Table S1.

Overview of species, populations, and sample sizes for males and females in this study, their original publication as well as the biological traits for each species.

Species	Population	Tracking years	Males	Females	Males distance & speed	Females distance & speed	Source	Geolocator analyses tool	Foraging mode	Complete moult	Sexual size dimorphism (%)
Acrocephalus arundinaceus	Bulgaria	2015-2016	8	8	8	8	[1,2]	GeoLight	ground	Africa	4.9
Acrocephalus arundinaceus	Czech Republic	2012-2015	12	8	12	8	[1,2]	GeoLight	ground	Africa	4.9
Apus apus	Germany	2012-2013	5	5			[3]	GeoLight	aerial	Africa	0
Coracias garrulus	Portugal	2012	1	1	1	1	[4]	GeoLight	ground	Africa	0
Coracias garrulus	Spain	2012	2	2	2	2	[5]	– *(PTT-tag)*	ground	Africa	0
Cuculus canorus	Denmark	2010-2012	6	3	4	2	[6]	– *(PTT-tag)*	ground	Africa	5.2
Ficedula albicollis	Czech Republic	2013	5	4	5	4	[7]	GeoLight	ground	Europe	2.9
Ficedula albicollis	Sweden	2012	6	3	6	3	[7]	GeoLight	ground	Europe	2.9
Ficedula hypoleuca	Netherlands	2013	11	3			[8]	GeoLight	ground	Europe	2.4
Ficedula semitorquata	Bulgaria	2013-2014	6	4	6	4	[9]	GeoLight	ground	Europe	3.1
Hirundo rustica	Czech Republic	2013-2014	12	4			[10]	GeoLight	aerial	Africa	2.1
Hirundo rustica	Italy	2010-2011	15	6	15	6	[11]	GeoLight	aerial	Africa	2.1
Hirundo rustica	Spain	2012	2	2			[12]	GeoLight	aerial	Africa	2.1
Hirundo rustica	Switzerland	2010-2011	30	15	30	15	[11]	GeoLight	aerial	Africa	2.1
Lanius collurio	Denmark	2009;2011;2013	7	6	7	6	[6]	*Unknown*	ground	Africa	1.8
Lanius collurio	Spain	2014	1	2			[13]	GeoLight	ground	Africa	1.8
Lanius collurio	Sweden	2009	1	2			[14]	BirdTracker	ground	Africa	1.8
Merops apiaster	Germany	2014-2016	15	10	15	10	[15]	SGAT	aerial	Africa	4.1
Merops apiaster	Portugal	2015-2016	6	13	6	13	[16]	SGAT	aerial	Africa	4.1
Oenanthe oenanthe	Sweden	2010-2011	5	6	5	6	[17]	GeoLight	ground	Europe	3.6
Riparia riparia	Hungary	2012	1	3	1	3	[18]	GeoLight	aerial	Africa	0.2
Tachymarptis melba	Switzerland	2014-2015	7	17	7	17	[19]	FlightR	aerial	Africa	2.7
Upupa epops	Czech Republic	2013	2	2	2	2	[20]	GeoLight	ground	Africa	4.1
Upupa epops	Germany	2010	1	2	1	2	[20]	GeoLight	ground	Africa	4.1
Upupa epops	Switzerland	2009-2014	28	28	21	22	[21]	GeoLight	ground	Africa	4.1
		TOTAL	195	159	160	140					

Figure S1.

Locations of the breeding sites where geolocators were deployed. Colour of the dots represent the foraging strategy of the study species: blue – aerial feeder, red – territorial ground forager.

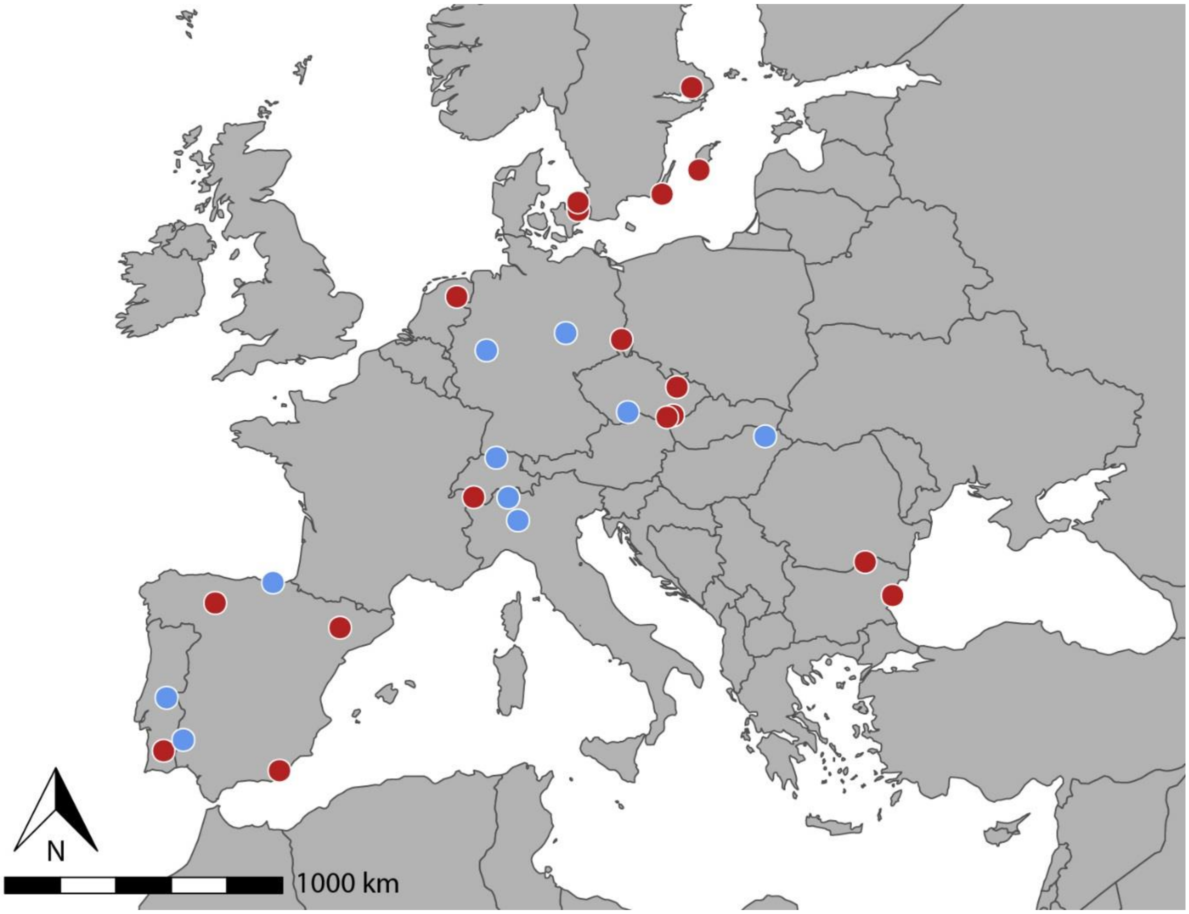


Figure S2.

Relative timing of transitions between stationary and migratory periods of male and female long-distance migrants during their complete annual cycles. *Density plots*: black lines correspond to relative transition times as calculated from the full dataset (195 males – dashed line; 159 females – solid line), while the colour lines correspond to relative transition times as calculated from 100 random selections for the reduced dataset of equal male and female numbers (128 males – blue, 128 females – orange; see methods for further details). Δx values below 0 represent earlier migration, above 0 – later migration, relative to each species, population, and yearly mean. *Boxplots*: median deviation in days of male and female transition times from the species, population, and yearly mean – results are drawn from 100 random selections of dataset with equal numbers of males and females. Boxes denote interquartile range (IQR), whiskers extend to values within 1.5 times the IQR and dots depict outliers. The panels are arranged to reflect north-south migration with breeding site in the top row and non-breeding sites below; letters are ordered in temporal sequence of the events as tracked via geolocators deployed during the breeding season.

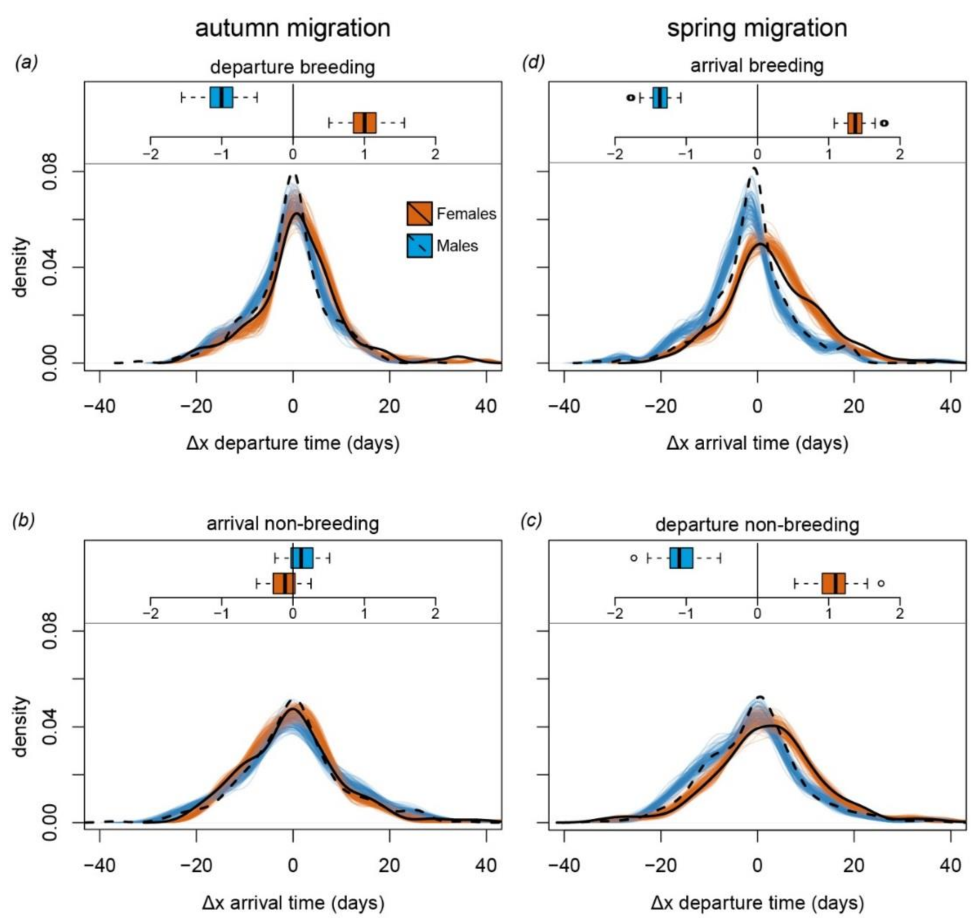


Figure S3.

Model results showing the relationship between interspecific differences in male and female migratory transition times across the annual cycle and species' moult regions, sexual size dimorphism, and foraging strategies. Phylogenetic relatedness of the species was included as random effects in all models.

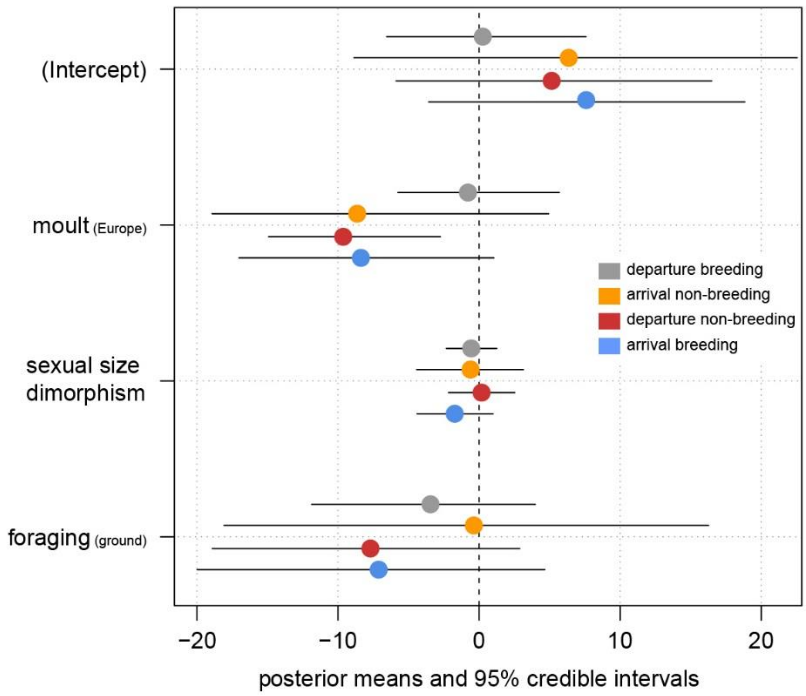
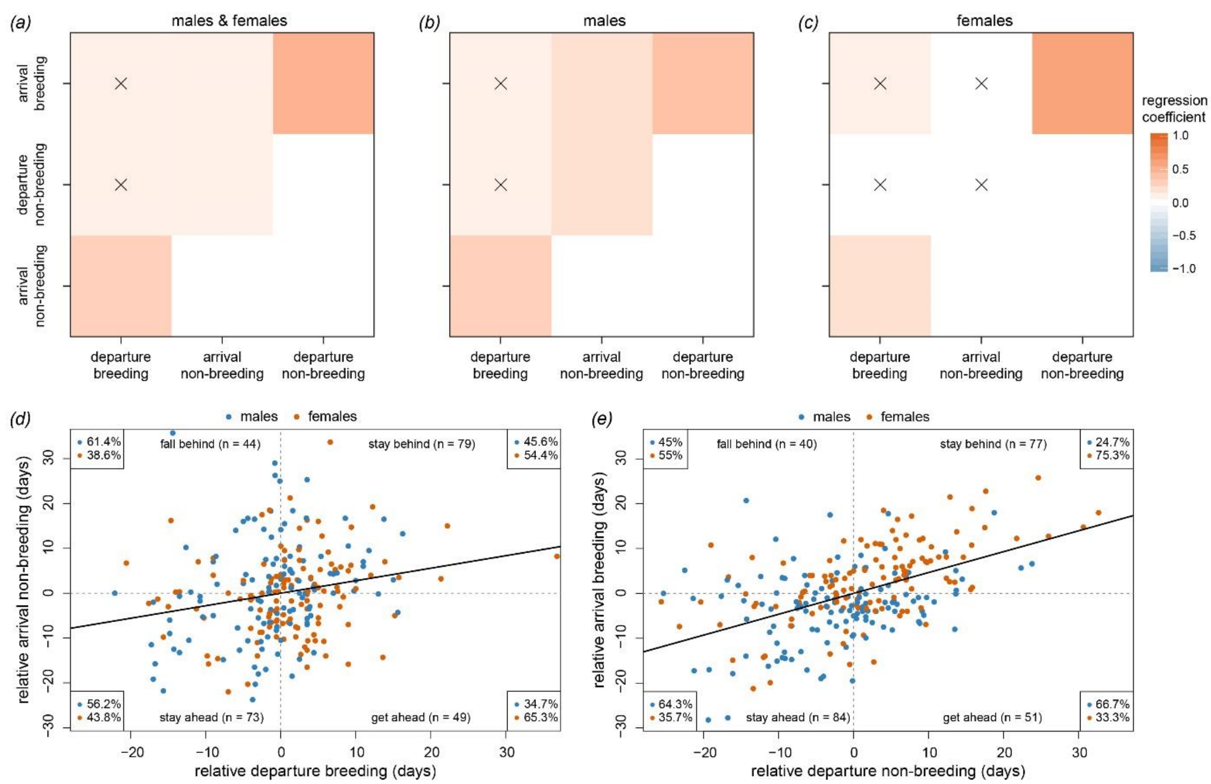


Figure S4.

Relationships between individual timing of migration events – dataset with equal male and female numbers per year, population and consequently total (n = 128 males & 128 females). (a) A matrix showing simple linear regressions between individual migratory departure and arrival times in autumn and spring for males and females combined, (b) for males only, and (c) for females only. Non-significant correlations are marked with an 'X'. A detailed example of the relationship between individual timing of migration departure and arrival is presented for autumn (d) and spring (e). Plot d and e are divided into 4 quadrants depending on relationship between departure and arrival timing relative to conspecifics from the same breeding site. Proportion of males and females in each of the 4 quadrants are shown in the corners with sample sizes given within each quadrant.



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