

# DISTRIBUTION OF CRANES IN ZAMBIA

TIM DODMAN

WWF-Zambia Wetlands Project, Lochinvar Unit, Box 660294, Monze, Zambia<sup>1</sup>

Zambia is a land-locked country in Central Southern Africa covering some 750,000 km<sup>2</sup> (Figure 1). Of this area around 6% comprises vast wetlands and swamp forests (WWF 1991), while about 13% of the country consists of wetland areas including dambos (Chabwela and Chinjanga 1992). As cranes are predominantly wetland birds, there is therefore a large extent of suitable habitat potentially available to them in Zambia.

Two species of crane live and breed in Zambia, the Wattled Crane (*Bugeranus carunculatus*) and the Grey Crowned Crane (*Balearica pavonina*). Zambia is more or less central to the world distribution of both of these birds.

Figures 2 and 3, respectively, show the distribution patterns of Wattled Cranes and Grey Crowned Cranes in Zambia, according to their recorded presence in quarter degree squares (D. Aspinwall *pers. comm.*). Probably the most central area for both species in the country is the Kafue Flats, but thereafter the distribution patterns are surprisingly different.

The Wattled Crane is much more widespread than the Grey Crowned Crane, especially in Western Province, where the latter is only resident around the Liuwa Plains. The Wattled Crane is widespread throughout this relatively flat area, occurring usually in small numbers on scattered dambos and in the Barotse floodplain. Interestingly it is the Grey Crowned Crane whose distribution more clearly represents the main wetland systems (Figure 1), with the Wattled Crane rather opportunistically exploiting minor wetland sites and probably moving more readily between them and the major wetlands. However, it is the Wattled Crane whose requirements are more closely aligned with true wetlands, and its wide distribution over the country indicates the extent and importance of Zambia's wetlands and seasonally inundated areas for this globally-threatened bird.

The greatest number of Wattled Cranes probably occurs in the Kafue Flats, seconded by the Bangweulu Basin. Western Province, especially the Liuwa Plains, also holds a good population. The Grey Crowned Crane is only poorly represented in Bangweulu, probably because of the extent of inundation and the relative paucity of short grasslands close to water.

Probably the greatest concentration of Grey Crowned Cranes is in the Luangwa Valley, where flocks of 300 to 500 were recorded in 1992 (ZOS 1992). Although the Luangwa Valley is not an extensive wetland system as such, it does contain a large number of seasonal ox-bow lakes and several

minor plains. The Grey Crowned Crane is a breeding resident here (Scott 1991) and the Wattled Crane an occasional vagrant (Berry and Stjernstedt 1989). Certainly this is not a suitable place for the Wattled Crane to breed, as water resources do not tend to last well through the dry season. The level of protection afforded by the parks and the general lack of disturbance in short grassland areas may also contribute to the suitability of this area to the Grey Crowned Crane.

The Wattled Crane is reported to show altitudinal preferences, usually occurring above 2,000 m in breeding season and below 1,000 m in non-breeding season (Urban in Urban, Fry, and Keith 1986). Benson *et al.* (1971) also note that it is uncommon at low altitudes, citing its absence from the Middle Zambezi Valley. However, in Zambia such factors must be regarded as secondary to the availability of suitable habitat - Wattled Cranes occur in most open areas where shallow water with sedges is present.

Other areas in Zambia where both cranes occur are the plains between Lakes Mweru Wantip and Tanganyika and in parts of Kafue National Park.

Although we have a fairly clear picture of the distribution of both cranes in Zambia, more information is needed on their status, particularly in Western and Northern Provinces, and on the vulnerability and threats facing the different populations. The importance of dambos, particularly for the Wattled Crane, should also be assessed and any regular migration patterns more clearly understood. Such information will help greatly in ensuring the conservation of these two important cranes in Zambia.

## ACKNOWLEDGMENTS

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<sup>1</sup>Present address: International Waterfowl and Wetlands Research Bureau, Slimbridge, Gloucester, GL2 7BX, United Kingdom.

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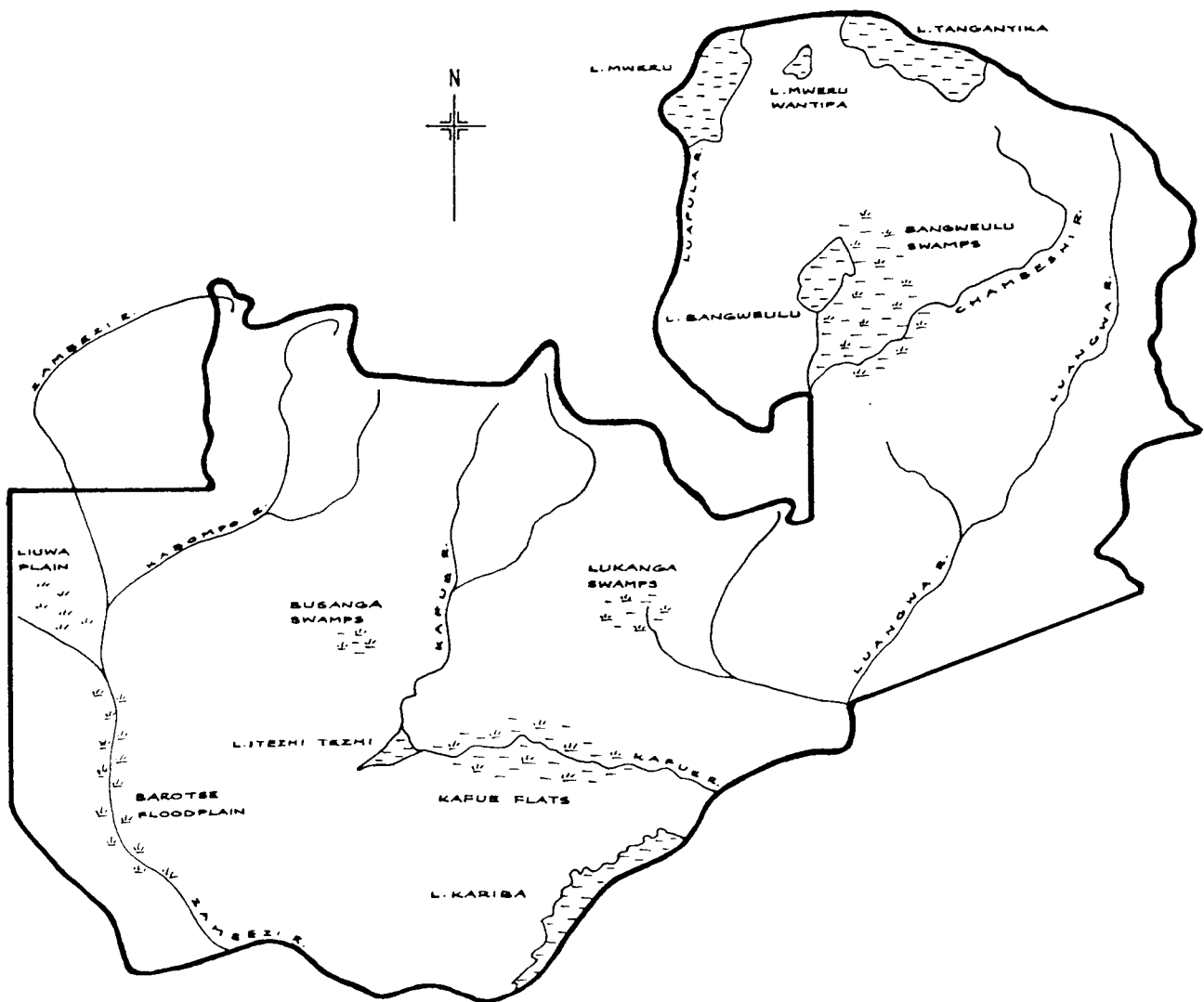


Figure 1. The main rivers and wetlands of Zambia.

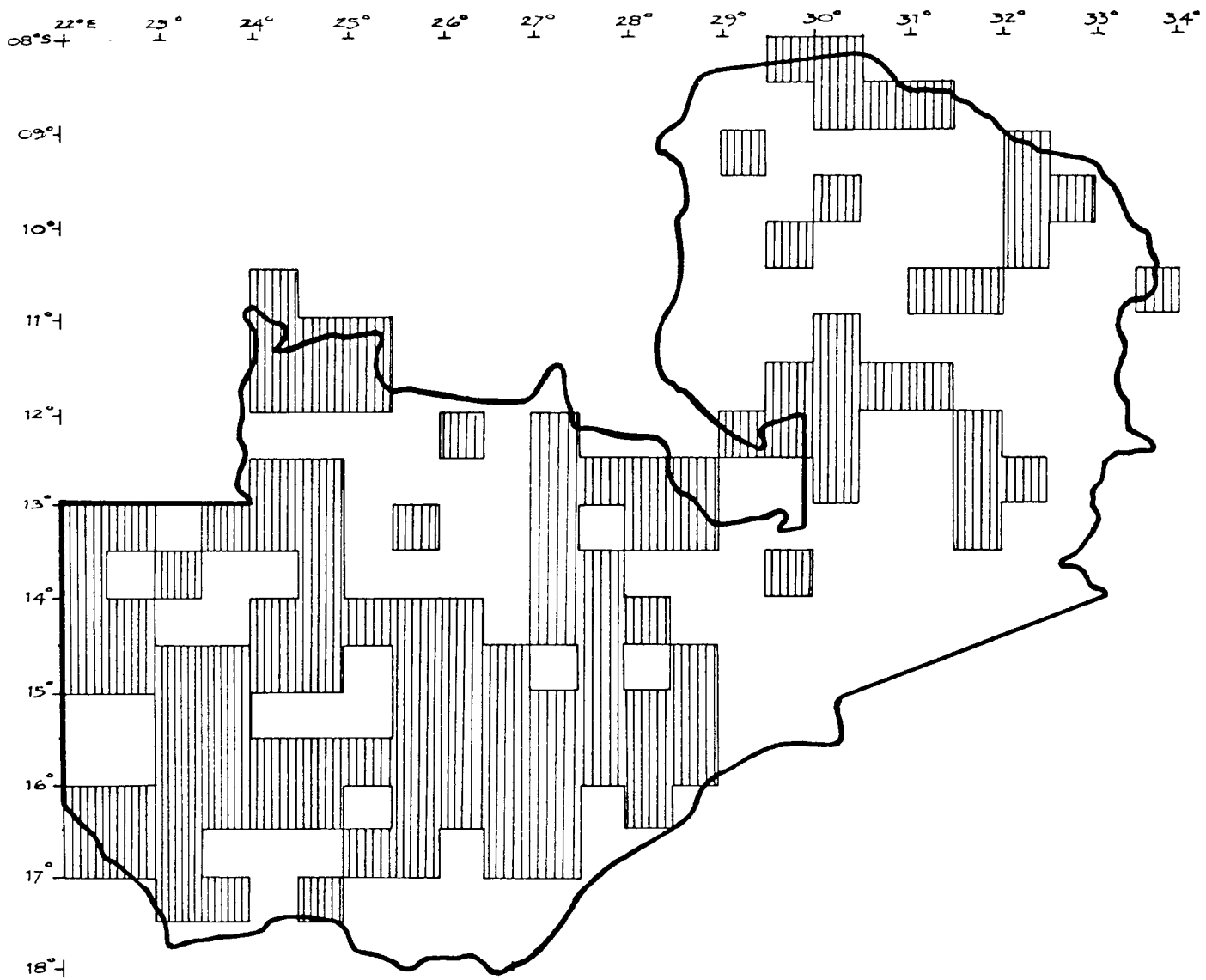


Figure 2. Distribution of the Wattled Crane in Zambia.

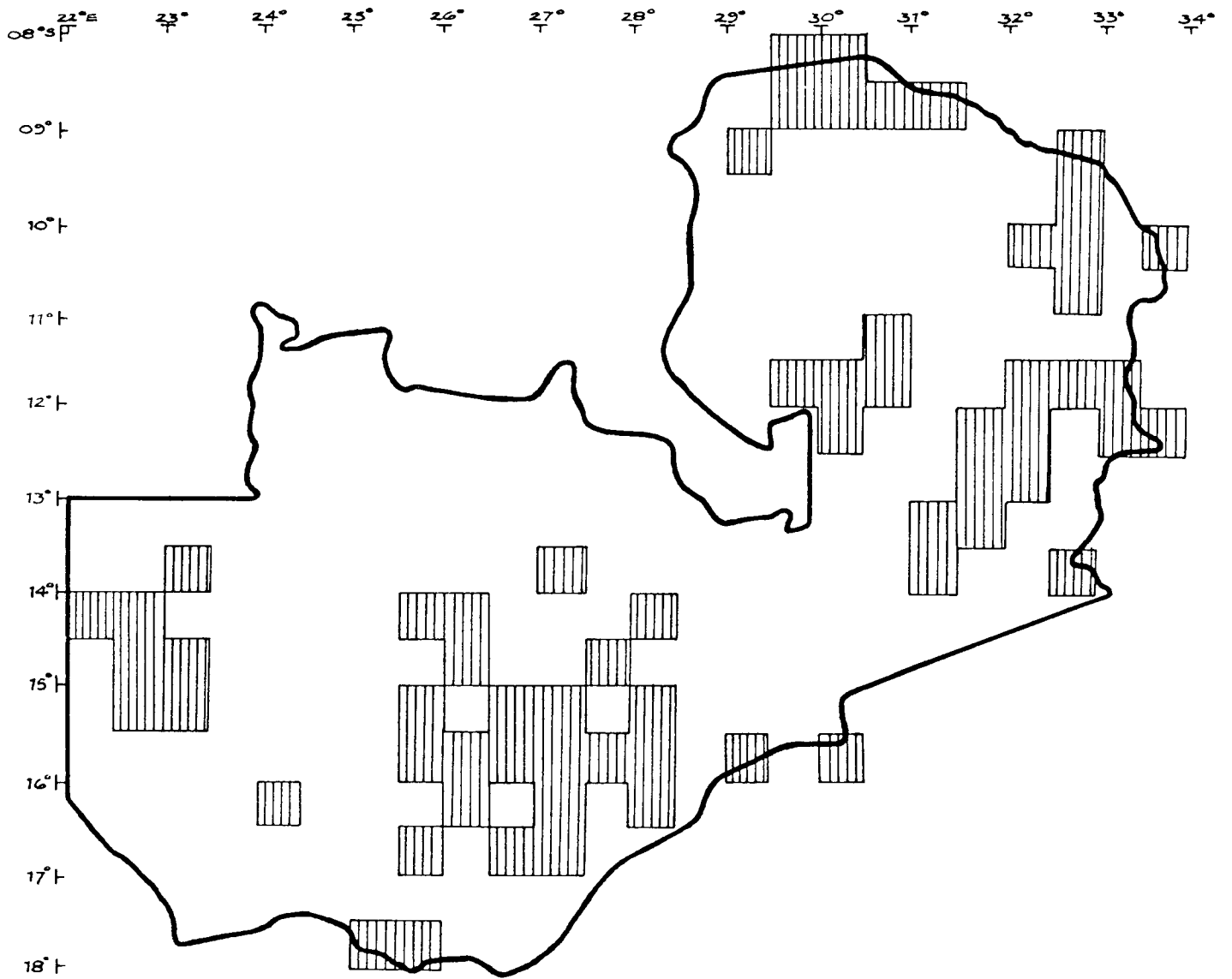


Figure 3. Distribution of the Grey Crowned Crane in Zambia.