Interview with: Ken Green

Date: 8th September 2006

Interviewer: Lynne Fox

This is Lynne Fox for the Thorne and Hatfield Moors Oral History Project. It is the 8th of September 2006 and I'm talking to Mr Ken Green. Good morning.

Morning.

Now could you tell, you, you are involved with the Lincolnshire Wildlife Trust, can you just tell me what your official title is?

Yes, well it, I've two official titles, I'm the Voluntary Reserve Manager for the moors and have been as a hobby for over thirty years now, but I've also the last few years I've begun to work for them so I'm now the North Lincolnshire Assistant Warden and so I'm working full time for them out at Far Ings near the Humber Bridge.

And you have main responsibility in this area for?

For the moors, yes for Crowle Moors, yes, yes.

Could you first of all tell me how you came to be in this area, because I know you, tell me first of all where you were born and how you came to be here.

Well I was born in a place called Warsop near Mansfield in North Nottinghamshire and I went away to teacher training college in Nottingham and from there to Bristol as a teacher. Then when I got married we moved to Corby in Northants and then I got a job in Corby itself and moved up here. While I was here I started to doing a OU degree and one of the courses was on ecology and I visited a lot of reserves, that's how I got to know about the Lincolnshire Wildlife Trust and about the moors and so I became a member and when I finished the OU I became the reserve manager.

Now you did mention that you had some relatives in Moorends.

I've had relatives in Moorends ever, you know, used to visit Moorends quite a lot when I was a child, but I never actually visited the moors. I never associated even the name with the moors in that sense.

Were you aware of the moors at all?

Not really, as, I'd heard it mentioned but I knew nothing of it at all, yeah.

Can you tell me how your interest in wildlife started?

When I was child I mean I came from, as I say, from Warsop which is in the Dukeries, what's left of Sherwood Forest really and as a child we used to spend endless time walking in the locality,

playing in the woods and just natural to have an interest. I mean there's even things like corncrakes and that about in that area there, what you wouldn't hear now.

When you say you were interested and went to play in the woods and so on was there a more serious side to your interest or has that developed, or were you just enjoying playing in the….

I was enjoying playing, but I mean used to, the hobbies then, there was no television, things like bird nesting, and that wasn't to take the eggs we just like searching, it was just like a challenge, you'd search the hedges for a nest, just to see if you could find one. So it was just fun really.

And what kind of things were you finding there?

Nothing particularly rare, mainly things like thrushes, blackbirds, hedge sparrows, pigeons, quite common things. Down against the river there'd be things like moorhen, occasionally if we were lucky we might even find a kingfisher's nest but that was, that'd have been classed as quite unusual.

And did that interest continue or did other, did life take over more or less?

Once you get to be a teenager and become interested in girls and things, that tends to take precedence at that time! But, once people get over that period they tend to return to it if they'd had an interest earlier. So I would say I returned to it. I never completely lost it, but it became a more serious hobby as I got a bit older.

And what did you do, what subject did you do as a teacher?

I mean my, I'm a primary school teacher and my subject at college was general science. But as I say I went on to do a, really a biology degree afterwards, so biology's my main interest, particularly ecology and also animal behaviour.

Now, you are now involved with the Lincolnshire Wildlife Trust.

Yes, yes.

So can you tell me how that began and how that developed please?

When I left teaching I was asked to stand in for someone who was ill, at the North Lincs Nature Reserve, I did that for two months and then the following summer, the summer warden, who used to just be employed for the summer period on Far Ings Nature Reserve, he was going away to do a further degree so they asked me if I'd do the summer warden's job. Which I was more than pleased to. The following year I did it again and then they extended it to cover, so I came full time. So then I'm working full time for them. I roughly spend one day a week in the Isle of Axholme and it has six reserves of which Crowle's by far the largest. So I just keep and eye and check it, cut pathways, or whatever needs doing and a reserve the size of Crowle, which is four hundred and sixty acres, I could employ myself full time there.

Now you say they approached you and asked you to stand in for someone. Why did they approach you initially? Were you already a member?

I was already a member, I knew them, I used to go as a volunteer and help there, so they knew me through being a volunteer. When I finished teaching, during the period afterwards I used to go

across to Far Ings as a volunteer and help there and I used to go other places as well but that's how they knew me, through really being a volunteer.

Can you tell me a bit about Crowle Moors?

Crowle Moors, where to start. It's, historically, when I first started looking after it all belonged to Fisons. We'd only on a six-month lease and they could terminate the lease any time they wanted to. We weren't allowed to do any major work like stop drainage ditches or anything like that and so we were very limited in what we could do. The actual reserve was closed in summer because pathways were so overgrown you couldn't get down and so our first job was really to open the pathways up, which as we, it's all volunteer work, or you manage to eventually get things like large mowing machines, still hand ones, but mechanical ones, and managed to open up the pathway so it was open in summer and then just maintaining the pathways is a major, a major task. I mean, 'cause there's, what, two or three miles of pathway, it isn't exactly flat or easy to maintain.

Suppose the main aim was to make sure, even though at that period the moors were degenerating, because they were being drained and the peat was oxidising, was to make sure that all the species that were there stayed there. So at a later date they had, you know, they'd a base they could expand from. So the pieces that were particularly pristine, particularly good we tried to look after specially. There are particular rare plants, I mean usually we manage a habitat as a habitat but if there's anything particularly rare you try and manage that as an individual species, at least that was the perceived wisdom at the time and there was one particular plant that was quite rare and we started managing that. Well when I first found it there was, I ought to say what it was, it was the one called the Greater Yellow Hayrattle, and I think I found about, less than a dozen plants. They had been there present years ago, but we found this and so we started to manage them. You have contact with places like Kew Gardens, you know, they took the seeds and grew them on and found out what conditions they need and things, but basically the last time I'd had a major count they'd increased from a dozen to about ten thousand plus. So after they got to ten thousand plus I didn't worry too much.

They are a bit of a problem because they grow on the pathway, they're not really peatland species, they actually grow on the pathways where they'd put soil on top of the peat for the railway lines and you have to mow it at the right time, if you mow too early you cut these plants down, but you've got to mow the bracken down so they're not shaded out and once you've mown the first cut and they're growing you can't really mow it again until they've gone to seed. So they actually make it more difficult to keep the pathway reasonable and keep the pathway open. But they do have extra benefits because any rare species, the profile of the reserve goes up, it becomes more known and you tend to get more interest and more input. So rare species are quite helpful to reserves in lots of ways. You know, like a prestige thing, yes.

Right, over a period we opened them up more and more then we had the Manpower Service Commission teams, we had quite a few teams working there, cause you can't do a lot of work with machines, it's all handwork and they provided a large number of people who could work with hand tools and things and we made some major steps forwards there in opening up parts of the reserve that'd never been open before. Then things went on and the Trust got better equipped, more machinery and things, more help, but the big, next big step forward was we'd bought a bit of the land and things like that before, but was when it was bought from Fisons, well it had changed into Scotts by then I think, but it was bought by the government and we became owners and we could do a lot more. We were able to dam, able to manage the whole lot a lot better, I mean, even now it's difficult because we can't dam some parts 'cause they'd flood the farmers fields as well as flooding ours. I mean, so we're still limited by the other things, but we've come a long way. I mean, the

species which are, a lot of the species, which are peat bogs species are now increasing in lots of areas, I mean there's still a lot to be done.

I'll give you some idea, if we was taking a traditional raised peat bog, which is what that type of peat bog it is, you'd expect something like ten perhaps twenty percent around the edge to be scrub birch, at the moment I would say about two thirds of our land is scrub birch, a thirds not. So a third is more like a peat bog and we'd like to see more like that. I mean our preferred method is to, if we can re-flood it that's great but it's not just, it's not a matter of just flooding it and leaving it, it needs controlling more than that to do it properly, but the main thing is get the water there, that will kill off the birch and the peat bog species will come in. If you can't do that, where it's on a borderline, the actual birch trees take out a lot of moisture through transpiration, so if you can get rid of those you can tip it from being heath land, which is dry land, into peat bogs and it's just trying tip that and you know, get that extra bit. I mean obviously the climate changes so it's not a precise science, but, judging by the increase in species it's heading the right way on lots of areas. There's much more we'd like to do but we've then to buy our manpower and the finances are, but.

So what you, would you say then that the long-term goal is to return it to what? Or to have it in what state?

The long term aim at the moment, in my mind personally, would be to have as much of it as possible return to peat bog conditions, regenerating peat, followed by areas which were heath land and which was always a part of the peat bog complex and remaining piece, some woodland, wet woodland. All of those are quite important habitat, the peat land, the peat itself, regenerated peat being the rarest and so the most important too. I mean you can get scrub birch on almost any land you see, but you can't get peat bogs on almost any land.

And do you, that what you've just described, would you see that as some kind of natural environment, how it would have been historically?

The natural environment would have been almost like, if you can imagine a saucer with an other one turned upside down on top of it, that's the shape of a traditional raised peat bog, like a lense shape and soon as you start cutting into it it breaks down, which is what's happened in the past, obviously once they're drained to take out the peat, but even now the bits which are dry the peat degenerates and oxidise adds nutrients and you start to get things growing there which aren't really peat bog species. So when you first flood it you want to get these, well you're anaerobic conditions so things don't rot and you've only got to get rid of some of the nutrients, it's takes a long time. Well a lot of our work is if you like to speed up the bog with a natural process. If we could stop all drainage of the moors and just leave it for a couple of hundred years it would do it itself, but by doing certain things we can perhaps bring some of those down to, tens of years, but a lot shorter for time period.

So there would have been that mixture of wet, sort of intermediate and then…

Oh yes, yes, there'd always be that because a peat bog tends to build up and you get channels break down and you know, you get a rain stone that makes a channel, flows out and it dries round that and on the dry corners you get birch coming in. So it would always be a mosaic, it's kind of the balance that's different today. The balance is much more in favour of the dry species than the wet. It only needs an inch difference in water levels, it doesn't need much. So, yeah.

And you were going to tell me about the, you know, the historical picture for the area.

The historical picture really is that, after the Ice Age the gap between the Lincolnshire Wolds and the Yorkshire Wolds was blocked and so there's a great big lake behind that, so all this area was low lying and wet with a few islands. The islands were the villages, now I mean, obviously that broke through eventually, and so the Humber got into the sea. Now there's various rivers run through this area like the Trent and the Don, there's some others as well, the Don's the most important because the Don used to flow between the village and the moors. Now, the Don broke into several channels, so it didn't only have one channel, but the one that's important to Crowle was there, and that was the main way into Crowle, by water. Now, peat will not form when there's any water movement, so it will not form with a river, or if there's a lake that's got any flow through it, it's got to be very still. So once it's started though it can slowly build up over a period of time. I think in good conditions you can get about one centimetre every ten years, so it's not a fast process, it's quite slow. And so the inflow of the water it had to skirt round the moors wherever there was a, you know, the moors wouldn't form where the water was flowing. But there's a slow build up, I mean prior to the actual peat forming, you know the Stone Age man, it'd have been woodland before and you still find, if you get to the bottom of the peat there's still the trees and the tree stumps where you know, but once peat formed the trees are rather slower to grow.

Historically, how would it be used, well I mean, man would have used it for hunting, you know, mainly hunting wildfowl and things like that. Access would never have been easy in those days, but as things progressed…

Why would access not have been easy?

Well I mean a peat bog's not the easiest place to walk over by any means! I mean you're quite likely to suddenly sink and vanish, so, yes, it's not the easiest terrain to go over and it's very - look at peat water and it's brown, you can't see how deep it is. If it's an inch deep and six foot deep it looks just the same so it's very hard to know what you're letting yourself in for when you're walking across it.

But as I say, as things progressed they began to use it in a more serious way and they had things like decoys for birding down there, I mean the main road down onto the moors is called Decoy Road on the maps, it's not a name that's used locally but that's the name on the maps and there was a decoy, I'm talking about a hundred years ago, that kind of time span. But there was another decoy over towards where the canal is and things like, so there's several decoys. Then you get to more modern times when they actually started, I mean, they started taking peat off for, it was for horse litter in stables originally. I mean they'd always taken out small bits for fuel but I don't think that was ever on a big scale and it was probably from peat lands nearer the village which are now walked over, you know, where that was done.

So after the use of horse litter eventually began to use for horticulture and you know, and that's when it really took off in a big way, peat extractio, and the methods of extraction have slowly changed. Well, slowly, they've accelerated quite a lot in recent years and some weren't particularly damaging, other methods are. I mean the original method of digging was usually to dig a trench, pile it on the side, let the blocks dry out and then carry them off, you know, later in the season when they were dry cause they were a lot lighter then. Then they would have replicated that with a machine, I remember seeing the big, it had like a big rotary head, which took out tube shaped ones, you know, a kind of round shaped ones rather than square blocks and stacked them and let them dry just the same way and eventually came onto surface milling. Well surface milling requires large areas, with no vegetation at all, they have to remove the vegetation and they just rotivate the top surface and scrape that off and take that, and that is very damaging because it covers such a large area and there's no time for regeneration in between, so. If you go to Hatfield Moors, when that

was first taken over, it was like a moonscape, acres and miles and miles just brown, bare, peat, you know, no wildlife interest at all left on the actual peat fields.

Is there any evidence left on Crowle Moors of these different forms of peat extraction?

You can see the differences if you walk round you can see where they varied the method. A lot of the methods were concerned with actually drainage and things like that, so they could actually get on to actually do it, but yes you can see different parts. There's still even some of the old hand cut peat piles about, everything's still got the square imprint of where man's been. So really you're talking about, I suppose you could call it an opencast mine site, which is what it is, but now it's about as wild as you get in lowland Britain, it's been overgrown and even though you can see the square patterns if you look for them someone going casually you might think you was in a real wilderness which is not quite true really.

When you say a square pattern you mean these trenches that were used for hand and later machine graving?

Yes, I mean what used to happen is that all the narrow strips of fields, at the edge of the moors, and there's one called Ribbon Row so that gives you some idea, the ownership extended from the fields right onto the moors and they were long thin strips. So the first thing was drainage and so the pattern was, where they actually put the dykes in was, the easiest way to drain and then they often worked with herringbones from the main drains out and it depends. I mean, on the wettest pieces they'd, the traditional pattern is you got a baulk perhaps three of four feet high, perhaps six to twenty feet wide, they tend to vary, and they would dig, they'd have a ditch either side, drainaged ditch either side of the baulk, they would dig peat in between and use the baulks to carry it out on because it was drier. And a lot of peat bogs they used to burn off the top in winter to make it easier, it saved having to clear the vegetation, also for the adders, I think that got rid of the adders to some extent. I mean that's certainly true of, I mean things like the Mosses and Meers down in Shropshire they were quite small, here they did it, never on that scale, for one thing the moors is so much larger than the ones I was talking about down in Shropshire, the danger would be to have to control a lot higher. I mean it's a bit like lighting a fire in the middle of a coal place isn't it, you know, if it's dry, but if you got a wet, right conditions you could do it. So that certainly was done in the past and that would affect the vegetation because, you know, once you've burnt things you get enrichment, you get things coming in that wouldn't be there before.

And there's evidence of that in Crowle?

No, I know that from talking to people historically, you know, just people who remember it happening. Last, when we have fires up there now it's bad news, I mean, because of mechanical pumps and things they can take the water level down so there's more peat which is able to burn longer if it were to get on fire now and so the last big fire they had was, well the fire engines they can't put it out really, you're talking about a week or more until they really get the right rain comes along and puts it out. I mean it's, there's not a lot you can do about it even the engines are really too heavy to take along the tramways and things, you know, to get close to it. So if there's a big fire they try and maintain the tramways so that they don't get burnt out so that access is still possible. But not a lot they can do really.

What are the tramways?

The tramways were the light railway lines used to take the peat out. So all round Crowle there was a light railway line, I took what was left of it up, which was quite large, if you think about half the

pathway was covered. I took it up about fifteen years ago because I kept running into it and, you know, when you're cutting the grass and a big piece of metal, doesn't do a lot for the machine. So we, I basically took a crow bar levered it up, and when we got all the pieces up I just took a hacksaw and, it's quite a tiring job, used to saw it and, saw it so far through and jump on it, it'd crack and then might saw up, you know, do two or three bits of sawing every time I went up and over a period got rid of it all so that I could carry it out. Sleepers are still there and I mean there's still the big nails they used to nail straight to the sleepers. It wasn't like British Railway, they have these spring clips and things, which are straight on, we still have bits of railway but not much now.

Going back to the fire, how, if it's difficult to put out with water how do you actually manage it as a reserve manager?

Well we try and keep it as wet as possible, but I mean a lot of the farmers you see want the local land round drained a lot. So there's always a, that's quite difficult at times. So I'll give you some idea, this is just a story I was told, I didn't actually see this happen myself, when they had a big fire on Crowle side there was a little cottage on the side and the fire was getting near the cottage and the lady said 'I think we're getting a bit worried about this', so the fireman actually dug a trench, about six foot deep round the house and they filled it with water. Next day the women came round, says 'there's smoke coming through the floorboards', and the fire had burnt underneath that ditch and come up again.

Peat's funny stuff it's, different entities, even for the flow of water through the peat is quite, I mean it can vary by about a factor of two hundred, the flow of water through peat depending on the type of peat and the same with the [inaudible]. It can burn through drier layers and come up somewhere else, it's very tricky stuff. I mean for machinery it is, I'll give you an idea of machinery, this wasn't actually on Crowle Moors, it was on a farm near one of the peat lands close by and a friend used to farm this land, this was after the war. Now, they had a caterpillar tractor, they were ploughing the field one day with this caterpillar tractor and it just sunk and they lost it completely, couldn't get it out, just vanished underground, still there as far as I know and I mean, you can think of what the value in those days would be of a caterpillar tractor compared with these days. But I mean, they just had to abandon it, it's strange stuff peat!

And why would that happen?

Well the water movement and the peat movement, I mean, we get these, you get these bog oaks, not all oaks by all means but we call them bog oaks in the, in the soil and they kind of float, you can imagine them like floating about, going up and down but slowly, so they don't stay in one place. It's not, at least that's how I imagine it. You'll get soft parts, hard parts, depending on how much rain you've had, how it's flowed underneath, you'll get peats that were hard become soft and so you can't count on what you did the previous year, being, you being able to do this year, it could have changed underneath. I mean you get, you get strange things like you get bits where things will float on the top for a while and then they'll sink again, it's all very strange.

Sounds more like a liquid than a solid.

I think that's a reasonable interpretation. I mean, peat is, it's not connected to the underground aquifer nearby, it's a, I think they call it hung water table or something like that. But what happens, the peat, the lower levels of peat, are slightly different consistency and they kind of form a, from what I understand, they form like a colloid, which stops water getting through and so they form their own membrane. I'm not saying none gets through, but they stop a great deal. So then the water fills up to that. There's a story in one of the old books about a chap who, in summer he could

actually look across the moors and see the church tower for telling the time. When it came to winter and it'd been raining it used to take up so much water, the peat bog used to go up so much he could no longer see the church tower and they were talking about a ten foot difference between summer and winter. It's quite strange stuff altogether, it's…

Have you, have you seen that yourself that expansion and contraction?

You can see, you can see a difference certainly, I can't, I've never seen ten feet, no, not that I've noticed. But then again you've got no markers.

You seem to have a smaller…

Yes, you've got no markers or landmarks. To do that you'd have to have something that went into the clay beneath so that it was actually fixed and then you could see the movement. If you're walking across and the whole lot moves you wouldn't notice, you know the. It certainly takes up a lot of water, there's no doubt about that, there's a big difference. I mean, if you take a sponge and squeeze it out, peat is like that, and it probably holds more water for its weight than an ordinary sponge in the thing, I mean it really does hold a tremendous amount of water for it's, it's volume, especially the top pieces which haven't actually been compacted. But certainly with machinery, you're talking about a lot of ground weight things, you had to be very careful, I mean I've, even with reasonably specialised machinery, I've lost them quite a few times yes.

[Laughter]

Have people lost anything in the same way as the tractor?

No, I've some things pretty deep in the peat, but I mean we can't afford to lose machinery like that. I mean I have like a six-wheeled quad, which has special tyres on, they're the kind of light blue tyres. The air pressure in them is six pound a square inch, which puts less weight on the ground than your foot does and I've had that seriously stuck once. After getting it stuck that once and which I managed to get out, I've been more careful since. I mean, the mini tractor we've had that I've had stuck a couple of times, I mean it's quite a hard job and you can't, you've only got to take a winch up and then you've got to have something to anchor it to. I mean a chap actually went down in a four-wheel drive, on the path this was where it has been firmed up and he got stuck. Well it was there for a week before he got a winch to winch it out and about, quite a large number of us helping, but when we were winching it it started to pull the tree over we were winching against [inaudible] cause they're not that firmly rooted, because it's so water logged the ground the roots spread out sideways rather than go deep and so the trees are not that firm. So it's quite difficult to find something to actually anchor to if you do get stuck.

Now you mentioned the bog oaks, the sunken trees.

Yes.

Can you tell me a bit more about that?

Well some of them, the old story used to go that in the time when the Romans came in they actually burnt off the forest round here to get rid of all the locals who were being a nuisance, being, you know, like hiding in the bogs and coming out to attack the Romans and they thought black wood was from when the Romans had burnt it. But in reality the black wood is actually from the formation of the peat over and so it was nothing to do with fire at all really and so, if you've got a

piece of woodland, which it was before the peat bog was there, the peat will slowly grow up and when it gets wet enough it will waterlog the tree so much that the tree dies and it will fall over. It will fall in the peat and if there's sufficient depths of peat it will, because it's on anaerobic conditions and none of the bacteria that normally rot things are there, they don't rot. They just, there's a chemical change, it's still the tree itself with some of the chemicals leeched out and some leeched in and it, it becomes what they call a bog oak.

It's funny stuff, when you actually first take it out if you try and saw it, you can saw it, I won't say it's easy but you can saw it, but leave it to dry out and it goes like concrete, you can't you know, sawing it is very difficult then. It burns quite well apparently, but I never fancy sawing it up enough to try that. A lot of the wood turners like it for wood turning 'cause they have some, the grain's beautiful, but you can't just dry it out you have to go through a chemical process to replace the water with wax and things and then you can turn it and make some beautiful bowls, but it's quite a big job. You just take it and leave it to dry, I've brought small pieces to try it and they just actually start to fall to pieces after a while as they dry out. Perhaps I'm drying it out too fast, if you dry it out very slowly I still think the same would happen, you know, it's just the way it is.

And do you find much of that?

Where they've been cutting peat it's all over the place. I mean, it's not uncommon where they've been cutting the peat, I mean, from quite small pieces to full tree trunks, you know, you get pieces which are thirty foot long to three foot across. There's places where they've been extracted, there's plenty of those piled up. The local farmers get them in their fields. But I'll explain, round the moors, if you can go back to the kind of lense shape thinning out at the edges, all the fields round the edges of the moors at one time would have been peat, with it being thinning out. In fact, if you look at the side of the ditches when they've been cleaned you can see layers of peat in the soil, but nearly all the land round has been warped which means it's had soil added. The traditional way was to have a special drain, I mean there is one up there called the warping drain, where they actually waited for high tide, they flooded the fields and then closed up the sluice again, let the water slowly go out and it left a sediment behind and you can build up quite a layer of sediment on these.

So a lot of the fields, in fact nearly all the fields are warped, but some were warped through the warping drain, others were, well farms call it cart warping, where they actually brought the warp, you know, horse and carts and added it to the fields to make the depth, bigger depth of soil. I suspect that when in winter when there was no other jobs on they might as well keep the men employed doing that and it slowly over a long period adds a lot of soil. But it does mean that the piece underneath is pretty well protected. I mean it would have been farmed before but I think mainly grazing rather than arable farming if you went back historically. 'Cause all this area was pretty well flooded before, you know, even after Vermuyden's drainage. It was still pretty wet in winter so they would, on the very wet areas in summer when it got a bit drier they'd graze and then they'd move onto slightly higher areas as it got wetter.

The arable farming was probably mainly on the bits which were the islands outside the, you know, the whole area where the villages were and so I would suspect that all those areas are pretty well preserved underneath, getting to them is the problem. And the other thing apart from that is that, it's not just been a slow gradual process of change there's been it's ups and downs so to speak. We're getting drier periods in history and wetter periods, so the peat bog would have expanded and when you got a drier period it'd contract again and so it, in the Roman times there was a particular period when it was dry and I mean there's a Roman settlement on the edge of the moors, which would not have been there, we'll say three hundred years ago because it'd have been too wet. So its, it was a dry period when they put it there.

So the Romans wouldn't have settled there three hundred years before that, because it was too…

No, three hundred years before now I'm talking. If you go back, well three hundred, I'm not very good on times, before Vermuyden it'd have been too wet in that area, but in Roman times it would have been fine and the rear, the main way into Crowle and that area was up the River Don, which flowed between the village and the moors. That's all been canalised and every road, you know, it's all been changed, the flow of the rivers, so it's not there now.

Can you tell me a bit about this Roman settlement?

Well, a friend who's an amateur archaeologist used to do a lot of aerial photography to look for patterns. Now I'm no archaeologist but apparently you can tell from the shape of the patterns in the crops where you get them, what, you know, who built it, cause there's a different shape for Roman ones and you know, cavemen or whatever and he used to do a lot of this. Now he came to talk to the children at school about it and he showed them a lot of aerial photographs, now they won't say where they are because they're always afraid that people might go and try and dig them up you see, but when he showed them the edge of the moors I couldn't fail to recognise that. So it was just from watching his stuff I recognised where this was and you know, I mean and there was another pattern across the fields and it was a big, a big sweeping curve, I mean, too large a scale to be anything to do with a settlement, it must have been something like a causeway, can't have seen it being a boundary there, because no, no, I'm pretty sure it was a causeway that went across just by the shape of it and the size of it. But it didn't seem to go between any, particularly well known places, at least present day well known places. So exactly what it was I'm only guessing, but certainly there something there, it wasn't, I mean, sometimes filled in rivers will actually give that effect but they, well round here they're always wiggly, because it's such flat land.

I mean on that, I'll give you some idea on that, is that if you look at the meaning of the word Crowle, where the word Crowle comes from, it was originally Crul, the spelling on the old maps and if you go locally some people pronounce it Crowle, if you go Thorne way they pronounce it Cruel and they have different pronunciations and it seems likely that the original pronunciation was more like Cruel and they think it came from a word which really meant wavy hair and that was the shape of the rivers, the rivers were so wavy it got it's name from that. At least that's the suggestion in the book I read. Now there's another Crowle in the country, the derivation of that is quite different, it just so happens that my brother lives at the other Crowle down near Worcester! Just to confuse the issue! I can't remember the exact, where that came from, but it was quite different from the Crowle up here how it had arrived.

So if you can imagine between here and the moors there'd been the Don flowing and it wouldn't have been just in one channel it'd have wandered about, it wouldn't have stayed put, it'd have been all over the place, it'd leave islands and things. So it wasn't a static thing, like we tend to think they are today.

Did this chap have any more to say about what was at the Roman settlement, what kind of settlement it was?

It wasn't big enough to be a village, it would be an individual farm settlement, something like this. From what he could tell from the crop patterns that were there, what did he call, like a Roman manor house, I don't know what they call them.

A villa?

Yes, that kind of thing, that's what he thought. As much as you can tell from crop patterns.

And did he find any fields associated with it?

No there was just the building patterns as far as I'm aware, remember this is all under about two or three foot of warp, so I'm surprised it even showed through at all really.

And you think it might, I'm not going to ask you to say where it is, because I know you don't want to, but you think it's still going to be there, because it will…

Oh yes, yes, I mean, yes, I know where it is and it's just in a normal field where they're farming and ploughing. But the ploughs, even when they deep plough for the drainage I doubt whether it goes deep enough to affect that to any, seriously.

And do you think the landowner knows it's there?

No, no, I don't think so.

Apart from the wood, the bog oaks, and you say they're not all oaks, they're just called oaks.

Yes, yes, you can recognise what some are.

Oh, what are they?

I mean you can see Scotch pine, you know, see some with their bark on and things like that. Some are oak, but yes you can, not say easily, but you get an odd one, bark left on, yes you can tell.

And would they live side-by-side then the oak and the pine?

Yes on a, if you take the kind of traditional changes, the, as the trees invade, after the ice age, there was a succession. But even now we've got oak there and Scotch pine going together. Yes, so they, yes they would have existed together, frankly the oak doesn't do very well there now because it's too wet. But yes, yes, I'm not sure what the dominant plant was, I would suspect birch again, but you can actually take borings through the peat and, excuse me that's my phone!

[Paused]

You talked about the wood that comes out preserved from the bogs is there anything else that you know of that has been found there?

Well a very useful record is, you can take borings down through the peat, you can look at the pollen grains and you can actually work out roughly what the climate was by the dominant trees in that time. 'Cause the actual pollen is very resistant to rotting and so that's one way, but you can do other things. I mean some of these trees that are down they've also got insects that have bored into them, so you can actually take and identify the insects in these trees. I mean, even occasionally do find bodies and the peat preserves bodies, it doesn't preserve metal very well at all, but actual animal remains and human remains it kind of mummifies them and, I don't know of any bodies that have been found on the Crowle Thorne complex but it's quite possible there are some. In fact there definitely are some because some planes came down in the war and there are some war graves up there that the bodies are still in and they will supposedly be preserved by the peat and of course

you're not allowed to extract those and interfere with those. Even if I knew where they were, which I don't.

And have you ever found anything, you know, or any of your volunteers found anything while you've been working there?

No, I can't say we have really, no, not that I've recognised. Not that we examine very carefully, I mean our practical tasks, the bog oaks tend to be things that get in the way rather than, I mean we don't actually extract them as such, it's if the farmers take them out of fields and they're in the middle of our paths, something like that, you know that, there just a nuisance value. Then you sometimes look at them casually or they use them as a seat and while you're sat down you have a look, rather than primarily looking at, examining them you see.

If you can go on to talk a bit more about how the actual site is now and can you tell me some of the, first of all some of the sort of flora and fauna that you would find on there?

Yes.

Why, if I was going to visit why I would go there and visit really.

Just to put it in context a bit I think I ought to give some idea of the size, because it's a very large area for lowland Britain. I mean you're talking of an area of five thousand acres that kind of acreage, taking the complex as a whole. At one time it would have been all very wet, its certainly not now. But one time it would have been open moor land, now because of drainage and drying out a lot of it's scrub birch, when I say scrub birch we're really talking about two types of birch, there's the silver birch, which everyone knows and there's actually one called downy birch, it's got, it looks very similar and it grows, tends to grow more scrubby and you get hybrids between them as well. So there's the birch, we get Scotch pine, not so many, but there's a few Scotch pine.

Then we start to get things like alder buckthorne and we get a few willows, we get things like rowan, but then, they're in the woodland parts, which are obviously a bit drier. The real peat bogs species, there are two main species which form the peat and that's the cotton grasses and the sphagnum. Now there's two types of cotton grasses, common cotton grass and a harestail cotton grass. The one at the moors, the commonest at the moors is actually the harestail, its commoner there than the common cotton grass, it gets confusing this, and just to confuse the issue even more the cotton grass is not a grass really at all it's a sedge. So that's one of the dominant plants the other is sphagnum, now sphagnum's, identifying different species is very difficult, some of the experts can see some of them and tell by looking but really you're down to microscopic features and taking sections to do that, so they tend to be dealt with all together. But you get different ones growing in different acidity of water, different types of wetness. So there's quite a few species.

Now those are the two that actually, mainly form the peat, but there are some specialist plants which grow in them, I mean everyone knows about the insectivorous ones like the sundew, they're the ones which have the sticky hairs which trap insects. But there's people have heard of cranberry, but cranberry is not that common, but that is a peat bog species, it will stand nutrient-poor, wet, acid surroundings and then there's one called bog rosemary is it's common name, andromeda is it's, one of it's scientific names and it looks like ordinary rosemary, doesn't smell or taste like it but it has a flower on a bit like heather, it's bigger than a heather flower but it's a similar form and that's a particular peat bog species and then on the drier areas, well the slightly wetter, in between areas if you like, we get the cross leaf and the heath erica tetrlix which is, and then onto a drier piece we get the [inaudible] vulgaris which is the common heather.

So those tend to be the dominant species, there are others, there's a bigger variety on Thorne than on Crowle. 'Cause what happened on Thorne side is that a lot of the tramways put in to extract the peat were made of limestone and the limestone enriches the water and stops it being less acid, so it becomes less of a pure peat bog and you get plants that you wouldn't expect from a peat bog or at least, ones that like it slightly more alkaline. Things like bog asphodel and things like that, which we don't, I've never found on Crowle and there's one or two others which are associated with bogs but like it a bit less acid. So we tend to use these indicator species, if your andromeda's increasing you, it's doing well, it's heading the right way for the peat bog, same with if the cranberry's increasing. Well, we're quite pleased on this because our southern part of our reserve, which we cleared on the, it's the most recently big cleared area, talking about in the last ten years, we'd had one small patch of bog rosemary, I'd never actually found any cranberry there before and now I'm getting a terrific amount of the bog rosemary and also the cranberry's going, taking off like mad and it's really increasing. Which, yes, what we wanted to happen is happening, I wish it would happen like that all over the moors, but that particular spot is doing very well.

Really then you go onto things like, adders, well they're doing quite well, and the things which live on heath land and on acid peat bogs and things like that. Insect life mainly, there's hundreds and hundreds of insects, some are very specialised with long Latin names I can't pronounce, I wouldn't recognise if I saw them, I'll leave that to the insect experts. But it's probably most well known for its insects, in my experience if it bites it's there!

[Laughter]

They're usually getting at you! Specially biting midges, I mean, we have a particular rare bird, nightjar which likes those England bog conditions and those are doing very well up there at the moment. But if you go to watch them you get a bad midge night, I've known ardent bird watchers actually get up and go before they've seen them because they've been that bad. On a bad night I wear a full net over my head just to keep them off, they really, I mean there's a place nearby called Medge Hall, which is on the edge of the moors. Well its original name was Midge Hall, so it gives some indication of what they're like, they are, they're very bad. Mosquitoes are quite bad but midges are worse. Funny thing is I mean, you don't get anything, you might expect because it's so wet you get frogs, but I've never actually seen a frog on the moors ever. We went across some of the bogs in Ireland and there were frogs all over the place, I couldn't believe there were any frogs there. Because the actual water itself is too acid for them to breathe in, so they couldn't actually lay their eggs in it, but I just think no frogs on peat bogs, but those in Ireland they had dozens. So they obviously can stand the conditions. So I don't know why that is. But you get all these strange things that you can't answer.

What about larger animals?

Larger animals, well, we've always had roe deer in small numbers and it was very rare to see one when I first took over, now I'd expect to see one almost every time I go up. If I was really trying I'd expect to find half a dozen without too much trouble. Red deer in good numbers now, in fact so many they're damaging some of the habitats, particularly habitat for nightingale, so there is a problem. People do like to see red deer, they're such a big large animal living wild in a country like ours, it's quite remarkable. But I mean the farmers are not very keen because they do a lot of damage to the crops, I mean they do eat a lot of the root crops and things and they're so big you know where they've been. I mean, the roe deer tend to walk about, nibble a bit, walk a bit, nibble a bit, walk, but the red deer they concentrate and you know, I mean I've seen one field and half the field was just churned up mud where the red deer have been, I mean there was that many. I say

they are big, at the moment they're just in rutting season now. Do see those occasionally, see the footprints and where they've been chewing the bark off the trees all over the place, all the time. The total number, we've a good idea, but perhaps best not to mention that. We do have problems with poaching and [inaudible]. We do have a lot lost in the canal, they will jump into the canal to swim across and it's so square sided they can't actually climb out again, so the number drowning in the canal is quite high and there is a deer ramp fitted at one place, we've asked them to put another one in, but they are quite expensive, so, we just hope they will. They've said they'll try their best, kind of thing.

A what?

A deer ramp. So it's just a piece where the deer, when they swim inland can find a piece that they can actually walk up to get out of the steep sided canal. Straight sides they can't just climb out it's as simple as that.

Do you get rabbits and things like that?

On the very dry edges of the moors there are some rabbits. It's a bad sign if the rabbits are there, it means we haven't got it wet enough. But usually it's on the edge of the fields where the, where the moors meets the field, there's usually a drain and because the bank is drained you take a slope and then there's dry piece in that bank that's where the rabbits will make the holes. So it's because the farmers really drain the land the rabbits are living there, and then farmers will complain about our rabbits, you know, which really it's them whose created the place for them in the first place, but that's the way it goes, yes!

So if you've not really many rabbits are there deer really the only thing that do quite a bit of damage to the landscape?

Well I mean, the roe deer hardly do any damage, don't notice them at all. The red deer, damage, yes, I mean you can see signs of where they've been, it's always hard to say, I mean they've probably always been there in the past but never in large numbers and they're in larger numbers now because the place is kept a better eye on. So certainly the roe deer the number is, must have increased, ten, between ten and fifty fold since I first took over because the habitats less disturbed and more looked after as a reserve. There's also monkjack up there, I've never even seen one, those are so small and secretive, you're very unlikely to see one.

What's that?

It's a foreign deer that's in the country, only the size of a, not as big as a medium sized dog, smaller, than, they're very skulkers, they get in the deep dense thickets and…

It's a deer did you say?

It's a deer yes, they don't have horns they have like two teeth at the front…

It's not a native species?

Not a native species.

So how do you think it's arrived there?

Oh, they just slowly spread over the country from ones that have escaped from collections and it's been spreading over the country for years. As I say, we've got adder, grass snakes, lizards, just trying to think what else. Birds, are probably the main interest in a sense that there's more people who are interested in birds than anything else and the birds, we don't have large numbers because it's a nutrient poor environment, so there's not a lot of food. We have the birds which will roost there and fly out to feed and then in summer we have the insect specialists which feed on insects, things like wheatear, some of the chaffs, various things, we get some quite rare ones but never in large numbers. It's not, if you're a bird watcher, walking round there you wouldn't, not expect to see anything like the number of birds you see in some places, but what you did see might be unusual.

Can I come back to talking a bit more about the actual management of the place, you've talked about clearing and digging ditches and dams and so on. When you talk about clearing, tell me how that works in practical terms, what it involves.

Well clearing birch, I mean, alright we'll have a piece which is on the borderline of being, either, well lets says it's on the borderline of being peat lands, but it's just a bit too dry. Right, so there's all these trees taking out gallons and gallons of water, so we'll go in, only in winter, because we don't do any work in summer when you're going to be disturbing the wildlife. So we wait till winter, we'll fell all the trees, we'll clear the trees off if we can, sometimes it's not practical because it's just too, the terrain's not suitable, it's too wet. But where we can we'll take out the trees, if possible we'll actually recycle them, most of our pathways were getting too wet, we actually build up with tree logs and cover them with chippings and then, if you just left it they will regrow. So really it needs to be fenced then and then we use hebredian sheep. Hebredian sheep are more browsers than grazers, they eat the leaves and so they will keep the regrowth down. That's when we're actually physically clearing.

It's a lot easier when we can actually flood it, but I mean, that's not always possible. We have one area, I'll give you some idea, we have one area we've cleared with the intention of creating heath land, heath land being mainly heather, which is ideal for things like nightjar and things and two years after we cleared the heather was getting nicely established. Two years later it was on, the heather had vanished and we started to get cotton grass, so it'd got that bit wetter. English Nature had damned a piece of theirs, which I suspect had some influence and it started to become peat land then. Well peat land to us is more desirable than the heath land 'cause it's rarer habitat, so we actually did better there than we though we would. Because, I mean, if you can imagine a ring, a circle of peat land, surrounded by a circle of heather, surrounded by a circle of trees, working on water levels that's what it'll be like. If you increase the peat land you actually increase the border of heath land you're decreasing the tree areas. Now that's ideally what we do to get in back into something like the proportions it was before man interfered. On the ground it doesn't look like that because there's all squares and ditches and things, so it's not nice circles, it's much more complex than that, so.

And what kind of manpower do you have to work with?

Well in this part of the county, for the whole of the North Lincolnshire, there are three of us working full time and I've only been working full time for the last year or so. So that's how, if you like, paid manpower. The rest is done by volunteers and when the MSC teams came in, they did a lot, but it's mainly volunteer labour.

And do you have a lot of volunteers?

Varies terrifically, we have people come on work experience we use, we have people who are doing degree course, agricultural and need experience of countryside management, they come and help. We have some schools will help, some bodies, it varies terrifically, you tend to have a group that's active perhaps for two or three years then it phases off, and then another group forms in some way. [telephone rings] Excuse me again.

[Paused]

Okay we were talking about volunteers.

I'd say at present on the moors we have work parties Sunday mornings. There's one chap who comes regular, another chap who comes irregularly, so that's our total manpower working on the moors really. If there's a special big job doing I might come as part of my work and do it, rather than part of my thing as a volunteer, so not always large numbers.

Oh, so you work as a volunteer as well as a paid member of staff?

Yes, yes, still do voluntary [inaudible]. I mean, for example at the moment when I, I finish my normal work and I get home, the sheep up there they need checking, so I go up and check the sheep, not say every night, but almost every night and if you're lucky it's only half an hours job if they're close in. If they're down the bottom end or it's windy and they can't hear you shout, can take you two hours.

How big a herd of sheep do you have?

Up here at the moment, well the Trust have hundreds.

Yeah.

But up here at the moment I've only got thirty on both sides, which is a lot lower than I would normally have.

What do you mean on both sides?

Well there's two parts to the reserve that are fenced, the south and the north reserve and I've got thirty in each, but really we normally have, on the north which is a bigger area, we normally have, what sixty, eighty, would be a better number.

We've talked quite a lot about the conservation side of the work of the Lincolnshire Wildlife Trust, but I know that that's not all that they do, can you tell me a bit more about the other?

No, the other main aim is on the educational side. So we do get quite a lot of people doing research up there on various things. We get six form students, PhD students, various things, not in large numbers. We also get school parties go up, I mean when I was a teacher I used to take my children up. In fact, not so much for the wildlife or the peat formation or anything like that, more for the atmosphere of wilderness, it's an experience most children don't get these days, lot of adults don't really. I mean to be in a place where you can actually still get lost and people still do get lost up there, is strange, knowing there's this kind of wilderness feeling. It's nothing like anything else. It's hard to describe, you've got to actually, it's something you've got to experience really. I mean when I've taken them a short way off the pathway and say which way back to the car and hands will

point in every single direction, you know and that's only after a few minutes out on the moors, you know.

But is there an, a sort of marked access way?

Oh there's marked access way, don't think like a country park where there's great big signs going round, there are arrows and things round and it's reasonably clearly defined, but I mean, it's still on the rough and ready side. Partly because we can't mow it because of the rare flower, partly because we don't want to because we still want to maintain that wild feeling. But you couldn't get lost as you walked round, I mean it's, where the tramways are it's very straight lines and where it's not it's easy enough to see.

And you talked about having a residential or at least a building there for educational purposes?

Well the, under the plan there's a lot of discussion about having a centre, either at, on Thorne Moors, or on Hatfield Moors, even talk of having a, actually a train route, a light railway taking visitors round and things like this. All of these are being discussed and being looked into by people there are paid staff now, actually investigating all this. It might possibly just touch on Crowle, but it's more likely to be, well certainly the railway's more likely to be on Thorne side and it maybe then there is a centre at both Thorne and Hatfield. Although Hatfield is, it's easier there because a lot of the superstructure is already there at Hatfield, which it's not at Thorne, and Hatfield's a more varied habitat. So to a general visitor there's more to see. Thorne is rather more pristine peat bog and you're more limited in what you can see because of that.

What facilities do you provide, you talked about the groups coming on, but what facilities do you provide?

Not a lot, I mean there's the pathway to walk round. There's the car parks which have, one of them you'd hesitate to take a car along, a four wheel drive you'd be quite happy, but we don't maintain the road those are the councils or the farmers or whatever, it's not our responsibility. We provide a car park to park when you get there and in this case not brilliant car parks but you can park. You are allowed to walk round, I mean you don't have to be a member, you don't have to pay anything. If a group's going round we'd like to be notified so we can keep records and if they want a guide we'll provide a guide and if someone phones me and says they want to go round I'll take them round it's as simple as that, we'll arrange a time. We, I mean, we do have people who, in the Trust, who do the education side and they will take parties round, they usually make a charge for that. But generally speaking most of the guides are volunteers and they're not paid as such. Most of the groups do make a donation truthfully but we don't set out a set price or anything.

Do you have any hides or anything like that or…

No, no hides on Thorne at all, well on Crowle and Thorne, there are quite a lot at Hatfield. Mainly, they might put some in Thorne eventually, but it's not particularly the type of habitat where you can sit and look out and see things in that type of way. The wooded parts, obviously you can't see, the open areas, we have had small huts you can look out. But it's so isolated they're prone to vandalism and things. No way to protect them really and it's the type of area where you can, I mean, in winter I can walk round for two hours and only thing I'll see is a blackbird, you know. So it's very, variable.

Aside from organised school parties, I've noticed on the website that you do actually encourage young children onto the moors in other ways.

Yes, yes.

Tell me a bit about that.

Well I mean, I often see children, I mean, we take them as school parties. It's not a place we'd recommend to go without an adult with them, for one thing the, there's not many places where the water's deep enough to be out of your depth, but once you're off the pathway there is a good chance of getting stuck or getting into the bogs, which wouldn't be very clever. Also there are the adders and all the adders are, there's relatively few deaths from adders, give you some idea, I think last century there were about six deaths from adder bites and there were about three thousand from bee stings. So that gives you some idea, but young children are more at risk and so are people with heart conditions. So by themselves we would not encourage it too much but the idea of children getting out into the wilderness, or wilder places I'm all for. It's a pity there's not more places where they can actually go and play like we did as children.

And how does the Lincolnshire Wildlife Trust encourage that?

Well we do have various groups, you know, I mean, we have organised events they can come to. We also have things like the Watch Group, I mean we run a Watch Group at Barton, which I mean I'm a Watch Group leader, where we have young children come to do things about wildlife and we visit the various reserves. With kind of young teenagers sometimes the local schools get involved in doing particular projects over short times, things like scout groups will occasionally want a project doing or certainly might be doing a project over a short time. So really it depends on demand. Peat bog would not be the reserve that would necessarily be our first choice to have some groups on, it depends on the group and what they want to do. Not only is it more hazardous than some it's also will not stand visitor pressure. Some types of reserves can take lots and lots of visitors no problem, but peat bog will not stand that in the same way, it's more sensitive, so, yes. I mean the number of visitors we get is relatively small still, it's a lot larger than it used to be, but that's some of the beauty of it, the fact that you've got that peace and quiet and if you go around there and you're there for a day and you see two or three other people that would be a, kind of a norm in a week. You occasionally get a big group, a bus party going around, but generally speaking you have it to yourself and that's one of its charms.

So would it be one of the LWT's objectives to actually help access and encourage more visitor numbers to come?

We, yes, I mean we have an open day, we have open days to introduce people to things, yes. So, and certainly we're very strong on the educational side of things 'cause I mean, lets face it, the future of the moors is the education of the children today. I mean as, if population carries on increasing we're going to be increasing pressure to use places like that and it's how much its valued by the children, when they become adults, as to how well it's going to survive in the long term really. So yes that's, so many ways which we try, I mean, we go and talk to schools as well. We have people who especially do the education side, but I mean we do, every visitor we meet we tend to be doing the, shall we say soft sell on conservation interests, don't push it down people's throats particularly but, yes, we try to make people see the the importance. It's so complex and not always easy to do so, I mean, people have preconceived ideas.

I mean I always say the main threat, well it's to most things, is basically ignorance, people don't know about them so they need to know about them really and after they know about them ideally have that feeling for them. You know this peat's something that's precious, that you haven't got

much these days, that I need to hang onto so to speak. That's my own personal view, you know, I mean, there's just nowhere else like it and it's got its own special charm and I mean, if someone asked me what was my favourite habitat I'd have to say woodland, yet up there we're getting rid of woodland to get peat bog. But peat bog's a lot rarer, I can go and find woodland other places, not as much as I'd like to be able to find, but I can find other places. I can't go and find that type of peat bog anywhere so in that sense it's more precious even though it's not my first choice of habitat. Give me a few hills and a few woods, you know, for real choice.

There are people who go out there who do not like the atmosphere, I can understand that it's, but you go up on a spring day when the cotton grass is first out and imagine a large flat area what looks like rough grass, covered in balls of cotton wool by the million. That picture you don't get anywhere else, and if you get when the heather's out like now, when you've got those areas of heather that kind of atmosphere is quite different to anywhere else, yes.

Well thank you very much I think I better let you, help rescue this chap in his lorry.

[Recording Ends]