## **ROCK PRATINCOLE** | Glareola nuchalis

**RE Simmons** Reviewed by: M Paxton



Conservation Status:	Endangered
Southern African Range:	Northern Namibia, northern Botswana, northern Zimbabwe
Area of Occupancy:	4,700 km <sup>2</sup>
Population Estimate:	Fewer than 1,000 birds
Population Trend:	Declining
Habitat:	Large, fast-flowing rivers with rocky outcrops
Threats:	Water level changes, siltation



## DISTRIBUTION AND ABUNDANCE

The Rock Pratincole is an intra-African migrant, arriving in southern Africa in August and September, with a peak population in November, and leaving by April (Tree 1997c). It is confined to large tropical rivers in south, central and West Africa, with an isolated population in East Africa. The subspecies G. n. liberiae is patchily distributed across West Africa (del Hoyo et al. 1996), while the subspecies G. n. nuchalis, which occurs in southern Africa, is distributed throughout the rest of the species range. The population recorded in Namibia occurs chiefly on the Zambezi and Okavango rivers at a low reporting rate of 4% (Tree 1997c, Jarvis et al. 2001). Populations in Zimbabwe, which are found exclusively on the Zambezi River, were estimated at 1,600 to 1,800 birds in the mid 1980s (Williams et al. 1989), but Namibian populations have never been estimated. Given these figures and the similar reporting rates, the Namibian population, which covered ten quarter-degree squares in SABAP1 (compared to Zimbabwe's 18) along the Zambezi and Okavango rivers, is unlikely to exceed 950 birds.

The number of birds that have actually been recorded is much smaller than this. The maximum numbers observed are 57 birds on the 15 km stretch of the Okavango River from just upstream of Mukwe down to Divundu; this stretch comprising rocky outcrops and numerous channels and islands. It was estimated that less than 20% of the habitat

was surveyed, giving a population estimate of about 285 birds. Other counts include at least 11 pairs on the Impalila-Kasane rapids on the Chobe River, at least nine pairs on rapids on the Zambezi River to the north of Impalila Island just downstream of the Kasai Channel and at least seven birds on the Zambezi rapids immediately below the Wenela-Sesheke bridge upstream of Katima Mulilo (CJ Brown unpubl. data). Six pairs are known from Shankara, four to six pairs from Popa Falls and three birds from the Mahango area of the Bwabwata National Park, all on the lower Okavango River (M Paxton unpubl. data). It is likely that this species is overlooked, given its crepuscular flying habits and unobtrusive perching during the day. The bird occupies an area of 4,700 km<sup>2</sup> in Namibia, of which 30% occurs in the Mahango area on the lower Okavango River (Jarvis et al. 2001). The global population of the subspecies G. n. nuchalis is estimated at 25,000 to 100,000 birds (Wetlands International 2002), but the population may have declined, given the observed decreases on rivers in southern Africa. These declines are unquantified but are inferred to be 20% in two generations.



### ECOLOGY

The Rock Pratincole prefers fast-moving tropical rivers in which rocky outcrops provide roosting and nesting platforms. This precarious nest habitat makes the continued existence of this species entirely dependent on water levels. Eggs are laid directly on the bare rock with water running often within one metre of the nest (Tree 1997c). The bird breeds between October and January (n=14) in Namibia, with laying dates for October (two), November (seven) and December (five) (Brown *et al.* 2015). It feeds on insects such as beetles, ants and flies (including Tsetse Flies *Glossina* sp.), which it catches on the wing generally at dawn or dusk over water (del Hoyo *et al.* 1996).

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#### THREATS

Because of its specialised habitat requirements, the Rock Pratincole is under severe threat in southern Africa on virtually all rivers on which it is found. The only other species that lives in, breeds on and feeds from tropical rivers to the same extent is the African Skimmer Rynchops flavirostris, which is also threatened. Human population pressure is high on the Okavango River, with intense fishing (Hay et al. 2000) and hunting ever-increasing under a human population density of over 100 people per km of river (Mendelsohn & el Obeid 2004). This has led to a degradation of the biotic component of the river in some areas (Hay et al. 1996), except within protected areas such as the Mahango area. Any development that impounds water and floods rocky outcrops such as weirs or dams, and that impacts on flow levels, such as hydro schemes, could have a direct negative impact on Rock Pratincole

populations. The effect of human population disturbance on Okavango wetland species was apparent when guerilla activity on the north bank of the Okavango River in Angola forced local inhabitants away from the river in 1999; within months, fish and wetland bird populations recovered sharply (M Paxton in Simmons 2003).

Siltation and altered water levels and flows, due to river damming (particularly Kariba Dam), have occurred in lowveld rivers in Zimbabwe, as well as on the Zambezi River (Tree 1997c). These factors threaten the breeding and roosting areas of virtually the entire southern African population of Rock Pratincoles.

# CONSERVATION STATUS

This species is classified as *Endangered* because of its small population of fewer than 1,000 birds in Namibia, which is inferred to be declining by 20% every 10 years due to human population pressure (IUCN criterion C1). It also has a small distribution of less than 5,000 km<sup>2</sup>, with only two known subpopulations (IUCN criterion B1a). While the proportion of birds in Namibia barely constitutes 1% of the global population of the subspecies, this subspecies is highly specialised and reliant on a habitat that will be increasingly altered and degraded with rising human populations, and for this reason needs to be included as a Specially Protected species in Namibian Parks and Wildlife legislation. This species is not considered to be globally threatened (IUCN 2012a); it is included in Annex 2 of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) and in Appendix II of the Convention for the Conservation of Migratory Species of Wild Animals (CMS).

# S ACTIONS

Population surveys of this species are urgently needed in November and December to assess total population numbers on the Okavango and Zambezi Rivers, as well as breeding density and habitat selection. An analysis of the influence of water levels and disturbance by local inhabitants on breeding success is required to determine the most appropriate conservation actions for this species. Environmental assessments of all developments that might impact on riverine habitat and river flow within the range of the Rock Pratincole must give high priority to the requirements of this species. Only studies similar to that of Hay et al. (2000) for fish will be able to determine the influence of constantly changing water levels on the ecology of the river. Ideally some critical core protected areas of river should be established, such as the Mukwe-Divundu stretch of the Okavango River and the Impalila-Kasane rapids on the Chobe River. This would protect not only the Rock Pratincole, but also numerous riverine woodland species that are disappearing from the banks of the Zambezi and Okavango rivers.