

Nature in the Neighborhood – July 2021

### A “Knotty” Problem

In 1930, it was Al Capone. In 1934, John Dillinger. After Dillinger was killed, it was Pretty Boy Floyd and, after him, Baby Face Nelson. They were all listed by the FBI as “Public Enemy No. 1.” The term “Public Enemy” was first used in the 1930s to describe dangerous criminals whose activities were extremely damaging to society. Today we have a dangerous killer in our midst but it’s not a gangster, it’s a plant: Japanese Knotweed (*Fallopia japonica*).

Introduced to the U.S. from eastern Asia in the late-1800s, Japanese Knotweed creates tall dense thickets that shade out all other plant life. It’s literally killing off our native shrubs, trees, and flowers. Loss of native species impacts the insects, birds, and mammals that depend on those plants for food. And that, in turn, ultimately affects us.

As it is extremely damaging to our natural environment, Knotweed is fast becoming Public Enemy No. 1 across the country and in our neighborhood.

It’s not only dangerous, it’s aggressive. Growing up to eight inches a day, it spreads rapidly by creeping underground stems (or rhizomes) that give rise to new shoots and roots. It’s also tough, nothing stands in its way not even asphalt – it grows up right through it. There’s also no known insect or animal to keep it under check. And, it’s *extremely* difficult to get rid of once established. The Knotweed problem is so bad in Great Britain that it can affect a property sale or a mortgage application because of the concern that its root system can cause cracks in foundations and walls and damage sewers and drains.

Once you know what it looks like, you’ll start to see Knotweed everywhere – along roadways, in vacant lots, in back yards. Its reddish shoots emerge in the Spring turning into bamboo-like canes that can reach up to 10 feet tall. As the canes grow, green heart shaped leaves unfurl, growing in a zig-zag fashion on the stems. Late in the summer, clusters of small cream-colored flowers appear. Although the stems turn brown in the Fall, the plant’s rhizome network is still thriving underground, ready to send up shoots next Spring. And it’s the rhizomes that make removal of Knotweed so difficult. Leaving just a very small piece will give rise to a new plant.

There are various methods to control Knotweed. For more information on managing Knotweed go to: [nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_017951.pdf](https://nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_017951.pdf). If you catch the infestation early, manually removing the stalks and roots is a possible control but for established stands, mowing or cutting alone will not eradicate it – and can actually result in it spreading faster underground. Therefore, it is recommended that cutting only be used in combination with herbicide applications or smothering.

Working with the Swampscott's DPW, the Conservancy is trying a novel approach to eradicating the Knotweed at the entrance to Harold King Forest (town conservation land located in the northwest corner of Swampscott). The Knotweed stalks were removed from the infested area and a wire fence mesh put down that was then covered with gravel. As the stems emerge in the Spring from the Knotweed's underground rhizomes, they will grow up through the mesh and the expectation is that they will be choked off and the stems and leaves will die. The rhizomes will continue to send up stems, but without above ground growth, the hope is that they will eventually be depleted of energy, and no longer end up shoots.

Knotweed isn't the only invasive that is bullying its way into our neighborhood. Some of the other public enemies include: Oriental Bittersweet (*Celastrus orbiculatus*); Winged Burning Bush (*Euonymus alatus*); Garlic Mustard (*Alliaria petiolata*); and Multiflora Rose (*Rosa multiflora*). The Conservancy has several short videos on some of the invasives in our area that you can check out. Links to them are on our website at [swampscottconservancy.org](http://swampscottconservancy.org) or go to:

[youtube.com/channel/UCC6texTfvivMlq6U40e6d2A](https://www.youtube.com/channel/UCC6texTfvivMlq6U40e6d2A)

As with the FBI's Public Enemy campaign of the early part of the last century, which enlisted the help of the public and resulted in the capture of many dangerous fugitives, we need a public enemies list of invasive species and the public's help in removing them from our neighborhood.

