

# UNIVERSITY OF WASHINGTON BOTANIC GARDENS

Seattle, WA USDA Hardiness Zone 8a

For 2015 the *Ilex* collection was the focus of small but continual changes as the collection continued to settle into its new primary location.

It was a warmer year than normal for us in the Seattle area, and the minimum temperature in the city was only 25.9 °F (-3.4 °C). The summer was the warmest and among the driest on record, with drought conditions for most of the spring and summer. The maximum temperature was 95.8 °F (35.4 °C). The average air temperature was approximately 2 °F (1.1 °C) warmer than in 2014.

Rainfall was lower than 2014, with mid to late spring being especially dry, followed by our typical arid summer months. There were a few heavier than normal rain events in August but they did little to alleviate the drought. The end of the year saw heavier precipitation than normal, with drought conditions ending by late October and one of the wettest Decembers on record. However, it seems that no *Ilex* accessions perished due to heat or aridity stress alone.

The third American clade berm, this one containing deciduous species, was installed in late 2014. Several plantings were made from the field nursery in 2015, detailed below.

Seeps and drainage issues persist in portions of the main collection site. It is a natural drainage area from the surrounding neighborhoods as most of the Arboretum is within a valley that drains to the creek running through the middle of the site. We have been using hand-dug channels to drain to the various catch basins and the previously constructed weir system. We are looking into additional permanent drainage remedies such as the physical barriers and additional retention areas where water can be directed. We will be moving some species to drier and better-drained sites. We do have several planting areas within the berms available.

We have also started opening up the adjacent “greenbelt” to remove invasive plants, declining or dead trees, and thick underbrush. We will be planting several dozen deciduous conifers of different species and cultivars in this area adjacent to the main *Ilex* collection. We also expect that this will help with some of the water issues coming from this hillside.

Ongoing manual and chemical weed control for herbaceous weeds in the clade beds and the upper beds continued. Manual removal of English ivy from the adjacent woodland also continued, and this is something that will always be needed, as it is one of our most persistent invasive plants in western Washington. Snails appeared in the north deciduous bed, and seem

to be present in a few other beds. We will control them before they spread. No insect herbivory has been observed on any of the collections.

Several accessions in the deciduous clade beds and the Eurasian clade beds have started showing symptoms of Holly blight (*Phytophthora ilicis*). We will get these plants and/or soil tested for a positive disease ID. Most labs do not identify to the species level, only genus. We have corresponded with Dr. Drew Zwart of the Bartlett Tree Experts research arm and he may be able to do it. There is not much we can do to improve the conditions to discourage *Phytophthora*, but there may be some chemical treatments. We will continue to keep a good layer of mulch on the beds, which may suppress growth and spread.

The *Ilex* collection continues to be a site for volunteer groups and organizations to assist in maintenance efforts. The collection again was a focus of a major Earth Day project in conjunction with the Student Conservation Association (SCA). It is planned that this will expand and continue this year, as SCA will focus on increased efforts within the Arboretum in 2016.

The UW Botanic Gardens provided cuttings and seed to the University of Georgia for research into landscape appropriateness in the southeast of *Ilex yunnanensis* and *I. suaveolens*. We have several *I. yunnanensis* that have done well since they were propagated from mature specimens and have now settled in the collection. We only have one *I. suaveolens* left in the collection, but it has now established itself in its new home a few years after transplanting.

2015 List of *Ilex* Additions:

*I. aculeota*

*I. collina*

*I. geniculata*

2015 List of *Ilex* deaccessions (including nursery, all grounds and gardens)

91-96-B *Ilex geniculata*

X-339-B *I. integra*

134-93-A *I. macropoda*

75-96-B *I. macropoda*

34-08-A *I. perado* spp. *arizonica*

31-05-A *I.* 'Rock Garden'

12-93-A *I. crenata* 'Sky Pencil'

194-94-A *I. suaveolens*

51-91-A,C *I. verticillata* 'Sunset'

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