



Managing GrassLand for Flora (other girls/spreads are available)

During five decades of working in education, we came increasingly to resent 'management'. Just when everything seemed to be going smoothly, somebody would impose a structure which increased bureaucracy, and decreased productivity and job-satisfaction. Moving into the area of conservation in our later years, we have started increasingly to embrace, er, management, and here's why....

The principal national body which should be looking after flora and fauna is Natural England. Sadly, it has been a prime target for government cuts over the past decade, but it doesn't help itself with its title. We think it is fair to say that there is barely a square inch of England which is 'natural'. If you could travel back in time even 500 years, you would struggle to recognise where you were, even if on the doorstep of where you now live. The Hand of Man has

transformed England's natural landscape into what we now see, although many seem blind to this. Take the Pennines, for example. They are regularly described as wild, unspoilt, natural, inspiring, etc., depending on the tourist leaflet you happen to be looking at, but, as they are now, they are the product of relatively recent man-management. Five hundred years ago, there were natural ancient forests covering all but the highest parts of the Pennines, providing good deer-hunting grounds for those who owned them. Then people started grazing the uplands with cattle and sheep, and, surprise, surprise, when the mature trees died and the new trees had all been eaten, we finish up with the bare, and generally not very diverse environment we now have.

The UK is very good at growing grass, and, particularly in Cumbria, there are many green fields. However, very nearly all of them have been 'improved' through the copious application of nitrogen fertiliser. This certainly makes the grass grow, but its use leads to nearly all other flora being killed off. A very little 'unimproved' grassland still exists, but is an increasingly rare habitat, and it needs to be carefully managed if it is going to remain species-rich.

One of our favourite habitats is calcareous (limestone) grassland, and we'll give you some good examples of where to find it at the end of this article. This habitat often has thin soil, with the underlying rock never far from the surface - and sometimes above it, as in the case of limestone pavement. The thin soil tends to deter potentially big species of trees such as oak, and where they have been introduced, beech and sycamore, but smaller species such as hazel, rowan and birch can get a hold, and ash can survive on it, if rarely towering above the ground. If there is year-round heavy grazing, then any new trees are soon eaten, but so are the many wild flowers closely associated with this habitat; if there is year-round light grazing, quite a few of flowers survive initially, but so do quite a few of the trees, many bushing out after be-

ing nibbled, and it isn't long before the surviving trees shade out the flowers. Seasonal grazing often provides good conditions for flora, but is not financially viable for most farmers. Here are some pictures to illustrate this process. The first is an attractive-looking slope on thin soil, which used to provide great habitat for flora, but, nowadays, it is overgrazed almost all year round, and even the grass is stunted! The second photograph shows a bank which has been subject to Winter grazing. It, too, looks bare now, but, once the sheep have departed and Spring turns into Summer, it will green-up and will be covered in wild flowers. The third picture (overleaf) shows a similar area which has not been grazed for nearly a year. You can see the difference, as dead organic material ('thatch') builds up and starts to choke the flora below it.



1 Unimproved, but now overgrazed



2 Unimproved and Winter-grazed



3 Unimproved, but not grazed for nearly a year.

We mentioned Natural England earlier. In theory, it protects the best species-rich grassland through Stewardship schemes. The fourth picture shows an unimproved calcareous slope. In front of the fence, the slope has been cleared of scrub by hand with no grant available for the work; on the other side of the fence is a glimpse of the edge of a large and formerly clear area which has been subject to a lucrative Stewardship scheme for around five years. The dark mass you can see is birch scrub, now established enough to be having a detrimental effect on flora below. Even the best-laid schemes need management.

Moving nearer home, Millie Bank remains a very special area, but, increasingly, it does need to be sensitively managed. Some will remember it from thirty years ago (and then more recently) when it was heavily sheep-grazed

year-round, and when few flowers were ever visible except in the scrubby area to the east of the field, where stock didn't linger. Much of the ancient flora has reappeared over the past few years - all meadow/pasture species are able to survive a lot of mistreatment until they finally give up - but they are now having to fight to get their heads above the ground as rank grasses start to make their presence felt and a thickening and suffocating thatch of dead organic material starts to develop at ground level, as it hasn't been eaten/trampled by grazing animals.

If old land is spared chemicals and ploughs, it can be very resilient, 'happy' to bide its time until conditions improve, but not for ever. Man-management can help by way of cutting/scything/weeding, but this is a labour-intensive business, and not possible without a large labour-force. Even a dozen sheep or a few ponies on somewhere like Millie Bank from October to March will go a long way towards doing the job for us, but conservation grazing is not something mainstream agriculture is interested in, so we will need to look around. If no conservation grazing proves possible, then the floral diversity of the field will slowly decline as the plant 'thugs' (nettles, docks, thistles, etc.) prosper, and, within their confines, hawthorn, hazel, birch and (if there are any still alive) ash trees will establish themselves, eventually turning the pasture into woodland. It's a phenomenon known as climax vegetation. It's good for trees, but not for much flora.

Good Places to See Calcareous Grassland

You will need to travel some distance from the red sandstone area where we live. If you want a good day out, then Cumbria Wildlife Trust's Smardale National Nature Reserve and Waitby Greenriggs Reserve (both near Kirkby Stephen) are well worth visiting. There is increasing publicity given to original and restored hay meadows, but they are, of course, flower-free once cut in July/August, and you might find it easier to have a look at year-round flora on some roadside verges, areas which show what pastures used to be like before intensive agriculture 'improved' the fields on the other side of the wall.



4 Two sides of the fence!

Once you head up and over Hartside, you are in limestone country, and the verge on the road off the A686 towards Leadgate is a good one. Other verges on back roads between Alston and Nenthead, and between Nenthead and Garrigill are often species-rich, and generally quiet.

If you don't like heights, you could head west towards the Lamonby/Greystoke area, or south-east towards Morland and Kings Meaburn. If these verges whet your appetite, then you are ready for the best area: almost any verge within a few miles of Ofton, and most of the roads near the village are relatively quiet. If the Orton verges could be rolled into one area, they would certainly become a national nature reserve, so go and take a look at them while they are there.

**Nigel and Lois Harbron
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