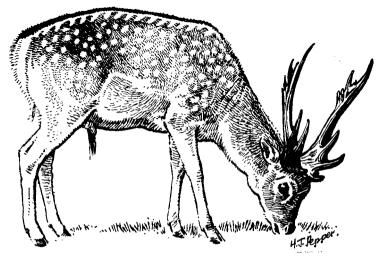
## The Persian Fallow Deer

By Hubert J. Pepper

Discovered less than a hundred years ago, the Persian fallow deer Dama mesopotamica is in serious danger of becoming extinct. Mr. Pepper describes this large deer and the little that is known of its history, and urges the need for establishing a captive herd based on the two females in a German zoo, the only ones in captivity.

THE Persian fallow deer Dama mesopotamica, which was first described as recently as 1875, is in imminent danger of extinction without ever having been properly studied scientifically. There may be no more than 50 to 60 left in the world, and only two in captivity. This giant among fallow deer, standing at the shoulder about one-third as high again as the European fallow deer Dama dama, was presumably known to the ancient Egyptians (Dawson, 1934), but little written evidence remains. Fallow deer are mentioned in the Bible among the clean animals and in the list of game animals furnished for Solomon's daily table, and Tristram (1866) mentioned representatives of a fallow deer species on Mount Tabor and on the Litani River.

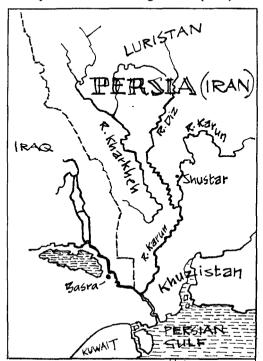
The real discovery of the Persian fallow deer came, however, when Sir Victor Brooke was offered the skin and horns of a spotted deer from south-west Persia, which, he said, "appertained to a new and very interesting species" (1875). A drawing by J. Wolf, published at the same time, does full justice to the animal. Brooke wrote: "Hair of moderate length, stiff, close-set. General colour of neck, body and limbs bright fawn. Back of neck, upper parts of the sides and haunches spotted with white, the spots blending together so as to form continuous lines along each side of the dorsal list, on the haunches, and along the sides of the



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body. Posterior part of the haunches and all far extremities uniform pale fawn colour. Some black hairs form an indefinite dark patch on the base and at each side of the base of the tail. Remainder of tail and belly white." Among the characters which distinguished this spotted deer from Dama dama, Brooke included its considerably superior size, the spots on the upper part of the back blending together to form two continuous white streaks, the much smaller extent of the dark markings bordering the white of the anal region, and a type of horn unique among Cervidae (Brooke, op. cit.).

Within a few years the deer was to be seen in the London Zoo. The first was a male purchased for £50 on May 28th, 1877. Six were born in the zoo between 1880 and 1887, and seven hybrids—C. mesopotamica (male) × C. dama (female), 1871–1885 (including two three-quarter-bred mesopotamica) (Flower). In the Journal of the Society for the Preservation of the Fauna of the Empire, the forerunner of ORYX, Pocock quotes the Duke of Bedford on the species at Woburn: "The Mesopotamian fallow deer must have survived until the beginning of the present century, as my father had two calves, though I fear the skins were not preserved when the animals died. One of these does had overgrown hoofs and did not survive long; the other bred several fawns with a common fallow buck, and a herd of hybrids existed for a number of years. I remember the pure-bred does well by reason of their large size" (1946).



Ellerman and Morrison-Scott (1951) recorded the capture of a male in 1917 at Zacho, northern Iraq, and another animal from north of Kermanshah; the last one seen in the Luristan district was in 1906 near the upper Diz River. They believed that the deer was "now extinct".

Thus with major probclassification lems οf solved, some factors of distribution gathered and something of the gross anatomy of the deer described through acquaintance with skins, skeletons and cadavers, studies of the Persian fallow deer came to a close. Details of the sensory anatomy, physiology, general behaviour or mode of life were unknown.

In 1955 Lee Talbot, in the course of his survey for the Survival Service Commission of IUCN, received information suggesting that the Persian fallow deer still existed in limited numbers in Iran, in a dense forested region of tamarisk along the Diz and Karkeh rivers (1960). Talbot told W. Trense, of Munich, who went out to the area in 1956 and confirmed this. The following year, financed by Dr. Georg von Opel, of Kronberg in Taunus. Trense returned to the area. and in the plateau of Kurdistan found a numbers of shed antlers and captured a male fawn which was taken to Kronberg. Another expedition in the same year saw eight Persian fallow deer and shot one fawn. In 1958 a doe was captured and taken to Kronberg. With this pair, Scheich (the Sheik) and Siba, Dr. Opel had planned to set up the nucleus of a breeding stock for biological research in Kronberg, but the male, Scheich, died in 1960; it is hoped that the post-mortem results will be published. Fortunately, an intensive study had been made before the animal succumbed. On July 17th, 1960, Siba gave birth to a pure-bred fawn (a doe) and another contribution to the Persian fallow deer's life history was made by Dr. Fritz Walther who filmed and described the birth.



Antlers of the Persian fallow deer (below) and the European fallow deer (above).

Dr. Walther found that Scheich dropped his antlers a month earlier than the European fallow deer, and cleaned off the velvet earlier also. Siba appears to come into heat in the middle of December—two months later than European fallow deer. The rutting call of the male sounded like rocho—accented on the first syllable. The winter pelage colour is brighter in the Persian deer, a brownish olive like the winter pelage of roe, and spotless.

The Survival Service Commission of IUCN has added the Persian fallow deer to its list of endangered species, and the royal hunting authorities in Iran are aware that the habitat of the deer should be conserved. The need to establish a herd in captivity is increasingly evident. The specimens in the Opel collection have proved of considerable value, but the loss of the only male has seriously impaired their usefulness, and a substitute for Scheich must be found.

In the preparation of these notes I have been greatly assisted by many whose knowledge of the Persian fallow deer is greater than mine. To them I acknowledge my appreciation and gratitude.

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## References

- BROOKE, V. On a new species of deer from Mesopotamia. P.Z.S. London, 1875, 261-266. Supplementary notes on *Cervus mesopotamicus*, P.Z.S. 1896, 298-303.
- Bubenik, A. Der Feinbau der Damhirschgeweihe Cervus (Dama) dama Linné, 1758 und mesopotamicus Brooke, 1875 - und ihre Entwicklungsstufe. Säugetierkundliche Mitteilungen: Stuttgart, Band VII, Feb. 1st, 1959.
- HALTENORTH, TH. Beitrag zur Kenntnis des Mesopotamischen Damhirsches Cervus (Dama) mesopotamicus Brooke, 1875 - und zur Stammesund Verbreitungsgeschichte der Damhirsche allgemein. Op. cit.
- KRAFT, H. Der Nasenspiegel der Damhirsche Cervus (Dama) mesopotamicus Brooke, 1875 und dama Linné, 1758. Op. cit.
- STEINHAUF, D. Beobachtungen am Mesopotamischen Damwild Cervus (Dama) mesopotamicus Brooke, 1875 in Gefangenschaft. Op. cit.
- HALTENORTH, TH. Lebensrau, Lebensweise und Vorkommen des Mesopotamischen Damhirsches, Cervus mesopotamicus Brooke, 1875. Säugetierkundliche Mitteilungen, Band IX, Heft 1, April 1st, 1961.
- Dawson, W. Deer in Ancient Egypt, J. Linn. Soc. London Zool., 39, 137-145, 1934.
- ELLERMANN J., and T. Morrison-Scott. Checklist of Palaearctic and Indian Mammals. Trustees of the British Museum (Nat. Hist.), London, 1951
- POCOCK, R. The Persian Fallow Deer (Dama mesopotamica). Jl. Soc. Pres. Fauna Emp. London, N.S., Part 53, 53-55, 1946.
- TRISTRAM, H. Report on Mammals of Palestine, P.Z.S., London, 1866, 86. FLOWER, S. S. List of the Vertebrate Animals Exhibited in the Gardens of the Zoological Society of London, 1828-1927, Vol. 1, Mammals.
- TALBOT, L. A look at threatened species, ORYX, London, 5, 1960.
- TRENSE, W. Nach 10,000 Jahren wiederentdeckt. Der Ur-Hirsch. Illustrierte "Quick", München, 10, Nr. 28, 38–39, 13, VII, 1957, -Ders. Die vergessenen Damhirsche, Die Pirsch, München, 10, 279–283, 1958, -Ders. Der Mesopotamische Damhirsche (Cervus mesopotamicus) und sein Lebensraum. Jahrbuch 1958 des "Georg v. Opel Freigeheges für Tierforschung", Frankfurt a. M., 16–22, 1959.
- Löffler, G., and F. Walther. Von Unseren Mesopotamiern, Jahrbuch 1959-60 "Georg v. Opel-Freigehege für Tierforschung V".

WALTHER, F. Private correspondence.

WHITEHEAD, G. K. (World Wildlife Fund). Private correspondence.

REED, C. A. Private correspondence.

STARCK, D. Private correspondence.

LAY, D. M. Private correspondence.

HECK, H. Private correspondence.

## A National Wilderness System

By the Wilderness Act signed by President Johnson last September the United States has set up a National Wilderness Preservation System, covering at the start more than nine million acres of National Forest lands, with provision for periodical reviews and further inclusions. Hunting and fishing will be permitted under regulations. Conservationists in the States describe it as "a major conservation landmark".