Arabian Tahr in Oman

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Arabian tahr are confined to Oman, with a population of under 2000. Unlike other tahr species, which depend on grass, Arabian tahr require also fruits, seeds and young shoots. The areas where these can be found in this arid country are on certain north-facing mountain slopes with a higher rainfall, and it is there that reserves to protect this tahr must be made. The author spent two years in Oman studying the tahr.

The Arabian tahr *Hemitragus jayakari* today survives only in the mountains of northern Oman. A goat-like animal, it is one of only three surviving species of a once widespread genus; the other two are the Himalayan and Nilgiri tahrs, *H. jemlahicus* and *H. hylocrius*. In recent years the government of the Sultanate of Oman has shown great interest in the country's wildlife, and much conservation work has been done. From April 1976 to April 1978 I was engaged jointly by the Government, WWF and IUCN on a field study of the tahr's ecology, and in January 1979 made recommendations for its conservation, which were presented to the Government.

Arabian tahr differ from the other tahrs in that they feed selectively on fruits, seeds and young shoots as well as grass. Their optimum habitat is found on the north-facing slopes of the higher mountain ranges of northern Oman, where they use all altitudes between sea level and 2000 metres. But they prefer the zone between 1000 and 1800m where the vegetation is especially diverse, due to the special climate of these north-facing slopes, with their higher rainfall, cooler temperatures, and greater shelter from the sun than in the drought conditions that are otherwise typical of this arid zone. This vegetation also includes several species unique to Oman which are of scientific, aesthetic and potential economic importance. Two plants that are important to the tahr, *Ceratonia sp nov* and *Dionysia mira*, are in the IUCN Red Data Book.

Status and Range

The tahr occurs throughout the 600-km-long mountain range of Northern Oman, from the Musundam Peninsula in the north to the mountains south of Sur, but the total population is less than 2000 animals. Of these only 950 are in well defined areas suitable for conservation. The three major constraints on the population are the small size of their preferred habitat; competition with domestic stock, which is the main factor limiting their distribution; and hunting, which has reduced numbers in the past and continues in some areas despite the 1976 legislation prohibiting it.

Above: A FIVE-YEAR-OLD ARABIAN TAHR in the zoo of the Sultan of Oman

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Reserve Target Populations

In order to calculate a target population which would ensure the species' survival — a major problem for conservation ecologists — it was decided to define a population that could survive the worst sort of likely natural calamity. The result was a population with enough breeding females to survive a four-year drought so severe that no breeding occurs and half the breeding population dies as a result of some drought-induced calamity, such as starvation or disease. With these provisos in mind, a population of 1700 animals seemed a reasonable target. This would include 500 breeding females, which in the extreme conditions of severe drought would be reduced to 438 animals, of which about 125 would be breeding females. Such a population would take nine years to recover its former numbers, given good conditions, but the number of breeding females would be sufficient to survive further years of poor conditions before reaching the original population numbers.

The recommendation, therefore, was that a population of 1750 should be the minimum number living in a series of tahr reserves, which should be areas of optimum tahr habitat set aside to conserve both the tahr and the unique and diverse flora on which the tahr depend. They should be areas where tahr may breed and multiply unhindered, but unfenced to allow the free movement of excess animals out of the areas as numbers increase, thereby colonising potential habitats and ensuring the tahr's spread throughout all possible habitats in northern Oman. These areas should be kept free of feral goats and donkeys and guarded against poaching, and would protect the tahr from such harmful developments as the growth of domestic herds with consequent overgrazing. At the same time the tahr would be able to take advantage of any changes in pastoral practice, such as a decrease in herd numbers making more land available which they would readily colonise from the reserve areas.

Flora

In the tahr reserve areas special attention must be paid to maintaining the diversity and abundance of the natural vegetation and also safeguarding the unique species. Several species are worth conserving in their own right, either for their special scientific or aesthetic interest or because of their potential for agricultural development, especially as forage crops. Two species of *Zyzyphus,* which bear copious fruits, have yet to be identified by Kew or the British Museum; at least one is probably new to science, and the fruit of the other is eaten by tahr, domestic goats and man. The animals chew off the soft outer coat and regurgitate the hard nuts, which the Bedu then collect for the seed inside; this they eat or use to make flour. Another potential forage species, found only in Oman is *Ceratonia sp nov.,* which is related to a tree much used for silage in the Mediterranean. Above 5000 feet *Dionysia mira,* with a beautiful, yellow, sweetly scented flower, grows on steep or vertical rock faces. A primitive member of the Primulacaea, it is of interest to botanists.

The Bedu and village people have been good conservationists in the past, and to ensure that potential tahr habitat survives, even though used by domestic stock, it is essential that some of their ancient conservation practices should continue. Most important of these is that trees are never cut for fodder or firewood. The Bedu gather fodder by beating the tree with a large pole and collecting the fruits or leaves that fall in a blanket; firewood is only obtained

Above
TYPICAL TAHR HABITAT. Two guards search for scraps in the grass under an *Acacia tortilis* tree.
Right
The 6000-ft limestone cliffs of the Jebel Aswad where the author did most of the work on the tahr

from dead trees or parts of trees. As a result trees are abundant in many parts of Oman; cutting could be immensely damaging to the rangelands. Modern development in Oman is little orientated towards preserving rangeland, but so far the only extensive tree-clearing has taken place on the Batinah coast, apparently to make gardens, using water pumped from below ground. It is vital that through ignorance of the consequences, this practice does not spread into the mountain areas.

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Hunting Ban Did Not Increase Poaching

Our FPS Consultant in Sri Lanka, Ranjen Fernando, says that experience in Sri Lanka does not support the often expressed belief that a ban on licensed hunters results in rampant poaching. A total ban on hunting in Sri Lanka, imposed in 1964, has had no such effect. 'A diligent and dedicated staff occupied in frequent and effective patrolling has controlled poaching to a very great extent'.