

# Arabian ungulates—their status and future protection

Khushal Habibi

**Ungulate populations are at a low ebb in Saudi Arabia. Indiscriminate hunting and habitat degradation are the main factors causing population declines in three of the five endemic species. The author collected information on the status of these animals while working as a wildlife ecologist for the Food and Agriculture Organization of the United Nations in the northern province of Al-Jouf.**

Despite harsh physical conditions, 50 years ago a number of ungulate species thrived in the inhospitable desert landscape of Saudi Arabia, where rainfall averages no more than 50 mm annually. Prominent among them was the Arabian oryx *Oryx leucoryx*. This antelope, with its creamy coat and long straight horns, was at home in the great sand dunes of Rub-al-Khali, the Nafud desert, and the vast gravel plains linking these two areas (Figure 1). Prodigious wanderers, the animals moved from one pasture to another in search of food and shelter. Besides the oryx, three species of gazelles also lived in the Arabian plains and foothills of the Hijaz mountains. The Nubian ibex *Capra ibex nubiana*, well adapted to bare highlands, was found at higher altitudes in the Hijaz range and the Asir mountains to the south.

Antelope populations were common in Saudi Arabia until the turn of the century. European travellers crossing the land in the early part of the century mentioned the animals they saw and hunted during their journeys (Philby, 1923; Carruthers, 1935; Raswan, 1935; Doughty, 1979). Even in the late 1940s gazelles were common in northern Saudi Arabia, when G. Popov (pers. comm.) observed them in large

numbers in Wadi Sirhan. Elderly bedouin reported the presence of gazelle herds a decade later near the Nafud desert. Due to the isolation of northern Al-Jouf province, these herds maintained a viable population until the changes that swept the country as a result of the oil boom.

Man and wildlife had coexisted for centuries in the Arabian peninsula, and traditional trophy hunting had taken place since historical times without harming wildlife populations. The advent of motor vehicles and modern weapons, however, resulted in the decimation of the oryx, the Dorcas gazelle *Gazella dorcas* and the mountain gazelle *Gazella gazella*. Indiscriminate hunting has brought the goitred gazelle *Gazella subgutturosa* to the verge of extinction. These animals were not only gunned down in large numbers, but were chased with motor vehicles until totally exhausted. Thesiger (1959) noted: 'Hunting parties scour the plains in cars, returning back with lorry-loads of gazelles that they have run down and butchered'. With ungulate species almost totally exterminated, game birds have become the target of contemporary hunters.

## Distribution and status

### Arabian or white oryx

The oryx formerly occurred throughout the Arabian peninsula (Harrison, 1968). It was found on the edges of Rub-al-Khali until the late 1940s (Thesiger, 1959). Some animals survived in the first half of the present century in Wadi Sirhan (Raswan, 1935). The species is, however, extinct in the wild today.

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The Arabian or white oryx. A female at Tumamah Farm, 80 km north of Riyadh (Khushal Habibi).

Due to the efforts of the late King Khalid, a population of 74 animals survives in captivity on the private farm of the late king in Tumamah, 80 km north of Riyadh. Unfortunately, calf mortality is high due to crowded conditions in the 25-sq-km enclosure and unsuitable management practices. It is estimated that 60–70 per cent of calves die before reaching the age of three months (Habibi, 1984a).

### Goitred gazelle

Once widely distributed in the country (Morrison-Scott, 1939), the range of this antelope is now mainly restricted to a few pockets in the Al-Harrah basaltic rocky terrain of Al-Jouf province (Green, 1984; Habibi, 1984b) and Jabal Shamar near Hail. An isolated group exists about 200 km south of Riyadh near Jabal Tuwaiq (Vincett, 1982). It is also known to survive on the edge of Rub-al-Khali (Gasperetti and Gasperetti, 1981).

The goitred gazelle is considered to be endangered in the country. Unless strong measures are taken by the Government to protect the surviving populations from the onslaught of poaching and competition with livestock, these isolated bands will eventually succumb.

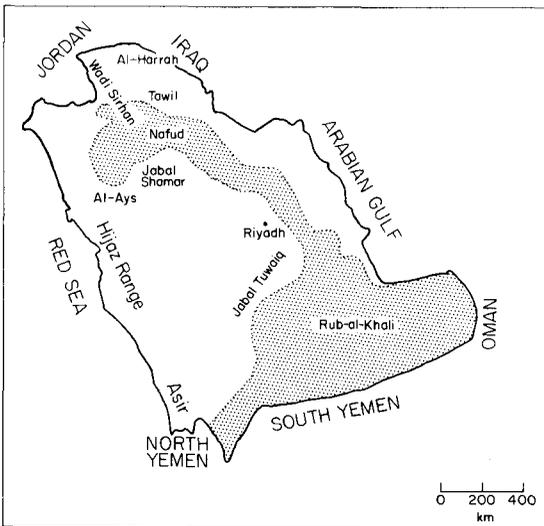


Figure 1 Map of Saudi Arabia showing areas where endemic ungulates survive in small numbers.

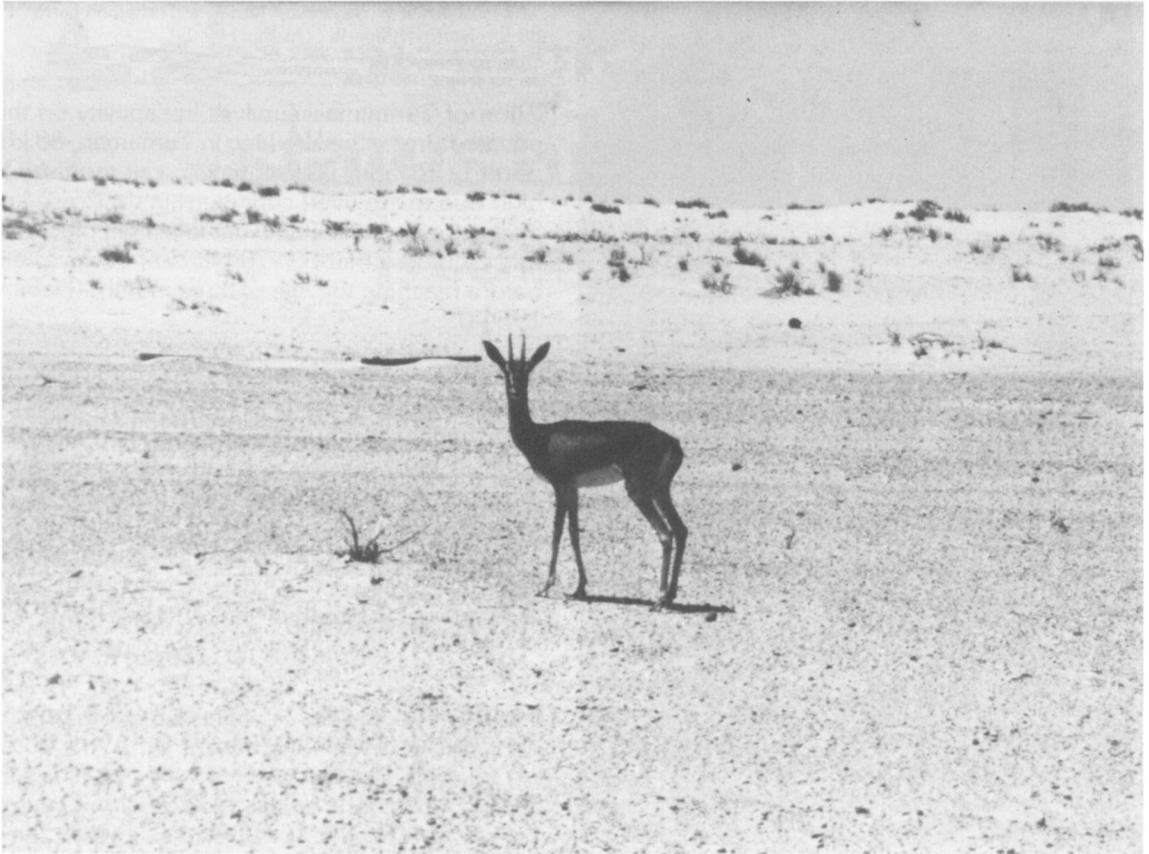
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### Mountain gazelle

This species was found in the mountains and foothills of the Hijaz range and the Asir highlands (Harrison, 1968). To the north it occurred in Al-Harrah along the Jordanian border (Doughty, 1979). With no reports on its present-day distribution, the species is probably extinct in the wild.

### Dorcas gazelle

The smallest of the gazelle species found in the Arabian peninsula, it survived in sandy areas and on the fringes of sandy plains (Morrison-Scott, 1939). It has been described as occurring in central Saudi Arabia (Harrison, 1968), but its present-day distribution is unknown. It is also believed to be extinct in the wild (Gasperetti and Gasperetti, 1981).



Mountain gazelle at Tumamah Farm, 80 km north of Riyadh (*Kushal Habibi*).

## The Nubian ibex

The ibex ranged widely in the Hijaz mountains of western Saudi Arabia, Jabal Shamar, the Tawil mountains in Al-Jouf and the Asir mountains (Carruthers, 1935; Raswan, 1935; Harrison, 1968). In 1978 four male ibex were sighted near Al-Ays in the Hijaz mountains (Gasperetti, 1978). The Nubian ibex has also been observed in the Tawil range recently (Green, 1984). The author observed only six animals in the area during 1984–85. Reports by local residents of the Asir mountains indicate that a few animals survive there (W. Buttiker, pers. comm.).

The surviving ibex populations are endangered. Habitat infringement by bedouin's livestock poses a constant threat to the few animals that still inhabit their rocky terrain. Unless stringent measures are taken, the remaining animals are likely to disappear.

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## Discussion and conservation

Indiscriminate hunting, overgrazing, and damage to the scanty vegetation from livestock trampling and motor vehicles have drastically reduced Arabian herbivores. With the availability of motorized transport, the bedouin, whose movements were restricted by harsh physical barriers in the past, are now able to venture into any part of the rangeland. Their unrestricted mobility, together with the abolishment of the traditional *hema* (protection of assigned ranges by a clan) range management practices (Draz, 1969) in most parts of the country, has resulted in the total encroachment of wildlife habitats. The situation is further aggravated by heavy subsidization of animal feed by the Government. This has encouraged the bedouin to increase the numbers of their livestock substantially. As a result of these

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practices, large tracts of formerly good perennial ranges have been destroyed (El Khatib, 1980). Soils have been eroded, palatable forage species have been replaced by invader scrub, and desertification is widespread.

The surviving populations of the goitred gazelle and Nubian ibex are small and isolated from each other by physical barriers. Because of their low numbers, these insular populations are not only threatened by habitat degradation, but inbreeding is also likely to cause severe deleterious effects as environmental stress increases (Ballou and Ralls, 1982).

It is fortunate that, besides the oryx, all species of native gazelles are present in captivity in the Tumamah Farm and other private collections in the country. Their exact numbers are, however, unknown. It is believed that about 200 endemic gazelles survive in Tumamah (K. Tamang, pers. comm.). Although conditions in the enclosure are overcrowded, and the various species compete with each other for the limited shelter space, plans are underway to provide better facilities for the animals. This, it is hoped, will prevent competition and reduce newborn mortality.

Efforts should be made to transfer some animals into enclosures in other parts of the country. Captive populations of antelopes are present in other countries of the gulf states. In order to diversify the genetic pool of the animals, an exchange of animals among the various herds is recommended.

Wildlife conservation is in its infancy in Saudi Arabia. The first national park was established in the Asir mountains in 1980. A large number of tourists visit the Park, but destruction of natural resources in the Park is difficult to control due to lack of conservation education and trained staff.

The fact that about one-third of the country's population still maintains a nomadic lifestyle brings wildlife management into conflict with the aspirations of a people who are inclined to continue their pastoral way of life and who consider restrictions on land use to be an infringement of their traditional rights. As a result, large-scale conservation projects in the country are unlikely to succeed. With the help of international organizations, efforts should be directed toward

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the establishment of small nature reserves and sanctuaries where wildlife populations can be reintroduced into their natural habitats and protected by trained personnel and local guards. The Government should endeavour to create and preserve such areas and train the staff to maintain them. Legislation in line with scientific management techniques should be promulgated so that the areas can be managed effectively. Such areas will not be in direct conflict with live-stock movements and could be useful in the promotion of a conservation ethic.

Wildlife populations have suffered tremendously in Saudi Arabia in the past. Exposed to the ravages of hunters, the large-scale diminution of ungulate populations points to the urgent need for nature conservation in the country.

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K. Habibi, 3049 Biber Street, Apt. No. 9, E. Lansing, MI 48823, USA.