**Table S1.** Genetic diversity parameters calculated for the species studied.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Locus** | **A** | **HE** | | | | **HO** | **HE** | **HT** | **GST** | **FST** | **FIS** | **PIC** |
| **P1** | **P2** | **P3** | **P4** |
| ***M. brachyloba*** | **SSRY164** | 5 | 0.447 | 0.255 | 0.337 | 0.486 | 0.222 | 0.385 | 0.771 | 0.501 | 0.388 | 0.393 | 0.457 |
| **SSRY161** | 13 | 0.481 | 0.397 | 0.779 | 0.000 | 0.175 | 0.419 | 0.934 | 0.552 | 0.545 | 0.468 | 0.723 |
| **SSRY59** | 12 | 0.820 | 0.382 | 0.800 | 0.121 | 0.133 | 0.540 | 0.956 | 0.434 | 0.411 | 0.612 | 0.826 |
| **SSRY21** | 2 | 0.000 | 0.000 | 0.000 | 0.514 | 0.234 | 0.125 | 0.234 | 0.467 | 0.554 | 0.879 | 0.113 |
| **SSRY175** | 10 | 0.485 | 0.104 | 0.642 | 0.698 | 0.504 | 0.479 | 0.873 | 0.452 | 0.422 | 0.170 | 0.535 |
| **SSRY5** | 22 | 0.847 | 0.863 | 0.468 | 0.063 | 0.185 | 0.574 | 0.861 | 0.334 | 0.247 | 0.664 | 0.911 |
| **SSRY20** | 13 | 0.646 | 0.742 | 0.279 | 0.234 | 0.251 | 0.485 | 0.831 | 0.417 | 0.317 | 0.388 | 0.782 |
| **MEESR15** | 4 | 0.087 | 0.000 | 0.337 | 0.000 | 0.065 | 0.105 | 0.120 | 0.126 | 0.098 | 0.346 | 0.090 |
| **MEESR60** | 5 | 0.000 | 0.536 | 0.626 | 0.498 | 0.405 | 0.412 | 0.608 | 0.322 | 0.373 | 0.120 | 0.415 |
| **C283Y** | 9 | 0.730 | 0.754 | 0.658 | 0.000 | 0.375 | 0.541 | 0.889 | 0.391 | 0.303 | 0.590 | 0.838 |
| **Mean** | **9.5** | **0.454** | **0.403** | **0.493** | **0.261** | **0.255** | **0.406** | **0.708** | **0.426** | **0.372** | **0.437** | **0.569** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***M. carthaginensis*** | **SSRY164** | 3 | 0.000 | 0.166 | 0.173 |  | 0.080 | 0.113 | 0.115 | 0.013 | 0.034 | 0.471 | 0.165 |
| **SSRY161** | 13 | 0.078 | 0.742 | 0.784 |  | 0.355 | 0.536 | 0.958 | 0.441 | 0.520 | 0.349 | 0.726 |
| **SSRY59** | 12 | 0.326 | 0.845 | 0.481 |  | 0.321 | 0.557 | 0.925 | 0.397 | 0.362 | 0.423 | 0.738 |
| **SSRY21** | 9 | 0.505 | 0.490 | 0.810 |  | 0.607 | 0.599 | 0.970 | 0.382 | 0.442 | 0.099 | 0.785 |
| **SSRY175** | 3 | 0.000 | 0.058 | 0.173 |  | 0.061 | 0.076 | 0.079 | 0.037 | 0.041 | 0.482 | 0.071 |
| **SSRY5** | 7 | 0.339 | 0.441 | 0.641 |  | 0.297 | 0.476 | 0.715 | 0.335 | 0.432 | 0.488 | 0.577 |
| **SSRY20** | 6 | 0.103 | 0.319 | 0.450 |  | 0.218 | 0.291 | 0.308 | 0.055 | 0.078 | 0.291 | 0.238 |
| **MEESR15** | 2 | 0.000 | 0.163 | 0.000 |  | 0.020 | 0.056 | 0.059 | 0.050 | 0.056 | 0.645 | 0.060 |
| **MEESR60** | 4 | 0.026 | 0.029 | 0.505 |  | 0.285 | 0.180 | 0.281 | 0.360 | 0.395 | 0.462 | 0.132 |
| **C283Y** | 8 | 0.774 | 0.568 | 0.610 |  | 0.200 | 0.663 | 0.702 | 0.055 | 0.088 | 0.662 | 0.713 |
| **Mean** | **6.7** | **0.215** | **0.382** | **0.463** |  | **0.244** | **0.355** | **0.511** | **0.306** | **0.349** | **0.358** | **0.420** |

**Table 2.** (cont.)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Locus** | **A** | **HE** | | | | **HO** | **HE** | **HT** | **GST** | **FST** | **FIS** | **PIC** |
| **P1** | **P2** | **P3** | **P4** |
| ***M. esculenta*** | **SSRY164** | 14 | 0.804 | 0.729 | 0.821 | 0.800 | 0.771 | 0.789 | 0.920 | 0.111 | 0.117 | 0.154 | 0.795 |
| **SSRY161** | 13 | 0.705 | 0.816 | 0.250 | 0.356 | 0.459 | 0.551 | 0.854 | 0.293 | 0.174 | 0.199 | 0.801 |
| **SSRY59** | 10 | 0.767 | 0.710 | 0.714 | 0.711 | 0.394 | 0.749 | 0.886 | 0.120 | 0.103 | 0.021 | 0.739 |
| **SSRY21** | 11 | 0.735 | 0.693 | 0.679 | 0.556 | 0.769 | 0.661 | 0.855 | 0.180 | 0.067 | 0.111 | 0.679 |
| **SSRY175** | 18 | 0.849 | 0.799 | 0.821 | 0.511 | 0.763 | 0.748 | 0.923 | 0.149 | 0.144 | 0.033 | 0.868 |
| **SSRY5** | 9 | 0.213 | 0.619 | 0.679 | 0.378 | 0.535 | 0.463 | 0.580 | 0.159 | 0.160 | 0.195 | 0.469 |
| **SSRY20** | 8 | 0.675 | 0.645 | 0.786 | 0.511 | 0.633 | 0.655 | 0.804 | 0.145 | 0.117 | 0.121 | 0.681 |
| **MEESR15** | 11 | 0.555 | 0.613 | 0.679 | 0.511 | 0.454 | 0.598 | 0.852 | 0.242 | 0.160 | 0.164 | 0.657 |
| **MEESR60** | 7 | 0.147 | 0.257 | 0.750 | 0.733 | 0.594 | 0.439 | 0.709 | 0.316 | 0.208 | 0.015 | 0.308 |
| **C283Y** | 6 | 0.092 | 0.157 | 0.750 | 0.533 | 0.268 | 0.375 | 0.536 | 0.244 | 0.251 | 0.321 | 0.221 |
| **Mean** | **10.7** | **0.554** | **0.604** | **0.693** | **0.560** | **0.564** | **0.603** | **0.792** | **0.191** | **0.137** | **0.049** | **0.622** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ***M. tristis*** | **SSRY164** | 2 | 0.043 | 0.000 | 0.000 |  | 0.014 | 0.015 | 0.014 | 0.016 | 0.027 | 0.016 | 0.060 |
| **SSRY161** | 6 | 0.379 | 0.654 | 0.771 |  | 0.383 | 0.609 | 0.828 | 0.193 | 0.326 | 0.355 | 0.639 |
| **SSRY59** | 1 | 0.000 | 0.000 | 0.000 |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| **SSRY21** | 3 | 0.202 | 0.000 | 0.209 |  | 0.147 | 0.137 | 0.139 | 0.009 | 0.002 | 0.070 | 0.145 |
| **SSRY175** | 1 | 0.000 | 0.000 | 0.000 |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.020 |
| **SSRY5** | 12 | 0.824 | 0.758 | 0.765 |  | 0.778 | 0.783 | 0.883 | 0.078 | 0.100 | 0.074 | 0.806 |
| **SSRY20** | 1 | 0.000 | 0.000 | 0.000 |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| **MEESR15** | 5 | 0.591 | 0.307 | 0.771 |  | 0.575 | 0.556 | 0.704 | 0.151 | 0.163 | 0.103 | 0.600 |
| **MEESR60** | 2 | 0.043 | 0.000 | 0.000 |  | 0.014 | 0.015 | 0.014 | 0.016 | 0.027 | 0.016 | 0.059 |
| **C283Y** | 1 | 0.000 | 0.000 | 0.000 |  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| **Mean** | **3.4** | **0.208** | **0.172** | **0.252** |  | **0.191** | **0.212** | **0.258** | **0.128** | **0.178** | **0.085** | **0.233** |

A= number of alleles per locus, HO = observed heterozygosity, HE = expected heterozygosity (genetic diversity), HT = total heterozygosity, GST and FST = coefficient of genetic differentiation, FIS = inbreeding coefficient, PIC = Polymorphism Information Content.