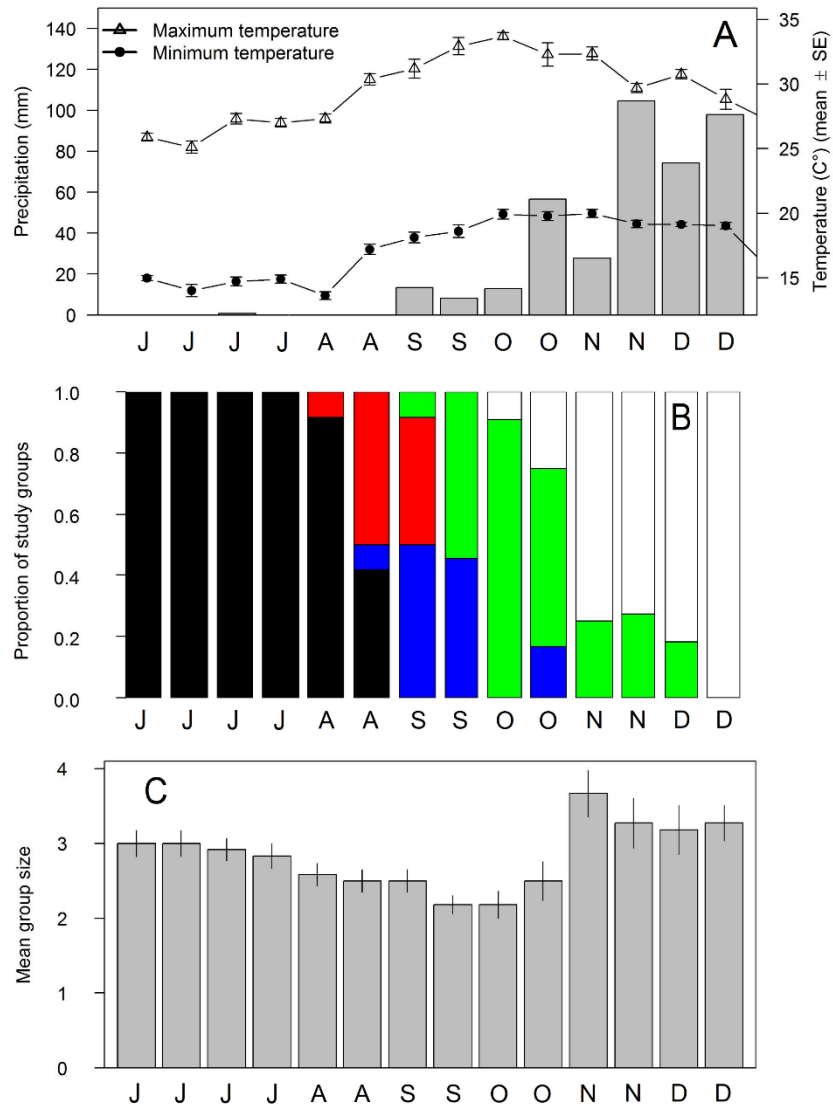


**Supplementary material**

## Appendix 1



**Figure A1.** Climate conditions in the study area (A), breeding phenology (B) and size of studied groups (C) during the study period. We show data for half-month periods (equivalent to one focal session), from June to December, on the X-axis. A: cumulative precipitation shown in bars, and temperature in lines. B: Breeding stages: non-breeding (black), pre-breeding (red), female fertile (blue), nesting (green) and post-breeding (white). C: Mean group size ( $\pm$  s.e.). Panels B and C, sample size: 12 groups for the seven first focal sessions and 11 groups for the remaining focal sessions.

**Table A1.** Structure of the full, global models for the nine response variables analyzed.

Response variable	Fixed effects	Random effects
Number of territorial interactions (GLMM, poisson family)	phenology + time + sex + group + phenology * sex	Group ID
Duration of territorial interactions (LMM)	phenology + sex + group + time + phenology * sex	Focal session ID nested within group ID
Song output (LMM, log)	aggression + phenology + sex + group + time + aggression * sex + phenology * sex	Group ID
Song initiation rate (GLMM, poisson family)	aggression + phenology + sex + group + time + aggression * sex + phenology * sex	Group ID
Song answering rate (GLMM, binomial family)	aggression + phenology + sex + group + time + aggression * sex + phenology * sex	Group ID
Song latency (LMM, log)	aggression + phenology + sex + group + song type + time + aggression * sex + phenology * sex	Focal session ID nested within group ID
Phrase duration in duets (LMM)	aggression + phenology + sex + group + song type + time + aggression * sex + phenology * sex	Focal session ID nested within group ID
Duet rate (GLMM, poisson family)	aggression + phenology + group + time	Group ID
Duet duration (LMM)	aggression + phenology + group + song type + time	Focal session ID nested within group ID

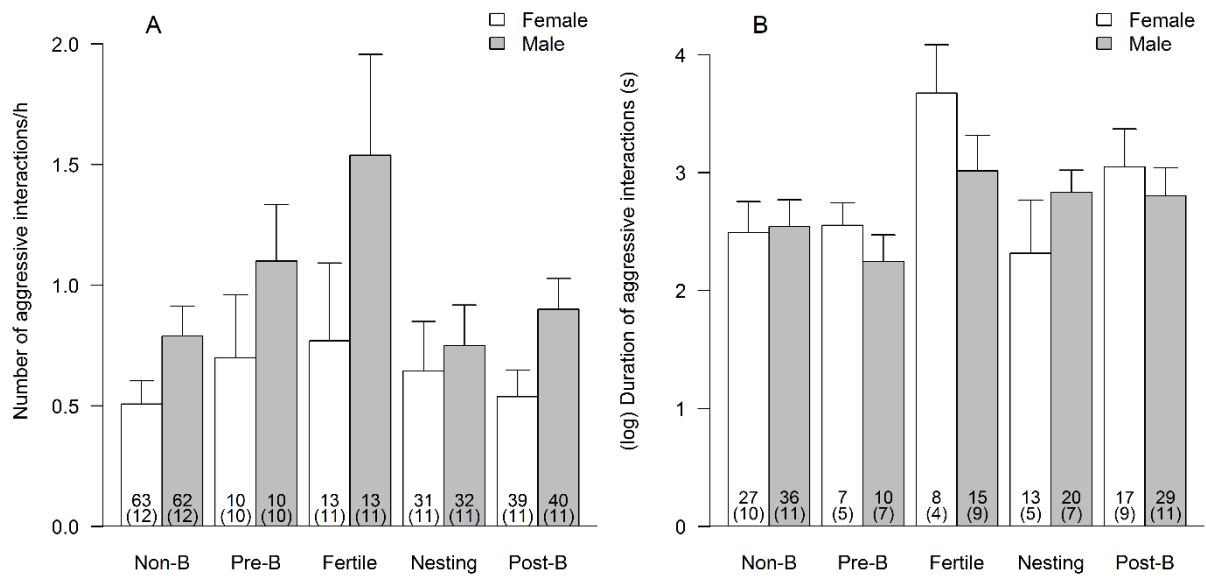
Aggression = aggressive context; phenology = breeding phenology; time = decimal

hour; group = group composition.

## Seasonal variation in territorial interactions and song output

### Territorial interactions

We recorded 162 territorial aggressive interactions involving focal adult birds and strangers (mean  $\pm$  s.e. =  $0.73 \pm 0.05$  interactions/h). Most interactions involved song by the focal individuals or strangers (74%,  $n = 150$  focal sessions) and/or chasing (64%,  $n = 148$ ); a few interactions involved displacement (without song or chasing) (8%,  $n = 162$ ) or physical fights (3%,  $n = 151$ ). We identified the aggressive role in 65 (40%) of these territorial interactions. Focal males performed most aggressive behaviors towards strangers (40%), but social pairs also coordinated attacks (25%). Strangers, normally neighbors, also started some aggressive interactions (26%). Unaccompanied females conducted a few aggressive interactions directed towards strangers (9%).

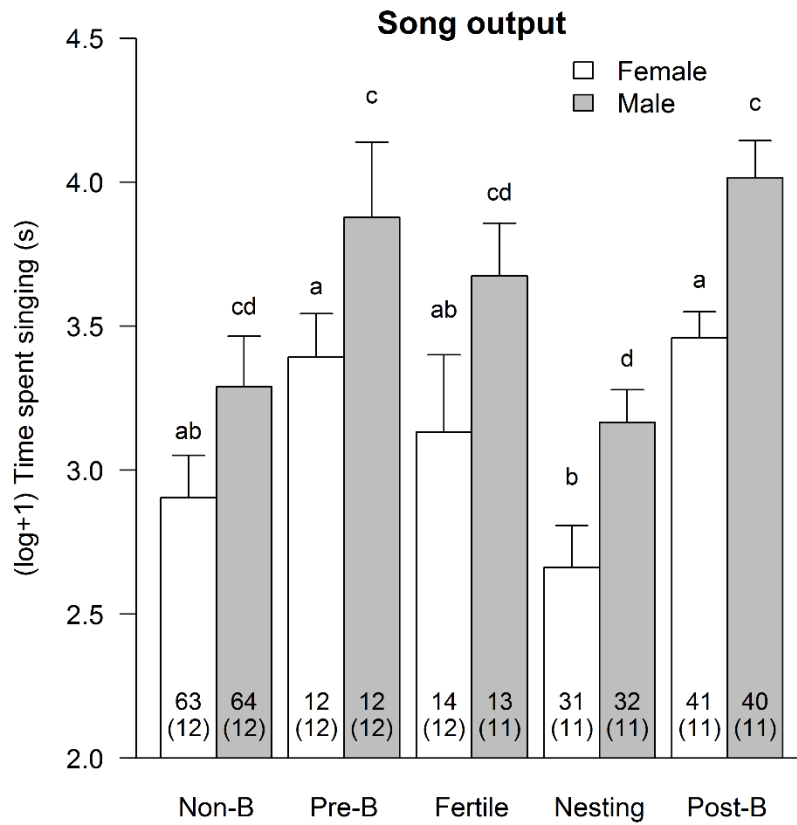


**Figure A2.** (A) Number and (B) duration (mean  $\pm$  s.e.) of territorial, aggressive interactions between focal adults and stranger conspecifics. Phenological stages: Non-B = non-breeding (31-120 days before incubation started); Pre-B = pre-breeding (16-30 days before incubation started); Fertile (1-15 days before incubation started); Nesting (incubation and nestling stages); Post-B = post-breeding (1-90 days after fledgling). Numbers without parentheses indicate sample sizes: total focal sessions in Fig. 2A and total number of interactions in Fig. 2B. Numbers of social pairs are shown within parentheses.

## Song output

Males differed from females in time spent singing, irrespective of breeding phenology or aggressive context (LMM, model selection and post hoc results: Tables A5, A6; Fig. A3). Males spent, on average, twice the amount of time singing compared to females ( $\beta = 0.40 \pm 0.10$ ; mean  $\pm$  s.e.; male =  $63.62 \pm 8.46$  s/h; female =  $30.64 \pm 2.70$  s/h). For both sexes, song output varied with aggressive context and across breeding and non-breeding stages. First, individuals spent more time singing when engaged in aggressive interactions with strangers (sexes pooled,  $\beta \pm$  s.e. =  $0.37 \pm 0.11$ ; mean  $\pm$  s.e.: aggressive context =  $59.89 \pm 8.04$  s/h; not aggressive context =  $35.87 \pm 4.57$  s/h). Second, individuals spent less time singing in the nesting stage compared to pre-breeding and post-breeding stages.

We found no correlation between male song output and the estimated number of fertile females in the study population ( $\Delta\text{AICc} > 2$ ), for the subset of models including only male song data.



**Figure A3.** Seasonal variation in song output (means  $\pm$  s.e.) in the Rufous Hornero. Seasonal stages: Non-B = non-breeding (31-120 days before incubation started); Pre-B = pre-breeding (16-30 days before incubation started); Fertile (1-15 days before incubation started); Nesting (incubation and nestling periods); Post-B = post-breeding (1-90 days after fledgling). Different letters indicate post-hoc differences in the response variable between factor levels. Numbers without parentheses indicate total focal sessions. Numbers of social pairs are shown within parentheses.



## Detailed results from model and post-hoc comparisons

We used mixed models to model the variation in territorial aggressive interactions (number and duration) and several song variables relative to variation in breeding phenology and sex. We also modelled song variables as a function of aggressive interactions. We compared the models using AICc criteria. All models contained the identity of the social group as a random term. All models of latency to answer partner's initiated songs, duration of aggressive interactions, duet phrases and songs include the identity of focal session as a random term as well. We show results from top ( $\Delta\text{AICc} < 2$ ), full and null models, and all the models with weight values higher than 0.01. Results derived from modelling comparison among all combinations of predicted variables are included in the global model (command 'dredge' in 'multcomp' package).

Here, we show the comparison among all models and  $\beta$  estimates of continuous variables obtained from post-hoc comparisons between levels of the predicted variables retained in top models ( $\Delta\text{AICc} < 2$ ). P values in bold indicate significant results ( $p < 0.05$ ) after controlling for false discovery rates (Benjamini and Hochberg 1995). P values in bold and italic indicate nearly significant results ( $p < 0.10$ ).

**Table A2.** Modelling comparison for variation in the number of aggressive, territorial interactions between focal adults and extra-group individuals (GLMM, poisson family).

	df	AICc	$\Delta$ AICc	wi
sex + decimal hour	4	691.6	0.00	0.585
sex + group + decimal hour	5	693.5	1.9	0.227
phenology + sex + time	8	694.7	3.1	0.124
phenology + sex + group + time	9	696.8	5.21	0.043
phenology + time + sex + group + phenology * sex (full model)	13	703.9	12.37	0.000
null model	2	713.8	22.19	0.000

Phenology = breeding phenology; time = decimal hour; group = group composition; df = degrees of freedom; wi = weight.

**Table A3.** Post-hoc results from the best model to explain variation in the number of aggressive interactions (GLMM, poisson family).

	$\beta \pm$ SE	z ratio	p
intercept	$-0.65 \pm 0.15$	-4.32	<b>&lt;0.001</b>
sex (male – female)	$0.44 \pm 0.13$	3.29	<b>0.001</b>
time	$-0.28 \pm 0.07$	-3.95	<b>&lt;0.001</b>

time = decimal hour.

**Table A4.** Modelling comparison for variation in the duration of aggressive, territorial interactions between focal adults and extra-group individuals (LMM).

	df	AICc	$\Delta$ AICc	wi
null model	4	551.7	0.00	0.319
time	5	552.9	1.28	0.168
group	5	553.3	1.67	0.138
sex	5	553.8	2.11	0.111
group + time	6	554.4	2.75	0.080
sex + time	6	555.1	3.41	0.058
sex + group	6	555.5	3.81	0.047
sex + group + time	7	556.6	4.92	0.027
phenology + time	9	558.1	6.42	0.013
phenology	8	558.1	6.42	0.013
phenology + sex + group + time + phenology * sex (full model)	15	565.9	14.21	0.000

Phenology = breeding phenology; time = decimal hour; group = group composition; df = degrees of freedom. wi = weight.

**Table A5.** Modelling comparison for variation in song output (time spent singing, log + 1) (LMM).

	df	AICc	$\Delta$ AICc	wi
aggression + phenology + sex + time	11	873.7	0.00	0.613
aggression + phenology + sex + group + time	12	875.8	2.11	0.214
aggression + phenology + sex + time + aggression * sex	13	877.1	3.38	0.113
aggression + phenology + sex + group + time + aggression * sex	14	879.2	5.51	0.039
aggression + phenology + sex + group + time + aggression * sex + phenology * sex (full model)	18	887.8	14.08	0.001
null model	3	950.9	77.23	0.000

Aggression = aggressive context; phenology = breeding phenology; time = decimal hour; group = group composition; df = degrees of freedom. wi = weight.

**Table A6.** Post-hoc results from the best model to explain variation in song output (time spent singing, log + 1) (LMM).

	$\beta \pm SE$	<i>t</i> value	<i>p</i>
intercept	4.43 ± 0.51	8.75	
sex (male – female)	0.40 ± 0.10	3.87	<b>0.0001</b>
aggression (aggressive – non-aggressive)	0.37 ± 0.11	3.31	<b>0.003</b>
time	-0.24 ± 0.05	-4.67	
non-breeding – pre-breeding	-0.50 ± 0.20	-2.42	0.11
non-breeding – fertile	-0.07 ± 0.20	-0.35	1.00
non-breeding – nesting	0.32 ± 0.15	2.24	0.16
non-breeding – post-breeding	-0.32 ± 0.14	-2.19	0.18
pre-breeding – fertile	0.43 ± 0.25	1.67	0.44
pre-breeding – nesting	0.82 ± 0.22	3.68	<b>0.002</b>
pre-breeding – post-breeding	0.18 ± 0.22	0.82	0.92
fertile – nesting	0.39 ± 0.21	1.88	0.32
fertile – post-breeding	-0.25 ± 0.20	-1.21	0.74
nesting – post-breeding	-0.64 ± 0.16	-4.07	<b>&lt;0.001</b>

Aggression = aggressive context; time = decimal hour.

**Table A7.** Modelling comparison for variation in the number of initiated songs (solo songs plus initiated duets) (GLMM, poisson family). df = degrees of freedom. wi = weight.

	df	AICc	$\Delta$ AICc	wi
aggression + phenology + sex + time + phenology * sex	14	1303.4	0.00	0.474
aggression + phenology + sex + group + time + phenology * sex	15	1304.9	1.50	0.224
aggression + phenology + sex + time + aggression * sex + phenology * sex	16	1305.2	1.77	0.196
aggression + phenology + sex + group + time + aggression * sex + phenology * sex (full model)	17	1306.8	3.34	0.089
phenology + sex + time + phenology * sex	12	1310.9	7.49	0.011
null model	2	1523.8	220.33	0.000

Aggression = aggressive context; phenology = breeding phenology; time = decimal hour; group = group composition; df = degrees of freedom. wi = weight.

**Table A8.** Post-hoc results from the best model to explain variation in the number of initiated songs (GLMM, poisson family).

	$\beta \pm SE$	z ratio	p
intercept	0.56 $\pm$ 0.22	2.52	<b>0.012</b>
sex (male – female)	0.90 $\pm$ 0.10	–9.35	<b>&lt;0.001</b>
aggression(aggressive – non-aggressive)	0.25 $\pm$ 0.08	–3.24	<b>0.004</b>
time	–0.21 $\pm$ 0.04	–4.85	<b>&lt;0.001</b>
<b>female</b>			
non-breeding – pre-breeding	0.29 $\pm$ 0.25	1.16	0.308
non-breeding – fertile	0.60 $\pm$ 0.25	2.35	<b>0.038</b>
non-breeding – nesting	1.09 $\pm$ 0.23	4.84	<b>&lt;0.001</b>
non-breeding – post-breeding	–0.08 $\pm$ 0.14	–0.59	0.558
pre-breeding – fertile	0.30 $\pm$ 0.33	0.91	0.403
pre-breeding – nesting	0.80 $\pm$ 0.31	2.54	<b>0.028</b>
pre-breeding – post-breeding	–0.38 $\pm$ 0.26	–1.45	0.210
fertile – nesting	0.49 $\pm$ 0.31	1.57	0.193
fertile – post-breeding	–0.68 $\pm$ 0.26	–2.65	<b>0.027</b>
nesting – post-breeding	–1.17 $\pm$ 0.23	–5.12	<b>&lt;0.001</b>
<b>male</b>			
non-breeding – pre-breeding	–0.37 $\pm$ 0.16	–2.36	<b>0.063</b>
non-breeding – fertile	–0.01 $\pm$ 0.16	–0.08	0.997
non-breeding – nesting	–0.09 $\pm$ 0.12	–0.76	0.640
non-breeding – post-breeding	–0.37 $\pm$ 0.11	–3.32	<b>0.009</b>
pre-breeding – fertile	0.36 $\pm$ 0.20	1.80	0.144
pre-breeding – nesting	0.28 $\pm$ 0.17	1.63	0.172
pre-breeding – post-breeding	0.00 $\pm$ 0.16	0.004	0.997
fertile – nesting	–0.08 $\pm$ 0.17	–0.45	0.794
fertile – post-breeding	–0.36 $\pm$ 0.16	–2.24	<b>0.063</b>
nesting – post-breeding	–0.28 $\pm$ 0.12	–2.30	<b>0.063</b>

Aggression = aggressive context; time = decimal hour.

**Table A9.** Modelling comparison for variation in the song answering rates (percentage of partners songs answered by the focal individual) (GLMM, binomial family). df = degrees of freedom. wi = weight.

	df	AICc	$\Delta$ AICc	wi
phenology + sex + group + time	9	603	0	0.516
aggression + phenology + sex + group + time	11	605.4	2.4	0.155
phenology + sex + time	8	606.6	3.54	0.088
aggression + phenology + sex + group + time + aggression * sex	13	607.4	4.38	0.058
phenology + sex + group + time + phenology * sex	13	607.5	4.47	0.055
aggression + phenology + sex + time	10	608.5	5.43	0.034
aggression + phenology + sex + group + time + phenology * sex	15	610.1	7.06	0.015
aggression + phenology + sex + time + aggression * sex	12	610.3	7.26	0.014
phenology + sex + time + phenology * sex	12	610.8	7.81	0.010
aggression + phenology + sex + group + time + aggression * sex + phenology * sex (full model)	17	611.4	8.34	0.008
null model	2	643.3	40.32	0.000

Aggression = aggressive context; phenology = breeding phenology; time = decimal hour; group = group composition; df = degrees of freedom. wi = weight.



**Table A10.** Post-hoc results from the best model to explain variation in song answering rates (GLMM, binomial family).

	$\beta \pm SE$	z ratio	p
intercept	0.59 $\pm$ 0.25	2.42	<b>0.016</b>
sex (male – female)	0.56 $\pm$ 0.16	–3.42	<b>0.0006</b>
group (adults – adults and juveniles)	0.50 $\pm$ 0.21	2.36	<b>0.018</b>
time	–0.29 $\pm$ 0.09	–3.15	<b>0.002</b>
non-breeding – pre-breeding	–0.96 $\pm$ 0.33	–2.92	<b>0.01</b>
non-breeding – fertile	–0.66 $\pm$ 0.35	–1.88	0.10
non-breeding – nesting	0.14 $\pm$ 0.28	0.52	0.67
non-breeding – post-breeding	0.20 $\pm$ 0.20	1.03	0.43
pre-breeding – fertile	0.30 $\pm$ 0.43	0.68	0.62
pre-breeding – nesting	1.10 $\pm$ 0.37	2.96	<b>0.01</b>
pre-breeding – post-breeding	1.16 $\pm$ 0.34	3.40	<b>0.01</b>
fertile – nesting	0.81 $\pm$ 0.35	2.29	<b>0.04</b>
fertile – post-breeding	0.86 $\pm$ 0.36	2.41	<b>0.04</b>
nesting – post-breeding	0.06 $\pm$ 0.29	0.20	0.84

Time = decimal hour; group = group composition.

**Table A11.** Modelling comparison for variation in latency to answer partner's initiated songs (LMM). df = degrees of freedom. wi = weight.

	df	AICc	$\Delta$ AICc	wi
phenology + sex + song + time +	11	1328.3	0	0.239
phenology + sex + time	10	1329.2	0.91	0.151
phenology + sex + group + song + time	12	1329.3	1.02	0.143
phenology + sex + group + time	11	1329.5	1.22	0.130
aggression + phenology + sex + song + time	13	1332.2	3.92	0.034
sex + group + song + time	8	1332.4	4.11	0.031
phenology + sex + song	10	1333.1	4.80	0.022
aggression + phenology + sex + time	12	1333.1	4.83	0.021
aggression + phenology + sex + group + song + time	14	1333.3	5.02	0.019
sex + group + time	7	1333.4	5.08	0.019
aggression + phenology + sex + song + time + aggression * sex	15	1333.4	5.15	0.018
aggression + phenology + sex + group + time	13	1333.5	5.22	0.018
phenology + sex	9	1333.9	5.61	0.014
phenology + sex + group + song	11	1334	5.74	0.014
phenology + sex + group	10	1334.1	5.86	0.013
aggression + phenology + sex + group + song + time + aggression * sex	16	1334.4	6.11	0.011
phenology + sex + song + time + phenology * sex	15	1334.5	6.19	0.011
aggression + phenology + sex + time + aggression * sex	14	1334.6	6.34	0.010
sex + group + song	7	1334.7	6.41	0.010
aggression + phenology + sex + group + song + time + aggression * sex + phenology * sex (full model)	20	1341.3	13.07	0.000
null model	4	1364.0	35.75	0.000

Aggression = aggressive context; phenology = breeding phenology; time = decimal hour; group = group composition; song = song type; df = degrees of freedom. wi = weight.

**Table A12.** Post-hoc results from the best model to explain variation in latency to answer partner's initiated songs (LMM).

	$\beta \pm SE$	<i>t</i> value	<i>p</i>
sex (male – female)	$-0.56 \pm 0.11$	5.21	<b>&lt;0.001</b>
time	$0.16 \pm 0.06$	2.66	
song (duet – chorus)	$0.27 \pm 0.15$	1.78	<b>0.077</b>
non-breeding – pre-breeding	$0.25 \pm 0.19$	1.31	0.678
non-breeding – fertile	$0.48 \pm 0.20$	2.34	0.134
non-breeding – nesting	$0.27 \pm 0.17$	1.58	0.505
non-breeding – post-breeding	$-0.28 \pm 0.14$	-1.94	0.294
pre-breeding – fertile	$0.23 \pm 0.24$	0.95	0.874
pre-breeding – nesting	$0.02 \pm 0.21$	0.08	1.000
pre-breeding – post-breeding	$-0.53 \pm 0.20$	-2.68	<b>0.061</b>
fertile – nesting	$-0.21 \pm 0.21$	-1.00	0.850
fertile – post-breeding	$-0.76 \pm 0.20$	-3.82	<b>0.002</b>
nesting – post-breeding	$-0.54 \pm 0.17$	-3.27	<b>0.012</b>

Time = decimal hour; song = song type.

**Table A13.** Modelling comparison for variation in phrase duration in duets (LMM). df = degrees of freedom. wi = weight.

	df	AICc	$\Delta$ AICc	wi
phenology + sex	9	3862.2	0.00	0.217
phenology + sex + song	10	3863.5	1.27	0.115
phenology + sex + group	10	3863.8	1.58	0.098
phenology + sex	10	3863.9	1.71	0.092
phenology + sex + song	11	3865.2	3.00	0.049
phenology + sex + group + song	11	3865.2	3.02	0.048
phenology + sex + group	11	3865.5	3.26	0.042
aggression + phenology + sex	11	3865.7	3.49	0.038
aggression + phenology + sex + aggression * sex	13	3865.7	3.54	0.037
phenology + sex + group + song	12	3866.9	4.72	0.020
aggression + phenology + sex + song	12	3867	4.77	0.020
aggression + phenology + sex + song + aggression * sex	14	3867.1	4.88	0.019
phenology + sex + phenology * sex	13	3867.1	4.90	0.019
aggression + phenology + sex + aggression * sex	14	3867.2	5.02	0.018
aggression + phenology + sex	12	3867.2	5.03	0.018
aggression + phenology + sex + group	12	3867.3	5.07	0.017
aggression + phenology + sex + group + aggression * sex	14	3867.4	5.20	0.016
phenology + sex + song + phenology * sex	14	3868.4	6.19	0.010

Aggression = aggressive context; phenology = breeding phenology; time = decimal hour; group = group composition; song = song type; df = degrees of freedom. wi = weight.

**Table A14.** Post-hoc results from the best model to explain variation in phrase duration in duets (LMM).

	$\beta \pm SE$	<i>t</i> value	<i>p</i>
sex (male – female)	0.95 ± 0.10	-9.34	<b>&lt;0.001</b>
non-breeding – pre-breeding	-1.07 ± 0.26	-4.14	<b>&lt;0.001</b>
non-breeding – fertile	-1.18 ± 0.26	-4.47	<b>&lt;0.001</b>
non-breeding – nesting	-0.54 ± 0.21	-2.54	<b>0.083</b>
non-breeding – post-breeding	-0.32 ± 0.18	-1.79	0.371
pre-breeding – fertile	-0.11 ± 0.33	-0.32	0.998
pre-breeding – nesting	0.54 ± 0.29	1.88	0.326
pre-breeding – post-breeding	0.75 ± 0.26	2.88	<b>0.035</b>
fertile – nesting	0.64 ± 0.27	2.33	0.135
fertile – post-breeding	0.86 ± 0.26	3.25	<b>0.012</b>
nesting – post-breeding	0.22 ± 0.21	1.04	0.831

**Table A15.** Modelling comparison for variation in duetting rate (number of duets between partners) (GLMM, poisson family). *df* = degrees of freedom. *wi* = weight.

	<i>df</i>	AICc	$\Delta$ AICc	<i>wi</i>
aggression + phenology + group + time (full model)	11	640.7	0.00	0.513
phenology + group + time	9	641	0.37	0.426
aggression + phenology + time	10	646.5	5.81	0.028
phenology + time	8	646.6	5.92	0.027
null model	3	697.1	56.44	0.000

Aggression = aggressive context; phenology = breeding phenology; time = decimal hour; group = group composition; *df* = degrees of freedom. *wi* = weight.

**Table A16.** Post-hoc results from the best model to explain variation in duetting rate (GLMM, poisson family).

	$\beta \pm SE$	z ratio	p
intercept	1.15 $\pm$ 0.27	4.19	<b>&lt;0.001</b>
aggression(aggressive – non-aggressive)	0.21 $\pm$ 0.10	2.06	<b>0.04</b>
group (adults – adults and juveniles)	0.34 $\pm$ 0.12	2.87	<b>0.004</b>
time	-0.32 $\pm$ 0.06	-5.36	<b>&lt;0.001</b>
non-breeding – pre-breeding	-0.42 $\pm$ 0.16	-2.63	<b>0.029</b>
non-breeding – fertile	0.02 $\pm$ 0.18	0.12	0.90
non-breeding – nesting	0.35 $\pm$ 0.16	2.20	<b>0.055</b>
non-breeding – post-breeding	-0.19 $\pm$ 0.12	-1.50	0.19
pre-breeding – fertile	0.44 $\pm$ 0.20	2.22	<b>0.055</b>
pre-breeding – nesting	0.78 $\pm$ 0.19	4.15	<b>0.0003</b>
pre-breeding – post-breeding	0.23 $\pm$ 0.17	1.37	0.21
fertile – nesting	0.33 $\pm$ 0.18	1.86	0.10
fertile – post-breeding	-0.21 $\pm$ 0.18	-1.17	0.27
nesting – post-breeding	-0.54 $\pm$ 0.17	-3.24	<b>0.006</b>

Aggression = aggressive context; time = decimal hour; group = group composition.

**Table A17.** Modelling comparison for variation in duet duration (LMM). df = degrees of freedom. wi = weight.

	df	AICc	$\Delta$ AICc	wi
phenology + time	9	1746.1	0.00	0.256
phenology + song + time	10	1747	0.90	0.163
phenology + group + time	10	1748.2	2.07	0.091
phenology	8	1748.5	2.33	0.080
phenology + group + song + time	11	1749.1	3.00	0.057
phenology + song	9	1749.3	3.17	0.052
aggression + phenology + time	11	1749.6	3.48	0.045
null model	4	1750.3	4.14	0.032
phenology + group	9	1750.5	4.35	0.029
aggression + phenology + song + time	12	1750.5	4.41	0.028
time + time	5	1751.2	5.06	0.020
phenology + group + song	10	1751.4	5.26	0.018
aggression + phenology + group + time	12	1751.7	5.57	0.016
song	5	1751.7	5.58	0.016
group	5	1752.2	6.04	0.012
aggression + phenology	10	1752.2	6.11	0.012
song + time	6	1752.6	6.49	0.010
aggression + phenology + group + song + time (full model)	13	1752.6	6.53	0.010

Aggression = aggressive context; phenology = breeding phenology; time = decimal hour; group = group composition; song = song type; df = degrees of freedom. wi = weight.

**Table A18.** Post-hoc results from the best model to explain variation in duet duration (LMM).

	$\beta \pm SE$	<i>t</i> value	<i>p</i>
time	0.21 ± 0.10	2.13	
non-breeding – pre-breeding	-0.87 ± 0.31	0.31	<b>0.04</b>
non-breeding – fertile	-0.91 ± 0.33	0.33	<b>0.051</b>
non-breeding – nesting	-0.50 ± 0.26	0.26	0.33
non-breeding – post-breeding	-0.65 ± 0.23	0.23	0.049
pre-breeding – fertile	-0.03 ± 0.40	0.40	1.00
pre-breeding – nesting	0.38 ± 0.34	0.34	0.80
pre-breeding – post-breeding	0.22 ± 0.32	0.32	0.96
fertile – nesting	0.41 ± 0.34	0.34	0.73
fertile – post-breeding	0.26 ± 0.32	0.32	0.92
nesting – post-breeding	-0.15 ± 0.26	0.26	0.98

Time = decimal hour.