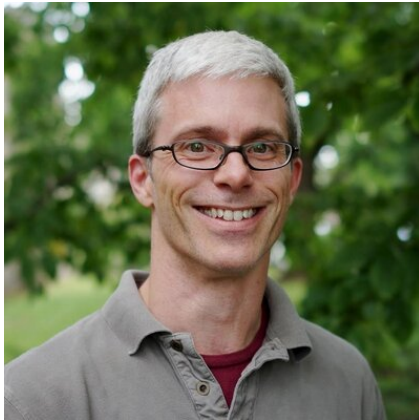




Department of Biological Sciences Seminar Series

Jake Socha, Ph.D.
Virginia Tech



Monday,
October 15

4:10 pm

1220 MRBIII

Tea Time

3:45

MRBIII Lobby

Snakes that glide and mosquitoes that gulp

Our lab studies the biomechanics of movement in animals. In particular, we focus on how animals deal with fluids, both in locomotion and internally within the body. In this talk, I'll discuss two lines of work involving fluids in insects and snakes. Part 1 will address the mechanical challenges that insects face when feeding on fluids, focusing on the feeding system of mosquitoes. Mosquitoes have two pumps in the head that they use to drive nectar and blood into the digestive system. Why use two pumps and not just one? Part 2 will address stability issues involved in gliding, focusing on flying snakes, the only limbless animals that glide through the air. Despite a lack of limbs, these arboreal snakes take off by jumping, glide through the air without using obvious control surfaces, maneuver, and safely land without injury. Why don't flying snakes tumble out of the sky?