

Robber Flies (Exoskeleton Safari series)



Flies get a bad rap. We know them as those annoying bugs that invade the house, sit smugly on the fruit, and are impossible to shoo away. And it doesn't help that if you learn a little more, you realize that mosquitos are also a type of fly.

Here is the essence of the Exoskeleton Safari series: dig deeper, and the small things become fascinating. Today's friend is an unappreciated badass: the robber fly.

The world of insects has two well-known apex predators – no one in the insect realm wants to mess with dragonflies, or with wasps. But there's an insect that goes after, and takes down, both of these insects – the robber fly.

Robber flies, which form the family Asilidae, are found around the world. They tend to be ambush hunters; sit on a branch, wait for prey to come by, then grab it. Their success rates tend to be extremely high, perhaps as high as 80%, which is spectacular for a predator. Most aren't picky about their prey – beetles, butterflies, ants, wasps, all are welcome. Yes, mosquitoes are on the menu, as are other robber flies. And no, people are definitely not targets.

The prey is first grabbed by the robber fly's forelegs, after which the fly stabs it with its long sharp proboscis, injects paralyzing saliva, and drinks the insides like a slushy.

I always feel that a robber fly wolfing its victim is reminiscent of a lion lounging in the Serengeti with its food:



Like so many insects, their life cycles involve some stark contrasts. These insects, amazing fliers as adults, actually spend most of their life as larvae that live in the soil.

What do the larvae eat – other insects, or are they herbivores? Here's something interesting about the field of entomology: there are millions of questions, and not a lot of resources to explore them. As elementary a question as this, regarding the larvae of a very common family, it remains not fully answered. We know there's some carnivory, some herbivory, and some even are ectoparasitoids (parasites that attach to the outside of another animal). But the details, and

the mix, are still uncertain. In fact, a given species may cycle between these modes of eating as the larva moves from one stage to another.

Special mention goes to a particular genus of robber flies that's found here, the genus *Laphria*. This genus tends to imitate bumblebees, and they are amazing. This photo is of a *Laphria* fly, but some of the other local species do an even better job.



So the next time you see a harmless, round, slow looking bumblebee, look a little closer. It could be an assassin in disguise.