

# Clarifying Taxonomic Boundaries in *Nuphar sagittifolia* (Nymphaeaceae): Insights from Morphology and Population Genetic Diversity

Katherine Culatta,<sup>1\*</sup> Alexander Krings,<sup>1</sup> Lilian P. Matallana-Ramirez,<sup>2,3</sup> and Ross Whetten<sup>2</sup>

<sup>1</sup>Department of Plant and Microbial Biology, North Carolina State University  
Campus Box 7612, Raleigh NC 27695-7612

<sup>2</sup>Department of Forestry and Environmental Resources, North Carolina University  
Campus Box 8001, Raleigh NC 27695

<sup>3</sup>Research and Development. BrightFarms, Inc., 780 Davids Dr., Wilmington, OH 45177

**Supplemental Table 1. Sequences of primers used for SNP genotyping study of 530 individuals of *Nuphar* Sm. (Nymphaeaceae) spp.**

| Locus       | Forward Primer Sequence    | Reverse Primer Sequence    |
|-------------|----------------------------|----------------------------|
| 1: C000822  | GATATGCAATGATGTGTGACCTG    | GGCCCATGTGGATGCAAGAT       |
| 2: C001771  | CACCATGTAGCCACACTATCTCCTTG | TGATGCAATTTGGGTAGTGGTTG    |
| 3: C001933  | GGGGTGAAGAGATCCCCTTA       | TGCACTTCTGGCATGACCATC      |
| 4: C002129  | CAATTGTTTTGCACCGGATGG      | TGCCCTTACTAGATGAGTGAAGCTC  |
| 5: C002474  | AGGGTTTGACTTTGGGGAAACA     | TTTCTTGAAGAAAAAGCGAAT      |
| 6: C002970  | GACTTGGGCCCATTTTCAGGA      | GGTCAGTCCAAACCAGAAGTCCA    |
| 7: C004025  | GGCTATTCGGTACCTGTCATGATGT  | TCCGATCCATAAAAAATGAGTCTCTC |
| 8: C004415  | CAAGCAGGGTTTTTCGCAGGA      | CGCGCTGCAGTTTTTGCTG        |
| 9: C005919  | GGTTTGCAAATGGAATTCAGCA     | TGAGGGTTGCACCAGTTTGC       |
| 10: C006065 | TGGATTTGGGACAGCCAAAAA      | GGGGTGCAGCCATGGAATTT       |
| 11: C006650 | CCACCCACCTTTGCCTAT         | GGCTAGATCAGGCAAGTTCAGG     |
| 12: C006744 | GAGCCACAAGATTTCAAAATTGC    | TGATCGGCTTTTTCCCATCAA      |
| 13: C007094 | TGCCCAGGACAGTGCCAATA       | GGGCAAAACACTCGGCCTAA       |
| 14: C007902 | CAAATTGGCCTGGCCTAACC       | GAGGAACTGGGTTTCCGAGA       |
| 15: C008377 | GGAAGCCCCAGATTCTGTAAGTC    | TCTCCCATCCCGAATTTTCA       |
| 16: C008793 | CTGGTCTTTTTCGAACAATTCATCC  | GGAATGCATGCCTATTTGTTCG     |
| 17: C010183 | GGGAATTGCAGTACCCCTCGT      | TGAGGACTCGTAAAGGCACATCA    |
| 18: C011447 | GGCCAACATTAGGCAGACTTCA     | GCACTTGCAGTCTTTCACCTCA     |
| 19: C011738 | TTGGTGGTTCTCACCATCAAATC    | TTCCATCGAGCAGGGATCAA       |
| 20: C012411 | GGTATGGCTATGCAAGTGGCTTATG  | ACCCACCAGCAGCTCCCATC       |
| 21: C013422 | CAAAATCAGGCTCTTGGGAACC     | CACATACATAAAGCTCGTGGGAGGA  |
| 22: C013764 | GGTCTTCCGAATAGGGTCCTAGA    | TGTTGTTGGTTGTTTCATTTCA     |
| 23: C014091 | GACGAGCTTCGACCTTGCAG       | CTTGCCCAAGGGCTTCAC         |
| 24: C014373 | GCCTGTGATTTAGTAGAATGGGAAT  | TGCAGTCACTATGCACTTCCAAA    |
| 25: C014687 | ACAAATTGCATATCTTCACGA      | TCGTTGTCAGTACCCAAACATCAA   |
| 26: C015211 | CCGATATCCCAAGCCATCCTT      | CCAGGGTAACATGAGTTTAGCA     |

\*email address: [kculatta@gmail.com](mailto:kculatta@gmail.com)

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**Supplemental Table 2. Descriptive statistics of the loci across all populations of *N. sagittifolia* s.s. Variant sites=the number of SNPs on each contig (locus), N=the total number of genotyped individuals at each locus (total  $n=234$ ), A=the number of alleles at each locus.**

| <b>Locus</b> | <b>Variant Sites</b> | <b>N</b> | <b>A</b> |
|--------------|----------------------|----------|----------|
| 1: C000822   | 2                    | 196      | 3        |
| 2: C001771   | 1                    | 175      | 2        |
| 3: C001933   | 3                    | 233      | 4        |
| 4: C002129   | 1                    | 233      | 2        |
| 5: C002474   | 0                    | 234      | 1        |
| 6: C002970   | 2                    | 213      | 4        |
| 7: C004025   | 1                    | 193      | 3        |
| 8: C004415   | 1                    | 204      | 2        |
| 9: C005919   | 2                    | 215      | 3        |
| 10: C006065  | 1                    | 173      | 2        |
| 11: C006650  | 2                    | 230      | 2        |
| 12: C006744  | 0                    | 233      | 1        |
| 13: C007094  | 3                    | 215      | 4        |
| 14: C007902  | 0                    | 234      | 1        |
| 15: C008377  | 7                    | 198      | 4        |
| 16: C008793  | 1                    | 221      | 3        |
| 17: C010183  | 3                    | 232      | 4        |
| 18: C011447  | 1                    | 231      | 2        |
| 19: C011738  | 2                    | 220      | 2        |
| 20: C012411  | 5                    | 229      | 5        |
| 21: C013422  | 4                    | 223      | 4        |
| 22: C013764  | 1                    | 202      | 2        |
| 23: C014091  | 1                    | 218      | 2        |
| 24: C014373  | 1                    | 202      | 2        |
| 25: C014687  | 1                    | 224      | 2        |
| 26: C015211  | 0                    | 231      | 1        |
| <b>Mean</b>  | 1.8                  | 216      | 2.6      |