

Bombus impatiens ~ Common Eastern Bumble Bee

By Kim Smith

The Common Eastern Bumble Bee is one of the most oft-encountered pollinators found working in the garden. I love to say the words *Bombus impatiens* (BOM-bus im-PAY-shenz); the round soft sounds of the genus and species names rolls around the lips and off the tongue. *Bombus* is Latin for “booming” or “buzzing.” Of course, a babbity buzzing bumble bee must surely be a *Bombus*! The binomial nomenclature for the Spanish poppy in the photograph, *Papaver atlanticum* (pronounced pah-PAH-ver at-LAN-tih-kum), too, is pleasurable to say aloud. Learning about the root meanings of these descriptively beautiful names and how to pronounce them is just one of the many joys of learning about the natural world.

Taxomic Classification of the Common Eastern Bumble Bee

Kingdom: Animalia

Phylum: Arthropoda

Class: Insecta (True Insects)

Order: Hymenoptera (Ants, Bees, Wasps, and Sawflies)

Family: Apidae (Bumble, Carpenter, Digger, Cuckoo, and Honey Bees)

Sub-family: Apinae (Honey, Bumble, and Digger Bees)

Genus: *Bombus* (Bumble Bees)

Species: *impatiens*

Bombus impatiens ranges across eastern North America from Ontario to Maine and south to Florida. It is more commonly found along the Atlantic coast and is much less common near the western edge of its range (eastern North Dakota, western Kansas, and eastern Texas).

Comparing it to last month's photo of the Carpenter Bee, which is characterized by a shiny black abdomen, the first abdominal section of the Common Eastern Bumble Bee is covered with yellow pile and the remaining segments with black pile. Members of the genus *Bombus* are generally covered in aposematically-colored pile, meaning long hairs in “warning” colors of black and yellow. As do their relatives the carpenter bee and honey bee, bumble bees form colonies, feed on nectar, build nests, and gather pollen to feed their young. *Bombus impatiens* typically nests below ground in preexisting holes, often using discarded rodent nests. Unlike a honey bee's stinger, which is barbed, the bumble bee's stinger is smooth and can be used over and over again. Usually, bumble bees present very little danger as they are typically non-aggressive and would rather not expend energy manufacturing venom unless absolutely necessary. The loud buzzing sound bumble bees make is the result of vibrating its flight muscles, which it must do to warm up to become airborne at low ambient temperatures.

Pollination by bees is known as melittophily. Many bee pollinated-flowers are blue or yellow, often with ultraviolet nectar guides, and are scented. Bee-pollinated flowers fall into several categories: open, bowl-faced flowers such as wild roses and poppies, composite flowers (asters and goldenrod), and non-radial symmetric flowers such as lupines and turtlehead. Up to forty percent of the world's food is pollinated by wild bees, including bumble bees. Because they are especially efficient pollinators *Bombus impatiens* is increasingly called upon in the agriculture of blueberries, cranberries, alfalfa, clover, and hot-house tomatoes. Cool, cloudy, and

even light rainy weather may slow bumble bees, but activity will not be completely halted. Bumble bees can fly in temperatures to 41 degrees, whereas honey bees require temperatures at a minimum of 50 degrees.

The greatest threat to bumble bees is loss of adequate habitat. Monoculture farming has changed fields formerly rich in floral diversity. *Bombus* species need habitats continuously in bloom, from April to November. One solution is to create, between farm fields, buffer zones of wild flower meadows. *Bombus impatiens* has been recorded feeding on many flower families, including the following: Apiaceae (carrot), Asclepiadaceae (milkweeds), Asteraceae (composites), Balsaminaceae (*Impatiens capensis*), Berberidaceae (barberries), Convovulaceae (morning glories), Ericaceae (heaths), Fabaceae (legumes), Lamiaceae (mints), Malvaceae (mallows), Papaveraceae (poppies), Rosaceae (roses and allies), Saliaceae (willows), Saxifragaceae (saxifrages), Solanaceae (tomatoes), and Urticaceae (nettles).

Spanish poppy, also commonly called Moroccan and Atlantic poppy, is an utterly delightful perennial poppy that begins to flower in mid-spring in our garden, and, with consistent deadheading, continues unstintingly until the first frosts of autumn, providing nectar for three seasons. The lovely deeply lobed blue-green foliage begins to look a bit tired by mid-summer but then recovers with the cooler weather of late summer. Moroccan poppy blooms in one color only, a clear shade of Spanish orange. The flower takes a semi-double form 'Flore Pleno,' but I (and the bees) prefer the single form. In reading up on *Papaver atlanticum* it is often recommended to weed out the ordinary and "less desirable" single forms, silly advice really. The singles are beautiful and less fussy-looking. *P. atlanticum* is found growing wild in rocky crevices in the mountains of Morocco, giving us a hint about their culture. They require good drainage (excellent for the rock garden) and grow well in full to light sun. When the seed capsules are allowed to mature, Moroccan poppy will reseed readily throughout the garden. Remove the unwanted seedlings, allowing others to take hold where they are desired. Transplant seedlings when they small, only a few inches in height, and early in the season, while the weather is still cool. Moroccan poppies resent transplanting and will not recover if attempted during the heat of summer.

The Manchester Women's club presents *Gardens In Bloom* Saturday June 27th (raindate: June 28th) 10:00 am to 3:00 pm. Enjoy flowering Manchester gardens in the historic district, seaside locations, and woodlands. Strawberry shortcake festival and raffle in the Chapel from 1:00 to 4:00 pm. Tickets are \$25.00 and on sale at the first featured garden at 32 School Street. For more information call 978.526.1182 or 978.468.4145.

Save the dates for the *Rockport Seaside Garden Tour* sponsored by the Rockport Garden Club, Friday July 10 and Saturday July 11 from 10 am to 4 pm. Tickets are on sale at [Toad Hall](#) Bookstore. Tour includes perennial plant sale.

Bombus impatiens and *Papaver atlanticum*

