

Margot Law

Environment Officer, Wingecarribee Shire Council

ML I'm Margot Law and I'm the Koala Officer at Wingecarribee Shire Council.

BL Thank you, Margot, it's great to talk to you today. Can you tell me a little bit about what you do?

ML My job is to look after koalas throughout the whole of the Southern Highlands, which is about 100 kays southwest of Sydney, and I also work a lot on private land conservation as well.

BL What would a typical project look like? You mention private land conservation. What would that entail?

ML We have a really large private land conservation programme in the Southern Highlands called 'Land for Wildlife'. We have about 150 properties that have joined the Land for Wildlife programme. It's 3% of all private land in the Highlands and it's a group of properties that are banding together to help wildlife there. That's kind of like one of entry level programmes and then we're also working really hard with the Bio-diversity Conservation Trust to increase the number of conservation agreements in the Southern Highlands as well. That's looking to conserve koala habitat in perpetuity in the Southern Highlands.

BL Do you think preserving koala habitat is the key to saving the koala?

ML Yes, absolutely. You just can't have a koala without anywhere to live. In our area koalas have really large home ranges, also are quite low density as well, so koalas need, on average in our region, about 50 hectares of connected habitat. It's less in the east and more in the west. Private land is a really important connection between those, the large national parks we have in the region.

BL What do you think attracts people to koalas? The people you speak to, what makes them interested?

ML I think that they're cute is a definite tick in the koala box, but also, because they're really rare and haven't been seen very often in the Highlands, people are really excited to see them.

Part of my job is managing the Southern Highlands Koala Hotline, so people call up, or send us a message over Facebook, and report koala sightings within the community. We've had, I think we're up to 350 community-reported koala sightings, and I get to talk to people. A lot of them it's their first time they've ever seen a koala and they're just over the moon.

BL When did the koala hotline start? You say you've had over 350. Since when?

ML It started in 2015. The Southern Highlands Koala Project, the catalyst for it starting was the Haul Road bushfire that started in Balmoral at the end of 2013. It was a massive bushfire that jumped the Hume Highway and burnt through about 16,000 hectares of the water catchment lands.



Following that fire, we saw a lot more koalas turning up on the road and in the villages. Before then, people at council, and a lot of people in the community, weren't aware that there was a koala population in the Highlands, so we called up the Office of Environment and Heritage and asked them, 'What's the go with koalas around here? What do you know about them?', and they said 'Honestly, not that much in your area' and so that was kind of the catalyst for starting the koala project down here.

In the last five years, we've gone from being like one of the least known koala populations to having some of the best habitat mapping and population estimates in New South Wales. Throughout our whole council area we've got approximately 3500 koalas, from all the surveys that we've done, so that's quite a lot compared to not knowing anything about them five years ago.

BL It makes you feel like they were out there all along, but they're invisible, and do you think that is what actually does happen? We're just not aware.

ML I think that's true. A lot of the bush land in the Southern Highlands is either in the catchment lands, which isn't available to the public, or kind of wilderness areas in Nattai and the greater Blue Mountains National Park, and Moreton National Park in the south.

Before the bushfires we were starting to see the koalas recolonise areas in the Highlands. We think we have one of the few expanding populations. We're still kind of working out what's happening after this season's bushfire. It's looking pretty hopeful, could have been a lot worse.

BL That's great to hear. We need some good news around koalas. What do you think people get wrong about koalas?

ML I think there's definitely a perception that they're really cuddly kind of things, but they're quite solitary animals that don't really like engaging with humans very much.

People definitely think that they're really cute and docile, but they're definitely not and we advise a lot of people not to approach a wild koala, and that's definitely a huge objective of our project is to kind of keep wild koalas wild.

BL What do you think is the biggest threat, or threats, to koalas?

ML I think definitely one of the biggest threats is inappropriate development, because we don't want to lose any more koala habitat. Another one is new major roads that come through and really just divide koala habitat.

One of our biggest divisions in the Southern Highlands is the Hume Highway, which kind of draws a line straight down the middle, and we have very distinctive east and western populations of koalas, and the Hume Highway at one spot, around Yerrinbool, where the bushland is very close either side, is one of our biggest road kill hot spots.

Climate change is another threat that's definitely impacting on koala habitat. This last season, we saw a substantial amount of dieback of eucalypts in our area. Following the rain, we're seeing a bit of, some of them, looks like they might be coming back, they weren't as dead as we thought, but definitely trees that were in, had this westerly aspect on those really hot 44-45 degree days, just didn't cope. If that's the kind of weather that we're expecting in the future, we'll have a bit of trouble.

ML Drought is a going to be a huge factor and it's been impacting on the ability of us to do any kind of successful replanting or habitat restoration, just because any kind of tree planting obviously

needs a good supply of water which can be really difficult to get in drought time, and it needs a lot more maintenance than it would in a wet year.

We're lucky we've had a bit of rain, beginning of 2020, helped us put out the fires, and we have seen it stimulate a lot of growth, but, yeah, long-term it looks like it's still going to be a much drier region and so we've had to start looking at what other ways we can look at revegetation projects and habitat restoration projects, to kind of maximise the bang for our buck, so whether that's utilising micro-climate, so that's like southerly aspects on hills, rather than westerly aspects, to avoid that afternoon sun, or focussing on creeks and gullies rather than on ridge tops, that kind of thing. Look at cooler temperatures and areas which tend to have more moisture anyway.

BL So basically planting up the cooler areas, the slightly wetter areas, first.

ML That's the kind of things we're thinking about, and also looking at what kind of species potentially thrive in drier areas than in wetter areas and maybe focussing our efforts on those. I've got a colleague at work who's done a bit of climate analysis of the different, about a dozen koala feed tree species in our area, and, yeah, there's some species that, with the predicted rainfall and temperature values, it looks like they won't be surviving in the Highlands in the future.

BL Tell us a little bit more about how that, basically, you're doing some predictive work there.

ML There's some tools that are available ... there's about three or four different climate-ready tools, that you can type in species' names and it shows you their current distribution. A lot of it's done through The Atlas of Living Australia and there's a few other projects too that you can look at where their species records are compared to rainfall data and temperature. The 'blobbier' that graph is, the more generalist the species is, but if all the species records are like in a very specific temperature and rainfall areas, and we're going to see that change in the future, then that will be a species that isn't climate ready.

BL So really talking about the difference between a generalist tree species and a niche tree species, really, isn't it?

ML Yes, absolutely, and then maybe we need to start looking at tree species that are in naturally more drier areas and bringing them into our area as well.

BL Excellent. What got you into koalas in the first place?

ML I've always been interested in conservation and also working with the community as well, so this kind of job fits perfectly with my two interests. I work a lot with local land holders in the shire to bring them along on a koala conservation journey. Also making a huge difference to the environment here too.

BL What keeps you going day to day? Is it the people you work with, or the koalas?

ML It's definitely a combination. People usually think that I see koalas every day, all the time, but I find them as difficult to find as other people do as well. I don't see koalas day to day, but you're looking for signs of koalas when you're out in the field or assessing the quality of the habitat, and that's kind of a bit of a challenge, working with a threatened species, looking after their habitat even though you might not see them right then and there.

BL How often do you do field work?



ML Not as often as I would like. I do a lot of the mapping and the admin, and the community contact, for the project, and I work really closely with the Illawarra team at the Department of Planning, Industry and Environment and they do a lot of the monitoring of koalas in the area. I probably get out maybe like three or four days a month, to go out and do different things. Yeah, but mainly in the office.

BL What 'koala-fications' do you have to do the job that you've got?

ML I did a Bachelor of Science at Sydney University and did my Honours in Ecology, studying the effect of urbanisation on insects. I've gone a bit of a roundabout way to koalas, but I suppose the interesting thing about ecology is that kind of the same principles apply to all of the different systems.

And then I, previous to this role, I worked at National Parks Association, which is a conservation group that advocates for national parks, and I was their Citizen Science Officer there. That's where I did a lot of community work.

BL Citizen science was one of the themes that I was talking about. Is there something about citizen science that you reckon would be cool to tell school students?

ML I just think it's a great way to contribute to research. There's obviously a huge spectrum of citizen science, from just the ad hoc taking photographs of cool things and posting them to projects like NaturMapr or iNaturalist, to the really specific projects which are helping scientists with direct questions, and I think they're all valuable in different ways, and it's a great way for the community to learn and also scientists to learn new things as well.

BL If you could make one thing to happen to help save the koalas, what would it be?

ML That's a tricky one.

BL It can be a big one. Somebody else said 'I'd stop climate change' so it doesn't have to be a small thing.

ML I think I'd stop climate change as well. Might steal someone else's answer. Also, I think, sustainable development is so important for koala habitat and making sure that it's, all of the impacts of development is assessed before it goes ahead, and making sure that it's not just kind of a tick and flick scenario and that it's really analysed critically by experts.