

The Wicken Fen Vision:



grazing an evolving landscape

Just over a decade ago, the National Trust embarked upon an ambitious and far-reaching project to safeguard the future of Wicken Fen, one of the last remaining pieces of undrained fen in East Anglia.

Over the next 100 years, the aim is to establish a landscape-scale nature reserve that will provide a refuge for the wildlife present on Wicken Fen NNR, whilst at the same time establishing a diverse and varied landscape for people to enjoy. This project is known as the Wicken Fen Vision.

Since the start of the Vision in 1999, the reserve has more than doubled in size from 323ha to 754ha, the greatest percentage of this on former arable land. Much of the 'management' of the emerging vegetation on this expanding reserve is being left to mixed herds of horses and cattle.

The animals at Wicken are managed as minimally as possible. They are kept in intact social groups and are very self-reliant. This allows them to express the full range of their natural behaviours. The belief is that allowing the animals to express themselves in this way will encourage a wider diversity of structure within the vegetation and land.

There is wide acceptance that grazing wetland sites can be a valuable tool in creating the right conditions for certain species to thrive, but in this part of lowland Britain, managing animals in this way is quite unusual and has provoked much interest.

Starting out – what to graze?

After much consultation and wide-ranging research, an eastern European breed of primitive pony, the Konik polski, was one of the species chosen to graze the evolving reserve, with Highland cattle being the other. These two breeds adapt readily to an extensive, minimal intervention management system. Both the Konik and Highlands are tough, robust animals with a proven record of thriving in wetland sites. Not only was mixed species grazing desirable to promote diversity in the landscape, but having mixed-sex groups was felt to be important as well. The social behaviour of the animals adds another layer of interaction with the surrounding environment that you may not get when grazing with single sex, or single species groups.

↑ Konik polski and Highland cattle are well adapted to wetlands.
Carol Laidlaw/National Trust

Carol Laidlaw, grazing warden at Wicken Fen NNR, describes the introduction and management of free-roaming cattle and horses in an expanding reserve in the East Anglian fens.

Wicken's grazing animals

The first group of six breeding Konik ponies was introduced in 2003, and a further group of five plus two young males ('bachelors'), not yet old enough or experienced enough to form a breeding group of their own, were introduced to neighbouring fields in 2004.

Initially, the groups were kept separate from each other, primarily to give staff some time to become familiar with them and their behaviour. This period also allowed for an assessment of how the horses would interact with their environment as they settled in. The fences between the groups were taken down in 2007. After some early excitement, they quickly formed one herd and have utilised the whole of the area available to them since.

The horses were very sensible when first released onto the grazing areas. Rather than charging off over the horizon, they made a cautious and thorough investigation of the land available to them over a matter of weeks. By the end of a year, 'pony paths' along favoured routes were established, with grazing spread relatively evenly throughout the area.

The ponies do show seasonal grazing preferences, with the lush, sweet grasses being targeted in the spring and summer and plants such as rushes and sedges being taken in the autumn and winter. They have very robust grazing habits, and will regularly browse on scrub, stripping the bark off willows in the winter, as well as eating plants such as nettle, thistle and bramble. Digging for

plant roots also occurs, usually in late winter.

Following the introduction of the ponies, a group of nine Highland cattle (one male with eight females) was introduced to the Fen from the Isle of Mull, in 2005. The animals came from a very similar management system to that at Wicken in order to minimise stress as they settled in.

The cattle showed an even more considered approach to learning about their new home, choosing to remain in the field they were released into for a few weeks before exploring the whole area available to them. Once they were familiarised with the area, good all-over use of the site was observed, with the cattle happily entering and grazing wetter areas year round. Ditches and flooded scrapes are especially favoured in the summer, as the cattle use these to stand in and cool down during the hottest parts of the day.

Grasses tend to be grazed year round by the cattle, but rushes, nettles and thistles form a component of their diet, with occasional browsing occurring on willows and other small bushes and trees. They have also proved themselves to be very adept at plucking and eating haws in the autumn.

Management of the herds

Currently, the herds of cattle and horses have 155ha to graze, at a flexible population density of roughly one animal for every 1.5ha. At present, the expansion of the reserve is one step ahead of population growth. The animals are on site all



→ A mare cleans her newly born foal. Witnessing an event like this is very rare, as most births occur overnight. The animals are so self-reliant that they rarely require assistance from us.
Carol Laidlaw/National Trust





year, and are left to determine where they graze throughout the area.

Fencing is a mixture of ‘wet fences’, such as ditches and rivers, alongside more traditional stock fencing. The fencing has worked well, with both species respecting their boundaries, by and large, although there has been the odd escapee in the last ten years! However, the herding instinct is so strong and the social structures so well established that individuals rarely stray away if they are on the wrong side of a fence or ditch from the rest of the herd, and return quickly given the opportunity to do so.

Supplementary feeding is not carried out as a matter of course, although fodder would be provided in prolonged severe weather where the animals are unable to find enough forage for themselves. So far, there has been no need to do this as there has been plenty of available grazing, even during the winter months. The animals also build up substantial fat reserves over the summer, which they are able to utilise in the winter.

Routine forms of management, such as foot trimming and worming, are not undertaken, although both of these are carefully monitored. Worm burdens in the cattle and horses are monitored every two months, with staff collecting fresh faecal samples and analysing them in-house. If an individual is in poor health and this can be related to a high worm burden, that animal is treated with a non-ivermectin based wormer (only one animal has needed worming in the past seven years). The cattle have exhibited consistently low worm counts since the start of the study, whilst the ponies show a great deal of seasonal and individual fluctuation.

Monitoring of welfare

There are moral and legal welfare obligations that need to be met when keeping any animal, no matter how robust and independent they are. With a system like that at Wicken, monitoring the animals

is an important part of meeting these obligations.

There is a four tier system of welfare check carried out, varying in intensity and detail recorded. These range from daily checks by local volunteers, who use the site regularly and are happy to do a head count or fence check on their walk round, to formal written reports produced annually by a veterinarian, commenting on the herds’ current condition, welfare issues experienced over the past year and making recommendations for the next year.

Despite the innate toughness of both the ponies and cattle, illness and injury does sometimes occur. At this point, a very careful balance has to be struck, assessing the benefits of treatment against the stress of intervention to an animal that is largely unhandled and unused to close contact with people. Experience has shown that

↑ A group of Highland cows settle down to cud. The strongest bonds in cattle groups are those found between mothers and daughters, with several generations often staying together.
Carol Laidlaw/National Trust



← Koniks are adept at utilising all the resources available to them. Here, a pony digs for plant roots.
Carol Laidlaw/National Trust



↑ Konik males sparring at Wicken Fen. Male ponies display and fight to defend their right to the females in their harem.
Carol Laidlaw/National Trust.

these animals shrug off most illness and injury without intervention, usually requiring only careful monitoring after discussion with the vet.

Social behaviour

The social behaviour of the horses and cattle is a fascinating and important part of the grazing at Wicken. The interactions between the males, in particular, can have a marked impact upon the landscape, with the formation of challenge pits, marker piles of dung (known as ‘stud piles’) and bachelor groups that graze on the margins of the herds.

The Koniks form small groups of females and young, defended by one or two males. These are known as harems. Young born into a harem stay with it until they are a year or two old, when they either migrate away or are chased out of the group by dominant adults. There may be several harems found within one herd of horses. Wicken currently has three harems and one bachelor group within its herd.

When accessing resources, such as shade, water or grazing, there is a clear hierarchy between the harems (and between the species, the ponies being more dominant than the cattle). Perhaps coincidentally, the largest harem at Wicken appears to be the most dominant. This group usually gains

primary access to drinking points, shelter and grazing over the smaller harems and certainly before the bachelor group, which tends stay on the periphery of the herd. This can mean that grazing is more evenly spread over the site, avoiding the creation of areas of rank, dense vegetation.

Cattle have a very different social structure. The primary bond in cattle groups is that between mother and daughter, and several generations will often stay together in the same herd if allowed to do so. Young males tend to leave the matriarchy at two to four years of age, as they reach sexual and physical maturity.

The bulls at Wicken are currently in a bachelor group of 14 individuals. They range in age from one year old to up to eight years old. The males are largely peaceable, but do spar amongst each other. Most encounters largely involve posturing and displays of strength, but even these are impressive to watch! Some of the displays have a marked effect on the vegetation and landscape. A displaying bull will thrash his horns in long tussocks of grass, bramble bushes or small saplings, wrapping the vegetation around his horns and pulling it loose. Bulls will also dig their horns into the ground and fling chunks of earth and mud up over their backs – this has been really useful for creating small areas of disturbed ground.

Although most of the displays between stallions and bulls are ritualistic, fights do occur. Most are spectacular and short lived in nature, and witnessing one does make the heart race! Occasional injuries do result from these encounters, most of which are minor and heal without intervention.

The fact that the animals are able to express a lot of behaviour not normally seen in herds of cattle or horses provokes a lot of public interest, and many people come to the Fen specifically to see the herds – this is especially true when young calves or foals are born, as they are both very appealing.

The future

This project, although ten years on, is still in its infancy. There is much to discover about the interaction between the herds and the landscape, particularly in relation to the impacts of the social behaviour.

Research into herd behaviour, use of the land, vegetation structure and diversity, as well as monitoring of the hydrology, is underway. It will be interesting to see the results in a few years, although early signs that managing the herds in this way are very encouraging. All in all, it is a very exciting time to be involved in the evolution of this internationally renowned wetland.

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