Table S2. Accession Information and Average Assignment Coefficients (*q*) to *J. hindsii*, *J. californica*, *J. major*, *J. microcarpa*, *J. nigra*, and *J. regia* across 25 STRUCTURE Runs for the 82 Species Standards Sampled for This Study. Further details about the DJUG accessions are available at https://npgsweb.ars-grin.gov/gringlobal/search.aspx?. For those samples, codes in the “Individual” column represent specific locations of trees sampled from the USDA National Clonal Germplasm Repository’s (NCG) plantings at the Wolfskill Experimental Orchard in Winters, CA. In cases where two individuals are listed for the same accession number, they represent two seedlings from the same original seed collection. For the *J. nigra* collections provided by the Hardwood Tree Improvement & Regeneration Center (HTIRC), USDA-Forest Service, Northern Research Station, associated with Purdue University, the county of origin (all in Indiana except #623, from an unknown county in New York) of each accession is listed. The 11 individuals marked with asterisks were excluded from final analyses.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Average *q values* across 25 STRUCTURE runs | | | | | |
| Order in Figs. 1 and 2 (L to R) | Presumed Species | Accession Number | Individual or Origin | *hindsii* | *cal.* | *major* | *micro.* | *nigra* | *regia* |
| From Davis NCGR: | | | | | | | | | |
| 1 | *J. hindsii* | DJUG 33 | A6.15 | 0.991 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| 2 | *J. hindsii* | DJUG 34 | A6.07 | 0.992 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| 3 | *J. hindsii* | DJUG 35 | A6.04 | 0.975 | 0.011 | 0.002 | 0.003 | 0.006 | 0.002 |
| 4 | *J. hindsii* | DJUG 36 | A7.11 | 0.991 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| 5 | *J. hindsii* | DJUG 39 | A7.19 | 0.978 | 0.006 | 0.005 | 0.005 | 0.003 | 0.003 |
| 6 | *J. hindsii* | DJUG 41 | A7.24 | 0.990 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| 7 | *J. hindsii* | DJUG 42 | A7.31 | 0.991 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| 8 | *J. hindsii* | DJUG 44 | A8.32 | 0.969 | 0.021 | 0.003 | 0.003 | 0.003 | 0.002 |
| 9 | *J. hindsii* | DJUG 45 | A8.28 | 0.991 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 |
| 10 | *J. hindsii* | DJUG 91 | A9.10 | 0.960 | 0.003 | 0.016 | 0.007 | 0.012 | 0.002 |
| 11 | *J. californica* | DJUG 15 | B2.30 | 0.005 | 0.972 | 0.007 | 0.007 | 0.006 | 0.002 |
| 12 | *J. californica* | DJUG 18 | A3.04 | 0.004 | 0.906 | 0.010 | 0.010 | 0.003 | 0.067 |
| 13 | *J. californica* | DJUG 18 | B3.38 | 0.005 | 0.986 | 0.002 | 0.002 | 0.003 | 0.002 |
| 14 | *J. californica* | DJUG 19 | A3.16 | 0.014 | 0.978 | 0.002 | 0.002 | 0.002 | 0.002 |
| 15 | *J. californica*\* | DJUG 19 | B3.30 | 0.073 | 0.898 | 0.016 | 0.004 | 0.007 | 0.002 |
| 16 | *J. californica* | DJUG 20 | A3.26 | 0.009 | 0.975 | 0.005 | 0.005 | 0.004 | 0.002 |
| 17 | *J. californica* | DJUG 20 | B3.24 | 0.004 | 0.984 | 0.005 | 0.003 | 0.003 | 0.002 |
| 18 | *J. californica* | DJUG 21 | A3.33 | 0.005 | 0.986 | 0.003 | 0.002 | 0.002 | 0.002 |
| 19 | *J. californica* | DJUG 22 | A6.39 | 0.017 | 0.967 | 0.005 | 0.003 | 0.005 | 0.002 |
| 20 | *J. californica* | DJUG 23 | A3.39 | 0.004 | 0.979 | 0.004 | 0.004 | 0.006 | 0.002 |
| 21 | *J. californica* | DJUG 24 | A4.29 | 0.002 | 0.976 | 0.002 | 0.002 | 0.002 | 0.014 |
| 22 | *J. californica* | DJUG 24 | A4.30 | 0.015 | 0.976 | 0.003 | 0.002 | 0.002 | 0.002 |
| 23 | *J. californica* | DJUG 26 | B4.26 | 0.008 | 0.938 | 0.010 | 0.039 | 0.004 | 0.002 |
| 24 | *J. californica* | DJUG 27 | A4.08 | 0.002 | 0.921 | 0.022 | 0.039 | 0.014 | 0.003 |
| 25 | *J. californica* | DJUG 28 | A4.01 | 0.002 | 0.990 | 0.002 | 0.002 | 0.002 | 0.002 |
| 26 | *J. californica* | DJUG 28 | B4.30 | 0.007 | 0.984 | 0.002 | 0.002 | 0.002 | 0.002 |
| 27 | *J. major* | DJUG 47 | A8.14 | 0.004 | 0.010 | 0.932 | 0.029 | 0.022 | 0.002 |
| 28 | *J. major* | DJUG 49 | A5.36 | 0.003 | 0.006 | 0.956 | 0.010 | 0.019 | 0.006 |
| 29 | *J. major* | DJUG 68 | A11.30 | 0.002 | 0.002 | 0.964 | 0.004 | 0.027 | 0.002 |
| 30 | *J. major* | DJUG 69 | A11.37 | 0.002 | 0.002 | 0.978 | 0.004 | 0.010 | 0.002 |
| 31 | *J. major* | DJUG 71 | A12.37 | 0.002 | 0.004 | 0.960 | 0.008 | 0.023 | 0.003 |
| 32 | *J. major* | DJUG 72 | A12.35 | 0.006 | 0.046 | 0.933 | 0.009 | 0.004 | 0.002 |
| 33 | *J. major* | DJUG 73 | A12.32 | 0.002 | 0.002 | 0.932 | 0.051 | 0.008 | 0.005 |
| 34 | *J. major* | DJUG 76 | A12.22 | 0.002 | 0.005 | 0.982 | 0.004 | 0.005 | 0.002 |
| 35 | *J. major* | DJUG 78 | A12.20 | 0.003 | 0.003 | 0.968 | 0.009 | 0.014 | 0.003 |
| 36 | *J. major* | DJUG 79 | A12.13 | 0.002 | 0.005 | 0.970 | 0.017 | 0.003 | 0.003 |
| 37 | *J. major* | DJUG 80 | A12.09 | 0.041 | 0.007 | 0.926 | 0.006 | 0.011 | 0.009 |
| 38 | *J. major* | DJUG 81 | A12.23 | 0.002 | 0.002 | 0.959 | 0.008 | 0.027 | 0.002 |
| 39 | *J. major* | DJUG 82 | A13.01 | 0.009 | 0.009 | 0.971 | 0.005 | 0.004 | 0.002 |
| 40 | *J. major* | DJUG 84 | A13.04 | 0.003 | 0.005 | 0.950 | 0.010 | 0.011 | 0.020 |
| 41 | *J. microcarpa* | DJUG 29 | A6.27 | 0.002 | 0.002 | 0.004 | 0.985 | 0.006 | 0.002 |
| 42 | *J. microcarpa* | DJUG 29 | A6.28 | 0.002 | 0.003 | 0.004 | 0.982 | 0.004 | 0.005 |
| 43 | *J. microcarpa*\* | DJUG 29 | A6.29 | 0.006 | 0.003 | 0.010 | 0.799 | 0.169 | 0.012 |
| 44 | *J. microcarpa*\* | DJUG 29 | A6.30 | 0.002 | 0.002 | 0.203 | 0.776 | 0.013 | 0.002 |
| 45 | *J. microcarpa* | DJUG 29 | B6.05 | 0.004 | 0.008 | 0.009 | 0.948 | 0.025 | 0.006 |
| 46 | *J. microcarpa* | DJUG 29 | B6.06 | 0.002 | 0.005 | 0.005 | 0.980 | 0.006 | 0.002 |
| 47 | *J. microcarpa* | DJUG 29 | B6.07 | 0.002 | 0.003 | 0.011 | 0.958 | 0.023 | 0.002 |
| 48 | *J. microcarpa*\* | DJUG 31 | A6.20 | 0.002 | 0.010 | 0.080 | 0.886 | 0.020 | 0.002 |
| 49 | *J. microcarpa*\* | DJUG 386 | A13.12 | 0.003 | 0.146 | 0.007 | 0.204 | 0.635 | 0.002 |
| 50 | *J. microcarpa* | DJUG 51 | A11.23 | 0.003 | 0.006 | 0.005 | 0.976 | 0.008 | 0.002 |
| 51 | *J. microcarpa* | DJUG 51 | B11.28 | 0.002 | 0.004 | 0.006 | 0.978 | 0.007 | 0.002 |
| 52 | *J. microcarpa* | DJUG 52 | A11.24 | 0.027 | 0.003 | 0.017 | 0.927 | 0.020 | 0.005 |
| 53 | *J. microcarpa* | DJUG 52 | B11.26 | 0.022 | 0.002 | 0.005 | 0.954 | 0.015 | 0.002 |
| 54 | *J. microcarpa* | DJUG 53 | A6.40 | 0.005 | 0.003 | 0.003 | 0.978 | 0.009 | 0.002 |
| 55 | *J. microcarpa* | DJUG 53 | B11.24 | 0.013 | 0.002 | 0.005 | 0.974 | 0.003 | 0.002 |
| 56 | *J. microcarpa* | DJUG 542 | B6.01 | 0.002 | 0.002 | 0.012 | 0.970 | 0.010 | 0.003 |
| 73 | *J. nigra*\* | DJUG 136 | A10.26 | 0.002 | 0.004 | 0.024 | 0.117 | 0.850 | 0.004 |
| 74 | *J. nigra* | DJUG 179 | A11.18 | 0.002 | 0.002 | 0.005 | 0.052 | 0.936 | 0.002 |
| 75 | *J. nigra* | DJUG 183 | A11.22 | 0.002 | 0.003 | 0.027 | 0.005 | 0.958 | 0.002 |
| 76 | *J. nigra*\* | DJUG 57 | A6.22 | 0.004 | 0.005 | 0.104 | 0.820 | 0.070 | 0.002 |
| 77 | *J. regia* | Chandler | Cultivar | 0.003 | 0.002 | 0.005 | 0.002 | 0.002 | 0.987 |
| 78 | *J. regia* | Howard | Cultivar | 0.002 | 0.002 | 0.003 | 0.002 | 0.002 | 0.988 |
| 79 | *J. regia* | Lara | Cultivar | 0.004 | 0.002 | 0.002 | 0.002 | 0.002 | 0.989 |
| 80 | *J. regia* | Serr | Cultivar | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.991 |
| 81 | *J. regia* | Sunland | Cultivar | 0.002 | 0.002 | 0.005 | 0.020 | 0.003 | 0.968 |
| 82 | *J. regia* | Tulare | Cultivar | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.992 |
| From HTIRC, Purdue University: | | | | | | | | | |
| 57 | *J. nigra*\* | #119 | Sullivan | 0.002 | 0.012 | 0.096 | 0.027 | 0.860 | 0.003 |
| 58 | *J. nigra* | #130 | Tippecanoe | 0.002 | 0.002 | 0.004 | 0.005 | 0.984 | 0.002 |
| 59 | *J. nigra*\* | #132 | Morgan | 0.003 | 0.003 | 0.016 | 0.520 | 0.453 | 0.003 |
| 60 | *J. nigra* | #158 | Washington | 0.007 | 0.005 | 0.019 | 0.012 | 0.953 | 0.004 |
| 61 | *J. nigra* | #178 | Morgan | 0.003 | 0.006 | 0.004 | 0.008 | 0.976 | 0.002 |
| 62 | *J. nigra*\* | #205 | Pulaski | 0.004 | 0.004 | 0.396 | 0.176 | 0.418 | 0.002 |
| 63 | *J. nigra* | #272 | Parke | 0.010 | 0.006 | 0.013 | 0.024 | 0.944 | 0.002 |
| 64 | *J. nigra* | #288 | Clark | 0.002 | 0.002 | 0.059 | 0.014 | 0.920 | 0.002 |
| 65 | *J. nigra* | #295 | Jackson | 0.002 | 0.002 | 0.005 | 0.004 | 0.985 | 0.003 |
| 66 | *J. nigra* | #297 | unknown | 0.003 | 0.002 | 0.007 | 0.004 | 0.982 | 0.002 |
| 67 | *J. nigra* | #310 | Jackson | 0.003 | 0.002 | 0.012 | 0.009 | 0.971 | 0.002 |
| 68 | *J. nigra* | #316 | Jackson | 0.002 | 0.002 | 0.003 | 0.007 | 0.984 | 0.002 |
| 69 | *J. nigra*\* | #348 | Clark | 0.006 | 0.004 | 0.036 | 0.304 | 0.644 | 0.003 |
| 70 | *J. nigra* | #55 | Montgomery | 0.017 | 0.005 | 0.012 | 0.005 | 0.959 | 0.002 |
| 71 | *J. nigra* | #623 | New York | 0.002 | 0.002 | 0.007 | 0.008 | 0.978 | 0.002 |
| 72 | *J. nigra* | #644 | Lawrence | 0.002 | 0.010 | 0.023 | 0.008 | 0.955 | 0.002 |