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Response to questions posed by

The Royal Society for the Protection of Birds

regarding the international trade in wild birds

(Contract No. 21/7200/1160)

PREPARED BY

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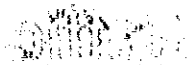

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ACKNOWLEDGEMENTS

Much of the information provided in the following pages has been compiled from the research and writings of staff within the TRAFFIC Network. The work of many other individuals working on issues related to the international trade in wild birds has also proved invaluable. Special thanks are due to Jorgen Thomsen, Stephen Nash and Mandy Haywood of TRAFFIC International, who provided a great deal of information and assistance during the compilation of this report, and to Kim Lochen, also of TRAFFIC International, for her encouragement from start to finish.

INTRODUCTION

The text that follows is provided in response to a request from the Royal Society for the Protection of Birds (RSPB) for information on the international trade in live wild birds. The request took the form of a series of questions (Contract No. 21/7200/1160). In general, these questions have been answered in the order they were presented by RSPB. However, where logic dictated that several questions be answered simultaneously or in direct succession, e.g., those related to 'significant trade' in wild bird species, responses were structured accordingly. Due to the very broad scope of a number of the questions posed under the terms of the contract, agreement was reached with RSPB regarding the components of the questions for which information would be provided, as well as the level of detail of TRAFFIC International's response.

Information and data were compiled from a variety of published and unpublished sources. **These data may not be reproduced electronically in any form.** Taxonomic references generally follow Sibley and Monroe (1990), however subspecific references have been left as stated in the data sources used. More detailed information regarding the compilation of trade data is provided in the following section.

The views of the author expressed in this document do not necessarily reflect those of the TRAFFIC Network, WWF or IUCN. The designation of geographical entities in this publication, and the presentation of material, do not imply the expression of any opinion whatsoever on the part of TRAFFIC or its supporting organisations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

It is my hope that the information that follows is of use to RSPB and BirdLife International's efforts to conserve wild bird populations worldwide.

Teresa A. Mulliken
Programme Officer
TRAFFIC International

METHODS USED TO COMPILE TRADE DATA

International trade data for CITES-listed species

Countries that are party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are required to produce annual reports documenting all imports and exports of CITES-listed wildlife taking place within each calendar year. CITES annual reports are submitted to the CITES Secretariat, the administrative body for the treaty, and then forwarded to the World Conservation Monitoring Centre (WCMC), which serves as the repository for CITES annual report information on behalf of the CITES Secretariat and CITES Parties. WCMC incorporates this information into a computerised database, which serves as the most comprehensive source of information regarding levels of international trade in CITES-listed bird and other wildlife species.

There are, however, a number of constraints that limit the accuracy of trade figures compiled from CITES annual report data. Countries that are not party to CITES do not submit annual reports, and those countries that are Parties sometimes fail to submit them. As a result, trade to or from some countries may go unrecorded for several years, or entirely. Furthermore, CITES annual reports for many countries document the information contained on CITES permits issued by government personnel rather than the composition of the actual shipments entering trade. As permits are frequently issued but not used, or may be used for fewer birds than authorized, this can result in over-reporting of trade volumes. Finally, CITES permits, which have a validity of up to six months, may be issued during one calendar year but not used until the next, with the result that exports reported by the exporting country during a given year may not be recorded as imports by the importing country until the following year. As a result, some shipments may be counted twice (once in one year, and once in the next) when trade volumes are calculated from CITES annual report data. Even given these limitations, however, CITES annual report data remain an very valuable source of information with respect to international trade in CITES-listed wildlife.

CITES trade figures provided herein and in the accompanying annexes were calculated from CITES annual report data maintained by WCMC. All trade figures represent gross trade, the total exports or imports reported by CITES Parties, regardless of whether or not the birds in trade are likely to have been re-exported one or more times. Furthermore, the largest reported trade per species/year/country was used to calculate trade figures. By way of explanation, if country 'A' reported the export of 100 *Amazona aestiva* to country 'B' in 1990, but country 'B' reported the import of 150 *A. aestiva* from country 'A' during that same year, then the figure 150 was used to further calculate export and import volumes for *A. aestiva* during that year. This method of calculating trade volumes produces maximum possible trade figures based on CITES annual report data.

CITES reporting requirements assume that the country of origin for specimens in trade is equivalent to the country of export unless otherwise stated. However, as will be clear to those reviewing the Annexes attached, live birds have been reported as originating from non-range countries. This may reflect the legal but incorrectly reported re-export of birds; the export of captive-bred specimens; or the export of specimens falsely declared as having originated in a non-range country.

International trade data for non-CITES species

There is no established international mechanism for compiling data for trade in non-CITES species. Information compiled for this report includes US Fish and Wildlife Service import records, quarantine data compiled by the US Department of Agriculture and the UK Ministry of Agriculture, Fisheries and Food (MAFF), data for trade in non-CITES species compiled by the UK Joint Nature Conservation Committee, non-CITES trade data provided with CITES annual reports, and export data provided by individual countries. As with CITES annual report data, when trade records existed for the trade in the same species, between the same countries, and during the same years, the larger of the available figures was used to calculate trade volumes.

RESPONSE TO QUESTIONS POSED BY RSPB

I. How many birds are involved in the international trade per year?

Overview

Over 2,600 of the approximately 9,600 described bird species have been recorded in international trade during the past 20 years (Inskipp, 1990). Accurate trade volumes for most species are unknown, however, owing to varying or non-existent import and export reporting requirements established by countries engaged in international trade. Inskipp (1979) estimated that a minimum of 7.5 million birds per year were traded internationally during the early 1970s, a period during which trade appears to have peaked. The total world trade appears to have declined since that time (Inskipp, 1990), coinciding with increased trade restrictions and more effective trade controls adopted by a number of countries during the 1970s and 1980s. Several countries that had been important suppliers of wild-caught birds to foreign markets banned exports (e.g. India, Colombia, Bolivia), and many countries adopted more rigorous wildlife trade controls following their accession to CITES.

Extrapolating from the 1983 to 1988 trade volumes of major producer and consumer countries, Inskipp (1990) estimated that from 2-5 million wild birds were traded internationally each year. Lack of information regarding exports of live birds from China and some parts of Southeast Asia is responsible for much of the uncertainty with respect to the total number of birds in trade. For example, a Chinese Government official indicated that as many as three million birds were exported from China in one year during the mid-1980s (Melville, 1989). The majority of these birds were almost certainly non-CITES, primarily passerine, species. Trade is poorly documented in Chinese trade records as well as in the records of countries of import, however (Inskipp, 1990). Birds exported from China are believed to be imported primarily by East and Southeast Asian countries, but at present there is little quantitative information regarding this trade. Research being undertaken by WWF Hong Kong should greatly increase knowledge of the trade from China, allowing clarification of total trade volumes as well as main species in trade.

Several factors may have combined in the past few years to reduce the total number of birds traded between Africa, Asia, South America and consumer markets in the United States and Europe. Several NGOs launched campaigns in 1990 to discourage commercial and government airlines from carrying wild-caught birds. This appears to have had some effect in reducing overall trade volumes to North American and European markets, especially with respect to exports from Africa. For example, exports from Senegal, which averaged approximately 1.2 million birds (mainly passerines) per year during the 1980s may have declined to approximately a half a million birds per year as a result of airlines' refusal to carry wild-caught birds to foreign markets (Diop and Association des Oiseliers dur Senegal, 1993). Legislative actions in importing markets may also have reduced the number of birds in international trade. In the United States, the *Wild Bird Conservation Act* took effect in October 1992. The Act had the initial effect of limiting imports of CITES-listed species to previous years' levels. A ban on imports of virtually all CITES Appendix II species came into effect in October 1993, and was extended to Appendix III species in March 1994. Provisions for banning imports of non-CITES species are also included in the legislation. Implementation of this Act is likely to have reduced total US wild bird imports by several hundred thousand birds per year.

Legislative actions in exporting countries may also have reduced the total number of live wild birds in international trade. In Tanzania, the second largest African supplier of wild birds to international markets, new government export quotas have reduced maximum legal export volumes from 1.6 million birds per year in 1990 to 95,500 (plus unlimited numbers of *Quelea quelea*) per year in 1994 (Anon., 1993a). Tanzania's reported export of live birds totalled only 323,000 birds during 1990 (Edwards and Broad, 1992). Argentina, the largest exporter of South American psittacines, has also significantly reduced export volumes, and Guyana and Honduras have suspended exports altogether.

It will be several years before it will be possible to determine the extent to which various factors described above have reduced the total number of live wild birds traded internationally, and/or have resulted in a shift of the trade to other markets. Although US imports are certain to have declined, TRAFFIC Europe estimates that approximately 1.5 million live birds continue to be imported into the European Union each year (T. DeMeulenaer, pers. comm.). Bearing in mind that Asian countries have a long tradition of bird-keeping, and that Asian markets may well be far more significant than those of many North American and European countries (e.g., see Nash, 1993), Inskipp's 1990 lower estimate of two million birds in trade remains a reasonable best guess of minimum trade levels; hopefully, forthcoming information on trade from China will allow a more accurate estimate to be made with regard to total world trade levels.

Trade in CITES-listed species

Thanks to CITES annual reporting requirements for countries party to the Convention, documentation of international trade in CITES-listed bird species is more extensive than that of trade in non-CITES species. However, trade in CITES Appendix III bird species appears to be less consistently recorded than trade in Appendix I and II species (Mulliken and Thomsen, undated), with some Parties considering that this trade is only to be recorded when wildlife is exported from a country actually listing the species in Appendix III.

As noted previously, CITES annual report data do not provide exact figures for total international trade in CITES-listed species, but in most cases do give a good indication of trade volumes. However, CITES annual report data may under-represent total trade for some bird species. Nash (1992) noted, for example, that the actual volume of trade in Irian Jaya parrots was likely to be "significantly greater than the officially reported trade" due to ineffective trade monitoring. The fact that very little illegal international trade is reflected by CITES annual report data can also result in under-reporting of trade in some species, e.g. some Mexican parrots: it has been estimated that the illegal trade in parrots from Mexico to the United States involved from 25,000 to 150,000 birds per year during the late 1980s (Mulliken and Thomsen, 1990; Thomsen and Hemley, 1987).

CITES-reported trade in CITES-listed bird species for the years 1980 to 1992 (the last year for which a significant proportion of CITES annual reports were available when these data were compiled) is summarized in Table 1 and provided by species and country of origin/export in Annexes 1-3.

CITES annual report data show the gross trade of approximately 11.5 million live birds during the period 1980 to 1992, an average of 880,000 birds per year. Reported trade in Appendix I species, much of which involved captive-bred parrots such as *Cyanoramphus novaezelandiae* remained relatively stable. The increase in reported trade in 1991 results in part from a single record for the trade of 1,050 *Psephotus chrysopterygius*, which seems likely to be erroneous. CITES-reported trade in Appendix II species increased from 1985 to 1988. This increase is likely to represent an actual rise in the number of Appendix II birds traded internationally by CITES Parties rather than simply an artefact of improved reporting or changes to species' listings in Appendix II. Reported trade in Appendix II bird species declined from 1988 to 1991. Again, this seems likely to represent real trends in trade, rather than changes in reporting efficiency. Evidence that imports into the United States were declining was available as early as 1990. Determining the specific cause(s) of this decline is beyond the scope of this study. However, it seems likely that increased trade controls in countries of export and better implementation of trade controls in both exporting and importing countries were important factors. The increased availability of captive-bred birds and 'anti-bird-trade' campaigns including airlines' refusal to carry wild-caught birds also seem likely to have had a role in reducing international trade volumes. Demand for wild-caught birds of some species was believed to be on the decline in the United States in the early 1990s (Allen, pers. comm.). The further 50% decline in trade volumes from 1991 to 1992 cannot be assumed to be indicative of an equivalent decline in total trade, as many CITES Parties had not provided 1992 CITES annual reports at the time these data were compiled.

Table 1. Gross CITES-reported trade in live birds (1980-1992 [1]).

Year	Appendix I	Appendix II	Appendix III	Total
1980-1984	7,590	2,206,055	38,753	2,252,398
1985	1,324	620,296	108,241	729,861
1986	1,457	662,696	359,209	1,023,362
1987	1,879	701,302	495,200	1,198,381
1988	2,765	740,797	939,688	1,683,250
1989	3,068	663,190	1,044,789	1,711,047
1990	2,442	560,229	660,565	1,223,236
1991	3,598	510,670	565,346	1,079,614
1992	991	255,211	346,388	602,590
Total	25,114	6,920,446	4,558,179	11,503,739

[1]Data for 1992 are incomplete.

Source: CITES annual report data compiled by WCMC and TRAFFIC International.

The data show a rapid rise in trade in Appendix III species in 1986. This reflects the inclusion in Appendix III by Ghana of a number of African passerine species during that year. Reported trade in Appendix III species showed declined following a peak in 1989. This may reflect reduced trade in African passerines in response to increased trade controls and the refusal of some airlines to carry wild-caught birds. However, it must be borne in mind that reporting of trade in Appendix III species is less consistent than reporting of trade in species listed in Appendix I or Appendix II.

Trade in non-CITES species

As noted above, trade in live non-CITES birds is poorly documented, but probably represents well over a million birds per year. Trade data for non-CITES species available from the United States, the United Kingdom, South Africa and other sources are combined in Annex 4. These data provide only a small component of what is clearly a much larger international trade in non-CITES species.

Exports from Senegal have declined steadily over the past 20 years, falling from 1.7 million birds in 1972 to under 1 million in 1992 (Edwards and Biteye, 1992), perhaps to only 0.5 million per year by 1993 (Diop and Association des Oiseliers dur Senegal, 1993). The vast majority of birds in trade are almost certain to have been non-CITES or CITES Appendix III passerines.

Nash (1993) recorded 380 songbird species for sale during trade surveys in Southeast Asia (Annex 5), and estimated that approximately 500-600 species were actually involved in trade. The vast majority of these are not listed in the CITES Appendices, and trade data are largely unavailable. Documented imports of non-CITES songbirds through Indonesia's Soekarno-Hatta Airport during a four-month period are summarized in Table 2, and Indonesia's capture quotas for non-CITES species in Table 3. Information in these tables gives some indication of the species of birds in trade, but clearly reflect only a fraction of the total international trade in Southeast Asian songbirds.

Table 2. Southeast Asian birds imported through Indonesia's Soekarno-Hatta International Airport during the period 17 October 1991 to 31 January 1992.

Species	Ctry Exp/Re-export	Quantity	Total
Garrulax canorus	China	6,940	
	Hong Kong	4,914	
	Malaysia	1,475	
	Singapore	50	13,379
Garrulax leucolophus	Singapore	50	50
Garrulax perspicillatus (?)	China	510	
	Hong Kong	150	
	Malaysia	1,440	
	Singapore	180	2,280
Garrulax spp.[1]	China	10,150	
	Hong Kong	8,805	
	Malaysia	4,415	
	Singapore	1,025	24,395
Geopelia striata	Singapore	9,035	9,035
Leiothrix argentauris	China	240	240
Leiothrix lutea	China	9,700	
	Hong Kong	2,400	
	Malaysia	5,470	17,570
Pycnonotus zeylanicus	Singapore	1,805	1,805
Pycnonotus spp.	Singapore	50	50
Total			68,804

[1]Most likely *Garrulax chinensis* and *G. leucolophus*.

Source: Indonesian quarantine documents, from Nash (1993).

Table 3. Capture quotas for non-CITES bird species in Indonesia (1987-1993)[1].

Species	1987	1988	1989	1990	1991	1992	1993
Acridotheres fuscus	-	-	14,500	17,855	14,850	-	-
Acridotheres tristis	-	-	4,400	5,475	6,400	-	-
Amandava amandava	2,300	2,300	3,000	5,000	5,000	1,000	1,000
Anseranas semipalmata	-	-	-	-	-	500	200
Chloropsis cochinchinensis	-	-	-	-	-	100	100
Chloropsis cyanopogon	450	450	1,000	-	-	250	250
Chloropsis sonnerati	-	-	-	-	-	250	250
Cissa thalassina	-	-	1,500	1,500	1,500	-	-
Copsychus malabaricus	1,000	1,000	1,000	1,255	1,300	-	-
Copsychus saularis	500	500	1,000	840	860	-	-
Cyornis banyumas	-	-	5,000	5,500	10,000	500	500
Dendrocygna arcuata	-	-	-	-	-	1,000	-
Dendrocygna guttata	-	-	3,750	1,000	850	-	-
Ducula aenea	-	-	7,650	4,000	3,250	-	-
Ducula bicolor	-	-	4,100	965	950	300	500
Erythrura hyperythra	2,800	-	15,025	5,050	2,500	500	500
Erythrura prasina	12,000	12,500	2,875	14,100	15,000	10,000	12,000
Gallicolumba tristigmata	-	-	2,000	2,000	2,000	250	250
Gallicrex cinerea	-	-	2,175	2,025	2,000	250	250
Gallus gallus	-	-	300	-	200	-	50
Garrulax leucolophus	100	100	200	150	600	-	-
Geopelia humeralis	-	-	-	-	-	800	-
Geopelia striata	-	-	500	27,670	27,850	-	-
Gracula religiosa	3,100	6,800	4,500	6,300	5,00	3,000	3,000
Lanius schach	-	-	20,000	8,000	8,000	-	-
Leiothrix argentauris	800	-	875	2,000	2,000	-	-
Lonchura leucogastroides	-	-	-	4,105	4,000	-	-
Lonchura maja	-	-	60,000	22,650	22,750	16,000	-
Lonchura malacca	-	-	68,950	55,450	10,000	5,000	5,000
Lonchura punctulata	-	-	31,750	500	500	11,000	-
Lonchura spp.	12,500	12,500	-	-	-	-	-
Macropygia amboinensis	-	-	-	-	-	500	-
Megalaima lineata	600	600	675	425	615	-	-
Mino dumonti	100	500	500	750	750	250	250
Neochmia phaeton	-	-	21,500	20,000	5,000	-	-
Nettapus coromandelianus	-	-	-	-	-	200	-
Oriolus chinensis	1,150	1,150	1,850	1,300	1,200	-	-
Padda oryzivora	20,600	20,600	15,000	21,185	20,000	17,000	17,500
Passer montanus	-	-	-	-	-	-	10,000
Ploceus manyar	-	-	4,000	5,200	4,500	-	-
Ptilinopus melanospila	-	-	-	3,800	3,800	500	500
Pycnonotus aurigaster	500	500	800	860	865	500	500
Pycnonotus bimaculatus	1,300	1,300	1,375	1,755	1,000	500	250
Pycnonotus goiavier	-	-	675	585	595	500	500
Pycnonotus zeylanicus	-	-	54,000	71,400	71,550	-	-
Rollulus rououl	-	-	850	300	100	-	50
Saxicola caprata	5,200	6,000	5,300	3,985	3,625	3,000	3,000
Scissirostrum dubium	200	-	325	435	500	-	50
Streptocitta albicollis	-	-	6,200	6,000	5,500	-	50
Streptopelia bitorquata	-	-	7,000	9,550	9,750	-	-
Streptopelia chinensis	-	-	36,100	15,625	10,000	250	250
Sturnus contra	1,300	1,300	2,600	1,255	1,250	-	-
Taeniopygia guttata	-	-	10,000	16,500	16,500	-	-
Treron curvirostra	-	-	2,000	2,000	2,000	250	250
Turdus obscurus	1,000	1,000	1,075	1,025	1,100	-	-
Turacoena manadensis	-	-	2,100	50	50	-	-
Turnix suscitator	-	-	7,800	5,000	5,000	250	-
Zosterops palpebrosus	250	-	350	325	335	-	-

[1]Quotas for non-Indonesian species are not included.

Sources: PHPA records; 1989-1993 quota decrees, from Nash (1993).

Estimates of the numbers of birds removed from the wild for international trade

It is not possible to estimate the number of birds taken from the wild for international trade with anything approaching accuracy. The estimate of total annual world trade of 2-5 million birds does not include birds that die during capture, transport or holding prior to export. The same is true of the majority of trade figures provided throughout this text. As a result, the total number of birds trapped for trade certainly far exceeds the number recorded in CITES or other international trade data.

It is clear that pre-export mortality is significant for many bird species, however only limited research into this aspect of the bird trade has been conducted. Estimates of pre-export mortality rates are provided in several trade studies (Bruggers, 1982; Inskipp, 1983; Nash, 1990; Panagis and Stutterheim, 1985; Ramos and Iñigo, 1985). Pre-export mortality was estimated to range from as few as 5% of the birds removed from the wild for export in India (Inskipp, 1983), to as many as 60% of birds trapped for (illegal) export from Mexico (Ramos and Iñigo, 1985).

Inskipp (1983) estimated that 5% of the birds trapped for international trade in India died prior to export. Once one of the largest suppliers of wild birds in international trade, India banned exports of most species in 1983. Panagis and Stutterheim (1984) found that an average of 7% of the birds trapped for export from former South-West Africa (now Namibia) died prior to export. Exports from this country are also banned at present.

Nash (1990) estimates that, in Indonesia, from 5-40% of the birds purchased from trappers by intermediate traders die prior to being shipped to exporters. From 30-40% of some species trapped for trade in Irian Jaya died between the time they were trapped and the time they were shipped to Jakarta for export (Nash, 1990). Species with specialized feeding behaviours, such as lories, were generally subject to higher mortality rates than were the hardier species, such as cockatoos.

Based on an analysis of 1978 trade data, Bruggers (1982) estimated that between 45% and 62% of the birds trapped for export from Senegal died prior to export. Diop and Association des Oiseliers dur Senegal (1993) provided more recent information with respect to the mortality associated with Senegal's bird trade. Approximately 0.5% of those birds trapped with 'clap nets' died during the process. Mortality during the two weeks (on average) that birds remained in the possession of trappers was estimated at 4%, with over-crowding being cited as one source of mortality. Total mortality for four wild bird shipments observed during transfer to the premises of exporters ranged from 1.3% (two shipments combined) to 11.2% (two shipments combined), with poor weather believed to be the reason for elevated mortality rates in the latter shipments. Additional mortality was observed following arrival at the exporters, but the numbers of birds dying is unclear.

Iñigo-Elias and Ramos (1991) estimated that 40% of nestling Mexican parrots trapped for trade died prior to being shipped to dealers in Mexico City for domestic sale, with mortality of birds destined for illegal export believed to be far higher.

Dandliker (1993a) provides mortality estimates for *Psittacus erithacus* trapped for export. Trappers in Ghana (where trapping for trade is illegal) reported that approximately 3% of all birds trapped die before reaching the traders' quarantine facilities. From 10-20% of *P. erithacus* trapped for trade in Guinea died following capture, while in Cote d'Ivoire, it was estimated that 5-10% of parrots trapped died within the first month of being held in quarantine, this figure rising to 15-20% when quarantine extended to two months.

Unless previously estimated pre-export mortality figures for India and South-West Africa/Namibia are exemplary of the trade in general, the pressure on wild populations of some species as a result of international trade is much higher than indicated by trade figures. As most national trade control mechanisms are related to the number of birds exported rather than the number removed from the wild, those birds dying prior to export may not figure in overall management schemes.

Capture quotas such as those in Tables 3-6 give some indication of the number of wild birds permitted to be taken for internal and international trade purposes in several exporting countries. In theory, these figures should represent total maximum harvest. In the case of Indonesia (Table 4), taking into account Nash's (1990) estimates for pre-export mortality, it would appear that this country's capture quotas were exceeded on a regular basis for some species during the late 1980s, and therefore that government authorities were ineffective in bringing the trade into line with established trade controls.

However, export figures have exceeded and/or been far lower than capture quotas in numerous cases (e.g. Edwards and Broad, 1992; Edwards and Nash, 1992; Diop and Association des Oiseliers dur Senegal, 1993). Tanzania's total harvest quotas for 1990, which were allocated on a per trader basis, also amounted to 1.6 million birds, although only 323,500 were exported (Edwards and Broad, 1992) (Tables 5 and 6). Senegal's total annual capture quota for live birds has remained at 1,614,000 birds since 1982. This figure does not include trade in Ploceidae such as *Quelea* spp., *Passer luteus*, *Ploceus cucullatus*, *P. melanocephalus*, *P. heuglini*, which have been identified as accounting for approximately 20% of Senegal's total trade (Diop and Association des Oiseliers dur Senegal, 1993). Senegal's reported exports of non-psittacines in 1990 are compared with export quotas in Table 7.

Neither trade data nor capture quotas provide an indication of illegal trade, which, by its very nature is impossible to quantify. However, such illegal trade has been estimated to involve at minimum tens of thousands of birds (Thomsen and Hemley, 1987).

At the same time, most trade figures do not indicate the number of birds in trade that have been captive-bred. Mulliken and Thomsen (undated) estimated that approximately 15% of birds imported by the United States from 1986 to 1988 were captive-bred. Trade among EU countries similarly appears to involve a significant number of captive-bred birds. Examples of species almost solely traded as captive-bred specimens include most Australian parakeets, including some endangered ones (e.g. *Cyanoramphus novaezelandiae*).

Identification of species for which trade is 'not significant'

The discussion above regarding lack of information on trade in non-CITES species should make obvious the point that it is not possible to provide a list of species that are definitely not traded, or are not subject to 'significant international trade'. The definition of significant is presumably phrased in terms of the overall impact on species' wild populations. The temptation is to reference all species as being subject to significant international trade, as inaccurate as this is likely to be. However, it is clear that most of the world's 9000-plus species are either not in trade or are not traded internationally at levels likely to result in their declines in the wild. Wild specimens of most North American and European bird species, for example, are not traded internationally in large numbers as wild specimens. There are exceptions, however, e.g. the trade in *Sturnus vulgaris* from the United Kingdom to Europe and in *Carduelis carduelis* from the former Soviet Union. Recent changes in Eastern Europe could see increased trade in these and other European species. Most South American passerine species are not traded internationally in large numbers[1], exports from Peru providing an exception (see Annex 4). African passerines are exported by the hundreds of thousands, but the impact of this trade on those species occupying massive ranges in relatively high densities is unlikely to be of much biological consequence.

Rather than opting for the 'all species are potentially-traded' approach, a list of species for which TRAFFIC International has trade data has been provided as Annex 6. 'Significant trade' will be dealt with further below.

[1]Song contests in Brazil and some other countries consume hundreds of thousands of songbirds annually in domestic trade, however (J. Thomsen, pers. comm.).

Table 4. Comparison of Indonesia's psittacine capture quotas and reported exports (1988-1990).

SPECIES	1988				1989				1990			
	QUOTA	EXPORTS	DIFF.	% QUOTA	QUOTA	EXPORTS	DIFF.	% QUOTA	QUOTA	EXPORTS	DIFF.	% QUOTA
Alisterus amboinensis	1,000	1,009	(9)	100.9	1,500	1,505	(5)	100.3	1,100	1,229	(129)	111.7
Alisterus chloropterus chloropterus	1,000	317	683	31.7	1,000	492	508	49.2	700	396	304	56.6
Alisterus chloropterus moszkowskii	1,000	133	867	13.3	1,000	133	867	13.3	780	212	568	27.2
Aprosmictus erythropterus papou	1,500	1,310	190	87.3	1,500	626	874	41.7	1,230	885	345	72.0
Aprosmictus jonquillaceus	500	205	295	41.0	0	120	(120)	—	500	0	500	0.0
Cacatua alba	5,600	6,477	(877)	115.7	4,250	4,922	(672)	115.8	6,750	6,479	271	96.0
Cacatua galerita	0	4,430	(4,430)	—	0	1,155	(1,155)	—	0	0	0	—
Cacatua goffini	7,000	8,840	(1,840)	126.3	8,400	7,241	1,159	86.2	6,000	5,941	59	99.0
Cacatua moluccensis	5,000	6,817	(1,817)	136.3	3,000	4,940	(1,940)	164.7	0	4,614	(4,614)	—
Cacatua pastinator	0	0	0	—	1,000	0	1,000	0.0	0		0	—
Cacatua sanguinea	2,000	423	1,577	21.2	0	666	(666)	—	600	406	194	67.7
Cacatua sulphurea citrinocristata	1,500	2,316	(816)	154.4	0	2,945	(2,945)	—	1,500	1,470	30	98.0
Cacatua sulphurea sulphurea	3,500	5,462	(1,962)	156.1	7,625	6,480	1,145	85.0	4,930	1,470	3,460	29.8
Chalcopsitta atra	1,000	1,123	(123)	112.3	575	1,105	(530)	192.2	900	719	181	79.9
Chalcopsitta duivenbodei	1,000	510	490	51.0	350	448	(98)	128.0	550	519	31	94.4
Chalcopsitta sintillata	500	567	(67)	113.4	1,000	665	335	66.5	1,000	882	118	88.2
Charmosyna josefinae	1,000	60	940	6.0	500	35	465	7.0	825	366	459	44.4
Charmosyna papou goliathina	1,000	831	169	83.1	1,000	1,361	(361)	136.1	1,500	1,033	467	68.9
Charmosyna placentis	1,000	1,443	(443)	144.3	1,000	1,303	(303)	130.3	1,500	864	636	57.6
Charmosyna pulchella	500	1,563	(1,063)	312.6	1,000	755	245	75.5	1,000	412	588	41.2
Charmosyna multistriata	0	40	(40)	—	0	584	(584)	—	0	426	(426)	—
Charmosyna rubronotata	0	1,045	(1,045)	—	0	320	(320)	—	0	366	(366)	—
Eos bornea	5,000	4,477	523	89.5	5,750	7,327	(1,577)	127.4	5,300	5,092	208	96.1
Eos cyanogenia	500	632	(132)	126.4	1,500	1,370	130	91.3	1,100	1,370	(270)	124.5
Eos histrio	0	0	0	—	0	0	0	—	1,000	0	1,000	0.0
Eos reticulata	1,000	1,736	(736)	173.6	1,500	1,664	(164)	110.9	2,000	1,543	457	77.2
Eos squamata riciniata	800	1,535	(735)	191.9	0	1,254	(1,254)	—	2,400	2,146	254	89.4
Eos squamata squamata	0	0	0	—	1,100	0	1,100	0.0	2,000	0	2,000	0.0
Geoffroyus geoffroyi	1,000	0	1,000	0.0	2,500	2	2,498	0.1	500	192	308	38.4
Loriculus flosculus	400	0	400	0.0	400	0	400	0.0	700	0	700	0.0
Loriculus galgulus	300	631	(331)	210.3	900	0	900	0.0	1,000	703	297	70.3
Loriculus pusillus	0	15	(15)	—	0	322	(322)	—	0	188	(188)	—
Loriculus stigmatus	500	225	275	45.0	500	204	296	40.8	750	305	445	40.7
Lorius garrulus	2,600	3,830	(1,230)	147.3	5,125	3,738	1,387	72.9	5,900	4,727	1,173	80.1
Neopsittacus musschenbroekii	1,500	123	1,377	8.2	750	666	84	88.8	975	406	569	41.6
Neopsittacus pullicauda	0	0	0	—	0	0	0	—	0	240	(240)	—
Opopsitta diophthalma	0	855	(855)	—	0	247	(247)	—	0	0	0	—

Table 4 (cont.).

SPECIES	1988				1989				1990			
	QUOTA	EXPORTS	DIFF.	% QUOTA	QUOTA	EXPORTS	DIFF.	% QUOTA	QUOTA	EXPORTS	DIFF.	% QUOTA
Opopsitta gulielmitertii	0	143	(143)	—	0	0	0	—	0	0	0	—
Oreopsittacus arfaki	0	0	0	—	0	0	0	—	0	0	0	—
Prioniturus flavicans	0	0	0	—	0	0	0	—	0	0	0	—
Prioniturus platurus	500	0	500	0.0	550	450	100	81.8	360	145	215	40.3
Pseudeos fuscata	1,500	1,741	(241)	116.1	1,500	1,517	(17)	101.1	1,500	1,595	(95)	106.3
Psittacula alexandri	3,000	2,662	338	88.7	3,500	3,931	(431)	112.3	5,300	4,172	1,128	78.7
Psittacula longicauda	0	0	0	—	0	0	0	—	2,000	30	1,970	1.5
Psittaculirostris d. desmarestii	1,000	123	877	12.3	1,000	666	334	66.6	1,100	406	694	36.9
Psittaculirostris desmarestii cervicalis	2,000	1,063	937	53.2	1,000	1,192	(192)	119.2	600	651	(51)	108.5
Psittaculirostris edwardsii	1,000	490	510	49.0	1,000	751	249	75.1	1,000	396	604	39.6
Psittaculirostris salvadorii	500	443	57	88.6	1,000	850	150	85.0	600	412	188	68.7
Psittinus cyanurus	0	0	0	—	0	15	(15)	—	0	0	0	—
Tanygnathus heterurus	0	0	0	—	0	0	0	—	0	150	(150)	—
Tanygnathus megalorhynchos	1,000	791	209	79.1	1,000	1,114	(114)	111.4	1,575	1,258	317	79.9
Trichoglossus euteles	500	40	460	8.0	700	250	450	35.7	2,000	194	1,806	9.7
Trichoglossus flavoviridis meyeri	1,000	398	602	39.8	975	573	402	58.8	600	760	(160)	126.7
Trichoglossus goldiei	1,500	365	1,135	24.3	1,000	788	212	78.8	1,000	506	494	50.6
Trichoglossus haematodus captistratus	0	0	0	—	0	320	(320)	—	0	0	0	—
Trichoglossus haematodus forsteni	1,000	125	875	12.5	1,000	280	720	28.0	1,000	935	65	93.5
Trichoglossus haematodus haematodus	5,000	3,709	1,291	74.2	5,000	5,439	(439)	108.8	7,500	6,033	1,467	80.4
Trichoglossus haematodus mitchellii	0	0	0	—	0	0	0	—	3,000	130	2,870	4.3
Trichoglossus iris iris	500	185	315	37.0	200	40	160	20.0	300	300	0	100.0
TOTAL	69,200	71,258	(2,058)	103.0	74,150	72,771	1,379	98.1	84,425	63,674	20,751	75.4

Source: PHPA, from Edwards and Nash (1992).

Table 5. Tanazania's 1990 wild bird harvest quotas (per trader).

SPECIES	COMMON NAME	QUOTA
	Finch	4,500
	Other weaver	3,000
Estrildidae	Waxbill	1,500
Agapornis fischeri	Fischer's Lovebird	800
Charadriidae	Other Plover	750
Columbidae	Dove	300
Serinus spp.	Canary	300
Euplectes spp.	Bishop	150
Pycnonotidae	Bulbul	150
Phoenicopterus minor	Lesser Flamingo	100
Capitonidae	Barbet	90
Numida meleagris	Helmeted Guineafowl	80
	Whydah	75
Francolinus sephaena	Crested Francolin	74
Agapornis pullaria	Red-headed Lovebird	50
Nectariniidae	Sunbird	45
Phoenicopterus ruber	Greater Flamingo	40
Colius macrourus	Blue-naped Mousebird	30
Colius striatus	Speckled Mousebird	30
Francolinus afer	Red-necked Spurfowl	30
Lamprotornis chalybaeus	Blue-eared Glossy Starling	30
Platalea alba	African Spoonbill	27
Acryllium vulturinum	Vulturine Guineafowl	22
Apaloderma narina	Narina's Trogan	22
Apaloderma vittatus	Bar-tailed Trogan	22
Francolinus coqui	Coqui Francolin	22
Francolinus leucoscepus	Yellow-necked Spurfowl	22
Francolinus rufopictus	Grey-breasted Spurfowl	22
Alcedinidae	Kingfisher	20
Ciconia abdimii	Abdim's Stork	20
Cinnyricinclus leucogaster	Violet-backed Starling	20
Coraciidae	Roller	20
Corythaixoides spp.	Go-away-bird	20
Cosmopsarus regius	Golden-breasted Starling	20
Creatophora cinerea	Wattled Starling	20
Leptoptilos crumeniferus	Marabou Stork	20
Meropidae	Bee-eater	20
Onychognathus morio	Red-winged Starling	20
Pelecanus onocrotalus	White Pelican	20
Pelecanus rufescens	Pink-backed Pelican	20
Ploceus intermedius	Masked Weaver	20
Ploceus ocularis	Spectacled Weaver	20
Ploceus subaureus	Golden Weaver	20
Poicephalus cryptoxanthus	Brown-headed Parrot	20
Poicephalus gulielmi	Red-fronted Parrot	20
Poicephalus meyeri	Meyer's Parrot	20
Poicephalus rufiventris	Red-bellied Parrot	20
Spreo hildebrandti	Hildebrandt's Starling	20
Spreo superbus	Superb Starling	20
Terpsiphone viridis	Paradise Flycatcher	20
Threskiornis aethiopicus	Sacred Ibis	20

Table 5. (cont.)

SPECIES	COMMON NAME	QUOTA
Himantopus himantopus	Black-winged Stilt	15
Lamprotornis purpuropterus	Ruppell's Starling	15
Lamprotornis splendidus	Splendid Starling	15
Recurvirostra avosetta	Avocet	15
Actophilornis africana	African Jacana	10
Chrysococcyx cupreus	African Emerald Cuckoo	10
Francolinus hildebrandti	Hildebrandt's Francolin	10
Francolinus levaillantii	Red-winged Francolin	10
Francolinus shelleyi	Shelly's Francolin	10
Francolinus squamatus	Scaly Francolin	10
Fulica cristata	Red-knobbed Coot	10
Gallinula chloropus	Common Moorhen	10
Gyps bengalensis	White-backed Vulture	10
Hagedashia hagedash	Hadada Ibis	10
Limnocorax flavirostra	Black Crake	10
Milvus migrans	Black Kite	10
Musophaga rossae	Ross's Turaco	10
Necrosyrtes monachus	Hooded Vulture	10
Picidae	Woodpecker	10
Podica senegalensis	African Finfoot	10
Porphyrio alleni	Allen's Gallinule	10
Porphyrio porphyrio	Purple Gallinule	10
Porzana marginalis	Striped Crake	10
Sarothrura pulchra	White-spotted Pygmy Crake	10
Tauraco fischeri	Fischer's Turaco	10
Tauraco hartlaubi	Hartlaub's Turaco	10
Tauraco livingstonii	Livingstone's Turaco	10
Tockus alboterminatus	Crowned Hornbill	8
Bucorvus caffer	Ground Hornbill	6
Bycanistes brevis	Silvery-cheeked Hornbill	6
Bycanistes bucinator	Trumpeter Hornbill	6
Tockus deckeni	Von der Decken's Hornbill	6
Tockus erythrorhynchus	Red-billed Hornbill	6
Tockus flavirostris	Yellow-billed Hornbill	6
Tockus nasutus	Grey Hornbill	6
Accipter badius	Shikra	4
Aquila rapax	Tawny Eagle	4
Elanus caeruleus	Black-shouldered Kite	4
Scopus umbretta	Hammerkop	4
Upupa epops	Hoopoe	4
Micoparra capensis	Lesser Jacana	
TOTAL		13,103

Source: Tanzanian Wildlife Department, from Edwards and Broad (1992).

Table 6. Comparison of 1990 Tanzania harvest quotas and potential value with reported exports.

SPECIES GROUP	DEALER QUOTA	MAXIMUM SPECIMENS FOR EXPORT	AVERAGE VALUE (US$) PER EXPORT	MAXIMUM POTENTIAL VALUE (US$)	ACTUAL SPECIMENS EXPORTED	POTENTIAL REALIZED VALUE (US$)	% MAXIMUM POTENTIAL VALUE
Pelicans	40	5,000	80.00	400,000	449	35,920	9.0
Storks	40	5,000	102.50	512,500	428	43,870	8.6
Flamingos	140	17,500	80.00	1,400,000	2,359	188,720	13.5
Ibises	30	3,750	60.00	225,000	724	43,440	19.3
Hornbills	50	6,250	71.88	449,250	212	15,239	3.4
Vultures and Birds of Prey	42	5,250	125.00	656,250	21	2,625	0.4
Francolins	136	17,000	30.00	510,000	22	660	0.1
Doves	300	37,500	5.00	187,500	950	4,750	2.5
Lovebirds	850	106,250	5.00	531,250	37,879	189,395	35.7
Parrots	80	10,000	41.25	412,500	3,154	130,103	31.5
Turacos	40	5,000	66.00	330,000	1,240	81,840	24.8
Finches	4,500	562,500	3.00	1,687,500	185,457	556,371	33.0
Weavers	3,060	382,500	2.75	1,051,875	24,876	68,409	6.5
Waxbills	1,500	187,500	2.50	468,750	33,040	82,600	17.6
Plovers	750	93,750	5.00	468,750	586	2,930	0.6
Trogans	44	5,500	50.00	275,000	0	0	0.0
Canaries	300	37,500	5.00	187,500	13,450	67,250	35.9
Barbets	90	11,250	20.00	225,000	710	14,200	6.3
Mousebirds	60	7,500	20.00	150,000	330	6,600	4.4
Guineafowl	102	12,750	65.00	828,750	424	27,560	3.3
Starlings	180	22,500	15.00	337,500	2,490	37,350	11.1
Whydahs	75	9,375	2.00	18,750	3,986	7,972	42.5
Bishops	150	18,750	3.00	56,250	8,621	25,863	46.0
Other birds	544	68,000	18.50	1,258,000	1,967	36,390	2.9
TOTAL	13,103	1,637,875		12,627,875	323,375	1,670,056	13.2

Source: Tanzanian Wildlife Department; wildlife dealer pricelists, from Edwards and Broad (1992).

Table 7. Comparison of 1990 Senegal export quotas for non-psittacines with reported exports (in pairs).

SPECIES	QUOTA	EXPORTS	% QUOTA
Oena capensis	1,500	8,650	576.7
Streptopelia senegalensis	1,000	3,130	313.0
Turtur abyssinicus	500	0	0.0
Turtur afer	500	1,535	307.0
Amadina fasciata	100,000	78,187	78.2
Amandava subflava	12,000	14,974	124.8
Uraeginthus bengalus	90,000	49,455	55.0
Estrilda caerulescens	12,000	17,454	145.5
Estrilda melpoda	80,000	44,256	55.3
Estrilda troglodytes	175,000	66,282	37.9
Lagonosticta spp.	10,000	4,545	45.5
Lonchura cucullata	25,000	15,664	62.7
Lonchura malabarica	50,000	31,251	62.5
Pytilia spp.	2,000	2,771	138.6
Serinus leucopygius	3,000	25,374	845.8
Serinus mozambicus	100,000	113,465	113.5
Euplectes afer	30,000	11,915	39.7
Euplectes macrourus	6,000	0	0.0
Euplectes nigroventris			
*Euplectes hordeacea**			
Euplectes orix	60,000	31,822	53.0
Passer luteus	UNLIMITED	27,479	
Ploceus cucullatus	UNLIMITED	10,155	
Ploceus melanocephalus	UNLIMITED	10,422	
Quelea erythrops	UNLIMITED		
Quelea quelea	UNLIMITED	23,270	
Vidua chalybenta	10,000	11,233	112.3
Vidua macroura	5,000	3,520	70.4
Vidua orientalis	5,000	7,706	154.1
Lamprotornis spp.		12,177	
*Lamprotornis caudatus***	6,000	451	7.5
Spreo pulcher			
Total	784,500	627,143	79.9

*It appears from government documents that the quota of 60,000 pairs may be shared between Euplectes hordeaca and E. orix.

**It appears from government documents that the quota of 6,000 pairs may be shared between Lamprotornis spp. and Spreo pulcher.

Source: Senegal Division for Hunting, in Edwards and Biteye (1992).

II. How large is the number of birds taken or traded relative to the best available estimate of the world population? Can the trade in some species be regarded as insignificant and disregarded for the purposes of the rest of this study?

For those species with significant trade, can an assessment be made of the impact of trade on current population trends either (a) in absolute terms or (b) relative to other factors?

Which are the destination countries for traded species with significant trade?

As noted in our proposal to undertake this work on behalf of RSPB, there are very few accurate population data available for even a handful of species, and therefore precise answers to the question of the proportion of the wild population of species being traded over time are in most cases impossible to supply. Annex 7 provides a comparison of CITES-reported trade with psittacine population estimates provided in *SECOND DRAFT: Parrots; An Action Plan for their Conservation, 1993-1998* (Lambert *et al.*, 1992). It is to be understood that the trade data reflect the 13-year period from 1980 to 1992, while the population figures reflect very rough estimates of the species' populations in 1992.

Even lacking population data, it is clear that current trade levels in a number of species are unlikely to be of any long-term detriment to wild populations. Obvious examples include trade in super-abundant species such as *Quelea quelea*, and feral populations of species such as *Sturnus vulgaris*. Trade of only a few specimens per year of non-threatened species is also highly unlikely to effect the status of wild populations.

Any answer to the question of "what is significant trade" and the related question, "what is sustainable trade", must first clarify the timeframes to be considered, as well as the weight to be given to other factors involved. International trade that is sustainable given current habitat conditions may not be sustainable in the future should such conditions change, e.g. through deforestation, climatic variation in response to global warming, etc. Sustainable levels of trade would also change given increased predation, increased trapping for domestic use, etc. The same is true of any wildlife utilization, from grouse hunting on the moors of Scotland to the hunting of ungulates in North America.

One hundred and twenty-eight countries have now acceded to CITES, thereby agreeing that species in international trade that might be threatened by that trade should be listed in Appendix II of the Convention, and those that would be endangered by further international trade should be listed in Appendix I. Relatively few bird species have been proposed for addition to the Appendices in recent years, and therefore it would appear that, by and large, CITES Parties do not view international trade as a major threat to most of those species not already listed in the Appendices. However, there are indications that some species not currently listed in the Appendices are being traded at unsustainable levels (see below on population trends). Equally important, several species listed in CITES Appendix II have necessarily been transferred to Appendix I, indicating that some Parties are not adequately implementing CITES trade controls.

CITES Parties recognised that some exporting countries might not be accurately assessing whether trade was detrimental to the survival of some Appendix II species as early as 1984 (Anon., 1991a). The Parties agreed that trade in Appendix II species believed likely to be impacted by that trade should be reviewed. The resulting 'significant trade' study reviewed all Appendix II animal species for which trade volumes exceeded an annual average of 100 animals. Forty-six 'significantly-traded' Appendix II bird taxa were identified for which trade might pose a 'possible problem' (Inskipp *et al.*, 1988). A further 27 taxa were identified for which available information indicated that they were 'essentially unaffected by trade', and 6 taxa for which available information indicated that trade was

likely to be detrimental to the species' wild populations. Of the latter, three have now been transferred to Appendix I (*Anodorhynchus hyacinthinus*, *Cacatua moluccensis*, *Probosciger aterrimus*).

Action on the part of CITES Parties to control trade in response to the results of the initial study were limited. Little if any effort was made to reduce export volumes of 'possible problem' species. Three of these, *Ara militaris*, *Amazona tucumana* and *Cacatua goffini* have since been transferred to Appendix I.

During the seventh meeting of the Conference of the Parties to CITES (Lausanne, 1989), the Parties recommended that the 'significant trade' process be continued through a review of more recent trade data. The results of this and subsequent reviews, carried out by WCMC, the IUCN/Species Survival Commission Trade Specialist Group and TRAFFIC International have been presented to the CITES Animals Committee, and are summarised in Annex 8.

The significant trade process was given 'teeth' with the adoption of CITES Resolution Conf. 8.9 during the eighth meeting of the Conference of the Parties (Kyoto, 1992). This Resolution established a process whereby the CITES Animals and Standing Committees could recommend actions to be taken by those range states identified as allowing international trade in a particular species when it was questionable whether the provisions of CITES Article IV had been met, i.e., when it was not clear that trade would not result in the decline of that species' wild population. The Standing Committee was also given the authority to recommend that all Parties ban imports of the species concerned from the offending Party if such recommended actions were not implemented by that Party.

Recommendations for over 50 bird species have been issued to date, many of which have been implemented by the Parties concerned in the time allotted, some of which have not, and some of which are pending. As a result, the CITES Standing Committee asked Parties to suspend imports of selected species, including several parrots, from selected countries that had not implemented certain recommendations. Although many Parties subsequently implemented the Standing Committee's recommendations, others have yet to do so. The list of import suspensions recommended by the Standing Committee as of 20 January 1995 is provided in Table 7.

Table 8. Temporary import bans recommended by the CITES Standing Committee under CITES Resolution Conf. 8.9 as of 20 January 1995.

Species	Range Country Subject to CITES Import Ban
Agapornis fischeri	United Republic of Tanzania
Aratinga erythrogenys	Peru
Cacatua sulphurea	Indonesia
Coracopsis vasa	Madagascar
Poicephalus cryptoxanthus	United Republic of Tanzania
Poicephalus meyeri	United Republic of Tanzania
Poicephalus rufiventris	United Republic of Tanzania
Tauraco fischeri	United Republic of Tanzania

Source: CITES Notification No. 833 (20 January 1995).

For the purposes of this study, and as agreed under the terms of this contract, we are considering as being traded in 'significant' numbers all those species for which trade was identified as 'significant' under the review process described above. Annex 9 provides a detailed accounting of the reported destination countries for trade in these species, including those for which it was found in the 1991 reviews that existing international trade levels were not, or probably were not a threat to the survival of the taxon on a global basis. These data are provided by importing country and year.

The 1994 IUCN Red List identifies a total of 970 'threatened' bird species (Groombridge, 1993), relying heavily on information provided by BirdLife International. Figures for the numbers of species in different threat categories are reproduced in Table 9. For some species, *Anodorhynchus hyacinthinus* for example, harvest for trade (both domestic and international) has been the key factor leading to population declines. However, an examination of information supporting these threat determinations (e.g., Collar *et al.*, 1992) makes clear that habitat loss, not international trade, is the primary threat to most bird species' survival.

In the case of threatened species, trapping for trade can clearly exacerbate the effects of other factors leading to population declines, such as habitat loss or pesticide poisoning. A number of parrot species, for example, are threatened simultaneously by loss of habitat and continued (often illegal) trapping for trade. Furthermore, in cases where invasive techniques are used to collect wild birds (such as tree felling to harvest nestlings), then international trade could actually contribute to habitat loss. Alternatively, trapping of birds (and/or other wildlife) for trade or other purposes could in some cases reduce the conversion of habitat for human subsistence or revenue generation purposes, as such trapping provides a means of income.

Table 9. Number of bird species identified as 'threatened' in the *1994 IUCN Red List* according to IUCN threat category.

Endangered	188
Vulnerable	241
Rare	257
Indeterminate	176
Insufficiently Known	108

Source: Groombridge (1993).

For those species that are threatened, it is clear that uncontrolled harvests, whether for domestic use or international trade, can help push them towards extinction. International trade in these species is therefore significant even if it is sustainable - one does not necessarily preclude the other.

For certain species, *Cyanopsitta spixii* providing the most clear-cut example, the real or perceived rarity of a species either in the wild or in trade can itself lead to increased demand, and therefore increased harvest for trade. It is for this reason that the TRAFFIC Network has not generally encouraged the listing in CITES Appendix I of any but the most endangered species unless those species are both threatened and occur in international trade. Experience has shown that even the possibility of such a listing can increase the short-term popularity of and prompt a 'run' on a species, as some dealers try and obtain as many birds as possible before the onset of possible trade bans. This can have the effect of increasing trade prior to such time as further protection can be afforded under CITES. CITES annual report data show, for example, that while a total of 14 *Ara maracana* were reported in international trade from 1986 to 1988, 12 were reported

in trade in 1989 alone, the year that this species was successfully proposed for transfer to CITES Appendix I.

With respect to the population trends of species traded in 'significant numbers', Annex 8 gives some indication of these as of 1991. Most CITES-listed species identified as traded in significant numbers are psittacines. Lambert (1993) found that *Cacatua alba* and *Loris garrulus* were being over-exploited for trade, and called for the reduction of overall capture quotas for these and *Eos squamata*. Additional information is provided by examining Annex 7, which cites recent trends for wild populations of parrot species compiled by Lambert *et al.* (1992). It was not possible to provide more detailed information regarding the status of all parrot species in trade under the terms of this contract. However, such is readily available in various 'Red Data Books', e.g., Collar *et al.* (1992). Additional information regarding trade and suspected population trends for a number of CITES Appendix III and non-CITES species is provided by Nash (1990; 1993; *in litt.*, 1994). The following species have been identified by Nash as being subject to internal and/or international trade at levels that may result in declines of their wild populations. Declines are based on Nash's personal observations as well as reports from others working in this region.

Garrulax canorus Specimens of this species in trade originate from southern China, and birds are known to be removed from the wild by the tens of thousands every year. Only the males of the species are desired in trade. The pressure on wild populations must be immense but so far there is no strong evidence of a decline of the species in the wild.

Garrulax leucolophus bicolor Large numbers are taken in Sumatra, which may be resulting in localised population declines.

Arborophila gingica A forest-dependent species, it can easily be removed from its habitat, similar to other *Arborophila* spp., *Bambusicola* spp., *Melanoperdix nigra*, *Rollulus rouloul* and other small phasianids. Round (1988) found that small partridges are easily eliminated from suitable habitat, and these species are heavily targeted in Indochina, Thailand, Malaysia and Indonesia. Trade must be having an impact on these species, which are also harvested as a food source.

Arborophila cambodiana See note under *Arborophila gingica*.

Arborophila charltonii See note under *Arborophila gingica*.

Arborophila rufogularis See note under *Arborophila gingica*.

Bambusicola thoracica See note under *Arborophila gingica*.

***Caloperdix* spp.** See note under *Arborophila gingica*.

Leiothrix argentauris Large numbers of this species are taken from the wild. Although its range is extensive, some of its races are heavily-targeted for trade.

Leiothrix lutea Large numbers of this species are taken, and the impact on the species' wild population is unknown, but could be negative.

Lophura ignita See note under *Arborophila gingica*.

Melanoperdix nigra See note under *Arborophila gingica*.

Rollulus rouloul See note under *Arborophila gingica*. Viet Nam, which is not a range-state for this species, curiously exports many of these.

***Cyornis* spp.** These species are heavily targeted for trade in Asia, and collection for trade is likely to be a serious conservation problem.

***Eumyias* spp.** See note under *Cyornis* spp.

***Ficedula* spp.** See note under *Cyornis* spp.

***Niltava* spp.** See note under *Cyornis* spp.

Pycnonotus zeylanicus Trade in this species provides a clear example of the potential for trade to eliminate a species throughout much of its range in western Indonesia and to cause a rapid decline elsewhere. This species is purchased primarily for the quality of its song.

Erythrura hyperythra Significant declines in wild populations of this species have been noted in Indonesia. Although *E. hyperythra* is caught in large numbers, trade may not be the main threat to this species, which also suffers as a result of extensive pesticide use in its feeding areas.

Erythrura prasina Significant declines have been noted in Indonesia. As with *E. hyperythra*, although this species is trapped in large numbers, trade may not be the primary threat, as this species also suffers as a result of extensive pesticide use in its feeding areas.

Gracula religiosa There are tens of thousands of this species in trade annually, and such trade levels are almost certainly affecting wild populations. Nestlings and fledglings are commonly found in trade as this species nests in trees in open locations not far from human habitation. As for other cavity nesting species, nesting trees may be cut down in order to gain access to the young, and this can quickly cause a shortage of nesting sites, resulting in an essentially non-breeding population.

Padda oryzivora Significant declines of this species' wild populations have been noted in Indonesia. Although this species is trapped in large numbers, trade may not be the primary threat, as *P. oryzivora* also suffers as a result of extensive pesticide use in its feeding areas. It seems likely that this species is bred for trade in Europe, North America and parts of northern Asia.

Psilopogon pyrolophus Large numbers are taken in Sumatra, which may be resulting in localised population declines.

Oriolus chinensis Local Indonesian populations of this popular species have been eliminated due to collection for trade.

***Chloropsis* spp.** Leafbirds are popular cage birds in Asia, and are very hardy. As a result of high initial mortality, trade in these species is mainly a 'throw-away' industry, with the birds being bought for decoration only (with a strong bias towards males). Thailand and Indonesia are the usual sources of *Chloropsis* spp. in trade in Southeast Asia, although these are protected in Thailand, while China appears to be the major source of *C. hardwickii* in East Asia.

Pycnonotus bimaculatus This species has a limited range (West Java and Sumatra) but can live in disturbed habitats. The rate of capture for this species may result in the decline of wild populations, and the subspecies that has been permitted in trade is not the one traded.

Pycnonotus jocosus This is an open-country species that can be quite common. Trade may be sustainable, but much of the trade is in birds from southern Thailand, where regulations currently prohibit any export of this species.

Zoothera citrina Trade has caused a sharp decline of this forest bird in Indonesia. Birds in trade may now be coming from elsewhere, similar to the observed changes in the trade in *Pycnonotus zeylanicus*.

Cissa chinensis Many birds of this species are caught for the local trade in Indonesia, but they are difficult to maintain in captivity due to their feeding requirements.

***Ploceus* spp.** Significant declines of several *Ploceus* species have been noted in Indonesia. They are caught in large numbers, however trade may not be the main threat to their survival, as they also suffer as a result of extensive pesticide use in their feeding areas. They are often traded in Southeast Asia as 'prayer birds'.

Copsychus malabaricus Current trapping rates are too high to ensure the long-term survival of this species throughout its range, and *C. malabaricus* populations have already been eradicated in some areas. This species is primarily traded for its song.

Chaimarrornis leucocephalus Species like *Chaimarrornis leucocephalus* and living in defined territories along shallow streams are easily caught. Apparently whole stream systems are systematically cleared of these species.

***Enicurus* spp.** See note under *Chaimarrornis leucocephalus*.

***Megalaima* spp.** These species are trapped for trade in large numbers. The impact of this capture rate is unknown but is probably severe. Barbets are bought for the quality of their songs.

Amandava amandava Significant declines of this very popular and heavily-traded species have been noted in Indonesia.

Lonchura striata Significant declines have been noted in Indonesia. Although trapped in large numbers, trade may not be the main threat to this species' survival, as these also suffer from the extensive use of pesticides in their feeding areas. They are traded as 'prayer birds'.

Lonchura maja See note under *L. striata*.

Lonchura malacca See note under *L. striata*.

Lonchura punctulata See note under *L. striata*.

Zosterops palpebrosus The harvest is focused on specific subspecies which may be threatened as a result, but the overall species is not under any threat. Trapping for trade is illegal in Malaysia. *Z. palpebrosus* are primarily bought for their songs.

The UK Joint Nature Conservation Committee (1993) noted the appearance in UK trade data of several non-CITES species whose wild populations could be affected negatively by international trade. These include *Amandava formosa*, a highly-localised species categorized as 'Rare' in the *1994 IUCN Red List of Threatened Animals* (Groombridge, 1993) and *Pycnonotus nieuwenhuisii*, which is known from only two specimens in Indonesia. Other species potentially threatened by trade that were identified in UK trade data were *Pitta steerii* (listed in CITES Appendix II in 1992) and *Erythrura viridifacies*. *Erythrura coloria* has been advertised for sale in the United Kingdom although it has not appeared in UK trade data (Joint Nature Conservation Committee, 1993).

While not appearing in available UK trade data, several other uncommon species were nonetheless advertised for sale within the United Kingdom (for a discussion on the deficiencies of UK trade data for non-CITES species, see Joint Nature Conservation Committee, 1993). These include

Liocichla omeiensis, largely restricted to a single mountain in China and *Ploceus megarhynchus*, which is endemic to India and has been banned from export since 1981 (Inskipp, 1983). Trapping for trade of *Cyanoptila cyanomelana* in China may be the cause for the decline in this migratory species. *Liocichla omeiensis* was also observed for sale in Hong Kong, as was *Sitta magna* (Dick *et al.*, 1993). All three species are listed as 'Rare' in the 1994 IUCN Red List (Groombridge, 1993).

Far less information is available with respect to the potential conservation impacts of international trade on African non-CITES species, and further research is certainly warranted. Traders have noticed that *Amandava subflava* populations are declining (Diop and Association des Oiseliers dur Senegal, 1993), and it seems possible that, just as in Southeast Asia, trade is contributing to the declines caused by widespread pesticide use.

Although not specifically requested under the terms of this contract, some additional information and thoughts with respect to the wild bird trade can be provided. Primary forest habitats tend to support high species diversity but low population density. As a result, removing individuals from primary forest can be relatively significant with respect to the representation of that species in the habitat. Although habitat loss remains the most significant threat to forest-dwelling species, the impact of trade should not be underestimated.

Birds occurring in more open and/or degraded habitat tend to occur at higher densities, but with lower species diversity. Localised population fluctuations are not uncommon for many such species, e.g. some starlings and finches, as their reproductive and feeding strategies are designed to cope with sudden habitat changes, for example those brought on by drought. Species from grasslands and disturbed habitats are generally more common in trade than are the more selective forest dwellers, and are more likely to be able to withstand higher levels of offtake. However, the decline in some species once considered to be common, such as several munias and parrotfinches, as a result of a combination of factors (e.g. pesticide use) in addition to trade should serve as a warning that on-going trade at current levels should not be accepted without question. Trade levels should be examined as part of a management plan to ensure that species are not used unsustainably, i.e., before trade is known to be a threat to species or populations, rather than waiting until a problem has been identified (see additional information provided below).

III. What is the known age composition (e.g. nestlings, juveniles, older) of birds taken and/or traded?

The age composition of birds harvested for trade varies from region to region and from species to species (Table 10). Generally, nestlings are taken where imprinting of the specimens is of importance, for example in the case of some species to be used for falconry, or where harvesting from nesting sites is practicable (as in the case of hornbills, many parrots and birds of prey). In every case, the value of trade in birds that have yet to fledge must be weighed against the difficulty of feeding and otherwise caring for birds that are not yet weaned.

In the case of many non-CITES birds such as songbirds, adults and sub-adults are most commonly trapped for trade. This is often more a reflection of the relative ease of capture rather than because these birds are difficult to raise in captivity. Nests (other than those in cavities) are generally very difficult to find in the tropics, making collection of a large number of smaller (and often less valuable) fledglings more difficult. Those species that breed in colonies (e.g. *Quelea quelea*) are obviously much easier to collect prior to fledging.

Passerine species are often collected as adults, with the use of mist nets in the vicinity of roosts being a common technique. The only songbird to be taken frequently as nestlings in Southeast Asia is *Gracula religiosa* (CITES Appendix III). These birds nest in trees in open locations not far from human habitation and chicks are therefore relatively easy to catch. *G. religiosa* nestlings are imported into Singapore by the hundreds and sometimes the thousands, often having been exported illegally from Thailand. Young specimens of this species are also seen in Indonesia.

Certain psittacine species are frequently trapped for trade when very young, in order that they may be imprinted and therefore attract higher prices in the pet trade. This is especially true of hole-nesting species, and particularly of species such as *Amazona* spp. that can be taught to 'talk'. Although not renowned as 'talkers', some Southeast Asian parrots are also collected prior to fledging.

A significant number of the *Psittacus erithacus* observed in trade are 'dark-eyed' juveniles. A variety of techniques are used to trap this species, liming being among the most common. Dandliker (1993a) notes that juveniles are most susceptible to liming, as many older birds have learned to avoid this type of danger. Trappers report that as much as 80-97% of *P. erithacus* specimens trapped in the months following fledging are juvenile birds, and that trapping rates drop considerably as juveniles mature (Dandliker, 1993a).

Given the relatively high mortality of nestlings as compared to breeding age adults, some consider that the trade in juveniles is less detrimental than is the trade in mature birds. The problem lies in the manner of collection, which often involves the cutting down of nesting trees to gain access to the young. This is a particular problem with *Amazona* spp., where in some areas lack of nesting trees is becoming a limiting factor, rather than the trapping for trade itself.

Table 10. Examples of age composition of different bird species taken and/or traded from wild populations.

Taxa	Nestlings[1]	Juveniles[2]	Older[3]
Agapornis spp.	(3)	1	1
Amazona spp.	1	2	3
Ara spp.	2	1	3
Aratinga spp.	(3)	1	1
Brotogeris spp.	(3)	1	1
Psittacus erithacus	3	1	2
Gracula religiosa	1	1	1
Alcedenidae	3	2	1
Trochilidae	(3)	(3)	1
Meropidae	(3)	2	1
Passeridae/Fringillidae	(3)	1	1
Phoenicopterus minor	(3)	1	1
Eudocimus ruber	(3)	1	1
Balearica spp.	(3)	1	1
Leptoptilos crumeniferus	(3)	1	1
Bucerotidae	1	2	3
Ramphastidae	1	2	3
Falconidae	1	2	3
Tytonidae/Strigidae	1	2	3
Otididae	2	1	3
Casuarius spp.	1	2	(3)
Corvus spp.	1	2	(3)
Geopelia striata	2	1	3
Zosterops spp.	(3)	2	1
Copsychus malabaricus	(3)	2	1
Garrulax spp.	(3)	2	1
Megalaimidae	(3)	2	1
Muscicapidae	(3)	2	1
Irenidae	(3)	2	1
Pittidae	(3)	2	1
Pericrocotus spp.	(3)	2	1
Ptilinopus spp.	(3)	2	1
Pycnonotus zeylanicus	(3)	2	1

Key: A rating from 1 to 3 is used, where 1 is the most likely or popular age group in trade. A (3) indicates that this age is either only rarely or never taken and/or traded.

[1]For some taxa, e.g. falcons and bustards, this age category includes eggs.

[2]This category includes 'sub-adults' and other non-breeding age birds.

[3]This category includes all 'breeding-age' birds.

IV. What estimates can be made of the economic value of the trade to trappers and traders?

To what extent does the wild bird trade confer a value to local people or natural habitats?

Few studies have examined the economic importance of the international bird trade at various stages in the trade process. Thomsen and Brautigam (1991) estimated that trappers in Neotropical countries earned US$33 million (gross) for parrots exported from 1982 to 1986, with middlemen earning US$114 million (gross) from the sale of these same birds. The gross retail value of these birds in importing countries was estimated to be US$1.6 billion.

Additional information regarding the economic aspects of the bird trade is provided by Nash (1990), who studied the trade in Irian Jaya, Indonesia. Comparison of Nash's figures with data available from the US Fish and Wildlife Service (US F&WS) and US wildlife dealers' price lists provides a more comprehensive look at the economics of trade for species exported from that region (Table 11).

According to Nash (1990), Irian Jaya bird trappers sell birds to intermediate traders who collect them for subsequent sale to exporters. Exporters, located in Jakarta, then sell the birds to importers in the United States and other countries. As is obvious from Table 11, trappers receive only a small fraction of what wild-caught birds ultimately sell for in the United States. However, this does not mean that trappers receive no financial benefit from this trade. In 1988, the average annual per capita income in Indonesia was US$435, or approximately US$8.37 per week (Hoffman, 1990). The average income of the rural population may have been considerably less. It is immediately obvious, therefore, that the sale of even a few birds to a trader could provide significant income for rural trappers.

Depending on the species purchased, exporters paid traders from two to six times the amount traders had paid to trappers for the same birds. Traders' net revenues would have been reduced by the cost of caring for and transporting the birds and losses due to mortality. Nash (1990) estimates that from 5-40% of the birds purchased by traders died prior to being shipped to exporters. In addition, traders were not paid for any birds that died within 15 days of arrival at the exporters' facilities: traders may have been paid for as little as one-third to one-half of the birds shipped to exporters (traders speculate that exporters are claiming higher mortalities than actually occur) (Nash, 1990).

Information regarding the prices paid to Jakarta exporters for birds was not available. However, import data collected by the US F&WS gives some indication of the value of the birds. US importers are required to state the 'declared value' of the wildlife they import. 'Declared value' has not been defined by US F&WS, however, and therefore may be variously interpreted. Interviews with US F&WS personnel and others indicated that importers most often declared the price they paid for the birds as it was written on accompanying invoices (M. Meyers, pers. comm.; Mulliken and Thomsen, undated). Declared values may also include the cost of transport and insurance (M. Meyers, pers. comm.).[2]

Based on US F&WS declared values, and depending on the species traded, it appears that US importers paid from 1 to 18 times the price exporters paid to traders for birds. Exporters charged an average of eight times their own purchase price for the birds they exported. This price may or may

[2]A comparison of average declared values for birds imported from Guyana with minimum export values established by the Guyana Government showed declared values to be an average of 33% higher than minimum export values. It therefore appears that US F&WS declared values do provide a very general idea of the prices paid for birds by US importers.

not have included shipping and insurance costs, depending on the arrangement between the exporter and the importer (S. Clubb, pers. comm.; M. Meyers, pers. comm.). In addition, exporters may only have been paid for those birds that survived transport and the minimum 30-day quarantine required by the US Government, again, depending on the arrangement between exporters and importers (M. Meyers, pers. comm.). Approximately 18% of the birds of the species listed in Table 11 died during transport to or quarantine in the United States.

Studies of the bird trade in Tanzania indicate that revenues collected from the sale of live birds exceed those reported to the Tanzanian Government, with the effect that foreign exchange earnings and government levies did not reflect the actual value of the trade (Bhatia *et al.*, 1992). Edwards and Broad (1992) estimated that the potential realized value of Tanzania's 1990 exports of wild birds was US$1.67 million. However, Leader-Williams (1991, cited in Bhatia *et al.*, 1992) found that a total sum of only US$190,000 was remitted by all Tanzanian bird traders to the Bank of Tanzania. On average, bird traders were found to charge 4.54 times the value of birds declared to the Bank of Tanzania, and further, to fail to remit an additional US$110,000 to the Bank in 1990 (Leader-Williams, 1991, cited in Bhatia *et al.*, 1992). Local trappers interviewed by Bhatia *et al.* (1992) indicated that they did not

Table 11. Value of birds exported from Irian Jaya during various phases of the trade process.

SPECIES	SALES PRICE TRAPPER	SALES PRICE TRADER	US DECLARED VALUES* AVG.	LOW	HIGH	US WHOLESALE PRICE**	
	US DOLLARS						
Chalcopsitta atra	3.41	9.84	56	45	75	199	
C. duivenbodei	4.10	10.93	100	100	100	250	(AVES 1989)
Eos squamata	7.38	19.13	17	8	117	99	
E. cyanogenia	4.78	10.93	—	—	—	—	
Pseudeos fuscata	1.55	4.19	22	18	65	99	
Trichoglossus haematodus	1.16	3.35	18	10	150	99	
T. goldiei	0.96	2.73	32	18	40	99	
Charmosyna placentis	1.28	3.55	—	—	—	250	
C. pulchella	0.96	2.87	—	—	—	250	
C. josefinae	2.37	7.01	125	125	125	—	
C. papou	3.82	8.20	97	70	125	299	*(stellae)*
Neopsittacus musschenbroekii	0.41	2.46	30	20	40	175	
Cacatua pastinator	13.66	27.32	—	—	—	850	
Opopsitta diophthalma	1.09	4.10	—	—	—	350	(1989)
Psittaculirostris edwardsii	4.37	10.93	91	60	284	359	
P. salvadorii	4.10	9.56	—	—	—	359	
Psittacella picta	4.92	12.30	—	—	—	—	
Geoffroyus geoffroyi	1.64	5.46	—	—	—	—	
Tanygnathus megalorynchos	5.46	19.13	91	62	100	425	
Alisterus chloropterus	9.56	23.22	90	66	133	799	
Alisterus amboinensis	5.01	12.75	91	45	100	550	(1989)
Aprosmictus erythropterus	1.37	8.20	34	30	100	150	

— Data unavailable.

Sources: Nash (1990); TRAFFIC, compiled from US F&WS computerised import data (*); Pet Farm pricelists unless otherwise noted, from Mulliken, *et al.* (1992).**

make a full-time living from bird trapping. They typically received from TSh150-200 (US$0.66-0.89) for birds such as *Agapornis fischeri*, with one trapper commenting that four weeks' trapping of finch-like birds earned him approximately TSh2,000 (US$22.22). Further information on the economics of Tanzania's bird trade can be found in Bhatia *et al.* (1992) and Edwards and Broad (1992). More detailed information with respect to the declared value of individual species exported to the United States from Tanzania and Senegal is contained in Annexes 10a and 10b, while Table 12 provides additional information with respect to the declared values of birds exported to the United States in the late 1980s.

Argentina, the largest exporter of Neotropical birds, exported more than 920,000 parrots from 1982 to 1986. The estimated retail value of these parrots was US$800 million (Thomsen and Brautigam, 1991). For exports of *Amazona aestiva*, the species exported in the highest numbers, trappers received approximately US$4.50 per bird (Bucher and Martella, 1988) and exporters US$45 per bird (Plowden, 1987). The US retail value of this species was approximately US$200 in 1984. Although the amount received by trappers for *A. aestiva* was small compared to their retail value, it is important to recognize the potential significance of even this level of cash income to individuals in the rural areas of Argentina and other South and Central American countries. The incentive provided by the income to be made from selling parrots has prompted some individuals to switch to trapping as their primary means of earning their livelihood (E. Bucher, pers. comm., in Mulliken and Thomsen, undated).

Guyana earned approximately US$1.3 million per year from parrot exports from 1981 to 1987 (Wiedenfeld., *in litt.* 1990). US F&WS trade data show that Guyana earned the highest average value per bird exported to the United States of any Neotropical country from 1986 to 1987, averaging US$96.06 per bird. Guyana suspended wild bird exports in 1993.

Honduras, which was the third largest exporter of exotic birds to the United States in terms of total declared value from 1986 to 1987, earning US$2.4 million, banned commercial wild bird exports in January 1990.

Table 12. Declared value of US bird imports by country of export* for 1987 and 1988 (US dollars).

Country	1986	1987	Total	Average value/ bird exported
Indonesia	2,093,903	2,343,610	4,437,513	78.75
Argentina	1,185,085	1,350,597	2,535,682	13.99
Honduras	1,031,421	1,322,156	2,353,577	78.34
Guyana	1,435,357	451,064	1,886,421	96.06
Belgium	629,416	591,092	1,220,508	7.83
Cameroon	216,308	414,647	630,955	89.45
Tanzania	299,418	259,531	558,949	3.08
Senegal	317,464	197,742	515,206	1.37
Peru	233,817	147,945	381,762	14.17
South Africa	333,358	3,701	337,059	12.55
Canada	144,288	160,332	304,620	—
Togo	110,550	193,335	303,885	50.66
Germany	124,317	106,195	230,512	6.12
Liberia	110,075	98,482	208,557	2.39
Netherlands	96,764	92,099	188,863	15.98
Ivory Coast	132,858	51,285	184,143	19.05
United Kingdom	107,841	52,737	160,578	29.07
Singapore	40,031	114,547	154,578	35.84
Mali	84,173	53,728	137,901	9.13
Suriname	70,186	66,786	136,972	17.64
Thailand	65,800	46,385	112,185	46.88
Ghana	52,100	54,800	106,900	73.31
Malaysia	99,260	6,500	105,760	6.06
Australia	63,015	31,483	94,498	6.86
Guatemala	90,676	350	91,026	44.97
Philippines	46,787	38,996	85,783	66.91
United States	7,380	72,238	79,618	—
Uruguay	40,065	39,225	79,290	2.21
Bangladesh	0	66,627	66,627	3.22
Italy	100	52,500	52,600	3,287.50
Soviet Union	26,250	26,250	52,500	3.50
Chile	48,925	350	49,275	46.75
Zimbabwe	4,420	43,946	48,366	7.73
Papua New Guinea	30,650	10,000	40,650	432.45
Equatorial Guinea	0	35,875	35,875	96.18
Taiwan	23,650	6,830	30,480	6.75
Fiji	30,000	0	30,000	5,000.00
France	24,100	4,430	28,530	34.88
Hong Kong	8,584	16,711	25,295	6.84
Panama	12,220	12,750	24,970	268.49
Guinea	16,530	8,181	24,711	2.83
Columbia	6,520	13,150	19,670	231.41
Mexico	14,505	4,815	19,320	41.02
Saudi Arabia	11,166	6,430	17,596	197.71
Japan	8,850	7,925	16,775	419.38
Brazil	3,925	11,900	15,825	608.65
China	10,132	1,409	11,541	2.06
India	9,644	760	10,404	12.66

*Includes only countries with a combined 1986 and 1987 declared value of over $10,000.

Source: Mulliken and Thomsen (undated), compiled from US F&WS data.

V. Are there examples of sustainable use of wild bird populations? If so, describe them and evaluate the evidence that they are sustainable.

There are numerous, possibly hundreds, of examples of sustainable harvest of wild bird populations for trade. Many species that are not listed in the CITES Appendices are traded in very small numbers yet are distributed over large areas, and therefore trade cannot be assumed to be a problem to their survival.

As noted above, many species have been reviewed under the CITES significant trade process for which trade has been found to be of little or no consequence to the global population. These include species such as *Myiopsitta monachus*, which is traded at an average 44,000 per year (Mulliken *et al.*, 1992), and at the same time is subject to eradication campaigns in parts of its range, which kill many times more individuals than traded. The species nevertheless continues to expand because of favourable nesting opportunities provided by introduced eucalyptus trees and is generally considered to be a pest.

In preparation for the 1993 CITES Significant Trade Review, a review of current trade levels for all Asian parrots concluded that international trade in many species was inconsequential when viewed at a global level (Lambert, *in litt.*, 1994). Examples include *Cacatua ducorpsii*, *C. ophthalmica*, *Chalcopsitta cardinalis*, *Charmosyna palmarum*, *C. rubronotata*, *C. wilhelminae*, *C. scintillata*, *Geoffroyus geoffroyi*, *Lorius lory* and *Trichoglossus goldiei*. Similar examples could be provided for Neotropical parrots in trade (Collar, *in litt.*, 1994).

If by using the term 'sustainable use' one implies that harvest of wild birds for trade is part of a management programme, then the situation is different. Very few, if any, wild bird populations are managed for the international trade in live specimens. Harvest of the species referred to above is sustainable only because the numbers harvested are of a low volume and, consequently, the species' global populations cannot possibly be affected by trade.

What monitoring of these wild bird populations and numbers caught for trade are required to ensure that the use of the population will continue to be sustainable?

This issue was addressed in detail in conjunction with a workshop on the wild bird trade sponsored by WWF UK. A chapter from *Perceptions, Conservation and Management of Wild Birds in Trade* (Thomsen *et al.*, 1992) detailing recommended requirements for management plans to control the trade in wild birds is attached as Annex 11.

VI. What is the economic value of sustainable use?

The bird trade and other types of wildlife utilization are believed by many to provide a mechanism for generating income, both at the rural and national level, without substantially altering natural habitat. Sustainable wildlife utilization – perhaps one of the most contentious junctures of conservation and economics – has therefore become the focus of considerable study and debate.

The potential to derive income directly from relatively undisturbed areas could provide an incentive for maintaining existing habitat. Controlled harvests of native birds, in conjunction with more sophisticated wildlife management techniques, could form an important component of broader natural resource utilization schemes. Such schemes could encompass consumptive as well as 'non-consumptive' utilization of wildlife[3].

Information provided above gives some idea of the economic value of the wild bird trade. Obviously some of the use responsible for these revenues was not sustainable, but some was, and this cannot be ignored. Perhaps a more accurate answer to the question is that the economic value of sustainable use is incalculable, because the alternative, unsustainable use, will result in a loss to this planet's biodiversity, the value of which cannot be measured in economic terms. Use of wild birds, whether for domestic or international trade, will continue, and therefore every effort must be made to ensure that such use is maintained within sustainable levels.

[3]While classed as non-consumptive utilisation, tourism has been shown to have significant impacts on habitat and wildlife if not adequately controlled, (e.g. see Groom *et al.*, 1992; MacKinnon *et al.* 1986).

VII. Are there examples of protection of natural habitats as a result of harvesting birds for the wild bird trade?

As noted above, there are no populations of wild birds managed specifically for the wild bird trade, and therefore to make the statement that a specific habitat is being protected in conjunction with such management is not possible. Furthermore, it is important to keep in mind when answering this question that wild birds are just one of a number of non-timber resources than can be exploited in a given area. Identifying protection of natural habitats through use of wild birds for trade would necessarily be part of a much larger system. There are numerous examples of management of habitat to promote maintenance of certain game species' populations, however.

VIII. What are the negative impacts of the wild bird trade in destination countries resulting from escapes of exotic species?

As has been shown in many areas of the world, introduced species may compete with native birds, and in some cases cause the decline and even extinction of native species' wild populations (Long, 1981). Just as the decline of wild populations owing to harvest for trade may have far reaching effects on surrounding ecosystems, so may the reduction of native bird populations owing to the introduction of exotic species.

Many of the exotic species now established in the United States are also popular as cage birds, and have been imported in large numbers for the pet trade. Several species of parrots appear to have successfully adapted to life in the wild in North America, and as many as 27 psittacine species have bred (Thomsen and Mulliken, 1992). *Amazona viridigenalis* are found in Florida and California, and both species are apparently breeding in California (Forshaw, 1989; Long, 1981). Several conure species have been sighted in Florida, and *Brotogeris versicolurus* are "well-established" in both Florida and California, and possibly on Long Island, New York (Long, 1981). At least one psittacine species, *Psittacula krameri* has also become successfully established in the United Kingdom (Long, 1981).

While the sight of free-flying parrots may bring pleasure to local residents, the spread of introduced psittacine populations could have severe economic and environmental consequences. *Brotogeris versicolurus* are known to feed on crops, and are reported to have destroyed mango and other fruit crops in suburban Miami (Long, 1981). Although eradication campaigns appear to have eliminated this species from the New York area, it is remains established in Florida and probably other areas of the southern United States. There are no known attempts to purposely introduce this species to the wild in the United States, indicating that *M. monachus* have become established as a result of owners releasing their birds, escapes, and accidental releases via accidents at airports (Forshaw, 1989). This does not seem unlikely given the large numbers of this species imported: over 102,000 *M. monachus* were imported into the United States from 1982 to 1988.

M. monachus are considered agricultural pests in their countries of origin, damaging ripening cereal crops (especially maize) and citrus groves (Forshaw, 1989). It has been estimated that *M. monachus* would do US$2 million worth of agricultural damage per year if they became established in California (Long, 1981).

Another popular pet and acknowledged "pest" species is *Nandayus nenday*. US import figures for this species matched those of *Myiopsitta monachus*, with over 102,000 imported from 1982 to 1988. *Nandayus nenday* also seem to have met with similar success in terms of becoming established in the United States. This species has been reported in California, New Jersey, and Hawaii (on Oahu), with flocks of from 20 to 200 birds seen in Detroit, Michigan (Long, 1981). In Paraguay, *N. nenday* are believed to damage corn and sunflower crops (Steinbacher, 1962, cited in Forshaw, 1989), both of which are also important crops in the United States.

Several passerine species common in trade have also become established in North America. *Gracula religiosa*, *Icterus pectoralis* and *Thraupis episcopus* can all be seen in the Miami area (Long, 1981). *Estrilda troglodytes* has become established in Portugal (Long, 1981).

Certain North American bird species already pressured by *Passer domesticus* and *Sturnus vulgaris* may increasingly have to compete for food and nesting sights with other introduced species. With habitat loss rapidly reducing available nesting opportunities for hole nesting species, the influx of still more introduced "hole-nesters," such as some psittacines, could have severe implications for native wild birds.

Diseases associated with cage birds, both wild-caught and captive-bred, pose an additional threat to native species as well as to domestic birds, e.g. poultry. The most frequently cited avian disease associated with the international bird trade, and perhaps the most dreaded by government personnel and poultry farmers, is viscerotropic velogenic Newcastle disease (also known as VVND; exotic Newcastle disease). This viral disease is found most frequently in birds imported from tropical regions, especially those of Southeast Asia and South and Central America. VVND spreads rapidly in captive flocks, and results in high levels of mortality among captive bird populations.

While escaped birds are the most obvious vectors of disease, infection could spread from captive birds held in outdoor aviaries to wild 'visitors', e.g. *Passer domesticus*. With no means to treat wild avian populations for introduced diseases if such an event were to occur, the potential for harm to indigenous avian wildlife from exotic birds could be significant.

IX. Which source countries have or do not have national legislation controlling the export of wild-caught birds? Is it effective? If not, why not?

Which destination countries have or do not have national legislation controlling the import of wild-caught birds? Is it effective? If not, why not?

The effectiveness of any legislation can only be judged in relative terms. No trade control legislation is 100% effective, as no legislation can eliminate smuggling. Failed attempts to control the illegal trade in drugs, weapons and currency serve as ample proof of this, as does the continued illegal trade in live birds.

Whether or not legislation is effective is rooted in several factors. First and foremost is the will of the people directly affected by the legislation to adhere to the same. Again, the widespread smuggling and use of drugs serve as an important case in point. Compliance with existing legislation is further dependent on individuals' awareness of such legislation, of the chances that they will be caught in the act of breaking the law if they are so inclined, and of the penalties they are likely to receive if they are apprehended and/or charged. These latter factors relate to implementation and enforcement of existing legislation, rather than the legislation itself. In other words, legislation could be effective, even if its enforcement is not.

We are not aware of any country or group of countries that feels that their wildlife trade controls are faultlessly enforced. Efforts to control the wildlife trade often receive lower funding priority than do other types of law enforcement activities, e.g. interdicting illicit drugs. Some wildlife inspectors interviewed during the course of various TRAFFIC trade studies feel that they face an uphill battle when it comes to policing the wildlife trade. This is true both in countries with total or partial wildlife trade bans as well as in those that allow trade in indigenous wildlife.

Recognizing this, and recognizing further that we may not be aware of the motivation behind various pieces of legislation, we are not prepared to provide blanket statements regarding the effectiveness of the same. Suffice it to say that TRAFFIC has yet to find trade controls in place that are enforced as well as we would like them to be, whether in countries that ban the wild bird trade entirely or in those that allow it. We would be pleased to respond to queries with regard to how such legislation, and its implementation, could be made more effective in both producer and consumer states.

The comments that follow summarise some of the main pieces of legislation applicable to the bird trade in various range and consumer countries. We have attempted to separate these into two groups, but it is important to consider that a number of exporting countries are also wild bird consumers. More detailed information with regard to trade controls is available in Anon. (1986a), Fuller *et al.* (1987) and Nichols *et al.* (1991).

In terms of what we believe to be important components of legislation to control the export of wild-caught birds, please refer to Annex 11.

LEGISLATION AFFECTING THE TRADE IN WILD BIRDS IN VARIOUS CONSUMER COUNTRIES

European Union

Not a Party to CITES but has sought to join via the 'Gabarone Amendment'.

Imports, exports, re-exports, trade and possession of a large number of species of wild birds are controlled by Community-wide regulations as well as by national legislation.

The principal law regulating trade in CITES-listed species in the European Union is *Council Regulation EEC No. 3626/82*, which came into effect on 1 January 1984. This regulation is directly applicable in all EU Member States, and exceeds a number of basic requirements of CITES by, for instance, requiring import permits for the import of all specimens of Appendix II and Appendix III species. Furthermore, certain species in Appendix II and III are treated in the Regulation as Appendix I species, and commercial trade in specimens of these species of wild origin is generally prohibited (the species concerned are listed in Annex C, Part 1 of the Regulation and are commonly referred to as C1 species). A number of other species in Appendix II and III (called C2 species and listed in Annex C, Part 2 of the Regulation) may be traded commercially, but are subject to stricter import conditions than those provided under CITES. The current ban on imports of C2-listed species from Indonesia provides an example of such enhanced restrictions. Day-to-day implementation of *Council Regulation EEC No. 3626/82* relies on national legislation adopted by individual Member States. Fleming (1994) notes, however, that the progress made by some countries in devising and implementing CITES legislation is compromised by the relative lack of progress in other countries, and that "the norm is inevitably set as the lowest common denominator".

A new regulation for regulating the possession of and trade in both CITES and non-CITES species has been under development since the late 1980s, principally prompted by the then pending (and now existing) establishment of the European internal market. Although it had been hoped that such a regulation would be in place before the dropping of internal border controls on 1 January 1993, this was not the case. The first draft of such a regulation, the *Proposal for a Council Regulation laying down provisions with regard to possession of and trade in specimens of species of wild fauna and flora (COM(91) 448 final - SYN 370)* has been revised, and an amended proposal was published in January 1994 (*Amended proposal for a European Parliament and Council Regulation (EC)), setting out provisions with regard to possession of and trade in specimens of species of wild fauna and flora, COM (93) 599 final COD 370).* The amended proposal remains under consideration. *Council Regulation (EEC) No. 3626/82* remains in effect until such time as a new regulation is adopted.

The trade of wild specimens of species that are native to one or more EU Member State is controlled under *Directive 79/409/EEC on the Conservation of Wild Birds.* The Directive was adopted in April 1979 and came into effect in April 1989. Although it does not specifically refer to imports of native species, the Directive does prohibit the sale of 175 bird species and subspecies listed in its Annex I with the consequence that commercial importation is also prohibited. Sale of Annex II species (72 taxa) is also prohibited, although these species may be hunted. Possession and trade of captive-bred specimens of certain native species may be permissible under licence.

Belgium

CITES Party: Yes (1 January 1984)

CITES was ratified on 28 July 1981. However, implementing legislation did not come into effect until January 1984, via a 20 December 1993 Royal Decree. Legislation implementing the Community's CITES Regulations is regarded as adequate, but fails to allow for the control and confiscation of Appendix II and III-listed specimens imported illegally into the country. However, Customs legislation allows the confiscation of specimens in the absence of evidence they were legally imported (Anon., 1994a).

Denmark

CITES Party: Yes (24 October 1977)

CITES is implemented in Denmark via a Statutory Order under the *Nature Conservation Act.* CITES implementing legislation enables comprehensive enforcement of the provisions of CITES and the Community Regulations. Implementation is facilitated by the circulation of government circulars to dealers and others affected by legislative or administrative changes (Anon., 1994a).

France

CITES Party: Yes (9 August 1978)

CITES trade controls were recently modified through a March 1993 Ministerial Order providing for legislation addressing all areas of CITES implementation, Several aspects of this legislation are considered difficult to enforce, especially the regulation of non-commercial transport of Appendix II specimens (Anon., 1994a).

French Guyana, French Polynesia, New Caledonia and Reunion are French Overseas Territories, and for everything outside their political status, they are virtually considered as independent countries. CITES permits are required for trade between France and French Polynesia. Martinique-Guadeloupe is a French Overseas department, and therefore is considered both part of France and part of the European Union with respect to implementation of wildlife trade controls.

Germany

CITES Party: Yes (Germany, Democratic Republic 7 January 1976)
(Germany, Federal Republic of 20 June, 1976)

Germany's CITES regulations are deemed to exceed CITES requirements, particularly with regard to the range of species covered and the extent of permit requirements (Anon., 1994a). Those in possession of species covered by CITES and/or national legislation are required to register them with the Government. Bird breeding societies and the German Management Authority have established a voluntary banding scheme.

Greece

CITES Party: Yes (6 January 1993)

Greece only recently acceded to CITES, although it was previously subject to CITES trade controls under EU regulations. The Greek Government has yet to adopt legislation allowing full implementation of CITES, and remains a weak point with respect to Community-wide implementation of trade controls. Current legislation fails to prohibit and provide penalties for a number of important contravention of EC 3626/82, notably the introduction into the Community of CITES-listed specimens without valid import documentation; the display for commercial purposes and offering for sale of Appendix I/Annex C1 specimens without valid Community trade exemption certificates; the offering for sale of Appendix II and Appendix III specimens imported in violation of the Regulations; and infractions of intra-Community trade procedures. In addition, there are no provisions to control domestic trade of CITES specimens, and no measures to authorize confiscation of illegally traded specimens (Anon., 1988; De Meulenaer and Gray, 1992).

Ireland

CITES Party: No

Ireland is not known as a major bird importer. While not a CITES Party, this country is obliged to implement CITES requirements under EC 3626/82. National legislation implementing this regulation does not penalise offenses related to Article 6 (trade controls for Appendix I; Annex C1 species).

Italy

CITES Party: Yes (31 December 1979)

In 1992, the CITES Standing Committee called on Parties to ban trade in CITES-listed specimens

with Italy owing to this country's ineffective implementation of the Convention. The Italian Government responded in January 1993 by approving penalties by decree for CITES violations under a new law that came into effect in March of that year. The CITES Standing Committee recommended that the ban on trade with Italy be lifted in February 1993 (CITES Notification No. 722, 19 February 1993). The current legislation is considered comprehensive and detailed, allowing for the full implementation of CITES, its Resolutions and the Community Regulations (Anon., 1994a).

Luxembourg

CITES Party: Yes (12 March 1984)

The Netherlands

CITES Party: Yes (18 July 1984)

Both CITES and the EC Regulations are implemented in the Netherlands through the *Endangered Exotic Animal Species Act* and the *Import and Export Decree* for endangered exotic animal and plant species. Under the Act, individuals are required to hold possession licences in order to be in legal possession of the majority of parrot species included in Appendix I/Annex C1. Species bred in captivity in large numbers (e.g. *Cyanoramphus novaezelandiae*) have been exempted from the Act, as have several less-commonly bred species like *Amazona tucumana*, for example (van Kreveld, 1990).

The Netherlands was acknowledged as a laundering centre for illegally exported parrots following a study in 1983 (van den Berg *et al.*, 1983), with continued concerns related to illegal trade to the Netherlands cited in van der Plas-Haarsma and van den Berg (1986). Based on an extensive study of the trade and breeding of psittacines, van Kreveld (1990) found continuing evidence of illegal trade, but concluded that the Netherlands no longer served as a major laundering centre. Of greater concern was what appeared to be the influx to the Netherlands of parrots imported into the European Union illegally via Spain and Portugal.

National legislation proved inadequate to allow successful prosecutions of individuals found in possession of *Callyptorhynchus* spp. alleged to have been imported from Australia, the burden of proof lying with the Government to show that the birds were imported illegally rather than on the individuals to prove they had obtained them legally.

Portugal

CITES Party: Yes (11 March 1981)

Portugal has comprehensive implementing legislation for CITES and the Community Regulations in the form of a specific CITES law and several decrees (Anon., 1994a).

Spain

CITES Party: Yes (28 August 1986)

Spain has been identified as one of the weak points in EU wildlife trade controls. This country does not have specific legislation to implement CITES or the regulations, relying instead on customs contraband legislation which does not make reference to CITES. This creates obstacles for enforcement and prosecution of CITES infractions. However, an amendment to the existing legislation has been drafted which would allow the enactment of decrees to better address the implementation of CITES (Anon., 1994a).

United Kingdom

CITES Party: Yes (31 October 1976)

Responsibility for enforcing wildlife trade controls at the point of import falls to H.M. Customs and Excise under the *Customs and Excise Management Act 1979*. Additional authority for implementing EC 3626/82 was provided under the *Control of Trade in Endangered Species (Enforcement) Regulations 1985*.

In accordance with EC 3626/82, import permits must be obtained in advance of the import of CITES-listed species from countries outside of the European Union. Such permits are not required for the import of CITES-listed species from other EU countries with the exception of diurnal birds of prey. Import permit requirements for non-CITES species were dropped as of 1 January 1993, with the result that information on this non-CITES trade will no longer be collected under the Regulations.

Trade in native British species is controlled under the *Wildlife and Countryside Act 1981*. Sale of wild-caught birds is prohibited, however such prohibitions generally are waived for captive-bred birds.

The *Control of Trade in Endangered Species (Enforcement) Regulations 1985* prohibit, with exemptions, the commercial display or sale or offer for sale of CITES Appendix I and Annex C1 species. Print advertising is not considered an offer to sell, but rather an 'invitation to treat', allowing individuals without exemption certificates to advertise specimens for sale (Anon., 1993b). The regulations do not allow inspection of premises suspected of offering Appendix I/C1 species for sale illegally.

The only CITES-listed species subject to registration are diurnal birds of prey, of which approximately 16,000 were registered in 1993, and relaxation of these trade controls is under consideration. No such registration requirements are in place for far rarer species, e.g. *Anodorhynchus hyacinthinus*, for which there is concern that illegal trade may be threatening the species' survival (Anon., 1993b).

The *Endangered Species (Import and Export) Act 1976* allows the Secretary of State to ban imports of species believed unlikely to survive in captivity. No such list of 'sensitive' species has been promulgated by the Secretary.

The Ministry of Agriculture, Fisheries and Food (MAFF) requires that bird shipments being imported from outside of the European Union meet certain veterinary requirements and are accompanied by a veterinary certificate attesting to the fact that these requirements have been met. MAFF requires that this certificate be issued by an "official" veterinarian of the exporting country who has inspected the shipment to be exported within 48 hours of the date of export. As is the case in many countries, there are no guarantees that these veterinary import requirements are met. A Hong Kong MAFF veterinarian stated that birds were re-exported soon after being imported from China, suggesting that MAFF's 6-week pre-export holding requirement was not being adhered to.

The UK Government stated in a response to a parliamentary question that £ 470,000 per annum was spent on CITES implementation in 1990 (RSPCA, *in litt.*, 1992).

Other European Countries

Malta

CITES Party: Yes (16 July 1989)

Prior to its accession to CITES, Malta was believed to be an important trade route for psittacine smuggling into the European Union. Applications for entry of birds into the European Union were

made on dubious grounds, as birds declared at that time as captive-bred in Malta were unlikely to have been so (Broad, 1990).

North America

Canada

CITES Party: Yes (9 July 1975)

The Canadian Government does not allow imports of exotic bird species except from countries that they deem have satisfactory quarantine programmes. During the late 1980s, Canadian bird imports consisted largely of re-exports from the United States.

United States

CITES Party: Yes (1 July 1975)

CITES is implemented in the United States under the *Endangered Species Act*. Additional legislation controlling the bird trade includes the *Migratory Bird Treaty Act*, the *Lacey Act* and the *Wild Bird Conservation Act*, the latter having been adopted in October 1992.

The *Migratory Bird Treaty Act* (1918), prohibits the "taking or hunting" of bird species indigenous to the United States except as permitted by the Government. Although the Act made it illegal to use native birds as pets, it did not affect exotic bird imports. The *Lacey Act* allows prosecution of those found to have traded wildlife in violation of the laws of the country of origin or of individual states if such trade crosses state or international borders.

Of greater immediate relevance to the bird trade is the *Wild Bird Conservation Act*. Under this Act, imports of most CITES Appendix II species were suspended as of October 1993 until such time as the governments of countries seeking to export wild-caught birds to the United States can demonstrate that their wildlife management programmes for the species meet US criteria. Imports of captive-bred specimens of most CITES Appendix II species were similarly prohibited until such time as criteria for identifying the same have been promulgated. The Act allows for a public review process under which petitions for bans on the import of Appendix III and non-CITES species can be submitted. Imports of Appendix III species were allowed at first, with the exception of those originating from range countries that list the species in this Appendix. However, in March 1994 a judge ruled that Appendix III species were covered by the Act, with the immediate effect of banning US imports of these species.

It is too early to assess the effect of the US import ban on exporting countries. There is an expectation that the US Government will clarify the requirements that exporting countries must meet to gain access to the US market, and also those requirements that must be met by aviculturists hoping to export captive-birds to the United States. At present, however, US imports of most CITES-listed species are blocked, with the result that those in the business of exporting Appendix II-listed birds must seek alternative markets, and/or reduce their stock of certain species.

If the goal of the US Government with respect to the *Wild Bird Conservation Act* was to reduce the total number of wild birds imported into the United States, then this would appear to have been effective. Illegal trade may still pose a problem, however. Illegal imports of parrots into the United States were estimated to range from 25,000 to 150,000 birds per year in the late 1980s (Mulliken and Thomsen, 1990; Thomsen and Hemley, 1987). The likely effect of the Act on smuggling, i.e., whether illegal trade will increase or decrease as a result of the limitation on the supply of wild-caught and captive-bred birds, remains to be seen.

Africa

South Africa

CITES Party: Yes (13 October 1975)

There is no national legislation in South Africa with regard to wildlife trade controls. Instead, these controls are promulgated in South Africa via provincial regulations, and implemented by provincial wildlife authorities, in cooperation with the Endangered Species Protection Unit of the South African Police. Provincial legislation requires that an import permit or approval is issued in advance of the import of any wild bird. Imports of native species are generally prohibited. There are no possession controls for Appendix I species.

LEGISLATION AFFECTING THE TRADE IN WILD BIRDS IN VARIOUS PRODUCER COUNTRIES

Africa

Angola

CITES Party: No

Benin

CITES Party: Yes (28 May 1984)

Capture and export are subject to licence (S.I. No. 80-38, dated 11 February 1980).

Botswana

CITES Party: Yes (12 February 1978)

Large numbers of wild birds have been exported from Botswana in the past, but little information has been obtained on the scale of the current trade or trade controls.

Cameroon

CITES Party: Yes (3 September 1981)

Capture and export of wild birds is subject to licence (S.I. No.83/170, dated 12 April 1983).

Central African Republic

CITES Party: Yes (25 November 1980)

Capture and export of live birds is subject to licence (Acts No. 84-045, dated 27 July 1984; and 84-062, dated 9 October 1984).

Congo

CITES Party: Yes (1 May 1983)

Capture and export of live birds is subject to licence (S.I. 48-83, dated 21 April 1983; Act No. 49/83, dated 21 April 1983).

Cote d'Ivoire

CITES Party: Yes (19 February 1995)

Trappers are required to obtain a trapping permit, and transport permits may be required to transport live bird shipments within Cote d'Ivoire. Exporters are required to obtain a sanitary certificate prior to the export of live birds. Exporters of CITES-listed species are required to obtain an export permit (Dandliker, 1993a).

Gabon

CITES Party: Yes (15 May 1989)

All capture and export is subject to licence (*Loi d'orientation en matiere des eaux et des forets*, dated 22 July 1982).

Ghana

CITES Party: Yes (12 February 1976).

Capture and export of wild birds is subject to licence (*Wildlife Conservation Regulations, L.I. No. 685*, dated 4 March 1971; *L.I. 1240*, dated 15 May 1980; CITES Notification No. 231, dated 13 October 1982). Licences are issued to individuals, are non-transferrable, and specify the species and number of birds allowed to be obtained.

The hunting and capture of all birds listed in Schedule 2 of the *Wildlife Conservation Regulations* (including all parrots) is prohibited between 1 August and 1 December, and the hunting and capture of young and/or adults accompanied by young are prohibited at all times. The latter law is not enforced, however, and trapping has been observed at the roost. A 'game and trophy export permit', granted by the Chief of the Ghanian Wildlife Department, is required to export wild birds, as is an export licence from the Mihistry of Trade for commercial exports. Commercial exporters are also required to have a holding facility to house birds prior to export (Dandliker, 1993a).

Guinea

CITES Party: Yes (20 December 1981)

According to Dandliker (1993b), commercial trapping of wild birds is regulated under *L'Ordonance No 007/PRG/SGG/90* of 15/2/90; *Le Décret No 126/PRG/SGG/91* of 8/2/91; and *L'Arrête No ???/MARA/???/91* of 9/7/91. Capture permits are valid for three months and are renewable. However, export permits are often used in lieu of capture permits. Export permits are required but customs controls are not efficient. Import permits are not required to import birds from other countries.

Guinea-Bissau

CITES Party: Yes (14 August 1990)

Kenya

CITES Party: Yes (13 March 1979)

All commercial wildlife exports from Kenya are prohibited (Anon., 1986a).

Liberia

CITES Party: Yes (9 June 1981)

A draft wildlife conservation regulation lists all parrots as totally protected.

Mali

CITES Party: No

Capture and export subject to licence (*Ordonnance No. 4/CMLN*, dated 25 January 1971).

Mozambique

CITES Party: Yes (23 June 1981)

This country is known to export significant numbers of wild birds, however information on trade controls was not available.

Nigeria

CITES Party: Yes (1 July 1975)

All psittacines are included in Schedule I of the *Endangered Species (Control of International Trade and Traffic) Decree (No 11/1985)*, which prohibits export. There have been repeated seizures of *Psittacus erithacus* from Nigerian nationals entering the European Union.

Senegal

CITES Party: Yes (3 November 1977)

Senegal uses a quota system to control the number of wild birds exported. However, biological information is lacking for many of the species in trade, and therefore the necessary scientific foundation for setting export levels is insufficient. Current inspection measures are inadequate to effectively assure compliance with trade controls (Broad and Allen, 1993). Quotas in place since 1982 have allowed the export of up to 1,614,000 birds a year, not including Ploceidae such as *Quelea* sp., *Passer luteus*, *Ploceus cucullatus*, *P. melanocephalus*, and *P. heuglini*. Exports from Senegal declined during the early 1990s.

Tanzania

CITES Party: Yes (27 February 1980)

Capture permits are required to trap wild birds in Tanzania, obtained through the licensing section by a licensed trophy dealer. Capture permit holders are required to report regularly to the Regional Game Officers in the areas where they are authorised to capture the birds. Specific concern has been expressed regarding Tanzania's exports of *Agapornis fischeri*.

The Government announced the development of a new policy "for management of Tanzania's avifauna, with special reference to the bird trade" in late 1993 (Anon., 1993b). The policy document stated that Tanzania aimed to conserve its natural heritage [native wild birds] where it does not conflict with legitimate human activities; and to promote sustainable utilization of wild birds as an

incentive for habitat conservation. The main aims of the policy are:

- to increase or maintain numbers of each bird species, with special regard to endemic species;
- to produce a sustainable harvest of bird species in which it is appropriate to trade;
- to initiate utilization through captive breeding programmes for appropriate key species;
- to conduct any trade in live birds in a humane manner; and
- to manage birds where appropriate for the benefit of local communities.

A new management plan was to be developed that defined capture quotas for species allowed in trade, which would be divided among licensed traders, and set a minimum market value for each species of 1/8 of the retail value of that species in consumer countries. A detailed management plan is to be drawn up by the Director of Wildlife which will define the aims of management of bird species in the different categories of protected and open areas according to the abundance, endemicity and the value to world markets of each species. The management of individual species is also to take into account the area and habitat type occupied by the species, and the extent to which that habitat is affected by human disturbance (Anon., 1993b).

Togo

CITES Party: Yes (21 January 1979)

Capture and export subject to licence (*Act No. 4*, dated 16 January 1968; and *S.I. No.80-171*, dated 4 June 1980).

Zaire

CITES Party: Yes (18 October 1976)

Export of *Psittacus erithacus* was restricted to a maximum of two birds per permit until 7 February 1984. Subsequently, there was a ban on export until 16 January 1986 (CITES Notification No. 284, 15 March 1984). An annual export quota of 10,000 *P. erithacus* was established for 1994.

Zambia

CITES Party: Yes (22 February 1981)

Trade is prohibited but enforcement could be a problem (Aspinall, *in litt.*, 1991).

Zimbabwe

CITES Party: Yes (17 August 1981)

Zimbabwe allows only exports of captive-bred birds, but in the most recent records, exports were not recorded as captive-bred.

Asia

Brunei Darussalam

CITES Party: Yes (20 August 1990)

The following information was extracted from Nash (1993). The *Wild Life Protection Act of 1981* prohibits hunting, killing, or capturing any protected animal other than for scientific purposes in accordance with a licence issued under the Act. Export of protected species also requires a licence. The Act also prohibits the sale, offer for sale or possession of any protected animal not lawfully acquired. Violations of the licensing requirements are punishable by imprisonment and fines.

China

CITES Party: Yes (8 April 1981)

China is the largest exporter of wild birds in East Asia (Melville, 1994). Export restrictions on shipments of all live birds leaving the country were imposed in February 1991. All shipments were required to have an export permit, and there was an intention to introduce an export quota, however this has yet to take place (Melville, 1994).

Hong Kong

CITES Party: Yes, under United Kingdom's membership (31 October 1976)

The following information was extracted from Melville (1993). All birds within Hong Kong are protected and the hunting and trapping of birds and the possession of trapping appliances is prohibited under the *Wild Animals Protection Ordinance, Cap. 170.* A very small amount of illegal trapping still occurs, mostly of *Garrulax canorus*, which are believed to be sold locally rather than exported. The *Public Health (Animals and Birds) Ordinance Cap. 139* and the *Public Health (Animals and Birds) (Animal Traders) Regulations* provide legislative control of the animal trade in Hong Kong. Any person trading in animals (including birds) requires a licence issued by the Director of Agriculture and Fisheries and may only trade from a licensed premises, hawking of animals being prohibited. The *Public Health (Animals and Birds) Regulations* and the *Code of Standards for Licensed Animal Traders* govern the conditions under which the animals must be kept and these are reinforced by the *Prevention of Cruelty to Animals Ordinance Cap. 169 and Subsidiary Regulations.* Animals imported to Hong Kong can only be landed in accordance with a 'special permit' issued under the *Public Health (Animals and Birds) Regulations* and must be accompanied by a health certificate from the country of origin. All shipments requiring a 'special permit' are inspected on arrival. This Regulation, however, does not apply to animals or birds brought into Hong Kong direct from China. Animals for (re-)export are only covered by a health certificate if the importing country requires one. Health certificates are issued by private veterinarians and endorsed by a Government veterinarian, if requested. Similarly, shipments for export are not usually inspected at the point of departure unless specifically required by the importing country. Hong Kong first introduced restrictions on the import and possession of certain rare species of wildlife in 1969, when the *Animals and Birds (Restriction of Importation and Possession) Ordinance* was enacted, the criteria for a species being listed apparently being based on the IUCN Red Data books. In 1976, this was superseded by the *Animals and Plants (Protection of Endangered Species) Ordinance, Cap. 18.* Species listed in the schedules under this Ordinance may only be imported, exported and, in most cases, possessed in accordance with a licence issued by the Director of Agriculture and Fisheries. In October 1993 there were 167 licensed animal traders in Hong Kong who dealt in pet and food birds, most of whom were retailers. This compares with 135 in 1976 and 181 in 1979 (Melville, 1982).

India

CITES Party: Yes (18 October 1976)

India was at one time one of the most important suppliers of wild-caught birds to international markets, exporting 1.3 million birds per year in the 1970s (Inskipp, 1983). Adoption of the *Wildlife (Protection) Act-1972* severely curtailed exports of wild birds from India. In 1989, the Government announced that all commercial exports of bird species listed in CITES Appendix II were banned, with the exception of the following (Anon., 1989):

Psittacula alexandri
Psittacula cyanocephala
Psittacula eupatria
Psittacula himalayana himalayana

Trapping and exports of these and all other wildlife species were banned in 1991 following adoption of the *Wildlife Protection Amendment Act.*

Indonesia

CITES Party: Yes (28 March 1979)

The following information was extracted from Nash (1993). In 1990 Indonesia passed the *Act of the Republic of Indonesia on Conservation of Living Resources and Ecosystems (1990)* (also known as the *Conservation Act (no. 5) of 1990*), which serves as the legal basis for the control and regulation of Indonesia's wildlife trade. Articles 26-28 of Chapter VI of the Act provide the legal basis for the utilization of unprotected wildlife. Article 36 of Chapter VII provides for the commercial utilization of wild species of plants and animals.

Decree 556 (1989) of the Minister of Forestry provides that protected species may only be captured, possessed, transported, or exported under permit and for limited purposes such as research and zoo exchanges. Such permits would be issued by the Director General of Forest Protection and Conservation (PHPA), following approval of the Minister of Forestry.

Regulations state that the capture of non-protected species requires the prior granting of a capture permit. These permits are non-transferable and are valid only for the species, quantities and capture areas named. Transportation of wildlife across provincial boundaries requires the prior granting of a domestic transport permit. These permits are also non-transferable and are valid only for the species, quantities and travel route and method listed on the permit. Indonesia currently requires that CITES permits be used for the export of non-CITES species, and annual CITES reports also include trade data on non-CITES species. Permits for the capture, possession and keeping of non-protected species are issued by the Department of Forestry's provincial offices and permits for the domestic transport of non-protected species are issued by the regional and sub-regional offices of PHPA. Permits for export are only issued by the directorate general of PHPA.

The directorate general of PHPA issues an annual capture quota for non-protected species. This quota is established for species and subspecies and for geographical areas (provinces). The quota is adjusted annually, with input from the Indonesian Institute of Sciences Research, Development Centre for Biology (LIPI) and the Indonesian Flora and Fauna Traders Association. PHPA occasionally re-issues mid-year updated versions of the quota. The quota decree for 1993 states that all capture, transport and export permits must be within the limits imposed, while prior quota decrees stated that capture of non-quota species could occur in accordance with existing procedure, which involves obtaining prior approval by LIPI. Beginning in 1994, the Government declared that zero quotas were in effect for the trade in all species for which other quotas had not been set. In 1995, separate capture and export quotas were established.

In June 1991 the Minister of Forestry issued *Decree 301 (1991)*, which stated that all captive protected wildlife had to be registered with the Department of Forestry by 31 May 1992. The decree outlined that protected wildlife species are the property of the state and cannot be privately owned. Wildlife not registered after the deadline would be liable to seizure and the owner subject to fines and imprisonment in accordance with the *Act on the Conservation of Living Resources and Ecosystems (1990)*. However, PHPA is able to supply annually renewable permits for keeping protected wildlife on behalf of the Government.

Intentional trade in protected species is liable to punishment by imprisonment for up to a maximum of five years and by a fine of up to Rp.100 million (US$50,000) and trade in protected species through negligence is liable to one year's imprisonment and a Rp.50 million (US$25,000) fine.

Several key problems have been identified with existing laws and regulations:

- While the *Act on the Conservation of Living Resources and Ecosystems (1990)* provides a legal basis for sanctions against persons involved in trade of protected species, the Act does not cover illegal trade in non-protected species. As a result there is at present no legal basis to prosecute anyone not complying with regulations on trade in non- protected species.

- While regulations state that the capture of non-quota species requires LIPI's prior approval, LIPI considers that species not included in the quotas may not be harvested and does not provide approval for the capture of these species. PHPA nevertheless allows the capture of non-quota species, maintaining that these species may be harvested without limits. In addition there has been a considerable amount of confusion over the purpose of the quotas, as these are routinely surpassed for many species, and over the methodology by which the quotas are established.

- Capture permits are routinely issued for species which do not exist (e.g. 'Visip pasando') or which are not found in the designated capture region (e.g. *Pycnonotus zeylanicus* in Irian Jaya) and transport permits are issued for species and/or quantities in excess of those included in capture permits.

- While CITES permits are used for exporting non-CITES species, importing countries generally do not provide the same verification of documents and consignment contents for non-CITES species as for CITES-listed species and permits are accepted which list fabricated species names (e.g. 'Turdus gallius', 'Rufousbillied niltava', 'Robertson myna'), extra-limital species (e.g. Cyornis [Muscicapa] rubeculoides, Megalaima asiatica), confused names (e.g. 'Gallicolumba' for Chalcophaps), modified names to disguise protected species (e.g. 'Megalaima armila' or 'M. armillaria' for M. armillaris) and assorted misspellings.

- The Government's protected species registration programme is essentially a tax scheme, as annually-renewable permits to retain possession of the protected wildlife species are readily provided for a Rp.7,000 (US$3.50) charge. This essentially legitimizes private holdings of rare and threatened species and creates a loophole allowing the lucrative trade in protected species to continue.

Japan

CITES Party: Yes (4 November 1980)

Trade in wild birds trapped within Japan is banned, although trade in specimens of native species imported from other countries is not (Anon., 1994b). In 1987, the Ministry of International Trade and Industry (MITI), Japan's CITES Management Authority, introduced a prior confirmation system with respect to trade from 17 countries identified in CITES Secretariat Notifications as urging prohibitions

or control measures for specific species. Transfer or sale of Appendix I live animals is prohibited unless these have been registered with the government (Nichols *et al.*, 1991).

Laos

CITES Party: No

The following information was extracted from Nash (1993). The Department of Forestry, Ministry of Agriculture and Forestry is responsible for regulations and controls on import, export and local use of wildlife. This Department is responsible for monitoring and issuing permits for harvesting and issuing certificates of origin and health control certificates for wild animals; and for seizing evidence, applying fines and carrying out legal proceedings against persons who violate Ministry of Agriculture and Forestry rules and laws. At present, the division within the Department of Forestry which deals with wildlife trade matters is the National Office for Nature Conservation & Watershed Management. Several Government decrees have been issued which regulate the protection and/or management of wild resources:

- Legal wildlife trade was abolished in 1986 by the *Decree in Relation to the Prohibition of Wildlife Trade No. 185/CCM (1986)*, which prohibited trade in wildlife species whether alive, dead or as derivatives. The possibility of legal trade was re-opened with the issuance of the *Decree on Management and Protection of Aquatic Animals and Wild Animals and on Hunting and Fishing No. 118/CCM (1989)*, which states that the import or export of wildlife (living or dead) or parts thereof requires specified forms of documentation. Sanctions for violations include warnings, penalties, confiscations and further prosecution, but none of these is explained in detail. Two schedule lists of species are attached to this Decree, for 'Totally Protected' and for 'Controlled' species.

- The *Decree on the State Tax System No. 47/CCM (1989)* outlines an extraction tax and an export tax for certain species or their derivatives. An annex to *Decree No. 47/CCM* was published which establishes an import tax on wildlife and wildlife products.

- The Provision of the *Vientiane Municipality on Wildlife Protection No. 098/VT (1988)* states that capture of wildlife on migration and during the Buddhist fasting month is prohibited.

- The *Penal Code of Lao PDR (1990)* specifies certain penalties relevant to wildlife trade. Hunting in violation of regulations is punishable by three months' to two years' imprisonment, or by a fine in accordance with standing regulations. The *Penal Code* provides for fines of US$7-70 for illegal exploitation of natural resources. Illegal trade in commodities belonging to the State (which includes wildlife and aquatic fauna) is punishable by six months' to two years' imprisonment. Transgressions of State tax regulations are punishable by three months' to three years' imprisonment, or by fines according to tax regulations.

In addition, a draft *Nature Conservation Act* was proposed by Madar and Salter (1990) which included sections on the regulation of wildlife trade. A proposed Central Authority for Nature Conservation would be responsible for issuing permits for the import, export or re-export of wildlife. It is unclear whether this proposed legislation will be approved by the Lao PDR Government.

Malaysia

CITES Party: Yes (18 January 1978)

The following information was extracted from Nash (1993). State governments have jurisdiction for control of the wildlife trade, with each of the three regions of the peninsular states, Sabah and Sarawak having different wildlife trade legislation.

Wildlife trade is also covered under the *Malaysian Customs Act of 1967 (Act 235)* and *Customs Regulations, 1977*. The penalty for making an incorrect declaration under this Act is a minimum RM5,000 (US$1,900) fine and/or 12 months' imprisonment.

The Federal Government collects a RM5 tax (US$1.90) on each specimen of 'protected' wildlife entering/exiting the country. As many species in trade are considered protected in Malaysia, this generally serves as a disincentive towards Malaysia acting as a transit point for most wildlife, since merely passing through the country would add to the cost of each bird an amount which would be difficult to recoup in a competitive international market. On the other hand, this tax may act as an incentive towards smuggling in order to evade the tax.

- Peninsular Malaysia

The *Protection of Wild Life Act of 1972 (Act 76)* applies only to Peninsular (West) Malaysia and provides the legal framework for investigation, seizure and trade control relating to species listed in its five schedules of protected wildlife species. The Act was amended in 1991 to include all CITES Appendix I and II species within the existing schedules. International trade (import and export) is allowed only under licence. Species listed in Schedules Two and Four of the Act may be traded under permit. Penalties for contravention of the Act are set by the courts. The minimum penalty is RM300 (US$115) and/or one month's imprisonment. The penalty for illegally possessing wildlife is a fine not exceeding RM1,000 (US$380) and/or six months' imprisonment.

- Sabah

The eastern Malaysian state of Sabah established the *Fauna Conservation Ordinance of 1963 (No. 11)*, which provides the legal framework for investigation, seizure and trade control relating to wildlife listed in its First Schedule (protected species). The minimum penalty for illegal trade is a fine of RM500 (US$190) or one-half the maximum fine prescribed for the offence, whichever is less. If no penalty is prescribed, then an offender is liable to imprisonment for six months and a fine of RM1,000 (US$380).

- Sarawak

The *Wildlife Protection Ordinance (1990)* is the legal mechanism for protecting wildlife and regulating utilization. Protected animal species are listed in the Ordinance's First Schedule. The penalty for illegal wildlife trade is imprisonment for three months and a fine of RM1,000 (US$380).

Myanmar

CITES Party: No

The following information was extracted from Nash (1993). The *Wildlife Protection Act (1936)* is the main wildlife protection and trade legislation in Myanmar. For non-CITES bird species this Act prohibits hunting, buying, selling or possessing *Heliopais personata* and prohibits the possession and trade of species of the following families killed outside of specified hunting seasons: Phasianidae, Anatidae/Dendrocygnidae, Scolopacidae and Ardeidae. An offence under the Act is punishable by imprisonment for up to six months and fines of double the assessed damage (Nichols *et. al.*, 1991; Swe, 1992).

Philippines

CITES Party: Yes (16 November 1981)

The following information was extracted from Nash (1993). Philippine wildlife legislation is made up of an array of Acts, Administrative Orders, Executive Orders, Presidential Decrees and Guidelines.

These overlap with each other and amend and re-amend earlier versions. The basic Philippine legislation relevant to the bird trade is *Act No. 2590, An Act for the Protection of Game and Fish (1916)*, amended by *Acts No. 3730 (1930)* and *4005 (1936)* and the *Commonwealth Act No. 491 (1939)*. Under *Act 2590* it is unlawful to possess, purchase, offer or expose for sale, transport, ship or export any protected bird, alive or dead. 'Protected birds' generally includes all wild non-CITES birds, while "crows, house sparrows, herons, mynas and such other species as determined by the Secretary of Agriculture and Commerce may be destroyed by property owners whenever they become injurious to their property". 'Game birds' are only protected during closed seasons. Under *Act No. 2590*, *Presidential Decree No. 705* and *Executive Order No. 192 (1987)*, the Department of the Environment and Natural Resources has established annual species-specific quotas for collection under permit of wild fauna for commercial purposes.

The collection in the wild of birds of species included in the CITES Appendices and the export of such birds from the Philippines was prohibited from 15 February 1994.

Singapore

CITES Party: Yes (28 February 1987)

The following information was extracted from Nash (1993). The *Wild Animals and Birds Act of 1965* is the main legislation affecting trade in non-CITES species. This Act provides the Minister for National Development comprehensive powers to prohibit or control movement of all types of animals and birds into, within and from Singapore. Import, trans-shipment, and export requires a licence from the Director of Primary Production. Also, any person who kills, takes or keeps any wild bird (other than *Corvus splendens*, *Sturnus sturninus*, *Aplonis panavensis*, *Acridotheres tristis*, *Acridotheres grandis* and feral pigeons) without a licence is guilty of an offence and subject on conviction to a fine and to the forfeiture of the wild bird.

The *Wild Animals (Licensing) Order of 1975* states that licences to keep birds are obligatory. Chapter 7 of the Act, *Veterinary Regulations for the Importation of Birds (other than Domestic Birds)*, amended January 1993, outlines the current quarantine requirements and bird import procedures. Prior issue of an import licence by the Primary Production Department is required for all imports. These licences record the country of origin, scientific and common names of each species, the quantity being imported and whether the species are listed under CITES. All exports require an export licence, also issued by the Primary Production Department. Applications for export licences must declare the country of destination, scientific and common names of each species, the quantity being exported, and whether the species are listed under CITES.

All incoming consignments of birds are required to be inspected by the Changi Animal and Plant Quarantine Unit located at Changi Airport to ensure the birds are healthy and free from clinical signs of disease. Consignments accompanied by a veterinary certificate dated within seven days of import and signed by a Government veterinary authority or registered veterinarian of the country of export are exempt from quarantine requirements. Veterinary certificates must include details on the consignment (consigner, consignee, quantity and species of birds). Personally owned pets, when accompanied by the owners, are also exempt from quarantine. Any consignment of birds arriving without a veterinary health certificate must be quarantined for a minimum of three days at the Primary Production Department's quarantine facilities or at any approved quarantine premises (several importers maintain their own quarantine areas on their premises).

Several key problems with Singapore's present legislation have been identified:

- While stating that licences to keep birds are obligatory, the *Wild Animals (Licensing) Order of 1975* does not include any provision for the licensing of birds. Legally, it would appear that no one in Singapore is allowed to keep any bird (Lye, 1991). Singapore authorities are

obviously choosing not to enforce the *Animals and Birds Act*, nor to amend the *Wild Animals (Licensing) Order* with regards to the licensing of individual birds.

- Many native species are imported from neighbouring countries for local sale and re-export and there is no way of determining if a specimen for sale was imported or trapped locally. This allows the sale of locally captured birds to be entirely undetectable.

- While the *Wild Animals and Birds Act* specifically prohibits the taking, killing and keeping of wild (native) birds, the keeping of birds is obviously allowed. This presents a loophole whereby a person who captures or obtains a bird illegally but without being detected may thereafter keep it. A buyer of such a bird would also be able to keep it without infringing the law (Lye, 1991).

- While catching or trapping birds is an offence, selling or owning a trap is not. It is unclear under the law whether setting a trap would constitute an offence under the Act, if no native bird was found in the trap (Lye, 1991). It would appear that under current application of the Act trapping in itself is not necessarily an offence, until such time as a bird is captured.

- Any non-CITES specimens may enter Singapore without official documentation from the country of export and within a matter of days the specimens may be legally traded and re-exported. As specimens arriving without documentation are likely to involve specimens which were illegally exported from and possibly illegally obtained in their country of origin, this creates a popular means to 'launder' through Singapore non-CITES species which are protected in their countries of origin.

- Birds may arrive without having been properly inspected. Consignments arriving with health certificates do not undergo quarantine requirements, and these health certificates can be 'bought' in some exporting countries (e.g. Viet Nam).

Thailand

CITES Party: Yes (21 April 1983)

The following information was extracted from Nash (1993). The *Wild Animals Reservation and Protection Act, B.E. 2535 (1992)* provides the legal framework for investigation, seizure, etc. relating to wildlife species. Under the Act, animal species are divided into 'protected species' and 'endangered wildlife'. Protected species include all CITES Appendix I and Appendix II animal species as well as a list of Thai protected species. Endangered wildlife mainly includes species previously listed under the *Wild Animals Reservation and Protection Act of 1960 (amended 1972)*, which did not include any non-CITES bird species. Penalties for infractions of the Act are limited to imprisonment not exceeding four years and/or a fine of Baht equivalent to approximately US$1,600).

The new Act states that no trade in wildlife is permissible unless the wildlife is derived from captive-breeding operations. At the moment, non-CITES (Appendix I and II) species for which captive-breeding is authorized include the following: *Dendrocygna javanica*, *Lophura leucomelanos*, *L. nycthemera*, *L. ignita* (CITES Appendix III), *L. diardi*, *Gallus gallus*, *Polyplectron bicalcaratum*, *Rollulus rouloul* (CITES Appendix III), *Francolinus pintadeanus*, all *Arborophila* spp. partridges, *Pycnonotus jocosus*, *Sturnus nigricollis*, *Acridotheres tristis*, *A. grandis*, *Geopelia striata* and *G. chinensis*. Permission of the Royal Forestry Department is required to import or export birds; no imports and exports of wild-caught or captive-bred non-CITES birds have been authorized since 1991.

Viet Nam

CITES Party: Yes (20 April 1994)

The following information was extracted from Nash (1993). The *Decree of the Council of Ministers No. 18 HDBT Determining the List of Rare and Precious Forest Flora and Fauna and Regulations for their Management and Protection* (17 January establishes two lists of species, one of species that may not be traded or utilized and the second of species whose use and trade must be restricted. Wild animals in the second list may only be captured for establishing captive-breeding populations, for scientific exchange and for other 'essential purposes'. Permission for such utilization must be obtained from the Ministry of Forestry. In mid-March 1993 the Government issued *Instructions of the Prime Minister Regarding the Management and Protection of Rare and Precious Flora and Fauna*, which reiterated the main points of the *Decree No. 18* and which instructed related authorities to "place maximum restrictions on the exploitation for sale in foreign countries of all animals used in speciality dishes such as snakes, turtles, crabs, frogs and other flora and fauna which even though neither rare nor precious are in danger of depletion and thereby inducing a loss of ecological balance". Unfortunately, this means that unless an unprotected species is consumed, there is no possible limit to capture and/or utilization.

In real terms, trade in non-CITES species, with the exception of *Lophura diardi*, is not subject to any legal controls.

Oceania

Australia

CITES Party: Yes (27 October 1976)

Although the trapping and internal trade of native species is under the control of state and territorial governments, international trade controls are the responsibility of the Commonwealth government. All exports of native live birds were banned in 1960, and trapping of most native bird species is prohibited. Illegal trade in native species both within and outside of Australia continues, however, with numerous instances of wild birds being confiscated from foreigners as well as Australian nationals (see "Seizures and Prosecutions" sections of the *TRAFFIC Bulletin*). Species commonly involved in illegal trade include *Eolophus roseicapillus*, *Cacatua tenuirostris*, *Trichoglossus* spp. and *Psitteuteles* spp. Imports of live birds are very strictly controlled, and generally limited to small numbers.

New Zealand

CITES Party: Yes (8 August 1989)

The commercial export of all parrot species is banned and the export of pet birds is strictly controlled (New Zealand Wildlife Service, *in litt.*, 1985, in Inskipp *et al.*, 1988).

Papua New Guinea

CITES Party: Yes (11 March 1976)

Exports of live animals has been banned since 1968 under the *Fauna (Protection and Control) Act.*

Solomon Islands

CITES Party: No

An annual export quota valid from 9 December 1994 through 9 December 1995 was established for four parrot species:

Eclectus roratus	800
Cacatua ducorpsii	800
Lorius chlorocercus	600
Trichoglossus haematodus	600

The Americas

Argentina

CITES Party: Yes (8 April 1981)

National wildlife legislation was consolidated in 1981 under *Ley No. 22.421*. This legislation is implemented through *Reglamentación 691/81*, which vests administrative authority in the Secretaría de Agricultura Ganadería, y Pesca de la Nación. The Government periodically adopts more detailed *Resoluciónes* to facilitate implementation of *Ley No. 22.421*. *Resolución 62/86* prohibits trade in federal jurisdictions, inter-provincial transit and exports of live animals, except where these are captive-bred or the species has been designated as a pest. *Resoluciónes* have also been adopted in order to establish annual export quotas for bird species that have been designated as pests (Edwards and Villalba-Macias, 1992).

Belize

CITES Party: Yes (21 September 1981)

Belize banned all exports of indigenous wild-caught parrots in 1981 (Inskipp *et al.*, 1988), the same year in which this country joined CITES.

Bolivia

CITES Party: Yes (4 October 1979)

Bolivia banned all exports of wildlife as of 1 May 1984 (Inskipp *et al.*, 1988).

Brazil

CITES Party: Yes (4 November 1975)

All exports of live wildlife have been prohibited since 1967 (Fuller *et al.*, 1987). Trade via Argentina has been brought under control through a series of resolutions implementing the *Ley Nacional de Fauna*.

Chile

CITES Party: Yes (1 July 1975)

Decreto No. 4844 of 1929, as amended by Decreto No. 40 in 1972, establishes the principal fauna regulations in Chile. Articulo 2 of the decree prohibits all hunting, transport and commercialisation of listed species (Fuller *et al.*, 1987).

Colombia

CITES Party: Yes (29 November 1981)

Commercial hunting of all birds has been prohibited since 1973 under Resolucion No. 849 (Inskipp *et al.*, 1988).

Costa Rica

CITES Party: Yes (28 September 1975)

All commercial hunting, trade and export of non-marine wildlife has been prohibited since 1970, except for injurious species or captive-bred animals (Inskipp *et al.*, 1988).

Ecuador

CITES Party: Yes (1 July 1975)

This country banned the commercial export of indigenous wildlife in January 1983 (Inskipp *et al.*, 1988).

El Salvador

CITES Party: Yes (29 July 1987)

Exports must be authorized by the Servicio de Parques Nacionales (Thomsen and Mulliken, 1992).

Guatemala

CITES Party: Yes (5 February 1980)

The Government of Guatemala temporarily suspended all activities related to hunting, capture, local trade, export and re-export of wild fauna in 1988. Under *Decree 4-89*, the *Law on Protected Areas* was adopted in 1989. The CITES Secretariat was informed that the export of animals listed as 'endangered' was prohibited, but that 'protected' species could be exported in conformance with the requirements of the Management Authority (CITES Notification 708, 21 December 1992).

Guyana

CITES Party: Yes (25 August 1977)

The Government of Guyana temporarily suspended wildlife exports with effect from 13 May 1993, with the export ban intended to continue pending the results of a review of wildlife trade management in the country.

A detailed review of Guyana's trade controls for bird species was provided in Edwards (1992). All wildlife exporters were required to be licensed, and exports were limited to those allowed under quotas set for 20 psittacine and 10 non-psittacine species. The quota system had been established in 1987, in response to a 1986 EU ban on parrot imports from Guyana. The European Union had taken this action out of concern that exports from this country were not adequately controlled; the import ban was dropped subsequent to implementation of Guyana's quota system. Quotas were distributed among exporters based on the previous trade levels. Guyana's reported exports are not known to have exceeded quota levels, and some quotas were reduced in response to recommendations of the CITES Secretariat.

Republic of Honduras

CITES Party: Yes (13 June 1985)

In 1990, the Government of Honduras banned "the killing, capture, internal and external trade, of all species of mammal, bird and reptiles..." until such time as scientific studies had been carried out on the status of species wild populations and captive breeding operations (Anon., 1990).

Mexico

CITES Party: Yes (30 September 1991)

Harvest controls

Hunting schedules controlling the capture of live birds and other fauna were established in 1979. Iñigo-Elias (1986) reported that the Mexican Government recorded the legal collection of over 100,000 psittacines (10 species) and 130,000 passerines (29 species) during 1982-1983. Of the former, 33,530 were *Pionus senilis*; of the latter, 20,000 were *Carpodacus mexicanus*. Internal trade in some parrot species remains legal, and the harvest of the following was approved for the 1992/1993 season (Rose, *in litt.*, 1994):

Aratinga holochlora
A. astec
A. canicularis
Bolborhynchus lineola
B. jugularis
Amazona albifrons
A. autumnalis

Harvests for parrots and songbirds are regulated via a quota system, with quotas and capture seasons established for each state (Rose, *in litt.*, 1994).

Export controls

Virtually all commercial export of native fauna and flora was banned in September 1982, under the Ministerial Order "*Bases de Control y Regulacion de Exportaciones y Importaciones de Fauna Silvestre y sus Products Derivados*". Imports and exports of pets belonging to native species, and imports of pets belonging to endangered species were also banned (Fuller *et al.*, 1987). *Bases de Control y regulacion de Exportaciones y Importaciones de Fauna Silvestre y sue Productos Derivados* of 1988 states that utilization of wildlife for commercial purposes will be authorized only if and when the persons and institutions responsible can demonstrate that the species is produced in captivity and a sufficient number of specimens so produced will be redirected to the population in the wild.

Mexico was a major supplier of parrots to US markets prior to imposition of the export ban, and appears to have remained so at least through the late 1980s. In 1986, the Chief of the US Justice Department's Wildlife and Marine Resources Section remarked that the volume of illegal bird imports from Mexico is "probably 100 times more than you would guess" (Anon., 1986b). Estimates of the number of parrots smuggled into the United States from Mexico during the late 1980s ranged from 25,000 - 150,000 per year (Hemley and Thomsen, 1987; Mulliken and Thomsen, 1990). Concern regarding the illegal export of Mexican parrots to the United States remains, and parrots continue to be traded locally.

Nicaragua

CITES Party: Yes (4 November 1977)

Commercial hunting, export and import of most wildlife were prohibited in 1977. However, *Decreto No. 625 of 1977* allowed the export of captive-bred specimens of certain exotic bird species raised in Nicaragua, including canaries, Australian parakeets and collared doves (Fuller *et al.*, 1987). The capture and export of some species was allowed in some areas in 1988, under a system of export quotas. Nicaragua re-opened the trade in psittacines in 1990, with exports limited by quotas. National export quotas for 1994 allowed for the export of 15,400 parrots.

Panama

CITES Party: Yes (15 November 1979)

Exports of *Ara* species and *Amazona ochrocephala* are prohibited (Thomsen and Mulliken, 1992). Very few birds have been reported in trade from this country.

Peru

CITES Party: Yes (25 September 1975)

Resolucion Directorial No. 014-83-DGFF, passed in 1983, established quotas for the export of various psittacines from the coastal and sierra regions. The Resolution specifically prohibits the capture of *Forpus xanthops*. Only those psittacines listed in the Resolucion may enter trade. *Decreto Supremo No. 943-73-AG* prohibits the capture, transport and commerce of psittacines from the Selva, (Fuller *et al.*, 1987). *Aratinga mitrata* was removed from the list of exportable species in 1986 (CITES Notification No. 389, 7 May 1986), although exports from Peru did appear in 1990, possibly in response to the curtailing of exports from Argentina.

Surinam

CITES Party: Yes (15 February 1981)

Since 1970, hunting and trade of native birds and mammals have been prohibited under the *Game Resolution* except for listed game, cage animals (birds) and domestic species. The list of game species contains most of the bird species of interest in the live bird trade. *Ara ararauna* is listed as a game species, which means that hunting is permitted during open seasons (Fuller *et al.*, 1987). An annual quota of 238 was set for 1987 (Thomsen, 1988). Recent quotas are reported to have been: 360 in 1990, 483 in 1991 and 483 (plus 65 from the 1991 quota) in 1992 and 610 in 1994 (includes some birds from the 1993 quota). *A. chloropterus* is also considered a game species which may be traded under regulatory controls. An export quota of 201 birds (including some from the 1993 quota) was set for this species in 1994. Export quotas for a number of other parrot species have also been established.

The government of Surinam recognizes the importance of ensuring that wildlife exports benefit both the country and individual exporters. Surinam established an export management system which combines exporter licensing with export quotas and minimum values for each bird exported. All foreign revenues for exported birds are required to be deposited directly into a government controlled bank, with the exporters paid from the bank in domestic currency. This system is designed to ensure that the influx of foreign currency benefits the country as a whole rather than individual exporters. An additional component, guaranteeing minimum sales values to trappers, has been discussed but not established.

At least initially, Surinam's export controls seem to be successful (Thomsen and Brautigam, 1991). The licensing system appears to have suppressed illegal trapping and export, due in part to increased dialogue between the government and exporters. The minimum export values, for example US$140 for *Ara ararauna*, have ensured that both the exporters and the country itself receive acceptable compensation for exported wildlife resources. Quotas, which were initially established based on available biological data and communication with experts from the international scientific community, appear to have been conservative. Quotas for some species, e.g. *A. ararauna*, have been raised in recent years.

Uruguay

CITES Party: Yes (1 July 1975)

Under *Ley No. 9.481* of 1935 and its most recent implementing regulation, *Decreto 261 of 1978*, Uruguay bans hunting, transport and commercialisation of indigenous wildlife and wildlife products. Harmful species, including *Myiopsitta monachus* and ducks (excluding *Cairina moschata*), may be hunted and traded without restriction under *Decreto 261/978* (Fuller *et al.*, 1987).

Venezuela

CITES Party: Yes (22 January 1978)

The Government of Venezuela banned virtually all hunting of indigenous wildlife in 1970 (Inskipp *et al.*, 1988).

X. Which national governments are most reluctant to see a reduction in the wild bird trade?

Which national governments are most enthusiastic about a reduction in the wild bird trade? What are the views of the US and EC Governments?

Presumably the intent of this question is to identify the governments of those countries currently exporting 'significant' numbers of bird species for international trade that wish to continue to do so with the least interference possible. The question is somewhat simplistic, however, as governments as a whole are unlikely to be concerned with the bird trade in and of itself, but are more likely to be concerned with issues such as generation of foreign exchange, conservation of native species and habitat and/or improving the welfare of their people. Individuals within governments may have different personal agendas, but this cannot be taken as being representative of 'the government' as a whole.

Government authorities the world over generally voice support for or at least do not vociferously oppose consumptive wildlife utilization of one form or another (hunting and fishing being but two examples). The governments of those countries that are Party to CITES are on record as being in favour of controlling the international trade in wildlife in accordance with the treaty. Whether or not some countries have joined CITES simply as a means to seek reductions in the trade in wild birds or other species is unknown, but would appear unlikely.

Government personnel in each of the five countries examined in the course of preparing the text for *Perceptions; Conservation and Management of Wild Birds in Trade* (Thomsen *et al.*, 1992) expressed an interest in continuing to allow the export of wild birds and other wildlife resources. These included Argentina, Guyana, Indonesia, Senegal and Tanzania. Of these, all but Guyana continue to trade in wild-caught birds, this country having temporarily suspended exports in order to review existing management regimes. Other countries allowing the internal use and/or export of live birds may also be seen as not actively promoting a reduction in the number of birds in trade for the sake of such a reduction itself. This should not cloud the fact that many national governments remain concerned that the trade in some live bird and other wildlife species is not adequately controlled.

Government authorities in countries that ban the exports of live birds are often somewhat more sympathetic of increased trade controls, a reflection in part of their efforts to prevent illegal trade in native species. During the ninth meeting of the Conference of the Parties to CITES (Kyoto, 1992), the representative from Uruguay was quite outspoken regarding his government's opposition to the trade in wild birds, however this country does allow the annual export of tens of thousands of *Myiopsitta monachus*, considered a pest species. By contrast, three countries actively promoting the concept that wildlife trade can be beneficial to conservation - Namibia, South Africa and Zimbabwe - do not at present allow the commercial export of native bird species, regardless of their abundance.

We are not aware of any country that has banned all imports of exotic birds. Australia would appear to apply the strictest controls on the trade in exotics. This country cannot be seen as seeking a reduction in the bird trade, however, as certain native species are allowed to be maintained in captivity. Rather, they have taken unilateral action deemed necessary to protect native fauna and flora. The Government of Canada prohibits the direct import of foreign birds owing to the lack of quarantine facilities in that country. Wild-caught birds imported into and quarantined in the United States may be imported, however.

The United States recently adopted relatively strict legislation that has eliminated most legal imports of CITES Appendix II and Appendix III species. By this decision the US government could therefore be seen as being enthusiastic about reducing the numbers of wild birds in trade. However, it should be borne in mind that imports are only suspended until such time as exporting countries can

demonstrate that exports are controlled in conformance with conditions set by the US Government. US F&WS personnel are also very active in the CITES context, with one individual having served as Chairperson of the now disbanded CITES Transport Working Group. This group focused its discussions almost entirely on the bird trade, with its chairperson also speaking quite vigorously on behalf of tighter implementation of CITES Article IV in countries exporting wildlife.

Similar consensus would not appear to have been reached in the countries of the European Union in recent years, and therefore none of the EU governments could be identified as being completely 'enthusiastic' about a reduction in the bird trade. The sentiments expressed by the European Parliament with regard to further restricting imports of wild-caught birds would not appear to be similarly reflected by the European Commission, another sign that there is no consensus within Europe on this issue. It is important to bear in mind, however, that the European Union is perhaps one of the most pro-active entities with respect to implementing trade controls in excess of those required by CITES, and in taking unilateral action with respect to trade considered as possibly detrimental. No other country, including the United States, has to our knowledge implemented such a regular review process of trade in CITES Appendix II species, nor have other countries been successful, as was the European Union, in directly effecting increased trade controls, as was the case for Guyana.

Presumably if a government is enthusiastic about a reduction in the wild bird trade, then that government would take rapid steps to reduce that trade at least with respect to trade across or within its own borders. We are not aware of any governments that have taken action to reduce internal trade in exotic birds other than those that have been identified as potential pests to agriculture and/or native species. Many national governments have restricted the trade in live specimens of native species, although most allow at least some native species to be hunted and consumed as food.

In closing, enthusiasm is best judged by actions and not by political statements. Those countries that are most eager to see a reduction in the international wild bird trade will demonstrate their convictions to this end by first taking action at home. As noted above, both the EU and US governments have already taken steps to place greater controls on the trade in order to prevent that trade from contributing to the decline of species' wild populations. Those countries that are most eager to continue exporting wild birds will seek mechanisms of doing so; every effort must be made to encourage and assist such countries to adopt and implement adequate management programmes and trade controls.

XI. What are the policies of BLI partners and other concerned NGOs on the wild bird trade?

BirdLife International [formerly ICBP]

In its position statement on the wild bird trade (which has not been withdrawn following ICBP's transformation into BirdLife and is presumed to remain in effect), ICBP recognises and subscribes to "the principles of the World Conservation Strategy".

BirdLife's specific position on the wild bird trade recognizes both the economic value of birds - especially to developing countries and indigenous peoples - and the threats to birds stemming from inadequate conservation, welfare and legal controls. BirdLife is not against the trade in birds, but is guided by the following four points in its efforts to reduce the threats to birds posed by trade:

1. BirdLife advocates a stringent procedure for the control of species that are traded. Here BirdLife advocates that a system should be instituted whereby any species that could possibly be adversely affected by trade is excluded from trade unless it can be shown scientifically that the consequences of harvesting are not detrimental to the population and the ecosystem the species inhabits.

2. BirdLife promotes the enforcement of Article IV of CITES. If insufficient information exists to ensure that the provisions of Article IV are fully met, trade should not be allowed.

3. BirdLife seeks to reduce mortality of birds in transit. Such controls should be vigorously enforced and checks financed by trade interests.

4. BirdLife will campaign for better control of illegal trade. Illegal trade is a major threat which undermines all efforts at the promotion of sustainable trade. In this context, BirdLife pursues a policy that promotes the effective enforcement of national and international trade controls.

This policy is summarised in BirdLife International's publication *Global Partnership for Conservation* (Anon., 1993c):

> "BirdLife International is not only opposed to any illegal taking of wild birds, but firmly believes that, for any form of exploitation, clear scientific evidence is needed showing that such use is sustainable."

Defenders of Wildlife

This US NGO supports a ban on commercial trade in wild birds on the basis of "conservation and humanitarian" reasons, and encourages potential bird purchasers to buy captive-bred birds. Defenders of Wildlife is not opposed to trade for zoological exhibition, bona fide scientific research and "cooperative captive breeding programmes".

Environmental Investigation Agency

Under the campaign name of 'Bird Friends', the Environmental Investigation Agency (EIA) aims to achieve a ban on the international pet trade in wild-caught birds. In 1991, EIA joined RSPB and RSPCA in a 'Ban the Wild Bird Trade' campaign. Together, the three organisations were calling for a halt to the "cruel trade in wild-caught birds into Europe" (RSPB Press Release, 21 May 1991).

More specific recommendations on international bird trade are outlined in EIA's publication *Flight to Extinction* (Anon., 1991b).

Humane Society of the United States

In its 1989 position paper on the wild bird trade, the Humane Society of the United States (HSUS) analyzed the bird trade and concluded: "...HSUS supports an end to the commercial importation of wild-caught birds for the pet trade" (Lieberman, 1989).

IUCN - the World Conservation Union

IUCN - the World Conservation Union supports the World Conservation Strategy (IUCN/UNEP/WWF, 1980) and its successor, Caring for the Earth (IUCN/UNEP/WWF, 1991). The bird trade continues to be a topic of debate during IUCN General Assembly meetings. The most recent resolution on the trade, adopted by a vote of IUCN members during their 1993 meeting (Buenos Aires), is attached as Annex 12, and should be seen as a reflection of this organisation's policy on the trade. By and large, the resolution calls for more effective implementation of CITES through adoption of appropriate management regimes in countries exporting wild birds, and the adoption of stricter trade controls in importing countries to allow for trade to be suspended if these regimes are not adopted and implemented effectively. To this end, the resolution calls on all countries to prohibit the import of wild birds as of 1 January 1996 unless exporting countries have met the conditions for continued trade stipulated therein.

Ligue Royale Bel'ge Pour La Protection Des Oiseaux asbl

In a statement produced in June 1994, the Ligue Royale Bel'ge Pour La Protection Des Oiseaux noted that they were conducting a campaign against the importation and the trade of exotic birds. They noted that they were seeking a ban on the import of wild-caught birds into Europe, and that they were encouraging the public not to buy wild-caught birds.

National Wild Bird Poaching Countermeasure Committee

This Japanese NGO is calling for the prohibition "in principle" of all trade in wild-caught birds with an exception only for the purpose of scientific research, with the trade in birds for use as pets to be limited to captive-bred specimens.

New York Zoological Society/Wildlife Conservation International

The New York Zoological Society and its field science division, Wildlife Conservation International, stated in June 1992 that the bird trade should be restricted to captive-bred birds and birds harvested from wild populations that are shown to be managed sustainably. They called for a temporary moratorium on trade to "allow an opportunity to protect critically threatened species and to design appropriate international and national regulatory controls on the trade" (Anon., 1992).

Royal Society for the Prevention of Cruelty to Animals

The Royal Society for the Prevention of Cruelty to Animals (RSPCA) supports a total ban on the international trade in wild-caught birds for commercial purposes and a ban on imports of wild-caught birds into the European Union.

With respect to proposed European Union wildlife trade regulations, RSPCA supports 'reverse listing' of wildlife species, i.e. a prohibition on trade in a given species until it can be demonstrated that such trade will not be detrimental to the species' wild population. RSPCA further supports a requirement under EU legislation that import permits for wild animals be refused until proof can be given that the animals to be traded will "not suffer unduly at any stage in the processes of trade" (RSPCA, *in litt.*, 1992).

Royal Society for the Protection of Birds

The Royal Society for the Protection of Birds (RSPB) provided a copy of their position on the trade in wild-caught birds to TRAFFIC International in January 1992 (Hodgson, *in litt.*, 1992). In brief, RSPB supports limiting international commercial trade in wild birds to captive-bred specimens, and opposes imports of birds into the European Union except in cases where:

1. It can be shown that there are 'positive benefits' for the species or populations [of birds] concerned; and

2. Captive-bred stock is not available, and the import of limited numbers of birds will be limited to aviculturists experienced in breeding species similar to those in question whose intent is to establish and/or maintain the genetic viability of captive-bred stock.

The policy states explicitly that RSPB is not against the keeping of captive-bred birds. No mention is made in the policy with respect to trade for scientific, educational or conservation (e.g. captive breeding as part of a studbook programme) purposes. Support for such trade is expressed in RSPB's "Comments on the proposed new EC CITES regulation" (Anon., 1992).

With regard to proposed EU regulations for wildlife trade controls, RSPB (Anon., 1992) elaborates on this policy, recommending that imports by individual aviculturists meeting the criteria under No. 2 above be limited to less than 10 birds for individuals establishing stock, and less than 5 birds for individuals seeking to augment their captive population.

With respect to the topic of 'sustainable use', the RSPB policy statement considers this to be use that results in concrete, identifiable benefit to the resource being 'used' that would not otherwise have occurred if exploitation of the resource had not occurred.

RSPB (*in litt.*, 1992) proposes that clauses be added to the draft EU regulations to the effect that granting of import permits would be refused unless the Scientific Review Group has advised that:

> "introduction of the specimens of the species will be beneficial to the conservation of the species concerned...".

Trade Records Analysis of Flora and Fauna in Commerce (TRAFFIC)

TRAFFIC does not have a specific policy on the bird trade or on any other specific taxonomic group. TRAFFIC's mission is to help ensure that wildlife trade is sustainable and in accordance with domestic and international laws and agreements. TRAFFIC seeks to achieve this through the investigation, monitoring and reporting of such trade, particularly that which is detrimental to the survival of flora and fauna and that which is illegal.

World Parrot Trust

This UK NGO advocates "effective controls on the international trade in wild-caught parrots, and its replacement by captive-bred birds".

World Wide Fund for Nature

The World Wide Fund for Nature (WWF) supports the concept of sustainable use of wildlife as articulated in the World Conservation Strategy (IUCN/UNEP/WWF, 1980) and Caring for the Earth (IUCN/UNEP/WWF, 1991). WWF has not articulated a specific policy on the trade in wild birds.

WWF supports strong implementation of CITES Article IV (ensuring that trade is not detrimental to species' wild populations), and proposed the following language restricting imports of CITES Appendix II species into the European Union for inclusion in new EU regulations on the wildlife trade:

> "the Scientific Review Group has advised, based on sound scientific evidence, that import into the Community will not have a detrimental impact on the conservation status of the species concerned or on the extent of the territory occupied by the species in the country of origin. In determining its advice the Scientific Review Group shall consider whether a comprehensive management plan for the conservation of the species concerned has been developed and implemented in the country of origin" (Lyster, *in litt.*, 1992).

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