THE CASPIAN MINIATURE HORSE OF IRAN

by

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The Caspian in its Native Land

The chance discovery of a miniature horse in Northern Iran in 1965 drastically altered previously held views of early horse domestication in the Middle East and eventually offered solid and convincing proof of the origin of the hot-blooded Oriental horse.

The so-called Caspian pony, a name derived from the geographical location of the original sitting and the small size of the horse, was first noticed in the Caspian littoral town of Amol. Competing in size and labour with the local donkeys, it was chiefly obvious for the great speed with which it darted through the narrow alleys conveying cart loads of goods from one part of the town to the other. On closer inspection the fine head, large eyes, slim bone and gaily carried tail not only set it apart from E. asinus but also from the rest of its own species labouring under large loads of agricultural produce.

Sheer curiosity prompted the purchase of several of these miniature horse and their transport to Norouzabad outside Tehran. They were enthusiastically received by pony-starved, young children who, without a thought to historical circumstances, promptly learned to ride and teach their mounts the elements of jumping and gymkhana. So successful were the consequent exploits of the Caspians that more were found and brought to Tehran to form the nucleus of a breeding herd.

The stud at Norouzabad grew to twenty-three Caspians but, as a purely private venture, was difficult to maintain financially. The Royal Horse Society (R.H.S.), which had been formed in 1970 under the distinguished patronage of the Crown Prince, H.I.H. Prince Reza Pahlavi, and whose primary aim was dedicated to the preservation and improvement of Iran's native breeds, bought the Caspians and left them to be maintained at Norouzabad until 1974, from which time the RHS took over complete management of this herd.

A second private herd was started from Foundation Stock (FS) found along the Caspian Coast in 1975. Approximately twenty mares and three stallions were purchased of which seven mares and one stallion were sold to the Caspian Stud (UK) in the fall of 1976. This herd was maintained under natural conditions on the Turkoman Steppes of North Eastern Iran at Gara Tepe Sheikh. Following the grass and grazing in herds watched over by two dedicated Turkoman 'charpadars' the mares grazed for two and a half months in the Khalet Nevi mountains by the Russian border during the Spring, for four and a half months in the lush wild alfalfa pastures of the Eastern Alborz mountains during the summer, and then down to the Turkoman Steppes to graze the harvested wheat stubble in the fall. During the winter the Caspians were sheltered at night in an adobe stable browsing in the day time amongst the tender shoots of green barley planted especially for them. At the time of the Vernal Equinox (the Zoroastrian New Year) the mares moved once more toward the Russian border and the verdant pastures of the Khalet Nevi where their foals joined in play with foals of other herds and gamboling flocks of lambs.

Five foals were born to the Gara Tepe Sheikh Stud during this time of which one was consumed by wolves along with his in-foal dam. A particularly fine Foundation mare also succumbed to this fate within a week of the first tragedy. Further tragedies of this sort were averted by the CS (UK)'s timely purchase of seven mares and one stallion, ensuring sufficient space for the remaining Caspians in the protection the winter barn.
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When the RHS declared a ban on exports of Caspians beginning Jan. 1, 1977, the stud of Caspians at Gara Tepe Sheikh was forced to close its doors. Thus, the RHS, in order to save the Caspian horse from extinction, established a separate Society whose main aims were to collect and maintain all Caspians extant in Iran, selectively breeding them in a 'National' Stud to conform with a specific standard of the breed. Thus the Gara Tepe Sheikh Stud joined with the Norouzabad Stud stabled on the elegant grounds of the Royal Society Stud in Gonbad-e-Gabous. As of this writing the RHS Stud in Gonbad-e-Gabous numbers sixty-three stallions, mares and foals, of which the greater number are Foundation Stock.

Research into the origins of the domestic horse continues as each year's treasure of equid bones and horse equipment, is brought to light by archaeological teams. In addition to collecting evidence for the continued presence of the miniature horse, careful studies are made of the varieties of breeds, their probable use, veterinary problems criteria for selective breeding and the ancient routes of export. Iran's position at the cross roads of the earliest human migrations with the lush pastures of the Alborz and Zagros mountains and plentiful water put her in the unique position of having all the natural elements for being the first to selectively breed horses for different uses and specific characteristics. Thus, remains of the little miniature horse are found commingled with 15, 16 and 17 hand horses from the Median Period (650 B.C.) on. From this rich selection, horses were picked for children's mounts, ceremonial purposes, race horses for Sparta, breeding stock for the Arabian deserts and later, elegant mounts for the crowned heads of Europe and the polo-fields of India.

Geography and Location

The present range of the Caspian extends from Behshahr near the Turkoman Steppes on the eastern side of the Caspian to approximately Bander Pahlavi on the western side. The south-eastern portion of the Caspian littoral is characterized by rolling countryside dotted with pomegranate and Circassian walnut trees melting gradually into the foothills of the Alborz (Elburz) Mountains. Wheat, cotton, and tobacco are the major crops which fur-hatted Turkomans and white-turbanned Zabolis cultivate with horses and water buffalo.

Apart from the very occasional Caspian, the horse population of the Caspian littoral is divided neatly between stocky, Mongol pony type, small horses standing from 120 - 145 c.m. and the tall, rangy, elegant Turkoman horses, standing 150 cm. at an average.

The former is usually to be found descending the mountains with massive loads of cut green wood, while the latter bows its graceful neck to the burdens of ploughing, seeding and carting produce over the undulating fields bordering the Caspian Sea. Approximately midway along the Caspian at the division of the Provinces of Mazanderan and Gilan the littoral narrows and the mountains seem to hang out over the sea. The farther west, the more abundant the rainfall becomes, with more frequent rice paddies on the coast and tea plantations climbing the step hillsides into the low-lying clouds. Here, the horse population consists primarily of the heavy-set, rather coarse Mongol pony type.

A survey to determine the approximate number and range of Caspians was undertaken in July 1965 and concluded in August 1968 (Firouz 1969). Apart from spot checks of the horse population in most of the Provinces on the Iranian Plateau, the survey covered the area described along the Caspian coast where the miniature horses were first observed. Due to the difficulties presented by swampy and mountainous conditions, few feeder roads have been built off the main coastal road or the four roads which run from Teheran to join the coastal road. While this lack of easy communication has preserved the prevalent horse economy it makes survey work a lengthy, if pleasant, occupation.
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The initial stages of the survey consisted of checks in villages and towns along the main coastal road which runs from Gorgan on the eastern extreme of the Caspian Sea to Astara on the Iran-Soviet border in the west. As this simply indicated the presence or lack of small horses with 'Caspian' characteristics, a further survey from likely villages was conducted on horseback and by foot to check the distant pastures where the horses had been released to graze. This method was used along the length of the coast during all four seasons of the year. Visiting the local weekly bazaars for the horse sales also revealed interesting information as to the number and types of horses for each locals.

A semi-nomadic system of grazing is used for the herds of horses, cattle and sheep. During the summer months the animals are driven into the mountain pastures of the Alborz and Talesh Mountains to enjoy the abundant forest and mountain grasses. In the winter, cold and snow force the herders to seek the warmth of the Caspian coast where the animals winter on the harvested rice and wheat fields. Thus, any survey of the animal population of the Provinces of Gilan and Mazanderan must necessarily include the summer grazing areas. Mounted expeditions were made into the Firouzkuh area, which forms the 'yailaq' (summer grazing) of Sari; the Nur area, which forms the 'yailaq' of Chalus arid Aliabad; and Kelardasht, situated in the foothills so as to be its own 'yailaq' and qishlaq (winter grazing). The British Ambassador to Iran, Sir Denis Wright, contributed valuable information on the Talesh Mountain 'yailaq' area of the western coast of the Caspian (Wright, 1967).

On the basis of this survey it was estimated that there approximately fifty small horses with definite 'Caspian' characteristics along the entire littoral of the Caspian Sea, with the major concentration being about thirty in a 3,400 square km triangle between Amol, Babol and Kiakola. The remainder were so scattered, however, that it was concluded that it was virtually impossible for any of them to be considered completely 'pure'.

Subsequent surveys have established that phenotypic Caspian's crop up with regularity each year in non-contiguous areas, breeding these Caspian's to each other has resulted in 100% phenotypically representative Caspian foals. As the local inhabitants of the Caspian littoral insist that a miniature horse is a fluke, being delivered at unexpected times from a normal sized mare, we have accepted the tentative conclusion that the current Foundation Stock of the Caspian is a genetic throwback to the ancient stock, carried recessively in the genes of the vast herds of horses that roam freely and breed happily unsupervised as they co-mingle from the rice fields to the high mountain pastures.

Early Horse Domestication and the Caspian

The discovery of the Caspian has raised a number of interesting questions about early horse domestication in the Middle East and specifically Iran. Although it has generally been assumed that the horse was an Indo-European import sometime in the latter part of the third Millennium B.C. and the beginning of the second millennium B.C. and although there is no doubt that the Indo-Europeans had domesticated the horse and entered Iran with their effects securely tied to the backs of their stout, tough mounts, there is some question whether these horses were not greeted with a whinny as they crossed the last pass of the Alborz Mountains.

Carleton Goon, digging in caves in Iran in 1949 described the faunal remains he found and came to the conclusion that the horse was a predominant part of the landscape in the Mesolithic period. In addition to the equids from Bisitun Cave, Goon mentions finding equids at Tamtama in Azerbaijan and Khunik in Khorassan.
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Thus, although we do now know what this horse looked like, since a qualitative analysis of the bones has not been made, we do know that a horse existed prior to the coming of the Indo-Europeans. It is possible that these horses were an isolated remainder of the Ice Age which swept so many species of animals in front of it down into warmer climates. Although most of these animals returned to their native north as the glaciers receded, some pockets of animals remained to form isolated breeding groups, slowly evolving specialized characteristics and forms.

Evidence for an early (i.e. pre-Indo-European) ridden horse has not been lacking (Moorey, 1970), nor for one which differed from that of the Indo-Europeans (Littauer 1971). For years archaeologists have been aware of the existence of a tiny equid on stone carvings in Iran, but students of the graphic arts have often dismissed the animal on the grounds that the small size of the horse was a convention dictated by lack of space. In some cases there might be reason to assume the convention of disproportionate sizes as this method was occasionally used to differentiate the status of two or more figures but this would hardly apply to statuettes or to tribute or military animals of completely different sizes on the same relief.

Persepolis and Darabgrid are excellent examples of the latter with a size difference at Persepolis of 21.3 cm in the actual relief between the Nisaean of the Great King and the small tribute horses of the 'Lydians'. Transposed to the calculated actual size, the difference in height would be 40.0 cm (4 hands). On the Sassanian relief at Daragird the difference would appear to be at least that much. The trilingual seal of Darius the Great (ca. 500 B.C.E.), now in the British Museum, shows a pair of tiny ponies (horses) with very slim legs, small ears and slightly convex faces pulling the royal chariot on a lion hunt.

Although these are but a few examples, they serve to indicate that a pony-sized equid was certainly known to the Achaemenians and very possibly admired for its minute size and stylishness. (Note: almost all ancient horses were 'pony-sized' in the modern sense, thus 'pony should be taken to mean a horse substantially smaller than average). That they could have been considered of any practical use beyond acting as mounts for small children or use on special occasions (cylinder seal) is to be doubted as the Nisaean breed, among others, was far superior in size and strength. Heroditus and Strabo, among other Greek writers, lavished much praise on the Persian horses, repeatedly stressing their 'great size' and strength.

Timotheus of Gaza, writing in the 6th Century A.D., states that two different breeds of horses were maintained in the area around modern Kermanshah in western Iran. According to Anderson (ANCIENT GREEK HORSEMANSHIP) 'The (horses) of the Medes are of moderate size with small ears and heads unlike those of a horse; they are courageous but tire easily in the heat through difficulty in breathing. The Nisaean horses are remarkable for their great size and feet that shake the earth.'

Thus, there is a historical continuity for the small horse from pre-Achaemenian times to about the Islamic conquest in the 7th century, A.D. There may have been documentation of the breeds of horse after that time, and it is highly probable that the polymathic Persians would not have dismissed their highly prized horses completely, but the great libraries that had accumulated succumbed to repeated raids and invasions.

A passage from Noel (GEOGRAPHICAL JOURNAL 1921) gives a possible clue to the way in which some of the small horses found themselves at the Caspian and were subsequently preserved: 'The natives of the Kaler Dasht are a tribe that originally was brought over from Kermanshah, but it is so long ago now that they have lost their tribal characteristics and have settle on the land, mixing with the ingenious population. Besides their barley cultivation and their sheep and cattle, they breed ponies'.
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Identification of the faunal remains in archaeological sites is often complicated by mounds of only scraps of bone. Although entire skeletons are usual in graves where animals have been immolated to serve as food and transport for the dead, it is much more usual to dig up the remains of food. The problem is further complicated in the case of the Equidae as, quite frequently, the only bones available are the long bones (metacarpal and metatarsal) and these are often fashioned into intricately carved tools. Since these were often the only diagnostic evidence, equid species were usually identified on the basis of the slenderness index of the long bones; i.e. the comparative length and width of the bones. (On this basis true horses (Equus caballus) were usually judged to have the highest index and descending the scale, the ass came next with the onager occupying the niche of greatest slenderness.

In the Middle East and the steppes of Russia this excessive slenderness of a horse metapodial might have been considered a problem, and, indeed arguments among zoologists have raged for many years. Duerst (EXPLORATIONS IN TURKESTAN 1908) described his tiny equid as a horse even though the slenderness index of the Anau equid was within the range of the onager. This horse was assigned by Duerst to a new sub-species or race and given the name Equus caballus pumpelli. Another zoologist, Wilckens, solved a similar problem with a tiny equid from Maragha in Iran by calling it Equus fossils persicus.

According to Bokonyi, with the discovery of the Caspian, whose slenderness of bone is obvious even when covered with skin and hair, the matter of equid identification again became a controversy. A study of Caspian bones in the summer of 1969 proved that the slenderness index of the Caspian metapodials fell well within the range of the onager and that, therefore, it would be impossible to tell the difference between the two species on this basis alone. Also noted was an unusually narrow hoof.

It now seems possible that the myriad onager bones identified in the sites from the Mesolithic through Sassanian period Iran may not have been all onagers, but may have been in large measure bones of small horses. This would be supported by the fact that, although the onager was domesticated in Sumerian times in Mesopotamia and quite possibly used for a brief time in Iran, the horse entered the scene very early (Moorey 1970), displacing the onager as a beast of burden, and, although the onager was and is considered a tasty dish, it would be unreasonable to assume that he was pursued for food as much as the bones would indicate. It is well known that the onager is capable of enormous endurance and that a ridden horse cannot catch up with him. Thus only very immature animals could be caught with any regularity, but the bones predominantly found have been from mature animals.

During the summer of 1972, Dr. Bokonyi, working with the bones from the Median and Parthian sites of Nush-i-Jan and Hasanlou, discovered two jaw bones of miniature horses. At long last there was biological confirmation of the ancient graphic proof and subsequent research should be establish proof in other and more ancient sites.

Already the Caspian is probably the most ancient domestic breed of horse to exist. Is he, then, the ancestor of the Arab and thus the wild stock from which our hot-blooded horses came? Only further research can confirm this and it is hoped that within a few years the old question which has puzzled so many writers will be solved.
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RESEARCH

The Caspian miniature horse was first observed by Mrs. Louise L. Firouz at Amol on the Caspian littoral in 1965. The unique size, delicacy and form of this horse prompted her to initiate research for the possible historical precedents for such an animal in Iran and its influence, if any, on modern "hot-blooded" horses. The results of this research to date are included below.

1. The research was initiated with a complete chromosome, blood enzyme and haemoglobin study to determine the status of speciation in the Caspian.

1966: Results: chromosome --- a normal E. caballus count of 64=2n with one abnormal acrocentric chromosome in each karyotype (Dr. James Bowman, University of Chicago).
Blood enzymes – normal for E. caballus (Bowman)
Haemoglobin --- reaction time of 80 – 20 on the starch gel electrophoresis. (Clegg, University of Liverpool)

2. Research for historical, precedent was initiated by L. Firouz and M. A. Littauer (1966) culminating in conclusive evidence for a miniature horse from ca. 3000 B.C. through the Sassanians.

1969: Firouz, L., CONSERVATION OF A DOMESTIC BREED ( Biological Conservation ; Vol. II No. 1 England)

3. Osteological research to determine biological evidence for a miniature horse in ancient Iran. Conducted by Dr. Sandor Bokonyi, funded by Mrs. M. A. Littauer, faunal provided from archaeological sites by Mr. David Stronach of the British Institute of Persian Studies.

1970: Bokonyi, S., ANIMAL REMAINS OF NUSHI-JAN PRELIMINARY REPORT. (Iran, British Institute of Persian Studies)
1971: Firouz, L., OSTEological AND HISTORICAL IMPLICATION OF THE CASPIAN PONY TO EARLY HORSE DOMESTICATION IN IRAN. (Third International Congress of Agricultural Museums, Budapest)
1973: Bokonyi, S., THE ANIMAL REMAINS OF NUSHI-JAN. A PRELIMINARY REPORT (Iran, British Institute of Persian Studies)

4. Modern comparative osteological analysis to determine present osteological difference between Caspian and other Iranian breeds.

1972: Shahresavi and Hosseinion. PRELIMINARY REPORT ON THE BASIC SKELETAL DIFFERENCES OF THE CASPIAN MINIATURE HORSE AS COMPARED TO OTHER IRANIAN AND EUROPEAN BREEDS.

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The Caspian miniature horse, an indigenous breed of horse from the north of Iran, is believed to be the ancestor of many current breeds [4]. It is suggested that the miniature horse is possibly the offspring of a natural hybridization between Equus caballus and E. przewalski [6, 7]. The postural statuses of miniature horses are similar to those of non-miniature horses. Apart from height, however, minor anatomical differences have been reported between miniature horse and Equus caballus [3].

The location of the heart and the areas of auscultation relative to the underlying valves are very important in the Caspian miniature horse and its relationship to the ancient Lydian horse, Ark [8].
