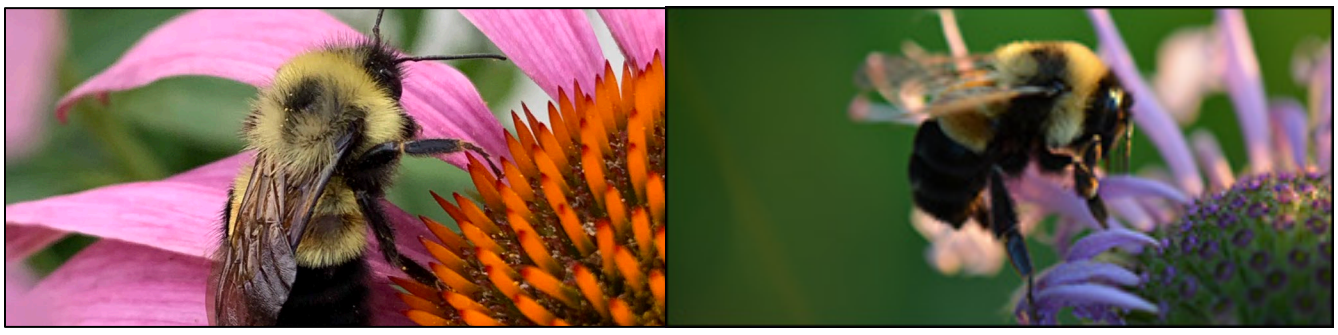
Rusty Patched Bumble Bee

(*Bombus affinis*)

Description: The rusty patched bumble bee is a highly social insect that forms colonies consisting of a single queen, female workers, and males. The colonies of rusty patched bumble bees are large compared to other bumble bee species, consisting of up to 1,000 individual workers in a season. Queens and workers differ slightly in size and coloration; queens are larger than workers. All rusty patched bumble bees have entirely black heads, but only workers and males have a rusty reddish patch centrally located on the abdomen, after which the species is named.

These bees are generalist foragers and gather pollen and nectar from a wide variety of flowering plants. The rusty patched bumble bee is one of the first bumble bees to emerge early in the spring and the last to go into hibernation. Therefore, the species requires a constant and diverse supply of blooming flowers to meet its nutritional needs.

Habitat: Rusty patched bumble bees seem to be a habitat generalist and obtain nectar and pollen from flowers in forests, fields, and wetlands. It has been suggested that



woodland spring ephemeral flowers are important to emerging queens in the spring. Recent discoveries of populations in the southern Appalachians have been in forested habitats where laurel and other flowers seem to support colonies. Some of the best remaining populations are in urban areas in the Midwest where diverse floral resources in yards, road edges, and arboretums still support colonies.

Occurrence in Maine: The rusty patched bumble bee was once one of the most abundant bumble bees in Maine, but may now be extirpated. It was found throughout the southern two-thirds of the state. Populations underwent a range-wide collapse in the 1980s and 1990s likely caused by disease and pesticide use. The last known occurrence was in Stockton Springs, Maine in 2009.