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Hypothesis

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Doing research is often intensive and tiring but hardly ever boring. Some researchers stare day and night at a computer screen to make an important discovery. Others busy themselves in their laboratories with pipettes and petri dishes in search of new knowledge. A few spend entire nights on a mountain in Chile with their telescopes focused on our boundless universe. Some go underground and creep through dark tunnels in search of our past. However, they all share one thing in common: enthusiasm. Scientific research sometimes leads to unexpected eureka moments. A day in the life of a researcher.

Hannah Dugdale is a biologist from the University of Oxford (UK). She received a Rubicon grant to come to the University of Groningen and search for the answer to the question why individuals breed cooperatively. As a study object, she focuses on the cooperatively breeding Seychelles warbler.
A report on catching fleeing fledglings.

It's my final day in the field and I awake to the sound of waves breaking on the beach next to the research station and sunlight flooding in through the window. There is a cooling breeze on the veranda and I relish the absence of mosquitoes as I plan the day's fieldwork. But while arranging the logistics I turn my back, for one second, on my breakfast and a sneaky skink (a type of lizard) runs off with my apple. Never mind, I'm eager to start work as there is one unringed fledgling that's been avoiding me all field season, and I'm determined to catch her.

I pull on my long-sleeve top, pour on the mossie repellent and head off to the other side of the island, with mist nets on my shoulder. Walking under the canopy I hear the Seychelles warblers singing. I stop to check a territory and I'm happy to see a newly fledged chick being fed. When I reach the marshland I begin to whistle – straight away the unringed fledgling flies to a nearby pisonia tree. She's taunting me, singing back to let me know she's there! High above, in the same territory, fly the two adult females: the dominant female and her adult daughter. If I don't catch the fledgling, to collect a small pin-prick of blood, I'll never know which adult female is her mother.

A cloud of mosquitoes follows me as I put up the nets. A whole morning goes by, but nothing, she does not want to go into the net. I watch her flit between trees as she forages on insects on the undersides of leaves. I move the nets into her flight path, but it's as if she knows – she flies past, skimming the top of the nets. I'm beginning to think that I'll never catch her, but then, as I do my final round of net checking I see a little unringed brown bird in the net – it's my elusive Seychelles warbler!

Two months later I'm back in my office in the Netherlands, where I'm fortunate to have a one-year Rubicon fellowship. Office life is much the same as in the UK, interrupted by the delight of discovering stroopwafels *(treacle waffles) and the horror of mistaking buttermilk for milk when making tea. My colleagues laugh at this event, but it's a real benefit to be working closely with them in Groningen. I'm handed the genetic data straight from the lab, we discuss the analysis and I quickly run the parentage code. I'm excited to finally have the data, but it's then a long wait as the program runs, and runs, and runs. Who was the mother of that elusive fledgling?*

It's three whole days until my computer finally beeps. The analysis is complete. My eyes skim the lines of text, searching for my Seychelles warbler. Suddenly they stop, there she is, but no, she's not the offspring of the dominant female, she's the offspring of the dominant's daughter! Rather than dispersing and battling with other females to gain her own breeding territory, the daughter decided to stay at home and help her mother. The benefit of helping is that occasionally, as with this elusive fledgling, the daughter is able to breed herself. So the mystery is unravelled, and another link in the family tree is established. Now for the next field season to see if the unringed fledgling will stay and help as well.