

Six Legged Ghosts: The Insects of Aotearoa.

By Lily Duval.

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Reviewed by Phil Sirvid.

Six Legged Ghosts is Lily Duval's love letter to what many might regard as the most unlovable creatures of all – insects. Duval does not write as someone with a lifelong passion for these animals. Instead, her passion is that of the convert, someone who has come to see the light about the inherent worth of the small and beautiful. As a former arachnophobe turned arachnologist, I recognize the signs!

In Duval's case, her "road to Damascus" moment came when she was attempting to paint the endangered and extinct species of Aotearoa. Thinking it would be mostly birds with a few other species, Duval came to realize that the great majority of names belonged to invertebrates, "creatures that many of us either don't notice or actively avoid (p. 8)". This moved her to want to understand why. This book is Duval's attempt to open the wider public's eyes to what she began to see for herself – the beauty and wonder of all things six-legged.

This is not a dry and dusty technical tome. Instead, it is an exploration of our complicated relationship with insects and an invitation to those who have never really given insects much thought to start doing so. Liberally sprinkled with apt quotes, I found it be well-researched and written in an accessible style. As one might expect from an accomplished artist, Duval provides many of the illustrations in this book. They range from the impressionistic (e.g., the array of pinned beetles on p. 134) to the richly detailed (e.g. the green tokoriro on p. 87).

The introduction provides readers with some insect basics in a clear and easy to follow manner. It also adroitly explores the PR problem insects have, which is in part due to the 99 per cent that do us no harm (and often much good) being tarred with the same brush used for the 1 per cent that adversely affect humans. It concludes with some of the reasons they deserve our love, not least because we depend on them for pollination of food crops and so much more. After this, the book is divided into four parts, each with two or more chapters.

The first chapter of the section *Knowing Insects* looks at insects in Te Ao Māori. Duval is respectful, recognising this can't be a deep dive into the topic. As a Pākehā New Zealander, she acknowledges many stories are not hers to tell and that there are undoubtedly others that are simply not known to her. Most of the tales presented were familiar to me. However, taken collectively they ably demonstrate the at times complicated relationships that Māori have with insects.

Language is explored in the next chapter. This is another aspect of the PR problem touched on in the introduction. Duval opens with a list of synonyms for insect, most of which we would see as insulting if applied to us. Even the term "creepy-crawly" used in the chapter title paints an unflattering picture of what are complex and extraordinarily successful lifeforms. This is the language of separation, of "otherness" and as Duval notes, it also used to "other" our fellow human beings to tragic effect. She thinks we can do better, and I share the sentiment.

Duval is an accomplished artist, and I imagine the chapter on insect art was particularly dear to her heart. Insect art has a long history, including paintings on cave walls and readers will likely be aware of the significance of scarabs in Ancient Egypt. She also explores how insect

art has been in the service of scientific discovery – Hooke’s flea being the literal poster child for this – and ends with insect-inspired art as a thing in and of itself in the modern era. I was pleased to see work from local artist Liz Thompson feature.

To close the first section, Duval looks at taxonomy, the scientific system that classifies and names living things. It’s a problematic business in several respects. While it has great utility, it’s a rather monolithic system, not always given to acknowledging indigenous knowledge. Duval also highlights a problem I doubt many readers are aware of, namely what biologists call the taxonomic impediment. In short, the likely number of species we have still to discover and name vastly exceeds the capacity of the small number of experts able to do this kind of work. As Duval point out, how do we truly comprehend biodiversity loss unless we can tackle this issue?

I’m not sure I think *Insects and Us* really works as a title for the next section, but that is a minor quibble. It begins with the life and legacy of pioneering entomologist George Vernon Hudson. If you’ve never heard of Hudson, you have him to thank (or curse!) whenever you put your clocks back an hour every spring! Hudson was a dedicated amateur entomologist who not only made a major scientific contribution, but was also an advocate for insects, publishing a series of books to put his knowledge into the hands of the public. The second (and last) chapter in this section looks at the changing role of museums, not just as guardians of collections but how they engage with the public and advocate for insects. I hope Hudson would approve.

Insects in Crisis is, as the title suggests, an exploration of the threats to insects. We begin with a chapter on what we have lost here in Aotearoa. As Duval highlights, this is likely to be so much greater than we will ever know. We might sigh wistfully at the passing of several species of moa, but how many of us have ever considered the loss of insect species thanks to human-wrought habitat loss must be incalculably higher?

Readers may have heard terms like “insect apocalypse” or “insectageddon” to describe the recent, often steep decline in insect numbers in many parts of the world, including in relatively undisturbed habitat. Duval’s next chapter does a good job of both introducing the topic and showing how hard it is to understand the root causes of this phenomenon. And as Duval reminds us, the consequences of not addressing this problem impacts us as well as the insects. While we can never know what we have lost in times past, Duval’s closing chapter in this section takes stock of the current situation in Aotearoa it, and it’s not a pretty picture. We are still losing species today, even when we can do something about it.

The final section, *For the Love of Insects* begins with a chapter on insect conversation. As someone who started to become interested in insects after discovering how many were listed as being threatened or at risk, Duval highlights how little of the conservation resourcing pie they receive. On its own, this could make for gloomy reading, but Duval also celebrates some of New Zealand’s amazing success insect conservation success stories. She also makes the case for insect conservation offering a considerable bang for the conservation buck. To finish, Duval moves from conservation to changing the conversation about insects. Duval sees the inherent worth in these tiny creatures and wishes more people felt the same way. Unashamedly biased as I am, I found myself nodding in agreement.

In summary, this book is warmly and engagingly written as well as being lavishly illustrated. It covers a range of topics, from our sometimes (often unnecessarily) fraught relationships with insects to why we need them and how we might save them before it’s too late for them and

quite possibly us. I thoroughly recommend it, not just to those who are already entomophiles like me, but also to the insect-curious and anyone with even a passing interest in nature.