

Silverbells *a' ringin*

By Alan S. Weakley, Curator, UNC Herbarium

Among the spring plants that brighten the forest is silverbell (*Halesia*). Most of our native trees (oaks, pines, hickories, and many more) are wind pollinated and bear inconspicuous flowers in dangling catkins. These trees rely on wind and luck for pollination, and “game the odds” by producing massive amounts of pollen, resulting in our famous yellow Carolina dust-storms, sometimes featuring miniature yellow tornados. A few of our native trees have showy, insect-pollinated flowers (and less pollen), and among the showiest are the silverbells, with a profusion of dangling white bells anywhere from 7 to 32 mm long (less than half an inch to more than an inch and a half).

This genus of trees was unknown to Europeans before being encountered in North America (later it was found to occur as well in China, a frequent pattern of relictual distribution of north temperate plants and animals). Understandably, it was immediately coveted horticulturists and was early introduced into cultivation in European and American gardens.

The genus name commemorates Stephen Hales (1677–1761), an Anglican minister and English scientist. Hales is perhaps best known for his research on the movement of fluids in both plants and animals, though in 1738 he published a work entitled, *Philosophical experiments: containing useful, and necessary instructions for such as undertake long voyages at sea. Shewing how sea-water may be made fresh and wholesome: and how fresh water may be preserv'd sweet. How biscuit, corn, &c. may be secured from the weevil, meggots, and other insects. And flesh preserv'd in hot climates, by salting animals whole. To which is added, an account of several experiments and observations on chalybeate or steel-waters ... which were read before the Royal-society, at several of their meetings.* It is safe to say that the customary style in titles has changed!

This brings me to a point about commemoration and pronunciation. One usually hears *Halesia* pronounced either “Huh-LEEZ-ee-uh” or “Huh-LEEZH-uh,” which means that Hales’s simple Anglo-Saxon 5-letter, monosyllabic name, pronounced “HAYLZ,” has been tortured into the almost unrecognizable parody of “Huh-LEEZ.” It would seem a better commemoration of the man and his botanical contributions to call the tree “HAYLZ-ee-uh.” Or, there is always “silverbell,” “belltree,” “bellwood,” or “snowdrop-tree” for those preferring to ignore that issue entirely.

So, how many silverbell species or varieties are there? I consider myself more of an observer and compiler in this regard, and not a professional “Halesiologist.” I first came to know the small tree of the upper Piedmont and lower mountains—usually called *Halesia carolina*, but apparently more properly called *H. tetraptera*—with medium-sized flowers and never attaining any substantial height or girth. It is easily overlooked when not in flower. Later, I got to know the mainly Gulf Coast *H. diptera*, also a small tree.

The silverbells of the Great Smoky Mountains were a revelation: massive canopy trees (sometimes 4 feet in diameter) mak-



ing up as much as 50 percent of the canopy in some forests, with a bark of purple-black “cornflakes.” These trees have often been called *H. monticola* or *H. tetraptera* var. *monticola*. I couldn’t believe this was the same tree as the understory tree of the rest of the mountains and surrounding provinces. But consistent differences to separate “monticola” from its more modest cousin have proven elusive, a matter not helped by the

fact that the characteristics used in *Halesia* taxonomy mainly relate to the size of the fleeting corolla, which also changes during the development and opening of the flowers.

Different studies have come to very different conclusions, and the pollen has not yet settled, though Vol. 8 of *The Flora of North America* (2009) takes the lumping approach and recognizes two species (*H. carolina* and *H. diptera*) and no varieties. For now, I recognize *Halesia carolina* (“little silverbells” of sandy alluvial forests in southern SC to FL panhandle and westward to southern MS), *H. diptera* var. *diptera* (“common 2-winged silverbell” of bottomland forests of southern SC to panhandle FL, west to n. AL, sw. AR, and e. TX), *H. diptera* var. *magniflora* (hammocks, endemic to sw. GA and FL panhandle), and *H. tetraptera* (“common silverbells” found in the coastal plain, piedmont, and mountains throughout the southeastern US). This treatment is not entirely satisfying and carries no warranty!

Herbaria, such as our own large collection, provide the ongoing basis for morphological, field, and molecular studies that will help us to a better understanding of *Halesia*. In the meantime, let’s just keep enjoying the aesthetics of silverbells!