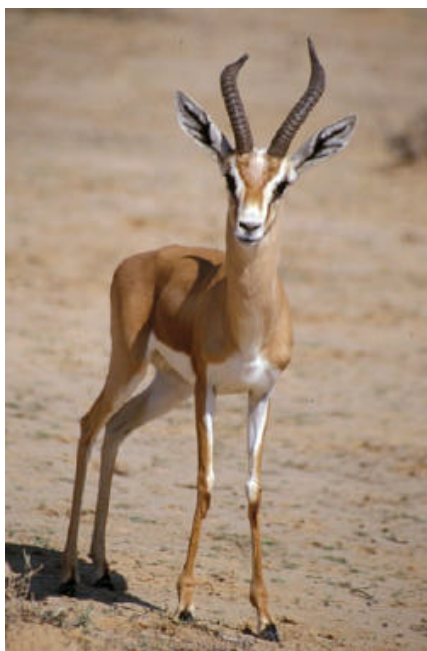


Gazella dorcas

1. TAXONOMY AND NOMENCLATURE

1.1. Taxonomy.



Gazella dorcas.
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Gazella dorcas belongs to the tribe Antilopini, sub-family Antilopinae, family Bovidae, which comprises about twenty species in genera *Gazella*, *Antilope*, *Procapra*, *Antidorcas*, *Litocranius* and *Ammodorcas* (O'Reagan, 1984; Corbet and Hill, 1986; Groves, 1988). Genus *Gazella* comprises one extinct species, and 10 to 15 surviving species, usually divided into three sub-genera, *Nanger*, *Gazella*, and *Trachelocele* (Corbet, 1978; O'Reagan, 1984; Corbet and Hill, 1986; Groves, 1988). *Gazella dorcas* belongs to sub-genus *Gazella* (Groves, 1969; O'Regan, 1984; Corbet and Hill, 1986) and to its central group (Groves, 1988), within which species limits are not entirely clarified. Groves (1988) distinguishes seven species, *Gazella dorcas* of North Africa, northern Somalia and Ethiopia, the Sinai and southern Israel, *Gazella saudiya* of Saudi Arabia, Kuwait and southern Iraq, *Gazella gazella* of the Arabian peninsula, Israel and Lebanon, *Gazella bilkis* of northern Yemen, *Gazella arabica* of Farasan Island in the Red Sea, *Gazella spekei* of Somalia and eastern Ethiopia, *Gazella bennetti* of Iran, Pakistan and India. *Gazella dorcas* is polytypic and comprises, in Africa, besides *Gazella dorcas pelzelni* of the Somalian region, about four Sahelo-Saharan subspecies, *Gazella dorcas dorcas* in the Western Desert of Egypt, *Gazella dorcas isabella* (*G. d. littoralis*) in the Eastern Desert and the hills of the Red Sea, *Gazella dorcas massaesyla* on the Moroccan high plateaux and in the Atlantic Sahara and its fringes, *Gazella dorcas osiris* (*G. d. neglecta*) in the Sahel, the central Saharan massifs and the northern fringes of the western Sahara (Groves, 1969, 1988; Osborn and Helmy, 1980; Alados, 1988). Possible isolation of these forms does not seem entirely documented and they do not seem to present clear-cut ecological differences congruent with the taxonomic divergences. Moreover, recent genetic analysis tend to show that there is only a single sub-species in the whole southern Saharan region, from the Atlantic coast to the Nile, this homogeneous population being probably partially isolated from the northern Saharan populations.

1.2. Nomenclature.

1.2.1. Scientific name.

Gazella dorcas (Linnaeus, 1788)

1.2.2. Synonyms.

Capra dorcas, *Antilope kevella*, *Antilope corinna*, *Antilope dorcas*, *Gazella lisabella*, *Gazella littoralis*

1.2.3. Common names.

English: Dorcas Gazelle

French: Gazelle dorcas, Gazelle dorcade

German: Dorkasgazelle

Arabic: Ghazel, Rhazal, Afi

Tamashek: Ahenkod

Toubou: Oueden

Gazella Dorcas. Mâle.
in P.L. Sclater & Thomas. 1897.
The book of Antelopes.



1.2.4. Description

A small gazelle with a very pale fawn coloured coat and white underside bordered with a brown stripe, above which there is a sandy stripe. Forehead and face are darker than the body. Well marked dark lines from eye to nostril; between those two lines, a white stripe extends from upper lip to horn base.

Horns are present in both sexes, male's horns being longer and thicker. Horns are lyre shaped, strongly curved, which bow outwards then turn inwards and forwards at the tips; they may have up to 25 annular rings.

TL :	90 - 110 cm
T :	15 - 20 cm
H :	55 - 65 cm
Weight:	15 – 20 kg
Horns :	25- 38 cm

2. BIOLOGICAL DATA

2.1. General Biology.

2.1.1. Habitat

The Dorcas Gazelle is a species of arid and sub-arid zones. It is the most ubiquitous of all the Sahelo-Saharan Antelopes. Habitats in which *Gazella dorcas* has been observed include regs, dunes, flat gravel-plains, mixed gravel and dune areas and gravel plateaux, wadis and rocky areas. It can be found throughout the Sahara and the Sahel, but it tends to avoid very sandy areas or true deserts such as the Majabat al Koubra (Lavauden, 1926c; Dupuy, 1967; Osborn and Helmy, 1980; Kacem *et al.*, 1994). It occurs from coastal plains and desert depressions (Osborn and Helmy, 1980) to 2.000m elevations in the Hoggar Mountains (Dupuy, 1967). Higher elevations, as well as interiors of deserts, are apparently avoided (Grettenberger, 1987).

Important dry season food items include *Acacia* spp., *Maerua crassifolia*, *Nitraria retusa*, *Citrullus colocynthis* (= *vulgaris*), *Chrozophora brocciana*, *Leptadenia pyrotechnica*, *Zizyphus* spp., *Balanites aegyptiaca*, (Carlisle and Ghobrial, 1968; Osborn and Helmy, 1980; Newby, 1974; Grettenberger, 1987; Anon., 1987f). During the wet season, perennial grasses and forbs, such as *Panicum turgidum*, *Tribulus* spp. and *Stipagrostis* spp., are heavily utilized (Grettenberger, 1987). During dry periods, in southern Morocco, plant species most sought after include *Maerua crassifolia*, *Acacia raddiana*, *Nitraria retusa*, *Argania spinosa* and *Antirrhinum ramosissimum* (Cuzin, 1998). North of the Atlas chain, Dorcas Gazelles mostly feed on herbaceous plants in the wet season, but turn to browsing in the dryer months, in particular on *Ziziphus lotus* (Loggers, 1991).

Use of wooded riparian habitats reportedly is high during the dry season, whereas use of more open habitats, such as flat gravel-plains and outwash steppes, is relatively high during the wet season (Newby, 1974; Grettenberger, 1987).

2.1.2. Adaptation

Dorcas Gazelles are able to withstand high temperatures, but when it is very hot they are active mainly at dawn, dusk and during the night. In areas where they face persecution, they tend to be active only at night in order to minimise the risk of hunting.

Like other Sahelo-Saharan antelopes, Dorcas Gazelle does not need free water (Kowalski and Rzebik-Kowalska, 1991) and is capable of satisfying its water requirements by selecting plant foods with high water content (Osborn and Helmy, 1980). It is a flexible browser and a grazer and emphasizes either feeding strategy depending on habitat conditions and the availability of food. For example, in the Aïr-Ténéré reserve in Niger, during a relatively dry period, Dorcas Gazelles primarily browsed, apparently due to a lack of grasses and leguminous plants, whereas in Chad, where these foods were available, it primarily grazed (Newby, 1981). Food habits in these two areas nonetheless overlapped substantially.



2.1.3. Social Behaviour

When conditions are harsh, dorcas gazelles live in pairs, but when conditions are more favourable they occur in family herds with one adult male, several females and young. During the breeding season, adult males tend to be territorial, and mark their range with dung middens. In most parts of the range, mating takes place from September to November.

Gestation takes six months; a single fawn is the norm, although twins have been reported in Algeria. The newborn is well developed at birth, with fur and open eyes. Within the first hour, the fawn attempts to stand, and it will suckle on this first day of life. In the first two weeks, the young gazelle lies curled up in a scrape on the ground or beneath bushes while the mother grazes close by. The young then starts to follow its mother around and begins to take solid food. After around three months, the fawn stops suckling and is fully weaned, at which time the pair rejoins the herd.

