**Supplementary file 1.** *A. marmoratus* genome assembly statistics

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| **Statistic** | **Meraculous** | **HiRise** | **Units** |
| N50 | 1600688 | 32220929 | bp |
| N90 | 413554 | 7979424 | bp |
| max\_scaffold | 11507399 | 85027298 | bp |
| mean\_scaffold | 188287.18 | 428523.466 | bp |
| median\_scaffold | 1703 | 1450 | bp |
| min\_scaffold | 1000 | 927 | bp |
| number of scaffolds | 8705 | 3826 | bp |
| perc\_A | 27.06 | 27.04 | % |
| perc\_C | 20.14 | 20.12 | % |
| perc\_G | 20.13 | 20.13 | % |
| perc\_N | 5.64 | 5.67 | % |
| perc\_T | 27.04 | 27.04 | % |
| perc\_genome\_covered\_by\_scaffolds\_greater\_than\_100kb | 97.99 | 99.46 | % |
| perc\_genome\_covered\_by\_scaffolds\_greater\_than\_10kb | 99.28 | 99.63 | % |
| perc\_genome\_covered\_by\_scaffolds\_greater\_than\_1mb | 69.83 | 98.47 | % |
| scaffolds\_greater\_than\_100Mb | 0 | 0 |  |
| scaffolds\_greater\_than\_100kb | 1588 | 133 |  |
| scaffolds\_greater\_than\_10Mb | 2 | 45 |  |
| scaffolds\_greater\_than\_10kb | 2076 | 223 |  |
| scaffolds\_greater\_than\_1Mb | 545 | 90 |  |
| total bases | 1639039918 | 1639530780 | bp |
| non\_n\_GC% | 42.67 | 42.67 | % |
| non\_n\_AT% | 57.33 | 57.33 | % |