Humans farm and slaughter over a trillion insects every year, compared to “only” 80 billion conventional livestock. These insects are routinely heated, frozen, starved, or minced to death. Yet, despite the vast number of individual animals involved, and despite industry practices that raise massive welfare concerns, debates about animal welfare almost universally ignore farmed insects. As a result, there is no insect welfare legislation or comprehensive best practice guidelines. How has this situation arisen? One justification is that insects are not sentient – they cannot feel pain or pleasure, and respond to noxious stimuli purely by reflex. In this presentation, I will challenge this view and outline the evidence for sentience in insects.

As a case-study, I will discuss our research on motivational trade-offs in bumblebees (*Bombus terrestris*), which offers evidence for pain. We investigated whether bees’ attraction to sucrose reduced their avoidance of noxious heat. Bees could choose between either unheated or noxiously-heated (55 °C) feeders with different sucrose concentrations. Bees avoided noxious feeders when the unheated feeders contained high sucrose concentrations, but used the noxious feeders more as the sucrose concentration at unheated feeders decreased. As contextual information modulated bees' responses to noxious stimuli, these responses could not be simple reflexes. The bees’ decisions also relied on learned colour cues, so the trade-off involved processing in the brain, rather than just peripheral processing. These findings are at least consistent with a capacity for pain in insects – a conclusion that raises serious concerns about farmed insect welfare.