

# 2018 Annual Report

## VIRGINIA BIG TREE PROGRAM

BIGTREE.CNRE.VT.EDU

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- VIRGINIA COOPERATIVE EXTENSION

### MISSION

The [Virginia Big Tree Program](#) is a public outreach program coordinated by [Virginia Cooperative Extension](#) and the [Department of Forest Resources and Environmental Conservation at Virginia Tech](#). Created in 1970 as a 4-H and FFA project for youth, the mission of the big tree program is to promote the care and appreciation of all trees—big and small—and educate the Commonwealth about the value of trees and forests. Central to this mission is curation of a register of the largest specimens of native, non-native, and naturalized tree species found in Virginia. Trees are curated and ranked using a scoring system that awards points for three measurements of tree stature: stem height, crown spread, and trunk circumference. The register currently comprises entries for 1,525 living trees and 481 dead trees that have been documented over the nearly 50 year history of the program.

Nominations to the [Virginia Big Tree Register](#) are accepted year-round and may be submitted by anyone authorized by the tree owner to measure and document the tree. Contributors to the register include school children, hobbyists, civic groups, homeowners, natural resource professionals, and many others. Trees listed in the register must be re-certified at least once every ten years to remain actively listed in the register. The Virginia Big Tree Program is affiliated with the [National Big Tree Program](#), founded by the conservation organization [American Forests](#). More than 80 Virginia trees are currently recognized as national champions or co-champions in the [Champion Trees National Register](#).

Efforts to document and curate Virginia's big trees are coordinated by faculty and staff at Virginia Tech, but the bulk of the field work to discover, measure, and nominate big trees rests in the hands of passionate volunteers around the state. Without their efforts, thousands of people who visit the trees online and in person each year would not get to enjoy the beauty and wonder of the largest organisms on our planet. Financial and in-kind support is made to the big tree program by numerous individuals and organizations. The lead financial supporter of the program is [Trees Virginia](#), a non-profit organization whose mission is to enhance the quality of life through the stewardship of our Commonwealth's urban and community trees. Each year, Trees Virginia makes a financial contribution to support a program intern and associated operational costs of keeping the big tree register up to date.



## 2018 ACCOMPLISHMENTS

### Big Tree Reports

During the 2018 calendar year, there were 231 trees reported to the Virginia Big Tree Program. Trees were reported by 41 different individuals in 66 localities across the state (Figure 1). From these reports, 209 official entries or updates were made to the Virginia Big Tree Register. There were 22 trees that were disqualified due to duplicate reporting, misidentification of species, improper measurements, or failure to meet eligibility requirements for the register. Localities with the greatest number of big tree reports were Williamsburg (37), Richmond (15), Gloucester County (13), Virginia Beach (13), Suffolk (11), and Fairfax County (11). The majority of the big tree reports were re-certifications (97) or deaths (63) of existing trees in the register. Of the 65 new tree nominations, 47 resulted in an official entry into the register, and 18 of these new entries were crowned as a new state champion or co-champion (Table 1). Williamsburg had the most new entries to the register (9), of which 7 were a new state champion or co-champion.

### National Rankings

In 2018, Virginia moved into second place nationally with 86 national champion or co-champion trees. These trees are located in 44 localities across the state (Figure 2). Among these champions are 72 distinct species, sub-species, or natural varieties, with some species having multiple co-champions listed for the state. For example, there are three willow oaks (*Quercus phellos*) currently listed as national co-champions in Virginia. They are located in Northampton County, Mathews County, and City of Chesapeake. Virginia is home to eight different oak species national champions: *Quercus alba*, *Q. hemisphaerica*, *Q. laurifolia*, *Q. lyrata*, *Q. michauxii*, *Q. pagoda*, *Q. phellos*, and *Q. rubra*. Other abundant groups of champions are the hawthorns (*Crataegus* – 4 champs), pines (*Pinus* – 4 champs), maples (*Acer* – 4 champs), and hickories (*Carya* – 4 champs). Currently, the highest scoring national champion is a water tupelo (*Nyssa aquatica*) located in Greensville County. It scores 584 points, having a height of 108', crown spread of 53', and trunk circumference of 463". The full list of current national champion and co-champion trees located in Virginia can be browsed at <http://bigtree.cnre.vt.edu/results.cfm?BrowseType=NatlChamp&Term=yes>.

### Student Intern Contributions

The intern for the Virginia Big Tree Program during summer 2018 was Peter Stewart. He is a graduate student in the Department of Forest Resources and Environmental Conservation at Virginia Tech pursuing a master's degree in urban forestry. Peter's work with the big tree program was primarily behind the scenes helping with management of the data in the big tree register and organizing field trips to re-certify trees. The highlight of Peter's field work was recertification of the state champion Siberian elm (*Ulmus pumila*) located in Montgomery County (Figure 4). This 358-point specimen rises to a height of 103' with a crown spanning 91' and a trunk circumference of 232".

## FOR MORE INFORMATION ABOUT VIRGINIA BIG TREES

The Virginia Big Tree Program welcomes contributions and participation by anyone with an interest in big trees. Educators and event planners for youth are particularly encouraged to incorporate big tree hunting into their activities. It is a great way to teach youth about tree identification, forest biology, geography, and geometry. Assistance can be provided by a local office of Virginia Cooperative Extension or the Virginia Department of Forestry. For tips on getting started, visit <http://bigtree.cnre.vt.edu/hunt.html>.

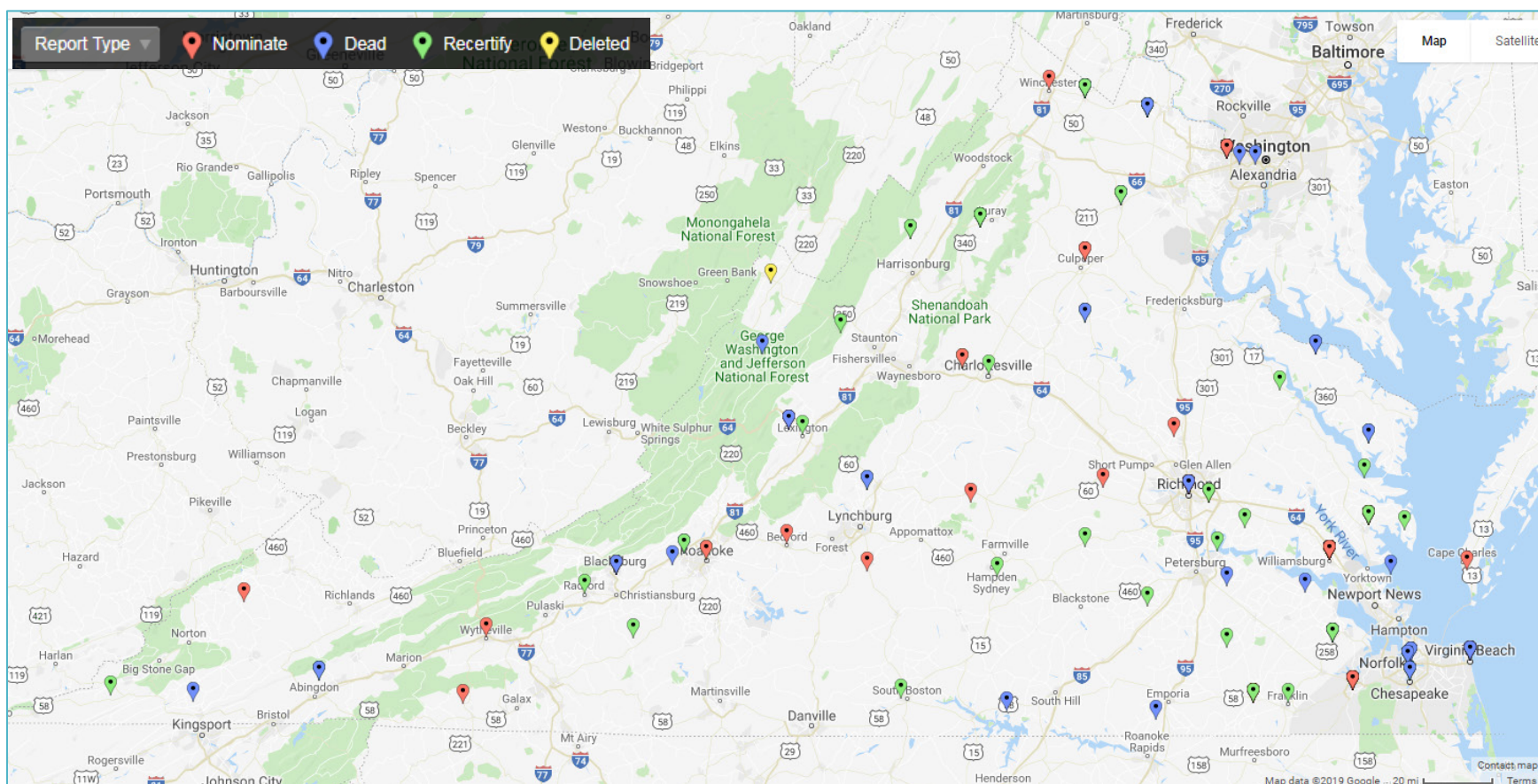


Figure 1. Location of 231 trees reported to the Virginia Big Tree Program in the 2018 calendar year. Map created using BatchGeo and is available online at <https://batchgeo.com/map/45a91f6084f85d29c3245964d30cb4e5>.

Table 1. New entries into the Virginia Big Tree Register during the 2018 calendar year. Common names are hyperlinked to the full web entry for each tree. Single asterisk (\*) denotes state champion or co-champion.

| Common Name                                   | Latin Name                                | City or County         | Total Points | Height (ft) | Trunk Circumference (in) | Crown Width (ft) |
|---|---|------------------------|--------------|-------------|--------------------------|------------------|
| <a href="#">Japanese maple</a>                | <i>Acer palmatum</i>                      | Culpeper               | 148          | 42          | 93                       | 52               |
| <a href="#">red horsechestnut</a>             | <i>Aesculus xcarnea</i>                   | City of Richmond       | 132          | 31          | 92                       | 35               |
| <a href="#">pawpaw</a>                        | <i>Asimina triloba</i>                    | City of Williamsburg   | 67           | 32          | 28                       | 27               |
| <a href="#">paper mulberry*</a>               | <i>Broussonetia papyrifera</i>            | City of Williamsburg   | 212          | 35          | 163                      | 56               |
| <a href="#">pignut hickory*</a>               | <i>Carya glabra</i>                       | Dickenson              | 283          | 130         | 131                      | 87               |
| <a href="#">red hickory</a>                   | <i>Carya ovalis</i>                       | City of Suffolk        | 252          | 104         | 130                      | 70               |
| <a href="#">red hickory</a>                   | <i>Carya ovalis</i>                       | City of Suffolk        | 256          | 92          | 145                      | 74               |
| <a href="#">red hickory</a>                   | <i>Carya ovalis</i>                       | City of Suffolk        | 265          | 100         | 149                      | 64               |
| <a href="#">shagbark hickory*</a>             | <i>Carya ovata</i>                        | Southampton            | 302          | 130         | 152                      | 80               |
| <a href="#">Alleghany chinkapin*</a>          | <i>Castanea pumila</i> var. <i>pumila</i> | City of Virginia Beach | 67           | 31          | 27                       | 34               |
| <a href="#">southern catalpa</a>              | <i>Catalpa bignonioides</i>               | Southampton            | 286          | 60          | 214                      | 49               |
| <a href="#">cedar of Lebanon</a>              | <i>Cedrus libani</i>                      | City of Richmond       | 268          | 55          | 195                      | 70               |
| <a href="#">buttonbush</a>                    | <i>Cephalanthus occidentalis</i>          | Southampton            | 41           | 11          | 27                       | 13               |
| <a href="#">Japanese cryptomeria*</a>         | <i>Cryptomeria japonica</i>               | Fairfax                | 207          | 85          | 108                      | 57               |
| <a href="#">swamp cyrilla</a>                 | <i>Cyrilla racemiflora</i>                | Isle of Wight          | 66           | 34          | 26                       | 23               |
| <a href="#">green ash</a>                     | <i>Fraxinus pennsylvanica</i>             | Bedford                | 323          | 93          | 208                      | 88               |
| <a href="#">ginkgo*</a>                       | <i>Ginkgo biloba</i>                      | Hanover                | 303          | 79          | 200                      | 96               |
| <a href="#">rose of Sharon*</a>               | <i>Hibiscus syriacus</i>                  | Gloucester             | 64           | 22          | 33                       | 36               |
| <a href="#">American holly</a>                | <i>Ilex opaca</i>                         | City of Richmond       | 216          | 76          | 132                      | 30               |
| <a href="#">yaupon*</a>                       | <i>Ilex vomitoria</i>                     | City of Portsmouth     | 83           | 40          | 36                       | 26               |
| <a href="#">Florida anisetree*</a>            | <i>Illicium floridanum</i>                | City of Williamsburg   | 34           | 18          | 12                       | 17               |
| <a href="#">sweetbay magnolia*</a>            | <i>Magnolia virginiana</i>                | City of Chesapeake     | 154          | 52          | 91                       | 44               |
| <a href="#">Japanese flowering crabapple*</a> | <i>Malus floribunda</i>                   | Culpeper               | 156          | 46          | 93                       | 67               |
| <a href="#">medlar*</a>                       | <i>Mespilus germanica</i>                 | City of Williamsburg   | 44           | 15          | 28                       | 5                |
| <a href="#">white mulberry</a>                | <i>Morus alba</i>                         | Fairfax                | 270          | 42          | 212                      | 64               |

| Common Name                                | Latin Name                                     | City or County         | Total Points | Height (ft) | Trunk Circumference (in) | Crown Width (ft) |
|--|--|------------------------|--------------|-------------|--------------------------|------------------|
| <a href="#">slash pine*</a>                | <i>Pinus elliottii</i> var. <i>elliottii</i>   | City of Portsmouth     | 235          | 83          | 135                      | 69               |
| <a href="#">eastern white pine</a>         | <i>Pinus strobus</i>                           | Albemarle              | 295          | 101         | 178                      | 65               |
| <a href="#">eastern cottonwood</a>         | <i>Populus deltoides</i> ssp. <i>deltoides</i> | City of Richmond       | 406          | 80          | 300                      | 105              |
| <a href="#">Carolina laurelcherry</a>      | <i>Prunus caroliniana</i>                      | City of Williamsburg   | 139          | 37          | 90                       | 47               |
| <a href="#">Japanese flowering cherry*</a> | <i>Prunus serrulata</i>                        | Loudoun                | 188          | 35          | 139                      | 57               |
| <a href="#">Higan cherry</a>               | <i>Prunus subhirtella</i>                      | Henrico                | 171          | 50          | 108                      | 50               |
| <a href="#">Yoshino cherry</a>             | <i>Prunus xyedoensis</i>                       | City of Richmond       | 126          | 25          | 91                       | 40               |
| <a href="#">sawtooth oak*</a>              | <i>Quercus acutissima</i>                      | City of Williamsburg   | 263          | 85          | 150                      | 112              |
| <a href="#">scarlet oak</a>                | <i>Quercus coccinea</i>                        | Fairfax                | 301          | 124         | 153                      | 97               |
| <a href="#">ring-cup oak*</a>              | <i>Quercus glauca</i>                          | City of Williamsburg   | 136          | 38          | 85                       | 50               |
| <a href="#">blackjack oak*</a>             | <i>Quercus marilandica</i>                     | Gloucester             | 217          | 73          | 128                      | 65               |
| <a href="#">chinkapin oak*</a>             | <i>Quercus muehlenbergii</i>                   | Clarke County          | 375          | 100         | 250                      | 101              |
| <a href="#">Chinese evergreen oak</a>      | <i>Quercus myrsinifolia</i>                    | City of Williamsburg   | 153          | 49          | 90                       | 54               |
| <a href="#">pin oak</a>                    | <i>Quercus palustris</i>                       | Fairfax                | 331          | 119         | 186                      | 105              |
| <a href="#">shining sumac</a>              | <i>Rhus copallinum</i>                         | City of Suffolk        | 57           | 28          | 21                       | 32               |
| <a href="#">buckthorn bumelia</a>          | <i>Sideroxylon lycioides</i>                   | City of Suffolk        | 46           | 30          | 12                       | 14               |
| <a href="#">common sweetleaf</a>           | <i>Symplocos tinctoria</i>                     | City of Virginia Beach | 86           | 50          | 30                       | 23               |
| <a href="#">English yew</a>                | <i>Taxus baccata</i>                           | Charles City           | 169          | 30          | 126                      | 50               |
| <a href="#">English yew</a>                | <i>Taxus baccata</i>                           | Gloucester             | 196          | 40          | 145                      | 45               |
| <a href="#">Chinese windmill palm*</a>     | <i>Trachycarpus fortunei</i>                   | City of Williamsburg   | 54           | 26          | 25                       | 11               |
| <a href="#">Hercules' club</a>             | <i>Zanthoxylum clava-herculis</i>              | Northampton            | 60           | 22          | 32                       | 24               |
| <a href="#">Japanese zelkova</a>           | <i>Zelkova serrata</i>                         | Montgomery             | 203          | 65          | 122                      | 62               |



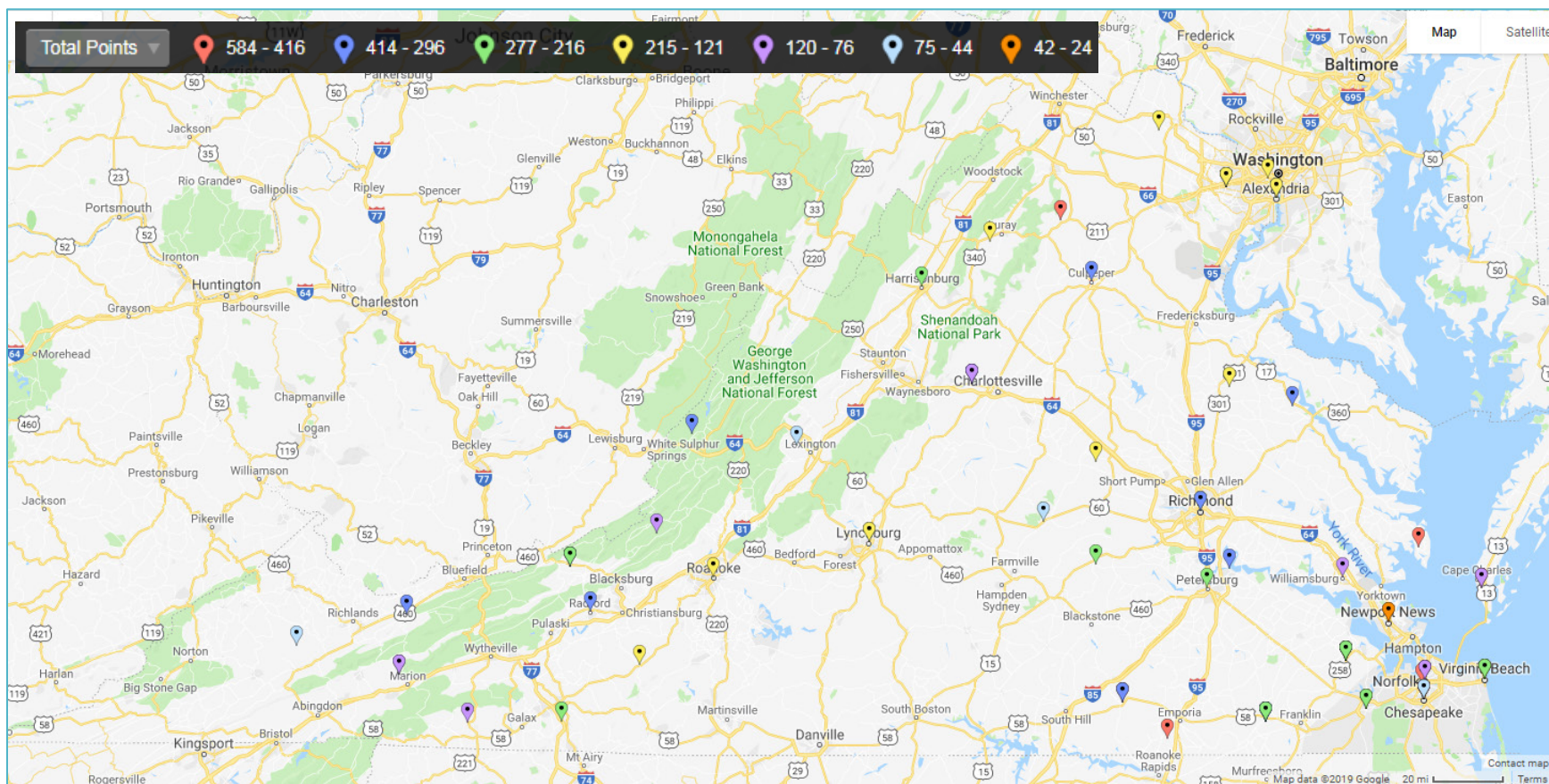


Figure 2. Location of 86 national champion and co-champion trees in Virginia recognized by American Forests in 2018. Map created using BatchGeo and is available online at <https://batchgeo.com/map/7e2e744609a8fe479778c8adb2eb6e9a>.





Figure 3. The national champion water tupelo (*Nyssa aquatica*) resides in Greensville County, Virginia. It was discovered by famed big tree hunters Byron Carmean and Gary Williamson (left photo) in 2009. Details about the tree can be found on the web at <http://bigtree.cnre.vt.edu/detail.cfm?AutofieldforPrimaryKey=1439>.





Figure 4. Peter Stewart, student intern for the Virginia Big Tree Program in summer 2018, recertifying the state champion Siberian elm (*Ulmus pumila*) located in Montgomery County, Virginia. Details about the tree can be found on the web at <http://bigtree.cnre.vt.edu/detail.cfm?AutofieldforPrimaryKey=697>.