Electronic Supplementary Material Table S1.

Overview of study sites (listed from south to north) and the presence (1) or absence (0) of common cuckoo, Himalayan cuckoo, and Asian lesser cuckoo.

Country	Locality	Latitude	Longitude	Mean	Common	Himalayan	Asian
				altitude (m)	cuckoo	cuckoo	lesser
							cuckoo
China	Diaoluoshan	18°40′	109°55′	900	0	1	0
	Qiandaohu	29°30′	118°40′	100	1	1	1
	Dongzhai	32°15′	114°25′	200	1	1	1
	Xiaolongmen	39°58′	115°26′	1300	0	1	1
	Zuojia	44°03′	126°04′	270	1	1	1
Czech	Velky Kosir	49°32′	17°04′	350	1	0	0
Republic							
	Sumperk	50°00′	16°59′	500	0	0	0
Denmark	Aalborg	57°08′	10°01′	50	0	0	0
	Brovst	57°11′	09°33′	10	0	0	0
Norway	Røros	62°28′	11°48′	700	1	0	0
	Vikhammer	63°26′	10°37′	10	0	0	0
	Stjørdal	63°29′	10°53′	60	0	0	0

## **Electronic Supplementary Material Table S2.**

Rejection frequencies of four types of experimental eggs (always swapped with a single host egg) and desertion frequencies at control unmanipulated great tit nests where the first number refers to rejected eggs and the second number the number of experiments. Deserted experimental nests (n = 13) were excluded (desertion was not a specific response to parasitism, see Results). Treatments where desertions occurred are indicated by \*.

Country	Locality	Blue model	White model	Blue	Conspecific	Control
				conspecific	egg	nests
				egg		
China	Diaoluoshan	10/10				
China	Dongzhai	6/9*				
China	Qiandaohu	9/10				
China	Xiaolongmen	$13/24^1$			0/3	
China	Zuojia	29/37				
Czech Republic	Sumperk	1/20*	0/3	0/1	0/15	0/18
Czech Republic	Velky Kosir	0/15	1/11	0/23	0/23*	4/66
Denmark	Aalborg		0/5			
Denmark	Brovst		1/24			
Norway	Røros	9/26			0/11	0/21
Norway	Stjørdal	1/12				
Norway	Vikhammer	2/5				

<sup>&</sup>lt;sup>1</sup> Includes one egg buried.

**Electronic Supplementary Material Table S3.** Egg colour, body size and mass of great tits, cuckoos and their subspecies in China and Europe. Most data from Europe were from Norway, where many rejection experiments were conducted.

Species	Subspecies	Egg	Sex	Mass (g)	Body length	Wing length	Tarsus	Sample	Reference
		color			(mm)	(mm)	length (mm)	size	
Parus	P. m. minor		male	13.7	128.5	66.5	19.1	20	Li et al. 1982
major				(12-15)	(120-139)	(64-71)	(18-21.5)		
(great tit)		White	female	15.7	128.2	65.4	18.8	20	
		with		(13-16)	(116-141)	(61-69)	(18-20)		
		brown							
		spots							
	P. m.		male	13.9	129.3	65.2	19	20	Li et al. 1982
	commixtus			(13-15)	(121-140)	(61-68)	(18-20)		
		White	female	12.6	125.5	62.7	18.4	20	
		with		(11-14.5)	(116-131)	(58-67)	(17-20)		
		brown							
		spots							
	P. m.		male	12.7	118.2	61.5	17.1	15	Li et al. 1982
	hainanus			(10-14)	(110-133)	(60-63)	(17-18.5)		
		White	female	11-14	114-125	57-61	17-18	8	
		with							
		brown							
		spots							
	P. m. major		male	19.1		77.3	20.8	314	Cramp and

				(16-22)		(73-82)	(19.8-21.)		Perrins 1993
		White	female	17.9		74.2	19.8	262	
		with		(15-21)		(70-79)	(18.7-20.9)		
		brown							
		spots							
Cuculus	C. c.		male	98.2	328.3	223.3	21.9	8	Cheng et al. 1991
canorus	canorus			(76-125)	(300-339)	(214-230)	(19-23)		
(common		White	female	97.3	323.1	215.6	22.1	11	
cuckoo)		with		(78-138)	(285-337)	(197-226)	(21-24)		
		black							
		spots							
	C. c. bakeri		male	100.8	332	227.5	20.9	10	Cheng et al. 1991
		Blue or		(84-135)	(288-376)	(218-234)	(20-23)		
		white							
Cuculus	C. s.		male	89	300.1	196.7	20.4	7	Cheng et al. 1991
saturatus	saturatus			(83-101)	(298-305)	(178-218)	(19-22)		
(Himalayan		White	female	93.4	289.3	188.2	20.8	6	
cuckoo)		with		(85-110)	(250-314)	(178-200)	(19-22)		
		black							
		spots							
Cuculus			male	54.8	255	159.8	15.8	13	Cheng et al. 1991
poliocephal				(49-64)	(246-265)	(149-166)	(15-16.5)		
us		Brown	female	50-70	250-266	151-168	15-16	4	
(lesser									
cuckoo)									