

**National Park**  
 Climate Change Atlas Tree Species  
 Current and Potential Future Habitat, Capability, and Migration

| Common Name                | Scientific Name        | Range | MR     | %Cell | FIAsum | FIAiv | ChngCl45    | ChngCl85    | Adap   | Abund   | Capabil45   | Capabil85   | SHIFT45   | SHIFT85    | SSO | N  |
|----------------------------|------------------------|-------|--------|-------|--------|-------|-------------|-------------|--------|---------|-------------|-------------|-----------|------------|-----|----|
| bur oak                    | Quercus macrocarpa     | NDH   | Medium | 48.7  | 142.49 | 43.81 | Lg. dec.    | Lg. dec.    | High   | Common  | Fair        | Fair        | Infill +  | Infill +   | 2   | 1  |
| eastern redcedar           | Juniperus virginiana   | WDH   | Medium | 44.1  | 98.94  | 31.33 | Sm. inc.    | Sm. inc.    | Medium | Common  | Good        | Good        | Infill ++ | Infill ++  | 2   | 2  |
| eastern cottonwood         | Populus deltoides      | NSH   | Low    | 18.5  | 49.51  | 42.76 | No change   | No change   | Medium | Rare    | Poor        | Poor        | Infill +  | Infill +   | 2   | 3  |
| green ash                  | Fraxinus pennsylvanica | WSH   | Low    | 32.4  | 45.13  | 22.27 | Sm. dec.    | Lg. dec.    | Medium | Rare    | Very Poor   | Very Poor   |           |            | 2   | 4  |
| American elm               | Ulmus americana        | WDH   | Medium | 18.5  | 12.67  | 10.94 | Sm. inc.    | Lg. inc.    | Medium | Rare    | Fair        | Good        | Infill +  |            | 2   | 5  |
| black walnut               | Juglans nigra          | WDH   | Low    | 4.6   | 8.73   | 30.15 | Sm. dec.    | No change   | Medium | Rare    | Very Poor   | Poor        |           | Infill +   | 2   | 6  |
| eastern hophornbeam; ironw | Ostrya virginiana      | WSL   | Low    | 11.7  | 3.02   | 3.23  | Lg. dec.    | Lg. dec.    | High   | Rare    | Poor        | Poor        |           |            | 0   | 7  |
| hackberry                  | Celtis occidentalis    | WDH   | Medium | 7     | 2.91   | 4.55  | No change   | Sm. inc.    | High   | Rare    | Fair        | Good        | Infill +  |            | 2   | 8  |
| silver maple               | Acer saccharinum       | NSH   | Low    | 4.6   | 2.08   | 7.2   | Sm. dec.    | Sm. dec.    | High   | Rare    | Poor        | Poor        |           |            | 0   | 9  |
| boxelder                   | Acer negundo           | WSH   | Low    | 4.6   | 1.82   | 6.3   | No change   | No change   | High   | Rare    | Fair        | Fair        |           |            | 0   | 10 |
| red mulberry               | Morus rubra            | NSL   | Low    | 4.6   | 1.23   | 4.25  | Sm. inc.    | Lg. inc.    | Medium | Rare    | Fair        | Good        |           |            | 2   | 11 |
| American basswood          | Tilia americana        | WSL   | Medium | 4.6   | 0.69   | 2.4   | No change   | No change   | Medium | Rare    | Poor        | Poor        |           |            | 0   | 12 |
| slippery elm               | Ulmus rubra            | WSL   | Low    | 4.6   | 0.64   | 2.2   | Sm. dec.    | Sm. dec.    | Medium | Rare    | Very Poor   | Very Poor   |           |            | 0   | 13 |
| shortleaf pine             | Pinus echinata         | WDH   | High   | 0     | 0      | 0     | New Habitat | New Habitat | Medium | Absent  | New Habitat | New Habitat |           |            | 0   | 14 |
| Virginia pine              | Pinus virginiana       | NDH   | High   | 0     | 0      | 0     | New Habitat | New Habitat | Medium | Absent  | New Habitat | New Habitat |           |            | 0   | 15 |
| red maple                  | Acer rubrum            | WDH   | High   | 0     | 0      | 0     | New Habitat | New Habitat | High   | Absent  | New Habitat | New Habitat |           |            | 3   | 16 |
| American hornbeam; muscle  | Carpinus caroliniana   | WSL   | Low    | 0     | 0      | 0     | Unknown     | Unknown     | Medium | Modeled | Unknown     | Unknown     |           |            | 0   | 17 |
| black hickory              | Carya texana           | NDL   | High   | 0     | 0      | 0     | New Habitat | New Habitat | Medium | Absent  | New Habitat | New Habitat |           |            | 0   | 18 |
| Osage-orange               | Maclura pomifera       | NDH   | Medium | 0     | 0      | 0     | New Habitat | New Habitat | High   | Absent  | New Habitat | New Habitat |           | Migrate +  | 3   | 19 |
| black cherry               | Prunus serotina        | WDL   | Medium | 0     | 0      | 0     | New Habitat | New Habitat | Low    | Absent  | New Habitat | New Habitat |           |            | 3   | 20 |
| scarlet oak                | Quercus coccinea       | WDL   | Medium | 0     | 0      | 0     | New Habitat | New Habitat | Medium | Absent  | New Habitat | New Habitat |           |            | 0   | 21 |
| blackjack oak              | Quercus marilandica    | NSL   | Medium | 0     | 0      | 0     | New Habitat | New Habitat | High   | Absent  | New Habitat | New Habitat |           |            | 0   | 22 |
| northern red oak           | Quercus rubra          | WDH   | Medium | 0     | 0      | 0     | New Habitat | New Habitat | High   | Absent  | New Habitat | New Habitat |           |            | 3   | 23 |
| post oak                   | Quercus stellata       | WDH   | High   | 0     | 0      | 0     | New Habitat | New Habitat | High   | Absent  | New Habitat | New Habitat |           |            | 3   | 24 |
| black oak                  | Quercus velutina       | WDH   | High   | 0     | 0      | 0     | New Habitat | New Habitat | Medium | Absent  | New Habitat | New Habitat |           |            | 3   | 25 |
| black locust               | Robinia pseudoacacia   | NDH   | Low    | 0     | 0      | 0     | New Habitat | New Habitat | Medium | Absent  | New Habitat | New Habitat | Migrate + | Migrate ++ | 3   | 26 |
| black willow               | Salix nigra            | NSH   | Low    | 0     | 0      | 0     | New Habitat | New Habitat | Low    | Absent  | New Habitat | New Habitat |           | Migrate +  | 3   | 27 |