

Figure S1: Springs on the Jordanian side were mapped based on 1980s Israeli Defense Force topographical maps 1:50,000 (inset; Neot Hakikar Sheet). Each blue dot represents a spring, the yellow circle is a GIS vector point layer which was added.

Table S1: Spearman's correlation between the annual proxies of perennial vegetation ( of the Senonian aquifer springs. Below the table are the average, median and the standard deviations of the correlation coefficients.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | *Ein Zach N* | *Ein Zach S* | *Ein Yahav* | *Ein Tamid* | *Ein Mashak* | *Ein Rachel* |
| Ein Zach N |  |  |  |  |  |  |
| Ein Zach S | 0.80 |  |  |  |  |  |
| Ein Yahav | 0.13 | 0.34 |  |  |  |  |
| Ein Tamid | 0.93 | 0.72 | 0.07 |  |  |  |
| Ein Mashak | 0.94 | 0.71 | 0.15 | 0.90 |  |  |
| Ein Rachel | 0.62 | 0.36 | 0.22 | 0.60 | 0.74 |  |

|  |  |  |
| --- | --- | --- |
| Average | Median | Standard deviation |
| 0.45 | 0.36 | 0.32 |

Table S 2: Spearman's correlation between the annual proxies of perennial vegetation ( of the Quaternary aquifer (center) springs. Below the table are the average, median and the standard deviations of the correlation coefficients.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ein Gidron west | Ein Gidron east | Ein Amatzia | Ein Plutit | Ein Ofarim | Ein Hufira | Ein Marzeva | Ein Layka | Ein Yamluch |
| Ein Gidron west |  |  |  |  |  |  |  |  |  |
| Ein Gidron east | 0.83 |  |  |  |  |  |  |  |  |
| Ein Amatzia | 0.73 | 0.68 |  |  |  |  |  |  |  |
| Ein Plutit | 0.42 | 0.75 | 0.51 |  |  |  |  |  |  |
| Ein Ofarim | 0.91 | 0.90 | 0.79 | 0.65 |  |  |  |  |  |
| Ein Hufira | 0.82 | 0.81 | 0.70 | 0.58 | 0.86 |  |  |  |  |
| Ein Marzeva | 0.69 | 0.66 | 0.52 | 0.49 | 0.69 | 0.90 |  |  |  |
| Ein Layka | 0.81 | 0.94 | 0.74 | 0.71 | 0.88 | 0.84 | 0.72 |  |  |
| Ein Yamluch | 0.73 | 0.36 | 0.52 | -0.15 | 0.56 | 0.53 | 0.34 | 0.37 |  |

|  |  |  |
| --- | --- | --- |
| Average | Median | Standard deviation |
| 0.66 | 0.70 | 0.2 |

Table S 3: Spearman's correlation between the annual proxies of perennial vegetation ( of the Quaternary aquifer (north) springs. Below the table are the average, median and the standard deviations of the correlation coefficients.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Ein Sdom 1* | *Ein Sdom 2* | *Ein Sdom 3* | *Ein Sdom 4* | *Ein Sdom 5* | *Ein Sdom 6* | *Ein Sdom 7* |
| Ein Sdom 1 |  |  |  |  |  |  |  |
| Ein Sdom 2 | 0.69 |  |  |  |  |  |  |
| Ein Sdom 3 | 0.48 | 0.83 |  |  |  |  |  |
| Ein Sdom 4 | 0.48 | 0.79 | 0.88 |  |  |  |  |
| Ein Sdom 5 | 0.70 | 0.83 | 0.79 | 0.77 |  |  |  |
| Ein Sdom 6 | 0.57 | 0.87 | 0.84 | 0.89 | 0.80 |  |  |
| Ein Sdom 7 | 0.66 | 0.88 | 0.86 | 0.85 | 0.88 | 0.87 |  |

|  |  |  |
| --- | --- | --- |
| Average | Median | Standard deviation |
| 0.77 | 0.83 | 0.13 |