Grey Parrot Report II

Some Conservation aspects of the African Grey Parrot *Psittacus erithacus* in Kakamega Forest, Kenya: Assessment of trade and Habitat Destruction effects.

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Summary:

The main focus of the second half of this project was to assess the involvement, attitudes and awareness levels of the local community on the Grey Parrot trade as well as developing a monitoring protocol for the Grey Parrot population trends and habitat quality.

Market surveys were done in the communities living in the Busia border town and its environs. A questionnaire was administered informally so as not to arouse any suspicion. Photographs from the field guide books were used to describe the Grey Parrot to the people being interviewed. Government officials at the Kenya-Uganda border were also interviewed as well as bicycle and taxi operators and brokers. Extensive surveys of preferred habitats for the Grey Parrots in Kakamega forest were conducted in search of the birds. The habitat surrounding sites visited were surveyed to document any disturbance caused by human activities.

Introduction

The African Grey Parrot occurs in Kakamega Forest, Kenya and is among 30 bird species that are confined to this forest. Kakamega Forest is a mid-altitude tropical rainforest, the easternmost outlier of the Congo Basin forests. Kakamega's avifauna is unique not only nationally, but continentally. It is a complex and fragmented forest, and one that has been under resource utilization pressure, from inside and outside for many years. Continuing forest fragmentation and destruction in Kakamega appears to have taken toll on the avifauna (Bennun and Njoroge 1999) and this has affected one of the world's most traded birds, the African Grey Parrot.

Based on the most recent (1994) assessment of globally threatened parrots by BirdLife International, 86 (26%) of the 332 psittacids in the world are at risk of extinction, with a further 36 'near-threatened'. It is a proportion unmatched by any other large family of birds and testifies to the peculiar vulnerability of parrots both in environmental terms and as an economic resource. The birds suffer the combination of habitat destruction (www.birdlife.or.ke 2007) and trapping for trade which are responsible for this exceptionally high number of threatened members of the family (del Hoyo 1997).

The species has been heavily traded: from 1994-2003, over 359,000 wild-caught individuals were reportedly exported from range states. It is one of the most popular avian pets in Europe, the United States, and the Middle East due to its longevity and

unparalleled ability to mimic human speech and other sounds. Demand for wild birds is also increasing in China, and increased presence of Chinese businesses in central Africa (particularly for mining, oil and logging) may increase illegal exports of this species. While there has been some domestic demand within range states, most impacts seem to be due to international trade, probably owing to the high value of this species. Habitat loss is also thought to be having significant impacts throughout West and East Africa. Proposed conservation measures include monitoring of wild populations, ascertaining extent of trade and thus implementing appropriate trade restrictions (www.birdlife.or.ke 2007). The main objectives of this study were to develop a monitoring protocol for Grey Parrot population trends, habitat quality and trade activities and to assess the involvement, attitude and awareness levels among the local community on Grey Parrot trade

Objectives

The main focuses of the second half of this project were;

1. To assess the involvement, attitudes and awareness levels of the local community on the Grey Parrot trade
2. To assess the status of rescued pet Grey Parrots in Kenya
3. To survey populations of Grey Parrots and identify existing suitable habitat pockets within Kakamega forest
4. To develop a monitoring protocol for the Grey Parrot population trends and habitat quality.

Methodology

Market surveys and local community involvement in GP trade;

Informal questionnaires were administered among members of the communities living in the Busia border town and its environs. Among the interviewees were former trappers of lovebirds and quails, members of local site support groups, retired civil servants and the immigration officials at the Kenya-Uganda border as well as bicycle and taxi operators and brokers. Grey Parrot photographs from the field guide: *Birds of Kenya and Northern Tanzania* (Zimmerman et al. 1996) were used to help respondents recognize the Grey Parrot. Appendix I is a sample questionnaire with questions asked during the informal interviews.

Status of rescued Grey Parrots in Kenya

Essentially our visit to KSPCA was to establish how the parrots came to be in their rescued state and to consult together with the staff thereof of the best ways to rehabilitate the parrots and habituate them back to their original environment, the forest.

Grey Parrot field surveys

Extensive field surveys were conducted in search for Grey Parrots at their preferred habitats and at the sites where they had been sighted earlier. These are the *Agrocarpus fraxinifolia* plantation behind the Rondo Retreat Centre, Liranda Hill and Shitiya River. The particular tree species preferred were scanned for the birds and whenever sighted their activities recorded. The team intensified observation effort by camping near Yala River on 25th of December 2007 to ascertain the roosting place of the Grey Parrots. Since Parrots must drink water at least once a day (Collar et al 1997) particular effort was focused on Shitiya and Yala Rivers. The habitat status and disturbance levels at sighting spots were also documented based on the detailed monitoring form (Appendix III) and photos taken (Appendix IV).

Grey Parrot monitoring

Grey Parrot monitoring will be incorporated into an already ongoing detailed monitoring for birds and habitat at Kakamega forest IBA. This scheme is being implemented by the Site Support Group (KEEP) who will now incorporate protocols for monitoring Grey Parrots along same and additional transects and seasons. (Appendix III – a sample monitoring form for KK)

Results

Market surveys, local community involvement and awareness

The bird trappers confirmed that indeed during the seventies and eighties, they used to trap birds to sell to customers mainly of Asian origin. The birds trapped were mainly lovebirds and the Brown parrots. They would also trap the Common Quail for food and sell to other members of the community. This has however changed as they claim that, changes in weather patterns have caused a downward trend in the number of especially Common Quail populations in the wild. They reported that they had never trapped the Grey Parrot.

Members of the local community who have crossed the Kenya-Uganda border several times attested to the fact that there exist illegal crossing points that are not frequently patrolled by customs officials. Along these points, several things are smuggled across and even those that pass through the inspection units without being detected. They did not commit themselves as to whether birds were part of the goods smuggled though they were quite knowledgeable about the parrot and lovebird families in Western Kenya. Red-headed Lovebirds and Brown Parrots are quite abundant in the border town forest patches and wooded farmlands and not shy at all. Older members of the community confirmed that the Grey Parrot was abundant several years ago and attributed their population

declines to habitat alteration which might have led to destruction of the bird's preferred habitat and tree food species.

The research team met with the local administration police who also confirmed that birds are indeed trapped and sold in the local market. They had however never seen the Grey Parrot being sold there.

The Customs department at the Kenya-Uganda border reported that they only inspect vehicles crossing the border to ensure that passengers have the right documents and the relevant taxes have been paid. They reported that rigorous inspection is not done at the border because they would not suspect anyone trying to smuggle plants or animals at the border. They believe it can only happen at the airports. The immigration officials at the border informed the research team of their need for illumination on not just birds but plants and animals as well. The customs official appreciated our information and awareness promising to pay more attention in inspecting luggage for possible illegal trafficking of birds and other animals.

Grey Parrot field surveys

The particular tree species preferred were recorded as well as the activities of the Grey Parrots. The habitats around the spots were also assessed. At the plantation behind the Rondo Retreat Centre, 4 Grey Parrots were seen flying in from the direction of River Yala. They settled on 30 meter high *Agrocarpus fraxinifolia* trees which were flowering and were observed licking nectar as they made whistling and squeaking noises. Deadwoods are common in the plantation but not much human activity or disturbance was observed. After camping at Yala River on 25th of December 2007 the team saw Five Grey Parrots early the following morning (26th Dec) flying from the tall trees across the swelled Yala River and towards Lirhanda Hill. Human activities leading to the deterioration of Grey Parrot habitats were documented and photographed (Appendix IV).

Below is a summary of the sites, numbers and activities of the parrots as sighted during the study (Tables 1 and 2):

Table 1: Sites showing possible and actual sightings of the Grey Parrot

Date	**Site**	**GPS coord.**		**Tree species preferred**	**No. of GP seen**	**Activity**
		Northing	**Easting**			
15/08/2007	Liranda Hill	00^0 13' 14.4''	034^0 53' 58.8''	*Maesa lanceolata* fruiting	0	
16/08/2007	Liranda Hill facing Yala Reserve	Forest cover too thick	Forest cover too thick			

17/08/2007	Yala River/Rondo Riverine Trail	Forest cover too thick	Forest cover too thick		0	
24/08/2007	Rondo Retreat Centre Road into forest	00^0 13' 55.4''	034^0 52' 02.5''	*Tremor guinensis* fruiting	3	Perched briefly then flew away
25/08/2007	Rondo Retreat Centre Road into forest	00^0 13' 55.4''	034^0 52' 02.5''	*Tremor guinensis* fruiting	2	Perched briefly then flew away
27/08/2007	Shitiya River/Illoro	00^0 15' 35.6''	034^0 54' 54.5''	*Syzgium codendium* and *Dembolia kilimandiscarium* fruiting	0	

Table 2: Summary of total records of Grey Parrot observed during the second half of the study

Date	Site	GPS Coords	No.G.P.seen	Tree species G.P. is on and height of tree	%Canopy cover	Activity of G.P.	Human activities around site and interesting tree species to note
23/12/2007	Rondo Riverine Trail	N 00^o 13'35.8'' E 0340 53'05.1''	0	0	60	0	Collection of firewood.Agrocarpus ssp, Bischofia ssp., Ficus sur-all non flowering and non-fruiting.
23/12/2007	Rondo Riverine Trail	N 00^o 13'18.3 E0340 53'01.0''	0	0	80	0	Maesopsis eminii,Bischofia ssp., Celtis Africana
23/12/2007	Rondo Riverine Trail	N00^o 13'29.2'' E0340 53'24.0''	0	0	65	0	Celtis Africana-flowering,Harungana ssp, Ficus sur fruiting, Bischofia plantation
24/12/2007	Rondo Retreat Centre Plantation	No GPS reception	7	Agrocarpus fraxinifolia-30 meters	75-80	Perched, licking nectar from flowers	none
25/12/2007	Rondo Retreat Centre	No GPS reception	7	Agrocarpus fraxinifolia-30 meters	75-80	Perched, licking nectar from	none

	Plantation					flowers	
26/12/2007	Yala River	No GPS reception	5		75	Flying and calling	Logging
14/3/2008	Isecheno Main forest	No GPS reception	3	*Maesopsis eminii*-35 meters.		Eating the fruits	Logging
29/3/2008	Rondo Retreat Centre Plantation	N00^{o} 13'49.4''	4	Agrocarpus fraxinifolia-30 meters.		Settled briefly then flew off towards Shitiya River.	None, tree planting of indigenous trees is done here.
2/4/2008	Shitiya River	No GPS reception	4	Agrocarpus fraxinifolia		Perched briefly then flew away	logging
5/4/2008	Liranda Hill	N00^{o} 13'09.6'' E0340 53'44.5''	4	None		Flying	Charcoal burning and logging. Forest fires.

Monitoring

The Kakamega Environmental Education Programme (KEEP) members have incorporated monitoring of the Grey Parrot alongside other globally threatened birds they look out for in Kakamega forest (Chapin's Flycatcher and Turner's Eremomela) during their bi-annual detailed IBA monitoring of species and habitat. During their dry season monitoring exercise by KEEP in February 2008, they did not spot any Grey Parrots. The Grey Parrot monitoring will be done at least twice a year and more sites will be covered during the regular bi-annual monitoring. The data collected during the current study has been included in the monitoring database for Kakamega and forms the initial baseline information on the possible population status of the Grey Parrot at this forest, against which future censuses will be compared.

Discussion

The fact that the Grey Parrots occur in different numbers in a group has raised many questions. For instance, in the first phase, three birds were seen on one day and two individuals the following day at the same location (Rondo Retreat Centre Road into forest). Also during the second phase of the project a flock of seven birds seen in December 2007 at the Rondo retreat were seen in groups of four in March 2008. This could mean that the group of seven seen in December 2007 split in to smaller groups of four and three, possibly due to change in food abundance or breeding activity. Or could this just be a loose association of two different families? It is apparent that apart from the single plantation of *Agrocarpus fraxinifolia* at the Rondo Retreat Center, nowhere else in the sites sampled has a single monocultural stand of tree species been recorded as a preferred spot for the Grey Parrot. Other areas where the birds were being recorded include sites with particular species like *Maesopsis eminii* or *Ficus Sur,* and only when they were fruiting.

Because of the distance parrots cover (Collar et al 1997), it was impossible to quite determine the home range. This also supported the notion that if the food trees were scattered, the birds would have to fly all over the forest stopping over at suitable foraging locations and watering points. Nectar-feeding demands wide-ranging behavior, since flowering events varies in time and space, and the birds have to be on the move in search for new sources (Collar et al 1997).

The habitat in the sites sampled was noted as satisfactory in size at least. Apart from the *Agrocarpus* plantation in the retreat centre, other sites exhibited disturbance. Hence places where the bird had regularly been seen before were now devoid of the species due to logging especially of the huge tall trees preferred for roosting.

The vegetation at Liranda hill was just recovering from forest fires that consumed virtually everything late 2007. The site is mainly visited by thatching grass collectors who may have started the fire accidentally while preparing meals. The fire burnt key fruit trees species like *Maesa lanceolata, Albizia gumifera, Syzygium spp.,* known to form part of the diet for the Grey Parrot. Charcoal kilns at various production stages could be seen. Thin smoke represents a fresh kiln that has just been set while thick smoke with particles of dust represent one that is being dismantled. Six distinct smoking sites were counted in approximately 1 km proximity. All these disturbances could have made these sensitive birds fly further in search of food.

It was quite apparent that the Immigration office at the border did not have adequate information as regards trade, passage of animals to and fro and more so who the dealers are. The local community knew about trapping and selling of birds. This, they confirmed happens but that the involved parties took extra great care and it would not be easy to penetrate any cartels in a casual investigation or interviews such as the ones we conducted.

Status of rescued Grey Parrots in Kenya

Rehabilitating rescued Grey Parrots at the Kenya Society for the Protection and Care of Animals takes 18 months. Apparently 250 baby parrots (Grey Parrots included) had been impounded at the Jomo Kenyatta International Airport on dates unclear to personnel of KSPCA. They were taken to KSPCA and only 18 Grey Parrots survived. 15 of the 18 later succumbed to death and only 3 of the original group survived. These 3 were taken to aviaries built in Rubondo Island on Lake Victoria. They too died. Most of them had names and were either escapees from pet owners or had been abandoned by moving owners.

When the Ornithology research team went to KSPCA offices on 12th August 2007, 7 Grey Parrots and one Red-fronted Parrot were noted and they all had different case histories as to how they were rescued or found. Pishu, a male, flew into Wilson airport in Langata Kenya, and the airport staff called KSPCA to collect him. No one could establish how far he had flown. Kaku, a female was left in a house when the owner left the Kenya to go abroad, neighbors heard bird noises and on investigating rescued an emaciated looking bird and took her to KSPCA. Sinbad, a dark male from Congo, almost grabbed a

banana from Dr. Sophie's' hand in Karen and consequently just accompanied her home. He had probably escaped. David, a male also, was found in Giraffe center, Nairobi where the staff at the center confirmed that they used to be 3 but 2 escaped and only David was found. No one knows how the birds came to Giraffe Centre.Luka, a female, was just released by owners who didn't want her anymore. Another male Penny, was released by his owner when leaving Kenya. He was taken to KSPCA after a neighbor noticed the distressed bird perched for long hours near its former house. Mohammed, a male had an unclear history similar to another parrot Monsieur that spoke French. They were both noticed as they flew round and round in Nairobi.

Dr. Sophie Walker, a veterinary doctor and the lead person in rehabilitating various birds and animals back to health, identified them as caged birds due to an exhibition of traits of being locked up: they ate sunflower seeds, green maize and bananas. One of the challenges faced by keeping the birds is that the birds show agitation for lack of space in the little aviary they are confined to. They cannot be released into the surrounding area because they are bound to come back to Dr. Sophie's place. This, we concluded is because, they have never learnt how to search for food, or the area does not even contain the kind of food the wild population has exhibited preference for. One diagnostic feature all the rescued parrots had was the look of emaciation. This was of course due to misinformation and lack of knowledge about the diet of these birds. Sunflower seeds are too oily and tend to make the parrots ill (Sophie Walker pers comm.).

Conclusion and Recommendations

Certainly, more research needs to be extended towards establishing the Grey Parrot population. Seven birds so far have been recorded. More detailed studies involving attaching of radio-transmitters/transponders to the birds so as to follow them properly are needed. More studies also need to be done on foraging habits ascertaining the dietary needs for Grey Parrots and different tree species preference for nectar, fruits and roosting. Extensive searches for the flowering trees now have to be done plus series of observations at all streams and riverine forest. This will have to be done with more help from KEEP.

This initial data has been included in the monitoring database for Kakamega and forms the initial baseline information on the possible population status of the Grey Parrot at this forest. Continued gathering of data on Grey Parrot numbers over a long period of time will provide a trend on their populations.

The KSPCA site at Karen Nairobi is actively involved in rehabilitation and treatment of Grey Parrots rescued from various sources, however there is no natural habitats for the birds close by where they could be released on experimental basis yet they are often seen wanting to fly within the aviary. We recommend the establishment of a pilot rehabilitation programme for the Grey within Kakamega Forest where the birds can be trained to recognize wild fruits, independence from humans and eventual release to the wild. Collaborative fundraising consultations towards this venture between all the

relevant custodians of biodiversity (Kenya Wildlife Service, Kenya Forest Service, National Museums of Kenya and Kenya Society for the Protection and Care of Animals) whether on paper or on the ground should be realized to ensure a process that will enable the continuity of the Grey Parrot populations in the wild. The Ornithology research team and Dr. Sophie have started consultations on plans to raise money for an aviary that could be built in Isecheno, Kakamega forest. It was established that the same calls the Grey Parrots made in KSPCA were the very same calls made by those in the wild in Isecheno, Kakamega Forest. Hence, rehabilitation could be done in Kakamega where the parrots once removed could then respond, adapt and show a yearning to learn their natural home. With proper funding, an aviary can be set up for rehabilitation of rescued parrots and KEEP members trained on how to handle these birds. The rehabilitated birds could then be released one at a time and with radio telemetry, be followed and monitored to ascertain any bonding with the wild population in Kakamega Forest.
Experts at KSPCA reported that most Grey Parrot owners fed them sunflower seeds which were not good for the parrots' health. There is a need to educate the pet owners on what to feed the parrots. Perhaps this would make escape ventures decrease and would open up pet owners to seek advice on how to treat parrots.

This study has created substantial awareness among the local communities, provincial administration, and the police and customs offices on wild bird trade. Consultations are underway to determine the best way forward on how to illumine various government authorities on the wild bird trade and especially to be on the look-out for species listed in CITES Appendices for Kenya.

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Appendix I:
The questionnaires used for interviews

Grey Parrot Project questionnaire for the local community living adjacent to Kakamega Rainforest. Attitudes and awareness levels of wild bird trade.

1) Have you ever seen this bird? Yes No
2) How frequently do you see it?
    i) Everyday
    ii) 2-6 times a week
    iii) Once a month
    iv) Never

3) Have you ever seen this bird in huge populations over the last 20 years?
    a) Yes, please give an estimate
    b) No, please give an estimate

4) Have you ever seen the bird perched or eating?
    a) If yes, what tree species was it perched on? What was it eating on the tree?

5) Are birds caught and sold here for food or for trade?
    a) If yes, what are the most common birds that are caught?

6) Have you ever seen this bird being sold? Yes No
    a) If yes, how much would it be sold for?

Grey Parrot Project questionnaire for the Immigration Officials at the border towns of Busia and Malava. Attitudes and awareness levels of wild bird trade.

1) Have you ever seen this bird before? Yes No
2) Have you got any records showing impounding of any animals being ferried illegally? Yes No
    a) If yes, are you aware of the laws guarding against ferrying of the animals? Were there any birds recorded? How many?
3) Are you aware of CITES and the animals and plants it protects?

Appendix II: Photos on rescued GP undergoing re-habilitation.

Sinbad from Congo

From left to right: Kaku, Pishu, David, Mohamed

Monsieur

Appendix III: Detailed Monitoring form for Kakamega Forest

Conservation of Kakamega Rainforest-Bird Census Data Sheets

Date _____

WEATHER	**(a) Wind**				**(b) Temperature**			**(c) Rain**
(d) % Cloud Cover		Calm	Light Wind	Windy	Very Windy	Cold	Mild	Hot	

Observer(s) _____

Transect Details

Transect Name/Number_____***Length (Km)*** _____

Start X coordinates _____ ***End Y coordinates*** _____

End X coordinates _____ ***Y coordinates*** _____

Time start _____ ***Time end*** _____

Species	**Seen (S) or Heard (H)**	**No**	**Distance**		**Other observations**
			<25m (specify)	>25m (specify)	

Appendix IV: Photos on habitat destruction and human encroachment

Felled tree logs in Iloro

Logging of trees near the Rondo riverine trail

Daily gathering of firewood, both deadwood and felled trees in Isecheno main forest

Forest encroachment and heavy logging in Isecheno