

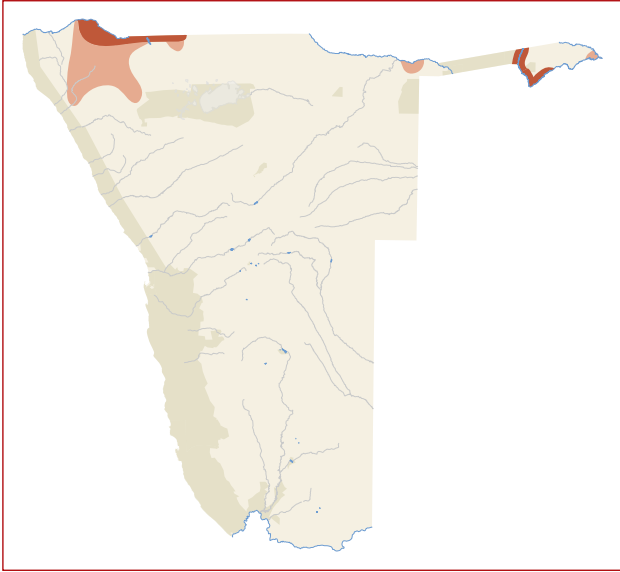
YELLOW-BILLED OXPECKER | *Buphagus africanus*

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Conservation Status:	Endangered
Southern African Range:	Northern Namibia, northern Botswana, northern South Africa, Zimbabwe
Area of Occupancy:	21,300 km ²
Population Estimate:	Fewer than 1,000 individuals
Population Trend:	Declining, 81% in 15 years in north-east Namibia
Habitat:	Dry deciduous woodland and associated open savannah
Threats:	Frequent and extensive veld burning, drought, poisoning, drowning



DISTRIBUTION AND ABUNDANCE

This species is found in West and southern Africa, but is much less common and widespread than the Red-billed Oxpecker *B. erythrorhynchus* in the southern part of the continent (Mundy 1997e). During SABAP1, the average reporting rate of Yellow-billed Oxpeckers was about half (16% from 225 quarter-degree squares) of that of Red-billed Oxpeckers (31% from 680 quarter-degree squares). In Namibia, it is confined to the more mesic areas of the Caprivi Strip, particularly the Kwando River and the eastern floodplains of the Zambezi-Chobe system (D Ward unpubl. data). A second, growing population is located along the Kunene River Important Bird Area from Epupa Falls to east of Ruacana (Mundy 1997e, Simmons *et al.* 2001b, W Swanepoel unpubl. data) and south of the Kunene River as far as Purros (W Swanepoel, N Thomson, D Ward unpubl. data). Single birds have been reported as far south as Monte Christo, near Windhoek (Thomson 2012).

Population size in the Zambezi region of Namibia was investigated in 1983 and 1984 and was estimated at 2,062 to 2,613 birds (Stutterheim & Panagis 1985, Brown & Brown 1987). Three sets of counts done 15 years later, in 1997 and 1998, showed that the populations had decreased to about 330 birds in the Zambezi region, and to a total of 484 birds for the whole of north-eastern Namibia (Robertson & Jarvis 2000). All estimates were based on the proportion of birds seen on cattle – their main host in this region. The decline in the Zambezi region occurred despite a threefold increase in cattle numbers in the region during this period and represents a massive 81% decrease in Yellow-billed Oxpecker populations over this period (Robertson & Jarvis 2000). Recent data suggests their distribution in the Zambezi

region has continued to shrink. In September 2011, a seemingly healthy number of 70 birds were seen on one herd of 273 buffalo.

The Kunene population is poorly studied, but a river survey from Ruacana to Epupa and the Baynes Mountains in March 1997 recorded birds on seven days out of the 10-day survey (RE Simmons unpubl. data). The number of cattle in the Kunene region has increased greatly since 1980 (K Verwey pers. obs.); this could explain the expanding population of oxpeckers (or the likelihood of seeing cattle and associated oxpeckers) there. Incidental sightings of birds between February 2011 and June 2012 throughout the northern parts of the Kunene region suggest a preference for both cattle and donkeys as hosts (W Swanepoel, D Ward unpubl. data).

Elsewhere, its range is limited, occurring only in Botswana's Okavango Delta, west and south-east Zimbabwe, and the far northern parts of Kruger National Park in South Africa (Mundy 1997e). Maximum population size in South Africa is estimated at 150 to 300 pairs (Barnes 2000a). There is no population estimate for southern Africa but Mundy (1997e) suggested that the population was naturally increasing in other parts of southern Africa, stating "...it is now clearly well on the way to recovery..." with the decrease in arsenic-based cattle dips. The situation in Namibia, at least with respect to the population in north-east Namibia, is clearly at odds with this statement.



ECOLOGY

The Yellow-billed Oxpecker prefers well-wooded areas near northern Namibia's perennial rivers, where tick-carrying hosts are numerous and trees provide suitable nesting holes. However, the presence of oxpeckers on the eastern floodplain of the Zambezi River, where trees tend to occur in raised islands surrounded by grassland, indicates that birds do occasionally occur in more open habitats. Judging by the habitats into which the oxpeckers retreat during times of population decline, the riverine woodland associated with the lower Okavango River, the Kwando River and Linyanti Swamps are preferred in Namibia (Robertson & Jarvis 2000). Yellow-billed Oxpeckers breed from September to March elsewhere in southern Africa. Only three breeding records exist for Namibia, with eggs laid in November (two) and December (one) (Brown *et al.* 2015). Little is known about their population dynamics or ecology in Namibia.

The Yellow-billed Oxpecker is larger than and dominant over the Red-billed Oxpecker. Although both are associated with Buffalo *Syncerus caffer* and Black Rhinoceros *Diceros bicornis* in their natural

environment and presently occur mainly on domestic cattle, they have different feeding preferences. The Yellow-billed Oxpecker feeds on the Bont Tick *Amblyomma variegatum*, which is plucked or hammered from its host, while the Red-billed Oxpecker prefers the Blue Tick *Boophilus decoloratus*, which is scissored from its host (Bezuidenhout & Stutterheim 1980, Mooring & Mundy 1996). The Bont Tick's preference for cattle and buffalo as hosts may explain the prevalence of the Yellow-billed Oxpecker on these animals in north-east Namibia, although there are occasional sightings of birds on donkeys, kudu, impala, roan and hippos (D Ward unpubl. data).



THREATS

Historically, this species suffered severe range restrictions because of the use of arsenic-based cattle dips, which rid cattle of ticks, killing birds directly (Stutterheim 1982). Most farmers have now turned to bird-friendly cattle dips (Mundy 1997e), but Namibia's resident population continues to decline in the north-east. There are two proposed reasons for this (Robertson & Jarvis 2000). Firstly, veld burning is a known and practiced method of controlling tick numbers (Petney *et al.* 1987, Spickett *et al.* 1992). The high frequency of fires in this region, where up to 60% of the entire land area may be burnt in any one year (Mendelsohn & Roberts 1997), is the most likely reason for reduced Yellow-billed Oxpecker numbers. By contrast, the ticks preferred by Red-billed Oxpeckers are not as severely affected by fire (Spickett *et al.* 1992). Secondly, the Bont Tick is often absent from habitats where annual rainfall ranges between 400 mm and 750 mm and where grass cover is short (Petney *et al.* 1987). North-east Namibia experienced lower than average rainfall of approximately 550 mm at Katima Mulilo from 1982/1983 to 1995/1996, relative to a long-term average of 683 mm (Mendelsohn & Roberts 1997), in the period when oxpecker numbers were assessed. Because of a lack of antelope in the Kunene River valley and surrounds, the Yellow-billed Oxpecker population there appears to be entirely dependent on the local inhabitants' livestock; when the local Himba and Zemba people and their livestock vacate a certain area, for example during a drought, the oxpeckers appear to follow (W Swanepoel pers. comm.). Rainfall is less likely to play a decisive role on the population trends of the Yellow-billed Oxpecker than the increasing frequency and extent of burning. However, severe drought conditions will probably have a significant negative effect.

Drowning is not seen as a widespread problem, but has been reported from Ruacana in August 1997, when three birds were recorded as having drowned in horse drinking troughs (P Lane pers. obs.).



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CONSERVATION STATUS

This subspecies is classified as *Endangered* in Namibia because of the 81% decline in numbers in 15 years (assumed to be longer than three generations) of the population in the Zambezi region. This, together with the small population size, is sufficient to qualify it for *Critically Endangered* status (IUCN criterion A2), but the reasons for the recorded decline may be rainfall related, suggesting that the decline may be reversible and therefore represent a short-term fluctuation. Because of this uncertainty, it is given *Endangered* status. Given the current rate of decline, however, it may disappear from north-east Namibia in the next decade and for this reason should be given *Specially Protected* status in revised or new Namibian Parks and Wildlife legislation. The species is not considered threatened globally (IUCN 2012a).



ACTIONS

As annual rainfall has increased somewhat in the Zambezi region in recent years, both Yellow- and Red-billed Oxpecker numbers may have increased and should be reassessed in order to fully understand the mechanisms that have reduced numbers there in the last three decades. The population in the Kunene region is completely unstudied and the methods of assessing numbers per ungulate host employed by Brown & Brown (1987) and Robertson & Jarvis (2000) for the Zambezi region should be used to assess population size in the Kunene region. This would be an informative comparison, as veld-burning is a practice that is not used in this region.

It is possible that some farmers may continue to use arsenic or other dips lethal to birds for their cattle, and any future assessment should clarify and attempt to reduce the incidence of such use. The possibility of reintroduction of oxpeckers into areas where large game populations occur (e.g. Waterberg Plateau Park), as used in South Africa (Grobler 1979), should be assessed, taking into account the limiting factors of fire regime and rainfall.