**Table S1.** Collection ID, Sample size, location, collection date, and the type of origin of the source populations of the selected *M. balbisiana* seed collections

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Seed collection** | **Collection ID** | **Sample size** | **Location** | **Collection date** | **Type of origin** |
| Amami (Japan) | Bal-76 | 45 | 28°08’ N, 129°20’ E | February 2015 | Feral |
| Hainan (China) | Bal-86 | 48 | 19°31’ N, 109°29’ E | September 2015 | Natural |
| Lae (Papua New Guinea) | SJP-922 | 23 | 6°41' S, 146°56' E | June 2017 | Feral |
| Arusha (Tanzania) | Bal-1 | 15 | 3°24 N, 36°46’ E | Unknown | *Ex situ* Field collection |
| Kampala (Uganda) | Bal-33 | 31 | 0°20' N 32°36' E | June 2014 | *Ex situ* Field collection |
| Yunnan-1 (China) | Bal-43 | 48 | 24°42’ N, 97°34’ E | September 2010 | Natural(region of origin) |
| Yunnan-2 (China) | Bal-45 | 37 | 24°42’ N, 97°34’ E | September 2010 | Natural(region of origin) |

**Table S2** Overview of the 18 microsatellite markers used in this study. The underlined part of the reverse sequences indicates the sequence of the primer tail: Q1 = TGTAAAACGACGGCCAGT; Q2 = TAGGAGTGCAGCAAGCAT; Q3 = CACTGCTTAGAGCGATGC (Schuelke, 2000)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Locus** | **Repeat motif** | **Primer sequence (5’→3’)** | **Labeled primer** | **Expected Allele size** | **Reference** |
| *Multiplex 1* |
| BB\_GAA-31 | (AG)6 | ACCGAAGAAAACGAAGCAGA | Q1-6-FAM | 155-432 | Rotchanapreeda *et al.,* 2016 |
|  |  | TGTAAAACGACGGCCAGTGACCCTCGGATGTGTGTACC |  |  |  |
| Mbg02 | (GA)7 | ACACCGAGAGAGAGAGAGAGGACAC | Q1-6-FAM | 140-260 | Wang *et al.,* 2011 |
|  |  | TGTAAAACGACGGCCAGTTAGTGCGCTGATATGTCGAGTGC |  |  |  |
| Mbg04 | (GA)8;(TTTGC)4(TG)2 (TA)5GGG (AT)3 | CCGAGAGAGAGAGAGAGAGGGTTTG | Q2-NED | 122-145 | Wang *et al.,* 2011 |
|  |  | TAGGAGTGCAGCAAGCATCTCCATCAGTCATGTAAAGCCCC |  |  |  |
| Mbg13 | (AGG)3AG(AGG) | AAGAACAGAGCCAAGTGCG | Q2-NED | 180-236 | Wang *et al.,* 2011 |
|  |  | TAGGAGTGCAGCAAGCATGTCCCGTTCTTGGTAACTTTGT |  |  |  |
| BB\_CT-37 | (TG)9(GA)21 | TGTTGGATTGCCATGGTATG | Q3-VIC | 88-456 | Rotchanapreeda *et al.,* 2016 |
|  |  | CACTGCTTAGAGCGATGCTCCGAGTCTACTCCCAAGGA |  |  |  |
| *Multiplex 2* |
| MaSSR01 | Unknown | TGAGGCGGGGAATCGGTA | Q1-6-FAM | 100-150 | Ge *et al.,* 2005 |
|  |  | TGTAAAACGACGGCCAGTGGCGGGAGACAGATGGAGTT |  |  |  |
| BB\_CT-11 | (TC)8 | GGCTGTACTCCTGTGGTGGT | Q1-6-FAM | 95-459 | Rotchanapreeda *et al.,* 2016 |
|  |  | TGTAAAACGACGGCCAGTTGTCACCAATCCATGACCAG |  |  |  |
| BB\_GAA-4 | (AG)22(CA)4 | GATTGCTTGCAGATAATGAACTTT | Q2-NED | 92-236 | Rotchanapreeda *et al.,* 2016 |
|  |  | TAGGAGTGCAGCAAGCATGTACCGAAGCTTCCACCAAA |  |  |  |
| BB\_CT-33 | (TG)8(GA)10 | GGCAATGTCTCATAAGAAAGAGAG | Q3-VIC | 99-239 | Rotchanapreeda *et al.,* 2016 |
|  |  | CACTGCTTAGAGCGATGCTTTTGCACCTTTGCAGAGAA |  |  |  |
| *Multiplex 3* |
| Mbg06 | (GAA)8 | AGCAACCCGTGGATAAAGAGC | Q1-6-FAM | 125-190 | Wang *et al.,* 2011 |
|  |  | TGTAAAACGACGGCCAGTTCCCTCTCGCTCCTCTTCTTC |  |  |  |
| BB\_CT-15 | (TC)20 | CACCATTTGTGATGCCACTC | Q1-6-FAM | 85-244 | Rotchanapreeda *et al.,* 2016 |
|  |  | TGTAAAACGACGGCCAGTTAGGCCACATACCCAGCTTC |  |  |  |
| BB\_GT-10 | (GA)5 | GAGTGATCCCACCTTGAGGA | Q2-NED | 109-337 | Rotchanapreeda *et al.,* 2016 |
|  |  | TAGGAGTGCAGCAAGCATGCCAACCATCATTGGAGAC |  |  |  |
| BB\_AAC-3 | (TC)4(TC)4 | AAATTCGGGGGTCAAAAAGT | Q3-VIC | 157-172 | Rotchanapreeda *et al.,* 2016 |
|  |  | CACTGCTTAGAGCGATGCGAGGGATTTATGGGACGACA |  |  |  |
| BB\_CT-7 | (AG)5 | ACGCAACGAGACACACAAAC | Q3-VIC | 109-231 | Rotchanapreeda *et al.,* 2016 |
|  |  | CACTGCTTAGAGCGATGCGAACGAGAAACTGCCTTTGC |  |  |  |
| *Multiplex 4* |
| BB\_CT-6 | (TC)19(AC)5 | GGCTTGGTCATCAGAGGAAG | Q1-6-FAM | 115-288 | Rotchanapreeda *et al.,* 2016 |
|  |  | TGTAAAACGACGGCCAGTTGAAGCCAAACCTTTATTGC |  |  |  |
| Mbg01 | (GA)6 | GAGAGAGAGAGATCGTTTAGCAGTG | Q2-NED | 130-180 | Wang *et al.,* 2011 |
|  |  | TAGGAGTGCAGCAAGCATAGAGGCTCGTGATTCATGTGGTC |  |  |  |
| BB\_CT-8 | (CT)18 | GTTCAAGCATCCTCAGCACA | Q2-NED | 102-274 | Rotchanapreeda *et al.,* 2016 |
|  |  | TAGGAGTGCAGCAAGCATCCGAAAGGAGAAACCAGTTG |  |  |  |
| BB\_CT-2 | (AG)10 | TTGTTTTGCTGATGCTGACC | Q3-VIC | 123-271 | Rotchanapreeda *et al.,* 2016 |
|  |  | CACTGCTTAGAGCGATGCGCGATAACATTCTCCGCAAT |  |  |  |