# SNAIL ANTHROPOLOGY: A MULTISPECIES ETHNOGRAPHY

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## INTRODUCTION

Though the tendency to put ourselves at the center of the world is a predominant notion around the globe due to Western philosophies, strongly anchored on human exceptionalism, the reality is that we are not. There is no centered being on the world stage. As Jakob von Uexküll (1934) showed, the inner workings of the lives of non-human organisms, including those that have vast anatomical and perceptual differences compared to us like fungi and insects. Their unfamiliar bodily form and different manner of living indicate that their social lives are as intricate as their diverse structure. As humans, we can gain insight into how such organisms live through Multispecies Ethnography. The idea behind this methodological approach is to explore the ways in which other organisms create worlds through entanglement with life forms around them (Tsing 2015).

Our main objective was to explore aquatic snails' lives through direct observation, exploring aspects related to their modes of **Perception**, **Communication,** and **Self-awareness**. Animals that are similar to us are easier to empathize with, like mammals and birds, thus making environmental preservationists and activists, as well as the average person, more likely to neglect to acknowledge organisms that are estranged because of unlikeness to ourselves (Small 2011). In this sense, Multispecies Ethnographies can be useful for public dialogues around environmental issues. Considering that living beings form "multispecies communities" (Van Dooren 2022) which are not centered on humans, Multispecies Ethnography is an interesting strategy in a time where we need new applied solutions.

## THE AQUARIUM

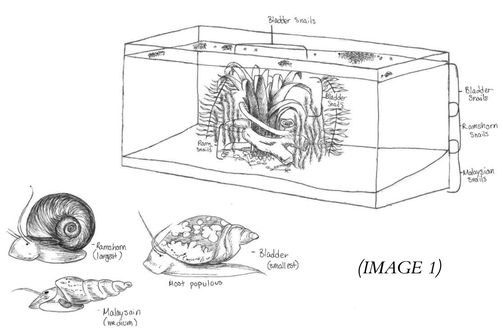
The current inhabitants of the tank (Image 1) are Bladder Snails (*Physella Acuta*), Ramshorn Snails (*Planorbarius* spp), and Malaysian Trumpet Snails (*Melanoides Tuberculata*) that live in an aquarium of 22 gallons. A Betta Fish (*Betta Splendens*) also lived in the tank but passed away during the course of observations. Other organisms in the tank include tropical plants, seed shrimp, and detritus worms. Observations were mostly focused on Ramshorn Snails and Bladder Snails because they are more visible to the naked human eye, and because they do not spend most of their time burrowed in the aquarium substrate during the day. While The Bladder Snails stay in the upper water column, the Ramshorn Snails remain in the lower water column and above the substrate. The snails' food supply is generated in the tank. All eat decaying plant material and algae.

An algae wafer has been used at times to better gauge the spectrum of organisms in the tank but has only been done twice in this observation period. The snails were observed at least once a week for one hour over the course of four months. Generally, the most surface-level observable behavior that takes place among the snails is eating, mating, and sleeping.

## PERCEPTION

Snail eyesight can vary from species to species, as terrestrial snails have eye stalks, and other snails like marine and aquatic snails have their eyes placed near the base of their tentacles, on their head (Van Dooren 2022). The aquatic snails in the tank are supposed to have relatively enhanced vision compared to terrestrial snails whomst are nearly blind but still have limited faculties (Van Dooren 2022). Their vision is dim, and most likely blurry to some degree because there is no muscle in the eye for the snail to focus its vision (Gál et al. 2004). Snails cannot hear, but their aquatic snails' tentacles and foot serve as tactile organs (Van Dooren 2022).

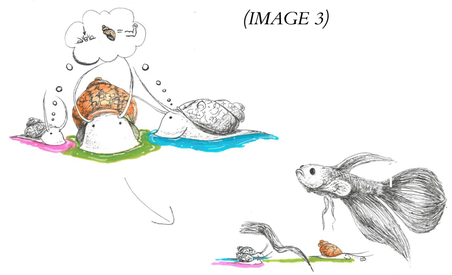
That being said, Aquatic snails' primary mode of perceiving the world and their community is through the slime trails that they produce (Image 2). For gastropods, most of the information they collect is done through tasting: as they move around they leave a piece of themselves behind for others to be aware of their presence with their trails (Van Dooren 2022).



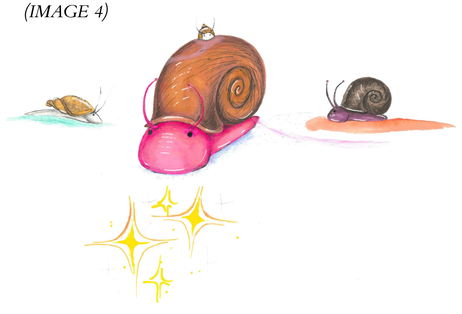

*(IMAGE 1)*

*(IMAGE 2)*

*(IMAGE 3)*



*(IMAGE 4)*



### Reference List

## COMMUNICATION

Van Dooren (2022) shows distinct ways that terrestrial snails socialize. As Von Uexkull (1934) would say, the slime is the main "perception mark" in the snail's "unwelt" – the surrounding world of a specific being. At the same time, the slime is also the main "effect mark", in Von Uexkull terms, of a snail. That is why the slime is the main snail language (Image 3). As the snails leave the slime behind, this is not just their mark in the world: this is the way that they communicate. The chemicals within slime trails can communicate different aspects of an individual snail's traits, such as age, different species, and reproductive compatibility can be identified (Van Dooren 2022).

This type of information gathering is unfamiliar to us because of our centrality on verbal language, which limits our openness to communicate with other living beings (Redecker and Herzig, 2023). But Bateson (1972) has explained how the evolution of communication was possible as beings were able to "recognize the sign as a signal [...] which can be trusted, distrusted, falsified, denied, amplified, corrected" (178). Are snails able to distinguish signs as signals? Are they able to recognize nuances of communication among them? The amount of information that is left through slime trails shows that it is plausible to consider that intricate information can be produced by snails like those in the aquarium to partake in group activities. For example, the guidance of snails with more experience as juvenile snails in the tank commonly ride on the back of an older snail - Image 4 (Van Dooren 2022). Because of the aquatic snail's enhanced ability to see, the observable shell pattern can too be indicative of their environment and neuronal pattern (Boettiger et al. 2009).

## SELF-AWARENESS AND INTRA-ACTION

Are snails aware of themselves when "intra-acting" with other snails? Barad (2007 apud Harris and Jones 2019) proposes that we should consider the relations between living beings as "intra-actions" instead of "interactions", calling attention to the fact that relations between beings exist before entities themselves do. Even if the snails are not classically aware of their existence in the way we understand they become aware of themselves in the process of intra-action and awareness of how other snails and other beings are different from themselves. The middle snail in Image 3 is a "bold" snail, in the terms defined by Ahlgren (2015), due to its more robust shell shape, making it more likely that the snail will engage in more risky behavior. The other "shy" snails, which are either smaller or younger (Ahlgren et al. 2015) will probably not partake in risky behavior, as they seem to be aware of the bold snail being a better fit to engage in experimental behavior. The same process of relying on a "bolder" or "marker" snail happens when exploring new territory as well, because shy and non-marker snails are aware of the experience and type of embodiment better suited for exploration (Ahlgren et al. 2015, Van Dooren 2022).