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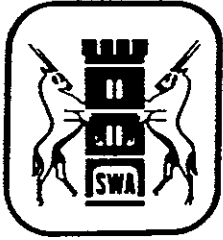
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# Invasive alien organisms in South West Africa/Namibia

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Edited by C J Brown, I A W Macdonald and S E Brown

This report results from a workshop organized by the Directorate of Nature Conservation and Recreation Resorts in Windhoek, and is produced in conjunction with the Council for Scientific and Industrial Research

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## CHAPTER 10 INVASIVE ALIEN BIRDS IN SOUTH WEST AFRICA/NAMIBIA

C J Brown

### INTRODUCTION

There are three species of invasive alien birds which have established wild, self-sustaining populations in SWA/Namibia. These are Columba livia, Passer domesticus and Sturnus vulgaris.

### SPECIES ACCOUNTS

Columba livia. Feral pigeons are derived from domestic pigeons which have escaped and established wild, self-sustaining populations. The ancestor of these domestic pigeons is the wild rock pigeon of Europe, India, west Asia and north Africa. Nearly a century ago, Darwin estimated that there were about 150 different domestic varieties sustained by fanciers for pleasure and sport. Rowan (1983) estimates that there are more than 5 000 pigeon fanciers in southern Africa, with more than 150 000 birds. Domestic pigeons were probably introduced into southern Africa at the time of the earliest European settlers. Since then, birds have been, and still are, frequently imported.

In SWA/Namibia at present domestic pigeons occur in all towns and villages, and on many farms. The distribution of self-sustaining feral populations, however, is probably restricted to the urban areas of Windhoek (2217CA), Walvis Bay (2214 DC) (Sinclair 1984) and Luderitz (2615CA). Because these birds are allowed to fly freely from their lofts it is often difficult to distinguish feral from domestic birds. Control of feral populations has not been attempted but would probably be reasonably easy, although continuous recruitment from domestic stock would be likely to occur. Populations are apparently self-limiting, however, as only three small, urban areas have become infested after many years of exposure to domestic pigeons. Potential habitat for this species would appear to be restricted to cities, towns and possibly villages, as these birds usually feed in streets and other public places. They probably compete most closely with rock pigeons Columba guinea, but these usually fly out of towns to forage. Both species use similar nesting sites in cities, but there would appear to be a superabundance of these sites, and it is likely that food is a more important factor limiting feral pigeon numbers. There are no records to date from SWA/Namibia of raptors such as lanner falcons Falco biarmicus moving into towns to feed on feral pigeons.

Hybridizations between feral and rock pigeons have been achieved in captivity, but the fertility rate and the subsequent survival rate of the nestlings are extremely low. In addition the behavioural characteristics of the two species in the wild state are too different for successful interbreeding to be likely. Although hybrids were once popular amongst pigeon-fanciers these have now gone out of fashion as they have a weakened homing instinct, which persists even into the second and subsequent generations.

Feral pigeons are not considered a threat to indigenous birds in SWA/Namibia, and management of this species is not considered important at this stage.

Passer domesticus (Map 22). Birds of this species were introduced to Durban at the end of the nineteenth century, probably by Indians imported for work in the sugar belt, as this subspecies P d indicus is native to Asia. Although the European race P d domesticus was introduced in a number of places (eg East London, Cape Town) in 1930, the influence of this subspecies is now barely detectable in southern African samples.

The spread of P domesticus through SWA/Namibia has been extremely rapid. The earliest records of this species date from the late 1950's and early 1960's. Vierke (1970) shows them at Ariamsvlei and Aroab, in the extreme south-west of the country, between 1957 and 1960, and Winterbottom (1969) mentions a record on the SWA/Namibia - Cape Province border just south of Warmbad from 1959. Uys (1962) recorded P domesticus at Grünau in June 1961. Von Schwind (1963) discusses this record and remarks on earlier sightings in the same district. An editorial footnote to his article mentions records of this species from Windhoek in 1962, although Winterbottom (1965) records P domesticus at Mariental in 1964 and states that this is the northernmost limit recorded. It is interesting to note that Harwin and Irwin (1966) describe the spread of P domesticus in south-central Africa as consisting not of regular point to point progressions, but rather as a series of irregular jumps. This is confirmed by Vierke (1970) who plotted the spread of this species in southern Africa up to 1969, and suggested possible routes of invasion. Other records from the 1960's show that these birds were present in Swakopmund by 1964 (Bierberg 1965), Luderitz by 1965 (Becker 1965) and north of Omaruru (farm Etembe) by 1967 (Immelman 1967). By 1969 P domesticus had reached the farm Heliodor on the eastern border of the Etosha National Park and was recorded at the eastern entrance gate in 1972 (Becker 1972). By 1975 it had firmly established itself at Namutoni (Clinning and Jensen 1977) and in 1976 was first recorded at Okaukuejo (H H Berry pers comms). Maclean (1985) indicates that this species is distributed throughout SWA/Namibia with the exception of the extreme north-west of the Skeleton Coast Park and Kaokoland and the Caprivi. It would appear that even these areas are rapidly becoming colonized. It is reported to have been resident at Springbokwater since 1980, to have been seen occasionally at Ugab Mouth, although not having settled there as yet, and one male and one female to have arrived at Möwe Bay in 1984 (Macdonald and Nott in press). It would also appear to be spreading into the Caprivi, having been sited at Chinchimane in March 1985, although colonization of this area could have originated from Botswana or Zimbabwe.

P domesticus is a commensal of man, occurring in built-up areas, around farmyards and in gardens. Potential habitat includes all farms, villages and kraals which have not yet been colonized. It would be almost

impossible to eliminate the species from SWA/Namibia, as recolonization from adjacent areas would probably take place as quickly as areas could be cleared. No control of this species has been attempted, and none is recommended. As it is so reliant on human habitation this bird is not considered to be a threat to indigenous species.

Sturnus vulgaris. This species was originally introduced to southern Africa by Cecil Rhodes, who imported these birds to Cape Town in 1899. They subsequently spread rapidly along the south and east coasts, reaching Port Elizabeth in 1955, East London in 1966 and the southern Natal border in 1983. The distribution of this bird in SWA/Namibia has not changed over the past 15 years. It is only found at Oranjemund, where it has been recorded since 1970. It appears to be restricted to the urban areas and fruit orchards of this region (loci: 2816 CB and DA). It has been suggested that the arid conditions (lack of fruit and hard compacted ground which prevents probing with the bill for insects) and large distances between Oranjemund and other towns/villages have prevented it from spreading further. If it were to establish a population further north (eg in Windhoek) it could be expected to spread quite rapidly. Potential habitat consists mainly of cities, towns and villages, but farms in the higher rainfall areas of the country (north-east) could perhaps also be suitable. Insects and soft fruits form the main food items of this species.

The present population would probably be fairly easy to control, but recolonization from the south would continually take place. No control has so far been attempted, and none is recommended at this stage, as the ecological impact of this species in this country can be considered to be minimal. It is, however, recommended that any populations establishing at centres north of Oranjemund be systematically eradicated.

#### DISCUSSION

The Department of Agriculture and Nature Conservation has taken the following precautionary measures in order to guard against other alien species of birds, which could establish feral populations, being introduced into the country:

- (1) At present, no individual is allowed to keep more than 10 birds of any species.
- (2) It is recommended (though not yet law) that aviculturalists who require more than 10 individuals of each species keep no more than 10 birds per cage.
- (3) Certain notoriously invasive species (eg Acridotheres tristis) are not allowed into the country.
- (4) Applications for import permits for species not known to the staff in the permit office are referred to the Department's ornithologists.