

Norevik, G., Åkesson, S. and Hedenström, A. 2016. Migration strategies and annual space-use in an Afro-Palaeartic aerial insectivore – the European nightjar *Caprimulgus europaeus*. – Journal of Avian Biology doi: 10.1111/jav.01071

Appendix 1

Table A1. Sun angles used on the data from the retrieved loggers.

Manufacturer	Stalk	Bird id	Sex	Season	Sun angle
Biotrack Ltd	n	A	m	2011–2012	–5.0
Biotrack Ltd	y	B	m	2011–2012	–4.8
Biotrack Ltd	y	C	m	2012–2013	–4.7
Biotrack Ltd	y	D	m	2012–2013	–4.7
Migrate technology Ltd	y	E	f	2013–2014	–6.7
Migrate technology Ltd	y	F	m	2013–2014	–6.2
Migrate technology Ltd	y	G	m	2013–2014	–6.4
Migrate technology Ltd	y	H	m	2013–2014	–6.5
Migrate technology Ltd	y	I	m	2013–2014	–6.5
Migrate technology Ltd	y	J	m	2014–2015	–5.0
Migrate technology Ltd	y	K	m	2014–2015	–6.3
Migrate technology Ltd	y	L	m	2014–2015	–6.7

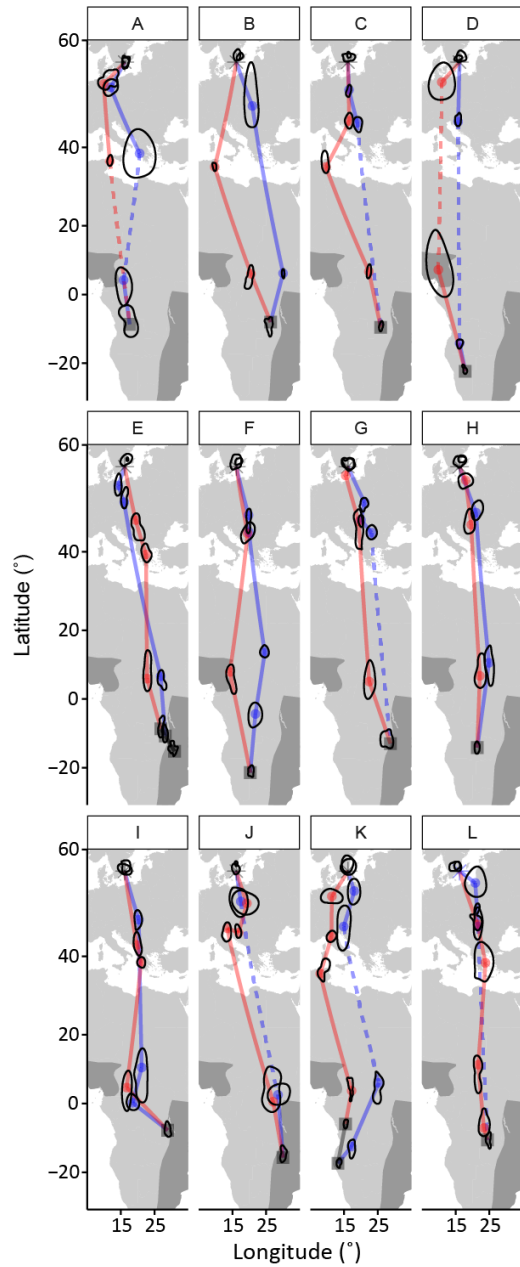


Figure A1. Individual-based maps depicting the space-use in the annual cycle along with a 60 % kernel distribution illustrating the two-dimensional variance in the underlying positions for each stationary period. Blue colours represent movements and stops respectively in autumn and red illustrates the spring tracks. Dashed lines indicate periods of movements when a stop may have been missed due to the influence of the equinoxes. Dark grey areas represent the currently described wintering range (see main text). The maps are in a Mercator projection.

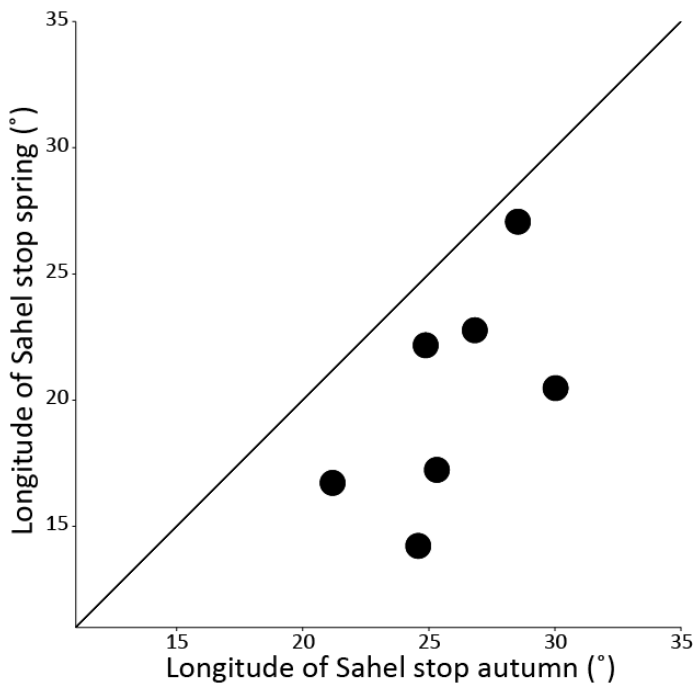


Figure A2. The longitudinal relationship between the autumn stop and spring stop in the Sahel zone shows a western shift between the seasons, resulting in a narrow loop-migration. The line illustrates a 1:1 relationship.

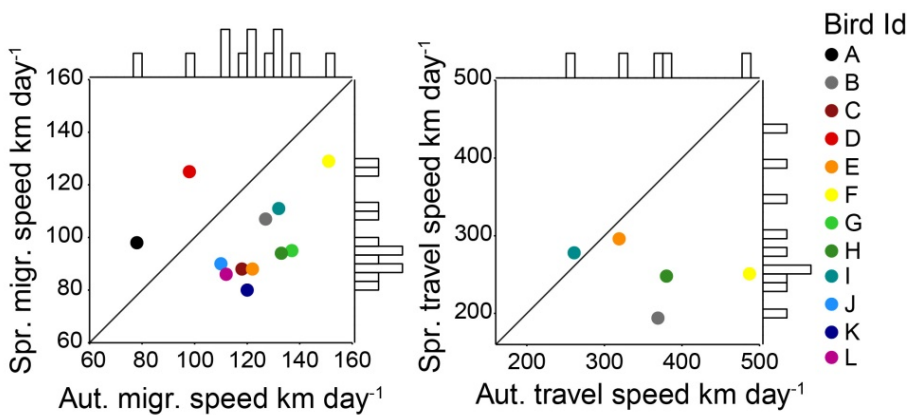


Figure A3. Individual speed comparison between autumn and spring; (a) shows the speeds during migration (including stopovers *en route*) and (b) shows travel speed based on the number of days the birds spent on actual movement. The lines illustrate the 1:1 relationships. The relatively slow autumn migration rate in individual A is likely due to a very early departure from the breeding area while arriving late to the wintering site, a relative timing kept upon arrival to the breeding area as seen in Fig. 2. Bird D on the other hand was relatively early throughout the annual cycle except in the arrival to the wintering area. It did however make a 13 days stopover in the southern tropics which thus has a negative effect of the migration speed.