NDF WORKSHOP CASE STUDIES
WG 6 – Birds
CASE STUDY 1
Psittacus erithacus
Country – **GUINEA**
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AFRICAN GREY PARROT *PSITTACUS ERITHACUS* CASE STUDY

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I. Background information on the taxa

1. BIOLOGICAL DATA

1.1. Scientific and common names
African grey parrot *Psittacus erithacus*

1.2. Distribution
The species occurs from Guinea-Bissau in West Africa though the forests of West and Central Africa to western Kenya and south to northern Angola and Democratic Republic of Congo. Within this broad extent of occurrence of more than 3,000,000 sq km (BirdLife International 2008) it is found in Angola, Benin, Burundi, Cameroon, Central African Republic, The Democratic Republic of the Congo, Congo, Côte dIvoire, Equatorial Guinea, Gabon, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Mali, Nigeria, Rwanda, Sâo Tomé e Principe, Sierra Leone, Tanzania, Togo, Uganda.

1.3. Biological characteristics:

1.3.1. *General biological and life history characteristics of the species*

1.3.2. *Habitat types*
The species' preferred habitat is moist lowland forest, although it is found up to 2,200 m altitude in the east of its range. An association within this range for *Elaeis* palm fruit has been noted. At least in West

Africa, the species makes seasonal movements out of the driest parts of its range in the dry season. Although typically inhabiting dense forest, birds are commonly observed in or at forest edges, clearings, gallery forest, mangroves, wooded savannah, cultivated areas, and even gardens (Juniper and Parr, 1998). However, habitat alteration often reduces nest-site availability but allows sizeable populations of large frugivores to persist owing to increased food availability in secondary forest and anthropogenic habitats. Such long-lived birds may remain common for some period after populations are no longer self-sustaining. In captivity, birds have a mean lifespan of around 45 years, and first breed at about five years of age. Clutches comprise three to five eggs and wild productivity is around 0.4 chicks/nest (Fotso, 1998b).

Gatter (1997) estimated two breeding pairs/ km^2 in logged forest north of Zwedru, Liberia. McGowan (2001) provided similar estimates of nest densities in Nigeria of 0.5-2.1/km^2, believing the higher end to be more accurate. This would indicate 4.2 breeding birds/km^2 plus non-breeding birds (the remaining 70-85% of the population, as estimated by Fotso (1998b), giving estimates of 4.9-6.0 birds/km^2. These estimates are substantially higher than those of 0.3-0.5 birds/km^2 in good habitat in Guinea (Dändliker, 1992a) and 0.9-2.2 birds/km^2 (in evergreen forests) or 0.15-0.45 birds/km^2 (in semideciduous forests) in Ghana (Dändliker, 1992b). Using these density estimates, the overall population in West Africa (including *P. e. timneh*) was estimated at 160,000 to 360,000 birds; Central African populations are much larger (Dändliker, 1992a).

1.3.3. *Role of the species in its ecosystem*

There is no specific information on this.

1.4. Population:

1.4.1. *Global Population size*

Using the density estimates given in 1.3.2 above, the overall *P. e. timneh* population was estimated at 120,100-259,000 birds, and the West African population of *P. e. erithacus* at 40,000-100,000 birds (BirdLife International 2008; , although Central African populations of this subspecies are much larger (Dändliker 1992a). Using a global land cover classification (JRC 2000), a digitised map of the species' range from Benson et al. (1988), and estimates of density of 0.15-0.45 birds/km2 in semi-deciduous forest (including deciduous forest) and 0.3-6.0 birds/km2 in evergreen forest (including swamp forest and mangrove), supplemented by recent (post-1995) published national estimates where available, an initial coarse assessment of the global population of this species is 0.68-13 million individuals.

1.4.2. *Current global population trends*

___increasing _X_decreasing ___ stable ____unknown

BirdLife International (2008) report that there have been population declines have been noted in Burundi, Cameroon, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Nigeria, Rwanda, São Tomé and Príncipe, Sierra Leone, Togo, Uganda and parts of Congo and the Democratic Republic of the Congo (see AC22 Doc 10.2 Annex 1). In all of these declines, trapping for the wild bird trade has been implicated, with habitat loss also having significant impacts throughout West and East Africa. Data suggest that c. 21 % of the wild population is being harvested annually, and in addition forest loss during 1990-2000 was estimated to be particularly high in Côte d'Ivoire (31%), Sierra Leone (29%), Nigeria (26%), and Liberia (20%).

1.5. Conservation status:

1.5.1. *Global conservation status (according to IUCN Red List)*

___Critically endangered _X_Near Threatened
___Endangered ___Least concern
___Vulnerable ___Data deficient

1.5.2. *National conservation status for the case study country*

Range State	**National Protection status**
Angola	Totally protected
Benin	No information
Burundi	No information
Cameroon	Not protected. Capture requires permits under 1994 Wildlife and Fisheries Act
Central African Republic	No information
Congo	Not protected. Capture and possession requires 'permis de detention'
Côte d'Ivoire	Hunting and trapping not permitted in classified forest and protected areas
Democratic Republic of Congo	Hunting is regulated. Capture only allowed under permit in specified sites, by specified trappers
Equatorial Guinea	No information
Gabon	Trapping requires a permit
Guinea	Hunting is illegal, but live-trapping is not
Guinea-Bissau	Nationally protected. Moratorium on trapping
Kenya	Totally protected
Liberia	No information
Mali	No information
Nigeria	Totally protected
Rwanda	Exports are banned
Sierra Leone	Harvest for export governed by permit. No permits issued for domestic use
Togo	No information
Uganda	Totally protected

1.5.3. *Main threats within the case study country*

___No Threats
_X_Habitat Loss/Degradation (human induced)
___Invasive alien species (directly affecting the species)
_X_Harvesting [hunting/gathering]
___Accidental mortality (e.g. Bycatch)
___Persecution (e.g. Pest control)
___Pollution (affecting habitat and/or species)
___Other_____
___Unknown

2. SPECIES MANAGEMENT WITHIN THE COUNTRY FOR WHICH CASE STUDY IS BEING PRESENTED

2.1. Management measures

Across the species' distribution there is little evidence of active management, although in some range States there is legislation in place to protect the species from over-exploitation.

2.2. Monitoring system

2.2.1. *Methods used to monitor harvest*

In most countries systems for monitoring harvest are not described. Importantly, it has been concluded that in some key countries quotas are either regularly exceeded (e.g. Cameroon, Congo), quotas may exceed sustainable harvest (e.g. Guinea) or the basis for setting quotas is not at all clear (see AC22 Doc 10.2 Annex 1). Furthermore, the widespread illegal harvest of African grey parrots means that, by its very nature, an unknown number of birds are being removed from the wild population and so there is no method for assessing the overall number of individuals (or proportion of the population) removed.

2.2.2. *Confidence in the use of monitoring*

Issues related to this are covered under II below.

2.3. Legal framework and law enforcement

The species is listed in Appendix II of CITES. As indicated in Section 1.5.2, national protection varies considerably throughout its distribution.

AC 22 Doc 10.2 states: "P. erithacus was included in CITES Appendix II in 1981, and has been the subject of two previous significant trade reviews. The first, which took place prior to the establishment of a formalized review process, determined that trade in the species was a

"possible problem" (Inskipp et al. 1988). The second was completed in 1992 under Phase I of the process established via Resolution Conf. 8.9, and concluded that the Impact of current levels of trade and/or the conservation status of the species was insufficiently known (Inskipp and Corrigan, 1992). Based on the information provided, at their seventh meeting, the CITES Animals Committee formulated recommendations for five Parties. These were subsequently communicated by the Secretariat to the Parties concerned (Cameroon, Ghana, Guinea, Liberia and Togo) in June 1992 (AC.8.10, AC.8.10.5)." BirdLife (2008) goes on to say that "The Animals Committee of CITES has recommended up to a two-year ban from January 2007 on exports of African Grey Parrots Psittacus erithacus from four West African countries (Cote d'Ivoire, Liberia, Sierra Leone and Guinea), where the distinctive (sub)species timneh is found, and in Cameroon, where the more widespread (sub)species erithacus occurs. For a further two countries - Congo and the Democratic Republic of Congo - the Committee has recommended that quotas should be halved to 4,000 and 5,000 birds respectively. The species occurs in a number of protected areas."

3. UTILIZATION AND TRADE FOR RANGE STATE FOR WHICH CASE STUDY IS BEING PRESENTED.

3.1. **Type of use** (origin) **and destinations** (purposes)

The African grey parrot is an extremely popular pet in many parts of the world. Historically this has typically been Europe and the United States (where many websites are devoted to information on the welfare and keeping of these and other parrot species), but it is also becoming increasingly popular in the Middle East. The popularity arises from their status as 'companion animals' whereby they are usually kept inside houses. The main reason for the desire that many people have to own an African grey parrot is its remarkable ability to copy human words, although other aspects of its behaviour are also seen as attractive. Furthermore, as a long-lived species, many people develop extremely strong attachments to individual grey parrots over many years.

Virtually all international trade is for this pet market and is from wild specimens. Young birds still in the nest are the most sought after as the younger the birds are the more likely it is that they will mimic human words and this is a very desirable characteristic for many people.

Table 1. AC22 Doc 10.2 Annex 1 provides the following summary of exports from range States between 1993 and 2004 with an indication of the degree of concern and comments on impacts on wild populations.

Range States selected for review

Range State	Exports* (1994-2003)	Urgent, possible or least concern	Comments
Angola	191	Least concern	Low levels of exports reported
Benin	13	Least concern	Low levels of exports reported
Burundi	0	Least concern	No reported exports
Cameroon	156,855	Urgent concern	Little recent population information, however indications of localised declines and range contraction; export quotas (which have regularly been exceeded) may be high relative to sustainable offtake; suspected illegal trade a concern
Central African Republic	228	Least concern	Low levels of exports reported
Congo	31,946	Possible concern	Exports increasing in recent years; quotas regularly exceeded; little recent population information, scientific basis for quotas and non-detrimental nature of exports not clear
Côte d'Ivoire	**18,903	Urgent concern	Exports increasing in recent years; quotas regularly exceeded; little recent population information but habitat disappearing; scientific basis for quotas and non-detrimental nature of exports not clear; suspected illegal trade a concern.
Democratic Republic of Congo	118,780	Possible concern	Little recent population information; scientific basis for quotas and non-detrimental nature of exports not clear; suspected illegal trade a concern
Equatorial Guinea	770	Possible concern	Recent increase in exports; scientific basis for quotas and non-detrimental nature of exports not clear
Gabon	382	Least concern	Low levels of exports reported
Guinea	6,465	Urgent concern	Population believed to have declined significantly with concern that permitted exports may not be within sustainable levels; suspected illegal trade a concern
Guinea-Bissau	69	Least concern	Low levels of exports reported
Kenya	503	Least concern	Negligible international trade reported recently; earlier trade based on import records so could reflect reporting error
Liberia	11,045	Urgent concern	Species regarded as depleted, export levels likely not to be sustainable; suspected illegal trade a concern
Mali	66	Least concern	Low levels of exports reported
Nigeria	539	Least concern	Authorized international trade at low levels; high national demand; illegal exports, and possibly imports, believed to be substantial and require attention.
Rwanda	0	Least concern	No exports reported
Sierra Leone	10,911	Urgent concern	Preliminary calculations suggest current exports are unsustainable
Togo	116	Least concern	No viable population; low level of exports reported likely to have originated elsewhere; the origin of any further exports requires confirmation
Uganda	41	Least concern	Low levels of exports reported

* Excluding re-exports
**Figures for *P. erithacus* and *P. e. timneh*

Table 2. Exports (including re-exports) of Psittacus erithacus from range States 2000-2007. Figures for 2006 and 2007 (in shaded columns) are considered incomplete as yet. Data have been extracted from the CITES Trade Database maintained at UNEP-WCMC.

Country	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**Totals** (up to **2005)**	**Totals** up to **(2007)**
Angola	0	11	10	9	7	4	0	2	41	43
Benin	4	0	6	0	3	1	2	0	14	16
Burundi	1	2	6	13	1	0	0	0	23	23
Cameroon	17532	14969	16405	11113	17465	17053	4300	0	94537	98837
CAR	21	15	10	7	3	2900	850	2	2956	3808
Congo	2103	8272	8205	9243	7092	8773	606	0	43688	44294
Côte d'Ivoire	38	913	958	4789	3911	2607	1401	0	13216	14617
DRC	14292	10662	5867	15326	18997	15986	10787	751	81130	92668
Eq. Guinea	5	3	8	736	487	272	0	0	1511	1511
Gabon	47	82	33	45	60	54	10	10	321	341
Ghana	2	0	1	6	0	3	0	1	12	13
Guinea	19	8	103	552	1310	2428	3495	0	4420	7915
Guinea-Bissau	1	1	4	2	0	0	0	2	8	10
Kenya	48	23	10	2	7	4	3	0	94	97
Liberia	0	0	0	0	575	1422	0	0	1997	1997
Nigeria	5	6	13	1	4	400	0	0	429	429
Sao Tome and Principe	40	18	0	0	0	0	0	0	58	58
Sierra Leone	0	0	0	0	0	650	0	0	650	650
Togo	3	13	6	7	11	4	0	0	44	44
Uganda	7	24	39	5	6	11	2	0	92	94
Totals	**34168**	**35022**	**31684**	**41856**	**49939**	**52572**	**21456**	**768**	**245241**	**267465**

3.2. Harvest:

3.2.1. *Harvesting regime*

Post-capture, pre-export mortality estimates for the species in Cameroon, Democratic Republic of Congo, Ghana, Guinea and Nigeria average 30-40% (overall between 15 and 66%) (Dändliker, 1992a,b; Fotso, 1998b; McGowan, 2001; Ngenyi, 2002). In Nigeria, birds are harvested during the nesting season when nestlings are removed from the nest. As there is increasing competition between trappers, nestlings are being taken at younger ages each year. This means that survival is increasing uncertain. McGowan (2001) concluded that for every 100 birds trapped, 43 would be dead before leaving the trapper and of the surviving 57, 34-40 would reach a market such as Calabar. That is a mortality rate of 60-66% by the time the birds reach a major domestic town or city.

3.2.2. *Harvest management/ control* (quotas, seasons, permits, etc.)

The Animals Committee of CITES has recommended up to a two-year ban from January 2007 on exports of African Grey Parrots *Psittacus eri-*

thacus from four West African countries (Cote d'Ivoire, Liberia, Sierra Leone and Guinea), where the distinctive (sub)species timneh is found, and in Cameroon, where the more widespread (sub)species *erithacus* occurs. For a further two countries – Congo and the Democratic Republic of Congo – the Committee has recommended that quotas should be halved to 4,000 and 5,000 birds respectively. The species occurs in a number of protected areas.

3.3. Legal and illegal trade levels

See Table 1 and Table 2. It is difficult to quantify the extent of illegal trade any further.

II. Non-detriment finding procedure (NDFs)

As the Significant Trade Review (AC22 Doc 10.2 Annex 1) indicates there is a significant lack of information from across the species' range on the process by which quotas are set and NDFs made. Therefore, the issues are discussed in general terms here.

The criteria for setting the export quotas is not clear (see AC22 Doc 10.2 Annex 1) and the haphazard way that these quotas are established and in some cases exceeded, suggest little rigour in the NDF procedure across throughout the species' range.

The over-riding challenge in making non-detriment findings for the African grey parrot throughout its range is the difficulty of assessing the impact that removal of individuals will have on wild populations. This is because assessing the status of the population is difficult (making reliable population estimates is a significant challenge) and pre-export mortality appears to be variable, but is typically high. If certain age groups are also harvested (e.g. chicks), the impact of reduced or possibly no recruitment into the adult population also has to be considered.

When combined with the uncertain basis on which export quotas are established (and sometimes exceeded) and the extent of illegal harvest, it is clearly very difficult to conclude whether or not offtake is detrimental to a wild population. This effectively means that any administrative process for determining non-detriment will be confounded by poor knowledge and limited ability to implement what legislation exists.

The Nigerian MA answered 'No' to the following question in their biennial report (2003-04) to the CITES Secretariat (see http://www.cites.org/common/resources/reports/pab/03-04Nigeria.pdf) in August

2006: "Are harvest and/or export quotas as a management tool in the procedure for issuance of permits?"

RECOMMENDATIONS: HOW COULD AN NDF BE DONE

Determining that any harvest has no detrimental impact on a wild population requires the following:

- the population maintains its geographic distribution;
- numbers of breeding adults remain stable; and
- there are sufficient young birds being recruited into the adult population.

Therefore, it is considered that the following data are required:

- the area over which the population is distributed and the habitats that are used within this area;
- a quantitative assessment of the population size of mature adults; and
- fieldwork must demonstrate that a good proportion of young birds are successfully fledging from nests. It would be desirable to determine what constitutes a 'good proportion' based on what is know about the species' biology and what lessons can be drawn from the population biology of other parrot species.

This last item may be critical. Without a convincing demonstration that there are young birds fledging successfully it is not possible to be confident that a population will be maintained. Note that where adults are trapped (as well as, or instead of, young birds being removed from the nest), proof that young birds are fledging is not enough on its own to safeguard wild populations."