

EUROPEAN ROLLER | *Coracias garrulus*

J Kemper | Reviewed by: CJ Brown



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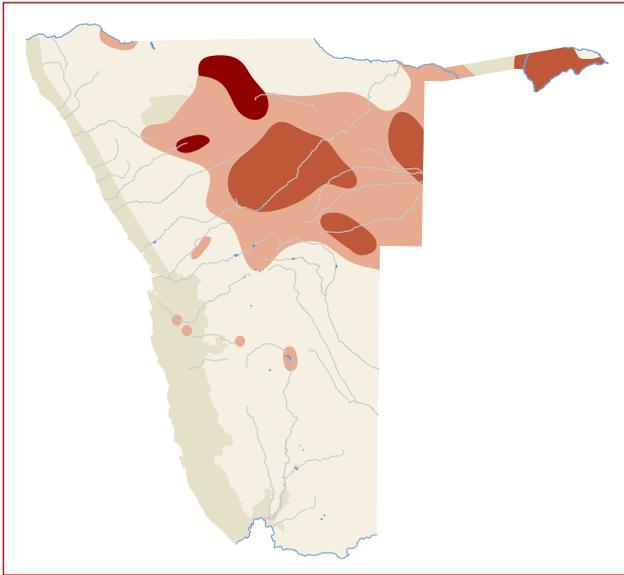
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| Conservation Status: | Near Threatened |
| Southern African Range: | Namibia, Botswana, South Africa, Zimbabwe |
| Area of Occupancy: | 275,000 km ² |
| Population Estimate: | About 20,000 individuals visit Namibia each year |
| Population Trend: | Declining |
| Habitat: | Broad-leaved woodland, treed savannah |
| Threats: | Breeding and foraging habitat degradation, pesticides, persecution on migration routes, electrocution on power lines |



DISTRIBUTION AND ABUNDANCE

This non-breeding visitor to southern Africa is the only member of the roller family to breed in Europe. Its breeding range extends from north-western Africa to Spain, throughout the Mediterranean and much of eastern Europe eastwards to the western Himalayas (Kovacs *et al.* 2008). It was much more widespread in Europe in the past and has become locally extinct as a breeding species in Denmark, Sweden and Germany, and decreased in range

and numbers in a number of neighbouring countries (Cramp 1985). The European Roller winters in sub-Saharan Africa, with strongholds in eastern and southern Africa (Fry *et al.* 1988, Herremans *et al.* 1993). In southern Africa its distribution is clumped, and it is most common in the Kalahari in Botswana, the central plateau of Zimbabwe and north-eastern South Africa (Herremans 2005a). It is a regular, but fairly uncommon visitor to the north-central regions of Namibia, where it is most common in broad-leaved and riparian woodland, and in woodland savannah



(Brown 1990, 1993, Herremans *et al.* 1993). Here, it usually occurs singly, but tends to form loose flocks shortly after arrival in October/November and before departure in February/March (Herremans *et al.* 1993). The European Roller is absent from open, arid areas in Namibia.

The world population is estimated at about four million birds (Fry *et al.* 1988) and includes up to 117,000 pairs in Europe (Kovacs *et al.* 2008). Numbers in southern Africa fluctuate between years, and the species is more commonly encountered during wet years (Herremans 1997c). Average density in north-central Namibia is one bird per 55 km (Herremans *et al.* 1993). This translates to about 20,000 birds on average entering Namibia each year.



ECOLOGY

After completing its breeding cycle in August (Cramp 1985), the European Roller arrives in southern Africa between October and January. It departs to its breeding ground during March and April (Herremans *et al.* 1993) to begin breeding there in May (Cramp 1985). Some birds remain in southern Africa into May and exceptionally few overwinter (Irwin 1981, Tarboton *et al.* 1987).

The European Roller usually swoops on prey from prominent tree perches or from utility poles and wires (Cramp 1985). It feeds opportunistically on a variety of invertebrates, including hard insects, worms, molluscs and spiders, but occasionally also on small vertebrates and fruits (Fry & Fry 1999, Kovacs *et al.* 2008).



THREATS

The greatest threat to European populations is the loss of suitable breeding habitat due to agricultural and forest management intensification and loss of habitat

heterogeneity (Kovacs *et al.* 2008). Hunting success on its breeding grounds has been negatively impacted by reduced management or abandonment of pastures (Kovacs *et al.* 2008). In addition, the use of pesticides and destruction of insect habitat has reduced food availability there (Kovacs *et al.* 2008). Climate change is likely to further reduce suitable breeding habitat in southern Europe, but may expand it further north and east (Huntley *et al.* 2007). Electrocutation on power lines has been reported (Demerdzhiev 2014).

Little information is available regarding threats to rollers on their migration routes and wintering grounds. However, persecution during migration has been reported from some Mediterranean countries, as well as from Oman and India, where large but unknown numbers of birds are being shot for food (del Hoyo *et al.* 2001). In Namibia, bush encroachment may reduce their foraging area and habitat quality.



CONSERVATION STATUS

During the past century, the European Roller has become extinct in some European countries. Numbers have declined moderately in Europe between 1970 and 1990, particularly in northern Europe, and have continued to decline across much of its global range (Kovacs *et al.* 2008, IUCN 2014). Populations in the Middle East and in central Asia appear to be stable (IUCN 2014). The species is currently listed as globally *Near Threatened*; should similar decline become apparent elsewhere in its range, however, the species might be uplisted to *Vulnerable* (IUCN 2014). In Namibia, it is listed as *Near Threatened* on the basis of its global status; it is also listed as *Near Threatened* in South Africa (Taylor *et al.* in press).

The species is listed in Appendix II of the Convention for the Conservation of Migratory Species of Wild Animals (CMS) and should be given *Specially Protected* status under any updated or future Namibian Parks and Wildlife legislation. It occurs in a number of protected areas in Namibia. These include the central and eastern parts of the Etosha National Park, and the Waterberg, Mangetti, Khaudum, Bwabwata, Mudumu and Nkasa-Rupara (Mamili) national parks. These cover some 23,500 km², about 8.5% of its range in Namibia.



ACTIONS

Apart from an International Species Action Plan (Kovacs *et al.* 2008), additional action plans and monitoring schemes have been developed by some European countries. In Namibia, addressing bush encroachment, as well as promoting good rangeland management, on both livestock and wildlife farmlands, would be useful strategies to ensure good quality foraging habitat.