

Reflections on the Predator-Prey Relationship

We gardeners do not like plant pests. Our hearts' dip when we see the early signs; discoloring, wrinkling, chew marks, a white smudge, a clump of something on a green stem. Our reflex priority is the plant, our plant, our investment towards a flowering or edible future. Then, almost immediately we feel the dilemma of how to respond: poison or irritant, natural or synthetic, spot-treat or carpet bomb? We may even sense a tinge of interest in the pest, which too is a courageous organism trying to thrive in its ecosystem. Of course, our preferred outcome is to have natural plant defenses and predator-prey relationships deliver the equilibrium we desire, where every organism gets its opportunity, we don't have to witness the brutal struggles, and our plant lives its best life and delivers for us.

I do some volunteer landscaping at a site which includes a plant border on the side of a fairly busy road way. The border has a variety of hardy shrubs and bushes including *Lantana*, sweet pea bush (*Polygala sp.*), Cleveland sage, kangaroo paw, and rosemary. I grow these at home and they never have pest issues, but those along that thoroughfare face constant pest afflictions of various kinds. The soil and watering appear suitable, for at times the plants flourish with new branches, green leaves and even some flowers. But then the rust and the scale bugs inevitably appear and cover the plant. "Why?", I wondered, are these particular roadside plants so susceptible to these pests?



Scale bugs on *Salvia sp.* and *Polygala sp.*

My first idea for an answer was connecting the pests and the road traffic. Perhaps the cars are transporting pests via our roads and the swirling vortices from moving vehicles are blowing them onto the verge where they spread over the plants? Surely the equilibrium has been disrupted by this constant bombardment of airborne pests.

But what if the disruption is not the pest? What if it is about the predator? In general, the predators of scale, aphids, and mites are larger and more mobile. These predators are wasps, ladybugs, lacewings, and birds. I realized that I rarely see any of these predators in the plant border. Similar sized insects like bees are also uncommon. Perhaps the busy traffic is a deterrent for predators rather than a spreader of pests. I like my second idea of an answer much better. But how to respond and restore an equilibrium? Must I now act as the ultimate predator?

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April 2025*