

# ORYX DAMMAH

## 1. TAXONOMY AND NOMENCLATURE



### 1.1. Taxonomy.

*Oryx dammah* belongs to the tribe Hippotragini, subfamily Hippotraginae, family Bovidae, which comprises one extinct species and seven surviving species together with two evolutionarily distinct subspecies in genera *Oryx*, *Addax* and *Hippotragus* (Simpson, 1945; Corbet, 1978; Murray, 1984; Corbet and Hill, 1986; Wachter, 1988). All hippotraginids are adapted to the exploitation, at low density, of difficult, low-productivity habitats (Kingdon, 1982; Murray, 1984; Wachter, 1988; Beudels, 1993). Genus *Oryx* comprises five evolutionary isolates, of which one, *Oryx leucoryx*, is adapted to deserts, three, *Oryx dammah*, *Oryx gazella beisa*, *Oryx gazella gazella*, to subdesert or semidesert habitats, the last, *Oryx gazella callotis*, to somewhat more productive savannas (Wacher, 1988).

### 1.2. Nomenclature.

*Oryx dammah*. Oued Dekouk Nature Reserve and Sidi Toui National Park. Tunisia. © Roseline C. Beudels, IRScNB, and Renata Molcanova

#### 1.2.1. Scientific name.

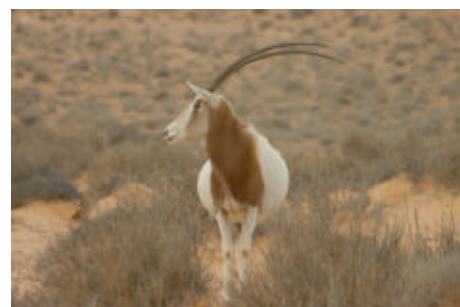
*Oryx dammah* (Cretzschmar, 1826)

#### 1.2.2. Synonyms.

*Antilope gazella*, *Cerophorus gazella*, *Oryx gazella*, *Cemas algazel*, *Aegoryx algazel*, *Antilope algazella*, *Oryx algazella*, *Antilope tao*, *Oryx tao*, *Antilope leucoryx*, *Oryx leucoryx*, *Antilope ensicornis*, *Oryx ensicornis*, *Antilope bezoartica*, *Oryx bezoarticus*, *Antilope dammah*.

#### 1.2.3. Common names.

English: Scimitar-horned Oryx, Scimitar Oryx.  
French: Oryx algazelle, Algazel (Buffon, 1764), Algazelle (Cuvier, 1819), Antilope oryx, Oryx blanc.  
German : Säbelantilope  
Arabic: Wach, Begar al Ouach.  
Tamashek: Izem  
Toubou: Touroui zode



Pregnant female Oryx. Sidi Toui NP. Tunisia..  
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### 1.2.4. Description.

A large, robust antelope, body pelage cream with reddish-brown coloration on head, neck, lower shoulder and upper legs. In some individuals a reddish-brown lateral flank stripe is visible. Head elongated, cream with face “mask” of reddish-brown blaze on forehead, inverted chevron between horns, vertical line continuous with horn across eye and cheek. Eyes, nostrils, lips, and inner ears black. Ventral surface and insides of legs creamy-white, hooves black. Tail long (ca. 39% of HB), cream with brown-black terminal hairs. Adults may exhibit reddish-brown tint in pelage covering rump and hindquarters. Nipples = 2+2=4. Sexual dimorphism minimal. Individuals may be reliably identified by horn morphology and pattern of face mask.

The distinctive horns long, ridged (lower one-half or one-third marked by 30-60 corrugations), sharp-tipped and curved backwards in large arc (80-150 cm), giving rise to the common name (Catherine Morrow, *in press*).

## 2. BIOLOGY OF THE SPECIES

### 2.1. General biology

#### 2.1.1. Habitat.

Precise data on the habitat of *Oryx dammah* are based mainly on the Sahelian populations and have been collected in Chad (Malbrant, 1952; Gillet, 1965, 1969; Newby, 1974, 1988; Dragesco-Joffé, 1993), in Niger and in Mali (Lhote, 1946; Brouin, 1950; Malbrant, 1952; Grettenberger and Newby, 1990) and, to a lesser extent, in Sudan (Sclater and Thomas, 1899; Wilson, 1978, 1980). There is also precise information for the Atlantic Sahara (Valverde, 1957). There does not seem to be any first-hand information on the ecology of the species in the Libyan Desert of Middle Egypt (Kock, 1970; Osborn and Helmy, 1980), or, *a fortiori*, in the Mediterraneo-Saharan zone. The habitat of the species in these regions can only be understood by extrapolation of the Sahelian information, combined with examination of the sparse data on stable presence and the historically likely distribution of habitats. All the sources converge to establish a typically Sahelian, in particular, north Sahelian, subdesert character of the habitat of the Scimitar-horned Oryx.

The Sahelian populations of the Scimitar-horned Oryx seem to have fed, during the hot, dry season, from March to June, on perennial grasses of the Sahelian steppes, notably *Panicum turgidum*, *Aristida mutabilis* and other species of *Aristida* (Gillet, 1965; Newby, 1974, 1988; Dragesco-Joffé, 1993), the fallen pods of *Acacia tortilis* (Malbrant, 1952; Gillet, 1965; Newby, 1974, 1988; Dragesco-Joffé, 1993), foliage from persistent shrubs, including had, *Cornulaca monacantha*, *Chrozophora senegalensis*, *Cassia italica* (*C. obovata*) and a few herbs, including *Heliotropium strigosum* (Newby, 1974; Dragesco-Joffé, 1993). *Panicum turgidum* seems to also offer cover for newborn calves (Newby, 1974). During the rainy season, from July to September, and during the cold months, from November to February, the Oryx use mainly temporary pastures formed by the emergence of annuals, including the grasses *Cenchrus biflorus* (cram-cram), *Dactyloctenium aegyptiacum*, *Echinochloa colona*, the Aizoaceae *Limeum viscosum*, as well as young green shoots of shrubs belonging to the Fabaceae (*Indigofera*), Nyctaginaceae (*Boerhavia*), Amarantaceae (*Aerva*) (Gillet, 1965; Newby, 1974, 1988; Dragesco-Joffé, 1993); they went north at this time, following the formation of temporary pastures (acheb, gizu) to the edge of the desert (Gillet, 1965; Wilson, 1978; Newby, 1988). Water was provided by the formations of annuals or by other newly green plants, or, in their absence, by succulents growing along wadis and in depressions of the Sahel (Newby, 1988) that remain green until far into the dry season (Newby, 1974). The wild melon, *Colocynthis vulgaris* (*Citrullus colocynthis*), particularly characteristic of the Sahelian subdesert steppes, plays, from this point of view, a particularly important role (Brouin, 1950; Malbrant, 1952; Gillet, 1965; Newby, 1974, 1988; Dragesco-Joffé, 1993). Shade, an essential element of the habitat during the hot months, was assured, like the humidity, by the accessibility, in the Sahelian steppe, of thickly wooded wadis and interdunal depressions (Brouin, 1950; Gillet, 1965; Newby, 1974, 1988; Dragesco-Joffé, 1993). Dense shade trees such as *Maerua crassifolia* were particularly sought-after (Gillet, 1965). *Commiphora africana*, various acacias (*Acacia senegal*, *A. seyal*, *A. arabica*, *A. nilotica*, *A. sieberiana*, *A. raddiana*) and several other Sahelian trees formed fairly dense woods in the preferred zones of occupation in Niger (Brouin, 1950). In sparsely wooded regions shade can be provided by a clump of *Panicum turgidum* (Gillet, 1965). Access to salt deposits was likely indispensable during certain periods (Gillet, 1965).



For the Atlantic Sahara, information is more fragmentary. Morales Agacino (1950) observed the importance of *Aristida plumosa*. Valverde (1957) mentions *Andropogon laniger*. The distribution of the species noted by Morales Agacino (1950) corresponds to the Sahelo-Saharan zone of diffuse acacia woodland and *Aristida* steppes defined by Valverde (1957) and in which he notes the abundance of *Colocynthis vulgaris* and of the shrubby leguminous shrub *Crotalaria*, accompanied by a largely Sahelian cortège.

### **2.1.2. Adaptation.**

Prior to its extinction in the wild, the scimitar-horned oryx inhabited the arid grasslands surrounding the Sahara. Living in this environment explains the behaviour of the species that is characterised by crepuscular activity patterns, migratory tendencies and the ability to adopt flexible strategies for foraging and social organisation (Gilbert & Woodfine, 2004). The scimitar-horned oryx is also physiologically adapted to arid environments and may go for long periods without drinking (Dolan, 1966). While the pale pelage reflects sunlight, the black skin and tip of the tongue protects against sunburn (Mungall & Sheffield, 1994). These characteristics, along with the enlarged hooves, which enable the oryx to walk easily on sand, are adaptations to the arid environment that the animals inhabit.

### **2.1.3. Social behaviour.**

In the wild, and with the exception of old males, the Scimitar-Horned Oryx was rarely observed isolated. It lived in social groups usually not exceeding a dozen individuals (Le Berre, 1990). Concentrations of several hundreds individuals were not rare in the recent past, where temporary pastures appeared. Concentrations of several thousands individuals were even reported by many authors in Chad and Niger (Lhote, 1945; Brouin, 1950; Malbrant, 1952).

