**Isolation and characterization of microsatellite markers for the threatened African endemic tree species *Pterocarpus erinaceus* Poir.**

Benziwa Nathalie Johnson\*1, Marie Luce Akossiwoa Quashie1, Gilles Chaix2,3, Letizia Camus-Kulandaivelu2,3, Kossi Adjonou1, Kossi Novinyo Segla1, Adzo Dzifa Kokutse1,Kouami Kokou1, Hélène Vignes2,3

*1Laboratoire de Recherche Forestière (LRF), Université de Lomé, 01BP 1515, Lomé (Togo)*

*2CIRAD, UMR AGAP, F-34395 Montpellier, France*

*3AGAP, Univ Montpellier, CIRAD, INRAe, Institut Agro, Montpellier, France*

Correspondence should be addressed to Benziwa Nathalie Johnson; [benziwa.johnson@gmail.com](mailto:benziwa.johnson@gmail.com)

Table 2: Characteristics of 17 microsatellite primers designed for *Pterocarpus erinaceus* Poir.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Primer name | Primer sequences (5'-3') | Repeat motif | Allele size | TA°C | Na | Ho | He | p-value |
| mPeCIR\_D1 | F : TTTCTTCTACTTTCCTTTCCC | (CT)15 | 109-124 | 54.4 | 16 | 0.698 | 0.735 | 0.0000\*\*\* |
| R : AAGCAGGCTCAAGAGAAGA |
| mPeCIR\_D2 | F : AACATGCAAGCAAAGCA | (AG)13 | 107-123 | 54.6 | 12 | 0.736 | 0.672 | 0.0000\*\*\* |
| R : AAGGTGGAGCTAAAGAAGGT |
| mPeCIR\_D4 | F : TCGGTTTTGGTCTTTGTG | (TC)14 | 152-167 | 55.4 | 16 | 0.821 | 0.781 | 0.0000\*\*\* |
| R : CAGACCGTTGGGAAGAA |
| mPeCIR\_D5 | F : TGTCCCGTGAAGAAAGG | (GA)10 | 102-159 | 55.3 | 10 | 0.428 | 0.385 | 0.0000\*\*\* |
| R : AAGCAGGCTCAAGAGAAGA |
| mPeCIR\_D7 | F : CGTCAGCCTCCAATCTC | (GA)14 | 189-203 | 54.9 | 20 | 0.686 | 0.676 | 0.0017\*\*\* |
| R : CGCTTGATTTGGTCCTC |
| mPeCIR\_D8 | F : CTCATGGGCACAGAACAA | (TA)11 | 177-205 | 56.4 | 30 | 0.706 | 0.749 | 0.0085\*\*\* |
| R : GATGGGCTTCACAGCAA |
| mPeCIR\_D9 | F : TTTCCCGGTGTCAAGAA | (TC)16 | 188-208 | 55.8 | 20 | 0.706 | 0.685 | 0.0017\*\*\* |
| R : GACACACGCACATACAGAGA |
| mPeCIR\_D10 | F : TCACCAAAACATGCACAA | (TG)14 | 214-230 | 55.1 | 11 | 0.464 | 0.52 | 0.0000\*\*\* |
| R : GCTCATGCTTAGCCCC |
| mPeCIR\_D11 | F : GGGTTAGAGTTTGAATGGG | (AG)17 | 221-239 | 54.5 | 22 | 0.753 | 0.784 | 0.0000\*\*\* |
| R : GCCTTCCTCAGCACTATTT |
| mPeCIR\_D12 | F : AACCTGCCCATCCATTT | (TC)16 | 238-253 | 56.1 | 10 | 0.522 | 0.538 | 0.0000\*\*\* |
| R : TACACTGGGTCGTTGGG |
| mPeCIR\_D14 | F : CAGCACTGGCACCAAC | (AG)13 | 280-307 | 55.1 | 29 | 0.758 | 0.778 | 0.0000\*\*\* |
| R : CACCACACCGCTTAATGT |
| mPeCIR\_T1 | F : TCCATTGGGGTATCTATGTG | (ATC)6 | 115-121 | 55.7 | 4 | 0.234 | 0.34 | 0.0000\*\*\* |
| R : CCTCAAGGGTGTTTTGTGT |
| mPeCIR\_T2 | F : ATCACGGGCTCTTCCTC | (TCT)8 | 121-130 | 56.0 | 9 | 0.379 | 0.432 | 0.0000\*\*\* |
| R : TCATTGTTTCTGCAAATCCT |
| mPeCIR\_T3 | F : GGCCATTCTTCATGTGTTT | (CTT)8 | 99-146 | 55.9 | 9 | 0.395 | 0.387 | 0.1139ns |
| GGAGATGGGTGAGAGTGAA |
| mPeCIR\_T4 | F : CAGGAGGGGTGGTGG | (GAA)6 | 146-152 | 56.3 | 4 | 0.315 | 0.307 | 0.3077ns |
| R : GCATCCTAGCCCGATTT |
| mPeCIR\_T5 | F : AGACCCGAACTTGTCCC | (TTA)11 | 145-167 | 55.7 | 11 | 0.478 | 0.61 | 0.4590ns |
| R : TGCCAGTGTGTGATGGA |
| mPeCIR\_T15 | F : CCCTCATCAAGAAGAACCA | (ACA)7 | 277-295 | 56.0 | 4 | 0.295 | 0.332 | 0.0000\*\*\* |
| R : CTTGCATCACCACCCTC |

***Na****: number of individuals;* ***Ho****: observed heterozygosity;* ***He****: expected heterozygosity under Hardy–Weinberg equilibrium;* ***TA°C****: annealing temperature. p-values for the Hardy–Weinberg Equilibrium test, significance threshold adjusted using sequential Bonferroni correction: \*p ≤ 0.05, \*\*\*p ≤ 0.001, ns = not significant*