

## Black Stork

### Grootswartooievaar

#### *Ciconia nigra*

The Black Stork breeds widely in the Palearctic region and is a partial migrant into sub-Saharan Africa, remaining largely north of the equator; none are known to reach southern Africa. The population in southern Africa is therefore isolated; it extends northwards into southern Angola, Zambia, Malawi, Tanzania and Mozambique (Siegfried 1967b; Brown *et al.* 1982; Del Hoyo *et al.* 1992).

It occurs mainly in the south and east of southern Africa, with scattered records in the central highlands of Namibia (Winterbottom 1971d). It is largely absent from the central Kalahari, Okavango Basin, Caprivi Strip, Namib Desert and Transkei. Reporting rates in the southwestern Cape Province were relatively low. Within the core of the range, there is an area of scarcity in the highveld of the southern Transvaal, northern Free State and western Swaziland (Tarboton *et al.* 1987b; Parker 1994).

Southern African birds are not subspecifically distinct from the Palearctic population (Clancey 1980b; Del Hoyo *et al.* 1992). The South African breeding population is *c.* 200 pairs, of which 50–70 pairs are in the Transvaal (Tarboton 1982; Brooke 1984b). A total of 83 nest sites are known from Zimbabwe and the breeding population is at least 120 pairs (Lorber 1982b; Tree 1982a; Cannell 1991). There are *c.* 10 breeding pairs in Swaziland and 10–50 in Lesotho (Osborne & Tigar 1990; Parker 1994). It occurs alone, in pairs or in flocks of up to *c.* 30 birds (Siegfried 1967b; Brown *et al.* 1982; Tarboton 1982).

**Habitat:** It feeds in shallow water, but occasionally on dry land, in streams and rivers (including those as large as the Zambezi and Orange rivers), marshes, floodplains, coastal estuaries, and large and small dams; it is typically seen at pools in large rivers (Siegfried 1967b; Brown *et al.* 1982; Brooke 1984b; Tarboton *et al.* 1987b). It is largely piscivorous and therefore uncommon at seasonal pans lacking fish. It nests on cliffs; the breeding distribution is closely associated with hilly and mountainous regions (Tarboton 1982).

**Movements:** There have been speculations about its movements within southern Africa (Siegfried 1967b; Irwin 1981; Tarboton 1982; Penry 1994), but it is regarded as largely resident, although nonbreeding birds wander widely (Siegfried 1967b; Tarboton 1982; Tarboton *et al.* 1987b; Osborne & Tigar 1990; Parker 1994). The seasonal maps and models reflect complex seasonal movements. The maps suggest an

influx into the western Cape Province and Namibia, January–April. The models show it to be less common in Zimbabwe (Zone 5) December–March, and there may be movement into the northwest of that country in late summer (March–April), as suggested by Irwin (1981). Its movements require further investigation, as does the possibility that some movements may involve birds to the north and northeast of the atlas region.

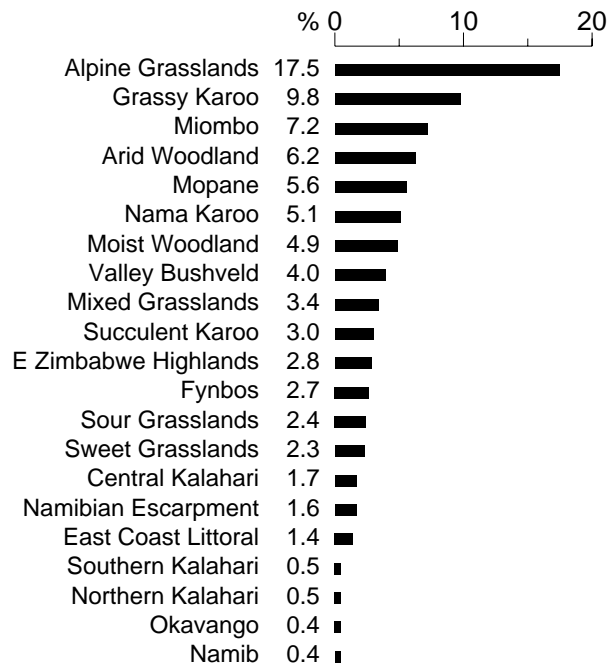
**Breeding:** The winter breeding season is apparently an adaptation to exploit the abundance of prey when many rivers and waterbodies are drying up (Siegfried 1967b). Egg-laying in Zimbabwe, Botswana and the Transvaal occurs April–September, mainly May–August, with a June peak (Lorber 1982b; Tarboton *et al.* 1987b; N.J. Skinner *in litt.*). Egg-laying data from the south and west are few and suggest a later laying peak, July–September (Winterbottom 1968a; Dean 1971; Brown & Clinning *in press*). The models confirm winter breeding, with most records June–November, also with slightly later breeding in the south.

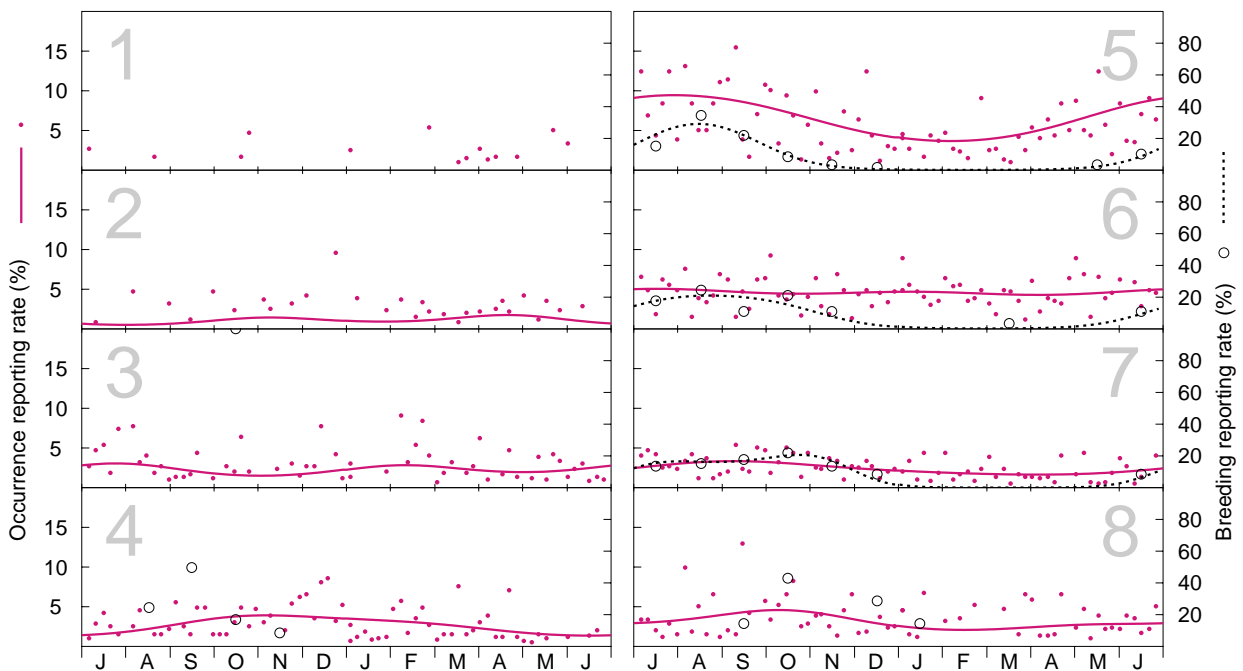
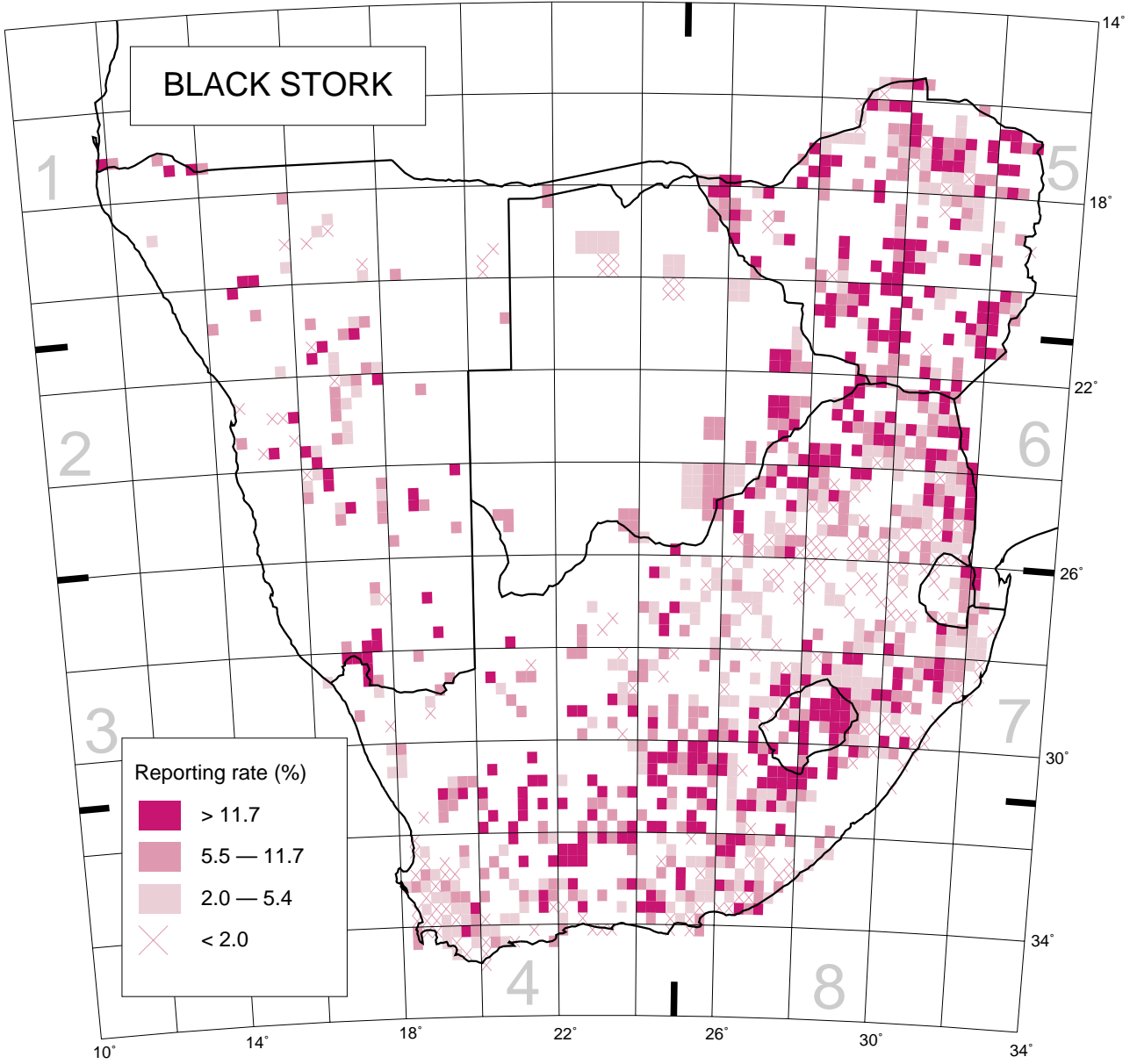
**Historical distribution and conservation:** Its conservation status was listed as ‘indeterminate’ in South Africa (Brooke 1984b) and as ‘vulnerable’ in Swaziland (Parker 1994). Although it is undoubtedly rare, there is no evidence for a population decrease (Lorber 1982b; Brooke 1984b). However, it has lost habitat through wetland degradation and the reduction of the natural flow of rivers, caused by commercial afforestation and water extraction in the upper reaches; this has been partly balanced by the construction of new habitat, especially dams, with introduced fish (e.g. Siegfried 1967b; Lorber 1982b). In Lesotho, the Highlands Water Project could result in disturbance and loss of breeding habitat (Osborne & Tigar 1990). In Zimbabwe, pesticide contamination is considered a potential danger (Lorber 1982b). Another threat faced by the Black Stork is persecution at commercial fish farms (Siegfried 1967b; pers. obs).

D.G. Allan

Recorded in 1219 grid cells, 26.9%  
Total number of records: 5561  
Mean reporting rate for range: 5.7%

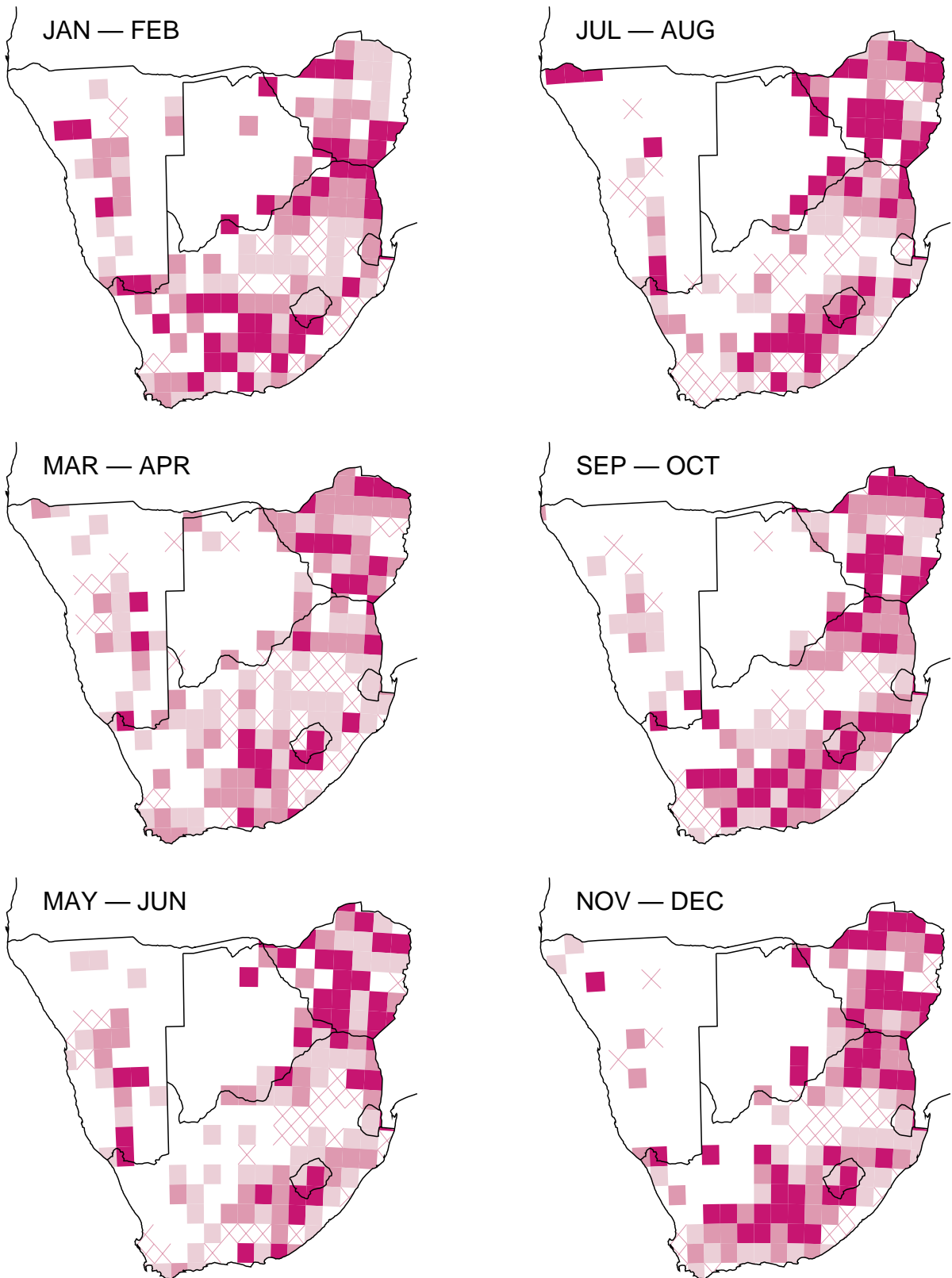
#### Reporting rates for vegetation types





Models of seasonality for Zones. Number of records (top to bottom, left to right):  
 Occurrence: 19, 40, 128, 230, 577, 526, 463, 172; Breeding: 0, 0, 1, 12, 58, 28, 45, 7.

## BLACK STORK



Reporting rate (%)

&gt; 8.6

4.7 — 8.6

2.0 — 4.6

x &lt; 2.0

Seasonal distribution maps; one-degree grid.