Trailside Nature

Autumn Gold

Don't blame this beauty for your seasonal sniffles and sneezes

By Edna Greig

In late summer and autumn, the yellow flowers of goldenrods (genus *Solidago*) brighten fields, woodlands, wetlands, and sandy beaches. About 50 species of goldenrod are native to northeastern North America. Many species can be difficult to distinguish, even for experts. Most of the more common species have large, curved clusters of densely packed, small, bright yellow flowers. One species with spikes of whitish flowers is aptly named silverrod (*Solidago bicolor*) and is common in thin woods or dry, open soil in our area.

Some people mistakenly think that goldenrods aggravate pollen allergies and avoid going near them. In fact, it's the green-flowered ragweed (genus *Ambrosia*) that launches the airborne pollen that makes us sniffle and sneeze. Instead of avoiding goldenrods, it's fascinating to approach them and observe the bountiful faunal activity that goes on around them during autumn and into winter.

Goldenrod flowers produce pollen and nectar that attract a myriad of insects. Bees, wasps, butterflies, beetles, and flies congregate to feed on the flowers' offerings. Monarchs are especially fond of the seaside goldenrod (*Solidago sempervirens*) along their migration routes.

Field of gold(enrod)

The large assemblage of insects on goldenrod flowers is a smorgasbord for a predator—the goldenrod crab spider (*Misumena vatia*). This bright yellow spider lurks motionless, undetectable among goldenrod flowers. If an unsuspecting insect gets close, the spider quickly snares it, injects it with venom, and sucks its body fluids dry. Although the crab spider is most often found on goldenrod flowers, it also sometimes awaits its prey on white flowers, where it will turn white for camouflage.

Goldenrods also are host plants for the larval stage of many moth species and several butterfly species. The shiny, brightly-colored caterpillar of the brown-hooded owlet moth (*Cucullia convexipennis*), the usually bright green, striped caterpillar of the asteroid moth (*Cucullia asteroids*), and the yellow and black caterpillar of the goldenrod flower moth (*Schinia nundina*) feed on goldenrod flowers. The caterpillars are valuable food for resident and migrating birds.

The larvae of the goldenrod gall moth (*Gnorimoschema gallaesolidaginis*) feed and develop unseen during summer, protected within goldenrod stems. Stem tissue thickens around the larvae, forming spindle-shaped galls. After pupating, adults emerge in early autumn, and females lay eggs that overwinter.

Goldenrod flowers are busy places.

Other gall-making insects also use goldenrods as their host plants. The most well known is a species of fruit fly, *Eurosta solidaginis*. Its larvae make goldenrod ball galls in the stems of the abundant Canadian goldenrod (*Solidago canadensis*). The round galls are about ¾-inch in diameter and usually are in the upper half of the stem. About 20% of Canadian goldenrod stems have one or more ball galls. The ¼-inch larvae overwinter within the thick-walled galls on dried goldenrod stems, protected from the cold.

The fruit fly larvae, snug in their goldenrod ball galls, aren't entirely protected from predators during late autumn and winter. Downy woodpeckers, the smallest of our woodpeckers, drill neat, conical holes in the ball galls and extract the larvae. The woodpeckers prefer to stay near the cover of trees, so feed most heavily on ball gall larvae near the woods' edge. Chickadees also occasionally feed on ball gall larvae—the holes they make have ragged, irregular edges.

There's one other wintertime predator of ball gall larvae—the ice fisherman. Before bait was readily available for purchase, fishermen often would gather buckets of goldenrod ball galls, carefully slice the galls open with a sharp knife and extract the larvae to use as bait.

During autumn and winter, goldenrods provide enjoyable, close-to-home opportunities to observe interrelationships in nature.

Edna Greig is a Trail Conference member and regular contributor to Trail Walker. *She writes the blog Eye on Nature: eyeonnature.wordpress.com.*