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Leopards (Panthera pardus) in Iran

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Between 1973 and 1976 I was head of the carnivore section for the wildlife research division of the Iranian Department of the Environment. At that time the leopard was found over a wide area. Harrison (1968) had previously plotted its distribution. In the northern part of Iran it was larger than most other races of leopard, occasionally attaining a weight of 90 kilograms (Harrington, 1977).

Its occurrence was mainly associated with the two great mountain chains, the Alborz and Zagros Mountains which extend to the edge of the plains, and they occurred wherever suitable prey, namely wild boar (Sus scrofa), Persian ~~ibex~~ <sup>wild goat</sup> (Capra ~~aegagrus~~), and wild sheep (Ovis ~~ammon~~), existed. It <sup>orientalis</sup> appeared to be particularly common in the extensive oak forest that blanketed the north side of the Alborz Mountains facing the Caspian Sea. This was documented during a search by the Department of Environment for evidence of Caspian tigers (Panthera tigris virgata) during the winters of 1973 through 1976, which turned up large numbers of leopard tracks recorded as casts throughout the area. A great many leopard photographs were also taken using dead wild boar carcasses as bait in the most likely tiger areas. Why leopards should be so abundant was undoubtedly related to the rich prey base, namely wild boar. Although leopard did take domestic animals from time to time, their dependence on domestic stock was minimal. Two reasons accounted for this. Firstly, low numbers of people inhabited the mountainous forest, albeit mostly as shepherds and cattle graziers. Secondly, well over ninety percent of the human population was Moslem. Since wild boar was considered unclean and abhorred as food by those of the Moslem faith, it was rarely hunted, thus ensuring a prey base for the leopard.

More than a dozen parks and reserves occurred within the area which provided protection for both the leopard and several other potential prey species, like red deer (Cervus elaphus), roe deer (Capreolus capreolus), Persian ~~ibex~~ <sup>wild goat</sup>, and wild sheep. While most of these reserves were small, the largest two, Central Alborz National Park and Central Alborz Protected Area, which were contiguous, collectively exceeded 4000 sq. km. in size. The best reserve in terms of quality of habitat, degree of protection, and prey abundance was the 1250 sq. km Mohammed Reza Shah National Park. (Golestan NP)

The forest cover stretched across northern Iran as a narrow band intimately associated with the Alborz Mountain chain. Of concern to the Department of the Environment was the gradual loss of forest cover outside the reserves which in the long term would result in significant fragmentation of this habitat. Although the forest was protected, and attempts were made to harvest it on a sustained basis, illegal removal of timber was difficult to control.

The leopard also occurred throughout the Zagros Mountains, which stretched southwards across ~~of~~ the country. Here they were dependent upon lesser numbers of wild boar as well as upon Persian ~~ibex~~ and wild sheep. These areas contained large numbers of domestic sheep and goats which presumably intensified the leopard's conflict with man. On a more positive note, there were also several reserves within the Zagros Mountains, some of which were of reasonable size.

wild goat

In former times, the leopard almost certainly was common in the lowland forests and wetlands wherever they occurred. These areas once supported rich populations of wild boar and other potential prey species. In the south, such areas also served to provide a prey base for the Persian lion (Panthera leo persica) while in the north along the southern flanks of the Caspian Sea, they provided food for the Caspian tiger. With the influx of people and cultivation, both the lion and tiger were extirpated from these areas and their immediate surroundings, resulting in their extinction in Iran. What lowland forest and wetlands remain today are too small to support large predators. Indeed, in the south along the Dasht-i-Naz and Karkheh Rivers, where Persian fallow deer once abounded and presumably supported both lions and leopards in earlier times, the habitat became so restricted that it was found necessary to translocate a number of the deer to a separate intensely managed reserve adjacent to the Caspian Sea well outside their former range as assurance that they would continue to survive.

In summary the Persian leopard, while reasonably secure and possibly improving in some areas, was on the whole experiencing a loss of habitat over a wide part of its range which inevitably will lead to its fragmentation into several small genetically isolated populations. While some illegal direct persecution, such as poisoning, has been documented (Street et al, 1986), its significance on the populations as

a whole is unknown. More encouraging is the fact that both the Department of the Environment and the reserve system, which was in place during the reign of the Shah, has been kept reasonably intact under Khomeini.

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INTERNATIONAL LEOPARD STUDBOOK

~~1988~~ 1988

INTERNATIONALES LEOPARDZUCHTBUCH

МЕДУНАРОДНАЯ ЛЕОПАРДОВ КНИГА

Published by

Herausgegeben

Издатель

Alan H. Shoemaker

Riverbanks Zoological Park

PO Box 1060

Columbia, SC 29202-1060

USA