**Supplementary Material**

A multi-scale analysis of habitat selection in peripheral populations of the endangered Dupont’s Lark *Chersophilus duponti*

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Figure S1: Dupont’s Lark *Chersophilus duponti* distribution in Spain. Red circle shows location of the study area in the Iberian Peninsula. Most of the populations located south of the study area were inhabited by less than 10 males. Source: Suárez (2010).



Table S1: Loading factors of the PCA performed with lithological and vegetation cover variables measured at the microhabitat scale. \* < 0.05; \*\* < 0.01; \*\*\* < 0.005.

|  |  |
| --- | --- |
|  | PCA |
|  | PCA I | PCA II | PCA III | PCA IV |
| Bare rock % | -0.0121 | 0.2673\*\*\* | 0.1763\*\* | -0.8450\*\*\* |
| Pebble % | 0.2822\*\*\* | 0.4605\*\*\* | 0.3008\*\*\* | 0.2695\*\*\* |
| Bare soil % | -0.1216 | 0.2321\*\*\* | 0.5658\*\*\* | 0.3242\*\*\* |
| Herb. < 20 cm % | 0.6515\*\*\* | -0.0540 | 0.1421\* | -0.3972\*\*\* |
| Herb. 20-40 cm % | 0.3416\*\*\* | -0.8388\*\*\* | -0.1057 | 0.0845 |
| Herb. > 40 cm % | 0.1053 | -0.8460\*\*\* | 0.0836 | 0.1824\*\*\* |
| Rosemary < 20 cm % | -0.8719\*\*\* | 0.2071\*\*\* | 0.2187\*\*\* | 0.0505 |
| Rosemary 20-40 cm % | -0.9093\*\*\* | 0.2204\*\*\* | 0.1995\*\*\* | 0.0108 |
| Rosemary > 40 cm % | -0.8787\*\*\* | 0.1812\*\*\* | 0.1257\* | -0.0015 |
| Broom < 20 cm % | 0.5812\*\*\* | 0.2581\*\*\* | -0.2985\*\*\* | 0.2440\*\*\* |
| Broom 20-40 cm % | 0.5185\*\*\* | 0.0861 | -0.7018\*\*\* | 0.2224\*\*\* |
| Broom > 40 cm % | 0.2163\*\*\* | -0.0736 | -0.8000\*\*\* | 0.1822\*\*\* |
| Thyme < 20 cm % | 0.5735\*\*\* | 0.3690\*\*\* | 0.3403\*\*\* | 0.3602\*\*\* |
| Thyme 20-40 cm % | 0.7796\*\*\* | 0.1019 | -0.1938\*\*\* | 0.2598\*\*\* |
| Thyme > 40 cm % | 0.2417\*\*\* | 0.0653 | -0.4545\*\*\* | 0.0214\*\*\* |
| Variance explained (%) | 31.0 | 14.1 | 14.4 | 9.6 |

Table S2: The number of times that each variable was considered within the total number of candidate models (Nº **∆**AICc < 2) used for model averaging. Rosemary was not used in Pinar habitat modelling since this shrub was lacking this area.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Hontanar | Losar 1 | Pinar 1 |
| Spatial term | 18  | 8  | 27  |
| Slope | 19  | 0  | 13  |
| Crops | 18  | 0 | 2  |
| Bare ground | 3  | 2  | 10  |
| Herbaceous | 13  | 8  | 2  |
| Rosemary | 4  | 4  | - |
| Broom | 6  | 3  | 14  |
| Thyme | 4  | 3  | 7  |
| Pines | 6  | 8  | 12 |
| Junipers | 17  | 8  | 2  |
| Nº ∆AICc < 2 | 19 | 8 | 27 |