**Supplementary material**

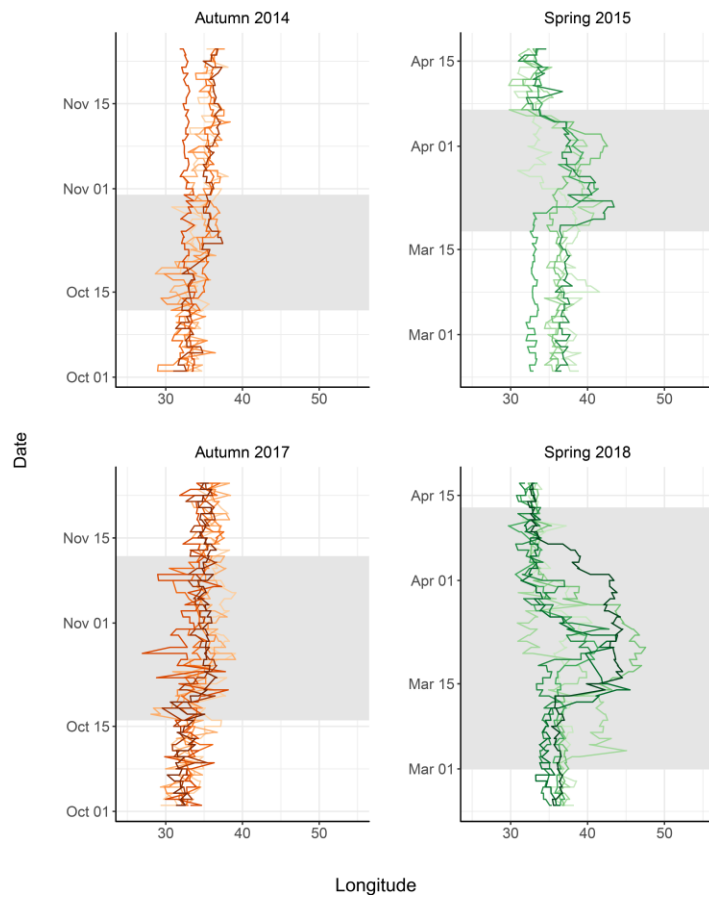Supplementary material

Appendix 1



Figure A1. Raw longitude estimates from geolocators carried by adult Cyprus wheatear plotted for the autumn and spring migration period during 2014-15 and 2017-18 (autumn 2014: n = 6; spring 2015: n = 4; autumn 2017: n = 6; spring 2018: n = 7). The grey rectangles show the main migration period (the migration period was defined between first bird to depart the non-breeding site and last bird to arrive at the breeding site or vice versa). Note the different scales for the very short autumn period versus the longer spring migration period.
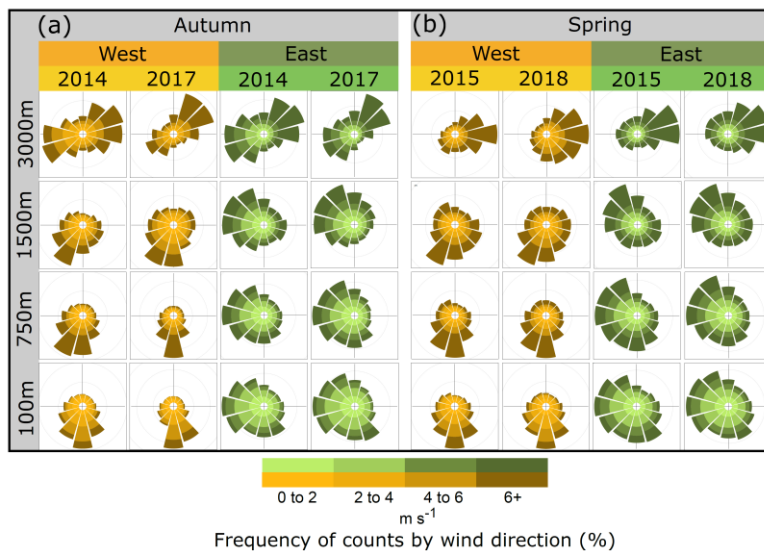
Figure A2. Wind speed and direction for autumn and spring migration of adult Cyprus wheatears during 2014-15 and 2017-18 (autumn 2014: n = 6; spring 2015: n = 4; autumn 2017: n = 6; spring 2018: n = 7). (a) Wind roses showing wind speed and direction frequency (%) in each region at four altitudes during the autumn migration period for adult Cyprus wheatear, and (b) in each region during the spring migration period. These wind roses display the wind vector azimuth: the direction that the wind is moving towards, i.e. southerly in autumn and north-westerly in on average in spring. Grey circles in (a) and (b) show 10 % intervals. Migration periods defined between first bird to depart and last bird to arrive.
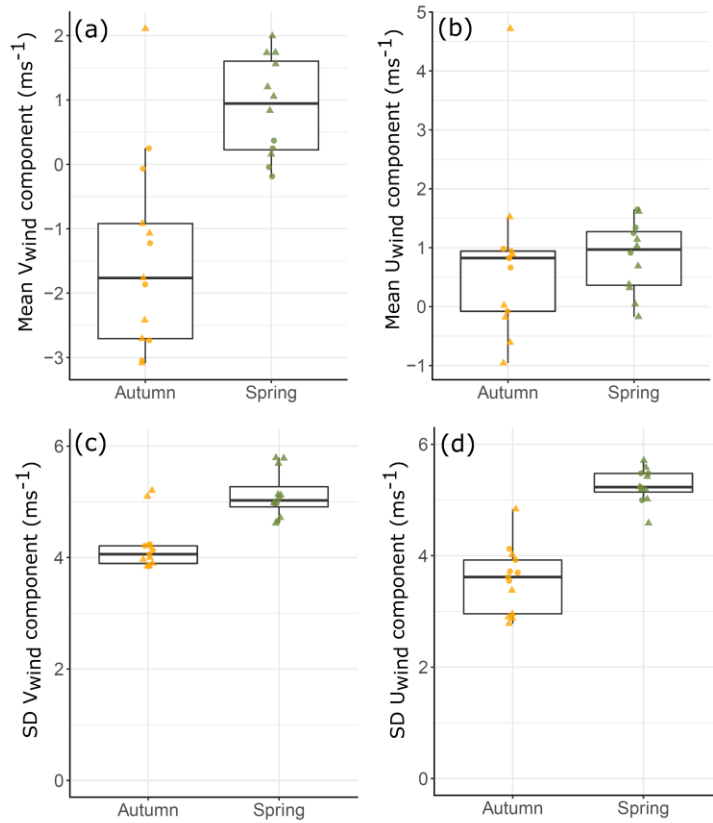
Figure A3. Mean wind vectors and variation in wind vectors experienced by adult Cyprus wheatears fitted with geolocators during 2014-15 (circles) and 2017-18 (triangles) (autumn 2014: n = 6; spring 2015: n = 4; autumn 2017: n = 6; spring 2018: n = 7). (a) Mean $V_{wind}$ and (b) $U_{wind}$ components for each bird's respective migration period and region. (c) Standard deviation of $V_{wind}$ and (d) $U_{wind}$ for each bird's respective migration.