

SUPPLEMENTARY ELECTRONIC MATERIAL

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NATAL DISPERSAL AND SURVIVAL OF JUVENILE ROCK PTARMIGAN *LAGOPUS MUTA* IN THE FRENCH ALPS AND PYRENEES

DISPERSIÓN NATAL Y SUPERVIVENCIA DE LOS JUVENILES DE LAGÓPODO ALPINO *LAGOPUS MUTA* EN LOS ALPES FRANCESES Y LOS PIRINEOS

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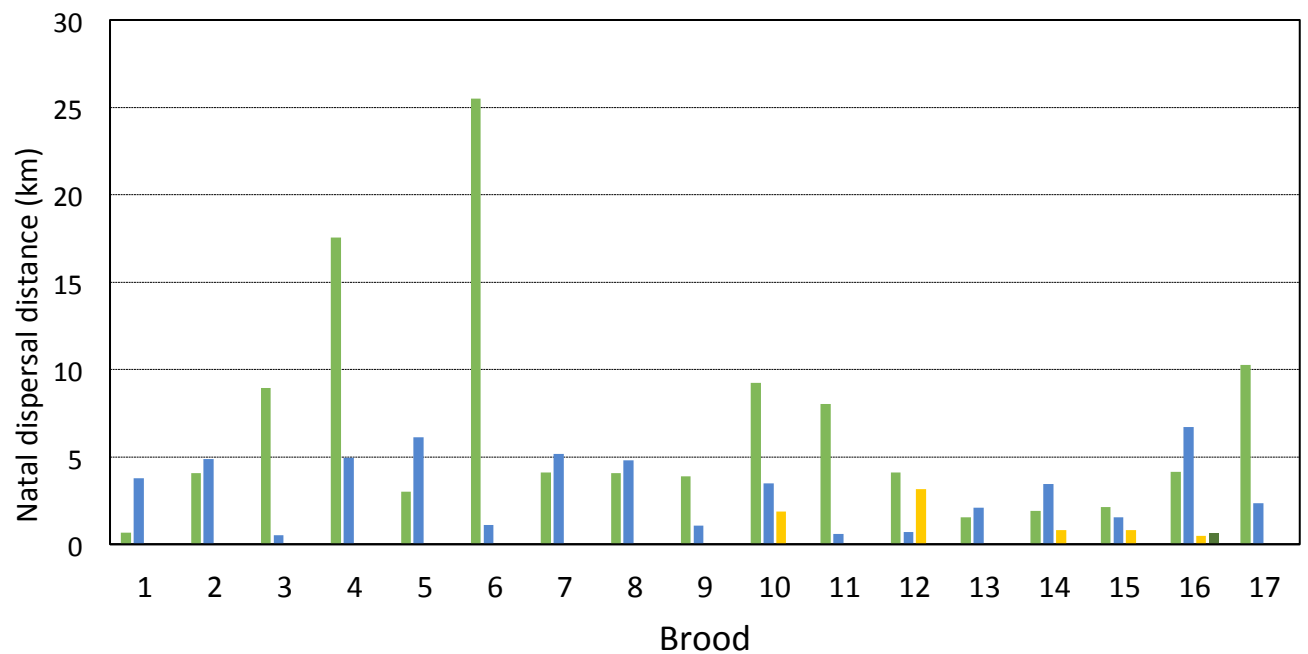
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APPENDIX 2.

Figure B1. Comparison of natal dispersal distances between juveniles of the same brood.

Figura B1. Comparación de las distancias de dispersión natal entre juveniles de la misma nidada.



Natal dispersal distances of juvenile Rock ptarmigan within broods

To analyse dispersal behaviour, a lack of correlation between the natal dispersal distances of the juveniles within broods is a necessary condition for considering siblings as independent units. For testing the absence of correlation between dispersal distances, we used a Mantel's test (see Manly, 1991, sect. 7.2).

The Mantel's test is a correlation test between two matrices A and B . Matrix A describes brood membership, with element $a_{ij} = 0$ if the couple of juveniles (i, j) belong to the same brood, and $a_{ij} = 1$ otherwise. Matrix B gives the discrepancy between two dispersal distances d_i and d_j , as $b_{ij} = |d_i - d_j|$.

For estimating the P-value with accuracy, again we refer to a randomisation procedure, by randomly permuting 10^6 times the rows and columns of one of the two matrices. We obtain $P = 0.38$, that is, no correlation of dispersal distances within broods.