

By Claire Lambert

## Poison

Plants create poisons, like capsaicin, to deter insects and other predators from consuming them. Some, like *Atropa belladonna*, deadly nightshade, can kill humans. It is considered a weed. Atropos was the third fate in Greek mythos; he cut the threads of life. Nightshade poisoning impacts the parasympathetic nervous system, with toxic alkaloids attacking the synapses of the brain. Nightshade poisoning symptoms include dilated pupils (Italian women historically used drops for wide-eyed looks), sweating, increased heart rate, seizures, hallucinations, and death. Plants don't kill intentionally like some people do. Their toxicity is merely a by-product of survival.

Plenty of people eat nightshade all the time. The family *Solanaceae*, containing *A. belladonna*, also includes eggplant, peppers, potatoes, and tomatoes. In total, there are 2,700 species in *Solanaceae*. Eaten wrong, some of these things kill us, yet we poison ourselves anyway. Tobacco, too, is in this family. And petunias. They are on every continent aside from Antarctica. From the strangling wet-hot jungles of the South Americas to gentrified suburban American backyards. The foggy Moors in England and Dasht-e Kavir of Iran. Plants don't see borders, only places to grow. They are spread through bird feces and sticking prickles to socks, taking every opportunity they can get to germinate and spring to life.

I wish I could live life this diversely. There are so many facets in one family out of hundreds of thousands stippling this world. They are all necessary in their own regards and all fighting for their lives.

Plants absorb mostly blue and red wavelengths of light, reflecting green that isn't snatched up by photosynthetic pathways. That is why our world is emerald and verdant, all just tricks of the eye, really. I will never get to see the light like they do— with no eyes to see, only sensors that can feel when the sun is out and when it slips away at night. We as people cannot fathom it. Specialized structures convert

light to chemical energy, to glucose, that feeds the plants without a need for microwaving cold noodles or paying too much for expensive granola bars.

I wish I could feed myself with the light of the sun. I wish I could be toxic to those who wish me harm. Sure, learning martial arts is a way to threaten, but you won't catch tomatillos performing an arm lock. I can only imitate sending down my roots in meditations and therapy. I have no leaves to curl open or a Z-pathway to capture light and make sugars as I split from petioles to stem.

The flowers of *Atropa belladonna* have a bell-shaped inflorescence, like little party cups that hide dissolved roofies. It is herbaceous, growing from rhizomes and reaching up to seven feet tall. Their berries can be mistaken for blueberries, appearing shiny and black when ripe. Its leaves are ovate and have pinnate venation. It is deadly. I only hope I can learn from it.