

Meet a rewilding pioneer

Conservation Director Andy Lester went to talk to Charlie Burrell about letting nature call the tune on his Sussex estate...



Charlie, tell us a little bit about how you first developed your personal passion for wildlife and the outdoors.

I was brought up in Africa (Zimbabwe) as a young boy, and then moved at the age of seven with my parents to Australia. In both countries, I was living in the bush, so seeing large free-roaming animals in the landscape was second nature. But, being a child, I was also passionate about the tiniest creatures. My earliest memory was of the tub of water my mum used to put under a light outside on the veranda in Africa to catch insects so they didn't fly

into the house. I was so fascinated by all the bugs, I used to climb into the water-tub to be with them!

How was the estate managed when you took over in the late 1980s? What were the main priorities back then?

Until the mid-1990s, we ran a mixed farming enterprise that included 660 dairy cows, a beef production unit, a maize-silage operation and a sheep unit. I was very conscious that we had to diversify if we were to gain a commercial edge. Though our dairy herds were right up there with the best of them (at its peak we were producing 3.2 million litres of cows' milk a year), our arable yields could never compete with farms elsewhere. So we built up an icecream and yoghurt business. We also milked our sheep! We were focussed on survival. But still, we were constrained by the heavy Weald clay. Basically the land is a no-go area from the moment it rains in the autumn until late spring. You just can't get machinery onto it. We have tiny fields, too, surrounded by hedges, so the kind of industrial scale farming you see in East Anglia was completely beyond us. The worst thing about managing an estate when you are in survival mode is that you don't notice the decline of wildlife around you.



In the 1990s you visited the Oostvaardersplassen project in the Netherlands. Can you tell us a bit about the project?

I was hugely inspired by a 6,000ha project in Holland where this amazing Dutch ecologist, Frans Vera, has introduced free-roaming herds of red deer, Konik ponies and Heck cattle onto polder land that was recently reclaimed from

the sea. What I saw was beyond astonishing. This place is only 30 minutes from Amsterdam, and yet it is now teeming with wildlife! Tens of thousands of geese, white-tailed sea-eagles, bitterns, spoonbills, marsh harriers, lapwings, great white egrets, spoonbills, bearded tits, skylarks... Frans's theories have changed the way we think about conservation. He has added the ingredient of 'natural animal disturbance' – something we've completely forgotten about. But, of course, temperate-zone Europe would once have had huge herds of free-roaming animals, just like Africa.

What he has identified is that grazing animals actually drive habitat creation. If they are allowed to do what they do naturally, if you take your hands off the steering wheel and let nature take over, biodiversity takes off. Which made me think... If wildlife could take off like this on land that had been under water only a few decades ago, then there's hope for our depleted land in Sussex. We could do something like this at Knepp.



On your return to the estate, what changes did you decide to bring about and why? We couldn't go quite the way of the Oostvaardersplassen. For one thing, we're much smaller, and we wanted to continue farming – although in a much more extensive way. So basically we sold the dairy cows, sold the milk quota, gave up farming arable crops, sold all the farm machinery, cleared out debts, ring-fenced the whole 3,500 acres, took up 350 miles of internal fences, and stopped the whole conventional farming regime of adding chemicals to the land. We gave the vegetation a few years to take off, then introduced herds of free-

roaming animals – just in small numbers to start with, but gradually building them up.

The animals we've chosen are all old breeds, so they're really hardy and can survive outside all year round. Basically, they're proxies for some of the animals

which would have been roaming this landscape 10,000 years ago and with which our ecology evolved. We've got old English longhorn (standing in for the extinct aurochs, the original ox), Exmoor ponies (proxy for the tarpan, the original wild horse), Tamworth pigs standing in for wild boar, and red and fallow deer. Because



they all graze in different ways and have different impacts on the land – by trampling, puddling, snapping branches, rootling, generally being disruptive – they create all these opportunities for vegetation. So what you get emerging is this very complex mosaic of different habitats: everything from thorny scrub, to grazing lawns, to stands of willow, broken woodland, water meadows... the kind of messy margins where life thrives. Suddenly you see wildlife taking off. Birds, butterflies, insects, you name it. We've now got 13 out of the UK's 18 species of bat here. We've got all five UK species of owls. We've got nightingales, turtle doves, purple emperor butterflies – species that are in dire straits elsewhere in the UK, on the verge of extinction even. But they've come to Knepp and they're loving it.

The key to the whole thing is the stocking levels of the grazing animals. That's pretty much the only management we do. Too many, and you have an overgrazed area. Too few, and the land simply reverts to closed canopy woodland – very uninteresting for wildlife. Get the balance right and then exciting things happen, without you doing anything else.

So we cull the animals to the level we think keeps the dynamism we're after. And that means we're still producing meat – 75 tonnes of it a year – but in a much more extensive way, rather like ranching, with no inputs, no supplementary feeding, no chemicals. It's wonderful



organic, pasture-fed meat. We hang it in a maturation unit on site. We think it's the best meat in the world. And it's incredibly good for you. There's huge demand for it from restaurants and ethical consumers.

You are now a keen advocate of rewilding around the world. Can you tell us a little more about why you think it's so important?

It is important to get the message across that there is a third way. It is not a question of either farming or conservation – it is entirely possible to do both. And for estates on land as marginal as ours, rewilding is a perfect solution. It provides all sorts of public benefits – 'ecosystems services' is the buzzword – like soil restoration, carbon sequestration, flood mitigation and water storage, air and water purification, and a place for people to get in touch with nature again. We're only just beginning to understand how important this is for our physical and

mental health. Rewilding provides pollinating insects – something that's of real concern for farming in the future.

It is also important to think of an estate like Knepp, not as an island in the middle of a denuded landscape, but as a reservoir of life which can supply surrounding areas with new nature in years to come. We have to start thinking at landscape scale – in terms of corridors and stepping-stones,



linking areas of nature with each other across the whole country, building resilience into the system again, so wildlife has a chance to move and connect and respond to pressures like pollution and climate change. So Knepp is just a baby step. We need loads of Knepps – wherever we can have them!

Thinking about your own estate, do you feel it is possible to revert to nature and remain profitable?

Absolutely. We were losing money hand over fist when we were farming this land conventionally. Now we have income streams that we hope will keep us profitable even when farming subsidies go – which go they surely will, sooner or later. We produce premium pork, venison and beef, with virtually no overheads.

All the farm buildings that used to cost us a bomb to maintain can now be leased out as offices or for light industrial use, or as storage space. These buildings now provide for 198 local jobs. We have a growing tourism business – running wildlife and photography safaris – and we have a camping and glamping site, and a small but growing farm shop. There’s an increasing desire for people who live in cities to have access to nature. But hopefully, in the future, there will be a different kind of support and incentive for farmers and landowners for providing some of the ecosystems services we’ve been talking about.



But it’s all a question of whether you rise to these opportunities. I am really concerned about generational stagnation. It is important that estates break out from traditional and historic ways of doing things and embrace new ideas. Some ask the question, ‘Why should we change the way we do things?’ I ask them a different question: ‘Why would you not want to change, if you can operate in a much more responsible way, and at a profit?’

Very specifically we have moved away as an estate from reliance on government subsidy, and I believe that is part of the key to survival in the years to come.

What compromises have you had to agree to?

Most of our constraints are either legal or geographical. For example, we are not allowed to introduce wild boar so we use Tamworth pigs. It may not quite be the same, but it’s the best we can do within the confines of the legal system. We can’t leave carcasses of animals, even those that simply die of old age, lying about on the land. This is one of the great losses for nature, depriving all sorts of carrion-

associated insects, birds and mammals of their food source. Rotting carcasses also keep nutrients in the system. They are an important source of minerals, including calcium, which is vital for birds’ eggs.



Geographically we are in a highly-urbanised landscape in the UK, so returning to true wilderness will never happen. We can't have wolves or lynx or bears here, for example! But we can take a step towards a more naturalised landscape. Who knows – one day we might even see beavers and bison and elk back at Knepp? Oh, and it would be good to have land bridges for wildlife over our busy roads like they have in Europe.

Are you concerned about the future direction of farming and nature in the UK with our exit from the EU in 2020?

I was astonished that so many farmers wanted to leave the EU. It will impact so many farmers through the loss of funding. These are very interesting times. Exiting a subsidy-based farming system will be highly risky, but could also lead to more entrepreneurship and a greater reliance on creative business development, of which estate diversification is clearly a significant part. So, the loss of subsidies may not be entirely a bad thing for the farming sector.

Some subsidy support for environmental schemes would still be useful, but payments must be tied to outcome. At present, you can be paid for *not* doing something. If, instead, all payments are tied to meaningful and measurable solutions, it could work far better for everyone.

We are living in tough times both sides of the Atlantic. In the new world order, how does the Knepp Estate fit in? Do you see yourself as a beacon of hope?

Hope is vital. To go on achieving, you must believe in what you are doing – much like going to church! If your message is a positive and encouraging one, people will join you on the journey. It's not about ignoring the facts, but doing your best to inspire and equip even if things are tough.

It gives me a very positive feeling seeing life come back to a place where it had disappeared. When you walk around the Knepp Estate in spring, there is now a real wow factor. It is full of life. Lying down in the grass and listening to crickets is like going back in time to my childhood. The feeling of wonder can come back.



The biggest lesson for all of us is that nature can come back amazingly quickly given the chance. That means that real change remains a real possibility within all our lifetimes.