Supplementary Table 7. Percentage of *S. furcifera* individuals assigned to each reference population in 2014 and the mean assignment log-likelihood for individuals from each geographic population to plausible source population.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Country | Population | Method1 | Potential source (reference) population | | | | | | | | | | | | | |
| JC | TA | BA | SA3 | WD | CW | KP | NYJ | GS | MY | CH1 | CH2 | CH3 | CH4 |
| Korea | JC | Assignment2 | 5.9(2) | 17.6(6) | 76.5(26) | 5.9(2) | 70.6(24) | 2.9(1) | 26.5(9) | 14.7(5) | 20.6(7) | 100(34) | 11.8(4) | 8.8(3) | 5.9(2) | 5.9(2) |
| Exclusion3 | 11.8(4) | 2.9(1) | 58.8(20) | 0(0) | 55.9(19) | 0(0) | 14.7(5) | 8.8(3) | 8.8(3) | 100(34) | 0(0) | 0(0) | 0(0) | 0(0) |
| -LOG(L)4 | 9.85 | 12.32 | 17.57 | 11.37 | 15.86 | 12.54 | **10.66** | 12.88 | 10.97 | 19.95 | 12.20 | 10.86 | 11.28 | 11.98 |
|  | TA | Assignment | 76.5(26) | 5.9(2) | 76.5(26) | 29.4(10) | 64.7(22) | 20.6(7) | 94.1(32) | 50(17) | 50(17) | 100(34) | 26.5(9) | 50(17) | 17.6(6) | 17.6(6) |
| Exclusion | 47.1(16) | 11.8(4) | 58.8(20) | 8.8(3) | 55.9(19) | 5.9(2) | 79.4(27) | (38.2(13) | 32.4(11) | 100(34) | 5.9(2) | 14.7(5) | 2.9(1) | 2.9(1) |
| -LOG(L) | 15.50 | 12.49 | 18.40 | 14.99 | 16.83 | 15.11 | 16.79 | 15.25 | 15.09 | 23.80 | 14.74 | 15.19 | **12.51** | 14.22 |
|  | BA | Assignment | 89.7(26) | 51.7(15) | 6.9(2) | 65.5(19) | 89.7(26) | 31(9) | 96.6(28) | 75.9(22) | 96.6(28) | 100(29) | 69(20) | 72.4(21) | 41.4(12) | 37.9(11) |
| Exclusion | 58.6(17) | 24.1(7) | 6.9(2) | 27.6(8) | 79.3(23) | 10.3(3) | 93.1(27) | 58.6(17) | 79.3(23) | 100(29) | 37.9(11) | 41.4(12) | 6.9(2) | 24.1(7) |
| -LOG(L) | 17.15 | **16.08** | 10.51 | 18.18 | 18.55 | 16.20 | 18.41 | 17.31 | 19.97 | 27.77 | 18.44 | 17.75 | 17.21 | 16.77 |
|  | SA3 | Assignment | 58.8(20) | 41.2(14) | 82.3(28) | 2.9(1) | 85.3(29) | 17.6(6) | 79.4(27) | 50(17) | 50(17) | 100(34) | 20.6(7) | 35.5(12) | 23.5(8) | 29.4(10) |
| Exclusion | 44.1(15) | 23.5(8) | 73.5(25) | 2.9(10) | 67.6(23) | 2.9(1) | 58.8(20) | 38.2(13) | 23.5(13) | 100(34) | 8.8(3) | 20.6(7) | 5.9(2) | 17.6(6) |
| -LOG(L) | 15.19 | 15.57 | 20.66 | 13.62 | 19.04 | 14.46 | 15.52 | 15.88 | 14.40 | 24.22 | **14.26** | 14.44 | 14.70 | 15.22 |
|  | WD | Assignment | 88.2(30) | 50(17) | 91.2(31) | 32.4(11) | 2.9(1) | 29.4(10) | 97.1(33) | 32.4(11) | 88.2(30) | 100(34) | 32.4(11) | 52.9(18) | 23.5(8) | 29.4(10) |
| Exclusion | 58.8(20) | 17.6(6) | 61.8(21) | 5.9(2) | 11.8(4) | 14.7(5) | 85.3(29) | 14.7(5) | 61.8(21) | 100(34) | 5.9(2) | 29.4(10) | 11.8(4) | 8.8(3) |
| -LOG(L) | 16.66 | 15.18 | 19.19 | 15.57 | 10.41 | 16.58 | 17.68 | **13.91** | 18.07 | 26.55 | 15.44 | 16.36 | 16.50 | 15.38 |
|  | CW | Assignment | 82.4(28) | 67.6(23) | 88.2(30) | 44.1(15) | 88.2(30) | 2.9(1) | 91.2(31) | 76.5(26) | 67.6(23) | 100(34) | 52.9(18) | 67.6(23) | 38.2(13) | 52.9(18) |
| Exclusion | 58.8(20) | 38.2(13) | 70.6(24) | 5.9(2) | 76.5(26) | 2.9(1) | 76.5(26) | 70.6(24) | 55.9(19) | 100(34) | 20.6(7) | 44.1(15) | 17.6(6) | 17.6(6) |
| -LOG(L) | 17.26 | 16.67 | 19.92 | **15.34** | 19.58 | 14.51 | 17.59 | 17.38 | 16.94 | 25.05 | 15.89 | 16.55 | 16.06 | 16.05 |
|  | KP | Assignment | 13.2(5) | 28.9(11) | 94.7(36) | 5.3(2) | 89.5(43) | 2.6(1) | 5.3(2) | 36.8(14) | 10.5(4) | 100(38) | 5.3(2) | 5.3(2) | 0(0) | 2.6(1) |
| Exclusion | 7.9(3) | 7.9(3) | 78.9(30) | 0(0) | 78.9(30) | 0(0) | 2.6(0) | 7.9(3) | 2.6(1) | 94.7(36) | 2.6(1) | 0(0) | 0(0) | 0(0) |
| -LOG(L) | **11.15** | 14.00 | 18.86 | 12.09 | 17.53 | 12.98 | 9.93 | 14.21 | 11.17 | 19.51 | 13.01 | 11.60 | 11.67 | 12.36 |
|  | NYJ | Assignment | 80(28) | 45.7(16) | 85.7(30) | 45.7(16) | 91.4(32) | 51.4(18) | 91.4(32) | 0(0) | 65.7(23) | 100(35) | 48.6(17) | 45.7(16) | 28.6(10) | 45.7(16) |
| Exclusion | 62.9(22) | 37.1(13) | 62.9(22) | 5.7(2) | 71.4(25) | 20(7) | 74.326) | 5.7(2) | 48.6(17) | 100(35) | 25.7(9) | 22.9(8) | 14.3(5) | 22.9(8) |
| -LOG(L) | 16.72 | 16.31 | 18.95 | 16.01 | 17.69 | 16.65 | 17.84 | 13.46 | 17.61 | 26.28 | 16.45 | **15.66** | 15.74 | 17.13 |
|  | GS | Assignment | 38.7(12) | 29(9) | 96.8(30) | 3.2(1) | 87.1(27) | 9.7(3) | 51.6(16) | 45.2(14) | 3.2(1) | 100(31) | 16.1(5) | 16.1(5) | 9.7(3) | 12.9(4) |
| Exclusion | 19.4(6) | 12.9(4) | 90.3(28) | 0(0) | 80.6(25) | 3.2(1) | 25.8(8) | 29(9) | 6.5(2) | 100(131) | 3.2(1) | 9.7(3) | 3.2(1) | 0(0) |
| -LOG(L) | 12.76 | 13.72 | 20.66 | 12.49 | 18.89 | 13.90 | **12.43** | 15.36 | 11.66 | 20.72 | 13.53 | 12.73 | 12.79 | 13.22 |
|  | MY | Assignment | 100(27) | 96.3(26) | 100(27) | 100(27) | 100(27) | 92.6(25) | 100(27) | 100(27) | 96.3(26) | 0(0) | 85.2(23) | 92.6(25) | 88.9(24) | 88.9(24) |
| Exclusion | 100(27) | 85.2(23) | 100(27) | 59.3(16) | 100(27) | 63(17) | 100(27) | 100(27) | 85.2(23) | 3.7(1) | 63(17) | 63(17) | 44.4(12) | 51.9(14) |
| -LOG(L) | 19.17 | 20.10 | 25.95 | 19.90 | 26.45 | 19.23 | 18.68 | 21.22 | **18.26** | 10.72 | 19.66 | 18.57 | 19.33 | 20.32 |
| China | CH1 | Assignment | 70(28) | 50(20) | 90(36) | 22.5(9) | 87.5(35) | 22.5(9) | 82.5(22) | 57.5(23) | 57.5(23) | 100(40) | 5(2) | 37.5(12) | 17.5(7) | 32.5(13) |
| Exclusion | 40(16) | 15(6) | 87.5(35) | 0(0) | 75(30) | 2.5(1) | 75(30) | 47.5(19) | 32.5(13) | 97.5(39) | 5(2) | 17.5(7) | 5(2) | 7.5(3) |
| -LOG(L) | 15.73 | 15.20 | 21.72 | **13.83** | 18.33 | 14.44 | 16.61 | 15.90 | 15.37 | 23.79 | 13.24 | 14.75 | 15.01 | 15.25 |
|  | CH2 | Assignment | 35.4(15) | 30(12) | 85(34) | 12.5(12) | 95(38) | 12.5(5) | 52.5(21) | 10(4) | 25(10) | 100(40) | 7(17.5) | 10(4) | 10(4) | 20(8) |
| Exclusion | 17.5(7) | 12.5(5) | 70(28) | 2.5(1) | 82.5(33) | 0(0) | 40(16) | 15(6) | 15(6) | 72.5(29) | 0(0) | 7.5(3) | 2.5(1) | 5(2) |
| -LOG(L) | 12.96 | 14.56 | 19.22 | 12.92 | 18.49 | 14.41 | 13.44 | 14.33 | 13.13 | 22.24 | 13.81 | 12.25 | **12.62** | 13.77 |
|  | CH3 | Assignment | 40(16) | 32.5(13) | 90(36) | 17.5(7) | 92.5(37) | 12.5(5) | 60(24) | 37.5(15) | 30(12) | 100(40) | 25(10) | 12.5(5) | 2.5(1) | 15(6) |
| Exclusion | 20(8) | 20(8) | 67.5(27) | 5(2) | 80(32) | 2.5(1) | 37.5(15) | 17.5(5) | 17.5(7) | 97.5(39) | 7.5(3) | 7.5(3) | 7.5(3) | 7.5(3) |
| -LOG(L) | 13.04 | 14.11 | 19.34 | 13.26 | 18.27 | 14.04 | 13.25 | 14.11 | 13.15 | 22.01 | 14.08 | **12.48** | 12.19 | 14.06 |
|  | CH4 | Assignment | 47.5(20) | 14.3(6) | 73.8(31) | 14.3(6) | 69(29) | 2.4(1) | 57.1(24) | 31(13) | 31(13) | 100(42) | 4.8(2) | 19(8) | 7.1(3) | 2.4(1) |
| Exclusion | 30.2(13) | 4,7(2) | 51.2(22) | 0(0) | 60.5(26) | 0(0) | 34.9(15) | 14(6) | 18.6(8) | 93(40) | 2.3(1) | 2.3(1) | 2.3(1) | 2.3(1) |
| -LOG(L) | 12.90 | 12.44 | 16.95 | 12.44 | 15.48 | 12.53 | 12.89 | 13.53 | 12.71 | 22.06 | 12.76 | **12.30** | 12.53 | 11.06 |

1 The assignment test was conducted using the direct approach without possibility computation (Cornuet *et al*., 1999). Applied the Bayesian statistical approach explained by Rannala & Mountain (1997). The simulation method developed by Paetkau *et al*. (2004) was used in the exclusion test.

2 The number of individuals assigned to the most related population is described in parentheses.

3The number of individuals excluded from the reference population for *a*=0.01 is shown in parenthese.

4 Mean assignment –log likelihood (*L*) value for individuals from a sample population. Bold means the value the most similar and related to the sample population which means the most likely originated population.