

Booted Eagle

Dwergarend

Hieraaetus pennatus

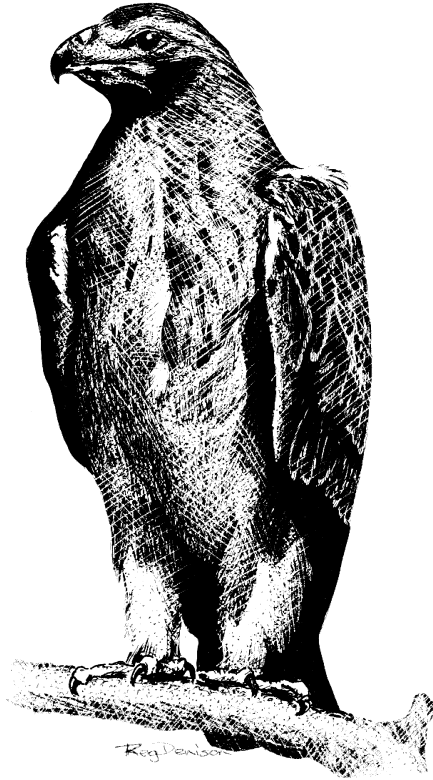
It appears that three separate populations of the Booted Eagle occur in southern Africa. One comprises birds that breed in the Cape Province and move northwards after the breeding season, the second is a small breeding population on the Waterberg (2017A) in northern Namibia, and the third consists of nonbreeding summer migrants from North Africa and Eurasia (Brooke 1974b; Brooke *et al.* 1980a; Steyn 1982b; Tarboton & Allan 1984; Brown 1985b; Brown & Cooper 1987).

The presence of the last has never been confirmed by direct evidence. Indirect evidence comes from observations of birds apparently migrating northward with other Palearctic migratory raptors (Newman 1977, 1978; Tarboton & Allan 1984). However, the local breeding population also moves north in autumn. The species' apparently aseasonal occurrence in the Transvaal (Tarboton & Allan 1984) could be explained by Palearctic migrants being replaced by visitors from the Cape Province during winter (Tarboton & Allan 1984). In the Swaziland lowveld it is recorded only in summer (Parker 1994). In Botswana, most records are from the wet season (October–March) with more records in relatively wet years, while winter records make up less than 10% of all observations (Herremans 1994d). Evidence of moult in a juvenile was incompatible with its having been bred in southern African (Brooke 1995a). It was claimed that Palearctic birds were present in the southwestern Cape Province during summer (Brooke *et al.* 1980a), but this has been questioned (Brooke 1995a; Martin & Martin 1995).

Local breeding birds are not subspecifically different from Palearctic birds (Brooke 1974b). It is usually found solitarily or in pairs, and it occurs in two colour forms, of which the pale morph is the most abundant (*c.* 80% of birds) (Brooke *et al.* 1980a). It is fairly easily identified, but the dark form can be confused with other medium-sized birds of prey. It is conspicuous as it soars at relatively low altitudes, but it is rarely seen at rest on cliff faces.

Habitat: It hunts in both hilly and open country but is restricted to breeding on cliffs in ravines and gorges. It is most common in the dwarf shrublands of the Karoo and in Fynbos, especially in the ecotone between these. Elsewhere it is recorded in a wide variety of habitats, including open woodland, grassland, desert and semi-desert. It is absent from forested and densely wooded areas. The highest reporting rates were in the Nama Karoo, Succulent Karoo, Namibian Escarpment, Southern Kalahari and Fynbos.

Movements: The models and seasonal maps indicate complex seasonality. In Zones 4 and 8, it decreased during winter and this reflects the northward movement of breeding birds after the breeding season. In Zone 2, reporting rates increased during winter and this area may be the destination of the southern breeding population. In Zones 5 and 6, most records came from summer, possibly reflecting the presence of Palearctic birds. However, there were also winter records for Zones 5 and 6, presumably of birds originating from the southern breeding grounds, unless some Palearctic birds overwinter. This



summer influx in the northeast is contrary to the finding of Tarboton & Allan (1984) that presence in the Transvaal was aseasonal. The seasonal distribution maps clearly illustrate the seasonal changes in relative abundance.

To summarize, the atlas data suggest that during winter the southern breeding population migrates largely to Namibia, and perhaps beyond, and that the summer population in the northeastern areas comprises mainly migrants from the Palearctic.

Breeding: Breeding was recorded in Zones 4 and 8, although it has recently been found breeding in the Waterberg in Namibia, and is suspected to breed in Kaokoland (Brown 1985b; Brown & Cooper 1987). Breeding in the far northwestern Cape Province is also suspected (Davidson 1982; Steyn & Grobler 1985). There is evidence that it may breed in the Transvaal (Tarboton & Allan 1984).

The atlas data span August–January, with a September–November peak. A September–November peak in egg-laying is given in the literature (Brooke *et al.* 1980a; Brown *et al.* 1982; Hockey *et al.*

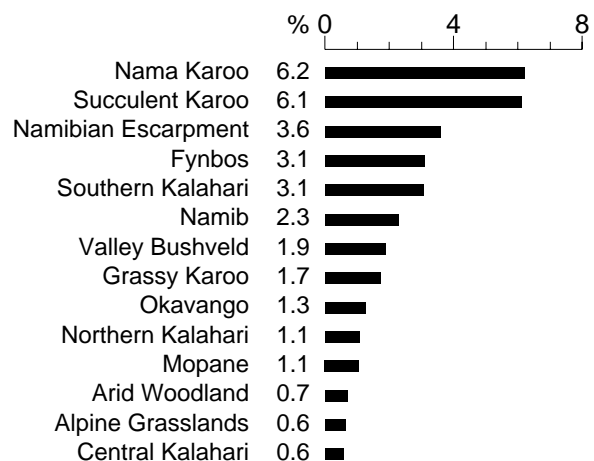
1989). The Waterberg breeding records, however, are from winter (Brown 1985b).

Historical distribution and conservation: The discovery that the Booted Eagle breeds in southern Africa is relatively recent (Brooke *et al.* 1980a; Brown 1985b). Previously its breeding, and even its presence, may have been overlooked (Brooke *et al.* 1980a). It is possible that the establishment of local breeding populations is a recent phenomenon, perhaps fostered by human land-use practices, and that the species is undergoing an increase in numbers and breeding range (Brown & Cooper 1987).

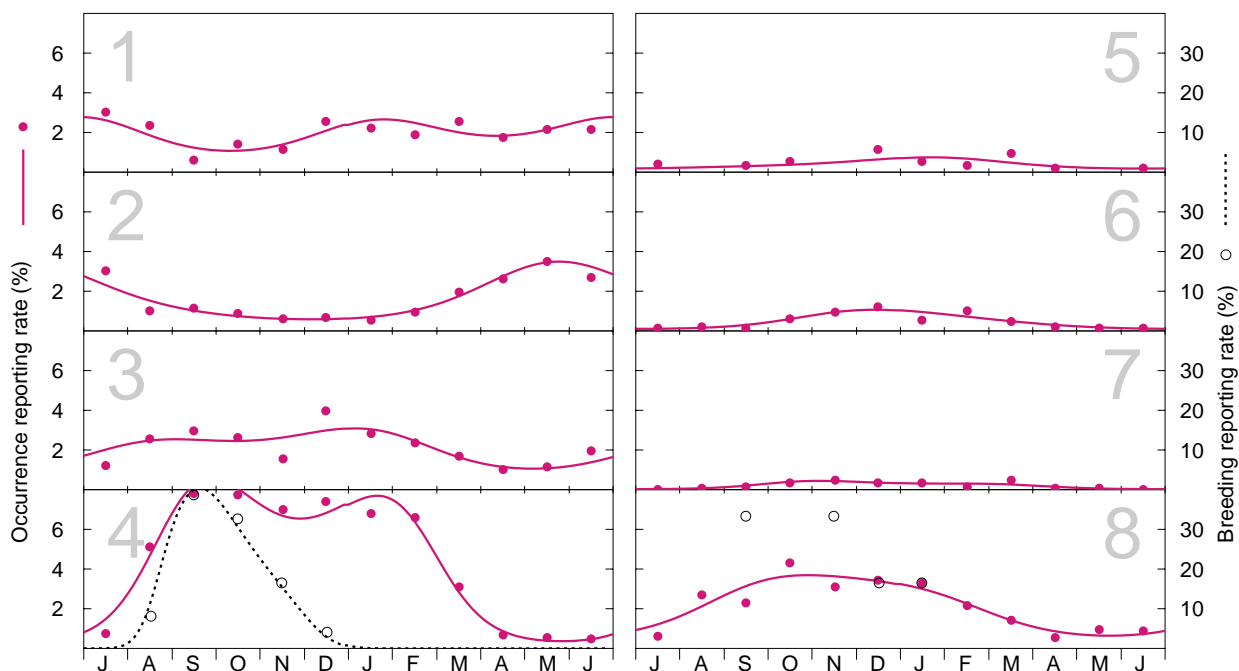
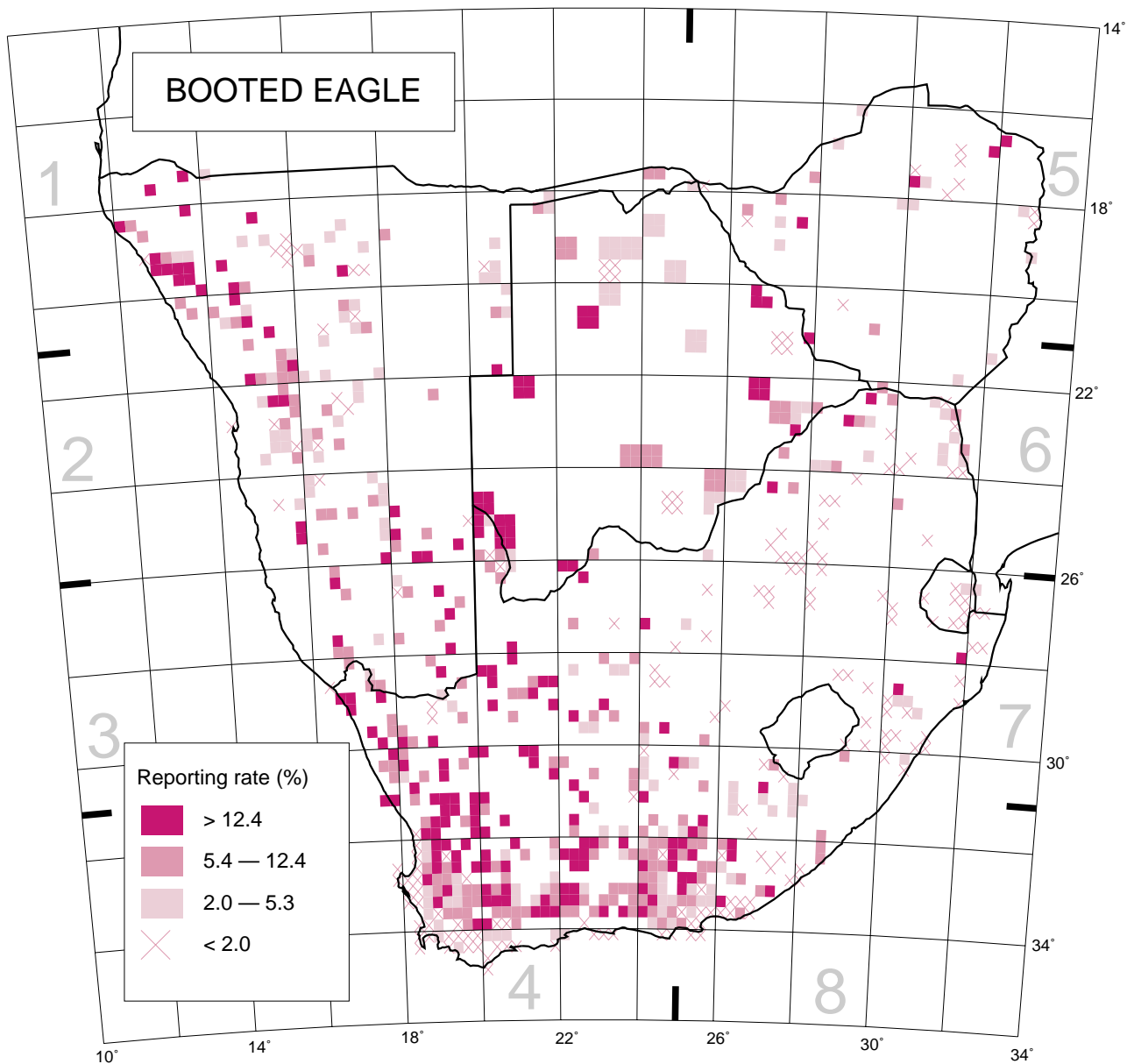
A.F. Boshoff and D.G. Allan

Recorded in 763 grid cells, 16.8%
Total number of records: 2245
Mean reporting rate for range: 3.5%

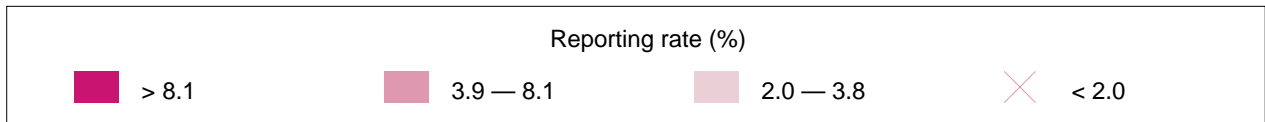
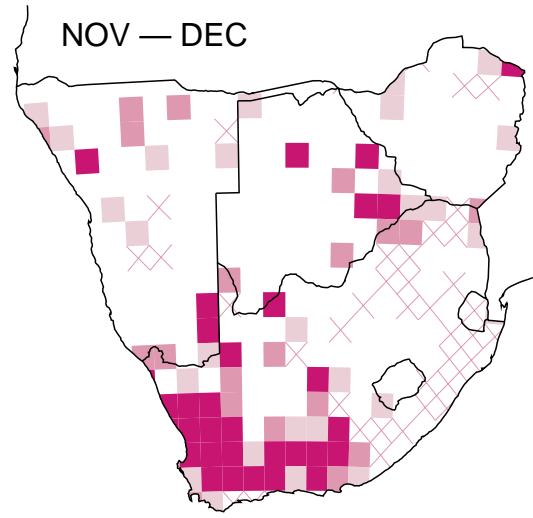
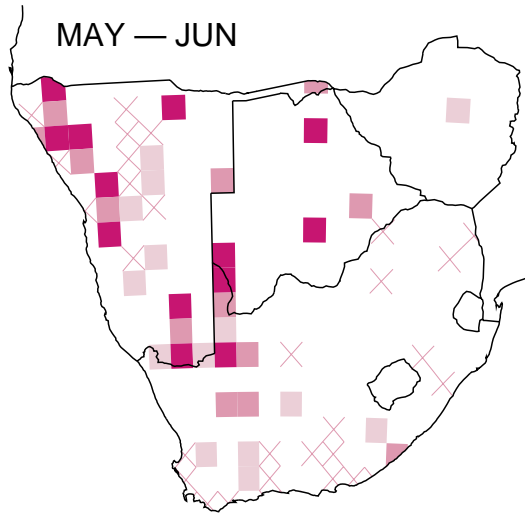
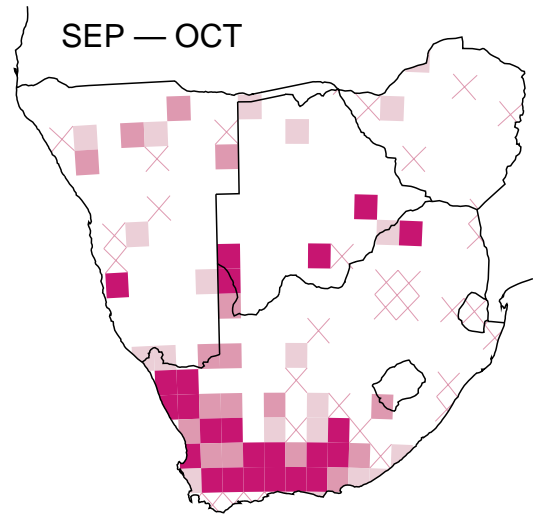
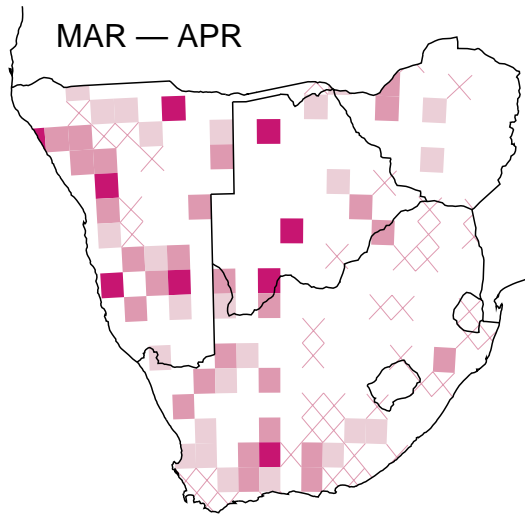
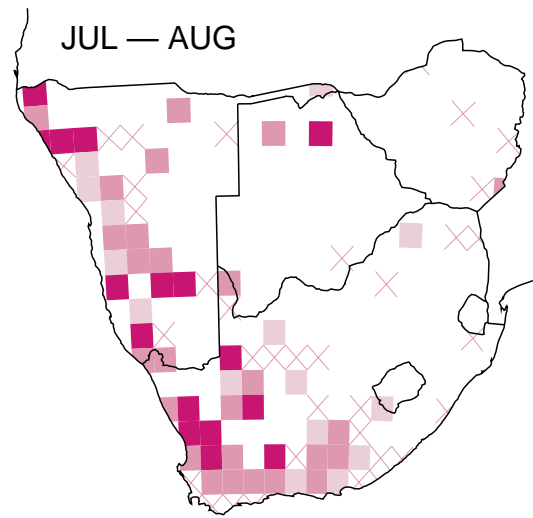
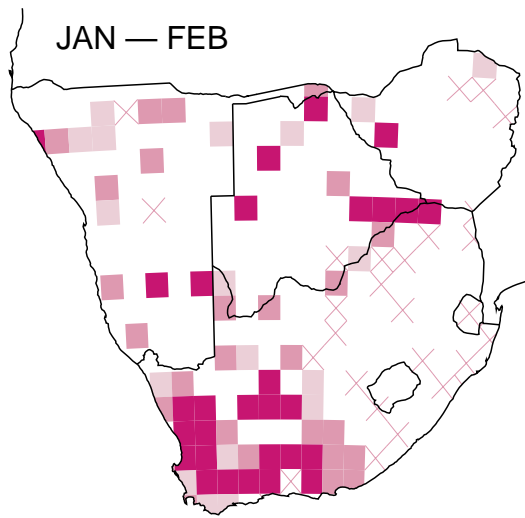
Reporting rates for vegetation types



Also marginally in East Coast Littoral, Mixed Grasslands, Sweet Grasslands, Miombo, Moist Woodland, E. Zimbabwe Highlands and Sour Grasslands.



BOOTED EAGLE



Seasonal distribution maps; one-degree grid.