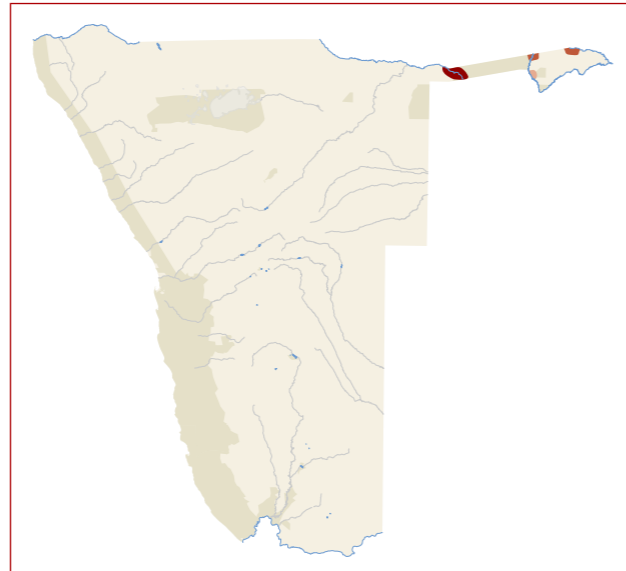


PEL'S FISHING OWL | *Scotopelia peli*

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Conservation Status:	Critically Endangered
Southern African Range:	North-eastern Namibia, northern Botswana, northern South Africa, northern and south-east Zimbabwe
Area of Occupancy:	3,600 km ²
Population Estimate:	Fewer than 120 mature birds
Population Trend:	Stable to decreasing
Habitat:	Large rivers, quiet backwaters
Threats:	Degradation of riparian woodland, hydro-electric schemes, wood-cutting

northern South Africa and northern and south-east Zimbabwe (Mendelsohn 1997e). It is rare in Namibia, with birds only found along the Okavango, Kwando and Zambezi rivers (Mendelsohn 1997e), covering an area of occupancy of 3,600 km² (Jarvis *et al.* 2001). Populations are estimated at less than 500 pairs for southern Africa (Mendelsohn 1997e). High densities of 3.8 pairs per 10 km in the Okavango (Liversedge 1980) and 4.4 pairs per 10 km in the northern Kruger Park (Tarboton *et al.* 1987), suggest that the sections of the Okavango and Zambezi Rivers flowing through Namibia are unlikely to support more than 45 pairs (approximately 120 mature individuals) in Namibia. This is about 9% of the southern African population. On the Okavango River, birds may be most likely to occur where overhanging trees are found at Andara and Max Makushe (M Paxton pers. obs.). Because fish populations and the number of suitable trees in occupied habitats in Botswana and South Africa are likely to be higher than in Namibia (JM Mendelsohn pers. obs.), populations in Namibia may be lower than estimated, even in prime habitat.

DISTRIBUTION AND ABUNDANCE

This much sought-after owl is the largest of Africa's three Fishing Owls (Kemp & Kemp 1998). It is an uncommon, nocturnal resident found across tropical rivers throughout central-west Africa, Zambia and Mozambique (del Hoyo *et al.* 1999). In southern Africa, it is sparsely distributed only in the northern regions in the Okavango Delta,

ECOLOGY

The Pel's Fishing Owl chooses large overhanging trees within 50 m of the river bank in which to roost and from which to forage over and into nearby pools. It prefers the slower moving large rivers to small, fast-flowing rivers. It especially favours backwater pools, perhaps because fish are more visible or possibly because there is less competition for food with the African Fish-Eagle *Haliaeetus*

vocifer (Liversedge 1980). It tends to concentrate on these pools, eliminating the fish as the pools diminish, and to subsequently move from these areas as the pools dry up. It may then be found in unusual locations such as farm dams (Mendelsohn 1997e, Barnes & Parker 2000). It nests in hollows and forks of large trees, laying two eggs between February and April (Skinner 1996) in the Okavango area. There are four breeding records from Namibia (Jarvis *et al.* 2001) three of which were from April, May and June, when it is likely that the calling of still-dependent fledglings revealed the location of the nesting area. Only one record provided sufficient information to determine an accurate laying date – for March – which is consistent with the main laying period of February to April given by Tarboton (2011). The Okavango River is at its peak flow when parent birds are feeding dependent young (Mendelsohn & el Obeid 2004), suggesting that birds time their breeding to coincide with peak availability of backwater pools and spawning fish. Its food comprises almost exclusively medium to large fish, which are caught after dusk and before dawn (Liversedge 1980). Only a single offspring is reared, which leaves the nest almost four months after eggs are laid (Liversedge 1980). There are no data on breeding success.

THREATS

Population trends are unknown for this large owl, but it has almost certainly suffered from degradation of riverine forest and may in future suffer from water regulation in the Okavango River. Human population pressure on the Okavango River is amongst the highest in Namibia (Mendelsohn & el Obeid 2004) and fishing pressure is therefore intense there (Hay *et al.* 2000). This has led to a depletion of fish populations in some areas and to the degradation of the overall biotic integrity of the river (Hay *et al.* 1996). The only areas known to be unaffected by fishing and wood cutting on this river occur in sanctuaries such as the Mahango area of the Bwabwata National Park (Hay *et al.* 1996), comprising the last 50 km of the river in Namibia. Even within the protected areas such as the Mahango area, fish populations and suitable nesting trees are under pressure from upstream activities (over-fishing and soil erosion from the cutting of trees) and from the high elephant populations. Given that Pel's Fishing Owls will be affected by depressed fish populations and the clearing and cutting of large trees, their habitat has clearly been degraded and will continue to decline in quality with a high human growth rate.

CONSERVATION STATUS

This species is designated here as *Critically Endangered* because of the small population size of fewer than 120 mature individuals with an inferred decline of 25% over the last generation of this long-lived species (IUCN criterion C1). Both factors arise from the continuing degradation of riparian vegetation on all rivers, especially the Okavango

and Zambezi rivers. This may lead to the bird's eventual extinction in Namibia because of the rapidly growing human population (doubling every 23 years), with the densest concentrations along the large northern rivers (Mendelsohn *et al.* 2002). Despite its small overall representation in Namibia, this owl is likely to come under pressure in many riparian areas of Africa as the continent becomes drier as a result of global climate change (IPCC 2001, Midgley *et al.* 2001) and as human populations migrate towards the region's rivers. This may happen in all except perhaps the largest wetland reserves, such as the Okavango Delta, or farther afield in the Congo River basin. Any revised or new Namibian Parks and Wildlife legislation should give *Specially Protected* status to this species. It is not threatened globally (IUCN 2012a) and is considered *Endangered* in South Africa (Taylor *et al.* in press).

ACTIONS

The most urgent requirement for this species, as a large sensitive flagship icon for riverine birds, is a conservation area on the Okavango River, which will protect both the fish and the large riparian trees on which it depends. The Mahango area satisfies some of these criteria but fire regimes and elephant populations also need to be managed to preserve suitably large nesting trees. The entire length of the Zambezi River in Namibia, which forms a common border with Zambia, has no form of state protection. Two communal conservancies have been established, the Sikunga and Impalila conservancies, with about 35 km and 16 km of river frontage respectively. Both conservancies have established 'fish protection areas', which are patrolled by community fisheries guards, thereby elevating the level of protection to birds and other wetland species. Environmental assessments of all developments that might impact on riverine habitat, habitat quality and river flow within the range of this species must give high priority to the requirements of this species.

Research, using recorded voice playbacks (Kemp & Kemp 1989), is required to establish breeding densities in Namibia and to understand which areas need to be given priority for protection. This is especially true of the Kwando River, which should support owls, but apparently does so only sporadically (Mendelsohn 1997e), and the Impalila woodlands at the junction of the Chobe and Zambezi rivers near Kasane. No Pel's Fishing Owls were recorded at the Impalila woodlands in the SABAP1 atlas period (Mendelsohn 1997e), but one was subsequently recorded there shortly after its completion (R Randall in Mendelsohn 1997e), suggesting this owl may also be overlooked elsewhere. Although all the above-mentioned areas fall within the East Zambezi (previously the East Caprivi) Important Bird Area, comprising the area from the Kwando River east to Impalila Island (Simmons *et al.* 2001), most of these areas have no formal protection.