

Supplementary Table S2. Distribution of STRUCTURE admixture scores at the population level.

| Population | N | Distance to wheat cultivation ¹ | Distribution of P _{wheat} ² | | | | | | | |
|-------------------------------|----------------------------|--|---|---------|---------|---------|---------|---------|---------|--|
| | | | 0.0-0.1 | 0.1-0.2 | 0.2-0.3 | 0.3-0.4 | 0.4-0.5 | 0.5-0.6 | 0.6-0.7 | |
| <i>Ae. geniculata</i> | | | | | | | | | | |
| <i>France</i> | FR1 | 17 | C 1m | 17 | | | | | | |
| | FR2 | 11 | C 50m | 11 | | | | | | |
| | FR3 | 11 | D 600m | 7 | 4 | | | | | |
| | FR4 | 16 | D 1.3km | 16 | | | | | | |
| <i>Italy</i> | IT3 | 11 | C 1m | 11 | | | | | | |
| | IT5 | 17 | D 120m | 17 | | | | | | |
| | IT6 | 4 | D 400m | 4 | | | | | | |
| | IT7 | 12 | D 1.2km | 12 | | | | | | |
| <i>Spain</i> | SP1 | 23 | C 1m | 23 | | | | | | |
| | SP2 | 15 | C 1m | 15 | | | | | | |
| | SP3 | 5 | C 1m | 5 | | | | | | |
| | SP6 | 22 | C 1m | 21 | | | 1 | | | |
| | SP7 | 5 | C 10m | 5 | | | | | | |
| | SP9 | 11 | C 20m | 11 | | | | | | |
| | SP10 | 14 | C 20m | 14 | | | | | | |
| | SP12 | 3 | D 800m | 3 | | | | | | |
| | SP13 | 25 | D 2.4km | 25 | | | | | | |
| | SP15 | 13 | D >5km | 12 | 1 | | | | | |
| | SP16 | 5 | D >5km | 5 | | | | | | |
| | SP17 | 7 | D 10.4km | 6 | 1 | | | | | |
| | <i>Ae. neglecta</i> | | | | | | | | | |
| <i>Croatia</i> | HR1 | 2 | C 10m | | | | | 2 | | |
| | HR2 | 8 | C 30m | 4 | 1 | 1 | 1 | 1 | | |
| <i>Italy</i> | IT1 | 9 | C 1m | 6 | 1 | | | 1 | 1 | |
| | IT2 | 15 | C 1m | 15 | | | | | | |
| | IT3 | 1 | C 1m | 1 | | | | | | |
| | IT6 | 1 | D 400m | 1 | | | | | | |
| <i>Spain</i> | IT8 | 12 | D >15km | 11 | 1 | | | | | |
| | SP4 | 11 | C 1m | 9 | | 1 | | 1 | | |
| | SP5 | 7 | C 1m | 4 | 2 | | | 1 | | |
| | SP11 | 14 | D 200m | 14 | | | | | | |
| | SP12 | 12 | D 800m | 10 | 1 | 1 | | | | |
| <i>Ae. triuncialis</i> | | | | | | | | | | |
| <i>Croatia</i> | HR1 | 10 | C 10m | 6 | 1 | 1 | 1 | 1 | | |
| | HR2 | 9 | C 30m | 8 | 1 | | | | | |
| <i>Italy</i> | IT4 | 12 | D 100m | 12 | | | | | | |
| <i>Spain</i> | SP1 | 4 | C 1m | 3 | | | | | 1 | |
| | SP2 | 6 | C 1m | 5 | 1 | | | | | |
| | SP3 | 13 | C 1m | 6 | 3 | 1 | 2 | 1 | | |
| | SP6 | 9 | C 1m | 7 | | 1 | | 1 | | |
| | SP7 | 9 | C 10m | 8 | | | | | 1 | |
| | SP8 | 7 | C 10m | 6 | | | 1 | | | |
| | SP9 | 7 | C 20m | 6 | 1 | | | | | |
| | SP11 | 7 | D 200m | 7 | | | | | | |
| | SP12 | 8 | D 800m | 5 | | 1 | 1 | 1 | | |
| | SP14 | 14 | D 2.8km | 14 | | | | | | |
| | SP15 | 7 | D >5km | 7 | | | | | | |
| | <i>Turkey</i> | TU1 | 11 | D >15km | 11 | | | | | |

¹ Classified according to distance to wheat cultivation : C = "Close to wheat" (closer than 50 m) or D = "Distant from wheat" (farther than 50 m).

² P_{wheat} distributions were computed considering seven balanced classes (i.e. P_{wheat} = 0 to P_{wheat} = 0.7, with 0.1 as interval between two adjacent classes). Results are displayed as counts of samples.