Woody vines
Porcelainberry/Bittersweet
A. brevipedunculata/C. orbiculatus/

Vegetation Structure and Diversity

Historic Landscape

Historic Structures

Loss of structure and diversity may lead to

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

- Bittersweet can grow up and over canopy trees, causing light deprivation and bark girdling, eventually causing collapse with heavy weight. It also makes trees more susceptible to wind and ice damage (VA DCR, 1999; Ellsworth, 2003; NH DOA, 2005). Both of these impacts may lead to loss of canopy and changes in views.

- Both porcelainberry and bittersweet can grow over and smother native ground vegetation (such as forbs and herbs), forming thick, almost monospecific stands (VA DCR, 1999; USDA, 2006).
- Due to its high reproductive rate, long range dispersal, and rapid growth rate, bittersweet is also
- → thought to be part of the reason behind the decline in the native species American bittersweet (C. scandens)

(www.columbia.edu/itc/cerc/danoff-burg/invasion_bio/inv_spp_summ/invbio_plan_report_home.html; www.invasive.org/weedus/).

- Negative correlations have been found between tree seedling density and cover of porcelainberry. Also, cover of trees > or = to 5 cm dbh had negative correlation with cover of procelainberry (Yost et al., 1991), indicating that porcelain berry growth may lead to loss of canopy forming trees, community structure, or species richness.
- Kudzu and English ivy (P. montana) will blanket all vegetation layers as they grow, leading to loss of canopy trees, community structure, and native species (www.nps.gov/plants/alien/pubs/midatlantic/toc.htm).
- Following disturbance invasive vines have been shown to negatively affect the regeneration
 → of other native plants including pre-established juveniles and resprouts from damaged adults (Horvitz et al., 1998).

All vines reviewed can smother and kill native characteristic plants due to lack of sunlight.

- → (VA DCR, 1999; Ellsworth, 2003; NH DOA, 2005; Radford et al, 2008; www.nps.gov/plants/alien/pubs/midatlantic/toc.htm; www.natureserve.org)
 - When planted near buildings or walls, English ivy (H. helix) will climb, clinging by means of aerial roots that can damage mortar between bricks (Relf & Aplleton, 1999; Steward, 2003; NPS personal comm.; www.arhomeandgarden.org/plantoftheweek/articles/English Ivy.htm).

sweet