

“Difference is as difference does”

Hey, this is Wallace Darwin, and today’s episode is about all the different forms that living things can take. I think that most people are aware of the fact that living things come in a big variety of different forms, maybe so aware of that fact that we don’t even pay it too much mind anymore. Now obviously, plants are pretty different from animals, but even different plants and animals come in a big variety of different forms. All it takes is a trip to a market like this to see that the plants that we rely on for food alone come in a big variety of different forms. So life is really diverse and has all these different forms, but why?

With us animals it’s pretty easy to see why different kinds of animals look and act the way they do. Cats are all quiet and slinky so they can sneak up on the mice and the rats and the birds they like to eat, especially when nobody’s been feeding them cat chow in awhile. Squirrels, they’re pretty paranoid so they can avoid getting hit by cars or snatched up and eaten. And pigeons fly, not just to stay alive and avoid danger but also so they can get from one source of food to another more quickly. Now we humans, there’s a lot of pretty unique things about us, some of which are pretty easy to understand. One of my favorites is the way we walk. There are a lot of other animals out there that don’t walk the way we do, and there are only a few that do. A few apes and monkeys can walk for a short period of time the way we do, on two legs, but we are pretty much the only animal that walks on two legs. And our unusual way of walking allows us to do things with our hands like drink, eat, use tools, that are really important to our survival. Now humans are unique in their behavior too. If you think about other animals, most of them live alone, maybe they live in a small family, maybe they live a larger group. Granted, there are some birds that live in some pretty large groups, but look at us: we live so ridiculously closely-packed together that we make pretty much every other animal on the planet look like a real loner. Now, there’s gotta be something about living so close together that helps humans survive.

Plants are more of a mystery to me. There seem to be so many more different kinds of plants in Brooklyn than there are kinds of animals, and there are a lot of really weird plants out there that you can see in parks, in people’s yards, and definitely in abandoned lots. At work I often end up stringing cable across some of the more remote locations in Brooklyn, so I see these places where plants grow a little wild, and there’s definitely some strange plants out there. Now I feel like I have a pretty good sense of how plants work, ‘cause that’s definitely something we covered in high school biology class, but I’m still kind of wondering why do leaves come in so many different shapes? Why does bark come in so many different patterns? Why do some plants only grow to a little tiny size and then other plants grow incredibly large? If all plants basically do the same thing — capture sunlight and live off that energy — why aren’t there just a few kinds of plants?

Even a place like Brooklyn, which we people have basically tried to completely pave over, there still are a lot of different kinds of living things. But if you like to watch nature shows — which I do like to do — then you know that there are thousands, if not millions, of different kinds plants and animals out there. Which makes you kind of wonder: why there aren't just a few different kinds of living things? Wouldn't nature just work fine if there was one kind of plant, and one kind of animal? Why get all fancy and complex with all these different forms that are just a little bit different from each other in one way or another? If you think about a rainforest, or a coral reef, these things they seem almost too fancy, like they were made to be beautiful instead of make to be functional. But as I have let on before, I am not really satisfied with just saying *God made it because it pleased God*. There's gotta be something going on out there in nature that is turning out all these different kinds of living things.

I am also wondering how to make sense of all the different forms that living things take. I remember back in high school biology class we used to talk a lot about species, so I got the idea that a tiger is a different species from a house cat, but for a lot of other animals it's not so clear where to draw the line. I see ants crawling around all the time, but I wouldn't begin to tell you how many different kinds of ants are out there or be able to say that this ant over here belongs to this species and this ant over here belongs to a different species. With trees I am actually pretty good: I can identify a lot of different trees based on the shape of the leaves or what kind of bark they have or what kind of flowers they put out, but again I wouldn't be able to tell you how many different kinds of plants are out there in total. And I guess I could come up with a system for grouping different trees. I would definitely start with saying that trees that drop their leaves in the fall belong in one group and trees that keep their needles all year 'round belong in another group. But I guess what I don't really have a sense of is how did one set of trees end up in one group and another set of trees end up in another group? And I just don't know where these groups came from. Is the idea of a species just something we people just made up for our own purposes, or is there some critical difference that nature makes that breaks different living things into different species?