

= Scimitar oryx =

The scimitar oryx or scimitar @-@ horned oryx (*Oryx dammah*), also known as the Sahara oryx , is a species of *Oryx* extinct in the wild since 2000 . It formerly inhabited all of North Africa . It has a long taxonomic history since its discovery in 1816 by Lorenz Oken , who named it the *Oryx algazel* . This spiral @-@ horned antelope stands a little more than 1 metre (3 @.@ 3 ft) at the shoulder . The males weigh 140 ? 210 kg (310 ? 460 lb) and the females weigh 91 ? 140 kg (201 ? 309 lb) . The coat is white with a red @-@ brown chest and black markings on the forehead and down the length of the nose . The calves are born with a yellow coat , and the distinguishing marks are initially absent . The coats change to adult coloration at 3 ? 12 months old .

The scimitar oryx formed herds of mixed sexes of up to 70 members , usually guided by the bulls . They inhabited semideserts and deserts and were adapted to live in the extreme heat , with their efficient cooling mechanism and very low requirement of water . Scimitar oryx feed on foliage , grasses , succulent plants and plant parts during the night or early morning . Births peak between March and October . After a gestation of eight to nine months , one calf is born . Soon after , the female has a postpartum estrus .

The scimitar oryx was once widespread in northern Africa . Its decline began as a result of climate change , and later it was hunted extensively for its horns . Today , it is bred in captivity in special reserves in Tunisia , Morocco and Senegal . The scimitar oryx was domesticated in Ancient Egypt and is believed to have been used as food and sacrificed as offerings to gods . Wealthy people in Ancient Rome also bred them . The use of their valuable hides began in the Middle Ages . The unicorn myth may have originated from sightings of a scimitar oryx with a broken horn .

= Taxonomy and naming =

The scimitar oryx is a member of the genus *Oryx* and family Bovidae . The German naturalist Lorenz Oken first described it in 1816 , naming it *Oryx algazel* . The nomenclature has undergone various changes since then , with the introduction of names like *Oryx tao* , *O. leucoryx* , *O. damma* , *O. dammah* , *O. bezoarticus* and *O. ensicornis* . In 1826 , Philipp Jakob Cretzschmar used the name *Oryx ammah* for the species . A year later , the name *Orys leucoryx* came into use , but as this was a synonym of the Arabian oryx (then called *Oryx beatrix*) , it was abandoned , and *Oryx algazel* was accepted once more . Over a hundred years later , in 1951 , Sir John Ellerman and Terence Morrison @-@ Scott realized the invalidity of the name *Oryx algazel* . Finally , in January 1956 , the International Trust for Zoological Nomenclature accepted *Oryx dammah* as the scientific name . There have been no more changes since then , though many papers published after 1956 created confusion by using names like *O. gazella tao* .

Its scientific name , *Oryx dammah* , is derived from : Ancient Greek ???? (*orux*) , meaning a gazelle or antelope (originally a pickaxe) ; Latin *damma* (fallow deer or antelope) ; and Arabic *dammar* (sheep) . The scimitar oryx is named for its horns , which resemble scimitars . Its common name in English is " scimitar @-@ horned oryx " , or simply " scimitar oryx " .

= Genetics and evolution =

The scimitar oryx has 58 chromosomes . It has one pair of large submetacentric autosomes and 27 acrocentric autosomal pairs . The X and Y chromosomes are the largest and smallest acrocentrics . The first molecular study of this species (published in 2007) observed genetic diversity among European , North American and some other captive groups . Divergence was found within the mitochondrial DNA haplotypes , and was estimated to have taken place between 2 @.@ 1 and 2 @.@ 7 million years ago . Population increases occurred approximately 1 @.@ 2 and 0 @.@ 5 million years ago .

In another study , intended to note genetic differences between *Oryx* species , karyotypes of *Oryx* species and subspecies ? namely *O. gazella* , *O. b. beisa* , *O. b. callotis* , *O. dammah* and *O. leucoryx* ? were compared with the standard karyotype of *Bos taurus* . The number of autosomes in

all karyotypes was 58 . The X and Y chromosomes were conserved in all five species .

= = Physical description = =

The scimitar oryx is a straight @-@ horned antelope that stands just over 1 m (3 @.@ 3 ft) at the shoulder . The males weigh 140 ? 210 kg (310 ? 460 lb) and the females 91 ? 140 kg (201 ? 309 lb) . The body measures 140 ? 240 cm (55 ? 94 in) from the head to the base of the tail . The tail is 45 ? 60 cm (18 ? 24 in) long and ends with a tuft . They are sexually dimorphic with males being larger than females .

Its coat is white with a red @-@ brown chest and black markings on the forehead and down the length of the nose . The coat reflects the sun 's rays , while the black portions and the tip of the tongue provide protection against sunburn . The white coat helps to reflect the heat of the desert . Calves are born with yellow coats and lack distinguishing marks , which appear later in life . Their pelage changes to adult coloration at 3 ? 12 months old .

Both sexes have horns , but those of the females are more slender . The horns are long , thin , and symmetrical ; they curve backwards (a distinctive feature of this species) and can reach 1 @.@ 0 to 1 @.@ 2 m (3 ft 3 in to 3 ft 11 in) on both the males and the females . The horns are so thin that they can break easily . The female has four nipples . The large , spreading hooves are well adapted to allow these antelopes to walk on the sand of their dry habitats . A scimitar oryx can live as long as 20 years . At Smithsonian National Zoo , a female oryx died at 21 , an exceptional age since females generally have a lifespan of about 15 years .

= = Diseases and parasites = =

The scimitar oryx can be infected with cryptosporidiosis , a parasitic disease caused by protozoan parasites of genus *Cryptosporidium* in the phylum Apicomplexa . A study in 2004 revealed that *C. parvum* or similar organisms infected 155 mammal species , including the scimitar oryx . An analysis in 2005 found *Cryptosporidium* parasites in stool samples from 100 mammals , including the scimitar oryx . Oocysts of a new parasite , *Eimeria oryxae* , have been discovered in the feces of a scimitar oryx from Zoo Garden in Riyadh . In France , *Streptococcus uberis* was isolated for the first time in an oryx . It had caused vegetative endocarditis in the animal , leading to fatal congestive heart failure .

A 1983 study examined the blood serum chemistry of blood samples taken from the jugular veins of fifty scimitar oryx ranging from neonates to adults over 13 years old . The study concluded that the higher eosinophil counts of the juveniles and adults might reflect larger internal parasite burdens in them as compared with the neonates .

= = Ecology and behavior = =

The scimitar oryx was a very sociable animal and traveled in herds of between two and forty individuals , generally , led by a dominant bull . This species once gathered in groups of several thousand for migration . During the wet season , they migrated north into the Sahara . Scimitar oryx are diurnal . In the cool early mornings and evenings , they rest under trees and shrubs , or if neither are available , they dig depressions in the soil with their hooves and rest there . Males fight often , but not for long and not violently . Predators , such as lions , leopards , hyenas , cheetahs , golden jackals , vultures and Cape hunting dogs , mostly kill weak and young oryx .

The play activity of eight calves in captivity was observed in a 1983 study . Male calves played for longer than females calves did . Mixed sex play was usual ; selection of partners depended on age , but not on sex or genetic relatedness . Results suggested that size dimorphism was an important factor responsible for sex differences in play .

= = Adaptations = =

With a metabolism that functions at the high temperatures prevalent in their habitats , scimitar oryx need less water for evaporation to help conduct heat away from the body , enabling them to go for long periods without water . They can allow their body temperature to rise to almost 46 @. @ 5 ° C (115 @. @ 7 ° F) before beginning to perspire . In times of ample supply , oryx can use fluid loss through urination and feces to lower their body temperature to below 97 ° F (36 ° C) at night , giving more time before reaching maximum body temperature the following day . They can tolerate high temperatures that would be lethal to most mammals . They have a network of fine blood vessels that carry blood from the heart to the brain , passing close to the nasal passage and thus allowing the blood to cool by up to 5 ° F (3 ° C) before reaching the brain , which is one of the most heat @-@ sensitive organs of the body .

= = = Diet = = =

The habitat of scimitar oryx in the wild was steppe and desert , where they ate foliage , grass , herbs , shrubs , succulent plants , legumes , juicy roots , buds , and fruit . They can survive without water for nine to ten months because their kidneys prevent water loss from urination ? an adaptation to desert habitats . They can get water from water @-@ rich plants such as the wild melon (*Citrullus colocynthis*) and *Indigofera oblongifolia* and from the leafless twigs of *Capparis decidua* . In the night or early morning , they often search for plants such as *Indigofera viscosa* , which produce a hygroscopic secretion that fulfils water requirements . They eat tuft grasses such as *Cymbopogon schoenanthus* after it has rained , but they normally prefer more palatable grasses , such as *Cenchrus biflora* , *Panicum laetum* and *Dactyloctenium aegyptium* . When the dry season begins , they feed on the seedpods of *Acacia raddiana* , and during the dry season , they rely on perennial grasses of genera such as *Panicum* (especially *Panicum turgidum*) and *Aristida* , and browse plants such as *Leptadenia* species , *Cassia italica* and *Cornulaca monacantha* .

= = = Reproduction = = =

Both males and females reach sexual maturity at 1 @. @ 5 to 2 years of age . Births peak between March and October . Mating frequency is greater when environmental conditions are favorable . In zoos , males are sexually most active in autumn . The estrous cycle lasts roughly 24 days , and females experience an anovulatory period in spring . Periods between births are less than 332 days , showing that the scimitar oryx is polyestrous .

Courting is done by means of a mating circle : the male and female stand parallel to one another , facing in opposite directions , and then circle around each other until the female allows the male to mount from behind . If the female is not ready to mate , she runs away and circles in the reverse direction . Pregnant females leave the herd for a week , give birth to the calf and conceive again during their postpartum estrus ; thus they can produce a calf a year . Gestation lasts about nine months , after which a single calf is born , weighing 20 to 33 pounds (9 @. @ 1 to 15 @. @ 0 kg) . Twin births are very rare - only 0 @. @ 7 % of the births observed in one study . Both mother and calf return to the main herd within hours of the birth . The female separates herself from the herd for a few hours while she nurses the calf . Weaning starts at 3 @. @ 5 months , and the young become fully independent at around 14 weeks old .

= = = Habitat and distribution = = =

The scimitar oryx once inhabited grassy steppes , semideserts and deserts in a narrow strip of central north Africa (Niger and Chad) . It was widespread on the fringes of the Sahara , mainly in subdesert steppe , the grassy zone between the real desert and the Sahel , an area characterized by an annual rainfall of 75 ? 150 mm (3 @. @ 0 ? 5 @. @ 9 in) . In 1936 , a single herd of 10 @, @ 000 oryx was seen in the steppe area of Chad . By the mid @-@ 1970s , Chad was home to more than 95 % of the world population of this species .

= = Status and conservation = =

The scimitar oryx was hunted almost to extinction for its horns . Its population decline began as a result of major climatic changes that caused the Sahara to become dry . The northern population was already almost lost before the 20th century . The decline of the southern population accelerated as Europeans began to settle the area and hunt them for meat , hides and horn trophies . World War II and the Civil War in Chad that started in the 1960s are thought to have caused heavy decreases of the species through an increase in hunting for food . Roadkill , nomadic settlements near waterholes (their dry @-@ season feeding places) and firearms for easy hunting have also reduced numbers .

The IUCN lists the scimitar oryx as regionally extinct in Algeria , Burkina Faso , Chad , Egypt , Libya , Mali , Mauritania , Morocco , Niger , Nigeria , Senegal , Sudan , Tunisia and Western Sahara , and has assessed it as extinct in the wild since 2000 . Reports of sightings in Chad and Niger remain unsubstantiated , despite extensive surveys carried out throughout Chad and Niger from 2001 to 2004 in an effort to detect antelopes in the Sahel and the Sahara . At least until 1985 , 500 oryx were estimated to be surviving in Chad and Niger , but by 1988 , only a few individuals survived in the wild .

There is now a global captive breeding program for the scimitar oryx . In 2005 , at least 1 @, @ 550 captives were managed as part of breeding programs , and in 2008 , more than 4 @, @ 000 were believed to be held in private collections in the United Arab Emirates . Reintroduction plans involve fenced @-@ in herds in Bou Hedma National Park (1985) , Sidi Toui National Park (1999) and Oued Dekouk National Park (1999) in Tunisia ; Souss @-@ Massa National Park (1995) in Morocco ; and Ferlo Faunal Reserve (1998) and Guembuel Wildlife Reserve (1999) in Senegal . Chad is currently leading a project to reintroduce the species in Ouadi Rimé Ouadi Achim Game Reserve , with the support of the Saharan Conservation Fund and the Environment Agency of Abu Dhabi . The first group has been released at the beginning of 2016 in an acclimation enclosure and should be fully released in the wild in the rainy season .

= = In culture = =

= = = Ancient times = = =

In ancient Egypt scimitar oryx were domesticated and tamed , possibly to be used as offerings for religious ceremonies or as food . They were called ran and bred in captivity . In ancient Rome they were kept in paddocks and used for coursing , and wealthy Romans ate them . The scimitar oryx was the preferred quarry of Sahelo @-@ Saharan hunters . Its hide is of superior quality , and the king of Rio de Oro sent 1000 shields made of it to a contemporary in the Middle Ages . Since then , it has been used to make ropes , harnesses and saddlery .

= = = Unicorn myth = = =

The myth of the one @-@ horned unicorn may have originated from sightings of injured scimitar oryx ; Aristotle and Pliny the Elder held that the oryx was the unicorn 's " prototype " . From certain angles , the oryx may seem to have one horn rather than two , and given that its horns are made from hollow bone that cannot be regrown , if an oryx were to lose one of its horns , for the rest of its life it would have only one .