



## Bearded Vulture

### Baardaasvoël

#### *Gypaetus barbatus*

The Bearded Vulture (Lammergeier) is found in the mountains of Eurasia, North Africa (*G. b. barbatus*), and northeastern and southern Africa (race *meridionalis*). The latter race has its stronghold in the highlands of Ethiopia (c. 4000 birds) with c. 50 pairs in East Africa. In southern Africa, 204 pairs were estimated in a breeding range of about 35 000 km<sup>2</sup> and a foraging range of almost three times larger, centred on the Drakensberg and Maluti mountains of Lesotho and adjacent areas (Brown 1992b; Mundy *et al.* 1992). A recent study located 13–14 nests in about 1100 km<sup>2</sup> of the northwestern highlands of Lesotho (Allan 1997). The atlas map coincides closely with the results of a detailed study of the species; the gaps in the southeastern parts of Lesotho and adjacent Transkei probably reflect poor coverage in this inaccessible area. The species' breeding density in southern Africa ranges from an average of about 6 km between nests along the high Drakensberg escarpment to about 15 km between nests in the Lesotho highlands and about 19 km in the northeastern Cape Province.

The Bearded Vulture is a large (c. 5.7 kg), distinctive bird with long, narrow wings (2.6 m wingspan) and long, triangular tail. Its flight silhouette, distinctive plumage and specific habitat make confusion with other species unlikely.

**Habitat:** It is found in mountainous terrain covering alpine, subalpine and montane grasslands, and breeds above 1800 m (highest nest at 3200 m) on basalt and sandstone cliffs (Brown *et al.* 1988), foraging along ridges and valleys, over communal, commercial and protected areas. Adult birds avoid human habitation while young birds are often attracted, and all age groups can be attracted to vulture 'restaurants'.

**Movements:** It is resident. Each pair nests in the same area each year and uses the site as a roost outside the breeding season. Only a small area immediately around the nest site is defended and home ranges overlap. Birds forage up to 90 km from their nest. Home ranges are smallest during the incubation and early nestling periods (c. 600 km<sup>2</sup>) and largest outside

the breeding season (c. 4000 km<sup>2</sup>). Young birds wander widely within their range, concentrating particularly in areas where adult densities are relatively low (Brown 1988c, 1990b). The slight increase in reporting rates during the winter months probably reflects increased use of artificial feeding sites during that time of year (Brown 1990b).

**Breeding:** It breeds mainly in caves high up on large cliffs, occasionally on ledges below overhangs, in midwinter. Egg-laying takes place in late May–July. Breeding is timed to synchronize maximum food availability in September–October with the time of maximum food demand, when the nestling is growing fast and only one parent can leave the nest to forage. Breeding records obtained during the atlas period reflect this extended breeding schedule of about 6–7 months.

**Interspecific relationships:** Although a scavenger, it specializes on bone and marrow (70% of diet), thereby reducing competition with other avian scavengers such as the Cape Vulture *Gyps coprotheres* and Whitenecked Raven *Corvus albicollis*. At a carcass they wait to one side until Cape Vultures have finished feeding, then disarticulate sections of the carcass and fly off with the bones. These they either swallow whole or, if too large, drop onto rocky outcrops (ossuaries) and break them into smaller pieces. Bearded Vultures fly early, usually two hours before Cape Vultures, and obtain most of their food in the early morning. Red meat is needed to feed the nestlings. This potential time of conflict coincides with the period of highest ungulate mortality and an abundance of meat.

**Historical distribution and conservation:** The Bearded Vulture is clearly a species vulnerable to the impacts of development and poor management practices. It became extinct in the Alps before the turn of the 20th century and has declined dramatically in North Africa and the Middle East. In southern Africa it has lost about 40% of its former range and population, mainly in the southern, southwestern (by 1940) and eastern (by 1970) Cape Province (Boshoff *et al.* 1978; Brown 1991b). It is classed as 'rare' (Brooke 1984b). Food is not a limiting factor, except in the intensive agricultural lands of the southwestern Cape Province. The main cause of mortality is poisoning (at least 70% of deaths), followed by gin traps, shooting and electrocution/collision with powerlines. Disturbance at nest sites is a cause of low reproductive output in Europe. Recent conservation measures, which have shown some success, include farmer education, development of vulture 'restaurants' and population monitoring. Further initiatives should include the total banning of poisons and gin traps for mammalian predator control, and environmental assessments of development projects to mitigate aspects which might impact negatively on these and other endangered species. The Lesotho Highlands Development Project may pose a severe long-term threat to the species, through the opening up of previously inaccessible parts of the Lesotho highlands (Allan 1997).

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Recorded in 92 grid cells, 2.0%

Total number of records: 858

Mean reporting rate for range: 13.5%

#### Reporting rates for vegetation types



