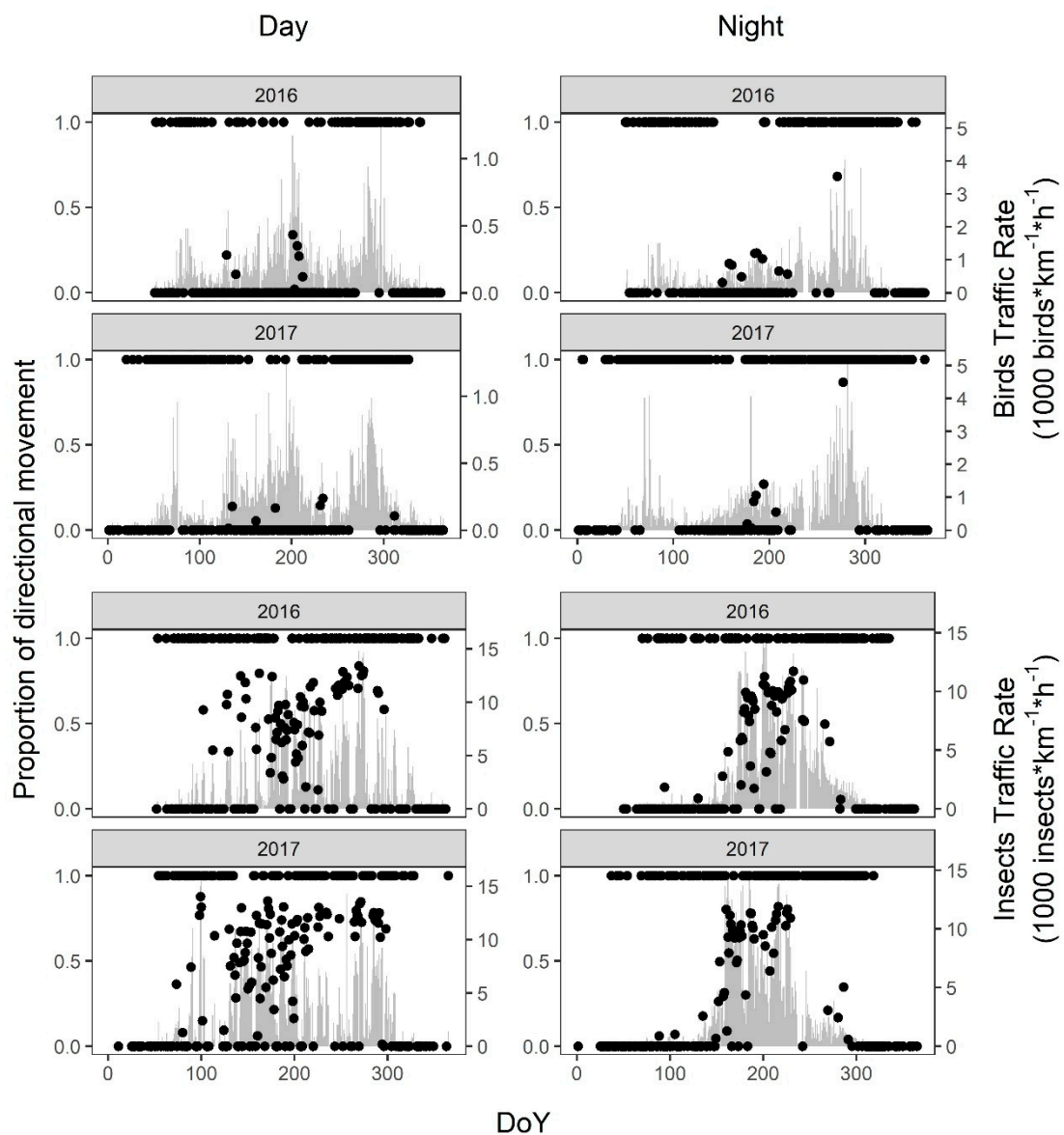


## Supplementary Materials to:

# Seasonal Trends in Movement Patterns of Birds and Insects Aloft Simultaneously Recorded by Radar

Xu Shi, Baptiste Schmid, Philippe Tschanz, Gernot Segelbacher and Felix Liechti

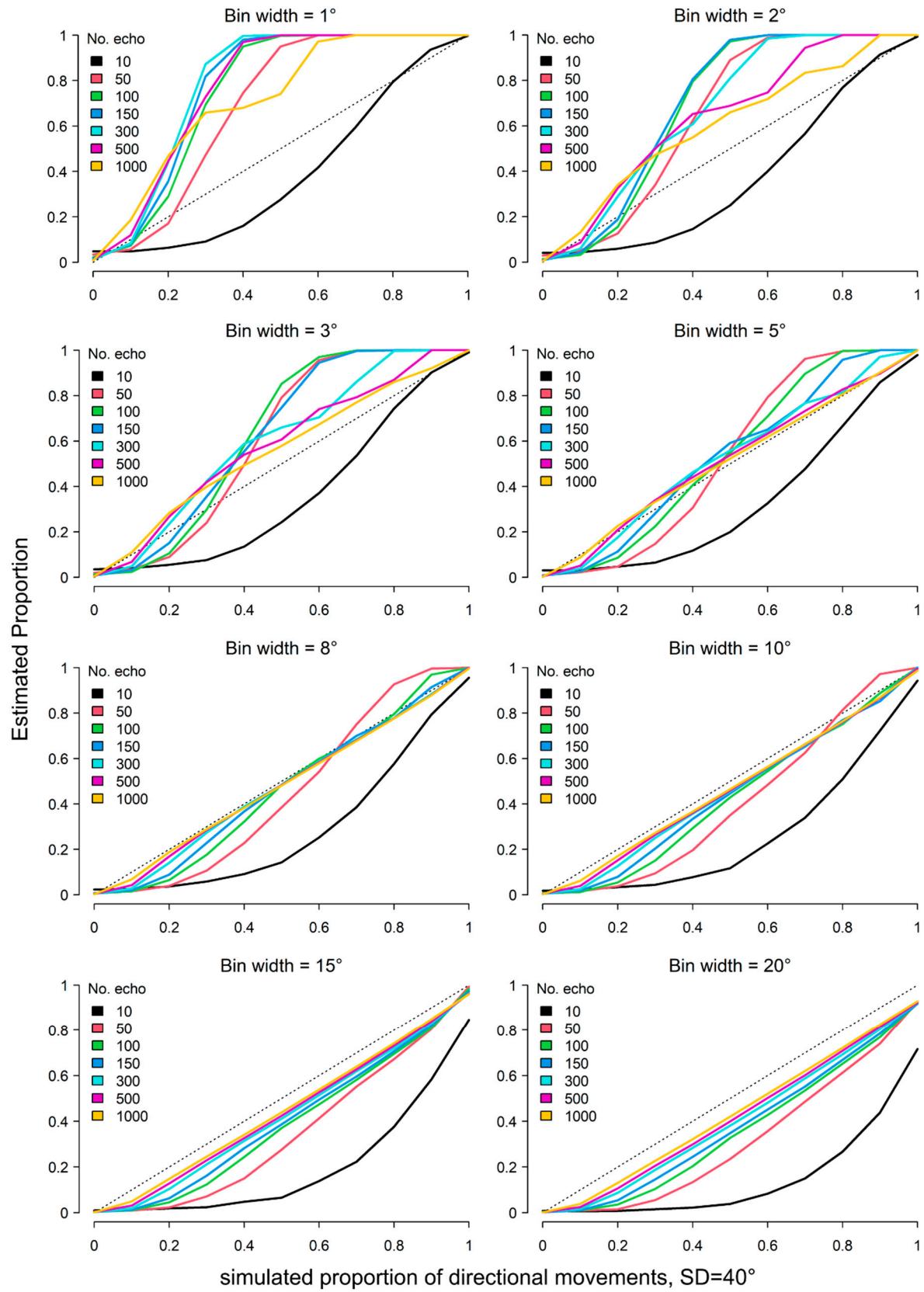
## Supplementary Methods



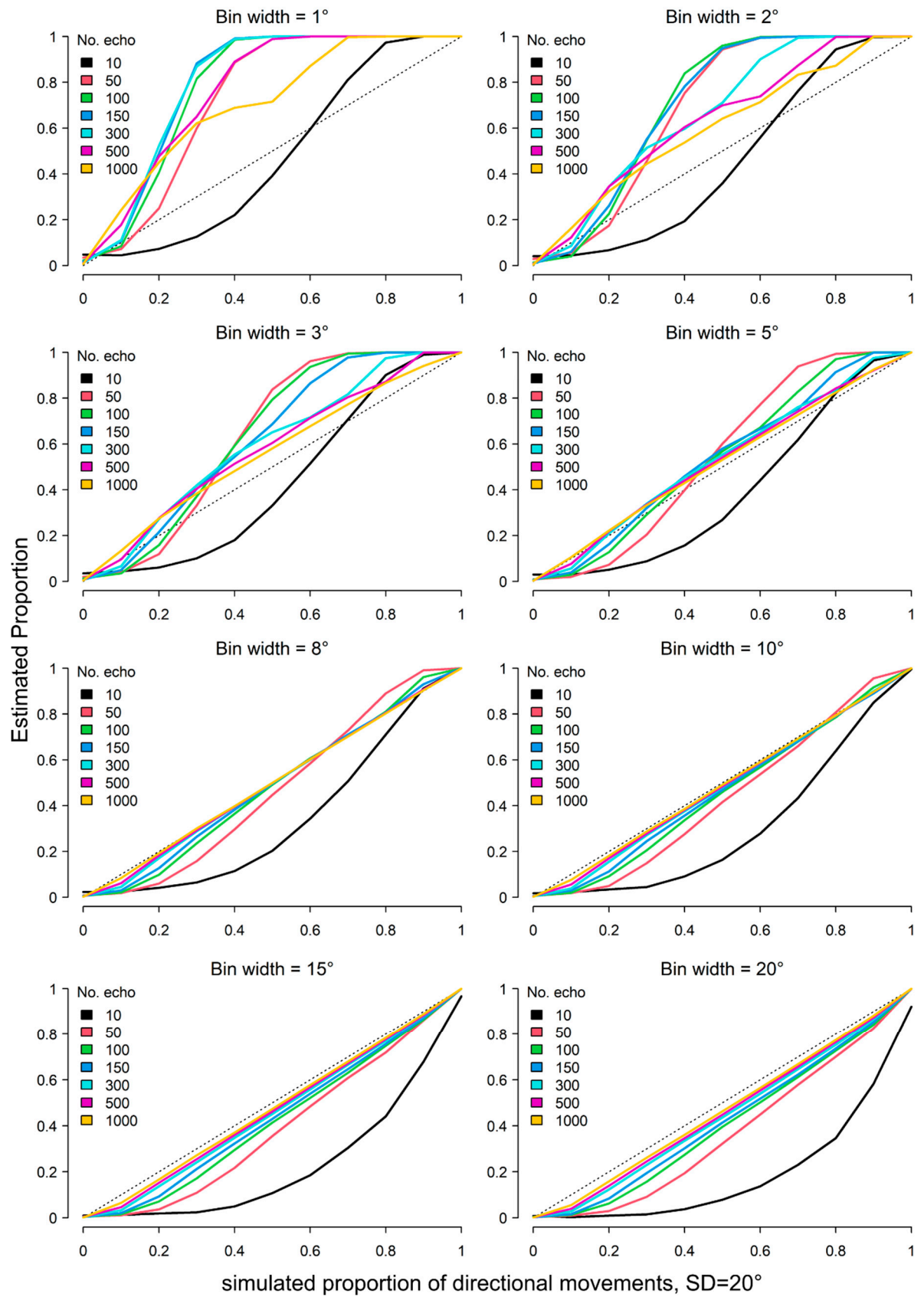
**Figure S1.** Phenology of birds' and insects' daily mean total traffic rates (TTR, grey bars) and proportion of directional movement on each date (black dots) in year 2016 and 2017. Note the different y-axis for insects' and birds TTR.

**Table 1.** Number of echoes with flight direction at the 0.25, 0.5, 0.75, 0.90, 0.95 quantiles for diurnal and nocturnal bird- and insect classes.

<b>Class</b>	<b>Day/night</b>	<b>0.25</b>	<b>0.50</b>	<b>0.75</b>	<b>0.90</b>	<b>0.95</b>
<b>Bird</b>	Night	11.0	71.0	163.5	369.0	586.5
<b>Bird</b>	Day	3.5	26.0	62.0	129.0	168.0
<b>Insect</b>	Night	14.0	108.0	416.0	915.0	1066.0
<b>Insect</b>	Day	28.0	226.0	1017.0	1506.0	1824.0

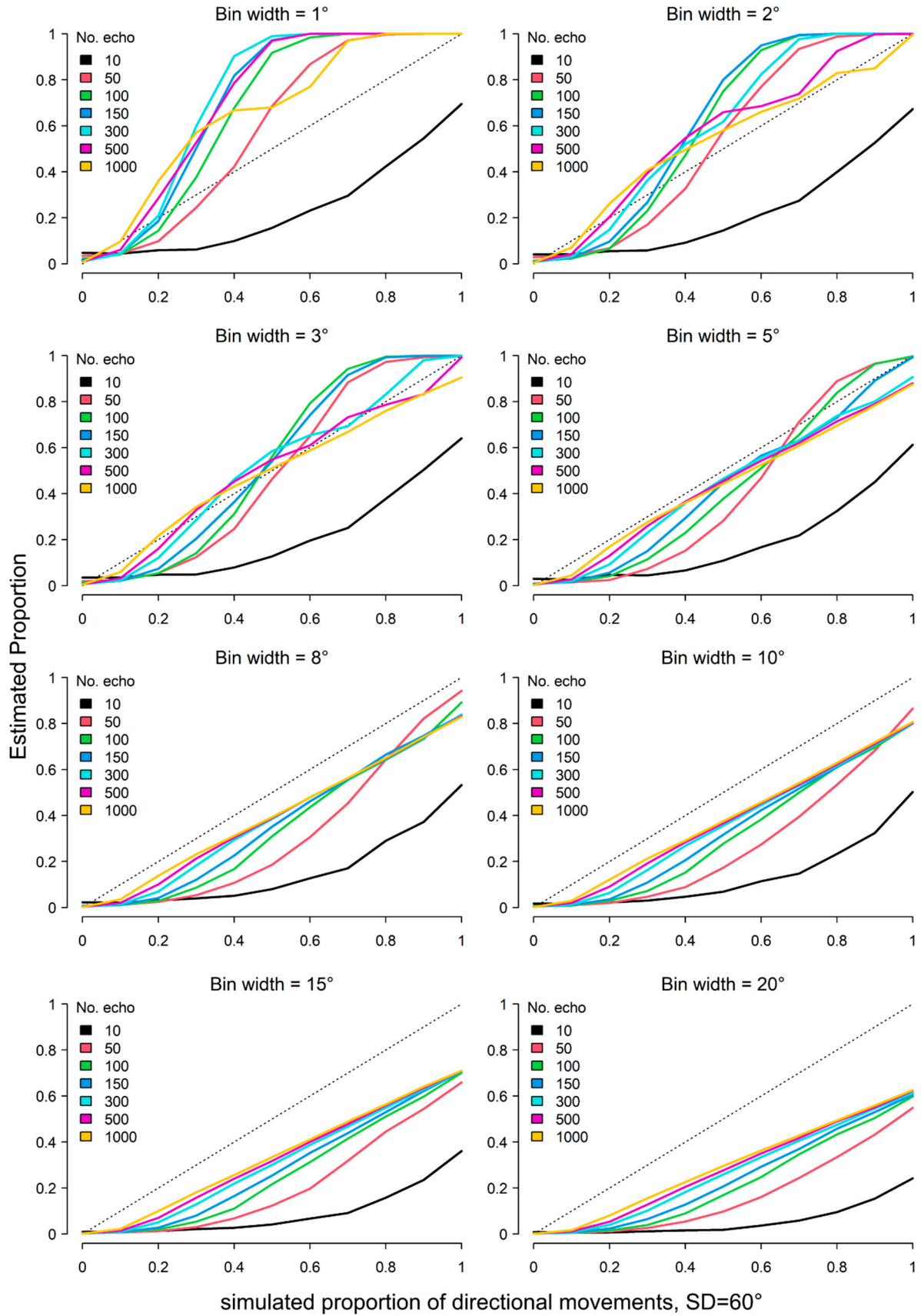


**Figure S2.** Estimated proportion of migration (mean of 100 simulations) based on simulated data varying in sample size (colour lines: 10 = black, 50 = red, 100 = green, 150 = blue, 300 = turquoise, 500 = pink, 1000 = yellow), bin width (top left 1°, top right 3°, mid-left 5°, mid-right 8°, bottom left 10°, bottom right 15°) with migration spread 40° SD.



**Figure S3.** Estimated proportion of migration (mean of 100 simulations) based on simulated data varying in sample size (colour lines: 10 = black, 50 = red, 100 = green, 150 = blue, 300 = turquoise, 500 = pink, 1000 = yellow).

1000 = yellow), bin width (top left 1°, top right 3°, mid-left 5°, mid-right 8°, bottom left 10°, bottom right 15°) with migration spread 20° SD.



**Figure S4.** Estimated proportion of migration (mean of 100 simulations) based on simulated data varying in sample size (color lines: 10 = black, 50 = red, 100 = green, 150 = blue, 300 = turquoise, 500 = pink, 1000 = yellow), bin width (top left 1°, top right 3°, mid-left 5°, mid-right 8°, bottom left 10°, bottom right 15°) with migration spread 60° SD.