| **INT:** | **So, I should just ask for your confirmation on that.**  **Brilliant. So, I think just to sort of start off with, maybe if you’d tell me a bit more about yourself, so the organisation that you’re affiliated to and then your role within that?** |
| --- | --- |
| DEU29: | Right okay, the trouble with being an old man I’ve got quite a long back story. |
| **INT:** | **No, yes, it’s not a problem, no interesting.** |
| DEU29: | It’s where to start really. I’m retired now actually but it’s in relation to this work I’ve had a long career in nature conservation and I suppose that goes back to, or in the environment really. So, it goes back to my first job after graduation back in 1974. Probably long before you were born actually. |
| **INT:** | **Yes, a little bit.** |
| DEU29: | Yes, okay. So, I’m going to condense the story really but I am a graduate from [City] before there were any environmental degrees. Yes, so I did biochemistry and microbiology. So, I set off as a pollution inspector with the [utility company]in [City]. Both industrial and river pollution. But I got into conservation in 1976 when I joined the [WILDLIFE CHARITY] as a warden for the [conservation project] in Wales when there were only 8 pairs left in the whole of the UK. So, I was sort of a protection warden there and went on to be a Nature Reserve Warden in [island] and then in Scotland and what have you. So, I did a few other things in between, I’ll not get tied into that.  But in 1985, I joined the [environment government agency]as an Assistant Regional Officer as it was called, in Scotland, in Perthshire. And that job was about protecting areas of land as Sites of Special Scientific Interest, which I’m sure you know all about. So, I was involved in notifying sites and working with landowners, Planning Authorities etc. And so, I was with the [Government Agency] then from 1985 to 2014. Nearly 30 years, various roles. Mostly, after I’d done my stint in Scotland I moved down to Manchester, Merseyside as the Chief Officer there. And then over to Yorkshire where I’ve spent most of my career really. Ending up as the, one of the Regional Managers in Yorkshire and the Humber.  So, I’ve-- in a professional sense I’ve done everything from knocking fence posts into the ground as a Nature Reserve Warden and dealing with the public face-to-face, to managing a team of 70 people and a budget of £2million pounds a year, you know sort of, across the whole of Yorkshire.  And then also spanning lots of work which can range from sort of commissioning surveys or dealing with planning applications that protect wildlife to and in a lot of the later parts of my career I was involved in more strategic things at a Yorkshire and Humber level. Particularly interacting with politicians and organisations and groups and things. So, I have been, for instance Chairman of the Yorkshire and Humber Biodiversity Forum, which his on the back burner now but, it’s not active. And you know dealing with things like local nature partnerships and partnerships in general really.  So, I had a major involvement in the restoration in [nature reserve], near Doncaster. Largest peatland in the UK. And also, did quite a lot on manage re-alignment sites down the Humber. So, places like [Habitat], I had a major involvement in that, which is now up and running. Things like the Humber strategy and what not.  So, I suppose, professionally in nature conservation I’ve been fortunate and I’ve really enjoyed having such a wide career really. Right so, that is very, very brief. But in parallel to that, I mean, that’s what I’ve been, that’s what I’ve always done as me day job but in parallel to that I’ve always been a very active amateur, sort of amateur naturalist, recorder. So, I was only reflecting on this with some friends the other day, you know I-- like a lot of other boys in the 1960’s we were out in the countryside and pond dipping and playing and stuff. But I was fortunate to have a few mentors where I grew up and where I live now in [Town] who took me out bird watching really. So, it was 1965 I first went out with these guys, and they sort of taught me a lot about field craft, in terms of birds and that sort of thing. And so, I’ve always been an active naturalist and recorder, particularly on sites I like. But also, I’ve participated in lots of national and regional surveys, if you like, where we’ve done surveying for things at 1km square level, and we’ve gone out and surveyed things.  So, a couple of thing that sort of capture that. I’m one of the co-authors of the South Yorkshire Plant Atlas. Yes, which is the sort of definitive botanical compendium of plants across South Yorkshire. So, apart from being an active recorder for that I was also part of the editorial team that put that project together and ran it.  And then similarly, I’ve done another local one here for the Breeding Bird Atlas of [Town]-- [Town] Breeding Bird Atlas. Where again I was a recorder and contributor to the final product.  And I’ve also-- apart from being a direct recorder-- and by the way I-- although birds are probably my strongest suit, followed by plants, I do record anything and everything I find. But I mean, the World’s just too big and diverse for me to know everything about everything. So, you’ve got to specialise in certain sorts of ways. So, at a sort of voluntary level, I’ve also been involved in local groups and societies really. So, and I continue that to this day really. For instance, I’m on the [Town] Biological Record Centre Steering Group, and we have a local sites partnership as well, you know for local wildlife sites. So, I’m on that partnership, and I’ve been on there 30 years, trying to help the local authority improve its performance if you like. And you know I’ve been Chairman of local naturalist and birding societies and editing their reports and things. |
| **[00:10:00]** |  |
| DEU29: | And I’ve-- sort of my main passion for the last 10, 15, 20 years is in direct conservation, where I’ve set up my on charity and we now run-- or my charity now runs 150 acres of nature reserves in this part of Yorkshire. We’ve got four nature reserves round here and also an involvement at [promontory]on the East Coast. So-- and that takes up a lot of me time, actually running the charity. But I’ve done some big projects as part of that, you know raising the money to buy land and dealing with the Heritage Lottery and Environment Agency and planning processors and all that sort of thing.  So, my-- the site closest to my heart at the moment is a place called [nature reserve], which is between [Town] and [city] in the Dearne Valley and we’ve got 100 acres of lake, ancient grassland, meadow, some arable and it’s a fabulous place for all sorts of different wildlife. So, that keeps me busy and out of mischief.  So, that’s a bit of a sort of potted biography of where I’ve come from and what I do and what sort of motivates me. If that’s what you wanted. |
| **INT:** | **No, that’s brilliant. I mean there’s-- you’ve got a very diverse sort of background and you’ve experienced a lot of roles. And you obviously talk about your interest in recording as well. But obviously if we sort of focus on the biodiversity user end.** |
| DEU29: | Yes. |
| **INT:** | **Yes, brilliant and you can-- yes, I think maybe just draw on where you can the range of experiences that you’ve had perhaps, or if you’d rather sort of draw up on a recent scenario or role that you have, that would be brilliant. So, thank you for that, that was great. If we focus on sort of the species records data that you use predominantly, you talk about birds and botanicals. But you then also talked about anything.** |
| DEU29: | Yes, from a user point of view? |
| **INT:** | **From a user point of view, yes what species record data do you sort of monitor?** |
| DEU29: | Right. This is recent years. Yes, in recent years I have a few on-going sort of monitoring personal projects. For instance, the site I talked about, well, all our sites in my charity, I aim to gather as much data as possible annually really to do an annual report for charting the progress of the site really. So, on [nature reserve] itself it tends to be daily, we’ve got some volunteers that record what they see on a daily basis. And then I do an annual breeding bird survey which is sort of the core reason for us acquiring the site. So, we do an annual breeding bird survey and I do most of that. And so that the sort of record that we or I gather for that are things like evidence of birds on breeding territory, or courting, or actually any nests that we find. And then particularly broods, broods of key species that we’re interested in monitoring. And that comes down to-- that is in two things, one is the sort of visual record and that-- because it’s a big lake and everything, that’s all you can do.  And then the other things is, we’ve got some barn owl boxes or boxes for breeding raptors. So, me and a colleague go and ring our broods of barn owls and kestrels every year from those boxes. And that gives us an annual record of changes in fortune of those two species on our reserve. So, those are the two main bird, or three main bird monitoring things that we do on our sites.  And then I occasionally, what I do is, I monitor the key, rare and scarce species of other things that we’ve got on site. So, we’ve got two or three plants that are nationally scarce so I go to their particular locations and make sure they’re still there and see if we can find them in other locations.  And then I do a lot of sort of incidental recording of other groups and species that I might find on site. And that includes dragonflies or butterflies. I know a few high-nematocera and diptera and things like that, so casual recording. And sometimes if they are notable, well I do send them in to the local record Centre, the records. But if they are notable, I might do a little note in our publication. So, I use like that the [wildlife organisation], the Naturalist Journal or the [nature society] is another one based in Sheffield where I publish little notes, nature notes or whatever of unusual or interesting things really.  So, that’s the sort of recording that takes place on our reserves. And then I’m also involved in, is this what your question was, I’m just trying to remember. And then what I also do I have some other favourite sites, if you like, that I go to on an annual basis to check up on or monitor certain key species. And so, I can give you an example, I mean, we’re in a very fortunate position in [Town] that we’ve got a whole range of different habitats ranging from the lowland wetlands that I’ve just described up to the Peak District. So, I tend to go to two or three sites in the Peak District every year to check on some specific birds like nightjars, long eared owls, wood warblers, that sort of thing to see if they’ve come back and what the numbers are.  And then I’ve got an ongoing, especially during lockdown as well, where I live here, I’ve got a river valley transect that I do on a regular basis recording not just birds but the other groups that I’ve mentioned.  And then I’ve actually had a professional contract to be involved in the National [rare bird] Survey, that’s the [rare bird] which is the UK’s fastest declining resident bird, and a species of conservation concern. So, I’ve been involved with a colleague in the Dearne Nature Improvement area, which is you know sort of about a quarter of South Yorkshire, in doing standard survey techniques for monitoring this particular species.  I think that’s probably-- that captures my time actually, that’s what I tend to do on an amateur basis anyway. |
| **INT:** | **No, that’s brilliant. I’ve just got a couple of points to sort of bring up from what you’ve talked about. In terms of your-- as part of your monitoring you talk about the scarce and rare species, is it always important to say if you’ve seen one, notify that to a range of audiences, or do you keep it to yourself for a bit and then share it?** |
|  |  |
| DEU29: | I share it in due course. I don’t immediately share the information. I tend to write the records up after the season and then send them in to the local Record Centre. We used to have-- well we still have got a-- birds are a funny group actually. Birds are a funny group in that, as you probably know the people involved in recording birds range from people looking out of the kitchen window at blue tits, to the absolutely nutter twitchers that go all up and down the country looking for rare birds or whatever. But my interest really is monitoring the changes at a local or sub-regional level and particularly populations of breeding or wintering species. I’m not particularly interested in mega-rarity vagrants. Although I do see them from time to time. Yes.  So, we used to have a Group, a local Society, the [Town] Bird Study Group was for 20, 30 years focused on producing an annual report of all the sight-- the interesting sightings on an annual basis. But since 2012, that’s completely fallen by the wayside. And although a lot of people are still actively bird watching, you know and they share a lot of their records on social media, there’s a blog which is, well there’s sort of two or three keen people who post very regularly on that. And people share stuff on Twitter as well and I share stuff on Twitter as well, particularly from my sites if you like. But in terms of like an archive, or a long-term monitoring record it’s sort of fallen by the wayside and it’s a matter of regret to me that that’s not still happening really. But I think it’s a sign of the times with social media to be honest. Everything’s got to be instant and you know self-satisfying sort of thing, you know.  So yes, I do share what I record, but it tends to be later on when I’m writing all my records up and submitting them either to the local Record Centre or some of the national recording schemes, or whatever. For instance, I did-- last year, I did find a very rare plant on our local Peak District Moors. An arctic alpine plant, and I needed verification for it, because it was the first record for South Yorkshire. So, I had to send off photos and a description and everything to the national verification person for that species group so; it came back positive, so I was quite over-the-moon about it. |
| **INT:** | **That’s brilliant and in terms of the sort of social media aspect, does that act as sort of like a-- it’s like an instant feedback for the recorder as a-- to increase their motivation would you say, or--?** |
| DEU29: | Yes, I think it probably does. I think you get-- I think if you’re in that group and it’s a bit competitive as well in that you know you can post something on there and if you get some immediate responses you’re seen as a bit of a you know wicked guy sort of thing. I’m not expressing myself very well here really but I think personally you know there’s a group, the Twitter-arty or whatever they’re called but it is sort of competitive between people. And as soon as they see something and they post it it’s as though they want praise or recognition for having done it. And sometimes, I mean most of it is harmless, I think but some of it is dangerous, I think. You know, so that like the location of a rare breeding bird that somebody finds and puts out on Twitter and then immediately everyone knows about it. I’m not going to generalise too much here, but there are people like in the photographic world who are like the new modern egg collectors really and they don’t seem to take much care of what they’re photographing as long as they get a good photograph. I’ve got a pretty awful story of two or three years ago when there was a pair of a bird called a lesser spotted woodpecker, which is a very nationally scarce bird, nesting locally and one of the Twitter-arty if you like thought that they’d get some brownie points by posting the location of this rare breeding bird, and even gave a six-figure grid reference on the Tweet. And then it was completely inundated by people coming 40, 50 miles just to come and photograph it and the birds eventually abandoned the nest. So, it has to come with some responsibility. |
| **INT:** | **Yes, absolutely. No, that’s interesting, yes. I had a-- in terms of your visual records, is that just a picture of the species, is that what you mean by visual record?** |
| DEU29: | Yes, well when I do a record, it’s the usual thing that you do you know, grid reference, site, date, author and then what you see, numbers, males, females, habitats. Occasionally I do take photographs as well, so like the plant I mentioned to you, I needed that really. So, that tends to be the record. |
| **INT:** | **No, that’s brilliant. And I mean, obviously, we talk about sort of rare and scarce species but does the data that you collect, does it inform you of any other decisions at all?** |
| DEU29: | It does actually, so where you-- where we’ve got control like on our land with the charity, the 150 acres, the data that we gather and comes back for assessing, that informs our management decision. So-- and it informs us what not to do as much as what to do, yes okay. So, if there’s a patch of scrub in a corner or whatever, and there’s somebody finds a, some plants or whatever, or found a little colony of green hairstreak butterflies on one of our sites for instance and so that immediately loops back into our management decisions on that site.  Which is interesting actually, because one of my-- I believe a lot of management decisions are taken at too crude a level, and what a lot of diversity on sites encompasses is a lot of micro-niches or micro-habitats actually within sites. And sometimes it’s very difficult to, on a casual visit, to actually pin-point those small scale features within a sight that might have something special in them that contributes to the site as a whole.  So yes, so on our sites definitely the monitoring informs our decision making. I think on other sites it’s a lot looser than that, it’s a lot vaguer. So, the records that I put to the Record Centre do get used in local planning decisions, and I’m fortunate that I’m on the Record Centre Steering Committee and the local Wildlife Site Committee, because we try to keep the local Authority held to account in terms of making sure that they assess any applications against the data that’s held in the database really. So, on that, some of my records, I know-- if you’re talking about personal records or records in general, but some of my personal records have been used in decisions by the local planning authority on planning applications. And I can give you another example of that if you want? |
| **[0030:00]** |  |
| DEU29: | So, we had in a place called [village] an application for a-- it was a kitchen manufacturer who wanted to expand their premises and they’d got quite a large area where they wanted to build a new warehouse. And ironically this vacant land, 10, 15 years had been completely vacant and unused and surrounded by an eight foot high mesh fence, and it had become a nature reserve in its own right. And so, it supported some scarce breeding birds and things like brown hares and that sort of thing. So I-- my records of that particular site, cause I’ve monitored the area outside that, actually were used to demonstrate that that land was of value to nature.  And so the applicants, the Company had to add, had to commission an ecological survey to get it all assessed properly and what happened in the decision making process is that although the factory went ahead, the new extension went ahead, the Company had to provide some mitigation measures and secure some land outside their factory to create a new nature reserve which, and it’s called biodiversity offsetting, as part of the Government’s tools if you like to try and halt biodiversity loss. So, I am going to write that up as a case study because although, because it wasn’t successful, but it was partially successful in that some measures were made to compensate.  But I don’t think their receptor sites are, where they’ve done this extra work, will actually deliver the same features, the same species on the new sites as were there originally. I don’t think they had the ecological know how to be able to do it. But anyway, that’s happened all my career, actually. You know, I have had some victories. But in general, it’s really, really difficult in planning to compensate for the loss of good sites.  Anyway, so that’s an example of where some of my data got used in the planning process. And I’ve also written papers of occasional surveys I’ve done of sites, that I’ve put forward as proposals for designation as local wildlife sites as well. Yes, and most of those have come off. |
| **INT:** | **That’s great so obviously, that example wasn’t entirely successful but there was a part of it where you were influential, and the data was instrumental in that sense.** |
| DEU29: | It was, yes. It was and I think it came a little bit with the fact that, you know I do have a bit of a reputation for, and you know as a scientist, so sort of the data is what the data is. It’s fact you know. And so, they can make their own decisions based on the facts even though I might disagree with it. It’s still, the fact is there that’s incontrovertible if you like. |
| **INT:** | **Of course. You mentioned biodiversity offsetting, just quickly what are your thoughts on that sort of tool, as you described it.** |
| DEU29: | Well, I think it is a tool. I think it has some potential or some merit but I don’t think it’s the Godsend that various organisations and the Government make out. And I don’t think-- I think there’s too many things that we don’t understand about nature to make the claim that you can just compensate in another location for what you’re losing. Nature’s just far too complicated. And as I said, going back to crude assessments, you know ecologists, the Companies tend to commission ecologists to do an assessment of their land, and they go in and they do one day survey, or two day survey and I just do not think it reflects the complexity of nature, it doesn’t reflect soils, or soil biota, it doesn’t reflect insects, it doesn’t reflect the annual/seasonal variation on what actually uses that land. You know, it’s selective, very selective.  So, it’s the best of a bad job. Because I think the forces of modern society are that you know jobs and development will always go ahead. And I’ve tried all my career to manoeuvre things round so that it doesn’t always get lost, sometimes with good effect.  And we’ve got lots of other good tools, you know designation is a good tool for preventing unwantable loss. I think it’s now widely accepted that development on SSSIs is a no-no. Which when I started it wasn’t, even when you got a SSSI, it didn’t mean to say that people couldn’t do things on it. And I’ve had loads and loads of cases where you know grasslands have been planted with trees, and people have ploughed up wetlands, or drained wetlands or peatlands, even within SSSIs and then you have to resort to legislation to prosecute people. And yes, that depends on the Government of the day you know, whether they’re willing to prosecute private landowners and I’d say the last 20, 30 years there’s been a general reluctance to prosecute people for breaking the law, not on environmental things. It’s weak. I think the law’s good but where it falls down is that the organisations that could be a lot firmer and harder, they’ve just been lent on by the politicians too much so they haven’t gone down that route. So anyway, I’m not going off on a tangent. |
| **INT:** | **No, that’s great. So, you talk about a relationship with the local Record Centres in which you sort of provide them data, do you obtain data from them and do you obtain data from anywhere else? You talk about volunteers, and you collect yourself I think as well.** |
| DEU29: | Yes, I do use the records in the local Record Centres yes. For instance, I-- like I mention I do do occasional articles or notes and things like that. So, I have approached my local Record Centre for all the records on particular sites that help me to do that. And I can give you an example of that as well if you want?  So I am-- I’m Chairman of something called the [ecological organisation], which is an amalgamation of a whole raft of different organisations working to improve the landscape of the [place], down here in South Yorkshire. And I recently have been in leading a project on looking at all the old industrial sites, particularly colliery muckstacks as they’re called round here, you know pit stacks, muckstacks, pit heaps, call them what you like. Which have all gone back to nature after the demise of the coal mining industry. And we’re trying, and a few other people, think have developed quite an interest in wildlife biodiversity interest already. And so, we’ve set this project up to look at that resource, that sort of well, for want of a better word it is a resource for both wildlife and for people because a lot of the sites are located next to villages where the old miners used to go to work. |
| **[00:40:00]** |  |
| DEU29: | So, we decided to look at all the old sites in this part of the World and to do an inventory of them and to collate all the existing knowledge about them with a view to coming up with a project in future that might get funding for managing them better for wildlife and people right? So, we’ve been doing this for about 12 months and you know we’ve come up with some really good results, or good conclusions on that. You know, there’s something like 15 km2 of that sort of land around here that is already partially grassland or woodland and could be managed in a fantastic way for future biodiversity benefit, as well as being adopted by local Communities for their local green spaces if you like, you know.  So, we came up with this idea of instead of calling them pit muckstacks or whatever that we’re going to call them wood-meadow commons. The idea that most of them are some mix of woodland and grassland, and because they’re next to the villages they could be used like the old commons where you know people used them as local resources, yes. So as part of that process, we did approach the local Record Centres, not just in [Town] but also in the neighbouring authorities, in [city], [city], [city] and [city] for any records that they may have, they had on any of those sites. So, we gave them a list of grid references for the sites we’re interested in and we asked for any records back and we got a lot actually. I mean, some of the sites, it’s quite surprising that some of the sites had been sort of adopted by local enthusiasts already. Like one site in particular there as a local chap who was very, very keen on butterflies. And he’d got five, six years worth of butterfly transect data running all over the site really, so that proved to be really interesting data. And actually, proved that his particular site was of great value for butterflies, including some locally scarce ones, you know. So, that was helpful.  So yes, we have used the Record Centre’s records in projects such as that. |
| **INT:** | **No, that sounds like a very interesting and sort of exciting project going on.** |
| DEU29: | Hopefully. |
| **INT:** | **And in terms of the data that you sort of collect from them, is it as raw data or has it-- do you collect like maps or models of the data?** |
| DEU29: | That was raw data, so we got a printout of the standard, you know site name, date, recorder etc. Which is an interesting point actually because and maybe this harks back to my involvement with local Record Centres right from the outset. S,o I set up-- or was instrumental in setting up the North and East Yorkshire Data Centre and I’m still a Trustee on their Trustee Board. But one thing that really struck me when I commissioned the study that looked into the potential for setting up a local Record Centre in North and East Yorkshire, and I mean you’ll know all about these anyway won’t you? LRCs, so that’s the subject of your research isn’t it really? But most of them are local authority lead, and we found not very much enthusiasm for paying into a local authority lead local record centre, hence setting up a charity to set an independent one up.  But one thing that always resonated with me in that feasibility study was this sequence of the process by which, well a three-stage process really, one is the actual data, you know people going out and collecting the data and it being databased as a fact, you know and it has to be verified and all that sort of stuff, so you know big concentration on that.  And then there was a secondary process of-- seeing there’s a lot of people wouldn’t have a clue about what that data meant, the second process of interpretation of that data, so you might get for instance great crested newt X, Y and Z and 200 here, and then somebody has to interpret that data to say that great crested newts are especially protected on schedule whatever of the Wildlife and Countryside Act. And you know sites with more than 200 count maybe considered as SSSI status etc. The interpretation.  And then the third stage is about the advice. So, the local planner might get a report that says, “Great crested newts here, yes they’re protected and there’s a number here but what do I do about it? What the hell does it mean?” Sort of thing. And the advisory bit is where the sort of judgement’s made, that’s where it gets a lot wholly and you know gets more political and all that sort of thing.  So, that’s always struck me as a really powerful way of talking about data that you collect. And it’s not simply just getting a printout of the facts, which is what we got on the wood-meadow project. It’s all about-- it’s also about the interpretation of the facts as well. And then the advice.  So, in the [wildlife protection project] I’m fortunate that I’ve got that knowledge and experience for me to say, “Yes, on this site it’s dingy skippers or you know green damsel flies or breeding lesser white-throats that are of interest here because--” And then the advice will be yes, this is an important site I must inform he local authority. They’ve got to protect it in their local plan. And then we can maybe build a project, a funded project through the lottery or something to make sure that those features are safeguarded, you know and people can enjoy them or whatever.  I’ve rabbited on again. |
| **INT:** | **No, so essentially, it’s sort of about the contextual information and sort of the interpretation that supports the facts?** |
| DEU29: | Yes, it is. |
| **INT:** | **No, that’s brilliant. So, when you are, when you do collect data, what resolution do you use?** |
| DEU29: | Right-- |
| **INT:** | **Or does that differ depending on what you’re looking at?** |
| DEU29: | It does, it does. So, most of it would be on a 1 km2 basis, yes which I tend to do when we’re recording at. But in my notebooks, you’d find a lot of 10-figure grid references for special things that I find. And that’s been considerably aided by the GIS apps that you can get on your smartphone which are absolutely brilliant, rather than using the old paper maps. Well, you couldn’t get down to that resolution anyway.  So, the plant that I recorded on the moors that I told you about, that I’ve got that down to a ten-figure grid reference. I don’t do anything at a cruder level than 1 km2 because it’s useless really. Well apart from, that’s for national organisations to monitor broad frames really. |
| **INT:** | **So, the sort site level that you’re looking at, you want like a 1 km2 resolution?** |
| DEU29: | It’s either site or 1 km2. There aren’t many sites that are bigger than 1 km2 in this country, well that aren’t well known anyway. So, it tends to be, when I submit them, actually when I do submit them I tend to use a six-figure grid reference, which tends to be the centre of the site I’m looking at. Or I’ll give a 1 km2 four-figure grid reference. |
| **[00:50:00]** |  |
| **INT:** | **And when you, do you do any processing or analysis of the data yourself? You talk about a GIS App, are there any other Apps or tools that you use to sort of make maps at all?** |
| DEU29: | No. No, I don’t. |
| **INT:** | **No.** |
| DEU29: | So, it would be if I got some, if I got chance for my continuing professional development to do some more GIS type work, mapping work but I tend to use other people for that. So, our [wildlife protection project]is beautifully mapped with sites, but we used a colleague to actually produce those maps for the final report. |
| **INT:** | **Are you okay for time? I’m concerned that we might go over a little bit, is that okay, or?** |
| DEU29: | Yes, for five, ten minutes we’re all right. |
| **INT:** | **Brilliant, no that’s great. How would you deal with data gaps when interpreting the data?** |
| DEU29: | You mean if I feel-- |
| **INT:** | **So, if there’s an area that’s missing, how would you address that?** |
| DEU29: | Well, if I’d got a purpose for filling, it I would commission somebody to do it probably, or-- if it was on our site and there were you know particular wood or copse that hadn’t got any data on, I’d get-- I’d commission a professional entomologist or something to go and have a look at it, for that reason.  If it was more general recording, it wouldn’t be up to me really you know. I’m not in the driving seat. I think it has to have a bit of a purpose really. If I’d of been working at Natural England and we wanted to know if there were any species rich grasslands left in East Yorkshire, I’d find the money or try and-- there’s a process of finding the money to commission the survey to deliver a report on that. Does that answer your question? |
| **INT:** | **No, that’s brilliant, no that’s great. And you talk about you write, contribute to articles and journals, do you share your sort of results data with anyone else at all and in any other formats?** |
| DEU29: | No, I don’t think I do, actually. |
| **INT:** | **No, you mentioned a lot already, that’s great. So, just sort of as the sort of final ten minutes, how would you feel about using model data?** |
| DEU29: | I think if I was confident that the models were robust then I’d be quite happy to use it. But I’d have to be convinced that the models were robust I think, to start with. And they were not theoretical but they were actually ground-truthed. And maybe that’s a function of how much data is used, you know actual data is used in the building of the models in the first place, I don’t know but-- I would have to convince myself that it was a robust tool to use I think. |
| **INT:** | **Do you see raw data still existing to sort of support model data, or could you see model data replacing raw data?** |
| DEU29: | I can’t see it replacing it, especially for land managers, because they need to know you know, that patch of 2m x 2m ground is the exact location for this colony of rare solitary bees or whatever. And I can’t see any substitute for safeguarding that colony using model data. I just can’t see it, so.  But I can see the use of model data being useful at a broader level. And I mean I have-- I have been involved slightly in a project on that in that there’s an initiative out at the minute with Natural England to do with great crested newt panels, to do with District licensing. Where they’re trying to get away from this focus on licenses for individual sites and trying to have a better conservation strategy of creating ponds in advance of developments. And they’ve used model data to suggest where the best locations of sites might be. Which tend to be very close to existing colonies. So, that’s a bit of an amalgamation between actual data on existing knowledge, with some modelling about habitat requirements for that species and where new ponds might be created. And it just so happens that one of our sites is close to an existing colony, so we’ve allowed the creating of two ponds on our land here. |
| **INT:** | **No, that’s brilliant. And so just finally, I’m going to share my screen and show you some examples of model data that part of the team have created. So, I’ll just ask if you can interpret them and whether you’d find them useful as well.** |
| DEU29: | Right. |
| **INT:** | **So, hopefully that should come up there for you.** |
| DEU29: | Yes, I can see that. |
| **INT:** | **Brilliant. So, this is for a five-spot burnet moth. So, on the left here, I don’t know if you can see my mouse?** |
| DEU29: | Yes, I can. |
| **INT:** | **But this is a raw probability distribution at a national scale. Would you be able to interpret this?** |
| DEU29: | Yes, I think so, I would say that the more intense colours represent a higher incidents of that species, a higher density of that species. So, the green areas in South West Wales and the West Country are the core area of the distribution of that species. And it fans out as the further north and further east that you go, with some outliers, some outliers Lake District, West Scotland. So, it looks like an Atlantic influenced distribution to me. |
| **INT:** | **Yes, no, that’s brilliant. That’s great. And I’ll just-- this is again on the left here, raw probability distribution model but around a 5 km point around Wallingford in Oxfordshire. Is this easy to interpret as well?** |
| DEU29: | Yes, well yes, it’s the same sort of thing, you can see that the South East boundary is where the main concentration of that species would be. So, that would give a sort of indication if you were interested in that species, or doing something for its conservation, that’s where you might actually start your efforts, in that South East. I mean, right in the centre there’s clearly a bit of a darker area which might represent an isolated site or something like that. But if you were building a conservation strategy for that particular species, you could use this model to look at that sort of South Eastern quadrant as your starting point I think. |
| **INT:** | **No, that’s brilliant. And now I’m just going to move on to the variation model. This is the one on the right. Are you able to interpret this one? So, essentially this sort of works with the raw probability distribution, they sort of work together.** |
| DEU29: | No, it’d have to be explained to me a little bit. So, what I see there is really three colours, one is the sort of pale-beige, and then second one is the darker sort of terracotta colour, and the third one is the more yellowish, greenish areas. And it could mean all sorts of things, I don’t know. |
| **[01:00:00]** |  |
| **INT:** | **Yes, know problem. So, this one is attempting to address the variation, in the sense that the darker the area the greater variation, so less confidence that the species is there. So yes, working with the probability distribution model, so if we look at Wales, where there’s sort of yellowy, greeny areas, so we were-- there’s a likeliness that the species was there. But if we look at the variation, we’re not confident that that is the case. So, trying to address sort of gaps in the data, potentially.** |
| DEU29: | Yes, I can see that now it’s been explained, yes. |
| **INT:** | **Brilliant. And again, that’s the variation model on a sort of localised scale there. So yeah--** |
| DEU29: | So the darker the areas or the more intense the colour the more variation there is really? |
| **INT:** | **Yes.** |
| DEU29: | And is that more uncertainty. |
| **INT:** | **Yes, more uncertainty, so less confidence.** |
| DEU29: | But it probably still wouldn’t alter the view about practicalities I think, in that the Eastern block, would still be priority area I think. |
| **INT:** | **Yes, probably, yes.** |
| DEU29: | It’s just there’s probably more variation within that area than you think actually. |
| **INT:** | **Yes, absolutely. And just finally, is there anything to these models that you would add to make them more useful, or more easier to understand?** |
| DEU29: | I couldn’t see any, well I think they would have to come with some accompanying text. |
| **INT:** | **Yes, absolutely.** |
| DEU29: | But just looking at the diagrams, without any text it would be quite confusing I think, yes. But I think if you used to looking at distribution maps as a naturalist or a conservationist it shouldn’t pose too much of a problem, once you’ve got some accompanying text. |
| **INT:** | **So, that’s on a scientific level it would be okay perhaps, but if we were targeting sort of lay-people, perhaps it would be more difficult?** |
| DEU29: | I think it would-- I think the left-hand one would be more easily understood than the right-hand one. And that would take a degree of education, for want of a better work, to understand that really or appreciate that, yes. |
| **INT:** | **No, that’s brilliant. Was there anything else that you wanted to talk about these at all?** |
| DEU29: | Not particularly, I mean I can, I think they’re really interesting if you’re interested in that species or whatever but in terms of practical application at a very local level, like a planning development, I don’t think they’d be that much use. I think they’re of more value in like more strategic planning, you know for biodiversity or conservation strategies over a broader geographical area, put it that way. You know, I could see, well I can see that national organisations, wildlife trusts or Natural England use this data to target their national resources, for instance. But at a very local level I don’t think it would be of much value, really to anybody other than Academics or really keen naturalists or professional conservationists really. |
| **INT:** | **No, that’s great. No, thank you very much. I’ll stop sharing my screen now.**  **So, I’ve asked all the questions that I intended to ask and you’ve sort of covered quite a few of them as well without me asking.** |
| DEU29: | Right, okay. |
| **INT:** | **No, that’s great. Was there anything else that you wanted to ask me, or anything that you think I should of asked you?** |
| DEU29: | No, I don’t think so, no. It’s been an interesting conversation. I hope I’ve helped really. |
| **INT:** | **Absolutely, yes, it’s very interesting to get your perspectives and insight in to the uses. The next stage will sort of involve working with people like yourself to continue your insight and understanding into model data. Would that be something that you’d be interested in?** |
| DEU29: | I would actually, you know, it’s particularly [Name], [Name], you know I work closely with him on the Data Trust, the Data Centre stuff. And he’s-- these days now I’m retired, he’s one of the main sort of people who tries to keep up with all this sort of thing anyway. So yes-- and he’s sort of informed me of this sort of work that’s developing anyway. So, I was interested in his notion of this, a thing called [Name]? The monitoring network throughout the UK and maybe even Europe of permanent sites that uses both modelled data or the data that you collect on a particular sites is used to develop the modelling approach if you like. So, from that point of view, I was interested in one of our sites being part of that network. So, it does have a practical application as well. |
| **INT:** | **That’s brilliant. Well, if there wasn’t anything else, thank you very much, DEU29.** |
| DEU29: | You’re welcome, INT, yes, you’re welcome. |
| **INT:** | **Very nice to speak to you. I hope you have a lovely day.** |
| DEU29: | Thank you. Good luck with your research, and I shall look forward to seeing it or hearing about it. |
| **INT:** | **Hearing the results.** |
| DEU29: | Okey-doke. |
| **INT:** | **Brilliant, thank you very much.** |
| DEU29: | You’re welcome. Bye. |
| **INT:** | **Take care.** |