

Episode 156

Creating a garden that's biodiverse

The show notes: www.houseplanninghelp.com/156

Intro: It's important to know how self-build projects can impact on eco-systems that exist on your plot. Protected species may need special consideration, and there are lots of ways you can generally encourage wildlife to flourish. In this interview we talk to Lisa Kerslake, an ecological consultant.

I started by asking her to tell us about her background.

Lisa: I'm currently an ecological consultant and I run my own business mainly in the West Midlands and we give advice to people who are putting in planning applications largely. So if you are putting in a development for say a small housing estate or something like that quite often you need the ecological surveys done and a lot of wildlife in the UK is protected and we do those surveys and give you that advice. So that's mostly what I'm doing at the moment. And I've also worked in the voluntary (NGO) and public sector jobs in the environment over the years also.

Ben: What is ecology as a starter question?

Lisa: Ecology is, to put it simply, the study of living things I guess and their relationship with each other. So animals and plants, and also with the wider environment so soils, air, water and the way they interact and the impact that each of them has on the other. That's putting it fairly simply and quickly.

Ben: We haven't actually gone much outside the houses when we've been doing this podcast, so this is quite interesting for me today to take our gardens or potential areas that we're looking at and just think about it a little bit more. So when we arrive at a specific plot, are there any things we should be considering when it comes to ecology?

Lisa: There are a lot of things. It partly depends on what your plot is, in the sense of whether you've got a bit of Brownfield or whether it's already got a bit of vegetation on it and those two things could be

quite different. So it may be quite hard to tell and you may look at a field and think well that doesn't have any value for nature conservation or wildlife, but depending on what you've got there then there might be quite a few things living on that site. From everything from plants to invertebrates through to common mammals like hedgehogs; all sorts of things that kind of live in the local environment that might actually use that local plot. But it may be actually very hard to tell what's on there without looking at it in more detail.

Ben: And that is what you might do in one of these studies, is sort of just assess things before anything happens?

Lisa: That's right, yes. What we would do is go onto your site and look at it and look at a) what we can actually see, so the plants and animals that are actually evident, but also whether the habitats there are suitable for plants and animals that may not be evident at that time. So for example if I went out today, which is November, and did a study, a lot of flowers and plants wouldn't be flowering, some animals would be hibernating - they wouldn't be very evident. So it's also a case of looking at what you've got and assessing it to see whether at different times of the year it might actually support animals that are rare or protected.

Ben: How much does this vary between cities, towns, countryside. I know we're obviously expecting more living things in the countryside but what... Is there still this concern in the city?

Lisa: Very much so. I mean it's quite surprising how a lot of urban areas are actually very very rich in wildlife. They may not have the levels of diversity that you find in the countryside but then if you look at vast acres of very intensively managed farmland for example, that often doesn't have an intrinsically high wildlife value. So in towns you've obviously get bats, you get foxes, you get hedgehogs, you get badgers surprisingly enough in some areas, and that's obviously just on the animal side. In terms of plants you get some very interesting kind of plant communities if you like, that tend to grown on disturbed ground that you don't tend to get in other areas, and the invertebrates that go along with that. So you can actually in cities have very varied environments.

Ben: You mentioned something quite interesting there about the countryside and farming. Obviously it's important to be growing crops but that has an impact, so I'm imagining that the ecology, let's say if we took the UK, has changed hugely in I don't know it could even be thousands of years but certainly hundreds of years.

Lisa: Massively, yeah. And most of the change has been probably in the last hundred years. I mean that's just the way it's gone. Yes, there's been gradual changes as human kind have expanded and taken over more land. One of the classic things for example is bats which originally when the UK and other areas were covered in woodland, bats would live in trees and in caves. And we've come along, we've removed most of the trees and we've quarried most of the caves and bats therefore have followed us, followed the stone and the wood into our houses. So therefore you find bats in houses because they give them the environment that they had before we chopped it all down.

And yes, there have been massive changes. I mean obviously agriculture has intensified for, you know, understandable reasons. You do have very very large areas of intensive agriculture in some parts of the country and they're not devoid of wildlife by any means, but they may support much lower levels of wildlife than you would find in traditional hay meadows, for example, which are one of the things we've lost.

Ben: In terms of species that we've lost, have there been a lot in this geographic area. You certainly hear or read things that I never know whether you can quantify this, that 50% of all species on the planet has disappeared over the last 50 years or - I'm making this up - but along those lines, what locally?

Lisa: Locally I mean there have been declines in a lot of common, well formerly common species, since... This is a good example, water voles for example, which once upon a time were widespread across the UK and they are what people know as Ratty in Wind of the Willows - whereas actually people sometimes call them water rats, it's actually a water vole, it's not a rat - and they were very, very widely dispersed across the whole of the UK rivers and streams and ponds and they have massively declined. And in Worcestershire maybe there are two or three sites that we know of, you know there are very very huge decimation really of the population.

Ben: How does all of this impact or can we just not really tell. Everything seems to go on as normal but I'm assuming it doesn't really?

Lisa: No it doesn't, and it does all have an impact and what we don't really know are the kind of wider implications as the years go by of this loss. I mean a classic thing really is hedgehogs where hedgehogs are sort of considered common, they don't have any protection, and yet I certainly notice far fewer hedgehogs dead on

the road. Now you may think that's a good thing, because they're not getting squashed on the road, but probably the reason they're not getting squashed on the road is because there are fewer of them to get squashed on the road. So in that sense, you know, is there a decline in hedgehogs?

It's very difficult to measure because they're quite hard animals to survey for, so for everything that we do know about like water voles, there is something else we don't really know about like hedgehogs. And the combined effect of that, yes, could be quite quite large.

Ben: Getting back to our own plots and trying to encourage nature and wildlife, what things can we do? I'm assuming it's not going to be as easy as just a blanket do this, do that.

Lisa: It varies, it depends on a lot of things really. It will vary on what your plot is like, what's already there. I mean quite often people will look at a site and think I want to plant some trees, I want to create this, that and the other, and often it may be easier and cheaper to work with what you've got. If you're looking at a garden, for example, if you've got more or less a blank canvas and you wanted to create a garden that was good for wildlife then there are a few key things that you can look at.

One is to work with the soil that you've got, so it's quite important to know that, you know, there's no point in trying to plant things that only grow in alkaline soils if you're on acid soils. So, work with the environment that you've got, that's quite important. Make sure that you plant things that grow and blossom and fruit over the extended period of the season, if you like, so that you've got flowers and fruit all the way through which then feed invertebrates, birds and other animals all the way up the food chain. So that you've constantly got something in your garden that things can feed on.

Native species are always good, so try to avoid things like laurel and conifers generally which may grow very densely and give you a good screen but they're quite devoid of wildlife. So trying to sort of mix in native species where you can, and also things that aren't native but actually do really attract animals such as butterflies - a buddleia for example is a classic example, it's lovely with butterflies but does however grow like a weed, so you do need to be sure that if you plant something like buddleia you've got the space for it or you keep control of it. Things like pyracantha and other things that produce berries, which are very very good for birds, along with you know as many native species you can get in there is always a good thing.

Ben: Where does ecology intersect with landscaping or planning of your garden?

Lisa: Well that's obviously very important because you may have a vision for your garden in landscape terms, but within that there is an awful lot you can do to encourage ecology, so as I say not just typical garden plants. Try to mix in more native species, where it's appropriate, and just consider leaving areas wild, for example, a little bit of rough grass and scrub can be massively beneficial for wildlife if you've got the space.

Compost heaps are very good for wildlife, you know not only do they support good colonies of worms, things like grass snakes will lay their eggs in them, and if you're in the right area you might be lucky and get dormice hibernating in them - doesn't often happen but if you've got them that'd be great. So there's a massive amount you can do but you do need to look at what you've got really and sort of plan it in from the beginning I think.

Ben: Perhaps a quick side step here, but I've noticed more and more that people have been putting in fake grass and ditching hanging baskets for these fake plants everywhere and in towns certainly I think it's an issue. Does this impact in a big way on ecology? Because of course the other way of looking at it is if every garden had a carbon footprint, well perhaps they wouldn't need to mow all of this grass and they don't need to do anything once it's done, then that's it for a good few years.

Lisa: Yeah, it's difficult to know obviously. I mean you've got two things there. If you're using artificial things like Astroturf and similar artificial features then, a) what are they made of - I suspect it's something not very environmentally friendly, I don't know but I suspect it's not, and b) in themselves they don't support any wildlife, so you've got a kind of double whammy there in the sense they're not very valuable. Yes, you may be saving on your mowing and that sort of thing, absolutely you might, but in terms of if you're looking at purely supporting wildlife then you know you're not doing very much good at all. And it would be better to think about cutting down on your mowing and leaving grass to grow for longer and putting in plants that don't need so much management, rather than replacing it with Astroturf.

Ben: Right at the beginning of this conversation you mentioned that you deal a lot in planning so what aspects of this come into planning?

Lisa: Well there's quite a lot really. I mean quite often we will go onto a site and we will find that the site either has evidence of or potential for protected species, for example. And in that situation, what you might do is say look, you know, if you do this in a certain way you can retain the protected species you've got, you can enhance the environment for them. National planning policy now encourages you to enhance biodiversity in any development so there are an awful lot of things you can do, planting nectar rich plants for example that you can put into a kind of biodiversity method statement if you like that goes along with your planning application, which says this is what we're going to do for the environment.

And there are certain things that are critical, and it's not specifically outside but if you look at modern houses going up now and nearly always the roofs are nearly always lined with breathable roofing membranes - they are lethal for bats. So that sort of thing, which is you know a consideration if you've got bats on a site that are going under the tiles on your roof, if you replace that roof with a roofing membrane rather than a traditional roofing felt, that not only means it's not good for bats, it means the bats will destroy the properties that make the breathable roofing membrane breathable.

So there's all sorts of very general and also very specific things that might come out of a survey that tells you this is what you've got on your plot and this is how you best conserve it, this is how you can improve it, and this by the way is actually things that you really need to think about doing.

Ben: If we want to increase our knowledge on this area, how do we do that? Are there any websites you can recommend or do we need to hire people, consultants like you?

Lisa: It's a vast subject and there is a lot of advice out there on various websites about, you know, how to create a wildlife garden, that sort of thing, and a Google search would pick up a lot of stuff. The RHS are quite good for you know the different qualities, sorry that's the Royal Horticultural Society, are good for different plants and you know the typical things you find in a garden, the different qualities of those. So you know, just doing a Google search would come up with a lot of information for you on that.

If you did need to employ a consultant then CIEEM has a professional directory, sorry that's the Chartered Institute of Ecology and Environmental Management, and we have a professional directory which gives you details of people in your area that can give you this advice. Your local wildlife trust may well have

information on how you can improve your local environment in terms of your garden and immediate surrounds, and also the RSPB has had a very big campaign about giving nature a home. So there are all sorts of resources that you can use.

Ben: And just looking on a wider scale, can we improve in a big way if we got behind this? Could we make a big difference?

Lisa: Massively, and you can do it in very small ways, for example if you've got a fence around your garden, say a wooden panel fence just for the sake of argument, just by lifting the bottom of that fence a little - one panel of that fence - will allow a hedgehog to get through and move between gardens and that would previously have been an impenetrable barrier for a hedgehog. It may sound small but if a few people do it, and then more people do it, the difference that can make is exponential.

Just something like a small pond in your garden, putting water in your garden is one of the most significant things you can do for wildlife. Even if it's only the size of like a Belfast sink or one of these pre-moulded plastic liners, you know you can still get frogspawn, toadspawn, things like that in there which are very very beneficial plus it provides somewhere for birds to drink and bathe, and other animals as well. So there are a lot of little things you can do that make a big difference.

Ben: And other borders, too, hedges, fences - how would you choose between them? Are any better than others, or again is it down to individual situations?

Lisa: Well, to an extent it depends on how security proof your property needs to be, but certainly I would always recommend if you're putting a hedge in to make a largely native hedge using things like hawthorn, blackthorn, hazel, field maple, holly, all of which are very very good for wildlife, support birds in terms of nesting and have flowers and fruit that animals can feed on.

As I said earlier, try to avoid massive hedges of laurel and conifer, which basically are devoid of wildlife. I mean birds will nest in them but that's about all they'll do really. Sometimes you'll need a fence but as I say, just think about you know leaving a gap underneath it so things can get through, maybe trailing a climbing plant over it so that it's not completely you know bare. Even things like ordinary common ivy, which is a native plant, is massively useful for birds in the winter because in late winter it tends to have berries then when other plants don't have them.

Ben: We talked quite a bit about the landscape in the garden but are there any habitats that we can almost create, bird boxes or equivalent.

Lisa: Absolutely. Bird and bat boxes are very very valuable in all sorts, the inner city and country, they can be very very well used. They're relatively cheap to buy, relatively cheap to install. What I would say is if you are doing a new build, for example, then it's better to put integrated bird and bat boxes in because they're in the fabric of the building and you don't need to maintain them; they don't rot, they don't bother you, and certain species like swifts for example, they have suffered quite a lot with loss of suitable nesting sites and it's actually relatively easy to create nesting sites for swifts if you've got a suitable building.

And common birds like sparrows - people are quite often surprised to find that sparrows and starlings have declined quite a lot - and again, you can provide very good nesting opportunities for them in and around your own buildings and on trees if you've got trees. But as I say, you know, it's an easy win in order to attract wildlife into your garden.

Ben: I wonder whether you could give us an example of just a project that you've worked on and how you've been able to improve the ecology of that site?

Lisa: Yes of course. There's a site that we worked on in North Warwickshire, which was a small self-build development with small houses where the plots were being sold off and there was a pond on the site and some mature trees. But it was very overgrown, a lot of nettles, a lot of scrub. And in that situation we did some surveys, discovered there were reptiles on the site, for example. The pond, although it didn't support any protected species, it did have a number of amphibians in it.

The trees were valuable for wildlife, and we were able to give advice to improve the biodiversity of that site by incorporating features that the animals that were already there could use and would also be beneficial for other animals and other species that might come in. So for example ensuring that habitat that was suitable for reptiles, so long grass, scrub, was actually maintained around the edge of the plot so that it wasn't all totally incorporated into everybody's garden. Rubble piles were used, again they can be very beneficial for amphibians and reptiles.

Managing the pond so that it retained, it didn't overgrow, it retained its size and its you know its open water as well as shallow areas so that that continues to be used and become more valuable for wildlife. And appropriate management of the trees so that they could be, where some of the limbs were diseased and possibly dangerous, they could be removed but without removing the entire tree, so that that was retained into the future. So on that site we were able to enhance it for a wide range if you like of different species.

Ben: A word on budgets then; that if we don't have too much money to play with, how can we make that money go as far as possible?

Lisa: Quite often wildlife-friendly gardening is actually reasonably cheap because you're managing things less than you would be in a very beautifully manicured garden, so once you've got your shrubs and your grassland in then, you know, you shouldn't be needing to sort of trim those back every five minutes. So that actually can be quite a cost-effective way of creating a very good habitat.

Ben: Are there any other areas that we should be thinking about in this overview of ecology and how we might be able to improve it on our sites?

Lisa: I think how you actually manage your garden, your plot, and just look not to manage it so that it's absolutely manicured. If you can keep a few wilder areas, set aside a bank that you use as a wildflower bank, so you would only mow it maybe once or twice a year rather than every week during the summer period. All these things can make a massive difference to the amount of wildlife in your garden. Because everything feeds up if you like. Invertebrates feed on plants, birds feed on invertebrates and so on up the food chain, so if you start small and think about how you're managing things and providing some variety in terms of structure, flowering plants, it all feeds up the chain.

Ben: And is it the case that if we just let an area of land go completely wild, would that be the best ecology or can you improve it always?

Lisa: Well if you bought a plot and did nothing to it, then eventually it would go to woodland but that would take obviously a very very long time. And in the meantime you'd start off with longer grass, then you get bits of scrub coming in, and so on. And yes, that's a very valuable habitat but it is just one habitat and one of the things we find certainly in the UK which is because it's so, the population is so high, is about what we call halting succession. So halting that

succession from grass and through to woodland, and therefore creating a more diverse environment.

So in a woodland, for example, you might keep some of the rides mown down the middle and then have taller edges so you've got a mixture of grass and scrub and woodland in one area rather than having it all grass and all scrub or all woodland. So the key to this is often diversity, so if you can get as many different habitats within your plot as you can then that's much more beneficial for wildlife.

Ben: Lisa, thank you very much.

Lisa: You're very welcome, thank you.