Science gives us predictions and probabilities that are sometimes remarkably accurate. And sometimes not. Our ability to use scientific information in decision-making is explored in a variety of real world contexts, from monitoring the risks jellyfish pose to nuclear power stations, to framing policy on carbon emissions to avoid dangerous climate change. Interestingly, it turns out that scientific evidence can be both useful in decision-making and fundamentally misleading from a mathematical point of view. Is the challenge in the maths? In the science? Or with the decision-makers?