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Insects “really save our lives every single day,” says Anne Sverdrup-Thygeson.

“It is fascinating to think of the fact that fruit flies have actually helped out with six Nobel prizes in medicine, they have been an important part of them.” Author of *Extraordinary Insects: Weird. Wonderful. Indispensable. The ones who run the world*, Scientist Anne Sverdrup-Thygeson appeared at the Edinburgh International Book Festival today to talk about the undervalued merits of insects in our world and how they deserve more positive PR, in an event chaired by paleontologist and evolutionary biologist, Steve Brusatte.

“There’s a lot of research on so many different things, really; how chromosomes work, how different traits are inherited from parents to children. Also stuff like insomnia and alcoholism has been researched using fruit flies with success. This is the reason why, when you’re rigging this little trap in your kitchen to trap and kill all these fruit flies that won’t let your bananas in peace, at least, I think you should whisper a little thank you as you do it.”

The topic turned to the fascinating discussion of how ants have, in some ways, domesticated aphids (sap sucking insects like greenflies) similarly to how humans have domesticated cattle. Instead of milking the aphids, as humans would, ants seek out the honey dew that the aphids produce. “The ants will move up to the aphids and stroke them very gently with their antennas on the back and then the aphids will let out a droplet of sugary water. The ants will suck it up and bring it back to their ant hill and feed it to the other ants or to their larva. This is very similar to us having dairy cows.”

For Sverdrup-Thygeson, insects deserve - and most likely need - more positive PR to stop their numbers from declining, especially vitally important insects that pollinate plants. “If more people started giving them credit and positive PR, talking about all the positive things they do for us, I think that will spread out a ripple effect on water.”

“Hopefully then it will reach those people.....the politicians that decide the big things those that, you know, set the budgets for how much greenery we should keep in a city. So, I actually that is much more important. It seems like a small thing, but it’s actually a big thing if we all do it together.”

Another possible solution regarding insects and the environment, Sverdrup-Thygeson touched upon is the increasingly popular use of insects as a food source, something that has been undeveloped in the western world.

“You need to prepare these insects in some way if we are to eat them. You’re not eating the sheep with the wool on right? It’s not so tempting to eat a complete grasshopper... with legs and wings and everything, but if you turn it into a nice biscuit, a protein rich protein bar like a sports bar... I think it’s much more tempting all of a sudden.

“It could definitely be, I think, a step towards less meat-based diet and this is one of the things we know has a big influence in a huger environmental context, the amount of meat we eat. So, if you’re not into going all vegetarian or vegan or something, getting your protein from insects could be sort of a step on the way there.”

When asked how she feels as a scientist working with insects in a world that is being erratically changed by human impact, Sverdrup-Thygeson replied that it was important to have hope. “You have to believe we can change this and I really think that there are signs now pointing in the right direction ...we just have to hold onto the good things and try to make them grow and how that it will work. Because there is really no alternative.”