# RED-FOOTED FALCON | *Falco vespertinus*

*RE Simmons* | *Reviewed by: A van Zyl*



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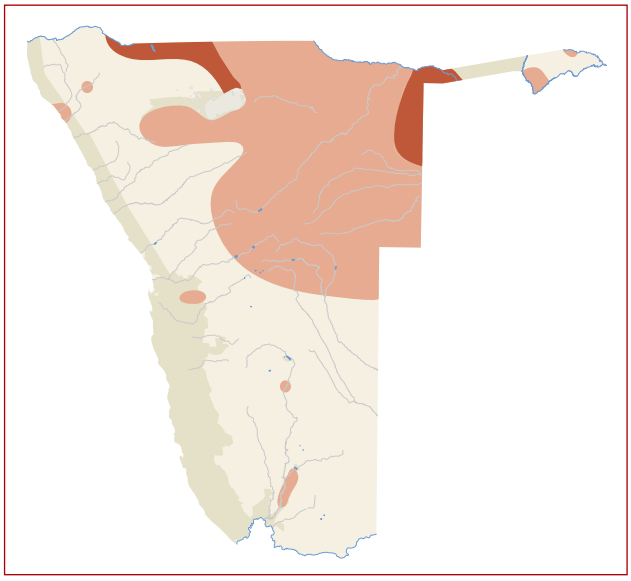
| **Conservation Status:** | Near Threatened |
| **Southern African Range:** | Namibia, Botswana, South Africa, Zimbabwe, Lesotho, Swaziland |
| **Area of Occupancy:** | 88,000 km$^2$ |
| **Population Estimate:** | Unknown |
| **Population Trend:** | Declining |
| **Habitat:** | Kalahari woodlands with open ground, roosts in large indigenous trees and in alien trees, sometimes close to human habitation |
| **Threats:** | Habitat loss and pesticides in Eurasia, opportunistic hunting on its migration route |



## DISTRIBUTION AND ABUNDANCE

This small falcon is a long-distance migrant to southern Africa from Europe and Asia (del Hoyo *et al*. 1994). It has a more westerly distribution in arid areas of southern Africa than its close relative, the migrant Amur Falcon *F. amurensis,* with which it sometimes shares roost sites (Mendelsohn & Herremans 1997, Jenkins 2005). Its southern African distribution is centred in southern Angola, Botswana and Namibia, where it can be locally common around in its favoured roosting areas.

The global population has been estimated at between 300,000 and 800,000 individuals, but declines in its key breeding areas in Russia and the Ukraine of 30% in 10 years (1990–2000) will have reduced the extant population to less than the modal 550,000 birds in 2014 (IUCN 2014). It is less concentrated at its roosts than other small migrant falcons, making it difficult to do comprehensive counts in the southern hemisphere. The maximum number of birds in flocks rarely exceeds 50 to 250 birds, and birds typically forage together in open grassy plains in treed habitats. The largest single flock of birds recorded is one of 'thousands of birds' descending on the Tsumkwe Pans in N north-eastern Namibia during a thunderstorm (Simmons *et al*. 1999). It is in this region of Namibia (Tsumkwe Pans 'Bushmanland' through the Khaudum National Park) that large concentrations of kestrels were apparent in SABAP1 atlas data from the 1980s and early 1990s (Mendelsohn & Herremans 1997). Birds were also recorded in the Oshana, Oshikoto and Oshangwena regions, in Etosha National Park and in central farmland south of Etosha to Windhoek (Mendelshohn & Herremans 1997).

Current SABAP2 atlas coverage (as of February 2015) in Namibia is too sparse to allow a comparison of distributions. Given the high variability in numbers due to differences in rainfall (natural) and the overall population declines reported from Eurasia (anthropogenic), it is not possible to estimate the number of birds spending the austral summer in Namibia.

## ECOLOGY

A breeding bird of the steppes and wooded areas of Eurasia, it is a non-breeding visitor to southern Africa. Most birds leave their breeding grounds in August and September, arrive in northern Namibia in November, peak in numbers in January and depart again in February to

March (del Hoyo *et al*. 1994, Mendelsohn & Herremans 1997, Ferguson-Lees & Christie 2001). During their lifetime, they cover thousands of kilometres on migration.

Migration strategy has been well studied by employing miniature satellite trackers on birds breeding in Europe and in Khazakstan (Satellitetracking.EU 2015). Those migrants originating from eastern Europe first fly west to central Europe (Ukraine) in about two weeks. They and European birds from Hungary and Italy start their southward journey in the middle of September and fly fast to Africa across the Mediterranean, entering at the closest coast (e.g. Egypt, Libya) before the end of September. They head 6,000 km across the Sahara to the Angolan plateau by mid-September and enter northern Namibia in the first week of November. Birds search large swathes of habitat from the Kalahari woodlands of the Khaudum and further east to the central Kalahari in Botswana before returning to Namibia and south towards Windhoek, then back up to Etosha in February. They are largely nomadic across the central parts of Botswana and Angola in response to rainfall patterns, termite emergences and the abundance of other insects, thereby covering thousands of kilometres within southern Africa (Satellitetracking.EU 2015).

An area common to five migratory falcons tracked in November and December 2014 was a drainage line in open country about 75 km south of Nyae Nyae Pan. The centre of this remote area at 20°18'42"S 19°56'48"E is worth an exploratory visit, because it may hold roosts of significant numbers of birds and should be conserved if this is indeed the case.

Birds are highly gregarious, forming flocks at both roosts and foraging areas. They often feed on aerial insects and may then spend hours on the wing at high altitude (Brown *et al*. 1982). At other times, they forage from perch sites on trees, fence posts or telephone poles and catch and consume insects on the wing (Jenkins 2005). While poorly reported in the literature, they are attracted to termite emergences, feeding on the winged alates following thunderstorms in more arid areas; they also eat crickets, locusts, large beetles and solifugids (Simmons *et al*. 1999, Jenkins 2005).

They form mixed feeding flocks with both Amur Falcons and Lesser Kestrels *F. naumanni*, and then hundreds of birds may be present, forming swirling flocks above a roost tree before settling rapidly to roost at dusk. They also congregate with other migrant raptors at termite emergences and behind rain fronts, particularly with Black Kites *Milvus migrans* and Yellow-billed Kites *M. parasitus*, Steppe Eagles *Aquila nipalensis* and Lesser-spotted Eagles *A. pomarina*, where mixed flocks of many hundreds to several thousands of birds are not uncommon (CJ Brown pers. obs.).

## THREATS

Few threats are known in southern Africa, because of the remote locations that they choose in north-east Namibia and Botswana. In Europe, destruction of some communal nesting areas and the widespread use of pesticides reduces insect food resources for birds or forces them to seek other nesting areas (IUCN 2014). In southern Africa, there was some concern that the chemical control of locusts (principally the Brown Locust *Locustna paradinala* and Desert Locust *Schistocerca gregaria*) is harmful to birds. Modern-day usage of chemicals such as Deltamethrin to control these locusts (often applied using backpacks, rather than through aerial spraying) is considered of very low bird and mammal toxicity, but of high toxicity to other insects (Samways 2000). Therefore, other than a reduction in prey abundance for the falcons, it is unlikely to reduce falcon numbers. Opportunistic hunting on their migration route poses an additional threat (IUCN 2014).

## CONSERVATION STATUS

This species is classified as globally *Near Threatened* because of the 30% declines reported in Europe and Asia from pesticides use and ongoing habitat destruction, including that of suitable nest sites through tree felling (IUCN 2014). For this reason, it is also as *Near Threatened* in Namibia, in Namibia, and should be given *Specially Protected* status in Namibia, despite the lack of threats it apparently faces in southern Africa. It is also listed as *Near Threatened* in South Africa (Taylor *et al*. in press). The Red-footed Falcon is listed on Appendix I and Appendix II of the Convention for the Conservation of Migratory Species of Wild Animals (CMS). Together with most other falcon species, it has been included in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

## ACTIONS

Few direct actions are required for this species in Namibia, given that no direct threats have been identified in southern Africa. However, given that a more accurate global population estimate and overall decline can be achieved by counting birds when concentrated at the southern end of their range, a concerted effort should be made to continue the kestrel roost monitoring programme. Possible roosting areas identified above near Nyae Nyae Pan should be visited and birds counted without disturbance. This initiative should be promoted in Namibia and neighbouring Botswana, and roost trees should be identified and monitored by citizen scientists at appropriate times of year (e.g. December). Bird atlas and raptor road count data can also go a long way to assisting this process and long-term monitoring should be promoted in and around Important Bird Areas of Etosha, the Tsumkwe Pans and Khaudum, and to the east and north of the Waterberg.