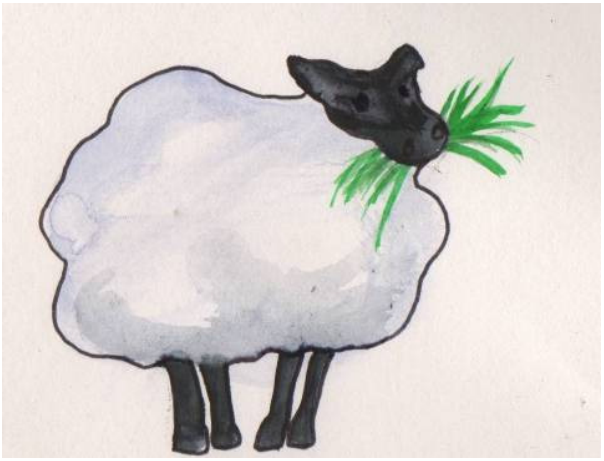
How Grazing Affects Biodiversity in The Great Trossachs Forest

Factors affecting biodiversity

The area covered by The Great Trossachs Forest (TGTF) Project was once largely native woodland, with trees stretching up to the 'tree line*' of the surrounding mountains. Over the past several hundred years, much of the ancient forest has been felled, and the sheep and deer grazing that followed has had a major impact on biodiversity. The ground flora is mainly grasses and no longer a diverse mix of shrubs and herbs. Natural regeneration* of trees has been long absent in some areas.

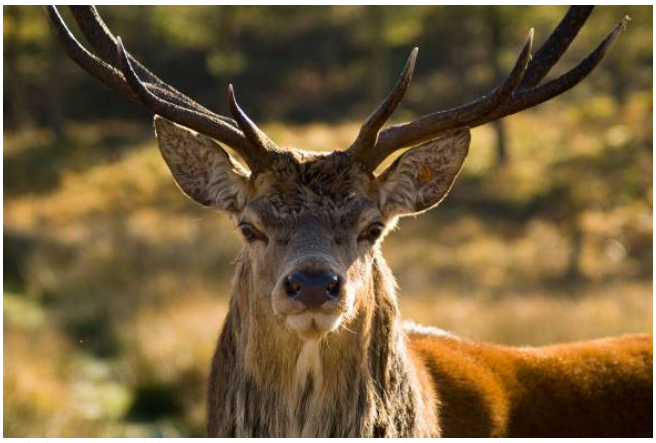


Grazing Management plan

The long-term vision for TGTF is to support ecosystems that are rich in biodiversity. There will be a patchwork of habitats, including semi-natural woodland and wood pasture* as well as important open habitats such as bogs and calcareous (chalky) grassland, which is important for insects, particularly butterflies. The woodland cover and open ground will be allowed to grow and reduce over time in response to natural processes.

Grazing by both wild (e.g. deer) and domesticated (e.g. cows) livestock at the appropriate level is an important tool in managing existing woodlands, in the regeneration of woodlands, and also maintaining species-richness of open ground. Deer, sheep and cattle each have different ways of grazing, and these are very much complementary to each other.

Natural regeneration* and tree seedling survival has improved since sheep were removed from the area in 2002. Both red and roe deer are present in the area and deer numbers have increased following the removal of sheep, and so deer have to be managed to allow woodland regeneration to occur. This is done by culling* and temporarily restricting access using deer fencing.



Red deer stag (c) FC Picture Library / John McFarlane

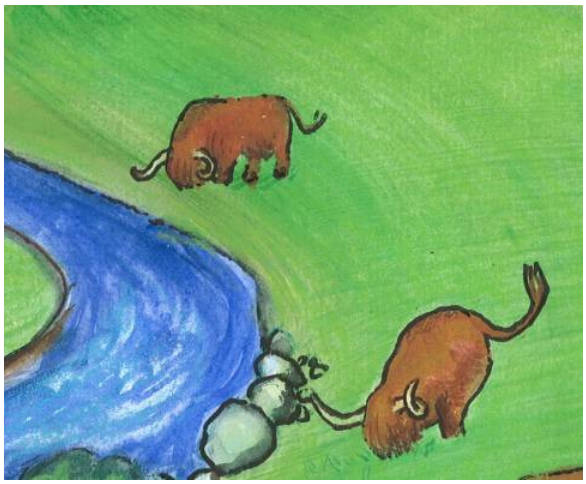
TGTF project has re-introduced a small amount of grazing to help manage open ground habitats, using mainly hardy cattle. **See the 'cattle' film for more information.**

Grazing cattle perform three useful functions:

- They consume vast quantities, pulling mouthfuls of grass up with their tongues, which leaves a short grass through which seed can reach bare soil.
- Their heavy hooves break up the soil surface, enabling tree seed to reach bare soil and germinate.
- Grazing cattle also help control a plant called bracken. Small areas of bracken may have wildlife value, but large expanses are generally bad for biodiversity, as bracken can take over areas where other plants would grow. Bracken is a toxic plant to livestock if eaten and it provides a

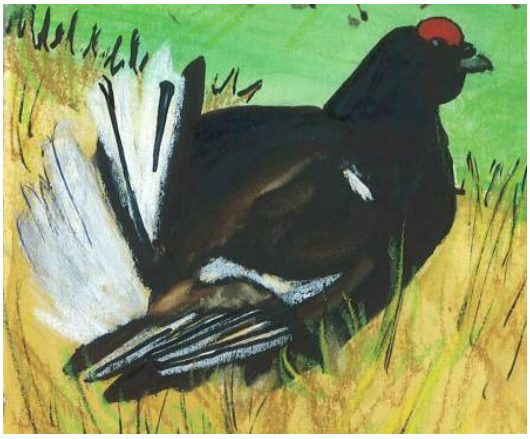
habitat for ticks. A number of cows continuously tramping through bracken will help keep it under control and reduce its spread. Much of the bracken in TGTF is found in areas which would be extremely difficult and expensive to cut, leaving a choice of either trampling by cows or spraying with chemical herbicides.

- Cattle also provide a natural fertiliser!



Grazing is focused in areas where woodland expansion and regeneration is wanted, including many of the existing woodlands. Higher ground habitats (above 300m) will also have some grazing by deer.

Glen Finglas, which is within TGTF, is home to a herd of Luing cattle (pronounced Ling) and a flock of Blackface sheep. These help to maintain the open ground habitat, controlling the grass in the more open wooded areas and helping the natural regeneration of trees. Grazing areas of low ground throughout the year with cattle can also benefit species such as black grouse, which is one of the fastest declining species in the UK.



Black grouse can breed more successfully in areas grazed by cattle than in areas which only have sheep on them. Research by the Game and Wildlife Conservation Trust shows that areas grazed by cattle have twice as many sawfly larvae, a major part of the diet of newly hatched black grouse chicks. Cattle graze differently from sheep, grazing less selectively and leaving vegetation at different heights, which is better for the insects.

Glossary:

*Culling – the process of killing certain animals from a group to ensure the population doesn't get too big

*Natural regeneration – when trees grow from seeds spread naturally

*Tree line – the line on the hillside above which trees are unable to grow because of conditions like cold temperatures.

*Wood pasture - a very open woodland with lots of grassland, maintained by grazing