Loss of structure and diversity may lead to

- Loss of plant species
- Changes in/loss of native ecosystems
- Loss of canopy
- Changes in midcanopy openness
- Changes in views

Vegetation Structure and Diversity

Herbaceous vines

Japanese hops

(Humulus japonicus)

Historic Landscape

- Japanese hops can form dense, monospecific stands that outcompete native vegetation. Stands have the potential to displace native riverbank and flood plain vegetation (IPSWAG, 2007), which may eventually cause the loss of native ecosystems.
- → Japanese hops vines are covered in hooked hairs which allow it to climb and form dense stands, outcompeting native vegetation (IPSAWG, 2007). This may lead to changes in views and midcanopy openness as vines fill in the forest understory, and loss of plant species as co-occurring species are shaded out.
 - Mile-a-minute (p. perfoliata) smothers native vegetation, reducing diversity, blocking out light and forming monospecific stands (USDA, 2005a; USDA, 2005b; www.columbia.edu/itc/cerc/danoff-burg/invasion_bio/inv_spp_summ/invbio_plan_report_home.html).
- Competition is of particular concern in wet meadows which may support rare wetland plants (VA DCR, 2001).
- Mile-a-minute (P. perfoliata) is also known to displace herbaceous perennials and reduce the growth of nursery tree saplings (Kumar & DiTommaso, 2005), which may lead to the loss of canopy trees.

Herbaceous vines, in general, will grow over and smother ground plants, killing

→ characteristic ground cover plants. (VA DCR, 2001; USDA, 2005; IPSAWL, 2007; www.nps.gov/plants/alien/pubs/midatlantic/toc.htm; www.natureserve.org)