

News from Knepp

A yearly update for the friends of Knepp

2010



Knepp Newsletter 2010

Year nine for the re-wilding project





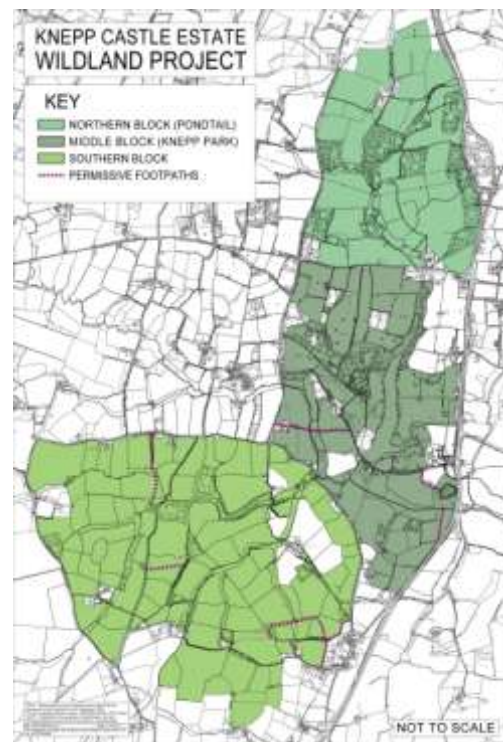
The Project

The past two years have seen our re-wilding project at Knepp change significantly, mainly thanks to a huge boost in interest and support from Natural England. This newsletter is for the benefit of our Steering Group and as an update for other interested individuals as well as for the numerous visitors we have shown around the project.

A New Enclosure - In Sept 2008 we received the funding from Natural England to fence our third and final enclosure of land in the Wildland Project - 470 hectares in the south of the Estate - bringing the total number of hectares in the project to 1,000. There are now three separate areas in the project - the North, Middle and Southern Blocks - with the last two being linked by large floodwater culverts and a river tributary.

The new enclosure includes 25 ha of pasture and woodland belonging to our neighbour Anthony Burrell, who also owns Brick Kiln Farm - part of **the "Northern Block"**.

This new block of land is probably the most interesting in terms of evolving biodiversity. It was virtually abandoned after commercial arable farming ceased in 2004 and vegetation development has been unchecked since. Managing livestock here is a challenge because of the sheer size of the area and the large areas of emerging scrub but results in terms of flora and fauna have been astounding.



The Northern Block is 260 ha,
The Middle Block is 270 ha, The
Southern Block is 470 ha -Top to bot-
tom is 7 km

Grazing Animals

As we all know, it's the grazers

and browsers that drive succession and change the habitat.

Here is a detailed update of each reintroduced species:



Seeding the Southern Block with does — fallow arriving from Gunton Park.

The hope is that the does will attract some of the bucks from the Middle to the Southern Block.

Fallow Deer

We are still hoping that the deer will find the river culvert between the Middle and Southern Blocks, and wander freely between both, but with no sign of this happening we decided in Feb 2010 to bring in 39 does and fawns from Gunton Park to the Southern Block. They will not only seed this area but also, we hope, entice the bucks over from the middle block.

Our total population of fallow deer this spring is about 270, which we feel is too many for the Middle Block, but over the two enclosures this number should be about right.

Exmoor Ponies

With about 22 Exmoors from our original 6 fillies, we have pulled the plug on breeding for the time being and split the herd in two, taking half of the Middle Block

herd over to the Southern Block. They continue to look fantastic and we maintain their pedigrees at the request of the Exmoor Society.

It would be very good to find an outlet for the sale of these **wonderful animals. It's one of the loveliest sights** you can see in the wildland—a herd of Exmoors with foals at foot.



The cows in the Southern Block drinking at Tenchford—our hope is that the pigs and deer will start using this culvert as a passage between the Southern and the Middle Block



Almost the first thing the cattle did when released into the Southern Block was to trash tree guards in a riparian plantation at Tenchford - out of all the other choices they could have made...

Longhorn Cattle

In April 09 we purchased 53 longhorns from Northumberland and released them into the Southern Block, making us now the second biggest pedigree longhorn herd in the country. The new introductions have not been without their problems, however. One of the new bulls turned out to be infertile and the cows themselves became infected with New Forest Eye and were found to be carrying BVD (Bovine Viral Diarrhoea).

Management has been much more time consuming than envisaged. Having a much larger herd has required us to take a less idealistic approach to their management. The first five years were spent quietly building up numbers but last year we had a large quantity that reached maturity and this made us rethink our strategy.

Cull policy - for the first time we were brave enough to set a cull

policy to try to mitigate mis-shaped udders which were causing mastitis, and also culled a couple of cross-bred animals that were showing signs of aggression not seen in the pure longhorns.

Calving pattern - having originally hoped that the cows would regulate themselves into a seasonal calving pattern, the more we researched this it became clear that it could be a decade or more before it happened naturally. All-year-round calving became too complicated as the herd grew and last autumn we removed the bulls from the herd with a view to reintroducing them in June for a 3-month stint. This will give rise to a condensed calving starting again in March 2011. This step is more agricultural than we had initially hoped but makes the process of management much less complicated.

Pedigree status - we originally bought a pedigree herd, supplemented this with some non pedigree animals and then bought more pedigrees. At the time we were not too concerned about whether the animals were pedigree or not but it became clear that there may be considerable value to pedigree heifers as breeding stock. With this potential additional income stream in mind we decided we would **maintain the herds' pedigree status**. Now we routinely carry out DNA testing of progeny to ascertain paternity.

Bulls & castration policy - our original aspiration to see herds of young bulls fighting it out for supremacy has been somewhat diluted on legislation and pedigree grounds, and we now castrate more or less all of our male calves. Breeding our own pedi-





gree bulls in our system has proved impossible since in order to achieve herd recognition they must attain a certain weight by a certain age. This will only occur through artificial feeding - so for now we are buying in bull replacements and lobbying the Longhorn Society to relax their rules.

Breeding age - again originally the purity of the project was going to let nature decide whether a heifer was too young to breed, a policy that we were monitoring at **the request of GAP's Animal Welfare Working Group**. Whilst there were complications with several heifer calvings, our stockman only put one problem down to



Castrating - Having a ball?! Peter & Bob look away as the vet gets his knife out!



Herbal Remedies - The cattle seem to leave the sallow alone most of the time but then have a short period of browsing. In the summer they wrap the sallow stems around their horns - possibly to keep flies away. In some areas of the Southern Block the sallow has been browsed down to just above human hip height.

the immaturity of the heifer. However the change in our calving pattern policy has enabled us to easily remove young heifers for the 3-month period that the bulls run with the herd, thus taking away even this small chance of underage calving.

Catching up & marketing - it used to be so simple but with over 200 animals and no gauchos on the team, mustering the animals has become complicated and difficult. We are planning new Temple Grandin-modelled handling facilities in four locations but the sheer logistics of catching up means that we need to keep full scale gathering to a minimum. For disease control we catch up everything at the end of May, so this year when we catch up we will be removing from the herd both the young heifers and any steers that look as though they will finish over the summer and autumn. These steers will remain in an extensive grazing system but in smaller paddocks which will enable us to catch them selectively for slaughter in small numbers

which will be suitable for local markets.

Tamworth Pigs

With a new enclosure we felt that it was a good opportunity to rest the Middle Block for a winter and moved the entire herd of 30 or so pigs to the Southern Block last autumn where they have prospered enormously on a limitless supply of acorns. Even in the deep snow they remained rotund and happy - **unlike last year's pigs** that were suffering from a poor acorn season, depleted resources in the Middle Block and a hard icy spell that stopped them rootling and left several very skinny.

In February, having decided it was time to slow down on breeding and reduce pig numbers to something more manageable and regulated, we had a fairly major cull. We sold a dozen prime butchered animals to locals, and a



Quarter of a tonne of boar can run as fast as a trotting pony. This fella was with us for two breeding seasons. When we are deer-culling we have to be very quick picking up the shot animal before the pigs get to it!





couple of bigger sows and our enormous boar to the cull market.

We will move the remaining pigs back to the Middle Block for the ground-nesting bird season (the Southern Block being an important habitat for ground-nesting birds) and reintroduce a boar for just a short time next winter with a view to just having a litter per sow each year.



These are our Serrano-type air-cured hams as featured on Marco Pierre-White's "Great British Feast"

Research & Monitoring

Over the next decade we will be spending about £10,000 a year on monitoring the changes resulting from re-wilding. This is in addition to all the help we get from Natural England and the input we receive from volunteers.

We are proud to boast some great results for 2009:



13 bat species were recorded on the estate over the summer. The number of skylarks on a single transect in the Southern Block rose from 2 recorded in 2005 to 11; while the number of whitethroats on the same transect rose from 5 to 19. New bird species re-

recorded this year were grey partridge, hobby, redwing, raven and lesser redpoll. Nightingales and turtledoves continue to thrive in the scrub in the Southern Block—a **regular occurrence in early summer was Charlie's** nightingale recital soirees! 23 species of dung beetle were identified in a single cowpat. Numbers of silver washed fritillaries almost doubled this year; and, like much of Europe in summer 2009 Knepp received swarms of painted ladies on the creeping thistle. Mathew Oats conducted ground-breaking research into the habits of Purple Emperor butterflies. 27 new species were added to the moth records of Knepp. Three orchids new to Knepp (and to this part of Sussex) - the greater butterfly, southern marsh and **bird's nest orchids**—were discovered this year. 4 pairs of grey partridge bred. 9 barn owl pairs bred, with 3 pairs nesting within 350m of each other. We had a little egret visiting us for a week in January 2010 and around the same time a bittern was spotted twice in two different locations—a bird we think has never been seen at Knepp before. In all, 13 red-list and 15 amber-list species of bird have been recorded on the Estate so far.

Theresa Greenaway does an amazing job pulling all this together and a huge thank you to her and all of the volunteers. Her 2009 report is posted on our website www.knepp.co.uk

Research and Monitoring cont'd

Aerial photos & GIS

Our foray into unmanned aircraft photography was not hugely successful. We had hoped to photograph the whole of the Estate—or the Southern Block at least - using a drone. However the unmanned aircraft was too small and was buffeted about by wind, changing the angle of most of the shots. The results are still being geo-rectified but it seems unlikely that they will be fit for Geographic Information System.



Knepp from the air - We took aerial photos of most of the Estate last summer and are attempting to have them digitally stitched together.

If this proves too difficult we will have to retake the images in 2010.





The pigs know what to value - the footpath was the only bit of this former arable field that had never been ploughed....until they came along..

Eco Systems Services

In March 2009 Dr Matt Heard of the Centre for Ecology and Hydrology set up a baseline survey in the newly established Southern Block. The survey, comprising **fifty man days' of research work**, covered everything from soil to inverts and vegetation. We also built 16 ex-closures within the Southern Block to enable grazing pressure to be monitored in the future. Many thanks to Dr Rob Fuller (British Trust for Ornithology) and Ken Smith (RSPB)



Aerial survey work on the River Adur Floodplain - this summer the old meanders will be re-dug and the canalised river filled in. Woody debris blockages constructed and foot bridges built. At last we will have got there.

and our old friend Ted Green for helping to get this survey off the ground.

The Knepp wildland project will also be one of six case studies in an Eco Systems Services re-**search project entitled "Analysis of the costs and benefits of alternative solutions for restoring biodiversity" to be conducted by Dr Kathy Hodder of Bournemouth University.**

In the long term we are hoping to set up a full Eco-system report on the Knepp wildland project.

Species Reintroductions

Frank Greenaway has suggested that we look into the reintroduction of the greater horseshoe & greater mouse ear bats.

Paul Goriup (Fieldfare) and Leigh Lock (RSPB) are coming down to Knepp to look at the habitat to consider the possibility of reintroducing the curl bunting.

Related Projects

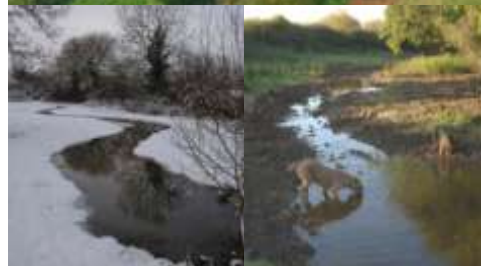
The re-wilding of the Estate is being enhanced by a couple of major engineering projects—the restoration of natural floodplains

and the re-naturalisation of the River Adur.

Floodplain scrapes - 3kms of floodplains - known locally as '**laggs**' - have now been wetted up in the first phase of our overall floodplain restoration programme. With Environment Agency permission we have created scrapes, and blocked and diverted ditches in order to flood laggs that had been drained from the 1800s onwards. After such a wet winter the laggs flooded quickly and it was amazing how quickly snipe, woodcock, plovers and teal discovered this new wetland.



Some scrapes prepared earlier



Reinventing the Lagg - 3 km of new scrapes were dug and associated ditches were filled in last Autumn, producing an exciting new wetland habitat that is already attracting snipe, woodcock and teal





River restoration

Our project to re-naturalise our stretch of the River Adur IS going to happen in 2010. With a huge boost from Natural England, renewed enthusiasm from the Environment Agency, and the technical wizardry of engineers Royal Haskoning, the diggers are set to roll in August.

The project has provoked inter-

est from a TV documentary company and the BBC and we hope that the momentum is now too great to stop this superb project.

Barn repairs

Not really wildland-related but restored with grant aid from Natural England and very much a part of the fabric of the estate, two lovely traditional Sussex field barns have been fully restored and preserved for future generations. Within minutes of builders vacating the barn owls moved back in.

Human Interest

Education, access & volunteer days - We have agreed to provide education facilities for Forest Schools who will be setting up camp and visiting with groups on a fortnightly basis. Teenage pupils will come from the Weald school in Billingshurst to learn bush craft skills. The Sussex Wildlife **Trust's Youth Council are hoping** to come for some camping trips along a similar theme.

We are also helping two inner-city **children's charities organise excursions** to the Estate in the belief that physical exercise in the countryside has a huge part to play in exercising young hearts and minds.

Group Tours

We had 19 group tours in 2009, either on foot or in our bespoke trailer, plus many other mini-safaris hosted by Charlie showing a further 500 or so people around the project. The best time to visit is June & July so do get in touch if you would like to see us. We have a public tour on Sunday 13th June - please register at the office (01403 741235) if you want to come.



No such thing as a free lunch - 30 or so volunteers turned out to do various jobs including plotting 1300 self-seeded oaks in a 7ha field

Volunteer Days

We really want to set up a bi-annual Volunteer Day to engage with our local community and have an excuse for a picnic but despite huge and willing turn-outs on the days that we have had so far, not many attendees are locals, which is a shame.

Smaller days led by John Whiting & the River Adur Conservation Society (RACS) and Pauline Chandler of the local county council Ranger Service have been a great success. Recent projects include opening up a couple of woodland ponds that are home to the Great Crested Newt. Work has also started on the restoration of our two traditional eel traps. If you would like to join groups working on these projects then do please get in touch.

Rights of Way

Several new footpaths have been created adding a further 3.4 km



We've now finished 3 restorations of old Sussex barns in the Middle & North Blocks and 1 in the Southern Block - all complete with Barn Owl boxes. 2 of the bigger barns were part-funded by Natural England. Thanks to Jo Barnes for all her help with these projects.





Hedge encroachment into former arable fields. Vegetation is being monitored by aerial photos, whilst ragwort is monitored using DAFOR scale

to our 26km of pubic rights of way through the estate. Several circular routes have been made around Dial Post providing locals with a variety of new routes to enjoy. In Shipley several new paths around Church Wood and the church have been added, as well as a new route south of Countryman Lane linking to the foot-path network.

We are also proposing a new route through Pound Farm in the Middle Block to coincide with the river restoration.

Meanwhile we have extended the

TROT route (toll rides for horses) connecting Broomers Corner to the Green Lane. This now provides about 8 km of off-road horse-riding through the Estate and currently has 20 members.

Compliance New HLS

Our Countryside Stewardship Scheme, which was instrumental in reverting the original parkland around the castle, has morphed **into Environmental Stewardship's** Higher Level Scheme. This 10-year project provides annual payments and capital grants for con-

servation initiatives and is administered by Natural England. Our project is somewhat of a square peg in a round hole and we are hugely indebted to Jim Seymour of Natural England for the effort and support that he has given us.

Rural Payments Agency inspection

Last autumn the whole Estate was inspected by the Rural Payments Agency and I am pleased to say that, aside from some minor glitches, we are going in an approved direction. We have already developed a Weeds Policy to comply with the Weeds Act that mitigates the spread of weeds off the Estate. Thank you Theresa Greenaway, Mathew Oates and Mick Crawley for your help in drafting this policy.



Exmoors loving the snow - they seem to thrive all year round, growing thick coats in the winter, they look positively blooming.
Gallopig Salami?!



Elsewhere on the Estate

The shoot

Our "nearly wild" game shoot was a great success this season. Last year was a great breeding season and the habitat in the Southern Block provided excellent nesting cover amongst the grazing animals for ground-nesting birds. During the 6 shoots we encountered huge numbers of snipe and woodcock as well as coveys of wild grey partridges.

Forestry Commission biomass trial site

The Forestry Commission approached the Estate last year



The Game Conservancy's 'fostering and release' method.

In summer 2008 we released 100 grey partridges from a game farm. The following spring six coops containing six-week-old partridge chicks were placed in areas identified as territories staked out by barren pairs.

Within half an hour a pair had claimed the first coop. Just as exciting was the discovery that four pairs of partridges had bred on their own.

looking for a 15 ha site to grow experimental tree species including ash, willow and eucalyptus for biomass production. We have been happy to oblige with a couple of fields on the south-west of the Estate outside the wildland project. Much **of the estate's 400 acres** of woodland are managed for conservation and not timber production, and the opportunity to have a bespoke plantation purely with rotational firewood as its raison d'être is an excellent opportunity for us as we hope to have our own woodchip boilers on the Estate very soon.

Property

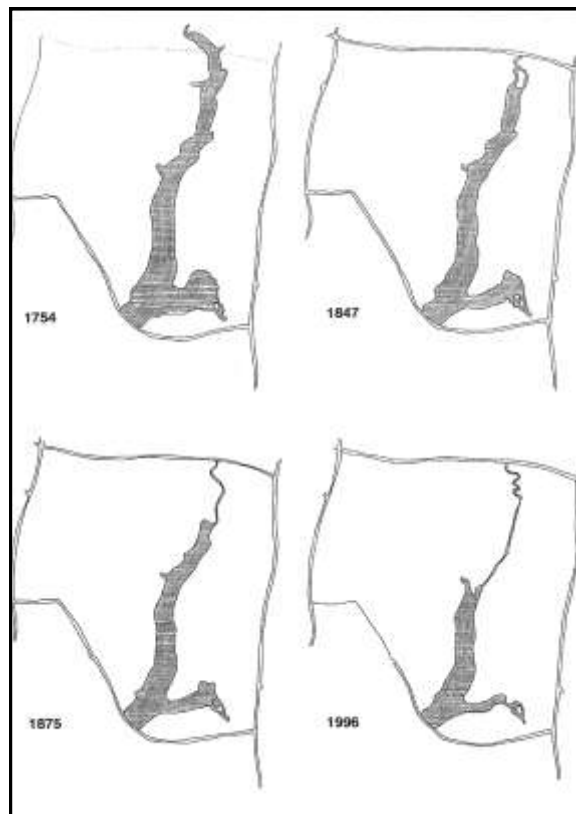
The recession has kept many of our building projects on the back-burner but we have recently begun the conversion of a former grain store into commercial units. We consider this type of re-use of redundant agricultural infrastructure a positive step in the long-term financial sustainability of Knepp Estate.

Lake-dredging project

This project has been on the Estate drawing board for well over a decade without coming close to fruition. Now however our consultants are about to submit our planning application to create a landscape bund out of inert material which will raise the funds **needed to dredge the lake.** It's a huge project and we hope it will have commenced within the year.

Laybrook

Thank you to everyone who submitted an objection to the planning authority against Cory Envi-



In 1754 the Knepp Hammer Pond consisted of approximately 80 acres of open water. It has now shrunk to a little over 24 acres and is only a couple of feet deep. We would like to preserve what remains of this spectacular area of open water.

ronmental's plans to create a landfill site a stone's throw from our southwest corner. We remain deeply concerned that the landfill will pollute the air, surface water and underlying hydrology and be a real long term threat to the viability of the Estate as well as the wildland project itself.



The Knepp Lake was once a hammer pond - a mill driving hammers and bellows for the iron industry.





Pat and his Cows - The coldest winter for 28 years according to the MET office - **It's the first time we have had to provide** any supplementary feeding. We used 50 big bales in the two weeks that we had snow cover.

Stockman's Notes from Pat Toe

Old English Longhorn Cattle

When you work on a unique project such as Knepp there is a lot of learning as you go. Especially for me as I was new to cattle before I started here eighteen months ago. In some ways my inexperience has been a help, I've not got traditional farming methods ingrained in me, which can work against you.

For example in February the cows start to look quite skinny, especially with calves still at foot. We are not used to seeing cows anything other than fat all year round because of supplementary

feeding. In the wild animals fatten up over the spring and summer then burn that off over the lean months till the start of spring again.

When the new herd was released into the Southern block we assumed (based on how our other two herds act) that they would roam together over the 1100 acres. This did not prove to be the case. They are in several disparate groups that meet up, mingle and then go off in different random groups. A nursery of calves with their mums are usually together but other than that anything seems to go.

This makes finding them time consuming. You wouldn't think it was difficult to find such large animals but sometimes I can look for over an hour and find nothing. Generally, though, I have a route that covers roughly twelve miles

and usually I'll have found most of them within the two hours.

The animals you most want to find are the calving cows but they tend to go off on their own to a secluded spot. Daily checks to keep track are essential. That way at least you have some idea of where to start your fine tooth combing - not that that is a guarantee. Back in the summer I followed a cow for over a mile, thinking she had just calved. Just as I thought of giving up, her calf popped up in front of me out of the long grass.

We have looked into various tracking methods such as satellite, radio collars and even cow bells but they are either not quite right for the job or cost a fortune.

In the Southern Block we started with fifty-four animals in April 2009 and are now up in the eight-



Ted Green and his "Yeti" tree fodder. Ted organised a Spanish / English day of making "tree hay" - cutting and storing, ash, oak, wild service and cherry. The cattle and deer loved it.

ies. We would have been over the one hundred mark if it weren't for very sad losses due to yew-poisoning during the few days of heavy snow, and some calf deaths due to iodine deficiency and BVD (bovine viral diarrhoea) introduced through a herd we brought in from elsewhere.

Still—that brings me back to the **Estate's uniqueness. We cannot** expect our system to be as productive as a conventional farm. What we can say is that our free-roaming animals have the most natural conditions possible to live in, and with the minimum use of drugs and human interference, experience considerably less stress.

The Ginger Pigs

The pigs are most people's favourites. I like them because they taste so damn good. But they are also so full of character,

so content-looking. Over the winter of 2008/2009 Charlie reckoned they rootled up about twenty acres in the park, much to **people's amusement when they** drove up towards the Castle.

I've chased piglets out of **people's gardens and paddocks a** dozen times, cursing them for the **mess they've made that I will** have to go back and make good - but smiling at them all the same.

All our pigs went over into the Southern Block in about September time. Craig and I caught them up using sheep hurdles, some very tempting organic feed made on the Goodwood Estate, pig boards, patience and Craig's patented piglet leg-grabbing technique.

There was a population explosion after their move and all of a sudden we had almost forty. This started causing problems for our gamekeepers - Simon, Simon and

Peter. Battle commenced. Si and the boys would fill their pheasant feeders and the pigs would follow on behind and try to smash them to get at the grain inside. Much barb wire, much time and much hair-pulling later and the Keepers have the upper hand...just.

Craig and I caught up twelve six-month-old pigs last Thursday. They weighed between 60-85 kg each and today (Mon 15th Feb) they went to slaughter. The butcher— Southern Traditional Meat - has done a magnificent job (commenting in the process that they were some of the best pigs **he'd seen for a long time)** and the pork has all been sold to locals (which we hope to make a regular thing). On this occasion demand has outweighed the supply, but if you phone the office (01403 741235) your name can be put down for the next batch.



100th piglet

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Wildland Project

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