

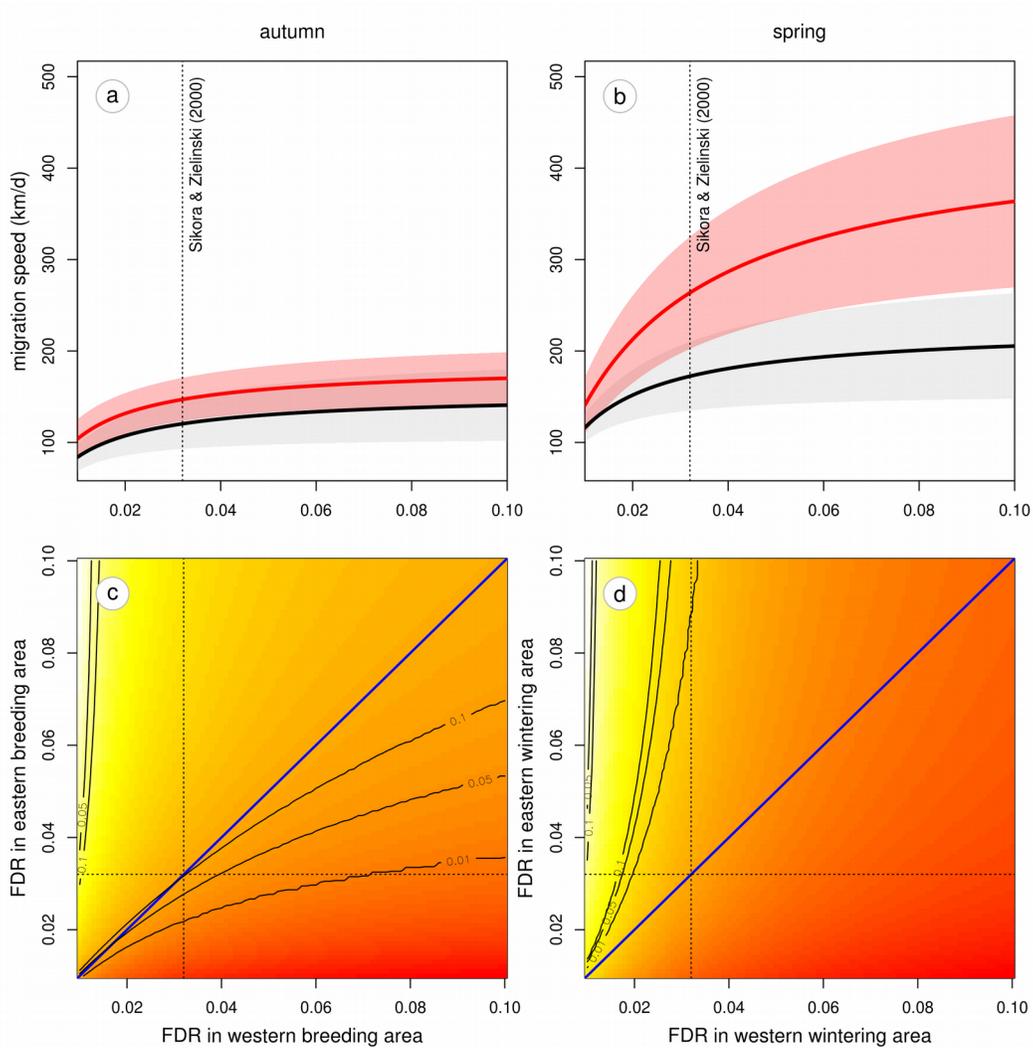
Supplementary Material

Red-necked Phalarope movements: contrasting migration and wintering movement strategies over contrasting habitats

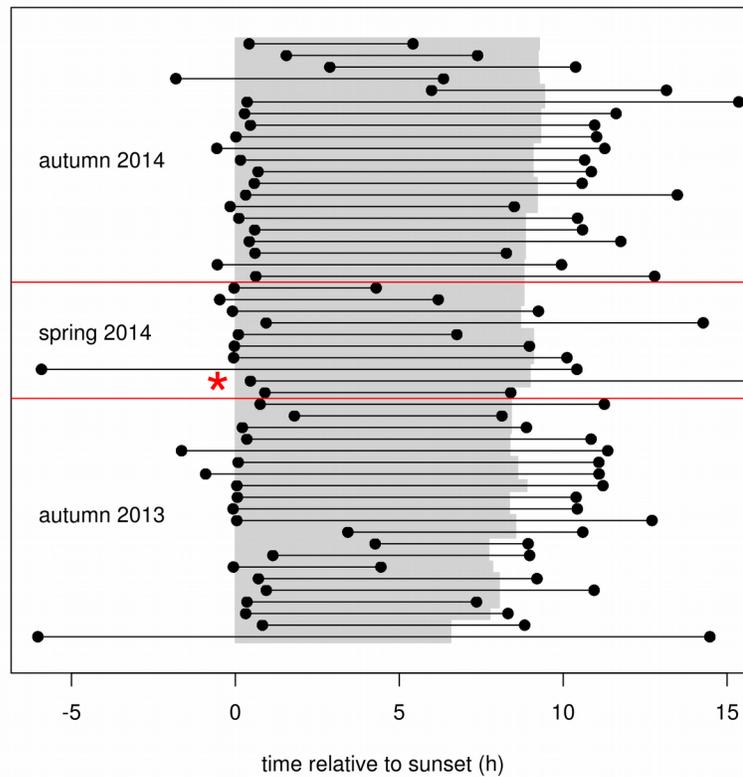
Rob S.A. van Bemmelen^{*}, Yann Kolbeinsson, Raül Ramos, Olivier Gilg, Malcolm Smith, Jose A. Alves, Hans Schekkerman, Aleksi Lehikoinen, Ib Krag Petersen, Böðvar Þórisson, Aleksandr A. Sokolov, Kaisa Välimäki, Tim van der Meer, J. David Okill, Mark Bolton, Børge Moe, Sveinn Are Hanssen, Loïc Bollache, Aevar Petersen, Sverrir Thorstensen, Jacob González-Solís, Raymond H.G. Klaassen, Ingrid Tulp

*** Correspondence:** Rob S.A. van Bemmelen: rvanbemmelen@gmail.com

Supplementary Material



Supplementary Figure 1. Mean migration speed (\pm sd) by Red-necked Phalaropes migrating to the Pacific (red) and to the Arabian Sea (grey) in autumn (a) and spring (b), as a function of fuel deposition rate (FDR). Vertical dotted lines represent the FDR value of 3.2% of lean body mass reported by Sikora & Zielinski (2000). In (c) and (d), yellow to red shades represent the absolute difference in migration speed between western and eastern birds as a function of FDR in autumn at the breeding sites (c) and in spring at the wintering sites (d), with red values representing larger differences. Thin black contour lines represent 0.1, 0.05 and 0.01 p-values of the difference in migration speed between western and eastern birds. Vertical and horizontal dotted lines represent the FDR value of 3.2% again (Sikora & Zielinski 2000).



Supplementary Figure 2. Long flights (>3hrs) by a Red-necked Phalarope during three migrations (delineated by red horizontal lines) between Greenland and the Pacific as inferred from wet/dry data. Grey shaded areas represent periods of darkness, based on geolocator light measurements. Staging periods are not excluded. The migration marked with an asterisk lasted for 48h, thus covering another night.