

PEREGRINE FALCON | *Falco peregrinus*

RE Simmons | Reviewed by: A Jenkins



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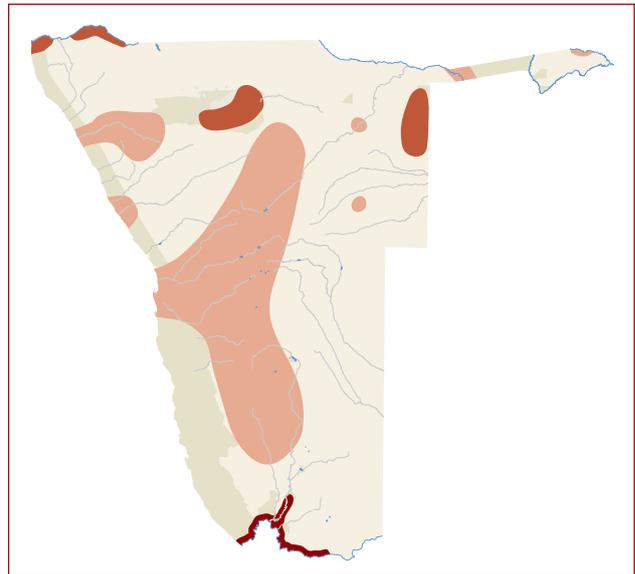
Conservation Status:	Near Threatened
Southern African Range:	Namibia, Botswana, South Africa, Zimbabwe
Area of Occupancy:	52,500 km ²
Population Estimate:	70 to 100 pairs
Population Trend:	Possibly declining
Habitat:	Sheer cliffs
Threats:	Pesticides, collision with power cables and fences



DISTRIBUTION AND ABUNDANCE

The resident African subspecies *Falco peregrinus minor* of this cosmopolitan species is widespread but scarce throughout its range from Morocco in the north to the southern Cape coast of South Africa (del Hoyo *et al.* 1994). The known southern African population is approximately 850 pairs, with about 400 pairs in South Africa (Barnes 2000a), 300 pairs in Zimbabwe (Hartley 2000), and 150 pairs in Botswana and Namibia (A Jenkins pers. comm.). In Namibia, it is thinly spread across the entire country, but some of those recorded were probably the migratory subspecies *F. p. calidus* (Jenkins 1997f). There is a tendency for African Peregrine Falcons to occur mainly in the western regions where montane breeding habitat is more common, and along the Kunene and Orange rivers (Jenkins 1997f).

The Namibian population has not been assessed, but breeding pairs are found along the Kunene River (one pair in 11 km: RE Simmons unpubl. data), one pair in the dry Ugab River (Braby *et al.* 1987), three to 14 pairs around the Waterberg Plateau Park (Brown & Cooper 1987, Simmons 2002), and eight to 12 pairs along the cliffs of the Orange River (Barnes 2000a). One nest site is known from the Erongo Mountains and suitable cliffs occur on the western escarpment of the same range (PE Barnard, RE Simmons



pers. obs.). One pair is known to inhabit the Swakop River gorges and others probably occur in the Kuiseb River canyon (R Braby pers. obs.). Birds and presumably breeding pairs are recorded from the ephemeral rivers of the Skeleton Coast and the Fish River (Jenkins 1997f) where suitable cliffs exist for breeding (Braby *et al.* 1987, J Paterson pers. comm.). From these surveys, it is estimated

that 70 to 100 pairs of Peregrine Falcons occur in Namibia. Its area of occupancy in Namibia is 52,500 km² (Jarvis *et al.* 2001), the mean reporting rate during the SABAP1 atlasing period across southern Africa was 2.6% (Jenkins 1997f), and an average of 0.34 birds per 1,000 km have been seen during Namibian raptor road counts (Jarvis *et al.* 2001).



ECOLOGY

The resident African subspecies prefers any areas where sheer cliffs occur, particularly where these overlook suitable prey habitat such as woodlands or wetlands (Hustler 1983, Jenkins 1994). Vegetation types are relatively unimportant if suitable cliffs are available (Jenkins 1997f), and the linear oasis effect of desert rivers may be sufficient to concentrate bird prey (Braby *et al.* 1987, Simmons & Allan 2002). It breeds mainly in the spring (August to December), with a tendency to breed later at higher latitudes (Jenkins 1997f). Breeding records from Namibia are sparse, but egg-laying has been recorded in August (one record), September (five records) and October (one record: Brown *et al.* 2015) with broods of two to three young (Jarvis *et al.* 2001). Data from the Orange River gave an average of 1.7 young per pair, fledged from eight pairs over 47 pair years (Jenkins 2000). Warm spring weather appears to improve fledging success in mesic environments (Jenkins 2000), but this may not necessarily be the case in the more arid Namibian environment.

The Peregrine Falcon feeds exclusively on birds, especially medium-sized birds such as pigeons and doves, but will also tackle (unsuccessfully) larger species up to the size of the Lesser Flamingo *Phoeniconaias minor*, and regularly takes species smaller than doves (Jenkins & Avery 1999).



THREATS

There are few threats to this species in Namibia, given its relatively remote breeding sites. However, pesticides such as Dieldrin and DDT are regularly used in Namibia for the control of malaria and Tsetse Fly *Glossina* spp. (CJ Brown, A Kock unpubl. data), and these may find their way into the environment. This is not likely to affect Peregrine Falcons on Namibia's coast, because there is little pesticide use there. In cases where soil temperatures are high, the likelihood that evaporation will reduce levels of DDT or DDE (a derivative of DDT) in the food chain are also high, thereby potentially reducing the contamination levels higher in the food chain in hotter environments (CJ Brown, A Kock unpubl. data). However, DDT and other lethal chemicals are clearly contaminating food chains in southern Africa and are entering the raptor community, resulting in thinner eggs and higher mortality in cooler climates (Curtis & Jenkins 2001). If malaria becomes more prevalent with increasing global temperatures (Rogers & Randolph 2000), then pesticide

usage is likely to increase and may, in turn, impact highly sensitive bird-eating raptors such as Peregrine Falcons in central regions or along rivers. The use of pesticides along the Orange River and discoveries of dead raptors there (Simmons & Allan 2002) suggest that Peregrine Falcons breeding there may be at risk. Elsewhere, collision with power cables and fences have caused injuries and fatalities in South Africa (A Jenkins unpubl. data), and this requires monitoring in Namibia.



CONSERVATION STATUS

This subspecies is classified as *Near Threatened* because of apparent, but difficult to interpret declines in the Waterberg Plateau Park region: 14 pairs were recorded there in helicopter surveys in 1984 (Brown & Cooper 1987) but only six birds (one definite pair), representing at most three pairs, were recorded 16 years later (Simmons 2002). Birds nesting in the Ugab River (Braby *et al.* 1987) were not subsequently reported by the same observers, despite regular patrols in the area. Birds are also scarce in montane regions such as the Erongo Mountains, where many more pairs should occur, given the availability of suitable nesting cliffs. These variations in numbers may reflect fluctuations arising from wetter and drier years as bird prey become more or less plentiful, but it may also represent a real decline. For this reason, any revised or new Namibian Parks and Wildlife legislation needs to provide *Specially Protected* status to this species. The Peregrine Falcon is not listed as globally threatened because of its large range and population size, particularly following the recovery of populations that had declined in North America and Europe due to the widespread use of DDT (Stattersfield & Capper 2000, IUCN 2012a).



ACTIONS

Monitoring of known populations such as at the Waterberg Plateau Park, where previous helicopter surveys provide the basis for time-series assessments (Brown & Cooper 1987, Simmons 2002), should be carried out regularly. These could be undertaken concurrently with surveys of other threatened species, such as Cape Vultures *Gyps coprotheres* and Verreaux's Eagles (Black Eagles) *Aquila verreauxii*. Other regions where Peregrine Falcons occur, such as the Kunene River, should be monitored for breeding populations and breeding success there compared with that of the Orange River population, where pesticides are used (Jenkins 2000). Surveys in accessible mountains may reveal more pairs than currently estimated. Unhatched eggs should be examined for pesticide contamination, and egg shell thickness at nests where egg shells can be collected should be compared with that of populations where declines due to pesticides are known to have taken place.