

Should Sentient Insects Be Farmed for Food and Feed?

From [Marc Bekoff, Psychology Today / Animal Emotions](#), Reviewed by Davia Sills

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A recent review considers the welfare aspects of the commercial use of insects.



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The topics of insect [cognition](#) and sentience are highly controversial and hotly debated.¹ I recently read an [essay](#) by insect sentience experts Helen Lambert, Angie Elwin, and Neil D’Cruze called “Wouldn’t hurt a fly? A review of insect cognition and sentience in relation to their use as food and feed,” in which these researchers conclude that there is evidence of impressive cognitive capacities and sentience in a range of insect species, and I’m pleased that Helen could take the time to answer a few questions about this most important piece.² Here’s what she had to say.

Why did you write “Wouldn’t hurt a fly”?

Society is becoming ever more conscious of the negative impacts that industrial-scale farming is having on the welfare of animals and [the environment](#). A lot of [attention](#) recently has focused on finding alternative, sustainable, and humane solutions to meet the huge global demand for protein to feed people and livestock. One proposed solution is to step up the production of edible insects, given that they offer such a rich source of protein and can be produced with relatively fewer environmental impacts. In fact, the edible insect industry has seen a huge spike in interest over the past decade, not only among NGO’s and scientists, but insects are also actively promoted by the United Nations Food and Agriculture Organization (FAO) as the “future prospect for food and feed security.”

As the industry grows, we have an ethical responsibility to ensure that production does not cause poor welfare. However, currently, there is a lack of insight into the capacity of insects to perceive and feel.

This is why we wanted to write this article reviewing the evidence of insect sentience and cognition in the scientific literature. Understanding the extent and complexities of insect sentience will be vital for establishing the animal welfare impacts associated with the commercial sourcing and production of them. By writing this article, we hope that our findings will have implications for how insects are farmed in the future, particularly in the context of reducing any potential negative impacts on animal welfare.

How does your paper relate to your background and general areas of interest?

I have spent the majority of my [career](#) promoting and identifying the amazing world of animal sentience. I am deeply passionate about highlighting those species who are often disregarded as being incapable of feeling. This is the third review we have performed of this type. The last two were on [reptiles](#), and the first was on [all animals](#).

Who is your intended audience?

We want to inspire other researchers to explore the minds of insects, as there is still so much more to learn. We also want those who are involved in the farming of insects to take notice as the insect farming industry is growing quickly, without knowing exactly what is at stake. In particular, time and research should be allocated to finding humane and sustainable methods of farming insects to ensure that the welfare of insects is considered and protected.

We may even find that some insects are wholly unsuited to farming in this way. More broadly, national and international bodies responsible for ensuring the welfare of animals in farming and food production systems should take note. After all, whether or not an animal is sentient and capable of suffering is at the heart of the matter when it comes to protective legislation.

What are some of the topics you weave into your essay, and what are some of your major messages?

Insect farming is considered to be the answer to food security issues, as both a feed for livestock and as a protein source for humans. The industry is growing at a considerable rate, yet we still know very little about the animals involved. Can they suffer? What is a humane death? Is it humane to farm insects?

In 2013, the Food and Agriculture Organization for the United Nations (FAO) launched its report on edible insects. Since then, the industry has exploded, and numerous conferences, journals, and companies have been created. Despite this, there is still no consensus regarding major welfare considerations, such as slaughter, as there have not been the scientific investigations needed.

Beyond the farming of insects for protein, there is also the potential for insects to suffer during other types of commercial trade and as a result of human activities. For example, some insects, like beetles, are widely targeted for the exotic pet market. For others, such as bees, wild populations have been heavily impacted by the use of neonicotinoid pesticides in agriculture.

However, insects are generally thought of as unfeeling beings, and therefore their welfare is often neglected in legislation and in how they are farmed. Even those with the best intentions do not have the scientific knowledge required, as so little has been done to date. Our review highlights the numerous cognitive capacities found in insects, which shows that there is more to insects than we often realize. Our findings demonstrate the need for more research to be performed into the subjective minds of insects to see what they are capable of feeling, particularly in light of their foreseen role in feeding the planet.

How does your paper differ from others that are concerned with some of the same general topics?

As far as we are aware, this is the only one of its kind that has attempted to explore what is known about the minds of insects in this way.

What are some of your current projects?

We are currently working on two more reviews of animal sentience, one focused on amphibians and one on fish. I am also working with lots of different organizations around the world as part of [my consultancy](#). As an animal welfare research consultant, I work on all sorts of welfare and sentience-related projects and cover all sorts of subjects.