**Additional file 3: Table S3.** PCR primer sequences used at Lab2, at Lab3 and in this study for the Apennine brown bear individual identification.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Primer  Lab2 | Sequences  Lab2 | References | Primer  Lab3 | Sequences  Lab3 and this study | References |
| SE47 | 5’-CAGCCAAACCTCCCTCTGC-3’ | Ennis and Gallagher (1994) | Amel4 | 5’-AGAGGCAGGTCAGGAAGCAT-3’ | Modified at Lab3 |
| SE48 | 5’-CCCGCTTGGTCTTGTCTGTTGC-3’ | Ennis and Gallagher (1994) | SE47 | 5’-CAGCCAAACCTCCCTCTGC-3’ | Ennis and Gallagher (1994) |
| CXX20\_F | 5’-AGCAACCCCTCCCATTTACT-3’ | [66] | CXX20\_F | 5’-AGCAACCCCTCCCATTTACT-3’ | [66] |
| CXX20\_R | 5’-TTGTCTGAATAGTCCTCTGCG-3’ | [66] | CXX20\_R | 5’-TTGTCTGAATAGTCCTCTGCG-3’ | [66] |
| REN144A06\_F | 5’-TTTTATGGTTGAGTGCTATTCC-3’ | [65] | REN144A06\_F | 5’-TTTTATGGTTGAGTGCTATTCC-3’ | [65] |
| REN144A06\_R | 5’-GAAATTGGCCACAGTTCCAT-3’ | [65] | REN144A06\_R | 5’-GAAATTGGCCACAGTTCCAT-3’ | [65] |
| G1D\_F | 5’-ATCTGTGGGTTTATAGGTTACA-3’ | [21] | G1D\_FIm | 5’-CCATCTCTCTTTTCCTTTAGGG-3’ | Modified at Lab3 |
| G1D\_R | 5’-CTAGCACCCAGCAAGGTA-3’ | [21] | G1D\_RI | 5’-CTACTCTTCCTACTCTTTAAGAG-3’ | [21] (Internal primer) |
| Mu51\_F | 5’-GCCAGAATCCTAAGAGACCT-3’ | [21] | Mu51\_Fb | 5’-AGCCAGAATCCTAAGAGACCT-3’ | Modified at Lab3 |
| Mu51\_R | 5’-GAAAGGTTAGATGGAAGAGATG-3’ | [21] | Mu51\_RIb | 5’-AAAGAGAAGGGACAGGAGGTA-3’ | Modified at Lab3 |
| G10B\_F | 5’-AAGCCTTTTAATGTTCTGTTG-3’ | [21] | G10B\_FI | 5’-TGCTAATATTTTCTTGAGGACT-3’ | [21] (Internal primer) |
| G10B\_R | 5’-AGGACAAATCACAGAAACCT-3’ | [21] | G10B\_R | 5’-AGGACAAATCACAGAAACCT-3’ | [21] |
| G10C\_F | 5’-CAACAAAAGGTTGAAGGGAG-3’ | [21] | G10C\_FI | 5’-GTCTGCAAAAGCAGAAGG-3’ | [21] (Internal primer) |
| G10C\_R | 5’-AAACACCGAGACAGCAGG-3’ | [21] | G10C\_R | 5’-AAACACCGAGACAGCAGG-3’ | [21] |
| Mu59\_F | 5’-GCTCCTTTGGGACATTGTAA-3’ | [21] | Mu59\_F | 5’-GCTCCTTTGGGACATTGTAA-3’ | [21] |
| Mu59\_R | 5’-TGGATAGCATTCAGGCAT-3’ | [21] | Mu59\_RIb | 5’-TGACTGTCACCAGCAGGAG-3’ | Modified at Lab3 |
| Mu11\_F | 5’-AATGTGAAAAAGAAAAGGTAGG-3’ | [21] | Mu11\_FI | 5’-AAGTAATTGGTGAAATGACAGG-3’ | [21] (Internal primer) |
| Mu11\_R | 5’-GAACCCTTCACCGAAAATC-3’ | [21] | Mu11\_R | 5’-GAACCCTTCACCGAAAATC-3’ | [21] |
| Mu05\_F | 5’-AATCTTTTCACTTATGCCCA-3’ | [21] | Mu05\_FI | 5’-AATCTTTTCACTTATGCCCA-3’ | [21] (Internal primer) |
| Mu05\_R | 5’-GAAACTTGTTATGGGAACCA-3’ | [21] | Mu05\_R | 5’-GAAACTTGTTATGGGAACCA-3’ | [21] |
| G10L\_F | 5’-GGACAGGATATTGACATTGA-3’ | [21] | G10L\_FI | 5’-ACTGATTTTATTCACATTTCCC-3’ | [21] (Internal primer) |
| G10L\_R | 5’-CAGAAACCTACCCATGCG-3’ | [21] | G10L\_R | 5’-GATACAGAAACCTACCCATGCG-3’ | Modified at Lab3 |
| Mu50\_F | 5’-TCTCTGTCATTTCCCCATC-3’ | [21] | Mu50\_Fb | 5’-GTCTCTGTCATTTCCCCATC-3’ | Modified at Lab3 |
| Mu50\_R | 5’-AAAGGCAATGCAGATATTGT-3’ | [21] | Mu50\_RIb | 5’-AACCTGGAACAAAAATTAACAC-3’ | Modified at Lab3 |
| G10P\_F | 5’-CCAGGGCAAGAAATAATGAG-3’ | [21] | G10P\_Fp | 5’-AGTTTTACATAGGAGGAAGAA-3’ | Modified at Lab3 |
| G10P\_R | 5’-AAAAGGCCTAAGCTACATCG-3’ | [21] | G10P\_Rp | 5’-TCATGTGGGGAAATACTCTGAA-3’ | Modified at Lab3 |
| Mu15\_F | Not used at Lab2 | [21] | Mu15\_FI | 5’-CTGAATTATGCAATTAAACAGC-3’ | [21] (Internal primer) |
| Mu15\_R | Not used at Lab2 | [21] | Mu15\_R | 5’-AAATAAGGGAGGCTTGGGT-3’ | [21] |