

Invasive Species Profile: Running Bamboo (Various Species) Part 1

By Greg Sykes (greg@grsykes.com)

Native Range: temperate and tropical regions globally

U.S. Introduction: 1870s as an ornamental

Life Cycle: perennial grass

Means of Spreading: rapid rhizome growth

Commercially Available: yes

Control Method: herbicides

Good Alternative Species: black willow (*Salix nigra*), Indian grass (*Sorghastrum nutans*)

Comments: Of the questions people ask about controlling invasive plants, [English ivy](#) and bamboo top the list. We already examined the former ([March 2020 edition](#)). Running bamboo received recent attention with Fairfax County's new ordinance, effective January 1, 2023, mandating that residents contain running bamboo within their property. Many municipalities already restrict or ban this weed. In 2007, a more general Virginia Supreme Court ruling stated that the owner of the property for which the plant originates, (e.g., tree roots damaging a neighbor's driveway), is liable for damages. The case number is 1153823 and a link for it is <http://caselaw.findlaw.com/va-supreme-court/1153823.html>).

First, let's look at what bamboo is not. Lucky bamboo or Chinese water bamboo (*Dracaena sandersoniana*) is sold in grocery store floral departments and greenhouse nurseries. A member of the asparagus family, it has segments resembling bamboo. It is from tropical Africa and cannot survive Mid-Atlantic winters outdoors. Since it is often commercially grown and sold from cuttings in water, transporting stagnant water has spread mosquitoes. [Heavenly bamboo](#) (*Nandina domestica*) is another misnomer. It is a toxic, invasive shrub that produces red berries in winter; more information is in the [January 2020 edition](#).

True bamboo species are tall, perennial, evergreen grasses, mostly woody ones in the Bambusoideae subfamily. Like all grasses, bamboos are flowering plants except they go years or decades without generating a blossom. When they do, all members of the woody species usually bloom at the same time around the world then die, leaving the seeds to germinate and perpetuate the species. This gregarious flowering has exceptions and is imperfect, for example, resulting in some individuals blooming the next



Figure 1. Running bamboo patches have canes packed tightly but not clumping. Here, a camera flash lights the base of the 30 to 40-foot canes. Leaves grow on the top half of the culms.

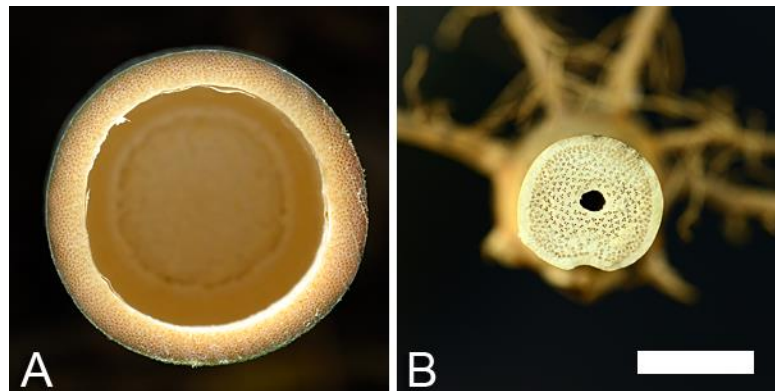


Figure 2. Cross sections of bamboo internodes from the culm (A) and the rhizome (B) show similarities between these two types of stems. Seen at the top of the culm, the paper-like inner skin is slightly peeled back. Narrower rhizomes contain more material, both stems are hollow. Cuts made with a Japanese bamboo saw. The scale bar is 1.0 cm.

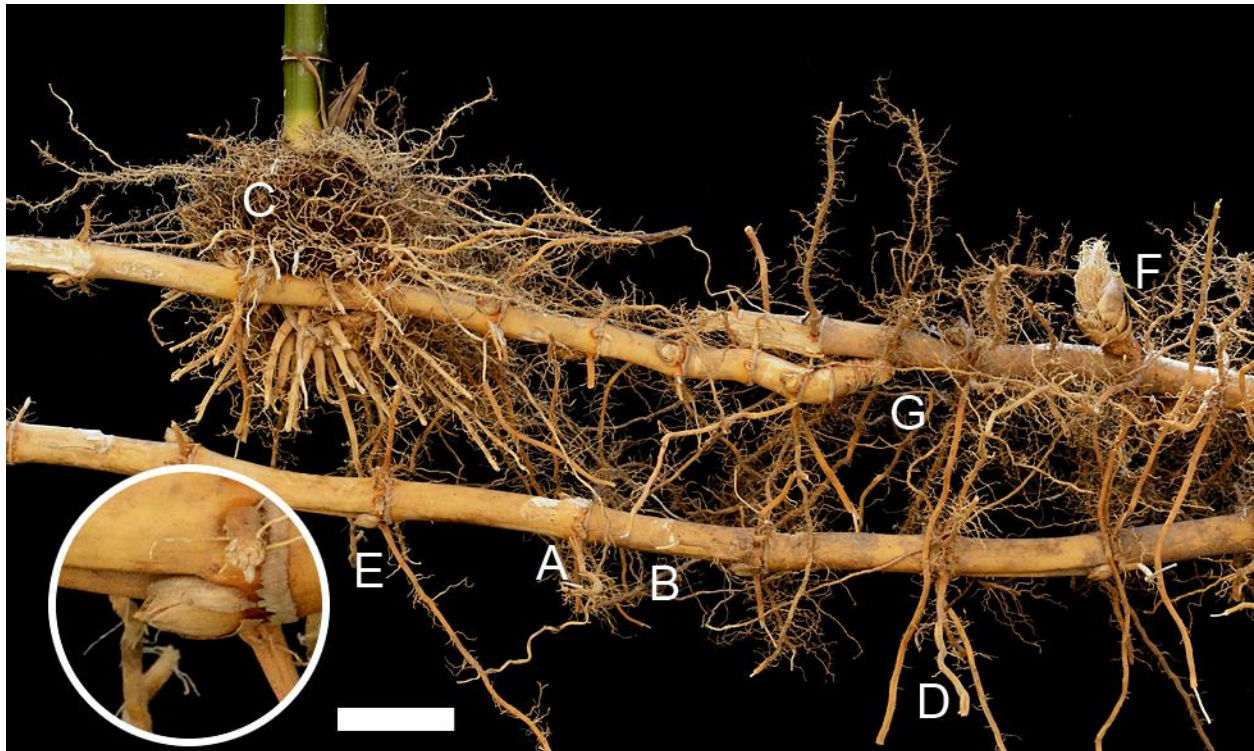


Figure 3. Soil removal shows the exact position of running bamboo's rhizomes. As rhizomes are subterranean stems, they have nodes (A) and internodes (B). Roots grow thick at the culm's base (C) compared to nodal roots' open form (D). Rhizome buds (E and enlarged inset) may extend upward, break the surface, and become culms (F, damaged) or grow underground into more rhizomes (G). The scale bar is 5.0 cm.

year, but they are less likely to be pollinated. Depending on the species, the seeds can take up to three years to develop. The fruiting masses falling on the ground can become immense messes that temporarily spur rodent populations. Between these fruiting periods, bamboo spreads vegetatively through rhizomes. New shoots sprout out of the rhizome nodes. The tough, shallow roots and rhizomes are primarily within the first foot of topsoil. In species where the rhizomes are short, the bamboo canes or culms appear to clump. Running bamboo has long, fast-growing rhizomes that sprout distinctly single culms, although a dense field may have crisscrossing rhizomes with canes that happen to be close. Running bamboo is a term applied to multiple species. Common running bamboos include arrow bamboo (*Pseudosasa japonica*) and members of the genus *Phyllostachys*, such as golden bamboo.

Cold-hardy running bamboo from Asia has no biological controls in Northern Virginia, plus its speedy growth makes it extremely invasive and difficult to confine. Bamboo patches may sweep around mature trees, but this weed grows too densely for any other plants to coexist with it including tree seedlings. Folks who assume they can keep running bamboo under wraps and plant it anyway often regret their decision. The rhizomes extend many feet away from the visible patch. This subterranean expansion remains undetected until spring when shoots emerge. Mowing is an inefficient way of restricting bamboo and, depending on the species and cane development, may damage the mower and stumps can be hard on people's feet. One way to contain running bamboo is to surround it with water because most Asian bamboos cannot

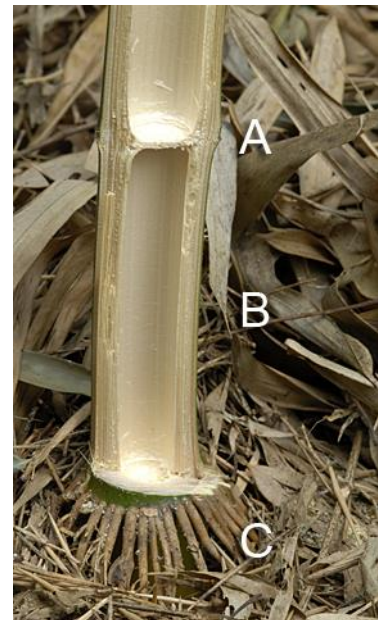


Figure 4. Culms have nodes (A) and internodes (B). Near and beneath the soil, roots (C) develop from the nodes; branches emerge higher on the culm.

tolerate saturated soil (some native *Arundinaria* species like wet roots), but installing a moat for a bamboo patch is usually impractical. The second is by encompass it within a solid barrier, such as one made from poured concrete, aluminum sheets, or thick plastic like high-density polyethylene that penetrates at least three feet underground and pokes several inches above the surface. The barrier must be intact because the rhizomes breach breaks and gaps. Rhizomes exploiting masonry cracks can cause further damage to foundations and pavement. Bamboo easily pierces thin plastics. For borders facing onto the same property, the strong barrier should be at an angle away from the patch so that any rhizome growth deflects upward where it can readily be seen and cut. For bamboo borders at the property's edge, the wall above ground should tilt back towards the patch to redirect rhizomes away from the neighbors.

[Part 2](#) of this series examines how to eradicate bamboo. It looks at several native alternatives. At the end is the reference section for this series.

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