**Table S5** Genotype frequenciesin the HYBRIDLAB data set as inferred by STRUCTURE, INTROGRESS and NEWHYBRIDS. For the NEWHYBRIDS program the mean assignment probability (as proportion) of the chosen genotype category is given, where numbers in brackets give the sample sizes (N) that were used for averaging

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **STRUCTURE** | **INTROGRESS** | **NEWHYBRIDS** | |
|  | Frequency | Frequency | Frequency | Probability (N) |
| ***B. azoricus*** |  |  |  |  |
| *B. azoricus* | 1.000 | 1.000 | 0.950 | 0.690 (38) |
| BC *azoricus* | 0.000 | 0.000 | 0.050 | 0.667 (2) |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.000 | 0.000 | \* |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **BC1 *azoricus*** |  |  |  |  |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 1.000 | 0.675 | 1.000 | 0.991 (40) |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.325 | 0.000 | \* |
| BC *puteoserpentis* | 0.000 | 0.000 | \* |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **BC2 *azoricus*** |  |  |  |  |
| *B. azoricus* | 0.100 | 0.075 | 0.000 | \* |
| BC *azoricus* | 0.900 | 0.925 | 1.000 | 0.944 (40) |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.000 | 0.000 | \* |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **BC3 *azoricus*** |  |  |  |  |
| *B. azoricus* | 0.400 | 0.325 | 0.175 | 0.630 (7) |
| BC *azoricus* | 0.600 | 0.675 | 0.825 | 0.862 (33) |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.000 | 0.000 | \* |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **BC4 *azoricus*** |  |  |  |  |
| *B. azoricus* | 0.700 | 0.675 | 0.400 | 0.644 (16) |
| BC *azoricus* | 0.300 | 0.325 | 0.600 | 0.772 (24) |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.000 | 0.000 | \* |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **F1** |  |  |  |  |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 1.000 | 0.000 | 0.000 | \* |
| F1 | 1.000 | 1.000 | 0.997 (40) |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.000 | 0.000 | \* |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **F2** |  |  |  |  |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 1.000 | 0.000 | 0.000 | \* |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 1.000 | 0.975 | 0.982 (39) |
| BC *puteoserpentis* | 0.000 | 0.025 | 0.546 (1) |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **F3** |  |  |  |  |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 1.000 | 0.000 | 0.025 | 0.840 (1) |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 1.000 | 0.975 | 0.964 (39) |
| BC *puteoserpentis* | 0.000 | 0.000 | \* |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **F4** | | | | |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 1.000 | 0.000 | 0.000 | \* |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 1.000 | 0.950 | 0.984 (38) |
| BC *puteoserpentis* | 0.000 | 0.050 | 0.936 (2) |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **BC1 *puteoserpentis*** | | | | |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 1.000 | 0.000 | 0.000 | \* |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.775 | 0.025 | 0.979 (1) |
| BC *puteoserpentis* | 0.225 | 0.975 | 0.986 (39) |
| *B. puteoserpentis* | 0.000 | 0.000 | 0.000 | \* |
| **BC2 *puteoserpentis*** | | | | |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 0.875 | 0.000 | 0.000 | \* |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.200 | 0.000 | \* |
| BC *puteoserpentis* | 0.700 | 1.000 | 0.952 (40) |
| *B. puteoserpentis* | 0.125 | 0.100 | 0.000 | \* |
| **BC3 *puteoserpentis*** | | | | |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 0.325 | 0.000 | 0.000 | \* |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.575 | 0.850 | 0.865 (34) |
| *B. puteoserpentis* | 0.675 | 0.425 | 0.150 | 0.610 (6) |
| **BC4 *puteoserpentis*** | | | | |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 0.125 | 0.000 | 0.000 | \* |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.225 | 0.750 | 0.790 (30) |
| *B. puteoserpentis* | 0.875 | 0.775 | 0.250 | 0.622 (10) |
| ***B.* *puteoserpentis*** | | | | |
| *B. azoricus* | 0.000 | 0.000 | 0.000 | \* |
| BC *azoricus* | 0.000 | 0.000 | 0.000 | \* |
| F1 | 0.000 | 0.000 | \* |
| F2-4 | 0.000 | 0.000 | \* |
| BC *puteoserpentis* | 0.000 | 0.100 | 0.707 (4) |
| *B. puteoserpentis* | 1.000 | 1.000 | 0.900 | 0.639 (36) |