



### A Gem or Weed?

*Jewelweed, if planted in an area where it is not wanted, can be nuisance.*

Jewelweed, spotted touch-me-not, or properly speaking *Impatiens capensis* is one of my favorite plants to discuss on our trail walks. Botanists generally refer to plants by their Latin names for a number of reasons. First, there are usually a number of common names and the Latin name clarifies which plant you are referencing, causing less confusion. Secondly, Latin names often give insights into characteristics of the plant: at the very least its genus.

In this case the two common names are also descriptive of the plant. The blossom has three orange lobes and a calyx lobe of similar color that forms a sac with a spur. The orange lobes are speckled or

“spotted.” Mature seed pods invert and explode when touched, dispersing their seeds, thus the apt name “touch-me-not.” The “jewels” derive from the effect of dew or rain on the plant’s leaves, which perches in such a way as to reflect light. At the proper angle a star is formed by this refraction, giving it a jewel-like appearance. When submerged in water the leaves have a silvery look as they repel the liquid. I once read that fabric developers studied this plant’s leaves to produce waterproof fabrics; very small hairs on the leaves are responsible for this repellency. Like the legs of a water strider, air is trapped in the hairs. In the case of the strider the air allows buoyancy.

When the blossom is held inverted by the spur it reminds me of fairy caps from illustrations in books I read as a child.

*Impatiens capensis* is normally found in moist locations and can tolerate marshy soils. The rounded stalk is somewhat translucent and full of sap, somewhat like celery without the curve and strings. When the stalk is broken the liquid is easy accessible. It has been scientifically studied for its fungicidal properties. American Indians used it to treat poison ivy and athletes’ foot. Today health product stores often sell the liquid for its antifungal capabilities. Some folks use it as an aloe substitute and for bug bites. When I have been exposed to poison ivy in the

woods I will often break a stalk of jewelweed and put the sap on the affected area. Its efficacy for poison ivy rash is evidently supported by studies and thought to be related to saponin, a soap-like foam produced when shaken in water. Many plants have this substance. Saponins also possess antimicrobial properties that fight fungi, bacteria, and viruses. For further explanations you will need to consult a chemist!

The ballistic seed dispersal is called dehiscence. The force with which the pods explode has been studied by physicists because it is so great for such a small mass. At about half an inch long the pod can send its seeds up to 4 feet away. One such study, in Oxford Journals, Journal of Experimental Botany and posted on the National Center for Biotechnology Information's website, stated that the energy storage capacity in the pod is comparable to spring steel. It concluded that the "mass specific storage capacity" was linked to rigidity in cells associated with absorption of fluid stored and then released. The study was way above my pay grade, but those of you who are scientists will love it.

The plant is a native, meaning it is indigenous to our region, so it is beneficial to a number of species. Hummingbirds, butterflies and bees all nectar on the

flowers. Conversely the plant is reliant on hummingbirds and bees for pollination.

Jewelweed regularly forms dense stands and is often considered aggressive. It is sometimes labeled a weed or an undesirable because of its prolific growth pattern, and if you have the plant in an area where it is not wanted it can be a nuisance. The adage “one man’s trash is another man’s treasure” is a good fit for this species. For me the plant is primarily desirable, and when it grows somewhere that I don’t want it, thankfully it is very easily removed. Nonetheless, seed set will leave it persistent.

Hope to see you on the trail.