



## ADVICE SHEET 17

# The Evolution and Domestication of the Horse

### Evolution – Safety in Numbers

The social structure of the horse is a result of their biology and evolution. Evolutionary adaptation resulted in relatively large, long-limbed, fast-paced animals designed to thrive on wide open grasslands.

Because they were hunted by predators, they evolved into animals with highly developed startle responses, using flight as their first choice to escape threatening situations.

Their large size made them easily spotted by predators, but this risk was countered by the development of a settled herd structure within which horses in the group looked out for, and alerted other herd members to, predators; while others engaged in grazing, playing, exploratory, sleep or reproductive behaviour and foaling mares were protected by their stallions and other herd members. Living in a group also meant there is always a chance someone else will be caught by a predator instead of you, and the group is better able to defend the resources available to it.

### Domestication – Conflict or Compromise?

Humans' first interaction with horses was to hunt them for meat. This led, around 5,000 years ago, to horses being kept captive for food. Soon, factors such



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as their hardiness, adaptability, ability to breed in captivity and easy interaction with humans led to their increased use for transport, warfare and farming, and this situation continued until the middle of the last century when car ownership spread rapidly and the horse became more widely used for leisure and sport. Domestication involved the horse being taken away from its evolutionary herd structure, to be stabled individually in stalls or loose boxes, and to have limited turnout in unsettled groups which changed whenever horses were sold or moved, and which fragmented daily if horses were brought in for part of the day or overnight.

Most of what we term behavioural problems are in fact adaptation problems, where the way in which we expect our horses to live from day to day is at such odds with their evolutionary and biological predisposition that they

find it difficult or impossible to adapt. It is especially important for horse owners to understand how fundamental a horse's response to threat is - as a prey animal, being quick to sense danger and run away is their primary means of survival, and many behavioural problems are the result of the horse responding to something it perceives as threat in one of four ways – fight, flight, freeze or fidget.

Flight is the first response to be selected where this is an option for the horse, e.g. where he is not in a stable or tied up. We need to set up environments for our horses where their key needs are met, if we are to give them the best chance of adapting to the environmental and performance demands we place on them. Closing the gap between our demands and our horse's needs may require us to consider the extent to which we compromise, for the sake of their welfare.