



NEWSLETTER JANUARY 2009

(A letter to the Members of the Trust from the Trustees/Directors)

As winter draws in, work parties on our reserves are providing an excuse for us to get out and do something - especially after all that Christmas/New Year food and sitting about. An updated Reserves Working Party calendar is given at the end of the newsletter - all volunteers very gratefully received at any of the tasks!

This newsletter is largely taken over by events on Heyshott Escarpment. Here the generous grant for Yew clearance given by the South Downs Society (previously known as the Society of Sussex Downsmen) and the registration of all the Society's Reserves, except Buriton Down, under Higher Level Environmental Stewardship in the name of The Murray Downland Trust has allowed us to take great steps toward making the Escarpment suitable for grazing once more.

First, however, I would like to take a look at the current conservation situation with two of the tree species most often associated with downland: Juniper and Yew.



A c. 60 year old Yew and sole, apparently natural Juniper on Heyshott Escarpment Reserve. The smaller seedlings translocated from Levin Down are in the cages.

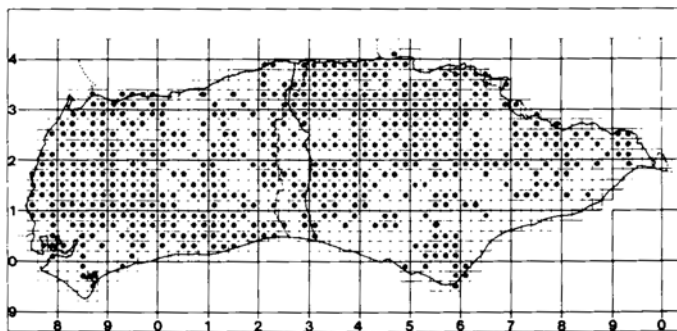
How do Yews and Junipers get established, why is one common on the western South Downs and one rare?

The establishment of both these tree species (and many other plant species) is related to grazing, or at least bouts of hard grazing, followed by a relaxation of grazing pressure. Both species germinate in small patches of bare ground created by grazing animals as they remove grasses and herbs whilst eating. Seedlings of both plants are readily grazed by animals and the difference in abundance of the two plants, Yew being very common on the South Downs and Juniper very uncommon, probably relates to where the two plants develop on the downland and how they relate to the subsequent presence of grazing animals.

Juniper germinates in open, poorly-vegetated areas where the competing plants are dwarfed by low levels of nutrients. Although some light cover of scrubby vegetation, such as hawthorn, may help protect young plants from grazing animals, they are not very tolerant of shading. Juniper regeneration, therefore, relies on scree conditions, or, more often on downland, a period of over-grazing, with a long absence of heavy grazing pressure after germination. A very informative series of pictures showing this process in action at Porton Down forms part of a download from Plantlife at <http://www.plantlife.org.uk/uk/plantlife-saving-species-under-our-care-juniperus-communis.htm>. It is also worth looking on the west side of the A3 cutting as one leaves Petersfield. Here plants have self-seeded into the steep slopes after the original planting as part of the landscaping of the road. Be careful, there are also young Yew here, the Juniper are the tighter, more upright plants.

Yew, on the other hand will germinate both in open grassland and in woodland. The seedlings are very tolerant of shading from scrub and mature trees. This can provide protection from grazing animals as well as allowing the young trees to grow in more nutrient-rich situations. Yew trees will eventually cover and kill their nurses. Yews, therefore, do not require the long periods between moderate to heavy grazing, or the extensive areas of open, low-growth grassland, which Juniper does. A much more detailed treatment of Yew, based on his experiences at Kingley Vale NNR, is given by Richard Williamson in his book 'The Great Yew Forest'.

The western Downs are much more heavily wooded than the eastern Downs and have probably always been so; with the result that patches of open downland have always been relatively small and widely dispersed. Yew is well adapted to woodland and scrub conditions on downland, so it is to be expected that it would be widespread here. It is also very widely dispersed over much of the Sussex countryside on lighter soils, although the map below includes records of planted specimens as well.

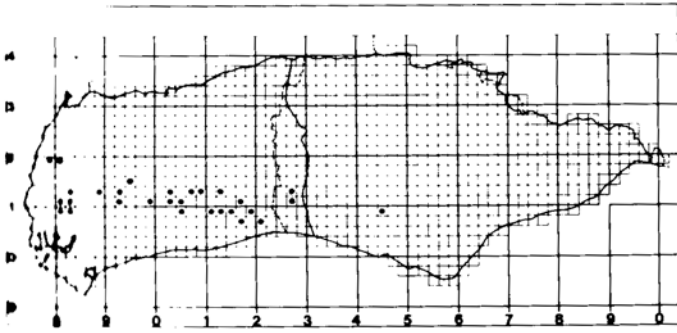


Occurrence of Yew according to 1978 Sussex Plant Atlas.

Conversely, one might expect Juniper to be more frequent on the eastern Downs. However the Sussex Plant Atlas shows the plant to be almost completely restricted to the western Downs!

One requirement of Juniper is that it is not grazed in the seedling stage. The eastern Downs were systematically hard grazed as extensive sheep-walks for at least the 200 years leading up to the Second World War, quite sufficient to remove any Juniper seedlings which did manage to germinate.

The western Downs, west of Storrington, did not have this history of systematic regular grazing by large flocks of sheep. Grazing here was a much more intermittent matter, with the



Occurrence of Juniper according to 1978 Sussex Plant Atlas.

smaller, isolated patches of open ground being hard grazed only when the economic climate made it particularly worthwhile. Because of its limited nature the resource was much more susceptible to over-grazing, giving just the conditions which provide the bursts of grazing pressure under which the establishment of Juniper is favoured. So we have the pattern of extensive Yew with restricted patches of Juniper based on the small patches of open downland in the western Downs.

Since the 1970's Juniper has become even rarer as there have been no boom and bust grazing patterns and also because Juniper bushes seem to produce the majority of their viable seed before they are twenty years old, although they may live for two hundred years. I know of it now at Levin Down and Amberley Mount, with the extensive, but old bushes, at Round Down, Harting having largely disappeared under newer scrub since the 1970s.

What to make of the solitary, apparently natural, bush at Heyshott, I am not sure. What is certain is that conditions likely to suit its natural colonisation of more of the Down are only likely to re-appear if quarrying were to re-start, as the site is not extensive enough for the natural processes leading to its re-establishment to occur, short of, possibly, a vast forest fire. The translocated bushes which were planted around the natural one represent a well-meant, but unfortunate, conservation action.

Meanwhile, the Yew marches on, as conditions suit its establishment and spread very well; which leads us on to the next topic, progress with removal of Yew in the open grassland.



View of Heyshott Escarpment in 1982, taken from Heyshott Pond. Chris Haes.

The area currently known as Compartment 3 is in the centre mid-upper field of the photo, just above the large tree in Heyshot itself. This shows the area of open grassland to be about double that in 2008 (photo overleaf). All the Yews removed in 2008 are present, but much smaller. There is also much less growth of other tree species. The small area of green (compartment 2) near the top of the slope is no longer visible.



**View of Heyshott Escarpment in 2008, taken from Heyshott Village.
This is the same area as in the middle-ground of the previous photo.**

The restoration of stock-grazing at Heyshott Escarpment Reserve.

The case for targeted removal of Yew trees from the open grassland area of the Escarpment Reserve in order to restore grazing management has been made in previous newsletters. During 2008 Arthur Stride was able to secure a grant from the South Downs Society which allowed us to seek quotes for removal of most of the Yew trees which had encroached upon the open grassland. Work on this project commenced in November 2008 and, at the end of a week of hard work by three men, most of the offending trees had been removed, immediately increasing the amount of open grassland by about 50% and returning this area to something like its condition in the 1970s.

However, it wasn't quite as simple as this. There were significant ecological considerations against the removal of the trees, quite apart from the inclination of the '*let Nature get on with it*' approach.

During 2008 the Trust had commissioned a survey by Dick Jones of the spiders of the Reserve. These were one of the groups of animals especially noted as being important in the citation of the area as a Site of Special Scientific Importance (SSSI). One of Dick's findings was that the lower branches of the small Yews in open situations were important for spiders. Removal of the Yews would remove this habitat component.

Two lower plants, a liverwort, *Scapania aspersa* and a moss, *Rhodobryum roseum* Rose Moss, were also known to be of importance on the Reserve. Both the damp conditions, which arise because of the north-facing nature of the scarp face, and the nearby presence of tall Yews which cast shade (but not immediately underneath the canopy) seem to be important features of the habitat for these plants.

Clearly some compromise, with appropriate management commitments, would need to be made to resolve these conflicts, at least in part.

Firstly the spiders. It was felt that this requirement related to the need to keep some of the lower branches of the Yews exposed to the sun. Such Yew branches occur in the area to the west of the Reserve grassland of Compartment 3. It is intended to keep this area open mechanically as it will be out of the grazed section. It will remain as 'open edge' as the grazed area starts immediately to the east of the path. Woodland/open grassland interfaces are very important for a large number of invertebrates.



Two important lower plants on Heyshott Escarpment. Left the Rose Moss *Rhodobryum roseum*; right the Liverwort *Scapania aspersa*.

The lower plant issues were potentially a little more problematic. However, fortune smiled as the two most important areas for these were both close to a large clump of Yews on the western side of the grassland which had been earmarked only for removing the lower branches out of the reach of grazing stock and fencing off. This meant that their shade would be retained and future management would have a clear boundary to work to with periodic removal of branches which threatened to come within range of the stock. This also provided more spider habitat.

Now all that remains to be done is to find the funds to remove the remaining three Yews within the grazing compartment, establish, inspect and repair the fence as required, set up a drinking trough and conclude arrangements with our potential grazier...



**Heyshott Escarpment
Compartment 3 before
Yew clearance and after -
well, almost!**



EVENTS FOR YOUR DIARIES.

Working Parties Winter 2009:

Buriton Down working parties will continue the winter season from Tuesday, 6th January and following Tuesdays until February 17th, 09.30 to 12.30. Please contact Arthur Stride (01730) 264314 for details.

Heyshott Down working parties will be on 15th January, 5th, 12th, 19th February and March 19th. Work will continue with clearance of pathway and coppice from Old Chalky to compartment 10 and clearance of Duke of Burgundy areas in Compartment 10. Please contact John Murray on (01730) 812325.

Francis Rose Memorial Lecture.

This year the lecture will be given by James Power of the Sussex Wildlife Trust who will be talking about managing conservation management in the Western Weald. The Trust has a long and varied experience of managing wildlife sites in Sussex and this topic continues the theme of the recent newsletters. The Trustees look forward to seeing you at the Lecture.

This will be held on Thursday March 19th at West Dean College, the lecture commencing at 7.00, preceded by a drink at the bar from 6.30 on. Access by the main entrance, parking on the left just before the house, directions to the room from the security desk just inside the front door.

Plant and Produce Sales

Nearly everyone knows about these! This year the dates are:-

Saturday 2nd May, at Bayleaves, Bepton Road, Bepton nr. Midhurst, commencing at 10.30.

Sunday 3rd May at Upper Cranmore, Heyshott, starting at 2.30.

Monday, 4th May at Casters Brook, Mill Lane, Cocking. It will be held opposite the yard, in front of the large barn, stating at 10.30

Contributions to the stock of plants and produce for sale will be gratefully received and can be collected if necessary. Please contact Gerry Ryan 01730 813971.

Heyshott Butterfly Down Walk with Neil Hulme, Sunday, 10th May, starting at 10.30.

Last year we had a very successful May walk with over 40 people attending. We saw every one of the possible butterfly species on the reserve at this time of year. Our target species are Duke of Burgundy, Green Hairstreak, Dingy and Grizzled Skippers. We will also be looking at the progress towards restoring grazing management on the reserve.

The meeting place is at the southern end of Heyshott Village (SU900176), where the road takes a sharp bend by the entrance to Manor Farm. Car parking here is rather awkward, but it is possible to make slow progress along the rough track towards the down, with parking well over on the left after the right hand bend at SU898174, opposite a large Ash tree. This is where our working parties meet.

Alternatively park in the road in Heyshott Village shortly after the pub (left hand side) and make the short walk to the meeting point.

We are intending to arrange one or more summer outings. If you would like to be kept informed please contact Gerry Ryan (01730) 813971. Possible venues are: Salisbury Plain, Bentley Station Meadow and Old Winchester Hill.