

Another Friday email highlighting an organism found here at LSW, the Common Slug (*Limacidae*: family for slugs). These are very small terrestrial gastropods lacking a shell. Their more famous cousin the snail has a hard shell that the snail can retract into for defense. The slug on the other hand relies on a secretion of thick mucus as well as contracting its body into a ball making it difficult to pick up. Furthermore the slime just tastes bad to a few predators, however the slug is preyed upon by almost all types of organisms from predatory slugs & snails to reptiles and amphibians to birds and some mammals. The slugs we find around our school are typically found in the wooded and wetland areas due to the higher moisture content of the substrate littering the ground. Our Prairie area has them as well but are more difficult to discover.

Description:

Small elongated shape

Length: 5 mm to over 30 mm

Stalked eyes

Dark Color & shiny/slimy

Always appear wet

Science!

Two different kinds of slime are produced and used by the slug: one slime for providing a wet gliding film and another slime to hold fast to objects. Over a year ago scientists at Harvard's Wyss Institute of Biologically Inspired Engineering took on the task of looking for a better surgical adhesive. Scientist Jianyu Li and colleagues look to the natural world for solutions to engineering problems and slug slime seemed to have all the properties needed to make a surgical adhesive. First of all, slug slime is sticky, stretchable and very strong. Li's group developed a new surgical glue through analysis of slug slime chemical and physical properties. This new development has the potential to revolutionize the surgical field. All it took was to look at the world around us, investigate and question. [Link to full NPR story.](#)

The Odd One Out!

Terrestrial slugs get a bad rap in the gardening world and well just about anywhere else too. They seem to be one of the misfits of the animal kingdom relegated to the fringe of conversations or just not mentioned at all. Many organisms feed on them yet humans tend to look them over or think of them as disgusting creatures. Or perhaps they are reduced to the memory of "one time I poured salt on a slug and it bubbled and foamed up". Yes, salt is a desiccant to the slugs. But wait, slugs are found *everywhere*, even the ocean. These outsiders thrive all over the world.

The slug can teach us a valuable lesson about ourselves and more importantly about being an outsider during the one time and place where being different could potentially be a daily nightmare...*high school*. I am reminded of a book that is crucial for ANY parent or high school teacher to read. It is called [The Geeks Shall Inherit the Earth: Popularity, Quirk Theory and Why Outsiders Thrive After High School](#) by Alexandra Robbins. In her book, her willing high school participants provide insights that will reshape your interactions and relationships with teenagers. Two statements from the book help provide the link between the slug's plight as a successful outsider and the outsider teen turned successful adult.

"Conformity is not an admirable trait. Conformity is a copout. It threatens self-awareness. It can lead groups to enforce rigid and arbitrary rules."

"Group membership can modify individuals perceptions of themselves. Unable to separate their personal introspection from the ways they believe other people perceive them, teenagers may have what psychologists call an 'imaginary audience', meaning that they believed that other people are just as attuned to their appearance and behavior as they are."

Thank you and have a wonderful weekend.

