

Supplementary material

Appendix 1

Table A1. Capture and re-capture data of GLS- tracked northern lapwings. The first date for each bird refers to the date of tagging, and the tag was carried by that bird until the final date or beyond. Body mass (at day of incubation as given in table) remained at similar levels in subsequent year(s) as compared to year of tagging in all birds except for female "WIOR". However, the recorded mass of "WIOR" of 260 g at tagging in 2007 represented the highest value among all 32 females measured (before/ not carrying a tag) in that year (mean \pm SD 224 \pm 14 g) and the second highest among all 73 females measured (before/ not carrying a tag) over whole 2007-2010 (225 \pm 19 g).

Bird	Sex	Date of capture	Day of incubation	Body mass (g)	Eggs at capture	Nesting (egg) success observations
WIBL	M	21-Apr-07	16	225	4	3 hatched 30 Apr, 1 infertile
WIBL	M	22-Apr-09	6	240	3	predated 7 May
WIGR	M	27-Apr-07	19	210	4	4 hatched 4 May
WIGR	M	1-May-08	15	208	4	4 hatched 13 May
WIWI	F	17-Apr-07	13	202	4	4 hatched 30 Apr
WIWI	F	16-Apr-09	12	201	4	\geq 2 hatched 1 May
ORWI	F	17-Apr-07	14	242	4	3 hatched 29 Apr, 1 infertile
ORWI	F	4-May-10	6	246	4	4 hatched < 24 May
GEBL	F	21-Apr-07	14	196	3	3 hatched 3 May
GEBL	F	8-Jun-08	10	200	3	predated 12 Jun
GEBL	F	14-May-09	10	201	3	predated 24 May
GEBL	F	19-Apr-10	17	209	4	deserted
GROR*	F	23-May-07	15	228	4	4 hatched 3 Jun
ZWGE	F	18-Apr-07	18	217	4	\geq 3 hatched 26 Apr
ZWGE	F	30-May-08	13	201	4	predation pulli at hatch
WIOR	F	4-May-07	13	260	4	4 hatched 15 May
WIOR	F	4-May-08	6	215	3	predated 11 May

* "GROR" was recaptured in 2008 without being re-weighted.

Table A2. Pearson's correlation coefficients (r) with 95% confidence intervals (CI) for associations between (average) distance to wintering area and timing of events at breeding area of adult northern lapwings. For underlying data values and description of variables see table 1. Same associations are described with different data sets (n = sample size); see methods for further details. Correlation coefficients are presented in bold where 95% confidence intervals do not overlap zero.

Correlations with wintering distance for different data sets				
	n	r	-95% CI	+95% CI
Departure date:				
male + females tracked 2007-2008	7	-0.828	-0.974	-0.199
females tracked 2007-2008	6	-0.813	-0.979	-0.004
females tracked 2007-2010	11	-0.829	-0.954	-0.456
Arrival date:				
male + females tracked 2007-2008	7	0.478	-0.429	0.905
females tracked 2007-2008	6	0.253	-0.703	0.883
females tracked 2007-2010	11	0.338	-0.328	0.780
Days away from breeding area:				
male + females tracked 2007-2008	7	0.838	0.229	0.975
females tracked 2007-2008	6	0.770	-0.111	0.973
females tracked 2007-2010	11	0.806	0.400	0.948
Pre-laying period:				
females tracked 2007-2008	6	0.460	-0.561	0.926
females tracked 2007-2010	11	0.427	-0.233	0.817
Laying start date:				
females tracked 2007-2008	6	0.850	0.124	0.983
females tracked 2007-2010	11	0.750	0.272	0.931

Figure A1. Longitudes and latitudes from which migratory patterns and density contour plots are derived and shown in main document Figs. 1 and 2. Bird identity and year of tracking are stated in top of each panel.

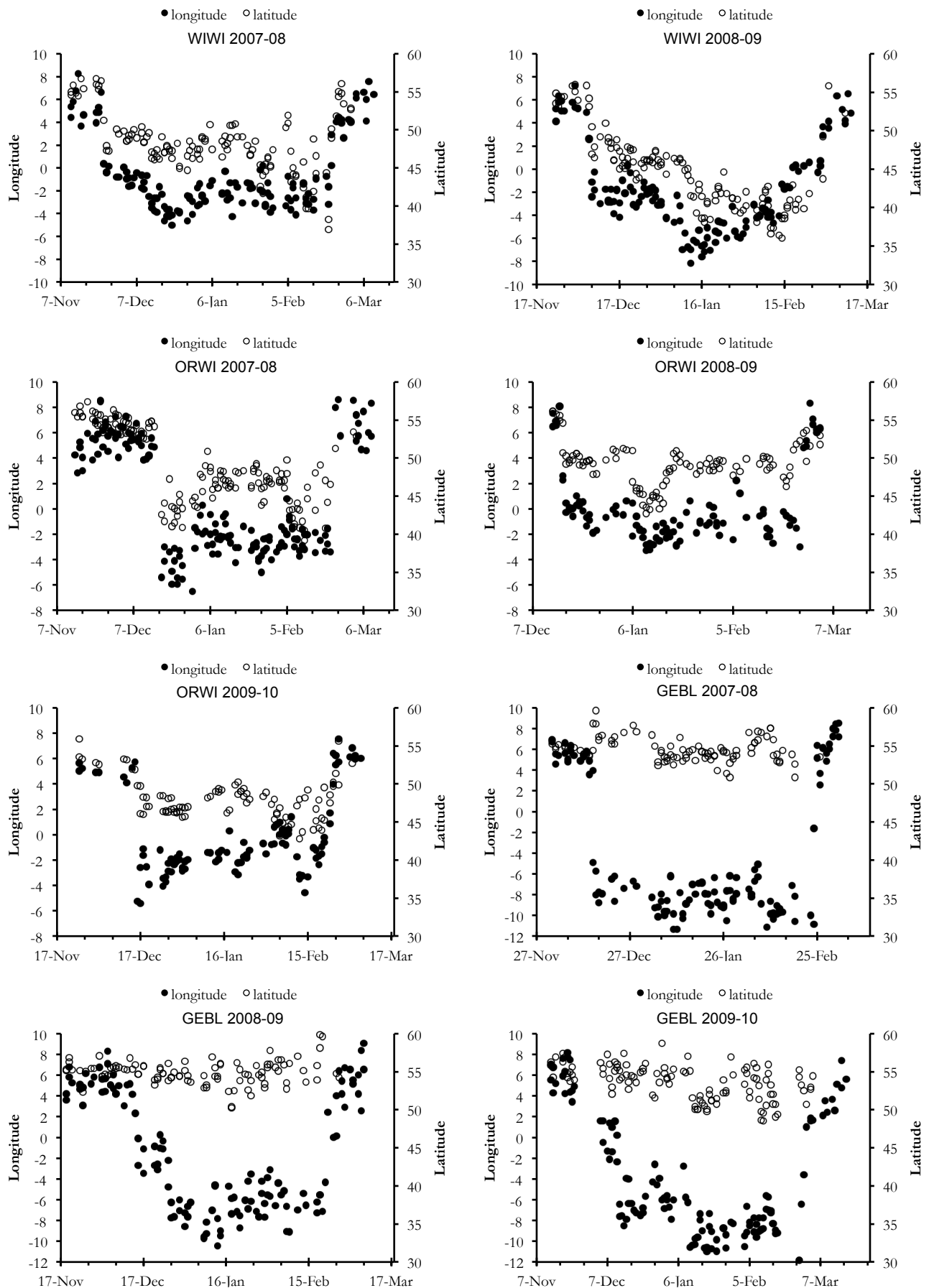


Figure A1 continued

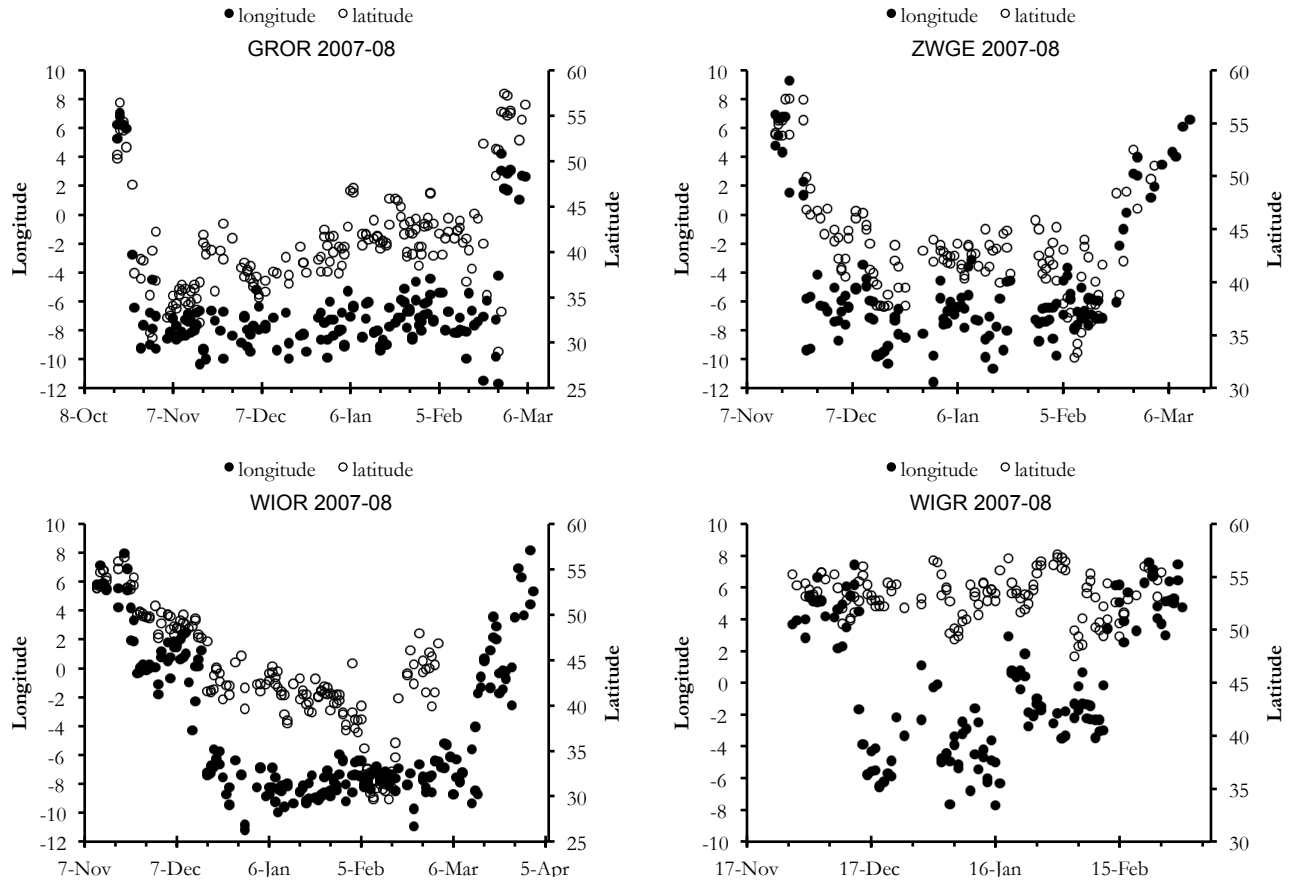


Figure A2. Ambient temperature (measured at 24 km from study colony) during migratory seasons of 2007-08 (upper panel) and 2008-09/2009-10 (lower panel). Daily mean temperature (measured at 150 cm above ground) and minimum temperature (measured at 10 cm above ground) are shown as, respectively, solid and dotted lines. A black line at 0°C is drawn for reference. Cross markers depict the dates of departure from and arrival to the wider breeding area (i.e. within 300 km of breeding site); crosses are offset vertically to enhance visibility.

