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A yearly update for the friends of the Knepp Wildland Project





Welcome to the 2011 Knepp Wildland Newsletter. Last year's publication was so popular - we gave away 1000 copies! - It's encouraged us to produce another.

The purpose of the newsletter is to update those interested in our Wildland Project and also to pull together the other themes that run through the Knepp Estate. This year we have asked many of those who are involved with the project in one way or another to write their own piece. It's great to hear personal experiences from the professionals in their own words.

The Wildland Project is all about natural processes, so before going into discussions about the animals, vegetation, research and monitoring, the people involved, and associated projects, it is important to talk about...the weather! Believe it or not, although we try not to intervene the weather had a major impact in our decision-making last year, after a series of frosts in May 2010 and a drought last summer led to very little grass growth. This in turn influenced our decision to hold off breeding in one of the herds for a year so that the cattle would be less stressed should the available food be scarce. The drought broke towards the end of the summer 2010 and we had a good autumn flush and as a result we need not have worried as the animals came through another winter looking magnificent despite it being the coldest December on record.

Cattle News. Because of the problems we had in 2010 we have been following our vet Maarten Boer's advice throughout, and here is his report on the condition of the cattle this spring:



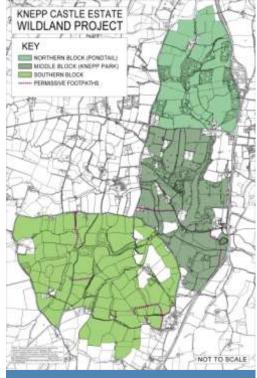
The browse-line on the sallow is quite clear. The cattle seem to have a taste for it and will browse even when it's not in leaf. Sallow is thought to be an astringent gut-cleanser. Self-medicating perhaps?

The 2011 Annual herd inspection. By Maarten Boers DVM MRCVS (Livestock Partnership)

Although the ground was still very wet we had picked a beautiful sunny day in February to inspect the three different herds.

Park (Middle Block) The animals had come out of the winter in a good body condition. On average the 19 cows and their followers were scored to be body condition 3+ (scale 1-5). This is significantly better than 12 months ago when the animals had to endure a hard long winter.

During the winter 09/10 one adult animal was lost suffering from pregnancy toxaemia. This condition is seen at the end of pregnancy when a large part of the abdominal space is taken by the uterus. This leaves little space for the rumen. When feed quality is poor the dams' intake will not supply enough energy for the



The Northern Block is 215 ha, The Middle Block is 283 ha, The Southern Block is 470 ha. Top to bottom is 7 km

dams' maintenance and pregnancy requirements. In this situation the female hormones regulate the metabolism in such a way that it will prioritise the pregnancy over the dams' requirement. This results in the animal becoming weaker and weaker.

For welfare reasons and to reduce the need to feed animals in the winter it was decided to introduce the bulls later in the

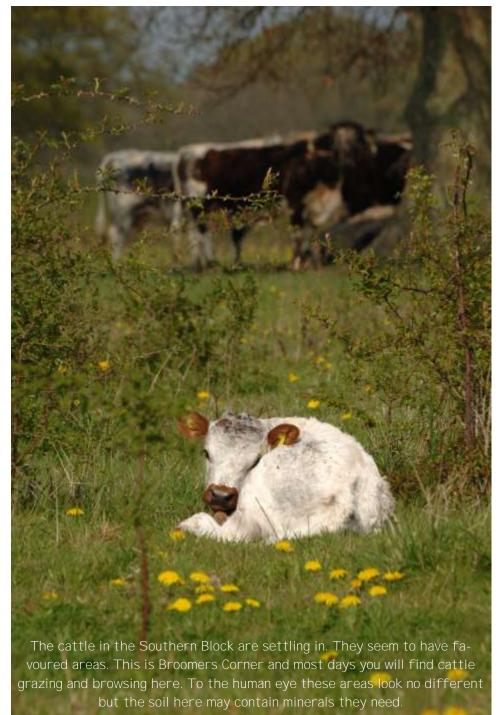


Maarten Boers our Vet with Pat Toe, the Stockman and Peter Miller, the Farm manager inspecting the cattle on a sunny day in February









spring of 2010. This delay in breeding has resulted in the animals not being heavily pregnant during the winter months. In my opinion this has been very successful in both the Middle Block

and the Southern block.

Some concerns were raised about the heifers failing to re-integrate after their return. Currently, in order to prevent heifer calves being served by the bulls, heifers are taken out the herd, reared as a group and returned when they are old enough for breeding. These animals can be away from the main herd for 4-5 months. This appears to have an effect on the herd structure as these heifers isolate themselves from the main herd on their return. It should be stated that when heifers are served too young it can have serious welfare implications. Often these animals fail to calve

unassisted and when not monitored closely it results in increased mortality. In a situation where there are no large predators these animals will suffer in labour for many hours/days when they remain undetected. I can see two ways of dealing with this:

- Darwinian selection: animals that mature/conceive too early and fail to calve naturally will die and won't produce any offspring.
- · Tight calving pattern and remove bulls after 3 months: in the wild most females in the same herd will all calve within 1-2 weeks.

By leaving the bulls in for 3 months you create a balance of cows getting the opportunity to conceive (4 cycles should result in >95% pregnant) and heifer calves being too young to conceive (3-6months).

Southern Block This herd was purchased nearly two years ago. As the animals in the Middle Block behave as one herd (except the heifers) it is quite striking that the animals in the Southern Block are split up in several different groups.

Blood tests have shown that these animals have tested positive for a number of diseases like BVD (Bovine Viral Diarrhoea), Leptospirosis and IBR (Infectious Bovine Rhinotracheitis). This might explain why, in 2010, an incredible 31 of the 45 cows failed to calve. As the original Longhorn cattle on the estate have never been exposed to these diseases these animals have no immunity. As animals and handling equipment are moved between the herds this is a potential time bomb. For this reason I have advised to protect all breeding cat-









tle against these diseases by vaccination while we try to eradicate the disease in the Southern Block. Once this has been established we can cease to vaccinate. Regular blood sampling of youngstock will determine when this can be achieved.

Due to a combination of heavily pregnant animals and poor grazing, several animals were lost during the winter 09/10. Delayed breeding in spring 2010 resulted in no animals being lost this winter and the animals were in a reasonable body condition of 2-21/2. There was some variation between the different animals. This could possibly be explained by the variation in the stage of pregnancy and some animals still suckling last years' calves. Again a tight calving pattern would reduce the variation in body condition.

Interestingly it appeared to me that just as much willow showed signs of browsing as it did last year when this was suggested to cause renal failure in at least one animal. It could be that the animals had no other choice than to eat willow last year while they might have eaten it in smaller quantities over a longer period this winter causing no apparent problems.

Although the bulls didn't go in until late June some calves have already been born due to a bull calf that was castrated late. Due to the relative small herd size bull calves are castrated to prevent inbreeding.

Northern Block The grass quality does not seem to have changed much since it was converted from its commercial farming situation. The cattle were in condition 3½-4 which might be too good for some of them as it could result in calving difficulties. As no problems were seen in this herd during the hard winter of 09/10 and animals are currently in a very good condition I don't think delayed breeding will be beneficial for this group (maybe the contrary is true). I suggest that bulls should go in on the 1st of June like in most commercial beef herds in the south resulting in a calving period between March-May.

A potential risk for introducing disease from the southern block to the northern block was identified: during last years' mating season a cow with mastitis and blind quarters was kept away

from the bull together with heifers from the southern block. If the animals in the northern block weren't vaccinated this animal could have potentially introduced disease into the herd which could have had a disastrous effect on fertility. Maarten Boers

This is how Pat Toe, our stockman - who has been with us now since August 2008 - reviews his year with the animals, and our on-going breeding conundrum with the longhorns: Last summer when the bulls went back into the herds we were worried about potential calving problems for the young heifers so we took all the heifers aged be-











tween 6-12 months out of the herd so they wouldn't get covered

- the aim was to stop potential calving problems. However, when the heifers went back into their respective herds five months later they were strangers to their mothers.

The heifers stayed together in a small group often within the herd and with the old cows who chaperoned them while away. To me, this was very sad to see and counter to what we are trying to achieve with our naturalistic herd structure.

For eight years we have had bulls running with the herd, including

the young heifers, and have only had one, possibly two, problems resulting from heifers calving too young. We now have to weigh up the damage we are causing the herd structure by removing the young heifers like this against the chances of young heifers damaging themselves by calving too young.

For me, the decision is clear. The relationship between mother and daughter provides an important learning experience for the new generation, incluing parenting and survival skills, and strengthens the family bond within the herd. I'd like to see generations of cows together; daughters, mothers, grandmothers, great grandmothers all with new born calves and all learning from their elders.

The colour of the Southern Block this Feb/March was green compared with the washed out brown we had this time last year. Apart from the cold snap in December. Winter 2010/11 has been altogether warmer and the grazing of the area since the animals were introduced in April 2008 has encouraged more grass and it has kept growing. Only a few bales of our homemade hay were needed for each of the



three herds when the snow fell.

We fitted four GPS collars on cows - two in the south and one in each of the other two herds. Three of the four didn't seem to notice the collar but one turned round and round like a cat chasing its tail for a minute or two, then finally, like the others, became oblivious to it. The protection around the transmitters is looking very beaten up; I hope the weather hasn't got in and spoilt all the data before we get to see it. The transmitter plots where the cows are every twenty minutes over a six-month period, so once put onto a map the data will show us the cows' routes and where they have spent time. I have noticed, that as winter has gone on they have been grazing in fields they have hardly even been in before, perhaps showing that they are searching harder and further for food.

Pigs The last of our boars went for meat in August 2010 and we had two litters of piglets in September that have thrived. The pigs will spend April-September in the Middle Block, and October-March in



Socializing is very important in naturalistic herds like ours. Calves ofter stay with their mothers for over a year but grand-mothers and great-grandmothers also play their part









the Southern block.

To keep the pig numbers under more control (we killed and sold about forty pigs in 2010) we plan to hire a boar for November/ December each year to produce pigs ready to slaughter the following autumn after they have fattened on the acorn harvest. Pat Toe

Vegetation: Our project is principally about vegetation succession, and Theresa Greenaway, who is IC Monitoring & Research describes the continuing evolution of the various habitats through 2010.

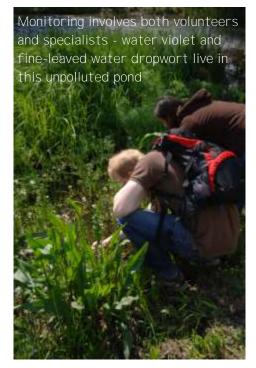
Biodiversity Report, Jan 2011
The response of flora and fauna
to low-intensity grazing is a major
part of the Wildland Project. In
2010, ecological monitoring continued with the annual repeats of
the breeding bird, butterfly and
fixed-point photography surveys.
In addition, eight belt transects,
initially surveyed in 2005, were re
-surveyed, the first repeat of a
major vegetation survey. The resurvey followed the methodology

implemented in 2005, such that vascular plant species were recorded in 15 continuous quadrats along transects sited across the Estate, according to when arable ceased. The objective is to monitor changes to both vegetation structure and composition over time as the Wildland Project proceeds. The full survey report is available on the Knepp Castle website.

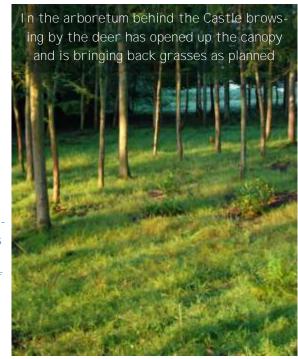
The 2010 transect data shows just a small increase in species diversity, with 28 species recorded in 2005 but not in 2010, and 35 recorded in 2010 that were not observed in 2005. The data also indicates little structural change since 2005. In three of these areas (the old deer park, south of the R. Adur and north of the A272), there is still a clear demarcation between woodland and grassland. Overall, the extent of bare ground has increased especially in the woodland, where gazing and browsing pressure has been high. The two transects that were in the southern block were sited across two former pony paddocks, reflecting changes

away from over-grazing rather than arable - a further transect in the southern block due to be repeated in 2012 will show post-arable changes.

2010 also marked the first complete year that the southwest area of the Wildland Project has been grazed. Visitors to the southern block have invariably been impressed with its habitat diversity. This is due in part to the length of time that elapsed between the cessation of arable and the introduction of herbi-



vores, giving scrub and rough grassland longer to become established. The fields in this block were taken out of arable at varying times from 2002 onwards, but apart from wild roe deer and rabbits, were ungrazed until livestock was put on in summer 2009. In all the other areas of the project, herbivores were introduced soon after arable ceased. This has resulted in considerable areas of scrub development in much of the southern block, and relatively











little in the other areas.

The negative impacts of grazing/ browsing on woodlands and ecotone development between woods and grassland are cause for concern. In areas that have been in the Wildland Project longest, woodland understorey and ground flora have been reduced or eliminated by herbivore activity, especially deer and Tamworth pigs. This means that tree regeneration will not occur unless stocking levels are reduced, enabling a greater development of thorny 'nursery' shrubs. The longterm effect of over-grazing is likely to be a gradually senescing pasture woodland with a reduction in structural diversity rather than an increase. The effects of livestock on the more diverse vegetation of the southwest block should be monitored closely in order to inform future stocking levels.

2015 will be the 10th anniversary of the baseline ecological survey (English Nature Research Report No. 693). Adequate funding needs to be found to resource both the 2012-2015 monitoring effort and a 10-year report on the Wildland project. Such a report, evaluating the effects of the Wildland Project on all aspects of biodiversity, ecology and landscape is an opportunity not to be missed. It will also be a good opportunity to evaluate the social and economic effects of the project, and it is by no means too soon to consider how such a report could be funded and executed. Theresa Greenaway

What Theresa has observed in the Knepp Park is, in fact, the predicted outcome of the original deer park project. This enclosure is more about a Repton landscape recreation than a Wildland project and has the restoration of the historical landscape as one of its fundamental objectives.

In the last few years as our knowledge has grown we have, however, decided to try and retain more biodiversity in this park, and have therefore reduced the number of deer in it this year by catching and relocating 70 animals in addition to the annual cull. We hope this will encourage vegetation growth in time without compromising the Repton restoration.

Ted Green, one our great influences, writes as follows:

It was exciting this autumn to find another example of the very rare fungus Phellinus robustus on an ageing oak 1.45 km from the original oak where we discovered it last year. We can tell the fungus - which is a very long -lived species - has been present on these trees for

many years because of the size of its woody brackets.

To our knowledge no other location in the UK - with the exception of Windsor Great Park and the New Forest - has more than one tree with this rare bracket fungus. Phellinus robustus is now considered an indicator species of a very long history of biological continuity; a rarity in the declining habitats of Europe.

The UK is now recognised as having the largest remaining areas of natural grazed parkland or wood pasture featuring ancient, open grown oak trees, in Europe. The role that this fungi – and others – play in this habitat is highly significant and only gradually being properly understood.

Even given these two recent discoveries at Knepp, there are less than twenty oak trees with Phellinus robustus recorded in the whole of the UK. One can imagine the excitement and publicity if our recent discoveries at Knepp were of a bird, bat or orchid of similar rarity!

Yet again the importance of the Knepp project to biodiversity endorses the vision of all involved.

Outside the enclosures Alongside the core project, which is all about natural processes, we are endeavouring to manage the



A very rare fungus Phellinus robustus on an ageing oak in the Southern Block









land outside the fenced enclosures to a different standard. This year has seen the transformation of Church Farm North, which has been used for rough cattle grazing since we ceased dairy farming a decade ago. Various hedges have been laid and replanted, fields have been fenced and some have been reseeded. The idea is that this land will be used for fattening our steers in the summer months prior to slaughter. Some of the fields near the village are used to

winter our bulls and we hope the residents of Shipley are enjoying having these wonderful creatures as their neighbours.

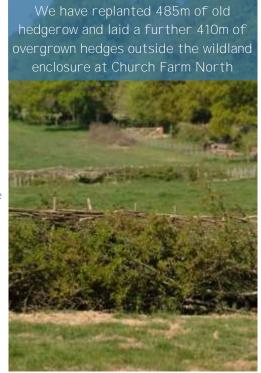
We have also restored several of the small ponds along the footpath network. In general we feel the investment in this farm has been slightly cosmetic and against the principles of the Wildland Project, however we recognise that the community living in and around the village will have their experience of walking through our fields enhanced by this work, and may appreciate a more conventional landscape. Interestingly the hedges that we have planted are not the traditional thorny scrub species as we plan to use them for cutting fodder for the livestock in the summer. This is another of Ted Green's inspira-

Traditional hedge layer Bob Peate has been relaying an old hedge. We know it is particularly old as it appears on old maps and we think was last cut by a hedge layer between 60-70 years ago. Re-laying the hedgerows outside the Wildland project is part of a programme to conserve and re-

store the old traditional landscape. As part of this programme, another old hedge at Church Farm North, which now only exists as a line of maturing open grown oak trees, is being re-planted. The trees and shrubs that will be used in restocking will not include any of the usual species – such as hawthorn and blackthorn. These thorns traditionally form the bulk of the species because of the extra protection they offer as a barrier.

However we are not going to be using these thorn species because we want to use these hedges as tree-fodder. In time the hedge will be cropped in summer in full leaf when the leaves have stored their maximum amount of minerals and nutrients. The faggots will be dried and stored for winter tree hay.

There are examples of where tree hay was fed to animals in summers of prolonged drought and heat presumably because in these circumstances it had become the only source of greenery









when the pastures were burnt off. I nvariably most species of hedgerow trees and shrub growth suffers under the shady canopies of trees. Therefore holly – a very important tree fodder crop and provided primarily in hard winter weather, will be used with a few hornbeam under the tree canopies because both species are very shade tolerant and would not be unduly affected by being shaded by tree crowns.

Some of the trees along the hedge will be selected and allowed to grow to over 2m in height and then pollarded again to provide tree fodder on a rotation in later years. While we can find no references to hedgerows providing tree fodder there is evidence that they were once an important source of wood fuel. The open grown hedgerow trees also provided specialist timber for building and apparently there was a period when they were especially important for shipbuilding when other sources became scarce.

The species being used in the new

Leaving the cut branches to dry like hay on the trees. Later they will be stored in a barn for winter fodder



Last autumn a 'Tree Fodder Day' was held for 24 interested people from various organisations

hedges are ash, elm, lime, hazel, field maple, crab apple, wild pear, hornbeam and of course holly.

Cutting new pollards for tree fodder took place last summer and the cut material was dried and stored in one of the barns. Last year different species were cut for fodder including elm, lime, hornbeam, hazel and sallow.

Last autumn, a tree fodder day was held for 24 interested people from various organisations. Short talks by Charlie, Helen Read and me, were followed by a tour of the estate and on-site discussions about the cutting of pollards. The reason behind the event was to encourage other people to try this cultural and traditional practice in other places in the hope we can all gain from our experiences.

We know of no other examples of cutting of trees for fodder and the creation of hedges for fodder. It is hoped that Knepp will encourage and inspire others to follow suit. Ted Green

The Knepp Oak in the park has had its third haircut in a decade. This time Jamie Simpson was our chosen contractor and he removed about four foot off the

crown to stimulate epicormic growth in the main beams in order to give the tree more strength. We would not normally intervene in this way but this tree has already had considerable management over the past sixty years – it was fitted with enormous chains during the Second World War to stop it from splitting and, again, ten years ago had more lateral restraints added.

We introduced the Forestry Commission's Short-Rotation Trial site in last year's update. This area on our southwest boundary (outside the Wildland the enclosures) is now settling in, as Norman Dandy of the Forestry Commission describes: The short-rotation forestry trial site at Knepp Estate is part of a wider Forestry Commission research project to assess the sustainability and appropriateness of using fast-growing broadleaved species as a renewable source of energy in England. By 2020 the UK aims to be generating 15% of its energy using renewable sources. Biomass will need to play a key role as part of the 'energy mix' and it has been suggested that short rotation forestry has the potential to contribute significantly to this. The establishment of a strong UK biomass energy sector also has the potential to contribute to overall security of energy supply.

The Forestry Commission is committed to supporting these objectives through various means, such as regional woodfuel initiatives, grant support, and providing advice through its staff and the Biomass Energy Centre. The organisation also includes Forest Research, an agency that conducts scientific







research to provide evidence on which to support the delivery of Forestry Commission policies and objectives.

Forest Research has established a network of field trials of various broadleaved species, including eucalyptus, across England, along with a similar project in Scotland. The results from these experiments and parallel research into stakeholder perceptions of short rotation forestry will be used to create best practice for establishing, maintaining and harvesting short rotation forestry, along with evaluating whether any impacts on landscape, archaeology, hydrology, or biodiversity outweigh benefits. Norman Dandy

On a slightly smaller scale of aboriculture, our Community Orchard Project, led by Helen Butler, is gaining momentum in Shipley. Several locals have now bought & planted trees and this has doubled the size of the original orchard. Many people joined in for the evening Wassail and subsequent pruning. We will be drinking the fruits of our labour soon and hope that this pro-



new orchards are harvested for scrumpy by the Shipley Community

Orchard Project



It is often hard finding reptiles so to help the survey work we have put out roofing sheets in all the various habitats. Toads, grass snakes, slow worms and common lizards like to warm up under these sheets in the sun, as Barry Kemp, reptile expert demonstrates

ject goes from strength to strength.

Monitoring This year we carried out a reptile survey in a part of the Southern Block to see if we could benefit from the relocation of some reptiles from elsewhere in the country. Unfortunately this did not go ahead as the local Natural England specialist considered against it.

We have put out many more reptile shelters to try and get a better gauge of what we have on the ground, and suspect it's not going to be much after decades of intensive agriculture. But we still hope our resident reptile populations will start to increase of their own accord soon.

As Pat mentioned, we have purchased radio collars this year to fit around some of the cattle, a project we have been hoping to do for ages. This will help us understand the cattle movements better and we hope that someone wanting to study this aspect of the project in detail will come forward to collate and use the information.

Edinburgh University student Ross Johnson came to Knepp to research his dissertation on pig behaviour. Here are some of his observations:

I spent five days in August and a further three days in January following and observing the Tamworth pigs. My aim was to gain an idea of how the pigs' activities are divided in time and also in space, and how these spatial and temporal patterns of activity could be impacting the development of the Wildland Project at Knepp.

My most clear and striking observations were that the pigs preferred to travel and feed in marginal areas, such as the edges of fields and woods. Despite the fact that the same types of food are most likely present in the middle of fields and woods they generally kept to the edges of them. When they travel they also use these edges to find their way around, as well as using paths and roads. One day in the summer I









The pigs are often seen completely submerged like hippos in the river, clearly finding something delicious underwater. They can hold their breath for as long as 20 seconds.

also saw a group of one adult sow and two younger pigs using the underpass under Tenchford Bridge to cross from the Middle into the Southern Block.

The pigs also tend to spend the majority of the day in small groups, mainly of three or four adults, or sometimes two sows and one of the sow's piglets. Sometimes different groups will meet up for part of the day and travel and feed together for a while, but then they split up again.

When the pigs graze they tend to stick to eating short green vegetation. The majority of this is grass and clover (mostly white clover). When rooting, it seems to be roots and bulbs they are searching for, as well as any nuts, acorns or worms and other invertebrates they can find. I also observed the pigs occasionally foraging for acorns, apples and other above-ground

foods. On one occasion I saw a sow eating a chicken carcass.

During the summer their activities are more mixed than in winter, with grazing being the dominant activity, followed by resting and rooting. Winter is more heavily dominated by rooting. I was surprised how much rooting was actually done in summer. I thought grazing would be more dominant in their activities. Perhaps this was due to the fact that the weather when I visited in August was possibly a little

wetter than usual. Rooting seems to be generally more severe in winter as well, due to wetter ground. I was also surprised by the fact that in both summer and winter more time was spent rooting in woodlands, even though grassland is the dominant habitat -type in the estate- especially in the South Block, where the majority of my observations were made. When rooting in woodlands the pigs tended to stay in the same area, while there was much more movement involved in rooting in fields.

The pig's exact effect on the development of the Wildland Project and vegetation structure is a little unclear at the moment. The South Block is clearly scrubbier in nature with a more varied array of vegetation types. This seems to be due to the fact that this area was left to develop without any grazing pressure for longer. However, the rooting of the pigs is opening up vital seed beds and allowing plants to germinate. This rooting could also be breaking up dominant plant species, which may

be a reason why there is generally a greater diversity of species in the Southern Block.

It seems the pigs are acting fairly similarly to wild boar. They spend more time in open areas than wild boar generally do, due to the lack of fear of hunting, etc, however this is probably advantageous as it means their effects are felt in more open areas as opposed to just woodlands, thus facilitating the "scrubbing up" of the land in the Wildland Project.











Gareth Williams from the Environment Agency has continued to try to assist eels leaving the main lake on their annual migration to the Sargasso Sea. He writes:

Eel numbers across Europe have dropped by 95% since the 1980's. The exact reason for this is unclear, but climate change and the movement of ocean currents as well as a parasite that affects their ability to swim to the spawning grounds in the Sargasso Sea, could be contributing to the drop in eel larvae reaching our shores. Once they are in our river systems they have to deal with obstructions to passage such as gauging weir's, pumps and tidal flaps.

The Environment Agency is carrying out work with the help of partners such as the rivers trusts and landowners like Knepp to make obstructions more passable, which in turn opens up more habitat for eels to use. Knepp Castle Estate have very kindly fitted boards on one of

their structures which will divert water down a channel which can be used by eels to access the Knepp lake.

Eels were once seen in large numbers entering the lake and it would be fantastic to see the population increase. The lake provides brilliant habitat where eels can grow to maturity. From here, at some point on a dark and stormy night, the eels make their way down the Adur into the Atlantic ocean and on to their spawning grounds. Gareth Williams

The big news in monitoring is that we have, in conjunction with Natural Environment Research Council (NERC) and Imperial College, made a bid for funding for an Eco System Services study of the project. If this comes off, the study will be of major importance nationally. The study will focus on the so-called 'hidden' benefits of the Knepp Wildland project in terms of water quality, health savings, carbon sequestration etc. and it will help to gauge how and to what extent the project is delivering in these respects.





People & Access

It is with great sadness that we pay tribute to two valued and much loved members of our team who died in the last year.

Peter Miller, a member of our Steering Group, who also farmed the Knepp Estate for five years, succumbed to cancer on the 31 March. This is a huge sadness to us all at Knepp and the Wildland Project has lost a stalwart supporter who hosted group tours of Knepp for farming brethren on a number of occasions with great cheer and enthusiasm.

Bob Lack died on the 30 June 2010 after a long fight with cancer. He had been an amazing stockman, before Pat arrived on the scene, and had worked on the Estate for about 20 years. He moved to France a few years ago in search of better cancer treatment having been caught up in the post-code lottery of hospital care here in the UK.

We owe a huge debt of gratitude to these two extraordinary men who both died far too young and who both contributed so much to our community. Peter and Bob's knowledge of the livestock and the







land will take years to replace - but more than anything we will miss their laughter and their company.

Visitors

On a brighter note, we had a record year for visitors this year; with 38 group visits and over 700 people coming for guided tours of the project. We love giving these tours as it is an opportunity to escape from the office for a few hours to show off our work, so if you would like to visit do come again.

Our Forest Schools Initiatives continue and the first of these takes place in a little wood in Shipley under the auspices of local primary school Head Teacher, Caitriona Bull:

We feel very fortunate to be able to use Church Wood. All our pupils take part in Forest School and a programme of outdoor learning and two of our classes are lucky enough to be able to visit Church Wood each week as part of this. They have been able to build shelters, make toys using the wood and tools, cook food on their own fire and work as a team.

Learning outside has a much





greater impact on some children than working in the classroom and has enabled some of our children to discover new talents and skills they never knew they had. We are able to teach them about the ecology and seasonality of the woods and their surrounding area and their role in protecting and preserving it. Our parents have been very supportive and have mentioned how happy and confident the children have become in the woods and how capable they are at assessing their own risks and working together.

We have shown our camp and our

learning to other schools and nurseries and the children are very proud to be trusted by the Knepp Estate to use the wood. It has led to the development of outdoor learning areas in our school. We have won a highly commended in the Total Green award and this is contributing towards our Eco-schools green flag application. Caitriona Bull

The second Forest Schools initiative uses Renches Wood north of the A272 where Nicky Hedgecock writes:

The Sussex Wildlife Trust uses Renches Wood on the Knepp Castle Estate for Forest Schools sessions with the Weald school. The fortnightly session has been running for almost five years, the last two of which have been spent at Renches.

Each year there is a new group of 14/15 year olds, and the same group (of around ten students) will see out a whole academic year in the woods, watching all the seasons go by and learning about how woodland changes through the year. This yearlong concept works well, and the students really feel part of the environment, fully appreciating its harshness and its beauty.

The Sussex Wildlife Trust is extremely lucky to be able to use Renches Wood for the Forest School programme. It is a very peaceful and beautiful woodland and often buzzards are seen over-







head. Deer have been spotted on numerous occasions and a badger sett also found. Nicky Hedgecock

Volunteer Day - Our second Big Volunteer Day in the autumn 2010 was very well attended and we concentrated on restoring the main bridleway that runs through the centre of the southern enclosure, aiming to encourage light into the area to make it a better route for walking. Thank you to everyone who helped slash and burn, and thank you to Maureen Line for a wonderful picnic.

With the help of West Sussex County Council we also resurfaced a significant section of this bridleway that had become badly poached and we hope that overall the walking experience through this area has improved as a result.

This year's Big Volunteer Day will be on Saturday 10th September and if you could like to join in then do let us know. Ring Sandra on 01403 741235.

Wild Game - Alongside our desire to improve the visitor experience at Knepp, we are also very conscious of the fact that we want to minimise disturbance in the bird -nesting season. This year we have employed a gamekeeper, Daniel Readfern, whose task is to protect ground-nesting birds and enhance their breeding and chick survival prospects. We have an informal game shoot on the Estate and we see this as an important way to connect with the re-wilding project and also with the local community, many of who help out in one way or another. This last season we were bowled over by the number of snipe and woodcock our evolving habitats have encouraged and this was very much a catalyst for the employment of Daniel whose aim will be to



increase the number of wild game birds. This will also benefit other ground nesting birds such as lapwings, woodlarks and skylarks and this summer we have observed lapwings successfully fledge in the Southern Block for the first time in years.

Food - we never lose sight of the fact that the by-product of our Wildland Project is the production of meat. Pat already men-

tioned that we sold 40 or more pigs last year in boxes to locals and this is something we shall endeavour to keep doing.

Beef, however, is what pays the bills, but because in conventional terms we are very small producers we need to concentrate on our USPs to maximise the value of our finished cattle. We will be selling our beef locally in 5 & 10kg "boxes" this October through a partner,









Garlic Wood Farm. www.garlicwoodfarm.co.uk

Our production method has recently been proven to have positive health benefits to consumers and we will be expanding on this subject as we market our own produce. In a nutshell it's all about grass fed animals being rich in omega 3's. Do get in touch if you would like to put your name down for some of our wonderful organic grass fed longhorn beef. (jason@knepp.co.uk)

Projects

The River Restoration Project is definitely going to happen this summer! (I think I said that last year, and the year before...) The project has been hampered by the fact that it was going to cause a minor increase in water levels at Tenchford Bridge. Modifying the bridge is unaffordable so we have decided to scale back the project considerably and will only now restore the river above Tenchford, and create a series of environmental habitat improvements below

it. The diggers are set to role in the summer and the project will be one of the biggest things we achieve in 2011...hopefully!

Our lake-dredging project ran into problems with the planners last autumn and we re-submitted **this spring. Basically the council's** view was that there was not enough public benefit for the amount of disturbance that the project was going to cause.

As a result, in our re-submission we have created a new right of way and other associated activities to enhance the experience for the public long into the future.

Knepp's Walled Garden may yet open to the public in a year or two after massive investment from the family and tons of hard graft from Simon Hillery and Helen Butler. Five years ago Knepp was proud of its climbing plants because that's about all there was. Now the gardens have been transformed, thanks to the stun-

ning designs of Georgia Langton, providing year round veg and lots **more...**

Bricks & Mortar — Our building team expanded in 2010 with the addition of new apprentice bricklayer Sam Carter. Our previous apprentice, Ben Gorringe, won an award from Crawley College for best student in wood trades and both these lads support the rest of the team who collectively have had a good year restoring not only the **Estate's let property but some of** the heritage buildings as well.

We are extremely proud of the work these men do in maintaining the built assets of the Estate. I ronically, the economic downturn has enabled us to target the restoration of some of the fabric from dam walls to redundant hovels, as we have been reluctant to continue converting buildings for business premises until the economy settles down.









