Equine in conservation

Foraging characteristics

1. **Impact on vegetation structure**
   Equines are selective grazers. Within extensive systems, they create vegetation mosaics with shortly grazed 'lawns' (aided by slightly forward pointing incisors) interspersed with areas of taller, undisturbed vegetation.

   This structural diversity benefits a range of species, including for example, invertebrates, small mammals, and birds of prey. However it may lead to some areas of vegetation becoming rank; if undesirable, this may be overcome by either increasing the stock density, or more preferably, through grazing equines in combination with species.

   On softer ground, grazing by equines is likely to create bare ground, which in moderation can be beneficial for species.

2. **Feeding Preferences**
   Equines are monogastric, with fast throughput stomachs and will ideally graze for up t 16 hours within every 24-hour cycle. They are strongly grass based, which is particularly noticeable in extensive grazing systems with heterogeneous habitats and plant communities. They preferentially graze the sweet grasses that are associated with botanically rich areas, but generally avoid eating flowering plants; thus with the competing grasses removed, rare flowering plants tend to thrive and multiply within grazing systems

   Despite being strongly grass-based, the hardy breeds appear to be highly adaptable foragers, and in year round extensive systems develop varied patterns of diet. New Forest ponies, for example consume large quantities of Bracken in August, once its toxicity has declined, with no apparent ill-effect; in large wetland systems, equines graze common reed throughout the year, taking the leaves in early summer, the seed heads in autumn and the rhizomes in winter.

   Having utilised the best of the grasses, equines consume increasing quantities of other plant species as summer progresses. Where available, sedges become important as late summer and winter forage; rushes, particularly Soft Rush, may also be consumed in large amounts. Some breeds will dig up roots of plants such as nettles, particularly during winter months.

3. **Impact on trees and shrubs**
   Equines can be useful for slowing down scrub encroachment by browsing seedlings and the nutritionally rich tips of woody species. Tearing and eating of tree bark can be effectively kill shrubs and saplings. The amount of woody material consumed varies considerably depending on breed, up-bring and general food availably. Within extensive systems, browse material may be important dietary component for some breeds, particularly during winter months.

4. **Social behaviour and its effect on foraging**
   As social animals equines form strongly bonded herds, the individuals which will generally remain in close proximity.

   If breeding groups are kept on adjacent sites (with a common boundary), equines often treat the grazing area as a territory; this can be highly beneficial, as it encourages the herd to consistently roam the 'territory', leading to a well-dispersed grazing effect. Similarly, sub-groups of young colts or fillies may also form an associated terrories develop. Thus, the formation of territories encourages better use of large sites without having to increase stocking densities to force animals to graze vegetation or graze difficult terrain.

   In non-breeding, extensive situations, equines tend to spend most of their time grazing on areas which support their favoured vegetation, and may only roam the whole available area as favoured food supplies dwindle.

5. **Sex and dietary difference**
   No obvious differences have been noted.

6. **Impact of age on foraging ability**
   Some equines dung in distinct areas of rank or less palatable vegetation, although there is no single pattern and much may depend on paddock size. The advantage of this habit is that, whilst dung areas may become enriched and locally under-grazed, the more botanically diverse swards tend to remain relatively dung free. The disadvantage is that on some sites, grazing by equines alone may give a rank, ungrazed vegetation.

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   Different types of equine

- Domestic horses-equines above 14.2 hh at the withers (hh=hands high; one hand = 4inches/10cms). Domestic horses are not bred for survival in harsh environments and are less hardy than British native ponies. They are also more prone to diseases, accidents and unsoundness than native ponies and require a higher level of supervision. Horses also pose a problem of needing supplementary feeding, especially during the winter period. The role of horses in nature conservation is therefore limited to working situations or more controlled grazing.
- Ponies-equines below 14.2 at the withers. Ponies used for conservation grazing should have strong and correct conformation, to ensure the risks of injury or ill health are minimised.

Poor physical conformation could have serious implications for safety on in even or difficult terrain. The coat is also an important indicator as to the individual animal's ability to cope with wintering out, and also how suitable a site is for winter.

- Donkeys-well nourished donkeys with plenty of shelter may be suitable in some nature conservation grazing situations. They are unable to withstand heavy rain and wind without shelter and seek shelter more readily than native ponies. The role of donkeys in nature conservation grazing is limited to situations where roofed shelter is available.

For the purposes of conservation grazing within the UK there are essentially four groups of equines available for use. They all demonstrate the same general grazing characteristics listed above, but to a greater or lesser extent.

Types of equine

Native ponies in a free-ranging environment: Highland, Exmoor, Dartmoor, Dales, Fell, Shetland, New Forest, Welsh Mountain.

Special characteristics and suitability in conservation situations

1. Hardy breeds adaptable to a range of difficult environmental conditions and can tolerate inclement weather and biting insects.
2. Ponies grazing a mosaic of habitats show signs of mineral deficiency when grazed year round without supplements.
3. Free-ranging animals are adaptable to a range of food types.

Non-native primitive and hardy breeds: Przewalski, Konik, Fjords, Icelandic, Camargue.

Special characteristics and suitability in conservation situations

1. Hardy breeds adaptable to a range of difficult environmental conditions and can tolerate inclement weather and biting insects.
2. Horses grazing a mosaic of habitats show no signs of mineral deficiency when grazed year-round without supplements.
3. Free-ranging animals are adaptable to a range of food types, as for native ponies.

Donkey

Special characteristics and suitability in conservation situations

1. May not be very hardy, particularly in wet conditions.
2. Donkeys in extensive systems show signs of mineral deficiency when grazed year-round without supplements.
3. Very thrifty and adaptable to a range of food.

Domesticated horses: domesticated native ponies, warm bloods (e.g. Arabs and thoroughbreds) cross-breeds.

Special characteristics and suitability in conservation situations

1. Generally not well suited to conservation grazing, except in meadows and problem-free calcareous grasslands.
2. Often softened by domestication (through stabling, rugging, clipping etc). So that they may suffer more readily from cold, wet conditions.
3. Those with thin skins (e.g. Arabs and Thoroughbreds) are unlikely to be tolerant of insects.