tourism, Namibia facilitated by The Namibia Nature Foundation and the World Wildlife Fund LIFE Programme (Living in a Finite Environment). 74 pp. (download from http://www.nnf.org.na/RARESPECIES/rare_library/documents/Hippo.pdf)

Ministry of Environment & Tourism 2005. Species Management Plan for Hippopotamus. Namibia Nature Foundation, Windhoek. 27 pp. (download from <http://www.the-eis.com/data/literature/MET%20Hippo%20Management%20Plan.pdf>)

Skinner, JD & Smithers, RHN 1990. The Mammals of the Southern African Subregion. Second edition. University of Pretoria, Pretoria.

Environmental Information Service Namibia: <http://www.the-eis.com/>

Information System for Rare Species Management (IRAS) in Namibia
<http://www.nnf.org.na/RARESPECIES/InfoSys/Index.htm>

Booklet and Poster – Background Information and Species Management Guidelines for Namibia's Rare & Valuable Wildlife: Hippopotamus. Namibia Nature Foundation, Windhoek. (Booklet A5, 17 pp pdf 10.2 MB, Poster A0 pdf 3.6 MB - download from http://www.nnf.org.na/NNF_pages/publications.htm)

Poster – Wildlife Census of Namibia's North East Rivers 2009 (with data from 2004, 2007 & 2009:
A0 size (pdf 7.8 MB) http://www.nnf.org.na/NNF_docs/wetland_count_poster09_A0.pdf
A3 size (pdf 4.9 MB) http://www.nnf.org.na/NNF_docs/wetland_count_poster09_A3.pdf