

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

—————
Eighth Meeting of the Conference of the Parties
Kyoto (Japan), 2 to 13 March 1992

Interpretation and Implementation of the Convention

REPORT ON NATIONAL REPORTS UNDER ARTICLE VIII, PARAGRAPH 7,
OF THE CONVENTION

Report from the Secretariat

INTRODUCTION

As part of an annual consultancy contract, the Wildlife Trade Monitoring Unit (WTMU), World Conservation Monitoring Centre, Cambridge, United Kingdom is responsible for maintaining the computerized database which contains a complete record of all CITES trade transactions reported by the Parties in their annual reports. This work is vital to the ability of the Secretariat to fulfil its obligations under Article XII of the Convention.

Also included in the contract was a requirement that WTMU produce a report on implementation of the Convention during 1988 and 1989, as demonstrated by the annual reports submitted by the Parties. The Secretariat made several recommendations to WTMU with regard to the development of their report, and the Parties should consider the WTMU report to be an integral part of this report from the Secretariat. The WTMU report is presented as an Annex to this document.

Annual reports serve two major purposes in the operation of CITES:

1. to monitor the trade in specimens of species listed in the appendices and, as a result, facilitate the assessment of the effects of this trade on wild populations; and
2. to monitor the implementation of the Convention, including the detection of infractions.

SUBMISSION OF ANNUAL REPORTS

There are four main areas where problems exist with respect to the submission of annual reports:

1. Failure to submit

As pointed out in Section 2 of the WTMU report, the percentage of the Parties that have submitted an annual report has decreased from a high of 81% for 1986 to 71% for 1989. For additional information, the Parties should refer to Part 1, Section 1 A), of document Doc. 8.19, Report on Alleged Infractions and Other Problems of Enforcement of the Convention.

2. Late submission

As noted in Section 2 of the WTMU report, late submission of annual reports continues to be a significant problem. In order for trade statistics to be used effectively, it is essential that the information is available as soon as possible. Reports should, in any case, be submitted no later than 31 October of the year following the year to which they refer. Annual reports are many times received so late that they refer to trade that took place long before. When this occurs, any potentially damaging trends in trade levels are not detected early on. Further, the detection of infractions is sometimes a meaningless exercise, as it may be too late to take any action against any persons who have violated the Convention.

By means of Notifications to the Parties, telefax or letter, the Secretariat regularly reminds Parties which submit reports late that they must furnish an annual report. Each reminder has resulted in the submission of a certain number of reports, but has been administratively time-consuming and expensive.

3. Failure to comply with the Guidelines for the Preparation of Annual Reports

As detailed in Section 4 of the WTMU report, many Parties still do not follow the recommendations of "Guidelines for the Preparation of CITES Annual Reports", contained in Notification to the Parties No. 205. There has been some improvement in this respect since 1987. However, failure to comply substantially with the guidelines often renders the data more or less useless for the purposes for which they are intended. Most of the major trading Parties now follow the guidelines to a large degree, but there are still some that do not. The Secretariat has continued to advise the Parties concerned about this problem, and has included copies of Notification to the Parties No. 205 with its correspondence.

4. Failure to Submit Data for Large Groups of Species or Submitting Data Which Contains Substantial Inaccuracies

Many annual reports are still omitting data on large sections of trade in CITES specimens, particularly with regard to the plant trade. This problem is clearly illustrated in Section 5 of the WTMU report, and leads one to believe that it may be one of the leading causes of discrepancies in correlation of the reports of imports with those of exports.

Some Parties declare a great number of re-exports but do not indicate any corresponding imports. While this can be justified in certain cases, it is often due to a failure to compile data. When trade statistics are missing, this is often due to permits and certificates remaining with Customs personnel or other authorities, without being transmitted to the appropriate Management Authority.

COMPARATIVE TABULATION

The contract between the Secretariat and WTMU requires WTMU to provide a comparative tabulation of annual trade data, for the purpose of comparing reports on the export and import of each shipment, and thus enable the Parties to determine discrepancies which might indicate illicit trade.

When a sufficient number of Parties (particularly those which have a heavy volume of trade) have submitted their annual reports for a particular year, the Secretariat asks WTMU to compile the comparative tabulation. When there are long delays in receiving annual reports from the Parties, the tabulation also has to be delayed. As a result, a large part of the usefulness of this tabulation is lost. Delays of up to two years have rendered research into the discrepancies revealed by the report very difficult or even impossible. This is because many of the documents have already been put into archives, or the merchandise has disappeared. Moreover, when cases of fraud are uncovered, some Parties are not able to act, either because of legal restrictions or the impracticality of initiating investigations into violations that may have occurred far in the past.

COMPUTERIZATION

All Parties are encouraged to submit their annual report data in an electronic format which is compatible with the system currently utilized by WTMU. The Secretariat recommends that Parties that are planning to send their annual reports in such a format follow the guidelines which are included in Notification to the Parties No. 664.

RECOMMENDATIONS

1. The Parties should consider adoption of either the draft resolution contained in Annex 1 to Part 1 of document Doc. 8.19, or of a similar document that addresses the problems surrounding the lack or lateness of annual reports from the Parties, as described in this document, as well as in Part 1, Section 1 A), of document Doc. 8.19.
2. Those Parties which have not yet computerized their recording of CITES trade statistics should consider doing this as soon as possible, in accordance with the guidelines established in Notification to the Parties No. 664, and as recommended in Resolution Conf. 5.6.
3. Parties should make greater efforts to ensure that the accuracy and completeness of their reports are improved. In particular, reports should:
 - a) follow the guidelines which are established in Notification to the Parties No. 205 until the Parties are notified of new guidelines distributed by the Secretariat;

- b) include data on all trade in specimens of species in the CITES appendices; and
- c) whenever possible, be made on a shipment by shipment basis and include permit/certificate numbers (to facilitate cross-checking).



THE IMPLEMENTATION OF CITES IN 1988 AND 1989
AS DEMONSTRATED BY THE ANNUAL REPORTS SUBMITTED BY THE PARTIES

A report prepared for the CITES Secretariat

by

John Caldwell
Helen Corrigan

Wildlife Trade Monitoring Unit
World Conservation Monitoring Centre
219 Huntingdon Road
Cambridge CB3 0DL
United Kingdom

December 1991

1. Summary

A detailed analysis has been carried out of the annual reports of the Parties to CITES for the years 1988, 1989 and 1990. The particular aspects which were examined were: timeliness of submission; the degree to which they adhere to the guidelines on annual report harmonization that were recommended in CITES Notification to the Parties No. 205 and; the accuracy of data within them.

The number of Parties submitting their reports on time, i.e. within the deadline of the 31 October of the year following that in which the trade took place, has steadily declined from 65% of the Parties in 1984 to less than 30% for the last two years (1989 and 1990). The number of countries party to the Convention increased by 23% over the same period. It is of serious concern that 70% of the Parties fail to meet the deadline as this greatly reduces the effectiveness of the Convention.

There has been some general improvement in the extent to which annual reports follow the recommendations of Notification No. 205. Of the annual reports submitted for 1988 and 1989 no Party showed less than 25% compliance with the recommendations, although only six Parties appeared to have complied completely. Many of the areas in annual reports that were outlined in Document Doc. 7.18 Annex as being problematic are now being treated in a better way; for example, an increasing number of Parties report on a detailed shipment-by-shipment basis and on actual trade rather than on permits issued. However, there is still considerable scope for further improvement, notably the correct recording of the source of the specimens when they derive from captive-breeding or artificial propagation programmes.

The comparison of reported imports with the corresponding exports/re-exports reported indicates that the reporting of trade, particularly for animal taxa, is gradually becoming more accurate. Trade in plants still shows a very low (less than 10%) level of correlation. Much of this improvement has been as a result of the closer harmonization of annual reports with the agreed guidelines. Clerical accuracy of data recording also appears to be improving. However, there are certain continuing reporting problems: for example the failure of Singapore to record the huge number of imports from Indonesia, Parties continuing to report on the basis of permits issued rather than actual trade and Parties failing to report altogether. Inadequate attempts to report on actual trade on the basis of an incomplete collection of returned permits has been identified as a major source of inaccuracy for EC countries.

One of the prime purposes of annual reports is to allow the levels of trade in species listed in the appendices to be monitored. Clearly this can not be effective unless their accuracy is improved and they are submitted in a timely fashion.

2. Introduction

This report was prepared by the Wildlife Trade Monitoring Unit under the CITES Secretariat/WCMC Consultancy Contract for 1991. It examines the effectiveness of the implementation of the Convention as shown by the annual reports submitted by the Parties for the years 1988 and 1989 and continues the process initiated in document Doc. 4.18, which dealt with the years 1979 and 1980, and documents Doc. 5.17 (Rev.), 6.17 and 7.18 Annex that have covered the intervening period. The report is divided into three parts: the first examines the dates and method of submission of annual reports; the second assesses their format in relation to the criteria outlined in Notification No. 205 on Harmonization of Annual Reports; and the third attempts to estimate the accuracy of the information contained in them by comparing reported exports with reported imports.

3. Annual Report Submissions

The number of countries that were party to CITES and the number of annual reports submitted yearly between 1980 and 1990 are shown in Figure 1 and further details on the dates of submission to the CITES Secretariat are given in Table 1. WTMU, replacing or included with a date, represents data received by the Wildlife Trade Monitoring Unit directly, usually permits for annual report compilation by the Unit. The figures for the number of Parties were taken at the end of each year in question, while the number of annual reports represents those received before 31 October 1991 (data supplied by the CITES Secretariat). The number of countries that have become party to the Convention continues to increase and has risen by 77% between the end of 1980 and October 1991 but the percentage submitting annual reports reached a peak of 81% for 1986 and has decreased each year since then. It should be noted that every year at least 19% of the Parties have failed to provide reports. The decrease from 78% submission (76 reports) for 1988 to 71% (73 reports) for 1989 and to 29% (31 reports) for 1990 is almost certainly a function of the time taken for the reports to be prepared and submitted as at the time of writing document Doc. 7.18 Annex (10 August 1989) only 28% of the Parties had provided reports for 1987, whereas that figure has now risen to 80%.

Resolutions Conf. 3.10 and 5.6 both refer to the possibility of computerising annual report trade statistics. Until recently seven of the Parties submitted their information annually on magnetic tape or diskette; however, in 1989 Japan also agreed to send their extensive import records on diskette. Table 2 lists the Parties that now submit their annual reports in an electronic form. The majority of reports received by CITES Secretariat are type-written, hand-written or are simply copies of permits and certificates for compilation by WTMU. These data then have to be coded and manually input into the existing database, a process during which errors may be introduced.

Table 3 is based upon the details contained in Table 1 and shows more clearly which Parties submitted their reports within the deadline, those which submitted late and the number of months late, and those which failed to submit annual reports for each of the years, 1988, 1989 and 1990. These data are also shown in Figure 2 which shows, for each of these years, the cumulative percentage of Parties submitting annual reports. For both 1989 and 1990 less than 30% of Parties submitted their annual report within the specified deadline of 31 October of the year following that in which the trade occurred.

The percentage of the total number of Parties that have submitted their annual reports before the specified deadline is shown in Figure 3. The number of Parties achieving this requirement has fallen steadily from 65% in 1986 to less than 30% in both 1989 and 1990. Furthermore, only 60% of Parties manage to submit their annual report within 18 months of the trade taking place. Such an extended period between time of trade occurring and time of submission of annual report makes any analysis of the way in which the trade is reported, or problems with the trade itself, almost completely useless for enforcement purposes.

4. Compliance with Guidelines Contained in Notification to the Parties No. 205

Document Doc. 7.18 Annex contained a brief analysis of the extent to which Parties complied with CITES Notification to the Parties No. 205 on harmonization of annual reports in 1987. This exercise has been repeated for all Parties that submitted annual reports for the years 1988 and 1989, the 1989 report being used where available in preference to that of 1988 as shown in Table 2. Annual reports that were compiled for various countries by WTMU from import, export and re-export permits were omitted from the analysis but these are indicated in Table 2.

4.1 Methods

Eleven criteria were chosen, as before, to evaluate the degree of compliance with Notification No. 205, and each Party's annual report was scored between 0 and 5 for each of these criteria:

- a) whether the suggested standard format was followed
- b) whether the CITES appendix number had been used
- c) whether scientific names had been used
- d) whether the taxa were arranged in the recommended order
- e) whether the report was on a shipment-by-shipment basis
- f) whether export/re-export permit numbers were reported
- g) whether the purpose of the transaction was reported
- h) whether the countries of destination/export/origin were reported in a comprehensive manner
- i) whether the description of the specimens traded matched the recommendations of Notification No. 205
- j) whether the quantities of items were reported with appropriate units
- k) whether further information was supplied in a "Remarks" column where appropriate or if the source of the items was reported.

4.2 Results

Obviously, Parties that adhered to all of the guidelines suggested in Notification No. 205 scored 55 and those that did not achieved a score between 0 and 54. Of the 76 countries considered, only 6 (8%) complied completely with the recommendations of the Notification and achieved a score of 55. However, no Party was deemed to have shown less than 25% compliance. This shows a slight improvement since 1987 (Doc. 7.18).

By summing the scores for each Party, and for each criterion, it has been possible to estimate the degree of compliance with Notification No. 205 and perhaps to indicate areas where Parties might improve their annual reports. The results are given in Figures 4 and 5. Figure 4 shows the overall percentage compliance with the Notification and indicates that some 80% of the annual reports are now at least 75% of the way towards that objective. Document Doc. 7.18 Annex indicated that only 70% of the Parties showed this level of compliance in 1989; so there would appear to have been some improvement in reporting. It should, however, be noted that this form of analysis is rather subjective and some of the changes may be a reflection of different personnel undertaking the work.

Figure 5 shows that, of the eleven chosen criteria, only one shows less than 60% compliance with Notification No. 205; indicating that a large number of Parties have failed to sort their annual report data into taxonomic order. Other criteria which were relatively poorly followed were the provision of additional information in the "Remarks" column, the provision of data on the purpose of the transaction and the more complete reporting of permit numbers. These last two criteria appear to be mainly affected by the lack of a specific purpose "box" on many permit forms, and by Parties continuing to report their import permit numbers, or the permit number of the country of origin rather than the permit number of the immediate country of export.

4.3 Discussion

In general it would appear that the overall degree of compliance with the guidelines of Notification No. 205 has increased from 77%, for reports up to 1987, to 84% for the reports of 1988-1989.

There is still considerable room for improvement in providing additional information on the purpose of the trade and in the "Remarks" column (often included but not used) on the status of items in trade, i.e. captive-bred, artificially propagated, pre-Convention, etc. The better reporting of exporter/re-exporter permit numbers should be encouraged so as to allow more detailed analysis of correlation between import and export records. There are still several major trading countries that do not report by individual shipments but continue to report overall summed trade levels.

Listing by taxonomic order, although a minor consideration, makes computer entry of the annual report data quicker and, more importantly, more accurate. When reports are submitted on magnetic media, this factor is less important.

5. Correlation of Reported Imports with Reported Exports/Re-exports

An investigation of annual report data was undertaken to establish the accuracy of reporting, by CITES Parties, for selected groups of animal and plant taxa. Reported imports were examined against corresponding exports/re-exports and the degree of correlation or non-correlation noted. Generally, the format and methods used in previous reports, (CITES documents Doc. 4.18, Doc. 5.17, Doc. 6.17 and Doc. 7.18 Annex respectively) for the degree of data correlation, were followed. This has allowed direct comparisons, where possible, between the years from 1981 to 1989, so that any improvement or deterioration in the quality of reporting by the Parties is clearly distinguishable.

5.1 Methods

This report is based on the annual reports of CITES Parties for the years 1988 and 1989 which were received prior to 12 November 1991.

Following the previously established methods, all transactions in the specimens of the taxa listed below were selected. Some of the taxa selected for analysis, in this report, differ from those selected for investigation in previous implementation documents. Therefore, it will not be possible to compare time-series trends for the taxa concerned or for the overall total trade in animal and plant taxa.

Fauna

Primates Appendix I	live only
Falconiformes	live only
Psittacidae	live only
Crocodylia	whole skins and sides only
Varanidae	whole skins only

Flora

<i>Aloe</i> spp.	all transactions
<i>Encephalartos</i> spp.	all transactions
<i>Cyclamen</i> spp.	all transactions

A proportion of the reported trade was with Parties which had not submitted an annual report or with non-Party States or unknown/unspecified countries. The remaining reported exports should, theoretically, correlate with reported imports. The minimum number of these potentially correlating transactions was calculated for each selected group of taxa in 1988 and 1989.

Some transactions correlated perfectly in all the details reported by both the importing and the exporting Parties, others showed a partial degree of correlation, while the majority showed no correlation at all. Some of the transactions may show no correlation as a result of trade occurring at the end of the year and shipments, where exports occur in one year but do not arrive until the following year, therefore appear in annual reports of separate years. No attempt was made to determine the extent of this factor and so the level of non-correlation may be artificially high. Another factor influencing the degree of correlation is whether the Party is reporting actual trade or merely on the basis of permits issued. This aspect is discussed further in section 5.2.3 of this report.

As in the previous reports (CITES documents Doc. 4.18, Doc. 5.17, Doc. 6.17 and Doc. 7.18 Annex), the transactions showing only partial correlation were divided into five main categories depending on the type of discrepancy exhibited, these are listed below;

- a) Country of origin omitted or incorrectly reported by one Party
- b) Incorrect or different units used to describe the transaction by one Party, e.g. one may report numbers of skins and the other, the weight or area of the product
- c) incorrect or insufficient taxonomic nomenclature used by one Party
- d) Incorrect or different terms used to describe the commodity by one Party, e.g. one Party may have reported the export of a live, captive-bred animal or artificially propagated plant while the other reported the import of a live animal or plant but did not state that it was captive-bred or artificially propagated
- e) Transactions summed by one Party; i.e. one Party may not have reported individual shipments but only the total quantity of each type of specimen traded with each country.

However, as one transaction could be counted in more than one of these categories (an importer may report a different subspecies, a different country of origin and a different quantity, from that reported by the exporter), the interpretation of the discrepancies is difficult and, to some extent, subjective. Comparisons across years, therefore, probably do not have any great significance. As with the document Doc. 7.18 Annex, figures for these five categories have not been calculated individually. However, the residual from the sum of perfect matches and no correlations has been assumed to represent partial correlation and is therefore shown as such in Figures 8 and 9.

In all cases of perfect or partial correlation, two records, one by the importer and one by the exporter, were deemed to represent one transaction. In the case of countries reporting summed trade, all records that were included in the summed record were also deemed to represent one transaction. When no correlation could be inferred, each record was taken to represent one transaction.

5.2 Results

5.2.1 Trade with non-Parties and non-reporting Parties

The number of records located for each taxonomic group and the inferred minimum number of transactions that these represent are shown in Table 5. The percentage of these transactions which involved non-Parties (including transactions where one country was unknown or unspecified) or Parties which had failed to submit an annual report by 12 November 1991 are also shown in Table 5.

Total trade with non-Parties decreased between 1988 and 1989, from 13.2% to 10.6% (Figure 6), which is probably a direct result of an increase in the number of countries that now adhere to the Convention. The selected animal taxa showed a higher percentage of trade with non-Parties in both 1988 and 1989. Despite trade with non-Parties having decreased across the years, total trade with non-reporting Parties increased between 1988 and 1989 from 7.2% to 11.2%; however, this has probably been caused by fewer Parties having yet submitted annual reports for 1989. In particular, the percentage of trade in Crocodylia skins with non-reporting Parties increased from 4.2% to 18.5%. The most probable explanation of this is that Papua New Guinea and Venezuela have so far failed to submit annual reports for 1989 and both countries are major exporters of *Crocodylus* and *Caiman* skins to USA, Japan and Europe.

5.2.2 Transactions Showing Perfect Correlation and no Correlation

The proportions of transactions which showed no correlation and for which there were perfect matches for each of the selected taxa, together with the totals for the animal taxa, the plant taxa and the overall trade figures for the years 1988 and 1989, are given in Table 6. The percentage of transactions showing perfect correlations between reported imports and exports in 1988 and 1989 were 30.7% and 25.7% respectively.

Animal Taxa

Figures 8(a) to 8(e) illustrate the percentage perfect matches and lack of correlation in 1988 and 1989 for each of the animal taxa considered in this report, together with the figures between 1981 and 1987 whereas the same taxa were selected in previous implementation reports. For all of the animal taxa selected in this report, there was a decrease in the percentage perfect correlation between 1988 and 1989 (Figure 7). Percentage perfect correlation, for animal taxa considered in previous reports, show an overall improvement in comparison with figures calculated in 1981 [Figures 8(a), (b), (d), (e)]. However, there has been no overall improvement in the percentage of uncorrelated data across the years as shown by the four taxonomic groups chosen for examination; and only Appendix-I Primates show a small decrease in the percentage of uncorrelated data. There has been an increase in the percentage no correlation between 1988 and 1989, for all selected animal taxonomic groups, from 53.6% to 59.6%.

Appendix-I Primates

There was a small increase in the percentage perfect matches from 24.8% in 1988 to 26.4% in 1989 (Table 6), and Figure 8(a) shows an overall improvement in reporting, an increase in the percentage perfect correlation and a decrease in the percentage of no correlations, on comparison with the results of earlier implementation reports. There are no obvious reasons for the high percentage of no correlation of data; however, part of the reason may be due to year end problems or countries reporting on permits/certificates issued (sections 4.1 and 4.2.3). Whereas in earlier years, the data for Appendix-I primates showed the highest level of correlation of any of the taxa, they now have been overtaken in this respect by the commercially traded reptile skins.

Falconiformes. The overall trend in percentage perfect matches shows an increase between 1981 and 1988 [Figure 8(b)]; however, there was a slight decrease in perfect matches in 1989, as shown in Table 6. The percentage of uncorrelated data decreased between 1984 and 1987 but increased in both 1988 and 1989. It appears, from exporting countries records, that Hungary is a major importer but it failed to report imports of Falconiformes in both 1988 and 1989. Austria is a major exporter but its reported exports were generally higher than the corresponding quantities reported by importing countries. It should be noted, however, that Austria bases the information, in its annual reports on permits/certificates issued and, if a large number of permits were unused, then this would tend to decrease the percentage of correlation (see section 5.2.3).

Psittacidae. This group was not selected in the years 1981-1987. The majority of the Psittacidae records showed no correlation and the percentage of perfect matches decreased from 34% in 1988 to 28.6% in

1989. A major factor in this was that many of the exports were from Indonesia to Singapore, but Singapore failed to report any imports from Indonesia.

Crocodylia. There was a rise in the proportion of the data that failed to correlate from the 1986 and 1987 levels to 60% in 1989, despite an increase in the percentage of perfect matches. This is again likely (see Psittacidae, above) to be result of Singapore, which became a Party to CITES in 1986, failing to report the very large quantity of imports from Indonesia. Despite this, however, it is of interest that Singapore records the re-export of many goods originating in Indonesia.

Varanidae. There was a rise in the percentage no correlation for 1988 and 1989 to 50% and 61% respectively from the 1986 and 1987 levels of 48% and 42%, despite an increase in the percentage of perfect matches. As with the Psittacidae and Crocodylia, this was most probably the result of Singapore failing to report the large quantities of skins exported by Indonesia.

Plant Taxa

Figures 9(a) and 9(b) illustrate the percentage of perfect matches and of no correlations for both of the plant taxa considered in this and earlier reports, giving details from 1981 to 1989. Figure 9(c) illustrates the percentage data correlation and no correlation for all transactions in *Cyclamen* spp. in 1988 and 1989. The reporting of trade in *Aloe* spp. and *Encephalartos* spp. has shown no improvement across the years 1981 to 1989.

Aloe spp. A small percentage of the *Aloe* 1988 and 1989 export data correlated perfectly with importers' data and a correspondingly high proportion of the data did not correlate. Figure 9(a) shows a small increase in the percentage perfect correlations and a decrease in the percentage no correlations from 1985 levels. However, large quantities of South African exports remain un-recorded by importing countries. This may be a reflection on the fact that South Africa reports on permits issued rather than actual trade; however, it should also be noted that the majority of EEC countries do not report imports of *Aloe* spp.

Encephalartos spp. The percentage of perfect correlations for this taxon decreased from 21% in 1986 to 6.3% in 1989 and over 90% of the data failed to correlate in 1988 and 1989 [Figure 9(b)]. The majority of the exports originate in South Africa, which is known to report on permits issued (see comments on *Aloe* spp., above); however, the reported exports remain largely unreported by the importing nations.

Cyclamen spp. This group was not selected for analysis in previous reports. As with the *Aloe* spp. and *Encephalartos* spp., *Cyclamen* produced a very low percentage perfect correlation, 3.5% in 1988 and increasing slightly to 5.3% in 1989. The data showed a very small percentage of records that did not correlate and a correspondingly large number of transactions which fell within the 'partial correlation' definition [Figure 9 (c)]. This was the result of most of the reported trade being between Canada and the USA. Canada reported exporting more than were reported as imports by the USA and also reported the exports as live, artificially propagated whereas the USA reported most of the imports only as live, source unknown.

5.2.3 Parties reporting on permits issued

CITES Notification No. 205 instructs that reports should state clearly whether the data were derived from actual specimens traded or from permits/certificates issued. Though the former is recommended, either is acceptable as long as the approach is consistent. In most cases, from an examination of annual reports, it was rarely indicated whether the reported trade was based on permits or on actual trade; only 15 of the countries specified this from 84 annual reports submitted in 1988/89.

As highlighted in section 4.1, there may be considerable discrepancies between the figures supplied by an importer and an exporter if one reports on permits issued and the other on actual trade. This may result in both partial and non-correlation of the data reported.

Reporting trade based on the export permits issued normally results in over-reporting of exports. In 1989, South Africa reported exporting a shipment of 100 live (captive-bred) *Agapornis lilianae* to Belgium, whereas Belgium reported importing only 85 live (captive-bred) *Agapornis lilianae* from South Africa, under the same export permit number. Table 7 highlights a similar over-reporting problem showing the reported exports of Appendix-III birds from Senegal, who state they base their trade information on permits

issued, and corresponding imports reported by Belgium. As shown in Table 7, there were considerable differences in the reporting of all bird species involved in trade during 1988 and several discrepancies were significantly higher; producing an overall difference of 15,245 specimens.

Import trade based on export permits issued by other countries can also lead to problems of over-reporting. In 1989, Singapore reported importing a shipment of live (captive-bred) parrots, from the Netherlands, containing 568 individuals of 27 species. On examination of the Netherlands' export permit, it appears that the permit had, initially, been issued by the Management Authority for the above quantity but the actual export was only six (captive-bred) *Barnadius zonarius*. Both of the above examples demonstrate the degree on inaccuracy caused by reporting on permits issued either by the importing country or exporting country.

A number of the EEC countries calculate exports on the basis of actual trade from 'returned permits'; permits that are returned to the Management Authority by Customs after use. This system can also produce discrepancies in the data. Some Management Authorities issue bulk licences to traders and then rely on their returns for actual trade figures; however, if these permits are not returned to the proper authority then the trade will not be recorded. The USA routinely notes the export permit number in its annual report of imports. An analysis was therefore carried out of 1988 exports to the USA from EEC Member States to match the export permit numbers recorded by the USA against those reported by the EEC and the details of each shipment were compared. A summary of the results is shown in Table 8. The USA recorded a larger number of shipments than five of the EEC countries in 1988. Some of the records were recognizable, from their permit numbers, as being permits issued in 1987, some were reported with no permit number, but the remainder ("Min 1988 records recorded by US", in Table 8) bore recognizable 1988 permit numbers. Of these, some correlated, perfectly or partially, with those reported by the EC exporting countries. The remaining permit numbers reported by the USA ("Missing from EC Annual Report", in Table 8) were not represented in the EC records. These represented from a minimum of 12% up to, in the extreme case of the UK, 85% of all reported trade. The explanation given by the UK was that used permits were not returned to the issuing authority by Customs thus producing the large discrepancy in the reported trade figures.

5.3 Discussion

Total trade with non-Parties dropped from 13.2% in 1988 to 10.6% in 1989 but trade with non-reporting Parties increased from 7.2% to 11.2% in 1989. It would appear from the data in 1988 and 1989 that there has been a gradual overall improvement in the accuracy of reporting goods in trade since 1981. However, the majority of the taxa selected for analysis in this report showed no improvement in the accuracy of reporting between 1988 and 1989.

The long term improvement may be the result of Parties reporting on a greater percentage of trade, Parties reporting more accurately (fewer clerical errors), a greater proportion of reporting Parties following the guidelines on the harmonization of annual reports thus improving the accuracy of the details included in annual reports and/or more Parties reporting trade on a shipment-by-shipment basis. The listing of individual shipments, rather than summed totals, increases the possibility of perfect correlation of data: for example, if two trading partners report summed shipments and the quantities do not match then this would be regarded as 100% partial correlation whereas, if both parties report 100 transactions on a shipment-by-shipment basis and the quantity did not match in only one of these transactions then this would produce a 99% perfect correlation and only a 1% partial correlation. The percentage perfect correlations would further increase if Parties were clearer about the source of the specimens in trade; in particular captive-bred and artificially propagated specimens. As discussed in section 4.3, the "Remarks" column, often included in annual reports but not used, should contain information on the status of items in trade, i.e. captive-bred, artificially propagated, pre-Convention, etc., and if used could increase the level of perfect data correlations.

Some of the records cannot be expected to correlate because of 'year-end' reporting problems. However, it should be noted that there is still considerable room for improvement because the majority of the trade in the selected taxa was reported by only one Party (either the importer or the exporter) and the overall degree of non-correlation rose to 56.5% in 1989 from 53% in 1988. As in previous years, trade in the selected animal taxa for 1988 and 1989 displayed a high percentage correlation (35.8% in 1988 and 30.1% in 1989) in comparison to the continuing poor reporting of plant taxa (4.9% and 6% perfect correlation). Two specific areas have been highlighted as probable causes of a high percentage of non-correlation of data in some of the selected taxa:

- a) Singapore not reporting imports from Indonesia; and

- b) under-recording imports of *Aloe* and *Encephalartos* spp., particularly from South Africa; however, these may also be affected by South Africa reporting on the basis of permits issued.

CITES Notification No. 205 instructs that reports should state clearly whether the data were derived from actual quantities traded or from permits/certificates issued and, as highlighted in section 5.2, the majority of Parties did not declare this in 1988/89. It is recommended that reports are based on actual trade rather than on permits/certificates as this should both give a more accurate estimate of the trade and allow better correlation of reported exports with reported imports. However, the analysis of the exports from the EC to the USA shows that reporting exports on the basis of permits returned from the Customs can result in a very substantial under-recording of the trade. Therefore, unless much greater efforts are taken to ensure that all permits are returned by Customs, it would be better to report mainly on the basis of permits issued with the quantities corrected only for those permits which have been returned.

Four general points can therefore be identified as means of significantly improving the accuracy and usefulness of information in annual reports:

- a) Greater attention should be paid to reporting plant trade
- b) Report on actual trade, care being taken to ensure that all used permits have been returned
- c) Report on individual shipments rather than summed trade
- e) Specify source correctly.

ACKNOWLEDGEMENTS

The authors would like to thank Lesley McGuffog, Lorrie Collins and Trudie Dockerty, of the Wildlife Trade Monitoring Unit, for their assistance in the initial stages of data analysis. They would also like to thank Richard Luxmoore for his useful comments and guidance at each stage in the preparation of the report.

Country	Entry into force	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
El Salvador (SV)	26.07.87							o	o	o	o
Ethiopia (ET)	04.07.89									o	04.01.91
Finland (FI)	08.08.76	o	o	o	24.12.85	14.06.88	14.06.88	16.01.89	19.09.90	01.04.91	o
France (FR)	09.08.78	*	*	*	28.11.85	17.11.86	19.04.88	30.11.88	4.01.90	09.01.91	o
Gabon (GA)	14.05.89									30.04.91	30.04.91
Gambia (GM)	24.11.77	o	o	o	o	o	8.04.87	o	o	o	o
German Dem. Rep. (DD)	07.01.76	o	o	*	3.05.85	o	o	o	o	15.10.90	-----
Germany, Fed. Rep. of (DE)	20.06.76	*	*	*	22.10.85	19.12.86	11.11.87	07.04.89	29.08.89	15.10.90	o
Ghana (GH)	12.02.76	o	*	*	7.06.88	7.06.88	7.06.88	7.06.88	4.09.90	10.07.90	o
Guatemala (GT)	05.02.80	*	*	*	13.10.86	15.07.87	15.07.87	01.05.89	o	o	o
Guinea (GN)	20.12.81	o	o	o	o	30.07.86	12.09.90	12.09.90	12.09.90	12.09.90	o
Guinea-Bissau (GW)	14.08.90									-	o
Guyana (GY)	25.08.77	*	*	*	31.03.88	31.03.88	8.07.87	2.06.89	09.10.89	o	o
Honduras (HN)	13.06.85					15.07.87	15.07.87	o	o	o	o
Hungary (HU)	27.08.85					o	21.10.88	21.10.88	15.03.90	15.03.90	o
India (IN)	18.10.76	*	*	*	28.10.85	4.03.87	18.12.87	17.03.89	23.11.89	27.09.90	2.10.91
Indonesia (ID)	28.03.79	*	*	*	3.06.86	22.09.86	16.06.87	09.10.89	09.10.89	30.08.91	o
Iran (IR)	01.11.76	o	o	o	o	o	o	o	22.09.89	16.10.91	o
Israel (IL)	17.03.80	o	o	o	o	o	o	o	o	o	o
Italy (IT)	31.12.79	*	*	*	28.11.85	3.04.87	14.03.88	09.01.89	1.09.90	30.10.91	o
Japan (JP)	04.11.80	*	*	*	28.01.86	3.12.86	29.03.88	2.06.89	18.01.91	24.04.91	o
Jordan (JO)	14.03.79	o	o	o	o	o	o	11.07.89	11.07.89	21.08.91	21.08.91
Kenya (KE)	13.03.79	o	o	o	o	23.06.86	22.06.87	20.01.89	20.10.89	29.10.91	29.10.91
Liberia (LR)	09.06.81	*	*	*	24.09.85	28.11.88	28.11.88	5.09.89	5.08.89	o	o
Liechtenstein (LI)	28.02.80	*	*	*	9.09.85	1.08.86	22.10.87	12.09.88	27.09.89	31.10.90	o
Luxembourg (LU)	12.03.84				28.11.85	5.08.86	17.07.87	11.07.88	01.05.89	13.06.90	o
Madagascar (MG)	18.11.75	*	*	*	4.12.85	27.01.87	8.07.88	12.12.88	13.06.90	30.01.91	o
Malawi (MW)	06.05.82		*	*	2.07.86	10.02.87	o	02.09.88	01.06.90	01.06.90	o
Malaysia (MY)	18.01.78	*	*	*	15.10.85	17.10.86	10.06.87	16.09.88	8.01.90	06.11.90	28.10.91
Malta (MT)	16.07.89									31.01.90	21.02.91
Mauritius (MU)	27.07.75	*	*	*	19.09.85	21.03.86	10.08.88	12.04.89	22.01.90	18.06.89	24.09.91
Monaco (MC)	18.07.78	o	o	o	o	2.04.87	2.04.87	20.10.88	20.08.90	05.11.90	16.10.91
Morocco (MA)	14.01.76	o	o	o	17.02.89	o	o	17.02.89	17.02.89	19.06.90	22.05.91
Mozambique (MZ)	23.06.81	o	o	*	9.10.85	20.01.87	20.01.87	o	o	o	o
Nepal (NP)	16.09.75	*	*	*	30.09.85	24.04.89	24.04.89	24.04.89	24.04.89	01.07.91	01.07.91

Country	Entry into force	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Netherlands (NL)	18.07.84				28.11.85	3.04.87	14.03.88	2.12.88	1.09.90	27.11.90	o
New Zealand (NZ)	08.08.89									30.08.91	o
Nicaragua (NI)	04.11.77	*	*	*	30.10.85	3.04.87	3.04.87	4.07.88	14.09.90	30.10.90	o
Niger (NE)	07.12.75	*	o	o	o	o	27.04.87	18.07.89	21.09.90	12.09.90	o
Nigeria (NG)	01.07.75	o	o	o	o	o	o	8.12.88	8.09.90	12.07.90	o
Norway (NO)	25.10.76	*	*	*	26.09.85	6.07.87	30.08.88	21.08.89	09.10.89	Sept. 91	o
Pakistan (PK)	19.07.76	*	*	*	20.05.85	25.03.87	15.07.87	22.03.89	23.11.89	May 1991	o
Panama (PA)	15.11.78	*	o	*	16.03.89	16.03.89	16.03.89	16.03.89	May 1990	May 1990	o
Papua New Guinea (PG)	11.03.76	o	o	*	18.07.85	24.07.86	o	09.10.89	09.10.89	o	o
Paraguay (PY)	13.02.77	o	o	*	3.04.87	3.04.87	3.04.87	9.08.88	2.06.89	25.09.91	25.09.91
Peru (PE)	25.09.75	o	*	*	15.07.87	15.07.87	15.07.87	o	o	o	o
Philippines (PH)	16.11.81	*	*	*	20.05.85	19.05.86	10.10.88	10.10.88	29.01.91	12.9.91	o
Poland (PL)	12.03.90									-	o
Portugal (PT)	11.03.81	o	o	o	o	o	7.11.88	5.05.89	05.03.90	31.1.91(WTMU)	o
Rwanda (RW)	18.01.81	o	o	o	o	17.03.86	o	o	4.10.91	4.10.91	o
Saint Lucia (LC)	15.03.83			*	13.05.86	10.04.87	o	25.04.89	25.04.89	o	o
Saint Vincent/Grenadines (VC)	28.02.89									o	o
Senegal (SN)	03.11.77	*	*	*	o	14.10.87	25.10.88	23.12.88	09.10.89	19.08.91	o
Seychelles (SC)	09.05.77	*	*	*	3.05.85	o	o	o	o	o	o
Singapore (SG)	28.02.87							24.10.88	8.09.89	11.11.90	15.10.91
Somalia (SO)	02.03.86						24.10.88	o	o	o	o
South Africa (ZA)	13.10.75	*	*	*	17.01.86	12.03.87	30.12.87	27.02.89	15.02.90	16.05.91	o
Spain (ES)	28.08.86						3.07.87	3.12.88	1.09.90	4.5.91(WTMU)	o
Sri Lanka (LK)	02.08.79	o	o	o	6.05.86	6.05.86	27.10.87	17.04.89	10.08.89	13.08.90	22.10.91
Sudan (SD)	24.01.83			o	o	24.06.86	o	o	o	7.8.91	7.8.91
Suriname (SR)	15.02.81	*	*	*	25.04.85	29.09.86	15.07.87	25.03.88	1.09.90	Dec. 1990	WTMU
Sweden (SE)	01.07.75	*	*	*	23.12.85	6.03.87	1.02.88	28.11.88	20.11.89	Sept. 91	o
Switzerland (CH)	01.07.75	*	*	*	9.09.85	1.08.86	22.10.87	12.09.88	27.09.89	31.10.90	31.10.90
Tanzania (TZ)	27.02.80	o	*	*	12.07.85	14.01.87	23.02.88	28.12.88	09.10.89	06.08.91	17.09.91
Thailand (TH)	21.04.83			o	7.10.85	19.03.87	19.03.87	o	o	o	30.09.91
Togo (TG)	21.01.79	o	*	*	10.04.86	25.04.88	25.04.88	25.04.88	01.10.90	22.07.91	2.10.91
Trinidad and Tobago (TT)	18.04.84				o	o	o	6.02.91	6.02.91	6.02.91	12.04.91
Tunisia (TN)	01.07.75	*	*	*	28.01.85	10.02.86	15.01.87	3.02.88	02.05.89	20.06.90	26.09.91
USSR (SU)	08.12.76	*	*	o	11.02.86	3.07.87	29.08.89	29.08.89	10.04.90	19.11.90	o
United Arab Emirates (AE)	09.05.90	o	o	o	o	o	o	o	(withdr., 88-rejoin.90)		o

Country	Entry into force	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
United Kingdom (GB)	31.10.76	*	*	*	21.10.85	3.04.87	30.12.88	3.10.88	26.09.89	12.7.90(WTMU)	o
USA (US)	01.07.75	*	*	*	2.12.85	17.03.87	14.07.87	02.11.88	13.02.90	7.12.90	o
Uruguay (UY)	01.07.75	*	*	*	21.04.87	o	30.12.88	30.12.88	22.02.90	o	o
Vanuatu (VU)	25.10.89									03.01.91	3.01.91
Venezuela (VE)	22.01.78	*	*	*	24.06.86	24.06.86	09.10.89	09.10.89	09.10.89		1.03.91
Zaire (ZR)	18.10.76	*	o	o	23.04.85	24.09.86	18.01.88	7.07.88	.08.90	5.02.91	26.06.91
Zambia (ZM)	22.02.81	o	o	*	21.04.85	o	6.09.89	6.09.89	6.09.89	o	o
Zimbabwe (ZW)	17.08.81	o	o	*	7.04.86	29.09.86	19.10.87	8.11.88	16.01.91	16.01.91	o

* Annual report received (concerns only reports before 1984)

o Report not yet received

WTMU Data received by Wildlife Trade Monitoring Unit, usually as permits, for annual report compilation by the Unit

(Data supplied by CITES Secretariat)

Figure 1. The number of Parties to CITES in the years of 1980 to 1990 and the number submitting annual reports in those years

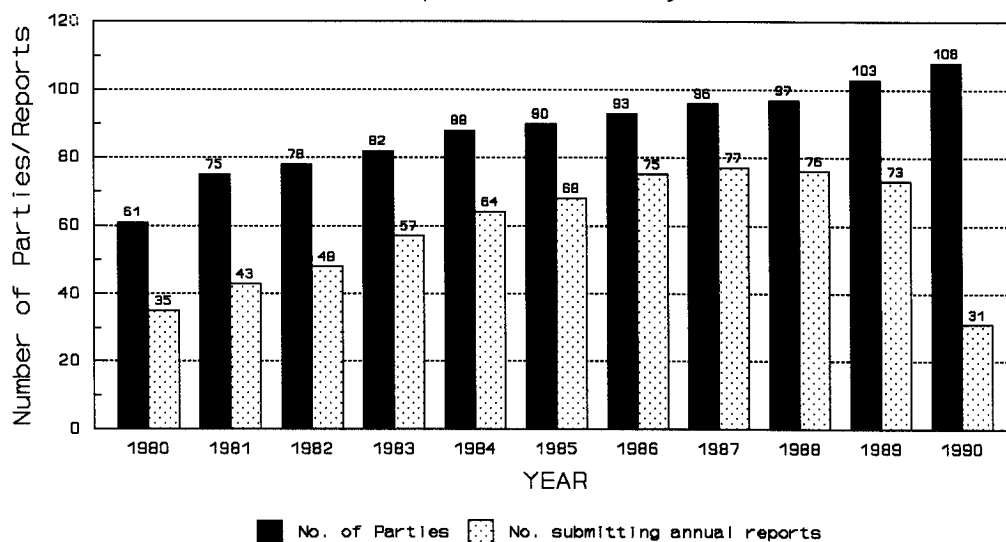


Table 2. Countries submitting annual reports in electronic form

Country	Data Received	Electronic Format
Canada	imports/exports	magnetic tape
Denmark	imports/exports	diskette
Germany, Fed. Rep.	imports/exports	magnetic tape
Greenland	imports/exports	diskette
Japan	imports only	diskette
Switzerland	imports/exports	diskette
United Kingdom	imports/exports	magnetic tape
USA	imports/exports	magnetic tape
Zimbabwe	imports/exports	magnetic tape

Table 3. Annual reports that were submitted on time, late (in months) or not at all by the Parties to CITES for years 1988-1990

Country	1988	1989	1990
Afghanistan (AF)	∞	∞	∞
Algeria (DZ)	T	∞	T
Argentina (AR)	12	T	∞
Australia (AU)	T	10	∞
Austria (AT)	T	T	∞
Bahamas (BS)	T	∞	∞
Bangladesh (BD)	34	10	∞
Belgium (BE)	T	1	∞
Belize (BZ)	∞	∞	∞
Benin (BJ)	∞	∞	∞
Bolivia (BO)	T	10.5	T
Botswana (BW)	7	T	∞
Brazil (BR)	∞	8.5	∞
Brunei Darussalam (BN)	n/p	n/p	∞
Burkina Faso (BF)	n/p	n/p	∞
Burundi (BI)	∞	∞	∞
Cameroon (CM)	13	∞	∞
Canada (CA)	3.5	T	T
Central African Rep. (CF)	13	1	∞
Chad (TD)	n/p	∞	∞
Chile (CL)	2.5	T	T
China (CN)	T	T	T
Colombia (CO)	T	0.5	T
Congo (CG)	T	T	T
Costa Rica (CR)	T	T	∞
Cuba (CU)	n/p	n/p	∞
Cyprus (CY)	∞	∞	∞
Denmark (DK)	3.5	T	∞
Dominican Republic (DO)	24	12	T
Ecuador (EC)	T	∞	∞
Egypt (EG)	∞	∞	∞
El Salvador (SV)	∞	∞	∞
Ethiopia (ET)	n/p	∞	T
Finland (FI)	11	5	∞
France (FR)	2.5	2.5	∞
Gabon (GA)	n/p	6	T
Gambia (GM)	∞	∞	∞
German Dem. Rep. (DD)	∞	T	-----

Country	1988	1989	1990
Germany, Fed. Rep. (DE)	T	T	∞
Ghana (GH)	10.5	T	∞
Guatemala (GT)	∞	∞	∞
Guinea (GN)	10.5	T	∞
Guinea-Bissau (GW)	n/p	n/p	∞
Guyana (GY)	T	∞	∞
Honduras (HN)	∞	∞	∞
Hungary (HU)	4.5	T	∞
India (IN)	1	T	T
Indonesia (ID)	T	10	∞
Iran (IR)	T	11.5	∞
Israel (IL)	∞	∞	∞
Italy (IT)	10	12	∞
Japan (JP)	15	6	∞
Jordan (JO)	T	10	T
Kenya (KE)	T	12	T
Liberia (LR)	T	∞	∞
Liechtenstein (LI)	T	T	∞
Luxembourg (LU)	T	T	∞
Madagascar (MG)	7.5	3	∞
Malawi (MW)	7	T	∞
Malaysia (MY)	2.5	0.5	T
Malta (MT)	n/p	T	T
Mauritius (MU)	3	8	T
Monaco (MC)	10	0.5	T
Morocco (MA)	T	T	T
Mozambique (MZ)	∞	∞	∞
Nepal (NP)	T	8	T
Netherlands (NL)	10	1	∞
New Zealand (NZ)	n/p	10	∞
Nicaragua (NI)	10.5	T	∞
Niger (NE)	11	T	∞
Nigeria (NG)	10.5	T	∞
Norway (NO)	T	10	∞
Pakistan (PK)	1	7	∞
Panama (PA)	6	T	∞
Papua New Guinea (PG)	T	∞	∞
Paraguay (PY)	T	11	T

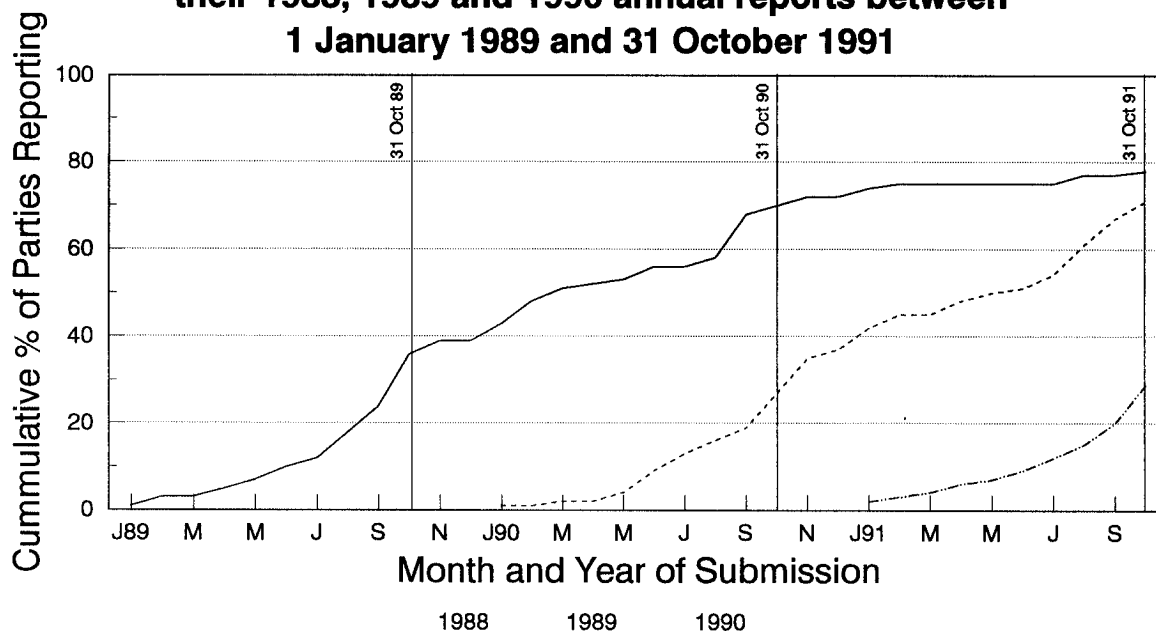
Country	1988	1989	1990
Peru (PE)	∞	∞	∞
Philippines (PH)	∞	11.5	∞
Poland (PL)	n/p	n/p	∞
Portugal (PT)	4.5	3	∞
Rwanda (RW)	23.5	11.5	∞
Saint Lucia (LC)	T	∞	∞
St Vincent/Grenadines (VC)	n/p	∞	∞
Senegal (SN)	T	11	∞
Seychelles (SC)	∞	∞	∞
Singapore (SG)	T	0.5	T
Somalia (SO)	∞	∞	∞
South Africa (ZA)	3.5	7	∞
Spain (ES)	10	6	∞
Sri Lanka (LK)	T	T	T
Sudan (SD)	∞	9.5	T
Suriname (SR)	10	1	T
Sweden (SE)	1	10	∞
Switzerland (CH)	T	T	T
Tanzania (TZ)	T	9	T
Thailand (TH)	∞	∞	T
Togo (TG)	11	9	T
Trinidad and Tobago (TT)	15.5	3.5	T
Tunisia (TN)	T	T	T
USSR (SU)	5.5	1	∞
United Arab Emirates (AE)	n/p	n/p	∞
United Kingdom (GB)	T	T	∞
USA (US)	3.5	0.5	∞
Uruguay (UY)	4	∞	∞
Vanuatu (VU)	n/p	2.5	T
Venezuela (VE)	T	∞	T
Zaire (ZR)	9	3.5	T
Zambia (ZM)	T	∞	∞
Zimbabwe (ZW)	15	3	∞

∞ report not submitted to CITES Secretariat as of 31 October 1991

T Report submitted before deadline date

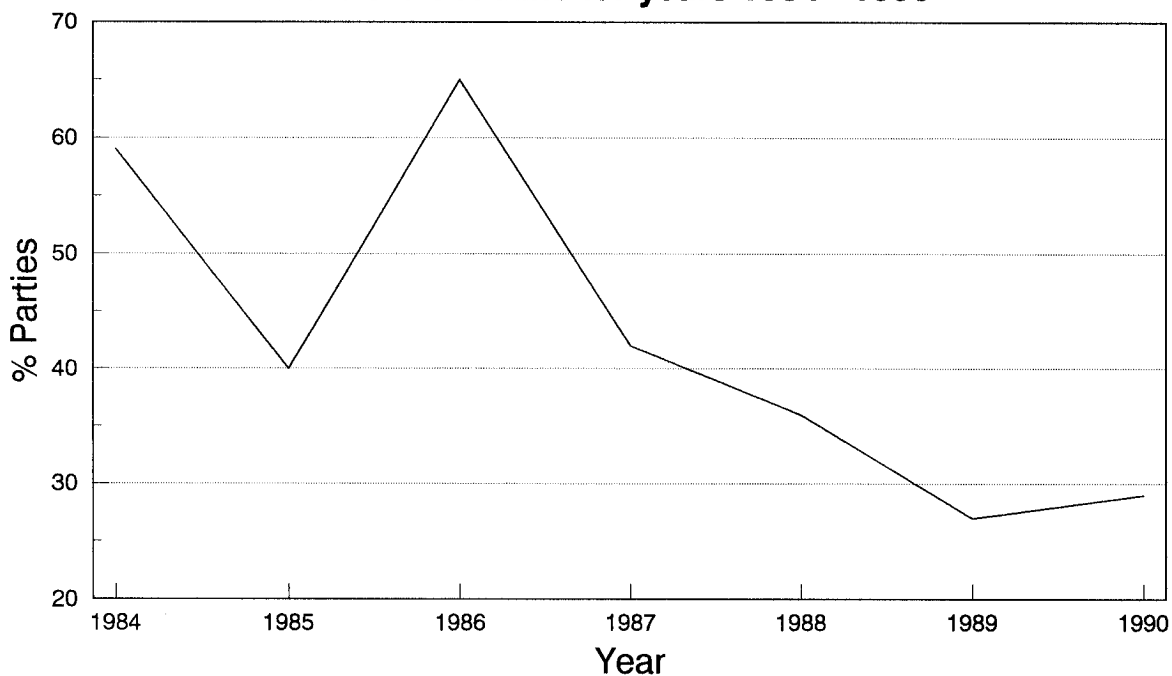
n/p CITES non-Party

Figure 2. Percentage of Parties that submitted their 1988, 1989 and 1990 annual reports between 1 January 1989 and 31 October 1991



Data supplied by the CITES Secretariat

Figure 3. Percentage of Parties submitting before the deadline for years 1984 - 1990



Country	Entry into force	Rep. used	Form	App	Spp	Tax Ord	List Ship	Perm No.	Purp	Count Orig	Desc	Quant	Rmks	TOT
Zaire	18/10/76	1989	5	4	5	2	5	5	5	5	5	5	3	49
Zambia	22/02/81	1988	5	5	5	4	5	5	5	5	5	5	3	52
Zimbabwe	17/08/81	1989	0	1	2	0	5	5	0	5	2	5	0	25

Rep. used – Annual Report used in analysis

Form – Report Format

App – Appendix

Spp – Species

Tax Ord – Taxonomic order

List Ship – Listing by shipment

Perm No. – Permit number

Purp – Purpose

Count Orig – Country of origin etc.

Desc – Description

Quant – Quantity

Rmks – Remarks

TOT – Total Mark

Figure 4. Degree to which Parties submitting annual reports for 1988 and 1989 complied with CITES Notification to the Parties No. 205

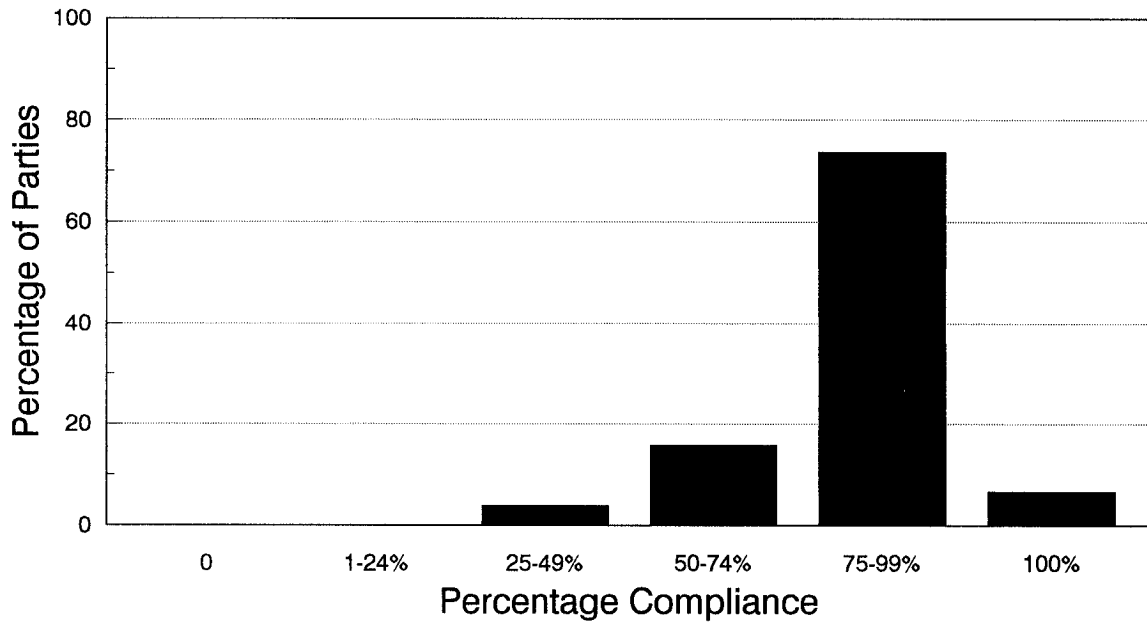


Figure 5. Degree to which Parties submitting annual reports for 1988 and 1989 followed the guidelines in CITES Notification No. 205

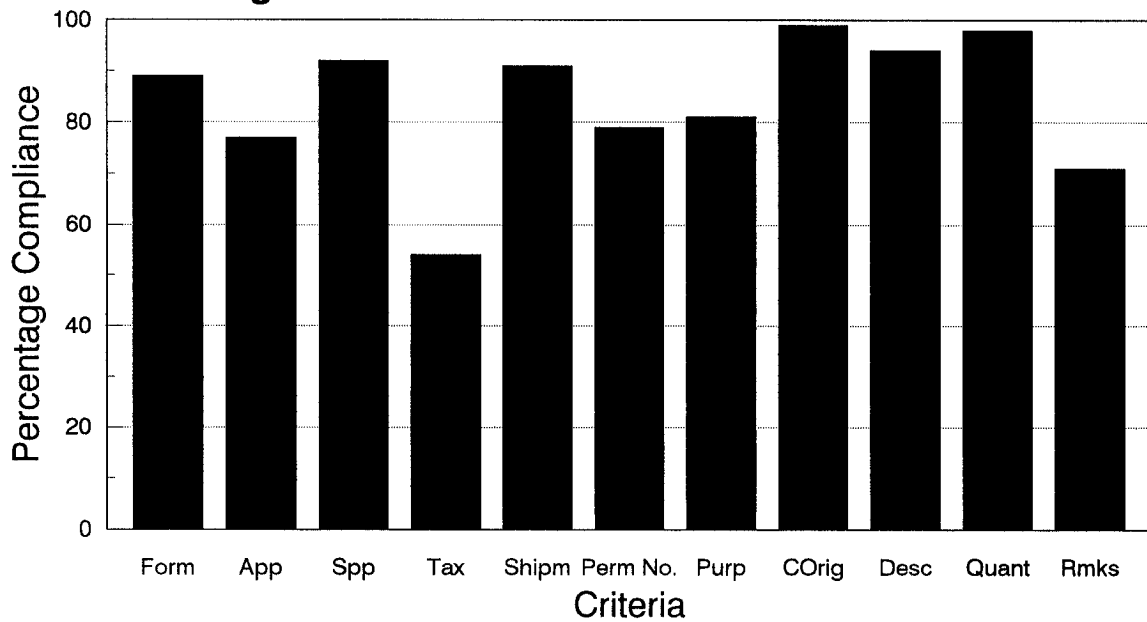


Table 5. Total number of records of trade in the selected taxa and the minimum number of transactions that these are estimated to represent

**The number of records relating to trade with non-Parties (including unknown countries)
and with Parties that did not submit an annual report are expressed as percentages of the number of transactions**

1988	Primates, App I	Falconi- formes	Psittacidae	Crocodylia	Varanidae	Total Animals	<i>Aloe</i>	<i>Encephalartos</i>	<i>Cyclamen</i>	Total Plants	TOTAL
Total Records	389	636	16,176	2,553	1,911	21,665	768	313	2,727	3,808	25,473
Total Transactions	286	463	11,634	1,553	1,296	15,232	585	296	1,648	2,529	17,761
Non-Party (%)	18.2	18	16.1	6	10.4	14.7	6.3	11.5	2.3	4.3	13.2
Non-Reporting (%)	9.1	10	8.3	4.2	9.8	8.1	6.7	3.4	0.2	2.1	7.2

1989	Primates, App I	Falconi- formes	Psittacidae	Crocodylia	Varanidae	Total Animals	<i>Aloe</i>	<i>Encephalartos</i>	<i>Cyclamen</i>	Total Plants	TOTAL
Total Records	396	868	14,560	2,591	2,186	20,601	707	458	2,981	4,146	24,747
Total Transactions	288	624	10,513	1,938	1,577	14,940	531	431	1,674	2,636	17,576
Non-Party (%)	16.3	13	13.2	6.1	9	11.9	5.8	0.9	2.7	3.1	10.6
Non-Reporting (%)	7.3	8	12.5	18.5	9.4	12.6	9.6	3.5	0.5	2.8	11.2

Table 6. The number of transactions in the selected taxa which potentially correlate and the percentage of those showing perfect matches and no correlation

1988	Primates, App I	Falconi- formes	Psittacidae	Crocodylia	Varanidae	Total Animals	Aloe	Encephalartos	Cyclamen	Total Plants	TOTAL
Potential Correlations	208	334	8,795	1,395	1,034	11,766	509	252	1,607	2,368	14,134
Perfect Matches (%)	24.8	24.3	34	35.5	39.3	35.8	8.1	6.3	3.5	4.9	30.7
No Correlations (%)	55.3	60.5	54.6	48	50.2	53.6	71.3	93.3	36	49.7	53

1989	Primates, App I	Falconi- formes	Psittacidae	Crocodylia	Varanidae	Total Animals	Aloe	Encephalartos	Cyclamen	Total Plants	TOTAL
Potential Correlations	220	493	7,817	1,461	1,286	11,277	449	412	1,619	2,480	13,757
Perfect Matches (%)	26.4	20.3	28.6	27.2	33.4	30.1	8.7	6.3	5.3	6	25.7
No Correlations (%)	55.9	62.9	59.2	59.9	61.4	59.6	69.9	93.2	21.6	42.2	56.5

Figure 6. Total trade in selected taxa with non-Parties

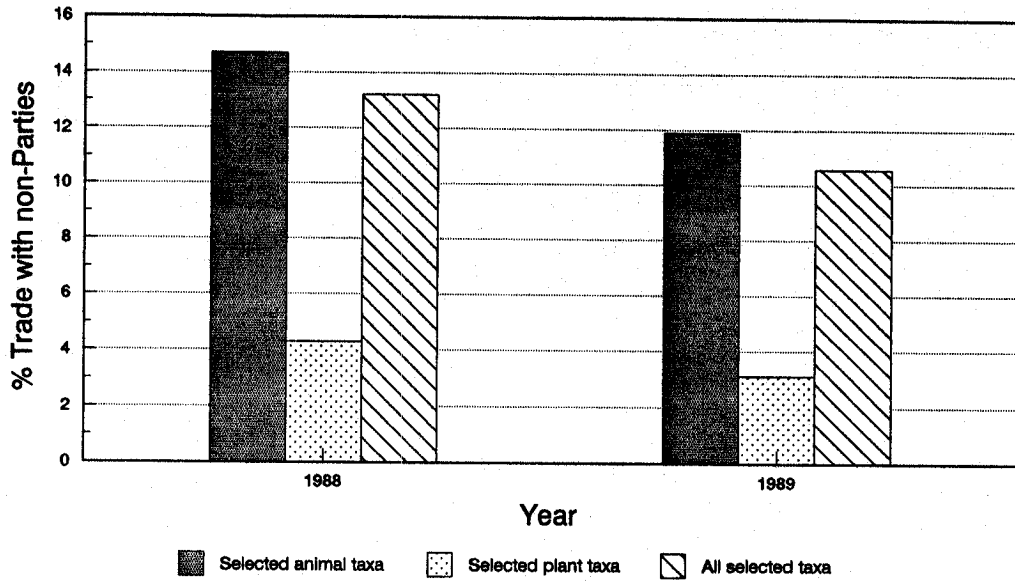


Figure 7. Total trade in selected taxa

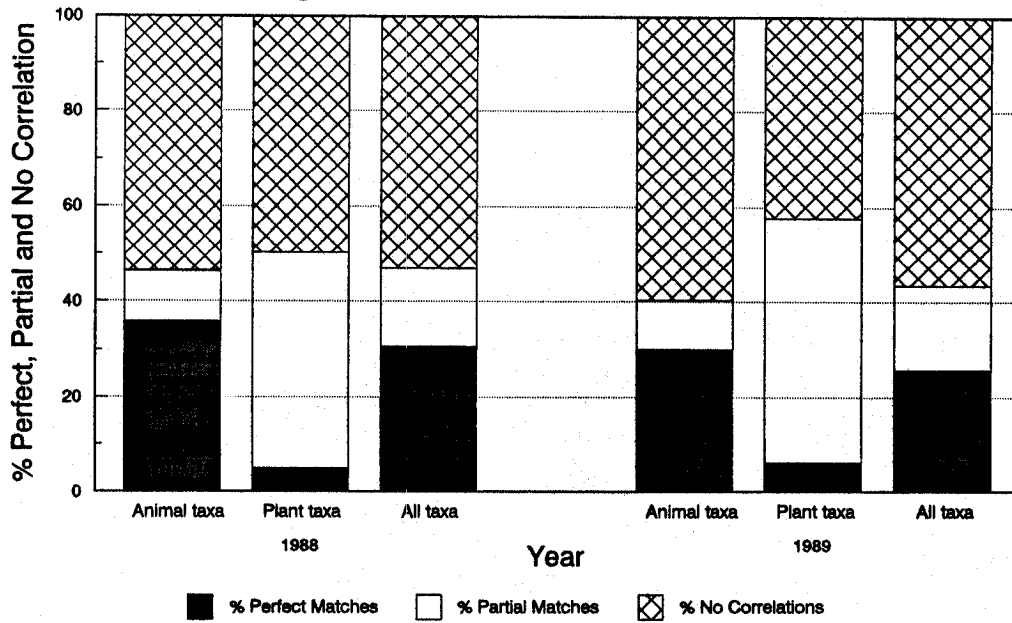


Figure 8. The percentage of transactions between reporting Parties in each of the five selected animal taxa which showed perfect matches, partial matches and no correlation between reported imports and exports in the years 1981-1989

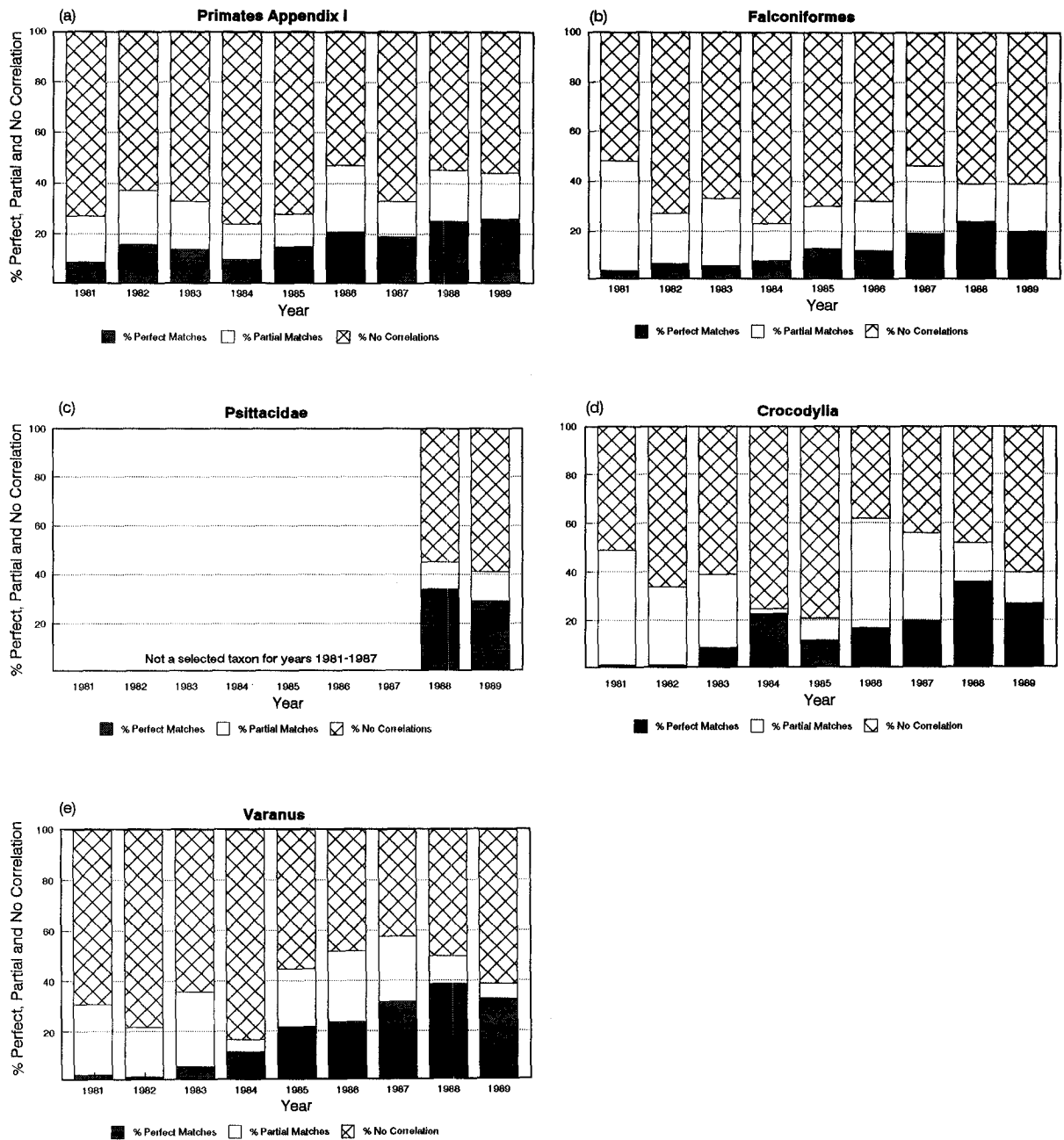


Figure 9. The percentage of transactions between reporting Parties in each of the three selected plant taxa which showed perfect matches, partial matches and no correlation between reported imports and exports in the years 1981-1989

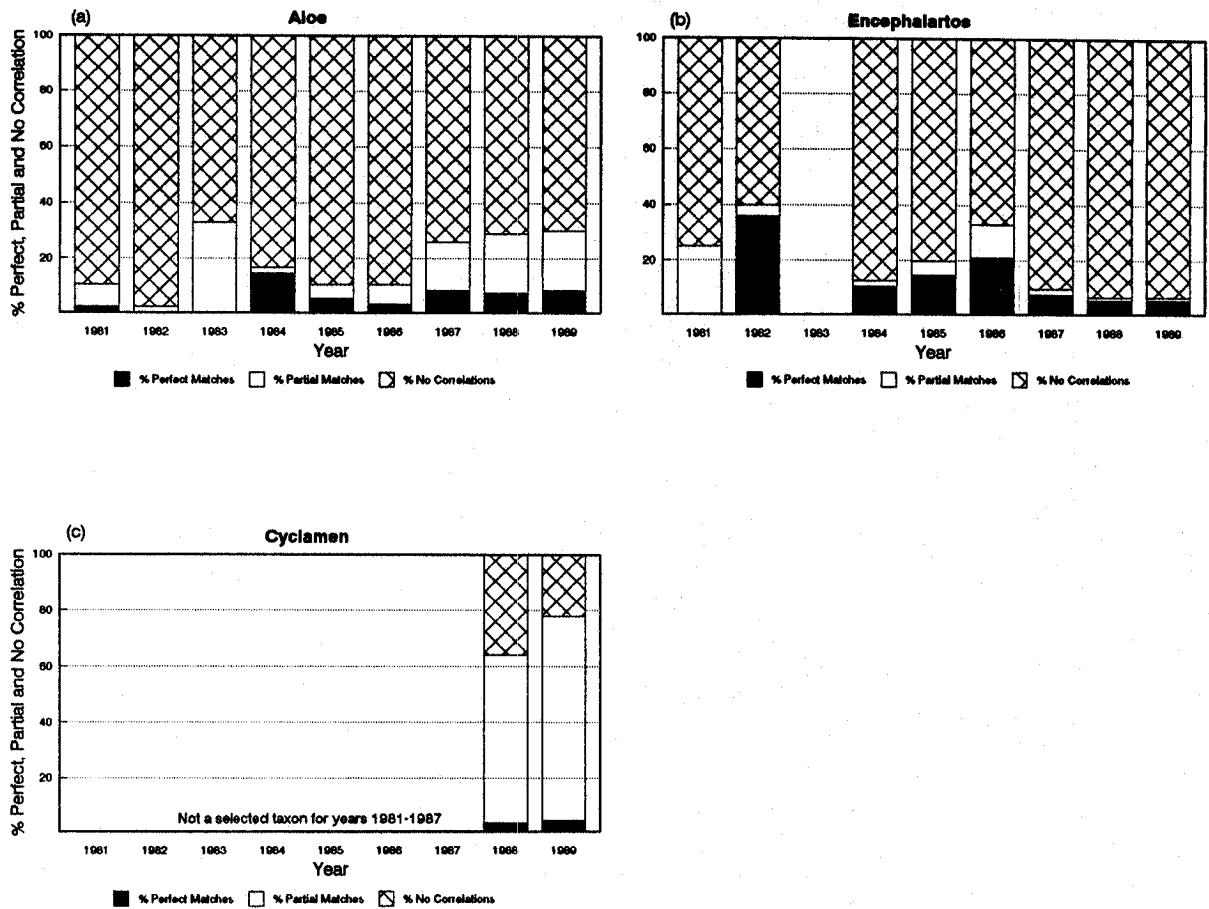


Table 7. Imports of Appendix-III birds to Belgium from Senegal

Species	Senegal Reported Exports	Belgium Reported Imports
<i>Serinus leucopygius</i>	5,625	4,750
<i>Serinus mozambicus</i>	19,265	13,425
<i>Amadina fasciata</i>	8,655	6,785
<i>Amandina subflava</i>	2,780	1,300
<i>Estrilda troglodytes</i>	7,175	3,925
<i>Uraeginthus bengalus</i>	4,825	4,065
<i>Ploceus cucullatus</i>	650	150
<i>P. melanocephalus</i>	450	300
<i>Vidua chalybeata</i>	540	100
<i>Vidua paradisaea</i>	1,570	1,490
TOTAL	51,535	36,290

Table 8. Analysis of permit numbers corresponding to exports from the EEC to the USA

	BE	DK	FR	DE	GR	IT ¹	NL	PT	ES	GB
Total records reported by exporting country (EC)	89	30	1,639	1,187	18	3,420	225	0	4,267	171
Total records reported by the US	101	47	899	805	20	2,939	171	9	2,852	814
1987 records reported by US	2	0	51	25	0	73	0	0	56	3
No permit number included by US	33	3	313	224	8	1,051	27	9	676	251
Min 1988 records recorded by US	66	44	535	556	12	1,815	144	1	2,120	560
Perfect matches (EC with US)	23	16	251	246	10	822	39	0	1,661	50
Partial correlations (EC with US)	26	1	61	85	0	651	13	0	200	35
Missing from EC Annual Report	17	27	223	225	2	333	92	1	259	475
% Omission from EC Annual Reported	26	61	42	40	17	19	64	100	12	85

¹ Italy's data analysis was carried out using a sub-set of the total export records to the USA for animals only.