

Field identification of Beaudouin's Snake Eagle

Circaetus (gallicus) beaudouini

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Les critères d'identification sur le terrain du Circaète de Beaudouin *Circaetus (gallicus) beaudouini* sont décrits et illustrés avec des photos, et comparés à ceux d'autres circaètes, en particulier le Circaète Jean-le-Blanc *C. (g.) gallicus*, qui fréquente l'aire de distribution du Circaète de Beaudouin pendant l'hiver nordique. Les observateurs en Afrique devraient pouvoir mieux déterminer la distribution réelle du Circaète Jean-le-Blanc en utilisant ces nouvelles informations.

The taxonomic relationship between Beaudouin's Snake Eagle *Circaetus (gallicus) beaudouini*, Short-toed Eagle *C. gallicus*, and Black-breasted Snake Eagle *C. (g.) pectoralis* has variously been characterised as races of a single species (eg *The Birds of Africa*⁵) or as three separate species. Clark¹ discusses why the arrangement as separate species (eg in del Hoyo *et al*⁶) is preferable.

Beaudouin's Snake Eagle is a resident of open woodland and treed savannas of sub-Saharan West and Central Africa but performs short movements north and south in response to wet and dry seasons⁵. Despite statements to the contrary in the literature, they are rather easy to separate in the field from other snake eagles, particularly from the Short-toed Eagle, which occurs throughout the range of Beaudouin's during the northern winter^{5,9}.

Here I present field marks that will serve to distinguish Beaudouin's Snake Eagle from other snake eagles in the field. No single field guide (eg Kemp & Kemp⁷, Barlow *et al*⁸, Zimmerman *et al*¹², Serle & Morel¹⁰) has previously described all these features.

Beaudouin's Snake Eagle

Adults have a brownish-grey head, breast and upperparts, and white belly with a variable amount of narrow dark barring (Fig 1). Some adults possess an extensively white throat and have restricted dark barring on the sides of the breast and flanks (Fig 2). Based on a small sample of specimens, females tend to have a uniformly brown breast (Fig 1), and males a white throat and mid-breast and barring restricted to the flanks (Fig 2). The underwing-coverts appear unmarked at a distance and the underside of the white flight feathers have two narrow dark bands and a wider dark subterminal band (Figs 1 & 2). From below, the tail is pale and has 2–3 narrow dark bands, the subterminal being widest.

Juveniles are overall dark brown, with rather indistinct dark bands in the pale tail from below. The outer primaries have a wide dark area at the tips and

the undersides of the pale flight and tail feathers have narrow dark banding (Fig 3).

Serle & Morel¹⁰ is the only field guide to describe correctly, albeit succinctly, the juvenile plumage but does not illustrate it. Likewise, Grossman & Hamlet⁶ is the only handbook to do so, but again without an illustration. The juvenile illustration in Kemp & Kemp⁷ is incorrect; it appears rufous, more like that of Black-breasted Snake Eagle. Illustrations in other field guides, including those recently published¹² and handbooks⁵ are also incorrect; all depict juveniles with a pale head and underparts. This is possibly due to the misidentified specimen of Short-toed Eagle that I found in the tray of Beaudouin's Snake Eagle in the collection of the Natural History Museum, Tring. There were four juvenile specimens in this drawer that were overall dark brown. One of these is the upper specimen in Fig 4.

Short-toed Snake Eagle

Adults have a brownish head, breast, and upperparts and white belly with a variable amount of short, narrow dark barring (Fig 5). Adult males usually possess whitish streaking on the dark breast. (Fig 6). The underwing-coverts have heavy dark markings, and the underside of the white flight feathers have a dusky terminal band and three narrow, often incomplete, dark bands. From below, the pale tail has several wide dusky bands.

Juveniles are similar to adults, except that the breast is more rufous-brown and the belly and underwing-coverts markings are less intense (Fig 7). Some juveniles are overall quite pale, often with a whitish head but nevertheless show some rufous markings on the underwing-coverts (Fig 8).

Black-breasted Snake Eagle

Adults have a blackish-brown head, breast, and upperparts and unmarked white belly. The underwing-coverts appear unmarked, the underside of the white flight feathers has two narrow dark bands and a





- 1 Adult Beaudouin's Snake Eagle *Circaetus* (g.) *beaudouini*, The Gambia. Underwing-coverts (at a distance) unmarked and dark band on trailing edge of wing noticeable. Breast and flanks narrowly barred. This individual, most likely a female, has a solid bib. (Bill Clark)
- 2 Adult Beaudouin's Snake Eagle *Circaetus* (g.) *beaudouini*, The Gambia. Underwing-coverts unmarked and dark band on trailing edge of wing noticeable. Breast and flanks have narrow barring. This individual, most likely a male, has an extensive white throat extending onto the breast. (Bill Clark)
- 3 Juvenile Beaudouin's Snake Eagle *Circaetus* (g.) *beaudouini*, Sénégal. Appears brown overall, except for silvery undersides to flight feathers and tail. Outer primaries have wide dark areas on tips and underside to flight feathers has narrow dark banding. (Pierre Reynaud)
- 4 Specimens of juvenile Beaudouin's *Circaetus* (g.) *beaudouini* and Black-breasted Snake Eagles *C. (g.) pectoralis*, Natural History Museum, Tring. Juvenile Beaudouin's (upper) is overall dark brown. Note extensive dark tip on the outer primary. Juvenile Black-breasted (lower) is overall rufous. (Bill Clark)
- 5 Adult male Short-toed Eagle *Circaetus gallicus*, Israel. Underwing-coverts heavily marked and band on trailing edge of wing dusky. Breast and flanks have narrow dark barring. Adult male usually has whitish streaks on the dark bib. (Bill Clark)
- 6 Adult female Short-toed Eagle *Circaetus gallicus*, India. Underwing-coverts heavily marked, and band on trailing edge of wings is dusky. Breast and flanks have narrow dark barring. Adult female usually has solid dark bib. (Bill Clark)
- 7 Juvenile Short-toed Eagle *Circaetus gallicus*, Israel. A pale juvenile with a whitish head. Underwing-coverts possess some dark markings. (Bill Clark)
- 8 Juvenile Short-toed Eagle *Circaetus gallicus*, India. Juvenile is usually similar to adult, except breast is more rufous-brown and belly and underwing-coverts less heavily marked. (Bill Clark)
- 9 Adult Black-breasted Snake Eagle *Circaetus* (g.) *pectoralis*, South Africa. Underwing-coverts appear unmarked and dark band on trailing edge of wing is noticeable. Breast and flanks are unmarked, and the solid blackish bib is always present. (Bill Clark)
- 10 Juvenile Black-breasted Snake Eagle *Circaetus* (g.) *pectoralis*, South Africa. Appears overall rufous often with some whitish mottling. Note dark secondaries. (Bill Clark)
- 11 Second plumage Black-breasted Snake Eagle *Circaetus* (g.) *pectoralis*, South Africa. Similar in pattern on underparts to adult Beaudouin's *C. (g.) beaudouini* and Short-toed Eagles *C. gallicus*, but has dark secondaries and rufous on underwing-coverts. (Bill Clark)
- 12 Adult Brown Snake Eagle *Circaetus cinereus*, The Gambia. Overall dark brown with unmarked underside to flight feathers, narrow dark areas on tips of outer primaries, and three narrow white bands on dark tail. (Bill Clark)

wider dark subterminal band, and the white belly lacks dark markings (Fig 9). From below the pale tail has 2–3 narrow dark bands.

Juveniles are overall rufous, often with some white mottling (Fig 10), but can fade to buffy within six months of fledging. The underside of the secondaries appears dark on otherwise pale underwings.

Brown Snake Eagle *Circaetus cinereus*

Adults are overall dark brown, with three narrow white bands in the tail. The underside of the pale grey flight feathers is unbanded, the outer primaries have narrow dusky tips and greater underwing-coverts are the same pale grey colour as the flight feathers (Fig 12).

Juveniles are similar to adults, but with an additional narrow white band near the tail tip.

Second plumage of snake eagles

Both Black-breasted and Brown Snake Eagles have a distinct plumage between juvenile and adult plumages, as demonstrated by the photographs labelled subadult in Kemp & Kemp⁷. However, I have not seen a specimen nor a printed description of a second plumage for Beaudouin's Snake Eagle, as described and depicted in Kemp & Kemp⁷. Second plumage Black-breasted Snake Eagle is easily separated, in flight, from the similar adult Beaudouin's and Short-toed Eagles by the retained juvenile dark secondaries (Fig 11).

Adult Beaudouin's vs Short-toed Eagle

Adult Beaudouin's Snake Eagle is readily distinguished from Short-toed Eagle by the unmarked underwing-coverts and wide dark band on the trailing edge of the underwing. Compare the snake eagles in Figs 1 and 2 with those in Figs 5–8. Short-toed Eagle has dark markings on the underwing-coverts and a dusky band on the trailing edge of the underwing. The belly is marked with narrow dark barring, wider but not very different from that of adult Beaudouin's Snake Eagle. Another useful field mark is the pale patch on the upperwing-coverts of Short-toed; the upperwing coverts of adult Beaudouin's are uniformly dark. Additionally, the wings appear narrower than those of Short-toed.

Juvenile Beaudouin's vs Brown Snake Eagle

Juvenile Beaudouin's Snake Eagle is overall brown and could easily be (and most likely are) overlooked in the field as Brown Snake Eagle, as, to my knowledge, no field guide illustrates this plumage. It is distinguished from Brown Snake Eagle by the extensive dark tips to

the outer primaries, narrow dark banding on the underside of the flight feathers, and the lack of narrow white bands in the tail. Compare the snake eagle in Fig 3 with that in Fig 12. Brown Snake Eagle has narrow dark tips on the outer primaries, lacks banding on the underside of the flight feathers, and has three narrow white bands in the dark tail.

Adult Beaudouin's vs adult Black-breasted Snake Eagle

Adult Beaudouin's is similar to adult Black-breasted but has narrow dark barring on the belly. Compare the snake eagles in Figs 1 and 2 to that in Fig 9. Adult Black-breasted appears blacker on the head, breast and upperparts, and lacks dark barring on the belly.

Juvenile Beaudouin's vs juvenile Black-breasted Snake Eagle

Juvenile Beaudouin's appears similar to juvenile Black-breasted but is overall dark brown compared to overall rufous. Compare the snake eagle in Fig 3 with that in Fig 10 and the specimens of each in Fig 4.

Ranges of Beaudouin's and Short-toed Eagle

The ranges and status of Beaudouin's Snake and Short-toed Eagles in West, Central, and East Africa are uncertain because most field observers have been unable to distinguish them. This fact is mentioned in various regional distribution works (eg Louette⁶), even recent field guides, eg Barlow *et al*¹.

At its eastern limits the range of Beaudouin's has been considered to reach north-east Kenya but not into Uganda^{3,5}. However, a valid specimen record¹¹ and a photographic record (by R Davies)—that I have examined—exist for Uganda. Zimmerman *et al*¹² do not admit any Kenya records, considering those mentioned by Britton² to be insufficiently documented.

Using the field marks described and depicted in this article, observers in West, Central, and East Africa should be better able to determine the true range of Beaudouin's Snake Eagle and the winter range of Short-toed Eagle.

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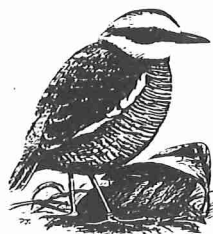
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