

Rattlesnake-like Plants in Northeast Woodlands

by Roger Monthey, Ken Dudzik, and Tom Rawinski

Be alert to the presence of “rattlesnake-like” plants inhabiting your woodlands in New England and New York. They are so named because of their purported resemblance to rattlesnakes. The five species we focus on in this article are rattlesnake manna grass (*Glyceria canadensis*), downy rattlesnake plantain (*Goodyera pubescens*), tall rattlesnake root or tall white lettuce (*Prenanthes altissima*), veiny rattlesnake weed or veiny hawkweed (*Hieracium venosum*), and rattlesnake fern (*Botrychium virginianum*).

Rattlesnake manna grass is so named because of its inflorescence which resembles the tail of a rattlesnake (see photo in centerfold). Rattlesnake manna

grass has drooping branches, and green flower clusters that are relatively large and heavy. This species is a native perennial found in swamps, bogs, and wet woods. It flowers from July through August. This grass is eaten by muskrat, white-tailed deer, and waterfowl, including the wood duck.

Downy rattlesnake plantain is not really a plantain at all, but rather an orchid. It is so named because the white reticulation on its basal leaves (see photo, page 20) somewhat resemble the scales on a reptile’s body, and the persistent fruiting spike (see centerfold) is supposed to resemble a rattler’s tail. Three other species of rattlesnake plantains also occur in our woodlands. Checkered rattlesnake

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Photo © by Peter G. Mirick

Although it is a rare endangered species in Massachusetts today, our Timber Rattlesnake was a relatively common species during colonial times, found in many areas that offered the mountain, rock ledge or talus slope habitats it seems to require. Not surprisingly, plants that bore a resemblance to the snake’s unique tail appendage or scaly color patterns — or which were affiliated with its habitat or believed useful in treating its venomous bite — were apt to be labelled with names that invoked the infamous “Don’t Tread On Me” reptile.



Rattlesnake Tail Photo © by Bill Byrne



All photos this page by Ken Dudzik except grass and fern which are by MassWildlife Staff.

Can you see the resemblance?

Plants were dubbed with a “rattlesnake” moniker for several reasons, but the most popular was a perceived resemblance of the seeds or leaves to the snake’s rattle (above). Examples include the Rattlesnake Fern, above left, with its rattle-like spore cases (inset); the Downy Rattlesnake Plantain, below left, with its rattle-like seed pods; and Manna Grass, above right, a drooping (inset) wetland species with rattle-like seed heads. The leaves of the Veiny Rattlesnake Weed, below right, gave this plant its name, as their reddish-purple veins and midribs are said to resemble the scale pattern of a rattlesnake. Finally, Tall Rattlesnake Root, top, has a robust root system that somewhat resembles the body shape of a snake. Early settlers are reported to have used it as a poultice for snakebites, but it would have been an ineffective treatment except when applied to the bites of nonvenomous snakes!

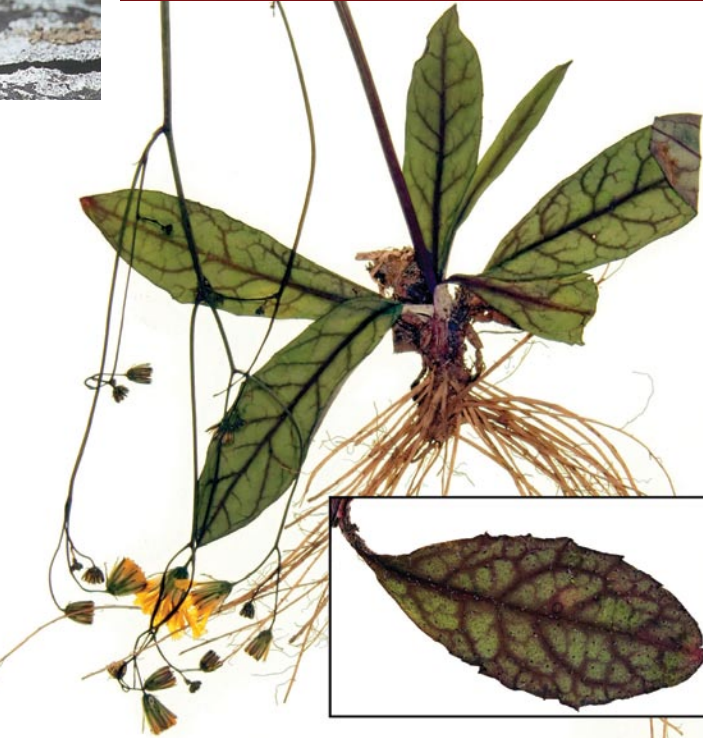




Photo by Roger Monthey

Downy Rattlesnake Plantain, Goodyera pubescens, and the Checkered Rattlesnake Plantain, Goodyera tessellata, below, are actually orchids, not plantains.

plantain (*Goodyera tessellata*) has duller, less obviously reticulated leaves. Lesser rattlesnake plantain (*Goodyera repens*), as its name implies, is a much smaller, fewer-flowered plant. Western rattlesnake plantain (*Goodyera oblongifolia*), restricted to far northern cedar woods, has the largest leaves of all; they are usually white along the midstrip of the leaf blade.

Native Americans used rattlesnake plantains (apparently lesser rattlesnake plantain) to cure snakebite. Huron H. Smith, who wrote "Ethnobotany of the Forest Potawatomi Indians" (Bulletin of the Public Museum of the city of Milwaukee) described an early explorer, Captain Jonathan Carver, who in 1796 observed members of the Forest Potawatomi chewing the plant and applying the juice immediately to snake bites. At the same time, they also swallowed some plant juice. Carver noted that the plant was most common where venomous snakes were

most abundant. Other Native American uses included use as a good-luck charm, poultice on wounds, and as a wash to alleviate eye infections. Early settlers also used the plant to cure snakebite, but felt its efficacy was due to the age-old belief (Doctrine of Signatures) that everything



Photo by Paul Somers



Photo by Bruce Sorrie

Flower head of the Downy Rattlesnake Plantain before seeds have ripened.

is created with a sign to indicate its purpose, i.e., in reference to the plant's similar appearance to snakes.

Tall rattlesnake root has greenish-white nodding flowers about inch long, with a protruding style. The leaves are quite variable, ranging from shallowly lobed to toothed; basal leaves, if present, are broad and either triangular or palmately lobed or divided. It is common in rich, moist woods. The root somewhat resembles the body shape of a snake (see centerfold). The plant was used by early settlers as a poultice for snakebites.

Veiny rattlesnake weed is so named because of its prominent reddish-purple midrib and veins that resembles the scale pattern of a rattlesnake. The plant, a member of the aster family, has elliptic to ovate or oblanceolate basal leaves. The stems are largely devoid of leaves and grow 8–32 inches tall. Flowers appear in early summer and are yellow. This plant grows in dry, open woods and clearings mostly in southern New England and New York.

Rattlesnake fern is named because of the resemblance of the fertile branch to a rattlesnake's tail. The fertile branch withers in midsummer, leaving behind the green, sterile, broadly triangular blade. The fertile branch is bright yellow when the spores are mature. Their leaves reach about 16 inches tall. This plant is found nearly throughout New England, but is restricted to relatively fertile soils in forest settings.

The Timber Rattlesnake, *Crotalus horridus*, was of course a major factor in the naming of these plants. The adult snake measures from 3 - 4.5 feet or more in length, and is the largest venomous snake in northern woodlands (www.dec.state.ny.us/website/dfwmr/wildlife/end-spec/tirafs.html). These stocky, large snakes are cryptically colored and are thus hard to see despite their size. The two common color patterns are a yellow phase, which has black or dark brown crossbands on a lighter background color of yellow, brown or gray (see page 17); and a black phase, which has dark crossbands on a dark background (see centerfold). A new segment is added to the tail rattle each time the skin is shed, but since rattlesnakes may shed their skin more than once per year, the number of rattles does not accurately tell you the age of the snake.

Timber rattlesnakes prefer rough country, generally with deciduous forests. Pregnant females typically remain around their den areas (usually open, rocky ledges or talus slopes where temperatures are higher), while males and other females prefer cooler, thicker woods. Rattlers migrate from their dens each summer on the order of 1 to 2 miles or so.

At the time of European settlement, the timber rattlesnake had a nearly continuous range from New England to northern Georgia with scattered populations in the Midwest to southern Ontario. Today, according to range data from NatureServe (www.natureserve.org), the timber rattlesnake is considered critically imperiled in Connecticut, Massachusetts, New Hampshire, and Vermont, vulnerable in New York, and presumed extirpated in Rhode Island and Maine.

Enjoy, protect or manage the rattlesnake-like plants growing in your woodlands. They add greatly to the diversity and lore associated with our beautiful New England forest habitats.



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