

# SUPPLEMENTARY FILE

## Defining evolutionary conservation units in the Macedonian crested newt, *Triturus macedonicus* (Amphibia; Salamandridae), in a biodiversity hotspot

Taxiarchis Danelis<sup>1,†</sup>, Anagnostis Theodoropoulos<sup>1,†</sup>, Elisavet-Aspasia Toli<sup>1</sup>,  
Anastasios Bounas<sup>1</sup>, Athanasios Korakis<sup>2</sup> and Konstantinos Sotiropoulos<sup>1,\*</sup>

<sup>1</sup> Molecular Ecology and Conservation Genetics Lab, Department of Biological Applications and Technology, University of Ioannina, Ioannina, Greece

<sup>2</sup> Management Unit of Northern Pindos National Park, NECCA, Greece

<sup>†</sup>These authors equally contributed to this work.

\* Correspondence: ksotirop@uoi.gr

**Table S1.** Sample localities of *Triturus macedonicus* used in this study. Habitat information is given only for populations from Northern Pindos National Park: N: natural habitat (pond, pool, or ditch); A: artificial habitat (cattle pond, reservoir); n/a: not available.

| Site | n of sequenced individuals in this study | n of additional sequences from the GenBank | Location               | Coordinates     | Habitat type | Haplotype                | Clade    | GenBank Accession #  |
|------|--|--|------------------------|-----------------|--------------|--------------------------|----------|----------------------|
| 1    | 2  |  | Greece: Kerasovo       | 40.159 / 20.934 | N            | Tmac01 (2)               | 1        | GU982387             |
| 2    | 2  |  | Greece: Romios         | 40.131 / 20.981 | N            | Tmac01 (2)               | 1        | GU982387             |
| 3    | 1  |  | Greece: Smolikias      | 40.120 / 20.880 | N            | Tmac01 (1)               | 1        | GU982387             |
| 4    | 3  |  | Greece: Samarina       | 40.105 / 21.073 | N            | Tmac01 (3)               | 1        | GU982387             |
| 5    | 2  |  | Greece: Lake Distratou | 40.055 / 21.070 | A            | Tmac01 (1)<br>Tmac31 (1) | 1        | GU982387<br>OQ877047 |
| 6    | 4  |  | Greece: Avdella        | 39.996 / 21.106 | N            | Tmac01 (3)<br>Tmac03 (1) | 1        | GU982387<br>JQ240240 |
| 7    | 1  |  | Greece: Vovoussa       | 39.952 / 21.087 | A            | Tmac01 (1)               | 1        | GU982387             |
| 8    | 2  |  | Greece: Lakos Avgou    | 39.925 / 21.115 | N            | Tmac01 (2)               | 1        | GU982387             |
| 9    | 4  |  | Greece: Elafotopos     | 39.918 / 20.696 | A            | Tmac02 (4)               | 2A       | GU982388             |
| 10   | 2  |  | Greece: Grabala        | 39.914 / 20.667 | A            | Tmac33 (2)               | 2B       | OQ877049             |
| 11   | 2  |  | Greece: Grabala        | 39.912 / 20.662 | A            | Tmac33 (2)               | 2B       | OQ877049             |
| 12   | 2  |  | Greece: Grabala        | 39.910 / 20.673 | A            | Tmac02 (1)<br>Tmac33 (1) | 2A<br>2B | GU982388<br>OQ877049 |
| 13   | 1  |  | Greece: Stouros        | 39.909 / 20.721 | A            | Tmac02 (1)               | 2A       | GU982388             |
| 14   | 2  |  | Greece: Elafotopos     | 39.907 / 20.681 | A            | Tmac02 (2)               | 2A       | GU982388             |
| 15   | 3  |  | Greece: Elafotopos     | 39.906 / 20.694 | A            | Tmac02 (3)               | 2A       | GU982388             |
| 16   | 2  |  | Greece: Petrino Dasos  | 39.901 / 20.742 | A            | Tmac02 (2)               | 2A       | GU982388             |
| 17   | 1  |  | Greece: Stouros        | 39.901 / 20.719 | A            | Tmac02 (1)               | 2A       | GU982388             |
| 18   | 2  | 4 [28]                                     | Greece: Elafotopos     | 39.900 / 20.669 | A            | Tmac02 (5)<br>Tmac28 (1) | 2A       | GU982388<br>JQ240265 |
| 19   | 2  |  | Greece: Stouros        | 39.892 / 20.725 | A            | Tmac02 (2)               | 2A       | GU982388             |
| 20   | 2  |  | Greece: Stouros        | 39.891 / 20.721 | A            | Tmac02 (2)               | 2A       | GU982388             |

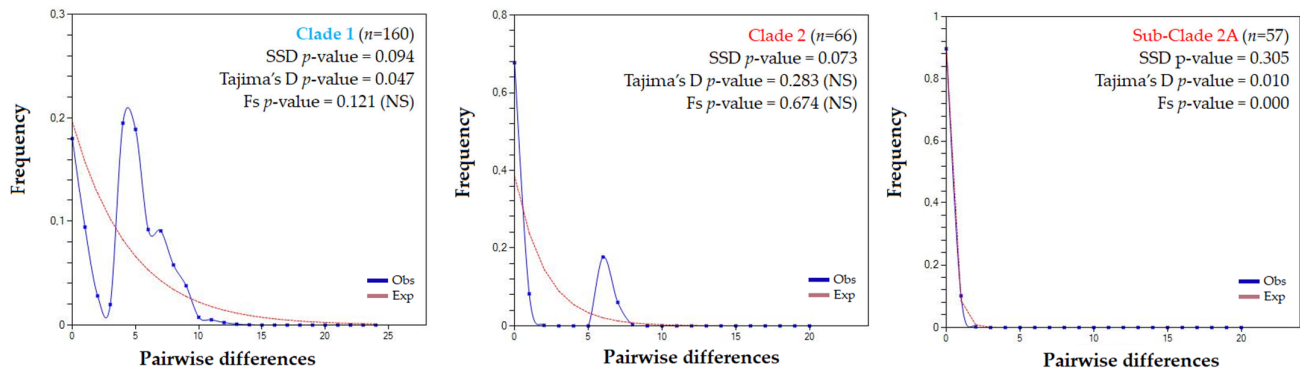
|    |   |                   |                                      |                 |     |  |    |  |
|----|---|-------------------|--------------------------------------|-----------------|-----|--|----|--|
| 21 | 3 |                   | Greece: Ano Pedina                   | 39.888 / 20.701 | A   | Tmac02 (3)   | 2A | GU982388                                     |
| 22 | 1 |                   | Greece: Kato Pedina Plain            | 39.886 / 20.682 | A   | Tmac02 (1)   | 2A | GU982388                                     |
| 23 | 3 |                   | Greece: Kato Pedina Plain            | 39.885 / 20.676 | A   | Tmac02 (3)   | 2A | GU982388                                     |
| 24 | 2 |                   | Greece: Monodendri                   | 39.880 / 20.738 | A   | Tmac02 (2)   | 2A | GU982388                                     |
| 25 | 1 |                   | Greece: Ano Pedina - Monodendri      | 20.722 / 39.880 | A   | Tmac02 (1)   | 2A | GU982388                                     |
| 26 | 4 |                   | Greece: Kato Pedina                  | 39.879 / 20.684 | A   | Tmac02 (4)   | 2A | GU982388                                     |
| 27 | 3 |                   | Greece: Kato Pedina                  | 39.877 / 20.670 | A   | Tmac02 (3)   | 2A | GU982388                                     |
| 28 | 2 |                   | Greece: Tsouka Rossa                 | 39.876 / 21.038 | N   | Tmac01 (2)   | 1  | GU982387                                     |
| 29 | 1 |                   | Greece: Central Zagori               | 39.866 / 20.682 | A   | Tmac02 (1)   | 2A | GU982388                                     |
| 30 | 3 |                   | Greece: Central Zagori               | 39.865 / 20.705 | A   | Tmac02 (2)<br>Tmac32 (1)                             | 2A | GU982388<br>OQ877048                         |
| 31 | 1 |                   | Greece: Tsouka Rossa                 | 39.864 / 21.033 | N   | Tmac01 (1)   | 1  | GU982387                                     |
| 32 | 1 |                   | Greece: Central Zagori               | 39.863 / 20.721 | A   | Tmac02 (1)   | 2A | GU982388                                     |
| 33 | 3 |                   | Greece: Tsouka Rossa                 | 39.863 / 21.040 | N   | Tmac01 (3)   | 1  | GU982387                                     |
| 34 | 1 |                   | Greece: Central Zagori               | 39.854 / 20.700 | A   | Tmac02 (1)   | 2A | GU982388                                     |
| 35 | 4 | 5 [28]            | Greece: Zygos-Mikro Koukourelo       | 39.823 / 21.261 | N   | Tmac01 (9)   | 1  | GU982387                                     |
| 36 | 1 |                   | Greece: Aoos Springs Lake            | 39.817 / 21.097 | N   | Tmac01 (1)   | 1  | GU982387                                     |
| 37 | 1 |                   | Greece: Aoos Springs Lake            | 39.817 / 21.097 | N   | Tmac01 (1)   | 1  | GU982387                                     |
| 38 | 2 |                   | Greece: Aoos Springs Lake            | 39.816 / 21.101 | N   | Tmac01 (2)   | 1  | GU982387                                     |
| 39 | 2 |                   | Greece: Delvinaki                    | 39.946 / 20.489 | A   | Tmac33 (2)   | 2B | OQ877049                                     |
| 40 | 2 |                   | Greece: Lapsista                     | 39.805 / 20.703 | N   | Tmac02 (2)   | 2A | GU982388                                     |
| 41 | 2 |                   | Greece: Lapsista                     | 39.771 / 20.700 | A   | Tmac02 (2)   | 2A | GU982388                                     |
| 42 | 1 |                   | Greece: Serviana                     | 39.564 / 20.882 | A   | Tmac34 (1)   | 2A | OQ877050                                     |
| 43 |   | 3 [28]            | Greece: Negrades                     | 39.847 / 20.663 | A   | Tmac02 (3)   | 2A | GU982388                                     |
| 44 |   | 1 [28]            | Greece: Elati                        | 39.835 / 20.740 | N   | Tmac02 (1)   | 2A | GU982388                                     |
| 45 |   | 1 [123]           | Greece: Asprangeli                   | 39.830 / 20.730 | A   | Tmac02 (1)   | 2A | GU982388                                     |
| 46 |   | 11 [28, 124, 125] | Greece: Ano Kaliniki                 | 40.853 / 21.450 | n/a | Tmac01 (10)<br>Tmac03 (1)                            | 1  | GU982387<br>JQ240240                         |
| 47 |   | 7 [28]            | Greece: Kerameia                     | 39.562 / 22.081 | n/a | Tmac29 (7)   | 3  | JQ240266                                     |
| 48 |   | 4 [28]            | Greece: Corfu Island                 | 39.562 / 19.764 | n/a | Tmac16 (1)<br>Tmac17 (1)<br>Tmac18 (1)<br>Tmac19 (1) | 1  | JQ240253<br>JQ240254<br>JQ240255<br>JQ240256 |
| 49 |   | 5 [28]            | Greece: Paliambela – Amvrakikos Gulf | 38.909 / 20.970 | n/a | Tmac13 (5)   | 1  | JQ240250                                     |
| 50 |   | 4 [28]            | Greece: Pefkodasos                   | 41.030 / 22.580 | n/a | Tmac01 (4)   | 1  | GU982387                                     |
| 51 |   | 5 [28]            | Greece: Prespa                       | 40.831 / 21.121 | n/a | Tmac01 (4)<br>Tmac20 (1)                             | 1  | GU982387<br>JQ240257                         |
| 52 |   | 5 [28]            | Greece: Seli                         | 40.567 / 22.022 | n/a | Tmac25 (1)<br>Tmac26 (4)                             | 3  | JQ240262<br>JQ240263                         |
| 53 |   | 5 [28]            | Greece: Trilofos                     | 40.358 / 22.477 | n/a | Tmac30 (5)   | 3  | JQ240267                                     |

|    |  |        |                                 |                 |     |  |         |                                  |
|----|--|--------|---------------------------------|-----------------|-----|--|---------|----------------------------------|
| 54 |  | 1 [28] | Greece: Vryta                   | 40.800 / 21.919 | n/a | Tmac29 (1)                             | 3       | JQ240266                         |
| 55 |  | 5 [28] | Albania: Bajzë                  | 42.303 / 19.441 | n/a | Tmac11 (2)<br>Tmac12 (3)               | 1       | JQ240248                         |
| 56 |  | 5 [28] | Albania: Bejar                  | 40.429 / 19.850 | n/a | Tmac05 (3)<br>Tmac27 (2)               | 1<br>2B | JQ240242<br>JQ240264             |
| 57 |  | 5 [28] | Albania: Fushë-Krujë            | 41.529 / 19.682 | n/a | Tmac04 (2)<br>Tmac14 (2)<br>Tmac15 (1) | 1       | JQ240241<br>JQ240251<br>JQ240252 |
| 58 |  | 5 [28] | Albania: Gracen                 | 41.157 / 19.949 | n/a | Tmac21 (5)                             | 1       | JQ240258                         |
| 59 |  | 5 [28] | Albania: Kavajë                 | 41.168 / 19.556 | n/a | Tmac04 (1)<br>Tmac06 (3)<br>Tmac07 (1) | 1       | JQ240241<br>JQ240243<br>JQ240244 |
| 60 |  | 5 [28] | Albania: Kolsh                  | 42.072 / 20.326 | n/a | Tmac08 (2)<br>Tmac09 (3)               | 1       | JQ240245<br>JQ240246             |
| 61 |  | 5 [28] | Albania: Koplik                 | 42.197 / 19.451 | n/a | Tmac11 (4)<br>Tmac12 (1)               | 1       | JQ240248<br>JQ240249             |
| 62 |  | 5 [28] | Albania: Lushnjë                | 41.000 / 19.664 | n/a | Tmac04 (3)<br>Tmac23 (2)               | 1       | JQ240241<br>JQ240260             |
| 63 |  | 5 [28] | Albania: Pogradec               | 40.931 / 20.640 | n/a | Tmac22 (4)<br>Tmac24 (1)               | 1       | JQ240259<br>JQ240261             |
| 64 |  | 4 [28] | Kosovo: Karagaç                 | 42.640 / 20.309 | n/a | Tmac08 (4)                             | 1       | JQ240245                         |
| 65 |  | 3 [28] | Kosovo: Kijevo                  | 42.568 / 20.728 | n/a | Tmac08 (3)                             | 1       | JQ240245                         |
| 66 |  | 1 [28] | Kosovo: Xërze                   | 42.341 / 20.573 | n/a | Tmac08 (1)                             | 1       | JQ240245                         |
| 67 |  | 5 [28] | North Macedonia:<br>Debreste    | 41.502 / 21.293 | n/a | Tmac08 (5)                             | 1       | JQ240245                         |
| 68 |  | 5 [28] | North Macedonia:<br>Gorno Srpqi | 41.072 / 21.219 | n/a | Tmac01 (5)                             | 1       | GU982387                         |
| 69 |  | 4 [28] | North Macedonia:<br>Gostivar    | 41.817 / 20.899 | n/a | Tmac01 (4)                             | 1       | GU982387                         |
| 70 |  | 5 [28] | North Macedonia:<br>Kolibari    | 41.580 / 20.951 | n/a | Tmac08 (3)<br>Tmac10 (2)               | 1       | JQ240245<br>JQ240247             |
| 71 |  | 5 [28] | North Macedonia:<br>Leskoec     | 40.962 / 20.885 | n/a | Tmac20 (1)<br>Tmac22 (4)               | 1       | JQ240257<br>JQ240259             |
| 72 |  | 5 [28] | North Macedonia:<br>Loznani     | 41.221 / 21.446 | n/a | Tmac03 (5)                             | 1       | JQ240240                         |
| 73 |  | 2 [28] | North Macedonia:<br>Prilep      | 41.419 / 21.611 | n/a | Tmac03 (2)                             | 1       | JQ240240                         |
| 74 |  | 5 [28] | North Macedonia:<br>Vrbjani     | 41.413 / 20.816 | n/a | Tmac08 (5)                             | 1       | JQ240245                         |
| 75 |  | 2 [28] | Montenegro: Bjeloši             | 42.374 / 18.907 | n/a | Tmac11 (2)                             | 1       | JQ240248                         |
| 76 |  | 5 [28] | Montenegro: Donji<br>Lokanj     | 41.900 / 19.267 | n/a | Tmac11 (5)                             | 1       | JQ240248                         |
| 77 |  | 1 [28] | Montenegro: Kučišta             | 42.460 / 18.854 | n/a | Tmac11 (1)                             | 1       | JQ240248                         |

**Table S2.** Primer pairs used in this study for the amplification of seven microsatellite loci [42]. The fluorescent dyes used, the allele range and the number of detected alleles in the present study are given.

| Microsatellite loci | Microsatellite Primers Sequence (5'–3')                      | Repeat motif   | Allele length (bp) | Number of alleles |
|---------------------|--|--|--------------------|-------------------|
| TCM-83              | F: FAM-<br>CTGGCCATACAGTGGTTGTC<br>R: TGGCCAGCAAGTAAGGAGT    | (TG) <sub>9</sub>  | 105-107            | 2                 |
| TCM-96              | F: ROX-<br>GCTCATTTCCTACACCACATCA<br>R: GGAGGAACTGAGCCCTATCC | (CA) <sub>10</sub>   | 121-143            | 7                 |
| TCM-273             | F: HEX-<br>CGCCAAGTTCATGTAGATGCT<br>R: GAGACGAGACCGTATTCATCG | (GT) <sub>11</sub>   | 136-150            | 3                 |
| TCM-414             | F: FAM-<br>TTTTGGCACCAATCAACGTAT<br>R: CACGTAGTGGTGCAGAGTGAG | (CA) <sub>2</sub> CG(CA) <sub>11</sub>   | 130-138            | 4                 |
| TCM-417             | F: ROX-<br>GGCTTTATTTAGCTGTCTTCC<br>R: GGCTGACTTCATATGCCTGAC | (CA) <sub>7</sub> (CGCA) <sub>3</sub> (CA) <sub>3</sub> (CGCA) <sub>3</sub> (CTCA) <sub>3</sub> (CT) <sub>2</sub> C <sub>4</sub> AC <sub>5</sub> | 172-186            | 3                 |
| TCM-496             | F: FAM-<br>TGTGCAAACCTGCACCTTTAG<br>R: TTAAACCCATTGGCTGTTGT  | (AC) <sub>14</sub>   | 184-200            | 9                 |
| TCM-517             | F: HEX-<br>CCCACCCATACAGTGACTCTT<br>R: GTGAGTGAGCAGGTGTGTGAG | (TCAC) <sub>25</sub>   | 184-264            | 18                |

F: Forward; R: Reverse.



**Figure S1.** Mismatch distributions and neutrality tests for Clades 1, 2 and Sub-Clade 2A.  $n$ : number of sequences, NS: non-significant, Obs: Observed distribution of frequencies, Exp: Expected distribution of frequencies.

**Table S3.** Mismatch analysis and neutrality tests for clades and sub-clades with sufficient number of sequences (Clades 1 and 2, Sub-Clade 2A).

|  | Clade 1      | Clade 2      | Sub-Clade 2A |
|--|--------------|--------------|--------------|
|  | $n=160$      | $n=66$       | $n=57$       |
| <b>Tau (<math>\tau</math>)</b>         | 6.027        | 3.000        | 3.000        |
| <b>Theta 0 (<math>\theta_0</math>)</b> | 0.000        | 0.000        | 0.000        |
| <b>Theta 1 (<math>\theta_1</math>)</b> | 8.740        | 0.341        | 0.120        |
| <b>SSD</b>                             | 0.031        | 0.532        | 0.000        |
| <b>SSD <math>p</math>-value</b>        | <b>0.094</b> | <b>0.073</b> | <b>0.305</b> |
| <b>Tajima's D</b>                      | -1.424       | -0.669       | -1.682       |
| <b>D <math>p</math>-value</b>          | <b>0.047</b> | 0.283 (NS)   | <b>0.010</b> |
| <b>Fu's Fs</b>                         | -4.385       | 0.695        | -4.555       |
| <b>Fs <math>p</math>-value</b>         | 0.121 (NS)   | 0.674 (NS)   | <b>0.000</b> |

$n$ : number of sequences; NS: non-significant.

**Table S4.** Distribution of haplotypes and diversity measures of each clade and sub-clade identified in the phylogenetic analysis.

| Haplotype | Clade 1 | Clade 2 | Sub-Clade 2A | Sub-Clade 2B | Clade 3 | TOTAL |
|-----------|---------|---------|--------------|--------------|---------|-------|
| Tmac01    | 61      |         |              |              |         | 61    |
| Tmac02    |         | 54      | 54           |              |         | 54    |
| Tmac03    | 9       |         |              |              |         | 9     |
| Tmac04    | 6       |         |              |              |         | 6     |
| Tmac05    | 3       |         |              |              |         | 3     |
| Tmac06    | 3       |         |              |              |         | 3     |
| Tmac07    | 1       |         |              |              |         | 1     |
| Tmac08    | 24      |         |              |              |         | 24    |
| Tmac09    | 3       |         |              |              |         | 3     |
| Tmac10    | 2       |         |              |              |         | 2     |
| Tmac11    | 14      |         |              |              |         | 14    |
| Tmac12    | 3       |         |              |              |         | 3     |
| Tmac13    | 5       |         |              |              |         | 5     |
| Tmac14    | 2       |         |              |              |         | 2     |
| Tmac15    | 1       |         |              |              |         | 1     |
| Tmac16    | 1       |         |              |              |         | 1     |
| Tmac17    | 1       |         |              |              |         | 1     |
| Tmac18    | 1       |         |              |              |         | 1     |
| Tmac19    | 1       |         |              |              |         | 1     |
| Tmac20    | 2       |         |              |              |         | 2     |
| Tmac21    | 5       |         |              |              |         | 5     |
| Tmac22    | 8       |         |              |              |         | 8     |
| Tmac23    | 2       |         |              |              |         | 2     |
| Tmac24    | 1       |         |              |              |         | 1     |
| Tmac25    |         |         |              |              | 1       | 1     |
| Tmac26    |         |         |              |              | 4       | 4     |
| Tmac27    |         | 2       |              | 2            |         | 2     |
| Tmac28    |         | 1       | 1            |              |         | 1     |

|                  |         |          |          |          |          |          |
|------------------|---------|----------|----------|----------|----------|----------|
| <b>Tmac29</b>    |         |          |          |          | 8        | 8        |
| <b>Tmac30</b>    |         |          |          |          | 5        | 5        |
| <b>Tmac31</b>    | 1       |          |          |          |          | 1        |
| <b>Tmac32</b>    |         | 1        | 1        |          |          | 1        |
| <b>Tmac33</b>    |         | 7        |          | 7        |          | 7        |
| <b>Tmac34</b>    |         | 1        | 1        |          |          | 1        |
| <b><i>n</i></b>  | 160     | 66       | 57       | 9        | 18       | 244      |
| <b><i>Hd</i></b> | 0.820   | 0.323    | 0.103    | 0.389    | 0.712    | 0.872    |
| <b><i>SD</i></b> | ± 0.025 | ±0.071   | ±0.055   | ±0.164   | ±0.065   | ±0.013   |
| <b><i>Pi</i></b> | 0.00622 | 0.00241  | 0.00016  | 0.00059  | 0.00146  | 0.01692  |
| <b><i>SD</i></b> | ±0.0004 | ±0.00059 | ±0.00009 | ±0.00025 | ±0.00025 | ±0.00065 |

*n*: number of sequences (sample size); *Hd*: haplotype diversity (±SD); *Pi*: nucleotide diversity (±SD).

**Table S5.** Inbreeding coefficient ( $F_{IS}$ ) and percentage of randomizations that gave smaller ( $F_{IS}$  95% CI+) or larger ( $F_{IS}$  95% CI-) values than observed. Confidence Interval: 95% CI= 0.00036, adjusted for 120,000 randomizations.

| <b>Population</b> | <b><math>F_{IS}</math></b> | <b><math>F_{IS}</math> 95% CI+</b> | <b><math>F_{IS}</math> 95% CI-</b> |
|-------------------|----------------------------|------------------------------------|------------------------------------|
| 4                 | 0.183                      | 0.032                              | 0.985                              |
| 5                 | -0.071                     | 0.773                              | 0.389                              |
| 6                 | 0.045                      | 0.377                              | 0.661                              |
| 9                 | 0.048                      | 0.222                              | 0.786                              |
| 11                | 0.198                      | 0.057                              | 0.976                              |
| 15                | -0.054                     | 0.812                              | 0.266                              |
| 18                | -0.069                     | 0.832                              | 0.283                              |
| 21                | -0.019                     | 0.610                              | 0.392                              |
| 22                | 0.066                      | 0.235                              | 0.799                              |
| 23                | 0.131                      | 0.026                              | 0.979                              |
| 24                | -0.139                     | 0.917                              | 0.100                              |
| 25                | 0.364                      | 0.005                              | 0.997                              |
| 26                | 0.055                      | 0.190                              | 0.810                              |
| 27                | 0.105                      | 0.019                              | 0.981                              |
| 29                | -0.099                     | 0.794                              | 0.253                              |
| 30                | 0.105                      | 0.010                              | 0.990                              |
| 33                | -0.110                     | 0.906                              | 0.158                              |
| 34                | 0.242                      | 0.047                              | 0.968                              |
| 35                | -0.031                     | 0.675                              | 0.434                              |
| 38                | 0.122                      | 0.202                              | 0.889                              |

**Table S6.** Hierarchical Analysis of Molecular Variance (AMOVA) among the two geographic areas in the park. Only the breeding sites with a sample size greater than six individuals were analyzed.

| Source of variation      | df  | Sum of squares | Variance components | Percentage variation | Fixation Indices | <i>p</i> |
|--------------------------|-----|----------------|---------------------|----------------------|------------------|----------|
| Among areas              | 1   | 78.306         | 0.42733             | 17.82063             | $F_{ST}=0.22984$ | 0.0000   |
| Among sites within areas | 18  | 90.350         | 0.12383             | 5.16386              | $F_{SC}=0.06284$ | 0.0000   |
| Within sites             | 248 | 935.584        | 1.84680             | 77.0155              | $F_{CT}=0.17821$ | 0.0000   |
| Total                    |     | 1104.24        | 2.39796             |                      |                  |          |



**Table S7.** Posterior distributions of recent migration rates among breeding sites. The mean and 95 % CI in cases of insufficient data were 0.833 (0.675–0.992) for the non-migration rate and 0.0105 (1.43E-19–0.0933) for the migration rate. Migration rates >0.05 are shown in bold. The mean migration rates outside the expected CIs in the case of insufficient data are underlined. "Sink" populations are listed in the columns, and "source" populations are listed in the rows.

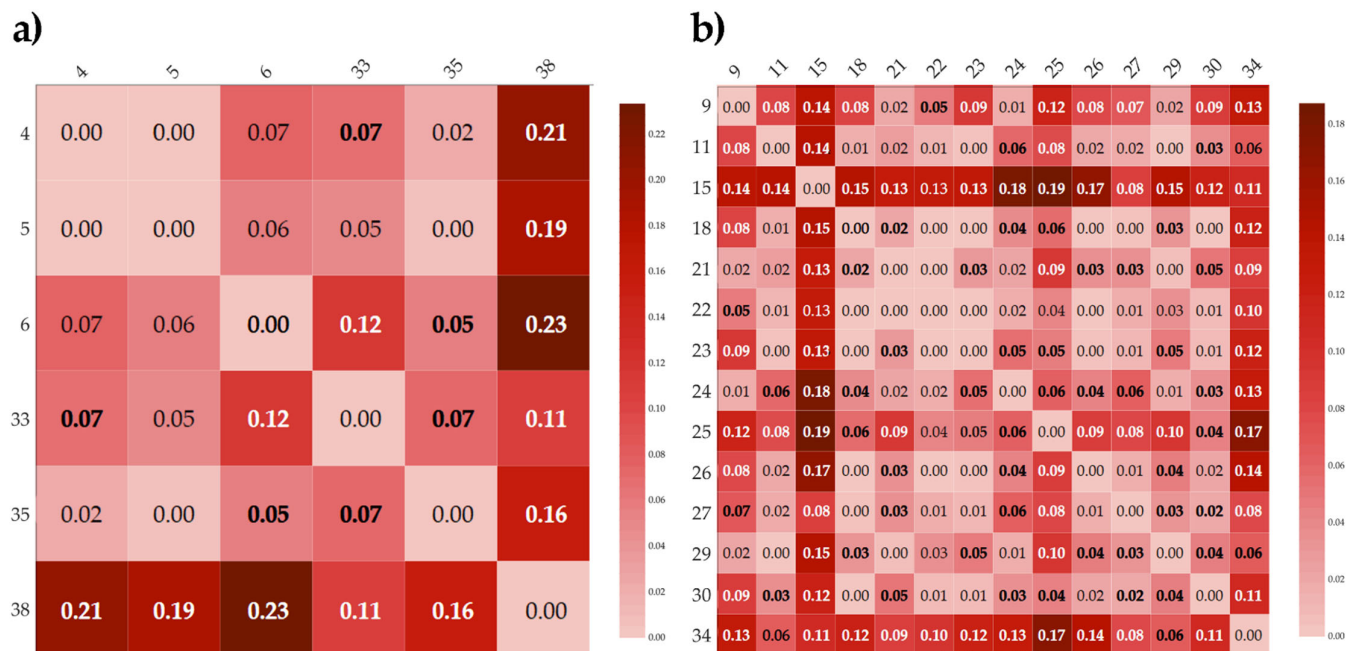
| Population | 4                           | 5                           | 6                           | 9                           | 11                          | 15                          | 18                           | 21                          | 22                          | 23                          | 24                          | 25                   | 26                   | 27                   | 29                   | 30                   | 33                   | 34                   | 35                          | 38                   |
|------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------------|----------------------|
| 4          | <b>0.969</b><br>(0.89-0.99) | <u>0.104</u><br>(0.01-0.26) | 0.002<br>(0.00-0.02)        | 0.001<br>(0.00-0.01)        | 0.010<br>(0.00-0.07)        | 0.003<br>(0.00-0.03)        | 0.007<br>(0.00-0.05)         | 0.005<br>(0.00-0.03)        | 0.009<br>(0.00-0.06)        | 0.005<br>(0.00-0.03)        | 0.009<br>(0.00-0.06)        | 0.007<br>(0.00-0.05) | 0.005<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.007<br>(0.00-0.05) | 0.001<br>(0.00-0.01) | 0.007<br>(0.00-0.06) | 0.007<br>(0.00-0.06) | <u>0.097</u><br>(0.00-0.27) | 0.011<br>(0.00-0.08) |
| 5          | 0.002<br>(0.00-0.02)        | <b>0.710</b><br>(0.67-0.8)  | 0.002<br>(0.00-0.02)        | 0.001<br>(0.00-0.01)        | 0.009<br>(0.00-0.06)        | 0.002<br>(0.00-0.02)        | 0.008<br>(0.00-0.05)         | 0.004<br>(0.00-0.03)        | 0.008<br>(0.00-0.06)        | 0.005<br>(0.00-0.03)        | 0.008<br>(0.00-0.05)        | 0.008<br>(0.00-0.07) | 0.004<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.008<br>(0.00-0.06) | 0.001<br>(0.00-0.01) | 0.003<br>(0.00-0.03) | 0.009<br>(0.00-0.07) | 0.006<br>(0.00-0.05)        | 0.007<br>(0.00-0.06) |
| 6          | 0.002<br>(0.00-0.019)       | 0.028<br>(0.00-0.15)        | <b>0.969</b><br>(0.89-0.99) | 0.001<br>(0.00-0.01)        | 0.010<br>(0.00-0.07)        | 0.003<br>(0.00-0.02)        | 0.008<br>(0.00-0.05)         | 0.005<br>(0.00-0.03)        | 0.008<br>(0.00-0.05)        | 0.005<br>(0.00-0.03)        | 0.008<br>(0.00-0.06)        | 0.007<br>(0.00-0.05) | 0.005<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.009<br>(0.00-0.06) | 0.001<br>(0.00-0.01) | 0.008<br>(0.00-0.08) | 0.006<br>(0.00-0.05) | 0.039<br>(0.00-0.18)        | 0.011<br>(0.00-0.08) |
| 9          | 0.002<br>(0.00-0.02)        | 0.010<br>(0.00-0.06)        | 0.002<br>(0.00-0.02)        | <b>0.982</b><br>(0.93-0.99) | 0.015<br>(0.00-0.1)         | 0.004<br>(0.00-0.05)        | 0.009<br>(0.00-0.06)         | <u>0.098</u><br>(0.00-0.26) | 0.037<br>(0.00-0.15)        | 0.009<br>(0.00-0.06)        | <b>0.079</b><br>(0.00-0.22) | 0.024<br>(0.00-0.15) | 0.010<br>(0.00-0.06) | 0.001<br>(0.00-0.01) | 0.050<br>(0.00-0.18) | 0.001<br>(0.00-0.01) | 0.003<br>(0.00-0.03) | 0.010<br>(0.00-0.08) | 0.006<br>(0.00-0.04)        | 0.007<br>(0.00-0.06) |
| 11         | 0.002<br>(0.00-0.01)        | 0.010<br>(0.00-0.067)       | 0.001<br>(0.00-0.02)        | 0.001<br>(0.00-0.01)        | <b>0.720</b><br>(0.67-0.83) | 0.001<br>(0.00-0.01)        | 0.009<br>(0.00-0.06)         | 0.004<br>(0.00-0.03)        | 0.006<br>(0.00-0.05)        | 0.005<br>(0.00-0.03)        | 0.008<br>(0.00-0.05)        | 0.007<br>(0.00-0.07) | 0.003<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.009<br>(0.00-0.07) | 0.001<br>(0.00-0.01) | 0.003<br>(0.00-0.03) | 0.009<br>(0.00-0.07) | 0.008<br>(0.00-0.05)        | 0.004<br>(0.00-0.04) |
| 15         | 0.002<br>(0.00-0.02)        | 0.010<br>(0.00-0.07)        | 0.002<br>(0.00-0.02)        | 0.001<br>(0.00-0.02)        | 0.027<br>(0.00-0.13)        | <b>0.956</b><br>(0.83-0.99) | 0.008<br>(0.00-0.06)         | 0.009<br>(0.00-0.05)        | 0.015<br>(0.00-0.09)        | 0.018<br>(0.00-0.09)        | 0.011<br>(0.00-0.07)        | 0.008<br>(0.00-0.06) | 0.008<br>(0.00-0.05) | 0.001<br>(0.00-0.01) | 0.012<br>(0.00-0.07) | 0.002<br>(0.00-0.02) | 0.002<br>(0.00-0.02) | 0.036<br>(0.00-0.15) | 0.007<br>(0.00-0.05)        | 0.007<br>(0.00-0.05) |
| 18         | 0.002<br>(0.00-0.017)       | 0.010<br>(0.00-0.07)        | 0.002<br>(0.00-0.02)        | 0.001<br>(0.00-0.01)        | 0.009<br>(0.00-0.07)        | 0.002<br>(0.00-0.02)        | <b>0.697</b><br>(0.667-0.77) | 0.005<br>(0.00-0.04)        | 0.008<br>(0.00-0.06)        | 0.005<br>(0.00-0.04)        | 0.009<br>(0.00-0.07)        | 0.008<br>(0.00-0.06) | 0.005<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.009<br>(0.00-0.07) | 0.001<br>(0.00-0.01) | 0.002<br>(0.00-0.02) | 0.011<br>(0.00-0.08) | 0.007<br>(0.00-0.05)        | 0.007<br>(0.00-0.05) |
| 21         | 0.002<br>(0.00-0.02)        | 0.010<br>(0.00-0.06)        | 0.001<br>(0.00-0.01)        | 0.001<br>(0.00-0.01)        | 0.024<br>(0.00-0.13)        | 0.003<br>(0.00-0.08)        | 0.011<br>(0.00-0.07)         | <b>0.693</b><br>(0.67-0.77) | 0.014<br>(0.00-0.08)        | 0.008<br>(0.00-0.05)        | 0.016<br>(0.00-0.10)        | 0.013<br>(0.00-0.10) | 0.005<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.023<br>(0.00-0.14) | 0.001<br>(0.00-0.01) | 0.002<br>(0.00-0.02) | 0.026<br>(0.00-0.15) | 0.007<br>(0.00-0.06)        | 0.007<br>(0.00-0.05) |
| 22         | 0.002<br>(0.00-0.02)        | 0.010<br>(0.00-0.07)        | 0.002<br>(0.00-0.02)        | 0.001<br>(0.00-0.01)        | 0.008<br>(0.00-0.06)        | 0.002<br>(0.00-0.02)        | 0.009<br>(0.00-0.06)         | 0.006<br>(0.00-0.03)        | <b>0.702</b><br>(0.67-0.78) | 0.004<br>(0.00-0.03)        | 0.008<br>(0.00-0.06)        | 0.009<br>(0.00-0.06) | 0.005<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.008<br>(0.00-0.05) | 0.001<br>(0.00-0.01) | 0.003<br>(0.00-0.03) | 0.011<br>(0.00-0.09) | 0.007<br>(0.00-0.05)        | 0.007<br>(0.00-0.06) |
| 23         | 0.002<br>(0.00-0.02)        | 0.012<br>(0.00-0.08)        | 0.002<br>(0.00-0.02)        | 0.001<br>(0.00-0.01)        | 0.013<br>(0.00-0.09)        | 0.002<br>(0.00-0.02)        | 0.010<br>(0.00-0.06)         | 0.006<br>(0.00-0.04)        | 0.021<br>(0.00-0.12)        | <b>0.711</b><br>(0.67-0.83) | 0.012<br>(0.00-0.08)        | 0.022<br>(0.00-0.14) | 0.006<br>(0.00-0.04) | 0.001<br>(0.00-0.01) | 0.010<br>(0.00-0.07) | 0.001<br>(0.00-0.01) | 0.003<br>(0.00-0.03) | 0.008<br>(0.00-0.07) | 0.007<br>(0.00-0.05)        | 0.007<br>(0.00-0.05) |
| 24         | 0.002<br>(0.00-0.02)        | 0.009<br>(0.00-0.05)        | 0.002<br>(0.00-0.023)       | 0.001<br>(0.00-0.02)        | 0.010<br>(0.00-0.08)        | 0.002<br>(0.00-0.02)        | 0.009<br>(0.00-0.06)         | 0.006<br>(0.00-0.04)        | 0.010<br>(0.00-0.07)        | 0.006<br>(0.00-0.04)        | <b>0.703</b><br>(0.67-0.80) | 0.011<br>(0.00-0.08) | 0.005<br>(0.00-0.03) | 0.001<br>(0.00-0.01) | 0.009<br>(0.00-0.07) | 0.001<br>(0.00-0.01) | 0.003<br>(0.00-0.03) | 0.012<br>(0.00-0.09) | 0.007<br>(0.00-0.05)        | 0.006<br>(0.00-0.05) |

|    |                          |                          |                          |                          |                          |                          |                           |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 25 | 0.001<br>(0.00-<br>0.01) | 0.011<br>(0.00-<br>0.08) | 0.002<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.009<br>(0.00-<br>0.07) | 0.003<br>(0.00-<br>0.02) | 0.010<br>(0.00-<br>0.06)  | 0.006<br>(0.00-<br>0.04) | 0.010<br>(0.00-<br>0.07) | 0.006<br>(0.00-<br>0.04) | 0.010<br>(0.00-<br>0.08) | 0.777<br>(0.67-<br>0.99) | 0.004<br>(0.00-<br>0.03) | 0.001<br>(0.00-<br>0.01) | 0.009<br>(0.00-<br>0.07) | 0.001<br>(0.00-<br>0.01) | 0.003<br>(0.00-<br>0.03) | 0.010<br>(0.00-<br>0.08) | 0.007<br>(0.00-<br>0.05) | 0.007<br>(0.00-<br>0.06) |
| 26 | 0.002<br>(0.00-<br>0.02) | 0.010<br>(0.00-<br>0.07) | 0.002<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.050<br>(0.00-<br>0.19) | 0.002<br>(0.00-<br>0.02) | 0.010<br>(0.00-<br>0.07)  | 0.005<br>(0.00-<br>0.03) | 0.015<br>(0.00-<br>0.12) | 0.015<br>(0.00-<br>0.1)  | 0.012<br>(0.00-<br>0.09) | 0.014<br>(0.00-<br>0.11) | 0.689<br>(0.67-<br>0.75) | 0.001<br>(0.00-<br>0.01) | 0.023<br>(0.00-<br>0.14) | 0.001<br>(0.00-<br>0.01) | 0.002<br>(0.00-<br>0.02) | 0.013<br>(0.00-<br>0.1)  | 0.007<br>(0.00-<br>0.05) | 0.007<br>(0.00-<br>0.05) |
| 27 | 0.002<br>(0.00-<br>0.02) | 0.009<br>(0.00-<br>0.07) | 0.002<br>(0.00-<br>0.01) | 0.001<br>(0.00-<br>0.01) | 0.030<br>(0.00-<br>0.16) | 0.006<br>(0.00-<br>0.05) | 0.118<br>(0.01-<br>0.26)  | 0.127<br>(0.00-<br>0.28) | 0.080<br>(0.00-<br>0.22) | 0.136<br>(0.02-<br>0.27) | 0.034<br>(0.00-<br>0.15) | 0.018<br>(0.00-<br>0.11) | 0.172<br>(0.04-<br>0.30) | 0.983<br>(0.93-<br>0.99) | 0.054<br>(0.00-<br>0.19) | 0.002<br>(0.00-<br>0.02) | 0.003<br>(0.00-<br>0.03) | 0.026<br>(0.00-<br>0.14) | 0.007<br>(0.00-<br>0.05) | 0.006<br>(0.00-<br>0.05) |
| 29 | 0.002<br>(0.00-<br>0.02) | 0.011<br>(0.00-<br>0.07) | 0.002<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.009<br>(0.00-<br>0.07) | 0.002<br>(0.00-<br>0.02) | 0.007<br>(0.00-<br>0.04)  | 0.005<br>(0.00-<br>0.03) | 0.009<br>(0.00-<br>0.06) | 0.006<br>(0.00-<br>0.04) | 0.008<br>(0.00-<br>0.05) | 0.007<br>(0.00-<br>0.06) | 0.003<br>(0.00-<br>0.03) | 0.001<br>(0.00-<br>0.01) | 0.709<br>(0.67-<br>0.81) | 0.001<br>(0.00-<br>0.01) | 0.002<br>(0.00-<br>0.02) | 0.009<br>(0.00-<br>0.07) | 0.007<br>(0.00-<br>0.04) | 0.003<br>(0.00-<br>0.03) |
| 30 | 0.002<br>(0.00-<br>0.02) | 0.010<br>(0.00-<br>0.06) | 0.002<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.016<br>(0.00-<br>0.1)  | 0.005<br>(0.00-<br>0.04) | 0.061<br>(0.00-<br>0.21)  | 0.011<br>(0.00-<br>0.06) | 0.039<br>(0.00-<br>0.16) | 0.051<br>(0.00-<br>0.18) | 0.057<br>(0.00-<br>0.19) | 0.048<br>(0.00-<br>0.19) | 0.065<br>(0.00-<br>0.19) | 0.003<br>(0.00-<br>0.02) | 0.024<br>(0.00-<br>0.13) | 0.983<br>(0.94-<br>0.99) | 0.003<br>(0.00-<br>0.03) | 0.016<br>(0.00-<br>0.10) | 0.006<br>(0.00-<br>0.05) | 0.007<br>(0.00-<br>0.05) |
| 33 | 0.003<br>(0.00-<br>0.03) | 0.018<br>(0.00-<br>0.11) | 0.002<br>(0.00-<br>0.03) | 0.001<br>(0.00-<br>0.01) | 0.009<br>(0.00-<br>0.07) | 0.002<br>(0.00-<br>0.02) | 0.008<br>(0.00-<br>0.049) | 0.005<br>(0.00-<br>0.03) | 0.008<br>(0.00-<br>0.06) | 0.005<br>(0.00-<br>0.04) | 0.008<br>(0.00-<br>0.05) | 0.008<br>(0.00-<br>0.06) | 0.004<br>(0.00-<br>0.03) | 0.001<br>(0.00-<br>0.01) | 0.008<br>(0.00-<br>0.07) | 0.001<br>(0.00-<br>0.09) | 0.947<br>(0.76-<br>0.99) | 0.008<br>(0.00-<br>0.06) | 0.026<br>(0.00-<br>0.13) | 0.068<br>(0.00-<br>0.25) |
| 34 | 0.002<br>(0.00-<br>0.02) | 0.009<br>(0.00-<br>0.06) | 0.001<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.011<br>(0.00-<br>0.08) | 0.002<br>(0.00-<br>0.02) | 0.007<br>(0.00-<br>0.04)  | 0.006<br>(0.00-<br>0.04) | 0.008<br>(0.00-<br>0.06) | 0.005<br>(0.00-<br>0.06) | 0.008<br>(0.00-<br>0.06) | 0.007<br>(0.00-<br>0.05) | 0.003<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.011<br>(0.00-<br>0.07) | 0.002<br>(0.00-<br>0.01) | 0.003<br>(0.00-<br>0.03) | 0.763<br>(0.00-<br>0.98) | 0.007<br>(0.00-<br>0.05) | 0.003<br>(0.00-<br>0.04) |
| 35 | 0.003<br>(0.00-<br>0.02) | 0.016<br>(0.00-<br>0.1)  | 0.002<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.010<br>(0.00-<br>0.08) | 0.002<br>(0.00-<br>0.02) | 0.008<br>(0.00-<br>0.05)  | 0.005<br>(0.00-<br>0.03) | 0.008<br>(0.00-<br>0.05) | 0.005<br>(0.00-<br>0.03) | 0.008<br>(0.00-<br>0.05) | 0.008<br>(0.00-<br>0.06) | 0.004<br>(0.00-<br>0.03) | 0.001<br>(0.00-<br>0.01) | 0.008<br>(0.00-<br>0.06) | 0.001<br>(0.00-<br>0.01) | 0.003<br>(0.00-<br>0.03) | 0.008<br>(0.00-<br>0.06) | 0.748<br>(0.67-<br>0.99) | 0.008<br>(0.00-<br>0.07) |
| 38 | 0.002<br>(0.00-<br>0.02) | 0.012<br>(0.00-<br>0.08) | 0.002<br>(0.00-<br>0.02) | 0.001<br>(0.00-<br>0.01) | 0.007<br>(0.00-<br>0.05) | 0.001<br>(0.00-<br>0.01) | 0.009<br>(0.00-<br>0.05)  | 0.004<br>(0.00-<br>0.03) | 0.008<br>(0.00-<br>0.06) | 0.005<br>(0.00-<br>0.04) | 0.008<br>(0.00-<br>0.05) | 0.009<br>(0.00-<br>0.06) | 0.005<br>(0.00-<br>0.04) | 0.001<br>(0.00-<br>0.01) | 0.008<br>(0.00-<br>0.06) | 0.001<br>(0.00-<br>0.01) | 0.004<br>(0.00-<br>0.04) | 0.007<br>(0.00-<br>0.05) | 0.009<br>(0.00-<br>0.06) | 0.822<br>(0.67-<br>0.99) |

off-diagonal: migration rates; on-diagonal: non-migration rates; (95 % CI).

**Table S8.** List of private alleles detected in each of the two gene pools.

| Gene pool 1 (Eastern group) |                     | Gene pool 2 (Western group) |                     |
|-----------------------------|---------------------|-----------------------------|---------------------|
| Microsatellite locus        | Private allele (bp) | Microsatellite locus        | Private allele (bp) |
| TCM-96                      | 129                 | TCM-96                      | 123                 |
| TCM-96                      | 143                 | TCM-273                     | 136                 |
| TCM-414                     | 132                 | TCM-414                     | 136                 |
| TCM-496                     | 184                 | TCM-414                     | 138                 |
| TCM-496                     | 190                 | TCM-417                     | 184                 |
| TCM-496                     | 200                 | TCM-496                     | 186                 |
| TCM-517                     | 200                 | TCM-496                     | 188                 |
| TCM-517                     | 204                 | TCM-496                     | 194                 |
| TCM-517                     | 208                 | TCM-517                     | 184                 |
| TCM-517                     | 244                 | TCM-517                     | 220                 |
| TCM-517                     | 248                 | TCM-517                     | 228                 |
| TCM-517                     | 252                 |                             |                     |
| TCM-517                     | 256                 |                             |                     |
| TCM-517                     | 264                 |                             |                     |



**Figure S2.** Heatmap of pairwise  $F_{ST}$  values among breeding sites ( $n \geq 6$ , Table 1), within (a) Eastern and (b) Western genetic group. The 95% statistically significant values were obtained after 10,000 permutations and are given in bold. Site numbers correspond to Table S1 and Figure 2.

**Table S9.** Indices of genetic diversity per analyzed breeding site. Listed in order are the site ID, sample size (n), mean number of alleles per locus (A), corrected allelic richness (Ar), number of private alleles (Ap), expected (He) and observed (Ho) heterozygosity, with corresponding  $\pm$ SE in parentheses. For site locations see Table S1 and Figure 3.

| Site | n  | A                | Ar               | Ap | He               | Ho               |
|------|----|------------------|------------------|----|------------------|------------------|
| 4    | 11 | 3.429<br>(1.152) | 2.971<br>(0.842) | 1  | 0.451<br>(0.096) | 0.390<br>(0.106) |
| 5    | 6  | 3.000<br>(0.756) | 3.000<br>(0.756) | 0  | 0.431<br>(0.090) | 0.500<br>(0.115) |
| 6    | 10 | 3.000<br>(0.655) | 2.565<br>(0.457) | 0  | 0.404<br>(0.081) | 0.408<br>(0.089) |
| 9    | 20 | 3.000<br>(0.436) | 2.652<br>(0.347) | 0  | 0.489<br>(0.077) | 0.478<br>(0.088) |
| 11   | 6  | 3.286<br>(0.808) | 3.286<br>(0.808) | 0  | 0.508<br>(0.106) | 0.452<br>(0.144) |
| 15   | 16 | 3.571<br>(0.896) | 3.072<br>(0.612) | 0  | 0.493<br>(0.114) | 0.536<br>(0.123) |
| 18   | 9  | 3.571<br>(0.719) | 3.350<br>(0.620) | 0  | 0.535<br>(0.088) | 0.603<br>(0.108) |
| 21   | 21 | 3.714<br>(0.606) | 3.128<br>(0.407) | 0  | 0.563<br>(0.068) | 0.588<br>(0.101) |
| 22   | 8  | 3.571<br>(0.719) | 3.373<br>(0.629) | 0  | 0.537<br>(0.096) | 0.538<br>(0.123) |
| 23   | 17 | 3.714<br>(0.865) | 3.177<br>(0.627) | 0  | 0.517<br>(0.108) | 0.466<br>(0.125) |
| 24   | 8  | 3.143<br>(0.553) | 2.999<br>(0.499) | 0  | 0.507<br>(0.078) | 0.612<br>(0.121) |
| 25   | 6  | 2.571<br>(0.297) | 2.571<br>(0.297) | 0  | 0.464<br>(0.069) | 0.333<br>(0.096) |
| 26   | 18 | 3.429<br>(0.612) | 3.040<br>(0.508) | 0  | 0.498<br>(0.096) | 0.485<br>(0.139) |
| 27   | 33 | 3.571<br>(0.896) | 2.976<br>(0.538) | 0  | 0.535<br>(0.102) | 0.487<br>(0.121) |
| 29   | 6  | 2.857<br>(0.595) | 2.857<br>(0.595) | 0  | 0.487<br>(0.096) | 0.581<br>(0.123) |
| 30   | 40 | 4.000<br>(0.816) | 3.090<br>(0.534) | 0  | 0.541<br>(0.093) | 0.491<br>(0.115) |
| 33   | 10 | 2.857<br>(0.595) | 2.742<br>(0.527) | 0  | 0.467<br>(0.081) | 0.543<br>(0.092) |
| 34   | 6  | 3.286<br>(0.522) | 3.286<br>(0.522) | 0  | 0.558<br>(0.069) | 0.486<br>(0.132) |
| 35   | 10 | 3.143<br>(0.738) | 2.803<br>(0.560) | 1  | 0.488<br>(0.094) | 0.529<br>(0.113) |
| 38   | 7  | 2.857<br>(0.553) | 2.753<br>(0.500) | 0  | 0.449<br>(0.071) | 0.429<br>(0.094) |