First record of Oriental Cuckoo *Cuculus saturatus optatus* in Africa

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While examining specimens at the Natural History Museum, Tring, for a monograph on cuckoos (Erritzøe *et al.* 2012) I discovered a hepatic female Oriental Cuckoo *Cuculus saturatus optatus* specimen (BMNH 1911.12.23.966), collected by Boyd Alexander in Zambia (near the confluence of the Zambezi and Kafue Rivers, close to the modern border with Zimbabwe) on 27 December 1898. He did not label it to species, but subsequently it was labelled *C. canorus* (Common Cuckoo) and placed with the African Cuckoos *C. gularis*. However, he did identify it as *canorus* in a paper (Alexander 1900) that was subsequently mentioned by Benson (1956).

The most noticeable features are the heavy dark barring on the deep rufous-chestnut rump and uppertail-coverts, with no pale feather tips, and the broader dark barring on the ventral surface. Hepatic female Common Cuckoo has little or no barring on the rump and uppertail-coverts. Hepatic juveniles of the latter are barred, but each feather has a narrow whitish tip, and the rufous-chestnut is generally paler. Hepatic juvenile African Cuckoo is much less rich, often with some grey admixed. The ventral barring of the Alexander skin is broader than that of Common or African Cuckoos. The two subspecies of Oriental Cuckoo (nominate and *optatus*) are extremely similar (Figs. 1–2), being reliably separated only by measurements or perhaps vocalisations. The wing length of Alexander's specimen (224 mm) places it in *optatus* rather than the nominate (Table 1).

Madagascar Cuckoo *C. rochii* and Lesser Cuckoo *C. poliocephalus* can be eliminated on size. Red-chested Cuckoo *C. solitarius*, Black Cuckoo *C. clamosus*, African Cuckoo *C. gularis*, and the two subspecies of Common Cuckoo, *C. canorus bakeri* and *C. c. bangsi*, can be eliminated by plumage.

***Characters that indicate* optatus**.—The rump of the Alexander skin lacks pale tips to the dark feathers. Hepatic adult female Common Cuckoo has almost completely unbarred rump / uppertail-coverts; hepatic juvenile has dark bars, but the feathers have small whitish or grey tips. Both subspecies of Oriental Cuckoo (nominate and *optatus*) lack these tips. The ratio of the width of dark to pale bars on the ventral surface of Alexander's specimen is 0.751 (versus *C. c. canorus* 0.321–0.573, $n = 30$; *C. c. subtelephonus* 0.316, 0.355, 0.465, $n = 3$; *C. c. bakeri* 0.483, 0.654, $n = 2$; *C. s. optatus* 0.605–1.21, $n = 16$). Five dark and five pale bars were measured in the mid-chest area, and the means calculated, which were then used to calculate the ratios (from hepatic female / juvenile specimens at the Natural History Museum, Tring). Furthermore, the Alexander specimen matches the wing formula for *saturatus* given by Payne (2005). However, the wing formulae of *canorus* and *saturatus* are very similar, and I found them to be unreliable for separating the two species over long series.

Distribution (from Erritzøe *et al.* 2012, and references therein).—**Oriental Cuckoo** *C. s. saturatus* Blyth, 1843. Southern Himalayas, north and east Burma, Thailand to China south of 32°N, including Taiwan and Hainan. Winters in South and South-East Asia, Greater Sundas, Philippines and western New Guinea. Some vagrancy. *C. s. optatus* Gould, 1845. European Russia east of 45°E to Pacific coast, south to Kazakhstan and Mongolia to north of 32°N in China. Winters and migrates through South-East Asia, Sundas and Philippines east to south-west Pacific and Australia. Much vagrancy, with two records in Israel, in August

Figures 1–2. Dorsal and ventral views of, left to right, Alexander's specimen (BMNH 1911.12.23.966); Oriental Cuckoo *Cuculus saturatus optatus*; *C. s. saturatus*; Common Cuckoo *C. canorus canorus*; *C. c. subtelephonus*; and African Cuckoo *C. gularis* (Harry Taylor © Natural History Museum)

TABLE 1
Mensural data (wing, tail and bill) from *Cuculus* specimens at the Natural History Museum, Tring, including Alexander's specimen (BMNH 1911.12.23.966) collected close to the modern-day Zambia / Zimbabwe border.

	Mensural data											
	wing length (mm) (max. chord)				tail length (mm)				bill to skull (mm)			
	range	mean	sd	*n* =	range	mean	sd	*n* =	range	mean	sd	*n* =
Alexander's specimen	224			1	167			1	22.9			1
Cuculus saturatus saturatus male	174–194	183.4	± 5.8	35	113–152	136.4	± 11.7	35	17.9–22.1	20.5	± 1.1	21
C. s. saturatus female	163–190	175.4	± 8.2	15	113–152	136.6	± 10.6	15	18.5–23.0	20	± 1.4	11
C. s. optatus male	214–223	218.4	± 1.9	26	128–173	156.7	± 11.8	16	19.7–24.6	22	± 1.7	17
C. s. optatus female	213–222	216.9	± 2.3	16	128–168	142.6	± 11.8	14	17.9–23.7	20.9	± 1.7	18
C. canorus canorus male	213–230	221	± 4.3	52	170–186	177	± 4.1	52	25.5–31.2	27.7	± 1.5	52
C. c. canorus female	204–216	210	± 3.7	35	158–177	167	± 5.6	35	25.2–28.6	26.8	± 1.0	35
C. c. subtelephonus male	201–249	221.9	± 15.2	30				0	25.2, 26.2			2
C. c. subtelephonus female	180–223	200.5	± 13.1	18				0	24.7–27.0	26.2	± 1.1	4
C. c. bakeri male	198–232	214.3	± 9.9	16				0				0
C. c. bakeri female (no hepatic morph)	195–215	205.1	± 6.8	9				0				0
C. c. bangsi male	199–215	206.7	± 6.2	7				0	24.5–29.5	26.9	± 1.0	12
C. c. bangsi female (no hepatic morph)	194–207	200.6	± 5.4	5				0	25.9–28.2	27.2	± 1.2	6
C. gularis male	204–226	215.3	± 8.4	9	143–166	152.9	± 10.8	9	20.7–23.6	26.1	± 0.5	9
C. gularis female (no hepatic morph)	197–209	205.3	± 5.1	10	141–156	147	± 5.5	9	19.0–22.4	20.7	± 1.2	9

1985 (Shirihai 1996) and April 2008 (www.israbirdig.com/israelbirdsforum), being the closest to Africa.

Common Cuckoo *C. c. canorus* Linnaeus, 1758. Palearctic from Ireland to Kamchatka and Japan. Winters equatorial Africa, India and South-East Asia. *C. c. bangsi* Oberholser, 1919. Iberia and Maghreb. Probably winters Africa south of equator. *C. c. subtelephonus* Zarudny, 1914. Transcaspia to west and north China, Iran and Afghanistan. Winters Middle East, India and Africa south of Sahara. *C. c. bakeri* E. Hartert, 1912. North-east Indian Subcontinent, Assam, Nepal, Bhutan, northern South-East Asia, south-east Tibet and south China. Winters India and South-East Asia.

TABLE 2
Wing formulae data for relevant *Cuculus* taxa. The formulae for *saturatus*, *optatus*, *canorus* and *gularis* are from Payne (2005). However, in long series I found them to be an unreliable discriminant.

	Wing formulae (except Alexander's specimen, from Payne 2005)
Alexander's specimen	P 8>9>7>6>5>4>10>3>2>1
C. saturatus saturatus	P 8>9>7>6>5>4>10>3>2>1
C. saturatus optatus	P 8>9>7>6>5>4>10>3>2>1
C. canorus canorus	P 8>7>9>6>5>4>10>3>2>1
C. gularis	P 8>7>9>6>5>4>10>3>2>1

Conclusion

Although *C. s. optatus* has an easterly migration route, it is prone to vagrancy and has been recorded twice in Israel (Shirihai 1996; www.israbirdig.com/israelbirdsforum). Some *Cuculus* are notoriously difficult to distinguish in the field unless vocalising. Birds of this genus are infrequently trapped in mist-nets, and birds that die in Africa are usually scavenged very quickly. Thus species such as Oriental Cuckoo may occasionally occur in Africa undetected. The specimen in question, although quite distinct, could easily be passed off as Common Cuckoo. Field observers would not normally consider identifying a cuckoo in Africa as Oriental, due to the lack of precedent, but I urge them to consider this possibility in the future and attempt to capture any *Cuculus* that does not match the known local species. Collections may also benefit from closer scrutiny.

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