

THE STATUS OF THE SUNDA COUCAL

Centropus nigrorufus

CUVIER

By

Paul Andrew

Summary

A historical review is presented on the taxonomic and distributional status of the Sunda Coucal *Centropus nigrorufus*. It is concluded that this species is endemic to Java, and that it does not occur on Sumatra as has been suggested. Its distribution in Java and habitat requirements are discussed.

Ringkasan

Dikemukakan sebuah pandangan sejarah tentang status taksonomi dan sebaran wilayah dari *Centropus nigrorufus*. Disimpulkan bahwa jenis ini bersifat endemik untuk Pulau Jawa, dan bahwa jenis ini tidak ditemukan di Sumatera sebagaimana yang diperklarkan selama ini. Juga di diskusikan tentang penyebarannya di Pulau Jawa serta kebutuhan habitatnya.

The genus *Centropus* is represented on Java by the Greater Coucal *C. sinensis*, the Lesser Coucal *C. bengalensis* and the Sunda Coucal *C. nigrorufus*. The first two are widespread in the Indo-Malayan region and common on Java. The Sunda Coucal, however, is probably endemic to the island and vulnerable to extinction (Collar and Andrew 1989). This review of historical and contemporary records is intended to clarify its distribution and status.

The 'Sumatran' specimen.

The Sunda Coucal had a colourful first hundred years in the ornithological literature, being the subject of fraud and considerable carelessness (see comments on Levaillant in Stresemann 1975:97, and Sharpe 1873:621). It was confused with the African *C. grillii* HARTLAUB 1861, for fifty years, until Finsch (1902) reviewed its synonymy (see Appendix 1) and determined that it was found on Sumatra (citing Shelley 1891) and Java (citing specimens received from Vorderman, see below). The Sumatran provenance persists in the literature though its basis is a single specimen, a syntype of *Centropus purpureus* SHELLEY 1891 (see Warren 1966).

Shelley (1891) had two specimens to hand. The first was purchased by the British Museum from the collection of Baron Laugier de Chartreuse in Jun 1837 at a sale in Paris and was labelled 'purpureus' and 'Mindanao'. The second was in the Raffles Collection from the India Museum and labelled 'Sumatra'.

Although Shelley adopted the name *purpureus*, he considered the Philippines an unlikely source (Shelley 1891:349; see also Hachisuka 1934:222) and determined that the species inhabited Sumatra.

The label on the second specimen proves to be the sole basis for supposing that *nigrorufus* occurs on Sumatra; the only supporting reference in the literature can be discredited. Raffles (1822:286) used *Cuculus [= Centropus] bubutus* HORSFIELD 1821, in his account of his ornithological work on Sumatra, and specifically referred to Horsfield (1821:180). Nonetheless Shelley (1891:348) assumed the name had been incorrectly applied and took *bubutus* (*Cuculus bubutus* RAFFLES [1822] (nec HORSFIELD [1821])) to be an unavailable name when he applied *purpureus*¹. Finsch (1902) later adopted Shelley's findings.

However, the description given by Raffles² is consistent with *Centropus bubutus* HORSFIELD 1821; in fact, Horsfield subsequently listed '*Centropus bubutus* RAFFLES' as a synonym of *Centropus philippensis javanicus* HORSFIELD (Horsfield 1824: text to P1.59; Oberholser 1921 for pagination), the latter name intended by him to replace his *C. bubutus* of 1821 (cf. Mees 1989)³.

Until proved otherwise, *nigrorufus* is best treated as a Javan endemic, a course followed by van Marle and Voous (1988:114) and Holmes and Nash (1989:31), though not MacKinnon (1988:176).

Distribution on Java

Vorderman acquired six specimens of *nigrorufus* on Java. He noted that it occurred in the wastelands (= "alang-alang en kreupelhoutwildernissen") around Jakarta (Vorderman 1892:382). He later said it was a common bird in *Saccharum* and *Imperata* swamp (= "glagah- en alang-alang wildernissen") and that his hunters had procured specimens at Mantup and along the Kali Mas (=langside Kalimaas 7°12'S, 112°44'E) near Surabaya

.....
¹ If *C. bubutus* of Raffles (1822) were accepted as an available name, it would become a junior, objective homonym of *C. bubutus* of Horsfield (1821), and hence inapplicable on this basis (M.D. Bruce).

² Raffles (1822) said; "The whole body is of a deep blue colour with a green gloss. The wings are of a bright-red brown". These features are characteristic of *C. sinensis*. The body of *C. nigrorufus* is strongly glossed purple and the wings are extensively dusky; the coverts and all retrices are tipped brown.

³ Horsfield's '*javanica* [= *javanicus*]' is not affected by *C javanensis* (DUMONT 1818), although the latter is sometimes spelled *javanicus* (cf. Peters 1940:72), and is therefore a junior, objective synonym of *Centropus bubutus* HORSFIELD 1821 (M.D. Bruce).

(Vorderman 1900:209). Bartels (1902:142) added that it was not uncommon around Surabaya and Kediri⁴.

It was certainly locally common once: between 1895 and 1927 Max Bartels collected 25 specimens (in Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands [RMNH]) in the estuarine swamps around Jakarta, mainly in the Citarum delta north of Karawang (e.g. Muara Gembong 6°01'S, 107°01'E; Tanjung Karawang 5°57'S, 107°E; Tanjung Sedari 5°57'S, 107°18'E, co-ordinates in Anon. 1968). In the same area he collected the only eggs known, three clutches in March (1) and June (2), at Cabang Bungan 5°56'S, 107°05'E [presumably = Tjabang Bungin 5°56'S, 107°05'E], and Telar Cilisang [presumably = Telar Tjilesung 5°58'S, 107°17'E] (cf. Hellebrekers and Hoogerwerf 1967).

There are a few more recent records from the Jakarta area. Hoogerwerf saw the bird twice in the vicinity of Jakarta, once in alang-alang near the coast and once beside a pool at the edge of mangrove (Hoogerwerf and Siccama 1938:67). Rengers Hora Siccama also reported shooting one of several seen during a day spent on one of the rivers near Jakarta (Hoogerwerf and Siccama 1938:68). In the years 1939 to 1941 *nigrorufus* was still locally common in the swamps of the Citarum delta and also recorded in the marshes west of Jakarta at Cenkareng (6°9'S, 106°43'E) (J.H. Becking). It was also found in mangrove patches in the Jakarta area in 1949 (G.F. Mees).

Citing Vorderman and Bartels, Finsch (1902), and later Kuroda (1936:474), concluded that *nigrorufus* was widespread on Java, though to date it has been recorded at few localities (see Map 1). In 1927 Verbeek collected a specimen in a teak wood ("djatibosch") near Randublatung (Hoogerwerf 1948). In 1941 Hoogerwerf saw one about a mile from the coast on the Cikarang in Ujong Kulon (Hoogerwerf 1970:490). The only other observations are from Segara Anakan where it was rather common in *Avicennia*, *Acrostichum* and associated swamp vegetation in 1939-1942 (J.H. Becking) and in 1986 and 1988 (Andrew 1988, Erfteimeijer *et al.* 1988).

Habitat.

Hoogerwerf (1970:491) suggested that *nigrorufus* was primarily a bird of tidal forest, including swamp-fern *Acrostichum*. It was found to be common in November 1988 in degraded mangrove at the mouth of the Cimanuk, where *sinensis* was not recorded (S. van Balen), but at Segara Anakan *sinensis* occupies the solid stands of *Rhizophora* and *Bruguiera* (Erfteimeijer *et al.* 1988:53) and *nigrorufus* occurs in the fringing swamps, including the pioneer *Avicennia*. Indeed, mangrove is not explicitly mentioned in the historical literature though estuarine rivers are a consistent feature. The vegetation noted include *Acrostichum*, *Nypa*, *Saccharum* and *Imperata*, all swamp vegetation usually associated with rivers and estuaries (see Silvius *et al.* 1987). Randublatung, a locality Hoogerwerf (1948) thought unusual, is on the Solo (see Map 1), and inland grass swamps are still a feature of this river (Silvius *et al.* 1987:97).

.....
⁴ "Nicht selten bei Soerabaya und in Kediri". Max Bartels spent two years in East Java. His use of Kediri is uncertain. There are no specimens from Kediri and Bartels (1902:142, 1906:511) is the sole authority for the locality. Kediri, however, is on the Kali Branta and the species may have occurred that far inland.

It is difficult to determine a species' ancestral habitat on an island that has been so substantially modified. The majority of specimens are from estuarine areas where, until recently, mangrove and brackish-water swamp predominated (see Whitmore, 1984). The only recent records are from areas where extensive mangrove still exists and mangrove-associated swamp can be considered the primary habitat. The areas of freshwater swamp and grassland scrub adjacent to brackish-water swamp are probably a secondary habitat that may not support the species in the long term. Unfortunately, tambak (= fish and shrimp ponds) may not support *nigrorufus* either; only *sinensis* was reported from tambak in the Brantas and Solo deltas (Erfteimeijer and Djuharsa 1988:81), and only *bengalensis* and *sinensis* have recently been recorded in the extensive tambak near Jakarta. Whether tambak is inherently unsuitable or *nigrorufus* is excluded by .rine/uu is not known.

Status

Swamp, both fresh and brackish-water, is now mostly under rice or converted to tambak or salt pans. According to Erfteimeijer and Djuharsa (1988:23) the area of tambak on Java was 50,000ha in 1915 (cf. Koningsberger 1915), 80,000ha in 1952 (cf. Schuster 1952) and 98,680ha in 1983 (cf. Silvius *et al* 1987). In some areas a band of mangrove is left between the tambak and the sea, but such stands are normally narrow and lack the diverse vegetation that accompanies natural mangrove forest. Silvius *et al* (1987) identified 34 wetland sites on Java; few of these can be expected to maintain viable populations of *nigrorufus* as most are areas of tambak, small islands, or coastal sites on coral platforms that contain little brackish-water swamp.

At the moment, there is no evidence that *nigrorufus* survives outside of the relict patches of mangrove and associated swamp between Tanjung Karawang and Indramayu (including, possibly, swamps at the mouth of the Bobos 6°13S, 107°47E) and Segara Anakan. The viability of populations in these isolated areas is uncertain, but the prognosis is poor; the total area of mangrove between Karawang and Indramayu is estimated at less than 4,000 ha (Silvius *et al.* 1987). The estimated 18,000 ha of mangrove at Segara Anakan is not protected though management plans have been proposed (Erfteimeijer *et al.* 1988:12).

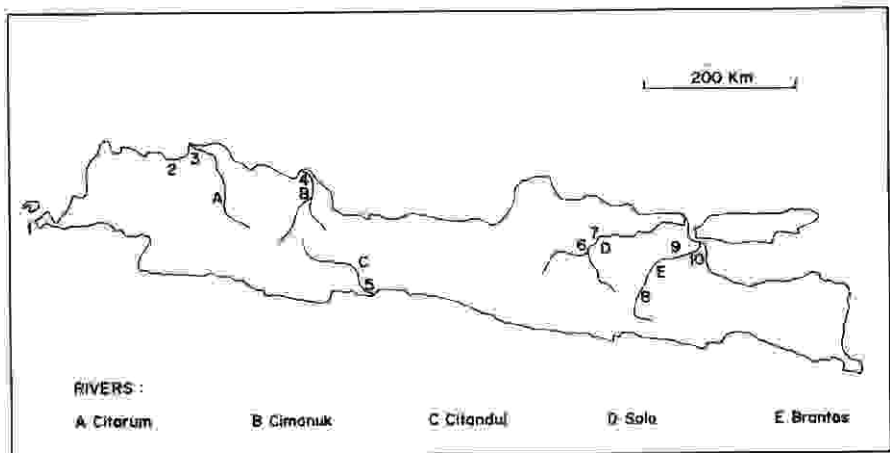
Given the paucity of recent records, it is surprising that *nigrorufus* turns up so frequently in bird markets. It is not an attractive cage-bird, yet one was purchased in a bird-market in 1982 in Jakarta, another in 1985 in Yogyakarta (see Andrew 1988), and three were found for sale in 1989 in Jakarta (A. van den Berg). It can be hoped that *nigrorufus* has been widely overlooked; only *sinensis* and *bengalensis* have been seen in the northern coastal swamps of Ujong Kulon in recent years, though *nigrorufus* presumably survives there as much of the tidal forest remains undisturbed (see Andrew 1988, S. van Balen). However, without a better understanding of the ecological requirements of *nigrorufus*, particularly with regard to competitive exclusion by *sinensis*, the future of the enigmatic Sunda Coucal cannot be secured.

Map 1

Java and Bali showing the major rivers and localities where *Centropus nigrorufus* has been recorded.

1. Ujong Kulon (Hoogerwerf 1970); 2. Jakarta (= Batavia; Vorderman 1892, 1900 and 1901, Koningsberger 1901, van Oort 1910, Hoogerwerf and Siccama 1938); 3. Karawang (RMNH 1895-1927 Bartels); 4. Indramayu (= Indramajoe; RMNH 1925 Sody, B.van Balen); 5. Segara Anakan (Andrew 1988, Erfteimeijer *et al* 1988); 6. Randublutung (= Randoeblatoeng; Hoogerwerf 1948 and see Sody 1953); 7. Cepu (= Tjepoe; RMNH 1926 Verbeek); 8. Kediri (Bartels 1906); 9. Mantup (= Mantoop; Vorderman 1900); 10. Surabaya (= Soerabajasche; Vorderman 1900, = Soerabaya; Bartels 1902 and 1906).

MAP 1. -JAVA LOCATION MAP



Appendix 1

The following references are attributable to *Centropus nigrorufus* CUVIER. The localities in parentheses are the provenances given by the author. [Le Coucal noirou'] Levaillant 1806:78 P1.220; Cuvier 1816:426 (Africa); [*Corydohix bicolor*] Vieillot 1819:297 (Africa); Horsfield 1824: footnote to text accompanying P1.59 (Africa); Stephens 1826:213 (Africa); Lesson 1831:135 (Africa); Gray 1846:455 (Africa); Bonaparte 1850:107 (Africa); Sundevall 1857:48 (Africa); Cabanis and Heine 1863:107 (Africa); Schlegel 1862:64 (Africa and Java); Layard 1867:245 (Africa); Vorderman 1892:382 (Africa and Java); [*Centropus purpureus*] Shelley 1891:348 P1.13 (Sumatra); Vorderman 1900:208 (Sumatra and Java); Neumann 1902:75 (Sumatra and Java); Finsch 1902:157 (Sumatra and Java).

Acknowledgements

I would like to thank S. van Balen, J.H. Becking, A. van den Berg, M.D. Bruce, P. Erfteijer and G.F. Mees for the use of their personal notes and generous help with earlier drafts of the paper.

References

- Andrew, P. 1988. Little known Oriental birds: the Sunda Coucal. *Bull. Oriental Bird Cl.* 7:24-26.
- Anonymous 1968 *Indonesia*. Washington: Dept. of the Interior, Board on Geographic Names. Viii+901pp.
- Bartels, M. 1902 Zur Ornis Javas. *Nat. Tijds. Ned. Ind.* 61:129-172.
- Bartels, M. 1906 Systematische uberaicht meiner Java-vogel. *J. fur Orn.* 54:383-497.
- Bonaparte, C.L.J.L. 1850 *Conspectus Generum Avium*. Lugduni Batavorum: Brill. Vol.1:1-543.
- Cabanis, J.L. and F. Heine. 1863. *Museum Heineanum. Verzeichlmis der omithologischen Sammlung des Oberamtman Ferdinand Heine*. Halberstadt: St. Buchard. Pt.4(1)Kuckuke und Faulvogel: 1-229.
- Collar, N.J. and Andrew, P. 1988 *Birds to watch. The ICBP check-list of threatened birds*. Cambridge: International Council for Bird Preservation. (ICBP Technical Publication No.8). xvi+303pp.

- Cuvier, G.L.C.F.D. 1816 *Le Regne Animal distribue d'apres son organisation, pour servir de base a l'histoire naturelle des animaux et d'introduction a l'anatomie comparee*. Paris: Deterville. Vol.1:xxxviii+1-540.
- Erftemeijer, P. and E. Djuharsa 1988 *Survey of coastal wetlands and waterbirds in the Brantas and Solo deltas, East Java (Indonesia)*. Bogor: PHPA-AWB/INTERWAD-ER. (Report No.5). 92pp. + pl. i-ix.
- Erftemeijer, P., Balen, B. van and E. Djuharsa 1988 *77ie importance of Segara Andkan for nature conservation, with special reference to its avifauna*. Bogor: AWB/INTER-WADER-PHPA. (Report No.6). 59pp.+pl. i-viii.
- Finsch, O. 1902 *Über zwei bische verkannte Vogelarten: Centropus nigrorufus (Cuv.) und Centropus grilli (Hartl.)*. *Notes Leyden Mus.* 23:156-161.
- Gray, G.R. 1846 *The Genera of Birds: comprising their generic characters, a notice of the habits of each genus, and an extensive list of species referred to their several genera*. London: Longman, Brown, Green & Longmans. Vol.2:iv+[301-483]pp.+pl. 73-120a.
- Hachisuka, M.U. 1934 *The Birds of the Philippine Islands, with notes on the mammal fauna*. London: Witherby. Vol.2(3): 1-256.
- Hellebrekers, W.Ph.J. and A. Hoogerwerf. 1967. A further contribution to our oological knowledge of the island of Java (Indonesia). *Zool. Verhand.* 88:1-164.
- Holmes, D.A. and S.V. Nash 1989 *The Birds of Java and Bali*. Singapore: Oxford University Press. (Images of Asia Series). Ii-xii+109pp.+[i]+24pil.
- Hoogerwerf, A. 1948 Een exemplaar van *Centropus nigrorufus* (Cuv.) van Randoeblatoeng, gelegen in het centrum Midden-Java. *Limosa* 21:107.
- Hoogerwerf, A. 1970 On the ornithology of Ujong Kulon. Part 2. *Nat. Hist. Bull. Siam Soc.* 23:447-500.
- Hoogerwerf, A. and G.F.H.W. Rengers Hora Siccama, 1938 De avifauna van Batavia en omstreken. (Part 3.) *Ardea* 27:41-92.
- Horsfield, T. 1821 Systematic arrangement and description of birds from the island of Java. *Trans. Linn. Soc. Land.* 13:133-200.
- Horsfield, T. 1824. *Zoological Researches in Java and the neighbouring islands*. London: Kingsbury, Parbury & Alien. 71 pl.+text (unpaginated).

-
- Koningsberger, J.C. 1901 *Vogels van Java en hunne oeconomische Beteekenis. Mededeelingen uit 's lands Plantentuin, Batavia*. Leiden: G. Kolff & Co. 107pp.
- Koningsberger, J.C. 1915 *Java, zoologisch en biologisch*. Bogor. 663pp.
- Kuroda, N. 1936 *Birds of the Island of Java*. Tokyo: Author. Vol.2: Non-Passeres. vi+371-794.
- Layard", E.L. 1867 *The Birds of South Africa. A descriptive catalogue of all the known species occurring south of the 28th parallel of south latitude*. Cape Town: Juta. + London: Longman, Green & Co. xvi+192+197-382+ii+xxi+[i]pp.
- Lesson, R.-P. 1831 *Traits d'Ornithologie*. Paris. F.G. Levrault. Vol.1:xxxiii+1-659.
- Levaillant, 1806 *Histoire naturelle des oiseaux d'Afrique*. Paris: Delachaussee, Vol.5:1-124+pl.200-247.
- MacKinnon, J. 1988 *Field Guide to the Birds of Java and Bali*. Yogyakarta: Gadjah Mada University Press. xiii+390pp.+pl. I-v+1-40.
- Marie, van J.G. and Voous, K.H. 1988 *The birds of Sumatra: an annotated checklist*. London: British Ornithologists' Union. (BOU Check-list No. 10). 265pp.
- Mees, G.F. 1989 Remarks on the ornithological parts of Horsfield's 'Zoological Researches in Java'. *Proc. Kon. Ned. Acad. Wetensch.* (Ser. C)92:367-378.
- Neumann, O. 1902 Some remarks on the type of *Centropus nigrorufus*. *Bull. Brit. Orn. Cl.* 12:75.
- Oberholser, H.C. 1921 Notes on Horsfield's 'Zoological Researches in Java'. *Proc. Biol. Soc. Wash.* 34:163-166.
- Oort, van E.D. 1910 List of a collection of birds from western Java and Krakatau. *Notes Leyden Mus.* 32:105-166.
- Peters, J.L. 1940 *Check-list of Birds of the World*. Cambridge: Harvard Univ. Press. Vol.4:xii+291pp.
- Raffles, T.S. 1822 Second part of the descriptive catalogue of a zoological collection made in the island of Sumatra and its vicinity. *Trans. Linn. Soc. Land.* 13:277-340.
- Schlegel, H. 1862 Cuculi. *Mus. Hist. Nat. Pays-Bus* 1 (mon. 25): 1-85.

- Schuster, W.H. 1952 *Fish culture in brackish water ponds of Java*. Indo-Pacific Fisheries Council. (Special Publication No. 1). 143pp.
- Sharpe, R.B. 1873 On the Cuculidae of the Ethiopian Region. *Proc. Zool. Soc. Lond.* 1873:578-624.
- Shelley, G.E. 1891 Suborder Coccoyges. Family Cuculidae. pp.209-434. In Sclater, P.L. and G.E. Shelley, Catalogue of the Picanae. In *Catalogue of the birds in the British Museum*. London: Brit. Mus. Vol.19:xii+1-484+13pU.
- Silvius, M.J., Steeman, A.P.J.M., Berczy, E.T., Djuharsa, E. and A.W. Taufik 1987 *The Indonesian Wetland Inventory. A preliminary compilation of existing information on wetlands of Indonesia*. Bogor: PHPA,AWB/INTERWADER & EDWIN Vol.2:1-268.
- Sody, H.J.V. 1953 Vogels van' het Javaanse djabibos. Met overwegingen over nut en schade voor dit bos. *Madj. Ithnu Al-Unt. Indonesia.* 109:125-172.
- Stephens, J.F. 1826 In G. Shaw, *General Zoology*. Birds. London: Davison. Vol.14(1): [vi]+1-385+44pll.
- Stresemann, E. 1975 *Ornithology. From Aristotle to the Present*. Cambridge. Harvard Univ. Press. Rii+432pp.
- Sundevall, C.J. 1857 Kritisk framställning af fogelarterna uti äldre ornithologiska arbeten. n. Le Vaillant, Oiseaux d'Afrique. *Kon. Svenska Vetensk.-Akad. HandLn-s.* 2(3).
- Vieillot L.J.P. 1819 Toulou pp.294-299 in *Nouveau Dictionnaire d'Histowe Natwelle.* (now. ed.) Paris. D'Abel Lanoe. Vol.34:v+1-578.
- Vorderman, A.G. 1892 Java-vogels 1. *Nat. Tijds. Ned. Ind.* 51:373-416. Vorderman, A.C. 1900 Java-vogels 2. *Ibid.* 59:201-233.
- Vorderman, A.G. 1901 Systematisch overzicht der vogels weike op Java inheemsch zijn. *Ibid.* 60:36-155.
- Warren, R.L.M. 1966 *Type specimens of birds in the British Museum (Natural History)*. Vol. 1: Non Passerines. London: British Museum (Publication No. 65). X+320pp.
- Whitmore, T.C. 1984. *Tropical win forests of the Far East*. Oxford: Oxford Univ. Press. 2nd cd.xvi+352pp.

Address