

THE DAWES ARBORETUM

Newark, Ohio USDA Hardiness Zone 5B

We planted no additional hollies on The Dawes Arboretum Holly Hill in 2013 although six new hollies were established elsewhere on our grounds; that included three Sky Pencil Japanese hollies (*Ilex crenata* 'Sky Pencil'), two Winter Gold winterberries (*I. verticillata* 'Winter Gold') and one Southern Gentleman winterberry (*I. verticillata* 'Southern Gentleman') to function as a pollinator. Three specimens of mountain holly (*Nemopanthus mucronatus*) originally grown from seed collected at Dolly Sods Wilderness Area, WV, were also planted at Holly Hill.

Unfortunately, a far greater number of holly taxa were either removed or slated for removal during 2013. This included two Blue Princess Meserve hollies (*I. × meserveae* 'Blue Princess') and one Blue Stallion™ Meserve holly (*I. × meserveae* Blue Stallion™). All three were mature specimens that had become overgrown and were in direct competition with surrounding specimens. Several American holly (*I. opaca*) cultivars either died or declined significantly and warranted removal: 'Anet', 'Clark', 'Judy Kay', 'Oachs' (a Pride Nurseries Selection), 'Virginia West' and 'Xanthawood'. One Foster Topel holly (*I. × attenuata* 'Foster #4') will be removed because of unnecessary duplication. Sadly, we had to remove our lone specimen of a natural cross between possumhaw and American holly (*I. decidua* × *I. opaca*) which, in its brief life, displayed handsome crops of orange-red berries. One of two specimens of Hunter possumhaw (*I. decidua* 'Hunter'), which I propagated from a fine specimen at Bernheim Forest and Arboretum, Clermont, KY, in 2005, defoliated and died back suddenly in midsummer. Unless satisfactory re-growth from the base occurs, it will be removed in 2014. Other removals include a perennially weak specimen of Rocky Creek Japanese holly (*I. crenata* 'Rocky Creek') and a rather new selection of inkberry (*I. glabra* 'Red Tip') that fell victim to a careless motorist.

The bulk of our holly collection consists of cultivated forms of American holly and we are not currently actively pursuing new selections of this species. Nevertheless, we intend to make some significant contributions to the garden in the near future. For example, we are continuing our efforts to expand the representation of wild-collected deciduous species at Holly Hill.

In the fall of 2013, I journeyed to south-central Alabama to survey and collect seed of wild populations of azaleas and deciduous hollies. Accompanied by my longtime volunteer, Buck Brackman, we met up with fellow HSA member Ray Head and his friend, premier forester and botanist Wayne Webb. Wayne showed us a number of exceptional populations of Georgia holly (*I. longipes*) and Carolina holly (*I. ambigua*) in Wilcox County, AL. Altogether, we collected four accessions of Georgia holly and two accessions of Carolina holly. To date, at least one accession of each species has been successfully propagated, producing numerous small seedlings that are growing well in the propagation house.

Again, thanks to Ray Head, we have two fine plants of smooth winterberry (*I. laevigata*) at Holly Hill that were grown from wild-collected seed from Clarendon County, SC in 2008. This species is exceptionally pretty in fruit, with orange-red berries typically larger than on common winterberry. I have also observed this species to be superior in fall color to other deciduous species with clean and persistent yellow pigments. However, both of our plants are males. In attempt to remedy this situation, I acquired wild-collected seed of this species from my good friend and fellow seed collector, Darrell Kromm of Reeseville Ridge Nursery, Reeseville, WI. Darrell harvested seed from populations growing in Ocean County, NJ, and I expect to generate some female specimens from this seed.

We are also improving the quality of our collection by re-propagating selected holly cultivars that are exhibiting undue stress and weak growth. Most of the decline in our collection is the result of one or two causes: first, since we are one of the most northern test sites for evergreen hollies, cold temperature injury is especially problematic on younger, less established specimens; second, I have observed over the years several plants ranging from 5 to 20 years old that are poorly anchored, leaning severely, and often exhibit thin crowns and unsightly basal sprouting. It seems that American holly is especially susceptible to root girdling, and this no doubt can be traced back to long-term container culture. Yet, growing young, rooted cuttings of American hollies in the field to an acceptable planting size is probably not feasible in our climate. Thus, we must resort to container culture and rearing young plants in a cold frame environment. Recently, we have employed Dr. Carl Whitcomb's RootMaker® pots in hopes of eliminating or reducing the root girdling problems on this species.

The weather for 2013 was a bit on the cool and moist side. For a change, we experienced no severe ice storms, damaging winds, or prolonged drought. Temperatures hit 90 °F (32.2 °C) or above only five times in 2013, four in the middle of July and once in mid-September. On January 3, we recorded our coldest temperature for the year at 3.7 °F. (-15.7 °C) Total rainfall for the year measured just over 35 in. (89 cm).

Richard A. Larson, Nursery Manager