

Short Note

Taxonomic status of the Forest Buzzard *Buteo oreophilus trizonatus*

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Introduction

The Forest Buzzard *Buteo oreophilus rizonatus*, confined to the temperate coastal and escarpment forests of South Africa (Hockey *et al.* 2005), is often considered to be a subspecies of the Mountain Buzzard *Buteo oreophilus* of the forested highlands of East Africa, following Siegfried (1971) and Siegfried and Frost (1973). However, both taxa are largely resident, with breeding distributions separated by more than 2 000km, and there have been several calls for the two to be treated as distinct species (e.g. Amadon and Bull 1992, Kemp 1994, Clark and Davies 2000, Ferguson-Lees and Christie 2001). James (1986) examined many specimens of both taxa and concluded: 'On account of the great differences in plumages and few relative character similarities, *oreophilus* and *trizonatus* do not seem to be conspecific'. Sinclair and Ryan (2003) considered them as two species and correctly illustrated the differences in their plumages. Perhaps most convincingly, a study of the phylogeny of Old World *Buteo*, based on mitochondrial DNA sequences and structural analyses (Krunkenhauser *et al.* 2004), suggests that the two taxa are not monophyletic, with *oreophilus* closer to *B. b. buteo* and *trizonatus* closer to *B. b. vulpinus*. This paper summarises differences in plumage and wing shape between the two taxa, based on observations of more than 30 individuals in the field in Kenya and South Africa (including several birds captured for ringing) and more than 100 museum specimens of each taxon.

Mountain and Forest Buzzards are easily distinguished on plumage (Figures 1 to 8). Both taxa are monomorphic, with little individual variation. Juveniles are similar to their respective adults, but with pale eyes and typical juvenile buzzard tail patterns: brown with numerous equal-width dark brown bands. I found, in contrast to James (1986), that there is no discernable colour difference between the ceres and legs of the two taxa. The two taxa also differ in wing shape, with Mountain Buzzards having wider wings with more rounded wingtips (cf. Figures 3 and 7), as befitting their apparent separate origins from *B. b. buteo* and *B. b. vulpinus*.

Description of plumages

Mountain Buzzard

Head and upper parts, including chin and undertail coverts, dark brown, lacking any rufous colouration (Figures 1 and 2).

Under parts of adult females appear mostly dark brown, with some white spotting, and lack the wide pale U-shaped area shown by Common, Steppe and Forest Buzzards (Figures 1 and 2). Under parts of adult males show equal amounts of white and dark brown; many have the breast more darkly marked than the belly, and some show a vague hint of a white U on the underparts (Figure 2). Leg feathers are heavily marked dark brown (Figure 2). Under wings are two-toned, with pale flight feathers contrasting with dark carpal patches and darkly-marked underwing coverts, including median coverts (contra Forest Buzzard; Figure 3). The upper tail is dark brown, lacking a rufous wash, with many narrow paler brown bands and a wide dark brown subterminal band (Figure 4).

Forest Buzzard

Head and upper parts brown, with a variable amount of rufous feather edging; whitish chin and the undertail coverts are unmarked (Figures 5–6). White under parts show a variable amount of brown spotting on the breast and belly, with a wide U-shaped area lacking spots between them (Figures 5–6). Some adults show brown barring on the flanks and belly (Figures 5–6). All but the palest birds show the distinctive white 'U' between the breast and belly (Figures 6–7). The underwings are white, with a rufous-brown wash on lesser underwing coverts and a dark 'comma' on each primary covert tip (Figure 7). The median coverts are unmarked, the leg feathers are uniformly rufous-brown, and the axillars are white with brown barring (Figure 7). The upper parts and upper tail are brown, with a rufous wash on both. Tails show many narrow dark brown bands and a wider dark brown subterminal band; occasionally, the undertail bands are indistinct (Figure 8).

Discussion

Mitochondrial DNA test results suggest that Old World *Buteo* spp. buzzards evolved rather recently, with few differences in DNA sequences (Krunkenhauser *et al.* 2004). However, there are sufficient genetic, structural and plumage distinctions between *trizonatus* and *oreophilus* to separate the two taxa as distinct. In addition to not forming a monophyletic group (Figure 3, Krunkenhauser *et al.* 2004: 204), they also differ structurally (Krunkenhauser *et al.*



Figure 1: Adult Mountain Buzzard under parts are dark brown with some whitish mottling, lacking a pale 'U' between breast and belly (Kenya, January). Photograph: by WS Clark



Figure 3: Adult Mountain Buzzard under parts are dark overall, lacking a pale 'U' between breast and belly; wing linings are dark, and wingtips are broad (Kenya, September). Photograph: by WS Clark



Figure 2: Adult Mountain Buzzards showing the dark brown overall coloration and lack of a pale 'U' between breast and belly. Females (left two) are more heavily marked than males (right three) (American Museum of National History (AMNH). Photograph by WS Clark



Figure 4: Adult Mountain Buzzards upper parts are dark brown overall; upper tail is dark brown with narrow pale bands and lacks any rufous coloration (AMNH). Photograph by WS Clark



Figure 5: Adult Forest Buzzard under parts are sparsely marked, with a pale 'U' separating breast and belly; often shows barred flanks (South Africa, August photograph: by WS Clark)



Figure 6: Adult Forest Buzzards under parts are sparsely marked, with a white 'U' separating breast and belly. Females are more heavily marked (left four), often with barred flanks, compared to sparsely-marked males (right three) (©Natural History Museum photograph: by WS Clark)

2004), with a significant difference in the extent of feathering of the tarsi (43% for *trizonatus*, and 36% for *oreophilus*; James 1986).

The Forest Buzzard most likely evolved from the Steppe Buzzard, *B. b. vulpinus*, which winters in the breeding area of Forest Buzzards. Forest Buzzards breed in a rather small area in a specific habitat (Palmer *et al.* 1985), whereas Steppe Buzzards are generalists that breed over a large area of Asia in a variety of habitats (Dementiev and Gladkov 1966). Some Steppe Buzzards stay in South Africa during the northern summer and are present when Forest Buzzards breed in September–October (Hockey *et al.* 2005). They are not known to breed in South Africa, but an adult buzzard



Figure 7: Adult Forest Buzzard under parts are lightly- to heavily-marked (darker individual) with a pale 'U' separating breast and belly; median underwing coverts are unmarked and wingtips are narrow (South Africa, August photograph: by WS Clark)



Figure 8: Adult Forest Buzzard upper parts are brown; the brown tail has narrow dark bands and usually shows a rufous cast. Note the indistinct tail bands on the second bird from left (©Natural History Museum photograph: by WS Clark)

photographed at a tree nest in a plantation near Cape Town in 2005 (O Curtis pers. comm.) was identified as a rufous-morph Steppe Buzzard, based on its plumage (Clark 1999). The mate was not observed; one young fledged from this

nest (O Curtis pers. comm.). Rob Martin (pers. comm. to Peter Ryan) has also seen apparent Steppe Buzzards breeding in the Overberg region near Theewaterskloof Dam (Western Cape). These observations do not change the species status of Forest Buzzard, because even if mixed-species pairs are involved, hybrids have been reported between other *Buteo* species (Clark and Witt 2006).

A specimen in the Natural History Museum, Tring (BMNH1965M.1273), has the plumage characters of an adult Forest Buzzard, but the label states that it was collected on Mount Kilimanjaro, in the range of the Mountain Buzzard. It was part of the Richard Meinertzhagen collection presented to the museum in 1954. Gustav Rudebeck pencilled on its label 'Locality probably South Africa.' Meinertzhagen is known to have stolen specimens from museums and colleagues to re-label them as his own from one of his expeditions (Rasmussen and Prys-Jones 2003). He apparently was unaware of the plumage differences between the two taxa, as Rudebeck (1957) had not yet been published.

Based on differences in habitat, structure and plumages and the absence of monophyly, I recommend that the Forest Buzzard be treated as a monotypic species — *Buteo trizonatus* — with the result that the Mountain Buzzard would then also be a monotypic species, *B. oreophilus*.

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