**Table S1. Pairwise genetic relatedness among analysed pairs of Blue-crowned Laughingthrush individuals.**

Genetic kinship between each pair of individuals that has the highest likelihood at lower diagonal (PO = Parent / Offspring; FS = Full siblings; HS = Half siblings; U = Unrelated), and the pairwise relatedness based on the Queller and Goodnight estimator (RQG) are provided for each pair of individuals at upper diagonal. Table S2a. indicate OPHK population of Blue-crowned Laughingthrush, and Table S2b. indicate NCZ population of Blue-crowned Laughingthrush. (OPHK: Ocean Park Hong Kong, NCZ: Nanchang Zoo).

**Table S1a.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| OPHK　 | 6027 | 6028 | 6029 | 6030 | 6031 | 6032 | 6033 | 6034 | 6035 | 6036 | 6037 | 6038 | 6039 | 6040 |
| SYSb6027 |  | -0.58  | -1.09  | -0.46  | -0.38  | -0.69  | -0.65  | -0.41  | -0.51  | -0.38  | -0.52  | -0.88  | -1.05  | -1.05  |
| SYSb6028 | U |  | 0.15  | 0.67  | 0.07  | -0.56  | -0.30  | 0.62  | 0.10  | 0.07  | -0.84  | 0.14  | -0.70  | -0.70  |
| SYSb6029 | U | HS |  | -0.39  | -0.44  | -0.70  | -0.29  | -0.29  | -0.19  | -0.44  | -0.19  | -0.31  | -0.47  | -0.47  |
| SYSb6030 | U | PO | HS |  | -0.07  | -0.69  | -0.44  | 0.46  | -0.07  | -0.07  | -0.74  | -0.02  | -0.94  | -0.94  |
| SYSb6031 | U | U | U | U |  | 0.61  | 0.38  | 0.21  | 0.81  | 1.00  | 0.18  | 0.37  | 0.42  | 0.42  |
| SYSb6032 | U | U | U | U | U |  | -0.12  | -0.44  | 0.17  | 0.61  | 0.47  | -0.13  | 0.71  | 0.71  |
| SYSb6033 | U | U | U | U | U | U |  | 0.31  | 0.18  | 0.38  | -0.03  | 0.45  | -0.44  | -0.44  |
| SYSb6034 | U | FS | U | HS | U | U | PO |  | 0.28  | 0.21  | -0.55  | 0.31  | -0.47  | -0.47  |
| SYSb6035 | U | U | U | U | U | PO | U | U |  | 0.81  | 0.21  | 0.17  | 0.45  | 0.45  |
| SYSb6036 | U | U | U | U | FS | FS | U | U | PO |  | 0.18  | 0.37  | 0.42  | 0.42  |
| SYSb6037 | U | U | HS | U | U | PO | U | U | PO | U |  | -0.56  | 0.76  | 0.76  |
| SYSb6038 | U | HS | U | U | U | U | HS | U | U | HS | U |  | -0.45  | -0.45  |
| SYSb6039 | U | U | FS | U | U | FS | U | U | FS | U | PO | U |  | 1.00  |
| SYSb6040 | U | U | HS | U | U | FS | U | U | PO | U | FS | U | FS | 　 |

**Table S1b.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NCZ | 6041 | 6042 | 6043 | 6044 | 6045 | 6046 | 6047 | 6048 | 6049 |
| SYSb6041 |  | -0.48  | 0.32  | -0.24  | -0.13  | -0.17  | -0.28  | 0.08  | -0.24  |
| SYSb6042 | U |  | 0.46  | 0.61  | -0.07  | -0.54  | -0.41  | -0.31  | -0.02  |
| SYSb6043 | U | HS |  | -0.13  | -0.04  | -0.38  | -0.40  | -0.11  | 0.12  |
| SYSb6044 | U | PO | U |  | -0.02  | 0.18  | -0.01  | -0.30  | -0.31  |
| SYSb6045 | U | U | U | U |  | 0.07  | -0.07  | -0.03  | -0.92  |
| SYSb6046 | U | U | U | PO | U |  | 0.46  | -0.26  | -0.27  |
| SYSb6047 | U | U | U | U | U | HS |  | -0.60  | 0.12  |
| SYSb6048 | U | U | U | U | U | U | U |  | -0.27  |
| SYSb6049 | U | U | U | U | U | U | FS | U | 　 |