

Non-detriment finding for *Poicephalus fuscicollis suahelicus* (grey-headed parrot)

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Summary of findings

The order Psittaciformes is included in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In terms of Article IV of the Convention, an export permit shall only be granted for an Appendix II species when a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species. This document details the undertaking of an NDF (Figure 1) for *Poicephalus fuscicollis suahelicus* (grey-headed parrot) and is based on the best current available information. This information is current as of December 2015.

Grey-headed parrots are long-lived with relatively low reproductive rates. In captivity the subspecies can live up to 20-30 years. Adults may only breed in alternate years, rearing a small number of chicks (1-3). Grey-headed parrots are therefore K-selected and populations will recover slowly from natural disasters or poaching. The subspecies is furthermore a generalist utilising a variety of habitat types within the woodland-savanna biome of southern, south-central and east Africa. Although widespread in Africa, the subspecies has a localised distribution in South Africa, only occurring in Mpumalanga and Limpopo provinces, and is considered rare in the country. Anecdotal information suggests that the numbers of wild grey-headed parrots are decreasing and is estimated to be no more than 500 birds in South Africa. Little is known about the movements of these birds, but it is believed the subspecies has a medium dispersal ability. The grey-headed parrot is sensitive to human activities. Bush clearing and the removal of natural vegetation, especially where nesting trees such as the baobab are removed, can have an impact on the subspecies.

At present the poor national status of the grey-headed parrot is not conducive for sustainable utilisation of the wild population. The subspecies is listed on Appendix II of CITES, and as specially protected in Limpopo in accordance with the Limpopo Environmental Act (Act no. 7 of 2003). Due to the International Union for Conservation of Nature (IUCN) and Birdlife International not recognising the grey-headed parrot and Cape parrot as two separate species, both taxa are together considered as Least Concern at a global level. While the ultimate threat to *Poicephalus fuscicollis suahelicus* survival in South Africa is habitat loss through the removal of large trees for agriculture and firewood, the more recent, but also significant threats, are local poaching and unsustainable trade. Trapping of grey-headed parrots for the illegal bird trade appears to have increased, owing to their resemblance to the Endangered Cape parrot. Of the nest sites (trees) examined at Levubu, 67% had climbing pegs leading to the nest cavities, 53% of the cavities or entrances had been damaged and removal of chicks was confirmed from 27% of them. This evidence of nestling removal represents harvesting over an estimated period of at least 30 years, and many nest sites observed were no longer active. The illegal harvesting of nestlings has impacted local populations and this threat, combined with the long term threat of habitat loss, has caused a further decline in the subspecies. At present, the legislative protection afforded to this subspecies is considered ineffective as birds are illegally harvested, even from protected areas. No portion of the population occurs solely within a protected area due to habitat fragmentation and the mobility of the subspecies.

This subspecies has not been managed in the past and there is currently no national management plan for the conservation and sustainable use of the grey-headed parrot in the wild or in captivity. No quotas have been allocated for harvests or exports of this subspecies. There is no legal harvest of the grey-headed parrot in South Africa; current harvesting is illegal and often opportunistic. Detailed information on breeding success, fledgling success and recruitment is needed before any legal harvest practices can be implemented in order to incentivize subspecies and habitat conservation. Overall there is a low confidence in the harvest management of the grey-

headed parrot due to a lack of capacity in the Limpopo Department of Economic Development, Environment and Tourism. There is furthermore no monitoring of off-takes. A further concern is that traders/breeders with permits can easily replace a dead captive bird with one sourced from the wild since permits are not linked to the DNA fingerprint of the birds. It is likely that traders sell grey-headed parrots, or Cape parrot / grey-headed parrot hybrids, as Cape parrots, increasing the demand for grey-headed parrots. Only relatively recently (in 2002 and again in 2005) has the Cape parrot been recognised as a separate species from the brown-necked parrot (*P. fuscicollis fuscicollis*) and the grey-headed parrot (*P. f. suahelicus*). But the refusal of BirdLife International and the IUCN to recognize the grey-headed parrot and Cape parrot as two separate species has complicated the management and monitoring of international trade in harvested and captive-bred birds and may have had a detrimental impact on the survival of the grey-headed parrot in the wild. National monitoring of exports has also not been possible because CITES trade records do not distinguish between grey-headed parrots and Cape parrots.

The non-detriment finding undertaken for *Poicephalus fuscicollis suahelicus* (grey-headed parrot) demonstrates that any international and/or local trade in wild specimens poses a high risk to this subspecies in South Africa (Figures 1 and 2). The Scientific Authority is unable to state with any confidence that the trade in *P. fuscicollis suahelicus* from South Africa will not have a detrimental impact on the wild population in South Africa. The Scientific Authority is therefore unable to issue a positive NDF for *P. fuscicollis suahelicus* at this time and trade must therefore be confined to captive-bred specimens. As chicks of many parrot species look alike, identifying grey-headed parrot chicks would be very difficult for law enforcers. As such only captive-bred birds once fledged with juvenile plumage or older can be traded.

Since the extent of illegal trading in this subspecies is high, it is recommended that measures be taken to ensure that no wild specimens are traded as “captive-bred”; specifically all specimens for export must be verified as offspring of captive birds through DNA analyses.

The following is recommended to improve the management of captive-bred grey-headed parrots:

- i) Captive-bred birds must be recorded in the Pan African Association of Zoos and Aquaria Stud Book;
- ii) Captive-bred birds must be marked with closed rings and/or micro-chipped, and DNA fingerprinted;
- iii) all breeders must keep records of breeding and mortality (dates of births and deaths, with blood samples taken from dead birds for DNA fingerprinting);
- iv) all breeders exporting grey-headed parrots internationally must be registered with the Management Authority in compliance with the TOPS and CITES regulations.
- v) A decision tree or inspection checklist to assist Environmental Management Inspectors with verifying specimens as “captive-bred” in accordance with CITES provisions must be developed by the Scientific Authority within 3 months of publication of this NDF.

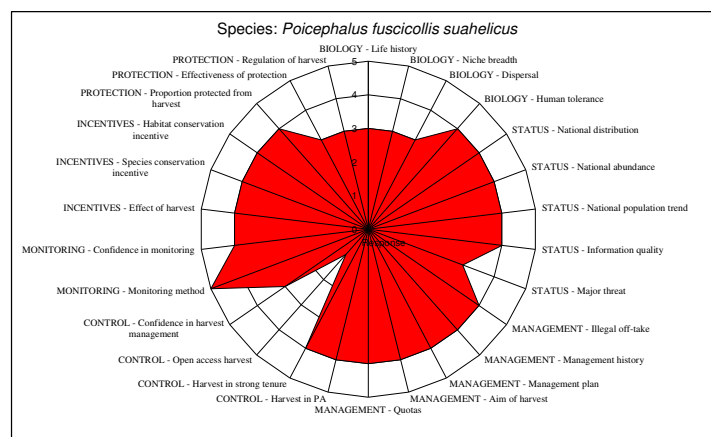


Figure 1: Radar chart summarizing the non-detriment finding assessment undertaken for *Poicephalus fuscicollis suahelicus* (grey-headed parrot) in South Africa in accordance with the CITES NDF checklist. Explanations of

scores given are detailed in Table 1. Higher scores are indicative of higher risks to the subspecies. The extensive area shaded in the radar chart demonstrate an overall high risk to the subspecies.

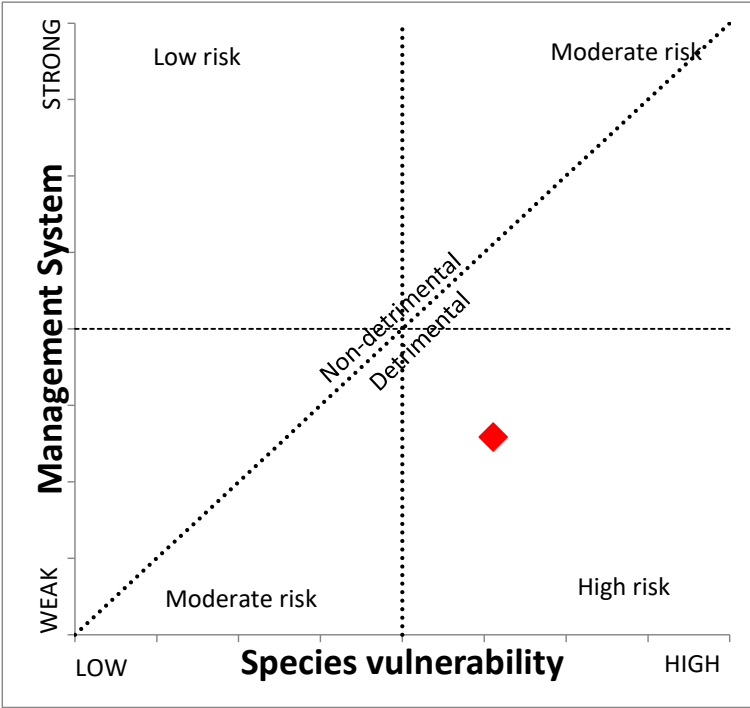


Figure 2: The risk of trading in *Poicephalus fuscicollis suahelicus* (grey-headed parrot) by South Africa as represented by the relationship between species vulnerability (biology and status) and the strength of the management system to which the species is subjected (management, control, monitoring, incentives, and protection). The figure demonstrates that the subspecies is assessed as at a high risk and that trade is detrimental.

Table 1: Detailed non-detriment finding (NDF) assessment for *Poicephalus fuscicollis suahelicus* (grey-headed parrot) in South Africa, undertaken in accordance with the CITES NDF checklist. Scores assigned to each question are indicated (bold text in shaded blocks) along with detailed explanations/justifications where relevant. Higher scores are indicative of higher risks to the subspecies.

Biological characteristics		
1. Life history: What is the species' life history?	High reproductive rate, long-lived	1
	High reproductive rate, short-lived	2
	Low reproductive rate, long-lived	3
	Low reproductive rate, short-lived	4
	Uncertain	5
Grey-headed parrots are long-lived and in captivity can live up to 20-30 years. Adults may only breed in alternate years, rearing a small number of chicks (1-3). The subspecies is therefore K-selected and populations will recover slowly from natural disasters or poaching. The birds use a variety of habitats so breeding may occur at different times of the year in different regions. Breeding records from north-eastern South Africa suggest that breeding in the southern limit of the range occurs during the dry winter months. A longer breeding season is seen further north. The grey-headed parrot is specific in nest site selection, being an obligate secondary cavity-nester. Typically the cavities are 6-12 m above the ground (Rowan 1983, Fry et al. 1988, Forshaw 1989). All nests recorded by Symes and Perrin (2004b) were on the vertical main tree trunk or on the underside of branches, mostly in natural cavities in baobabs (<i>Adansonia digitata</i>) (Symes & Perrin 2004b). The southern limit of the breeding range of the grey-headed parrot is probably controlled by nest site availability, baobabs being rare further south. Grey-headed parrots are monogamous. Breeding is recorded in captivity at three years of age, but probably occurs later in the wild because of limited nest sites. Clutch size is 2-4 eggs and the female incubates the eggs for a period of 24-28 days (Low 1982; 1995). The fledgling period ranges between 55-85 days (Isert & Isert 1980, Low 1995). In Symes's (2001) study, the fledgling period was estimated at 71 days. The ratio of adult males to females observed in the wild is approximately three males to two females. The paucity of juveniles in wild populations can be explained either by low juvenile survival or a small proportion of the entire population actively breeding. An overall ratio of one juvenile to nine adult birds indicates a recruitment ratio of approximately one juvenile successfully fledged per 4-5 adult pairs. This suggests that population growth is slow and that adults are long-lived (Symes & Perrin 2004b).		
2. Ecological adaptability: To what extent is the species adaptable (habitat, diet, environmental tolerance etc.)?	Extreme generalist	1
	Generalist	2
	Specialist	3
	Extreme specialist	4
	Uncertain	5
The grey-headed parrot is considered a woodland generalist (Downs et al. in press). Grey-headed parrots use a variety of habitat types within the woodland-savanna biome of southern, south-central and east Africa (Cooke 1962, Snow 1978, Forshaw 1989). Even small gum <i>Eucalyptus</i> spp. plantations have been used for roosting, but not feeding. Habitat has been examined in most detail at two study sites, Makuya Nature Reserve and Levubu in Limpopo Province (Symes & Perrin 2008). The predominant habitat identified at Makuya Nature Reserve was mopane woodland, although the parrots were seldom seen in mopane trees. The parrots are most frequently seen in riparian vegetation (Kemp 1974, Wirminghaus 1997), but usually feed in mopane woodland, mixed broad-leaved woodland and disturbed secondary-growth forest. At Levubu, mopane plum <i>Parinari curatellifolia</i> is an important post-breeding food source that is not common in the breeding range in South Africa. It also occurs in moist areas north of the Luvuvhu River and west of Levubu town (Symes & Perrin 2008). The grey-headed parrot also uses habitats with <i>Grewia</i> spp., quinine-tree <i>Rauvolfia caffra</i>, forest cabbage-tree <i>Cussonia sphaerocephala</i>, spiny splinter-bean <i>Adenopodia spicata</i>, bush-cherry <i>Maerua caffra</i>, common num-num <i>Carissa bispinosa</i>, wild-pear <i>Dombeya rotundifolia</i>, saucer-berry <i>Cordia</i> spp., squat star-chestnut <i>Sterculia rogersii</i>, false marula <i>Lannea schweinfurthii</i>, sourplum <i>Ximenia</i> spp., Shepherd's-trees <i>Boscia</i> spp., and <i>Rhigozum</i> spp. (Symes & Perrin 2008).		
3. Dispersal efficiency: How efficient is the species' dispersal mechanism at key life stages?	Very good	1
	Good	2
	Medium	3
	Poor	4
	Uncertain	5
Throughout the range of the grey-headed parrot there are large areas where only seasonal occurrences of the parrots have been recorded. Indeed, very little is known of the movements of any African parrot that relies on seasonally abundant resources (Symes 2001, Symes & Perrin 2003a,c). Flocks of grey-headed parrots often depart from roosts in small groups, suggesting that roosts may facilitate dispersion (Chapman et al. 1989). After leaving the roosts, the flocks increase in size		

by “drawing” remaining birds into the flock, by circling the activity centre and calling continuously (Symes 2001, Symes & Perrin 2003b). Grey-headed parrots are strong fliers and daily they regularly move distances in excess of 10 km between roost and feeding sites. Their vocalisations are likely an important characteristic in information exchange between individuals and reductions in numbers may decrease foraging efficiency within a population.

4. Interaction with humans: Is the species tolerant to human activity other than harvest?	No interaction	1
	Pest / Commensal	2
	Tolerant	3
	Sensitive	4
	Uncertain	5

Bush clearing and the removal of natural vegetation especially where nesting trees are removed can impact on the subspecies. Baobab trees seem to be the most important nesting tree for grey-headed parrots in South Africa and are not immune to human impacts outside of protected areas. Baobabs are long-lived and the removal of just one of these trees will impact the grey-headed parrot population. Also, the activities of nestling removal, where nest cavities are chopped open can make a nest cavity unusable in the future for parrots (and other cavity nesting species). Even in Makuya Nature Reserve and northern KNP the effects of this impact were evident. Often the only tree species left standing in cleared lands are species the grey-headed parrot feed on i.e. marula and mabola trees, and it is here that the parrots come into contact with humans. Marula fruits are also a food source for humans, although no instances of conflict between parrots and humans have been recorded (Symes, pers. comm.).

Grey-headed parrots seldom cause damage to fruit crops in South Africa. If there is damage it is localized and these parrots are not regarded as pests in communal areas. They are not known to feed on any crops grown in agricultural areas in South Africa, i.e. Levubu in Limpopo, where macadamia and pecan nuts, avocado, banana, mango and tropical fruits are grown. This is surprising, considering the Cape parrot's fondness of pecan nuts. In West Africa the grey-headed parrot has been reported to feed on maize, but no other reports of such behaviour are known. Interviews and extensive observations during fieldwork in north-eastern South Africa and south-eastern Zimbabwe indicated that grey-headed parrots do not feed on annual crops such as maize, millet, or sorghum.

National status		
5. National distribution: How is the species distributed nationally?	Widespread, contiguous in country	1
	Widespread, fragmented in country	2
	Restricted and fragmented	3
	Localized	4
	Uncertain	5

The grey-headed parrot is widespread in Africa (Figure 3) where it is sympatric with members of the Meyer's parrot super-species group (Snow 1978). It ranges from the Limpopo and Mpumalanga provinces (where it is nomadic) of South Africa (thus localized within South Africa), through Mozambique and Zimbabwe to northern Botswana, Caprivi in Namibia, Angola, Zambia, south-western Congo, southern and eastern Democratic Republic of Congo, central Tanzania, and south-western Uganda to Rwanda (Symes 2001). It is parapatric with the Cape parrot in Limpopo but is temporally and altitudinally segregated. The two parrots breed at different places in South Africa at different times of the year. The gene pools, and therefore the taxa are distinct (Symes & Downs 1998a).

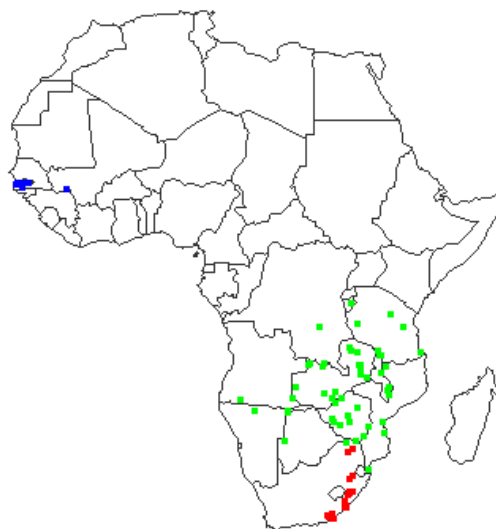


Figure 3: Map of Africa with the distribution of the three taxa *P. fuscicollis fuscicollis* (Brown-necked parrot) (blue); *P. fuscicollis suahelicus* (grey-headed parrot) (green) and *P. robustus* (Cape parrot) (red).

6. National abundance: What is the abundance nationally?	Very abundant	1
	Common	2
	Uncommon	3
	Rare	4
	Uncertain	5

The South African grey-headed parrot population is estimated at less than 500 birds. This is based on limited information from only two study sites within South Africa (Symes, pers. comm.). The number of grey-headed parrots recorded daily peaked at 50 at Levubu during late October and at 19 at Makuya in mid-August. Similarly, average flock size was also greater at Levubu (3.8 birds) than at Makuya (2.1 birds) (Symes & Perrin 2003c). The grey-headed parrot is resident throughout its range. There is some seasonality of occurrence in South Africa, e.g. from July-February birds appear in the Levubu region south of the Soutpansberg and are thought to originate from the Kruger National Park, probably representing post-breeding dispersal (Symes 2001, Symes & Perrin 2003c).

7. National population trend: What is the recent national population trend?	Increasing	1
	Stable	2
	Reduced, but stable	3
	Reduced and still decreasing	4
	Uncertain	5

Today, the grey-headed parrot is nowhere common, although only 20 years ago flocks of >100 birds were recorded in South Africa. Recent fieldwork at Levubu, just 10 years after the fieldwork of Symes (2001), suggests that numbers of grey-headed parrots have continued to decline (by at least half) in the past decade.

8. Quality of information: What type of information is available to describe abundance and trend in the national population?	Quantitative data, recent	1
	Good local knowledge	2
	Quantitative data, outdated	3
	Anecdotal information	4
	None	5

Good at one small locality, otherwise poor or unknown.

9. Major threats: What major threat is the species facing (underline following: <u>overuse</u> , <u>habitat loss</u>) and how severe is it?	None	1
	Limited/Reversible	2
	Substantial	3
	Severe/Irreversible	4

	Uncertain	5
1. Habitat loss and alteration Habitat is critically important and habitat loss is regarded as a significant threat to the grey-headed parrot. Areas where heavy logging has occurred must affect local populations since prime habitat is destroyed by the removal of large trees. At Makuya, wood removal outside protected areas may have negatively affected the distribution of the grey-headed parrot. At Levubu land is being cleared for agriculture, with the loss of mobola-plums, and this threatens the populations of grey-headed parrots which are reliant on this food source (Symes 2001). However, a mitigating factor is that large mobola-plum trees are generally left standing because the fruit is favoured by humans. The same applies to marula (<i>Sclerocarya birrea</i>), which is an important food source for the parrots during mid- to late-summer. Even in the absence of general land clearance however, firewood removal, where local human populations live at subsistence levels, may have implications for parrot nest-site availability. 2. Harvest threats Trapping of grey-headed parrots for the illegal bird trade appears to have increased, owing to their resemblance to the Endangered Cape parrot. At Levubu, evidence of nestling removal and illegal parrot trade has been obtained (Symes & Perrin 2004b). Local Venda residents know of people involved in removing chicks from nests. Some of these are used as food, but most of the observed population declines are likely the result of poaching of birds for illegal trade. Of the nest sites (trees) examined, 67% had climbing pegs leading to the nest cavities, 53% of the cavities or entrances had been damaged and removal of chicks was confirmed from 27% of them. This evidence of nestling removal represents harvesting of nestlings over an estimated period of at least 30 years, and many nest sites observed were no longer active. This typifies the high degree of unsustainable harvesting that has occurred in recent years, and the impact on current populations of grey-headed parrots has been substantial (the population at Levubu has at least halved in the past 10 years). Symes & Perrin (2004) explain that the consequential effects of nest poaching cannot be discerned owing to the variation in natural causes of mortality between seasons / years. Removals of adults appear to cause a population to decrease rapidly. Grey-headed parrots have been poached since the 1980s and 1990s (Horsfield, In litt.), and in the 1980s these birds were being harvested in the Kruger National Park (KNP) (Symes In litt.). There is also some evidence of people moving birds between provinces. Although the recent crash in prices of grey-headed parrots may slow down the trade (Symes In litt.), this is unlikely to deter nest raiding as long as there is a market. Owing to weak law enforcement, parrots are reportedly being exported from one country to another, and then onto the final destination. Traders likely sell grey-headed parrots, or Cape parrot / grey-headed parrot hybrids, as Cape parrots, increasing the demand for grey-headed parrots (Downs & van Rooyen, In litt.). Psittacine beak and feather disease virus has not been recorded on grey-headed parrots in Limpopo (n = 4 birds tested).		
Harvest management		
10. Illegal off-take or trade: How significant is the national problem of illegal or unmanaged off-take or trade?	None	1
	Small	2
	Medium	3
	Large	4
	Uncertain	5
At present, the local human population is unaware of the true market value of grey-headed parrots, and when this is made known it will likely trigger higher levels of poaching of wild birds. High prices are fetched from the sale of illegally-caught birds. Grey-headed parrots are sold in the avicultural trade at prices of up to hundreds of US dollars per bird. These factors and the limited availability of nest sites place pressure on populations of grey-headed parrots (Symes 2001, Pain et al. 2006). The subspecies is illegally collected in the northern regions of South Africa (Symes unpubl. data), where it is parapatric with the endangered Cape parrot, and is sold for the local pet trade. At Levubu, evidence of nestling removal and illegal parrot trade has been obtained (Symes & Perrin 2004b). Local Venda residents know of people involved in the removal of chicks from nests. Some of these are used as food, but most of the observed population declines are likely the result of poaching of birds for illegal trade. Of the nest sites (trees) examined, 67% had climbing pegs leading to the nest cavities, 53% of the cavities or entrances had been damaged and removal of chicks was confirmed from 27% of them. This evidence of nestling removal represents harvesting of nestlings over an estimated period of at least 30 years, and many nest sites observed were no longer active. This typifies the high degree of unsustainable harvesting that has occurred in recent years, and the impact on current populations of grey-headed parrots has been substantial (the population at Levubu has at least halved in the past 10 years). Grey-headed parrots have been poached since the 1980s and 1990s (Horsfield, In litt.), and in the 1980s these birds were being harvested in the Kruger National Park (Symes In litt.). The recent crash in prices of grey-headed parrots may slow down the trade (Symes In litt.) but is unlikely to deter off-take as long as there is a market. Owing		

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11. Management history: What is the history of harvest?	Managed harvest: ongoing with adaptive framework	1
	Managed harvest: ongoing but informal	2
	Managed harvest: new	3
	Unmanaged harvest: ongoing or new	4
	Uncertain	5

Harvesting of grey-headed parrots is unmanaged, both in the past and presently. Agricultural development and associated human presence tends to be accompanied by the exploitation of parrot populations. Certain aspects of parrot ecology render them vulnerable to exploitation. For example the regularity of local movements, post-breeding flocking and their predictable occurrence at activity centres for long periods, makes grey-headed parrots vulnerable to natural predation and illegal capture.

12. Management plan or equivalent: Is there a management plan related to the harvest of the species?	Approved and co-ordinated local and national management plans	1
	Approved national/state/provincial management plan(s)	2
	Approved local management plan	3
	No approved plan: informal unplanned management	4
	Uncertain	5

There is currently no management plan for grey-headed parrots.

13. Aim of harvest regime in management planning: What is harvest aiming to achieve?	Generate conservation benefit	1
	Population management/control	2
	Maximize economic yield	3
	Opportunistic, unselective harvest, or none	4
	Uncertain	5

There is no legal harvest of wild grey-headed parrots. Harvesting that is taking place is illegal and opportunistic.

14. Quotas: Is the harvest based on a system of quotas?	Ongoing national quota: based on biologically derived local quotas	1
	Ongoing quotas: "cautious" national or local	2
	Untried quota: recent and based on biologically derived local quotas	3
	Market-driven quota(s), arbitrary quota(s), or no quotas	4
	Uncertain	5

There are no quotas for the harvesting or export of wild caught grey-headed parrots in South Africa.

Control of harvest

15. Harvesting in Protected Areas: What percentage of the legal national harvest occurs in State-controlled Protected Areas?	High	1
	Medium	2
	Low	3
	None	4
	Uncertain	5

No harvesting of grey-headed parrots is allowed in national or provincial protected areas.

16. Harvesting in areas with strong resource tenure or ownership: What percentage of the legal national harvest occurs outside Protected Areas, in areas with strong local control over resource use?	High	1
	Medium	2
	Low	3
	None	4
	Uncertain	5

There is no legal harvest of wild grey-headed parrots.		
17. Harvesting in areas with open access: What percentage of the legal national harvest occurs in areas where there is no strong local control, giving <i>de facto</i> or actual open access?	None	1
	Low	2
	Medium	3
	High	4
	Uncertain	5
There is no legal harvest of wild grey-headed parrots.		
18. Confidence in harvest management: Do budgetary and other factors allow effective implementation of management plan(s) and harvest controls?	High confidence	1
	Medium confidence	2
	Low confidence	3
	No confidence	4
	Uncertain	5
Confidence in harvest management within Limpopo is low due to a lack of capacity in the Limpopo Department of Economic Development, Environment and Tourism. In the northern parts of Limpopo grey-headed parrots are illegally harvested in protected areas. Traders/breeders with permits can easily replace a dead captive bird with one sourced from the wild since permits are not linked to the DNA fingerprint of the birds. It is likely that traders sell grey-headed parrots, or Cape parrot / grey-headed parrot hybrids, as Cape parrots, increasing the demand for grey-headed parrots. Only relatively recently (in 2002 and again in 2005) has the Cape parrot been recognised as a separate species from the brown-necked parrot (<i>P. fuscicollis fuscicollis</i>) and the grey-headed parrot (<i>P. f. suahelicus</i>). BirdLife International and as a result the International Union for Conservation of Nature (IUCN) however still do not recognise the grey-headed and Cape parrot as two separate species. This has complicated the management and monitoring of international trade in harvested and captive bred birds and may have had a detrimental impact on the survival of the subspecies in the wild.		
Monitoring of harvest		
19. Methods used to monitor the harvest: What is the principal method used to monitor the effects of the harvest?	Direct population estimates	1
	Quantitative indices	2
	Qualitative indices	3
	National monitoring of exports	4
	No monitoring or uncertain	5
Grey-headed parrot populations are not monitored and the effects of harvest can therefore not be determined. National monitoring of exports has not been possible because CITES trade records do not distinguish between grey-headed parrots and Cape parrots.		
20. Confidence in harvest monitoring: Do budgetary and other factors allow effective harvest monitoring?	High confidence	1
	Medium confidence	2
	Low confidence	3
	No confidence	4
	Uncertain	5
Grey-headed parrot populations are not monitored and therefore there is no confidence in harvest monitoring. National monitoring of exports has not been possible because CITES trade records do not distinguish between grey-headed parrots and Cape parrots.		
Incentives and benefits from harvesting		
21. Utilization compared to other threats: What is the effect of the harvest when taken together with the major threat that has been identified for this species?	Beneficial	1
	Neutral	2
	Harmful	3
	Highly negative	4
	Uncertain	5
While the ultimate threat to the grey-headed parrot is habitat loss, which adversely affects diet and nesting sites, the more recent threat is local poaching and trade. Removals of adults cause a population to decrease rapidly.		
22. Incentives for species	High	1

conservation: At the national level, how much conservation benefit to this species accrues from harvesting?	Medium	2
	Low	3
	None	4
	Uncertain	5
There is currently no legal harvest and thus no incentives for species conservation gained through harvesting.		
23. Incentives for habitat conservation: At the national level, how much habitat conservation benefit is derived from harvesting?	High	1
	Medium	2
	Low	3
	None	4
	Uncertain	5
There is currently no legal harvest and thus no incentives for habitat conservation gained through harvesting. In areas where local communities act as custodians of the land, sustainable use of resources could be considered. However, detailed information on breeding success, fledgling success and recruitment is needed before any legal harvest can be implemented.		
Protection from harvest		
24. Proportion strictly protected: What percentage of the species' natural range or population is legally excluded from harvest?	>15%	1
	5-15%	2
	<5%	3
	None	4
	Uncertain	5
No portion of the wild population is strictly protected owing to the fragmentation of the habitat and the mobility of the subspecies. No portion of the population occurs solely in a protected area. The stronghold for the grey-headed parrot in South Africa is within two state protected areas namely the northern Kruger National Park and Makuya Nature Reserve in Limpopo. Movement out of these protected areas (e.g. for foraging) render the birds vulnerable to capture and persecution. The grey-headed parrot is afforded legislative protection by the Limpopo Environmental Management Act No 7 of 2003 and a permit is therefore required to harvest one of these birds. This legislative protection is however not a prohibition and therefore is not considered a strict protection measure.		
25. Effectiveness of strict protection measures: Do budgetary and other factors give confidence in the effectiveness of measures taken to afford strict protection?	High confidence	1
	Medium confidence	2
	Low confidence	3
	No confidence	4
	Uncertain	5
At present there is a low confidence in the protection measures as birds are illegally harvested from protected areas in the northern parts of Limpopo.		
26. Regulation of harvest effort: How effective are any restrictions on harvesting (such as age or size, season or equipment) for preventing overuse?	Very effective	1
	Effective	2
	Ineffective	3
	None	4
	Uncertain	5
Grey-headed parrots are specially protected in Limpopo and a permit is therefore required to harvest one of these birds. However, there is still a high level of illegal harvesting and thus the restriction is ineffective. There are currently no restrictions on the age of birds allowed for export. As chicks of many parrot species look alike, identifying grey-headed parrot chicks would be very difficult for law enforcers.		

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