Supplementary online material

Table S1. Raw breeding, parasitism, and spring temperature data that were used to fit general linear models presented in the manuscript.

Year	StartBreed	BreedSynchr	PropPar	TempApr	TempMay
2009	32	27	0.39	14.2	15.4
2010	34	26	0.47	10.2	13.6
2011	40	25.25	0.40	12.5	15.1
2012	34	28	0.55	10.7	16.9
2013	39	20	0.55	10.5	14.1
2014	35	24.75	0.70	11.9	14.4
2015	33	26	0.84	10.2	14.6
2016	38	22.5	0.74	10.2	15.6
2017	42	18.5	0.92	9.2	16.0
2018	26	34	0.95	15.0	18.5
2019	38	21	0.74	11.8	12.8
2020	37	24.75	0.78	11.6	13.4
2021	48	14.5	0.63	7.6	12.9

Appendix S1. R code used to fit the general linear models presented in the manuscript.

R code

```
# Import of the data
dat<-read.delim("Data-JVB.txt")

# General linear models (Table 2a-d)
# Model A
mA <- lm(dat$StartBreed ~ dat$TempApr)
summary(mA)

# Model B
mB <- lm(dat$BreedSynchr ~ dat$StartBreed)
summary(mB)

# Model C
mC <- lm(dat$BreedSynchr ~ dat$TempApr)
summary(mC)

# Model D
mD <- lm(dat$PropPar ~ dat$BreedSynchr)
summary(mD)


# Fig.1a-d
library(visreg)

windows()
```

```
par(mar = c(5.1, 5.1, 4.1, 2.1), mfrow = c(2,2))

fitA <- lm(StartBreed ~ TempApr, data = dat)
visreg(fitA, xlab = "Mean average temperature in April (°C)", ylab = "",
      #ylab = "Start of host breeding season",
      line = list(col = 1, lwd = 1), ylim = c(24,50), yaxt = "n",
      points = list(cex = 1, pch = 16, col = 1), jitter = TRUE)
axis(side = 2, at = c(25,30,35,40,45), labels = c("25 Apr","30 Apr","5 May","10 May","15 May"), las = 1)
mtext("a", side = 3, line = 1, outer = FALSE)
mtext("Start of host breeding season",side = 2, line = 4, outer = FALSE, cex = 0.8)


fitB <- lm(BreedSynchr ~ StartBreed, data = dat)
visreg(fitB, xlab = "Start of host breeding season",
      ylab = "Host breeding synchrony (days)",line = list(col = 1, lwd = 1), xlim = c(26,48), xaxt ="n",
      points = list(cex = 1, pch = 16, col = 1), jitter = TRUE)
axis(side = 1, at = c(25,30,35,40,45), labels = c("25 Apr","30 Apr","5 May","10 May","15 May"))
mtext("b", side = 3, line = 1, outer = FALSE)


fitC <- lm(BreedSynchr ~ TempApr, data = dat)
visreg(fitC, xlab = "Mean average temperature in April (°C)",
      ylab = "Host breeding synchrony (days)", line = list(col = 1, lwd = 1),
      points = list(cex = 1, pch = 16, col = 1), jitter = TRUE)
mtext("c", side = 3, line = 1, outer = FALSE)


fitD <- lm(PropPar ~ BreedSynchr, data = dat)
visreg(fitD, xlab = "Host breeding synchrony (days)",
      ylab = "Proportion of parasitized nests", line = list(col = 1, lwd = 1), ylim = c(0,1),
      points = list(cex = 1, pch = 16, col = 1), jitter = TRUE)
mtext("d", side = 3, line = 1, outer = FALSE)
```