**Applying perception to understanding behavior**

**Discussion Guide**

**Before Class**

Listen to Season 1, Episode 3 of The Animal Behavior Podcast, in which Matthew speaks with [Eleanor](https://sites.duke.edu/albertslab/) Caves, who specializes in sensory ecology and its role in understanding behavior.

While listening, take some notes. Especially consider the questions below, and record your answers. Bring these answers to class with you.

1. What do the terms ‘umwelt’ and ‘acuity’ mean in terms of an animal's sensual perception? And why is it important to consider both when studying animal behavior? Think about what your umwelt is like and what senses you rely on the most.
2. Eleanor and Matthew discuss the role acuity plays in animal perception. After listening to their discussion, try and think of some other examples of acuity being used in communication. For an extra challenge – find some real-life examples to support your ideas.
3. Describe the potential umwelt of cleaner shrimp and their clients and how perception plays a role in their mutualism. The following questions can be used as prompts. How does a cleaner shrimp distinguish clients from other fish or more predatory fish? What kind of signals do cleaner shrimp rely on to communicate with their clients? How do clients know where to go to get cleaned?

**During Class**

* In pairs or small groups, talk about what ‘umwelt’ means and why it is important to consider that different species or individuals may experience the same environment differently.
* Acuity is also key in understanding an animal’s perception of its surroundings. Discuss why this is the case, how it may affect behavior and share any examples you came up with.
* One of the key ideas to take away from class today is understanding how perception plays a role in animal behavior. Discuss how senses play an important role in facilitating interactions between cleaner shrimp and their clients.
* As a group, choose another species. Based on what you know about the species already or some very quick research, think about what its umwelt might be like, how its sensory ability may be linked to aspects of its behavior and how you might plan an experiment to explore this link.
* What were your reactions to Eleanor’s story about the mistake she discovered after submitting a paper? Would you have reacted the same? Would you have been tempted to ignore it given how important the paper was?