**Transcript**

***Dr Susan Hoebee – Molecular ecology and evolution***

Ok, so my research involves looking at plant molecular ecology. It’s probably the best way to describe it. So I work with plants. The molecular means that I work at the level of DNA but we can also work at the level of transcriptomes now or even metabolomes. And the fact that it’s ecology means that I ask ecological based questions. So, one way that I like to describe it to people at the basic level is to say “If you think about paternity analysis in humans, I can actually do paternity analysis in plants.” So that’s at an individual level. Who’s mating with who? We can step that up another level and ask the question in populations. So, who’s mating with who within populations or among populations. How might they be structured? And we often ask the question as well at the level of species. So, how related are different species to one another? Obviously there’s, there’s three different levels there and we have the different molecular levels that we can look at as well. What I find interesting about this work is that it’s not limited by any one particular study taxon or study species. We can equally work on weedy species as we can on native species. So, my passion is for the native species. I think our Australian flora is amazing but it certainly has an, and I have used it, an application to some of our, our weeds, agricultural weeds in particular but environmental weeds would also be possible in that regard.

The outcomes are that we hope to be able to better guide management strategies. So, whether that be things for control of weeds or whether or not that be for how best we look at connectivity between remnant populations or something that might be threatened.

We’re looking at trying to better our management strategies irrespective of whether that be a weedy species or if that be a native species if we can start having some better approaches or where we know more about the connectivity, we know more about who is able to mate with who, we know more about some of the driving forces that might be controlling that in terms of evolutionary history of these species, then we’re, we’re better equipped to deal with some of the problems that we might be facing.