

**Figure S1:** Distribution of *Z. lotus* fruits sampling sites, in different climatic stages in Algeria.

**Table S1:** Description of the selected sites of the nine natural populations of *Z. lotus* in Algeria.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pop.** | **Ouled Ziad** | **Djemâa Ouled Chikh** | **Boghar** | **Tidda** | **Maarif** | **Bougtob** | **Oued Nougued** | **Metlili** | **Mougheul** |
| **Position** | | | | | | | | | | |
| **Locations** | Chlef | Ain Defla | Medea | Tiaret | M’Sila | El Bayadh | Laghouat | Ghardaia | Bechar |
| **Long.** | 1°6’E | 2°1’E | 2°42’E | 1°14’E | 4°18’E | 0°7’E | 2°59’E | 3°33’E | 2°12’W |
| **Lat. (N)** | 36°6’ | 36°6’ | 35°57’ | 35°40’ | 35°22’ | 33°59’ | 33°49’ | 32°18 | 32°1’ |
| **Alt. (m)** | 106 | 516 | 853 | 705 | 410 | 1038 | 772 | 526 | 1023 |
| **Climate** | | | | | | | | | | |
| **AAT.** | 20.5 | 19.1 | 16.5 | 15.7 | 21.7 | 20.2 | 20.1 | 23.2 | 22.5 |
| **TA.** | 12.6 | 10.2 | 8.8 | 14.5 | 13 | 13.4 | 13.3 | 12.2 | 13.8 |
| **TD.** | 31 | 28.1 | 28.4 | 35.8 | 36.3 | 35.3 | 37.1 | 33.9 | 37.8 |
| **P.** | 404.85 | 807.23 | 773.62 | 334.03 | 172.21 | 218.65 | 198.2 | 17.51 | 107.95 |
| **Climate** | Semiarid | Semiarid | Semiarid | Semiarid | Dry steppe | Dry steppe | Dry steppe | Saharan | Saharan |
| **Soil** | | | | | | | | | | |
| **CaCO3 %** | 24 | 3.5 | 0 | 2.6 | 24.97 | 19.1 | 8.8 | 4.11 | 7.5 |
| **OM. %** | 1.2 | 1.51 | 1.3 | 0.92 | 2.01 | 1 | 0.78 | 0.75 | 0.49 |
| **pH** | 7.9 | 8 | 6.5 | 7.88 | 8.61 | 7.8 | 7.97 | 8.4 | 7.85 |
| **Clay %** | 27 | 31 | 34.4 | 12.3 | 9.76 | 9.8 | 9.4 | 0.4 | 0.96 |
| **Silt %** | 46.8 | 50.6 | 39.9 | 38.8 | 13.68 | 43.6 | 16.73 | 8.6 | 16.62 |
| **Sand %** | 26.2 | 18.4 | 25.7 | 48.9 | 76.56 | 46.6 | 73.87 | 91 | 82.42 |
| **Soils** | Clay loam | Loamy clay | Clay loam | Loam | Sandy loam | Sandy loam | Sandy loam | Sandy | Sandy |

**Long.**: Longitude; **Lat.**: Latitude; **Alt.**: Altitude; **AAT.**: Average annual temperature; **TD.**: Temperature difference between the warmest and coldest months; **P.**: Precipitations; **OM.**: Organic matter.