WWF-Guianas

EVALUATION OF THE ANIMAL AND PLANT TRADE IN THE GUIANAS PRELIMINARY FINDINGS

Prepared by Nicole Duplaix, PhD

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September 2001

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Maps: Guyana, Suriname and French Guiana

Executive Summary

EVALUATION OF THE ANIMAL AND PLANT TRADE IN THE GUIANAS.

1. PRELIMINARY FINDINGS

The Guianas (Guyana, Suriname and French Guiana) are part of the Guiana Shield Eco-Region, a region that is unique due to the richness of its biodiversity and its largely uninhabited rainforests. It is therefore of high national and international significance.

There are many species of flora and fauna that are found in the Guianas. As most of these species are common to the three countries and many of them are migratory, the successful management of wildlife trade and the maximization of benefits thereof can only be achieved through harmonization of approaches, legislative and administrative policies, and regional coordination and/or integration. Regional collaboration in research, surveillance and enforcement is also critical to effective wildlife conservation.

The Government of Suriname, as are those of Guyana and French Guiana, is committed to sustainable economic development and the conservation and management of wildlife resources. All three Guianas have their own environmental legal framework and trade controls that govern the use and harvest of its biodiversity. Guyana and Suriname, however, remain the only two countries in South America still legally exporting significant quantities of wildlife. Suriname and Guyana derive considerable financial income in hard currency (US dollars) and jobs from the export of fauna and flora (Table 1).

This report attempts to review and compare three countries with three very different approaches to wildlife use and conservation management. Complex issues and contradictions are involved in the wildlife and plant export trade, particularly when three countries are compared. The Guiana Region is only that – a region and not a union. While small in size and in close parallel proximity, the three countries are quite indepe ndent from one another and hitherto there has been little cooperation between them, at least as far the trade in wildlife is concerned.

Suriname

Suriname's varied habitats are home to 668 species of birds, 184 species of mammals, 152 species of reptiles, 95 species of amphibians, more than 300 species of freshwater fishes, and at least 4,500 species of flowering plants.

The Suriname Forest Service (LBB) under the Ministry of Natural Resources is responsible for the implementation of the laws governing the country's natural resources. It places a high priority on conservation and sustainable development.

Suriname has scrupulously implemented CITES regulations since it ratified the Convention in 1981. The Permit Office of the Nature Conservation Division goes by the book. Realistic voluntary quota levels have been set by Suriname for both CITES and non-CITES species. Even the wildlife exporters rarely fill the quotas set for most

species (Tables, 2, 3, 9, 10). Quota levels and FOB prices are reviewed at regular intervals by the Permit Office and reset if necessary. Today 85 birds, 9 mammals, 6 amphibians, 5 turtles, 7 lizards, and 4 reptile species are listed – a small portion of the country's rich biodiversity. The total quota for birds is for 25,232 specimens but in 2000, for instance, only 7,316 were actually exported (Table 2d). Of the 85 bird species listed on the quota list, specimens of only 63 species were actually exported in 2000 whereas specimens of all the reptile and amphibian species listed were exported with only two exceptions (Table 2d).

The number of licensed traders has gone from 7 to 25 in 8 years – a fact which is deeply resented by the established wildlife traders who view this as unwelcome competition.

Suriname has a vast and remote interior where the Game Law regulations do not apply. The indigenous people rely on bush meat for food and on the trapping of wild species for cash. Some species are both hunted for food and trapped for export (Table 8).

Several instances of smuggling were observed and reported. Psittacines, songbirds and reptiles are smuggled between all three countries, some in significant quantities. The 12 LBB/NB wildlife enforcement officers in Paramaribo and two in Nickerie mainly enforce hunting and nature reserve regulations. A major obstacle to adequate law enforcement is the lack of transport and fuel.

There is fragmented government agency oversight. Different ministries are involved in wildlife management and wildlife export from the issuing of commercial licenses to traders, licensing of traders to apply for export permits, to paying fees and taxes, to Customs controls, and finally to veterinary inspection.

No recent scientific surveys in the wild of key export trade species such as parrots and reptiles have been made. LBB/NB has set this as a top priority in the future and requires assistance to implement this.

The medicinal plant trade appears to be completely undocumented and uncontrolled – we received conflicting reports that "large amounts of medicinal plants were being smuggled out of Suriname on a weekly basis" while the authorities told us that "medicinal or traditional plants" were not exported "in significant quantities".

Recommendations for Suriname

The export trade and permit tracking of CITES-listed species appears to be well controlled in Suriname. The main problem with the wildlife trade in Suriname is lack of funds for enforcement - which is minimal outside of Paramaribo. Funds are also urgently required to equip and pay enforcement personnel competitive salaries. Other problems include: updating legislation, appointing new members to re-activate the Nature Conservation Commission, and very important, establishing communication lines and collaborating with the Environmental Protection Agency and its Permit Office in Guyana.

Hunting regulations under the Game Law of 1954 need to be revamped as soon as possible to cover the whole of Suriname, including the territorial sea and economical zone and to protect CITES-listed species in Suriname. Cooperative, revenue-based,

community wildlife programs developed from consultations with stakeholders in key trapping areas such as Apura, Tepu and Kwamalasamutoe need to be established.

Export quotas and FOB prices of Guyana must be reviewed in an effort to harmonize the wildlife export management program and discourage smuggling between the two countries. Zero-Quota or protected species of one country should not appear on the export quota list of the other.

Guyana

The Cooperative Republic of Guyana is the largest of the three Guianas in size and population. With a population approaching 740,000 inhabitants in an area of 216,000 km², it is, like Suriname, one of the least populated tropical countries in the world.

Guyana has been a very active exporter of wildlife for decades, particularly psittacines. Not surprising that there have been charges of over-exploitation and rampant smuggling from Venezuela. The CITES Secretariat has twice imposed a moratorium on the export of wildlife until adequate wildlife legislation was established to control the wildlife trade.

Now strong new legislation is in place. The Environmental Protection Act of 1996 and the Species Protection Regulations of September 1999 have completely changed the infrastructure of Wildlife Management and permitting in Guyana. However, the draft Wildlife Management and Conservation Regulations, which deal with broader wildlife management issues, are not yet in force and are currently undergoing consultation with the various stakeholders.

Guyana has been one of the major exporters of parrots in South America. The capture of parrots make up the majority of the income for trappers, middlemen and exporters. When the quota system was established in 1987, they were extremely high, roughly ten times higher than Suriname's export rate.

Guyana has also specialized in the non-CITES reptile trade: 21 species of CITES-listed reptiles and 38 non-CITES species of reptiles are listed on the quotas. In 1999, Guyana exported over 36,000 non-CITES reptiles, while Suriname exported 12,286 individuals of 22 species of non-CITES reptiles.

The number of fully licensed traders increased between 1993 and 2001 from 9 to 28 – as in Suriname (Table 7 which lists 36 traders, some not fully licensed). Now the EPA has also placed a "freeze" on the licensing of new traders. As in Suriname, Amerindian communities in the interior trap and harvest the wildlife and sell it to middlemen. It is a preferred seasonal source of cash revenue. We received many reports of smuggling from traders, middlemen and biologists both in Guyana and Suriname.

Recreational hunting is common along the coast, especially for ducks and sea birds. Unlike Suriname, hunters are not licensed and hunting is not regulated yet in Guyana. As in Suriname there are no hunting regulations, enforcement or bag limits in the interior.

Recommendations for Guyana

Export Quotas have been increased for 2001, including the lifting of Zero Quotas for certain CITES-listed parrots (Table 10). These should be reviewed. Export quotas and FOB prices set by Suriname and Guyana should be harmonized to discourage smuggling between both countries. Species, which are endemic and protected in one country and only have tiny populations in the other should not appear on the Quota list of the other country.

French Guiana

French Guiana is the smallest of the three Guianas but it also has the same rich biodiversity, the same remote and forested interior (Table 1). French Guiana, unlike Suriname and Guyana, is not an independent country but an overseas department of France – a piece of France located in South America. As such it does not have a separate legal framework but comes under French and European Union jurisdiction and law enforcement.

International commerce in endangered species is covered by the law of 1986 and the amended law of 1 March 1993 and applies only to French Guiana. This decree, for all intents and purposes, forbids the capture, killing, holding, export, transit, import, sale or resale of all wild vertebrate fauna and wild flora *occurring in French Guiana*, including their parts and derivatives.

There are no hunting licenses and there is no closed hunting season in French Guiana. Hunting bag limits were set in 1975 but include, for instance, 2 tapirs per hunter per outing, a species that may be then sold in licensed bushmeat restaurants. The ONC chief Wildlife Manager confided that the present wildlife management and open hunting season regulations, in particular, were not compatible with the long-term sustainable use of some species like the tapir and the howler monkey. He thinks that hunting regulations and bag limits should be updated and amended.

Both the ONC and Customs officials we interviewed reported several recent smuggling incidents by German tourists involving Dendrobatid frogs, rare reptiles and hummingbirds.

Recommendations for French Guiana
Update hunting regulations and bag limits. Review the status of certain species, which are subject to considerable hunting pressure.

2. DISCUSSIONS AND CONCLUSIONS

Quotas. When the wildlife export data of Suriname and Guyana are compared, differences are clear.

1. Suriname has much lower quotas and far lower realized export figures than Guyana (Tables 2, 6) but higher FOB prices.
2. Guyana and Suriname have zero quotas for different species (Table 10).
3. It might be wise to consider setting a harvest quotum for each harvest area as well so as to insure that the harvest areas, some which have been used for years, are

not being over harvested, particularly when local hunting for bushmeat is also putting pressure on the resource (Table 8).

4. Quotas for the capture of wildlife, and particularly parrots, should be established on the basis of the best information available and not be based on average exports over a given period.

Revenues. The wildlife trade is a lucrative business, but the revenue is not distributed equally. Communities must be involved in managing their wild populations including deciding the numbers of animals trapped and setting a fair market price for their wildlife.
Lack of revenue affects the other end of the spectrum too -- Guyana's Environmental Protection Agency keeps the permit fees and taxes imposed on wildlife trade revenues, the Suriname's Permit Office does not and now has severe budgetary constraints.

International cooperation: To date there has been little cooperation between Suriname and Guyana over wildlife trade issues. Smuggling does take place in both directions and these smuggling routes are well established and some of the offenders, well known. Clearly a monitoring program needs to be set up along the border between Suriname and Guyana. Cooperation between the traders' associations in both countries may help manage the resource more effectively and promote cooperation.

Monitoring: A closer monitoring of the wildlife trade, both legal and illegal, needs to be done in both Suriname and Guyana. This will require a network based on cooperation and trust at all levels and involve all the stakeholders from the "bottom up" as well a close working relationship with the governmental agencies and ministries involved.

ACKNOWLEDGEMENTS

The Consultant is grateful for all the help and assistance received from the Government agencies, wildlife exporters and trappers, non-governmental organizations and individuals who were consulted (please refer to Appendix I, page 75). We wish to thank all the people that we met and worked with for their patience in attending to our numerous questions and requests for additional documents. All gave freely of their time. Their insights and guidance were invaluable in the preparation of this report.

Nicole Duplaix, PhD
September, 2001

Preface 1

The following is the preliminary Consultant's report on the World Wildlife Fund consultancy to assess the impact of plant and wildlife trade on biodiversity in the Guianas (Guyana, Suriname, French Guiana).

The Terms of Reference provided to the Consultant for this consultancy are the following:

1. Conduct an assessment of the efficiency of the wildlife management systems and structures in place in the Guianas with a view to support the sound management of the biological diversity in the region.

2. Make a preliminary assessment of the relative importance of the legal and illegal international wildlife trade and its impact on the biodiversity in Suriname, Guyana and French Guiana.

3. Meet with the Government Agencies in each country, the animal exporters and relevant NGOs to collect information and assess the extent and major avenues of legal and illegal wildlife trade.

4. Discuss findings and recommendations with the key stakeholders before Report completion.

Methodology

The Consultant examined wildlife trade legislation and trade records in Suriname, Guyana and French Guiana. A special effort was made to meet and consult with the relevant government agencies, university researchers and major stakeholders to determine the level of trade, as well as trends and areas of concern requiring further study. Prior to her departure from Washington DC, the consultant also met or consulted with TRAFFIC personnel, the CITES Scientific Authority, Fish and Wildlife Law Enforcement, IUCN-Sustainable Use, and NGOs involved in international wildlife trade issues (see Appendix I, II).

Guiding Principles

In making our recommendations for the existing wildlife trade management framework in the Guianas, we followed these guiding principles:

- Each country and its governments are responsible for conserving their wild fauna and flora.

- Our stated objective is to conserve wild fauna and flora for ***sustainable*** long-term use including both consumptive use (harvesting for food and the export trade) and non-consumptive use (eco-tourism). Wildlife management agencies should be flexible so they can quickly address changes in species status and the effects of potentially detrimental trade.

- Management should be transparent and accountable to all stakeholders. Annual reports, findings and species updates should be available to all stakeholders involved.

- The animal trade stakeholders should work cooperatively to manage their resources and minimize mortality factors during transit.

- All stakeholders should fulfill their respective obligations under national species protection regulations, hunting regulations and international treaties.

Findings, Recommendations and Problem Areas

This report attempts to review and compare three countries with three very different approaches to wildlife use and conservation management. Complex issues and contradictions are involved in the wildlife and plant export trade, particularly when three countries are compared. While some of the recommendations apply to all three countries others are the direct reflection of problems within a given country or governmental entity. We tried to make our recommendations practical in nature and feasible even though some may take longer than others to implement.

The following are brief summaries of the inputs received from interviews and from the examination and comparison of the trade and permit data on a country-by-country basis. Much works remains to be done. It must be stressed that these findings are preliminary and may, with further research, prove to be incomplete and/or inaccurate. All comments and clarifications are welcome.

Nicole Duplaix, PhD
27 March 2001

Preface 2

We welcome WWF-Guianas Forests and Environmental Conservation Project assistance to improve our wildlife (i.e. wild fauna) export regulation system. This system, which is based on voluntary export quota, was developed in 1985 together with the other Suriname stakeholders of the international wildlife trade, namely the Nature Preservation Commission, the Service for Import, Export and Foreign Exchange Control (IUD), the Customs, the Veterinary Service and the contemporary wildlife exporters. Note that the voluntary export-quota system was adopted by CITES Secretariat and (later on) by the CITES Conference of Parties.

The long term objective of this export regulation – which is parallel to that of the Convention on Biological Diversity – is "to ensure that trade continues at sustainable levels, thus providing economic benefits to the country without jeopardizing the survival of any species". (See also Russell Mittermeir et al. 1990. Conservation Action Plan for Suriname.)

This document is a follow-up of the 1997 report by S. Nash (Evaluation of the Trade in Wild Animals and Plants. Consultant's Mission Report UNDP/PRIF-GEF Suriname Subcontract 5 sub B) and is part of a subcontract with WWF on base of the GEF Project "Conservation of Globally Significant Forest Ecosystems in Suriname's Guyana Shield Bio-region" (GEF Project Number: SUR/99/G31/A/1G/31).

The views expressed in this document are those of the author and do not necessarily reflect the views of the Nature Conservation Division of the Suriname Forest Service.

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Head of Nature Conservation Division
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Paramaribo, Suriname

Preface 3

We are pleased to be associated with WWF through the Guianas Forest and Environmental Conservation Project. The need for the study and documentation of Wildlife resources in the Guiana Shield eco-region and its uses in international trade has long been recognized.

This past year we have seen an increase in activities in Guyana including the implementation of the National Wildlife Surveys Project and the Guyana Marine Turtles Conservation Society Programme, both of which have made significant progress.

Dr. Duplaix has done a wonderful job in conducting this study, bringing together, for the first time, a comparative analysis of the wildlife trade in the Guianas. The analysis, conclusions, and recommendations are instructive in pointing the way forward for the sustainable utilization of our wildlife resources.

We look forward to continuing our work with these preliminary findings as outlined in the report and to work with Suriname and French Guiana in furthering this initiative.

With best wishes,

Bal Parsaud
Administrative Director
Environmental Protection Agency Guyana
Georgetown, Guyana

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EVALUATION OF THE ANIMAL AND PLANT TRADE IN THE GUIANA SHIELD

Introduction

The three Guianas (Suriname, Guyana and French Guiana) cover an area of more than 400,000 km² of still undisturbed rainforest together. The Guiana Shield Eco-Region, as it is known, includes the Guianas together with portions of Brazil and Venezuela. This area is unique due to the richness of its biodiversity and its high degree of endemism. However, the term "biodiversity" does not imply an *abundance* of individuals of each species – some species are reported but seldom seen such as the bush dog *Speothos venaticus*. This area is so vast and so remote that it remains largely unexplored in many places and its biological inventory has yet to been made. It is a region that is found nowhere else on earth and is therefore of high national and international importance.

All three governments are committed to sustainable economic development and the conservation and management of their wildlife resources. Each country has its own environmental legal framework and trade controls that govern the use and harvest of its biodiversity. Each country's has devised its own evaluation of "sustainable use" and set the level of its commercial export of plants and animals – from no commercial wildlife exports in French Guiana to government sanctioned and regulated wildlife trade in Guyana and Suriname with important economic benefits.

Guyana and Suriname remain the only two countries in South America still exporting significant quantities of wildlife. Suriname and Guyana derive a significant financial income in hard currency (US dollars) and jobs from the export of fauna and flora (Table 1). Meanwhile, French Guiana has well enforced regulations that prohibit the capture, sale or export of wildlife, and only 12 species are allowed to be used for commercial bush meat purposes (and sale in restaurants.) Trade is not the only impact on wildlife -- rural populations in the interior of all three countries depend largely on bush meat and fish for survival (Table 8). Hunting in the interior is unregulated year-around activity in all three countries. Land clearing for agriculture, logging and roads are increasing in the region and gold mining (and its polluting factors) is now found in even the most remote areas in all three countries.

For nearly three decades, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has been the largest and most effective international wildlife conservation agreement in the world. The 150 member countries that are parties to CITES recognize that uncontrolled trade and habitat loss are the main factors leading to the eventual loss of a wide range of species. However, to a large degree, the treaty's weaknesses lie in its implementation and enforcement mechanisms.

While each member country is responsible for the enforcement of CITES decisions, the ability and the commitment to enforce them varies widely from one country to the next. The same is true for the voluntary quotas that are set by each country to regulate the number of individuals of CITES and non-CITES species that may be exported each year. While quotas are supposed to be set according to scientific surveys which may or may not be modified on a yearly basis, some countries have not conducted surveys in decades and the quotas are set based on an average number of the exports made for a given

species or, more alarming, on the recommendations of the exporters themselves. We will discuss alternatives in our recommendations.

The Guiana Region is only that – a region and not a union. While small in size and in close parallel proximity the three countries are quite independent from one another and hitherto there has been little cooperation between them, at least as far the trade in wildlife is concerned.

Part 1. Suriname Situation Analysis

Overview

The Republic of Suriname is the second of the three Guianas in size and population, and with a human population approaching 431,000 inhabitants in an area of 166,000 square kilometres; it is one of the least populated tropical countries in the world. Most of these inhabitants are concentrated in the capital city, Paramaribo, and in the small towns of the coastal region. Only about five percent of the population lives in the interior, mostly in small, scattered villages along the country's seven major rivers and their creeks. Otherwise, the interior is uninhabited and covered with undisturbed Neotropical Amazonian forest (Mittermeier *et. al*., 1990).

Suriname's varied habitats are home to 668 species of birds, 184 species of mammals, 152 species of reptiles, 95 species of amphibians, more than 300 species of freshwater fishes, and at least 4,500 species of flowering plants. Endemism in Suriname is very low, as almost all of its natural diversity is shared with neighbouring Guyana, French Guiana, northern Brazil, and eastern Venezuela. But it is the low population pressure and undisturbed quality of a large part of its environment that makes the conservation of biodiversity in Suriname so important.

Historically Suriname has been regarded as a leader in conservation and forestry management in the region. A total of 11 Nature Reserves, one Nature Park and three multiple-use management area existed in May, 2001 and five others, proposed in 1980, may be ratified soon (Mittermeier *et. al*., 1990). However this environmental-friendly image was usurped by pressing economic concerns following the country's political and economic collapse from 1986 to 1992 when key personnel emigrated in droves. Regulations are still enforced by the Nature Conservation Division (NB) of the Suriname Forest Service (LBB) in spite of severe budget cuts, rampant inflation, lack of equipment, and lack of trained personnel. So far Suriname's Forest Service has not regained its former rank or rebuilt its infrastructure due to financial reasons. The commitment is still there but not the means to adequately monitor, enforce or control. Indeed one wonders how so few people have managed to do so much for so long with so little.

Legal Framework and Hunting Regulations

The Suriname Forest Service (LBB) under the Ministry of Natural Resources is responsible for the implementation of the laws governing the country's natural resources. It places a high priority on conservation and sustainable development. The Nature Conservation Division (NB) of the Suriname Forest Service enforces legislation such as the Game Law and CITES Convention, and issues export permits for CITES and non-CITES wildlife and CITES plants such as orchids. The Fisheries Division under the Ministry of Agriculture enforces the Fish Protection Act and the Sea Fisheries Act.

Protection of biodiversity, including wildlife trade, comes under the Nature Preservation Act (GB 1954, N0. 26), the Game Law (GB 1954, No. 25, with amendments in 1971, 1980, 1982, 1986, 1994) and the Game Resolution of 1970 (GB 1973 no. 104, with amendments in 1973 no. 173), the annual Ministerial Game Decrees, the Fish Protection

Act (GB 1961, N0. 44; amended in 1963), the Fish Protection Resolution (1961 no. 101) and the Sea Fisheries Act (1980 no. 144). Suriname is a Party to several conventions, e.g. CITES, Wetlands Convention, Convention on Biological Diversity and World Heritage Convention. The Law on Forest Management (SB 1992 no. 80) covers the export of timber and non-timber forest products, including orchids and medicinal plants. Only 28 species of orchids may be exported and require a CITES export permit issued by the Management Authority LBB/NB

The Game Act of 1954 distinguishes the following wildlife categories: game species, cage species, predominantly harmful species and protected species. Wildlife species (particularly reptiles, amphibians and invertebrates) that are mentioned under these categories are not protected.

Maximum penalties for violation of the Game Law and Game Resolution of 1970 are small (10.000 Surinamese guilders (Sf) or about US $ 4.50) but under the Law of Economic Offenses (SB 1986 No.2), which covers Game Law violations, fines may reach one million Sf or about $ 450 with up to 6 years imprisonment but we were unable to find a single prosecution at this level. Violators, usually hunters, see their booty confiscated and pay a small fine. In the case of wildlife, the animal is confiscated.

Suriname ratified CITES in 1981. However, CITES species may or may not be listed in one or more categories of the Game Law. Their export is in any case regulated by the CITES-listed species permitting procedures. Modifications to the Game Act were proposed in 1982 and ratified and new ones are currently being drafted. Until the Game Law is modified, some species listed in CITES Appendix II are therefore not protected in Suriname by the Game Law. However, all specimens of wild game and flora require a permit for export or import on base of the State Resolution Negative List (G.B. 1999 no.34, amended in 2000, G.B. 2000 no. 58) of the Import and Export Law. For game there is an open and closed hunting season and bag limits for the coastal area.

The export of wildlife is regulated since 1986 by a voluntary quota system for commercial exporters, residents and non-residents. Only the species on the quota lists may be exported up to their listed quota level (Tables 2, 4). The quotas for commercial exporters are divided between the 25 licensed exporters. The permit fees of 2% of the Freight-on-Board (FOB) values are levied on each shipment and paid into the Treasury. The cost of the permit and the security stamps are also not retained by NB/LBB and go to the Treasury. Other fees are paid to Customs and the Veterinary Inspectors.

The International Trade in wildlife is an important source of revenues, taxes and employment for Suriname. LBB/NB estimated that in the beginning of 1995 90 full-time, 140 part-time (mostly indigenous people of the interior) and 75 incidental workers were involved in the wildlife trade (Baal, F. & Hiwat, M.M., 1996).

Enforcement and record keeping

- The 12 LBB/NB wildlife enforcement officers in Paramaribo and two in Nickerie mainly enforce hunting and nature reserve regulations. A major obstacle to adequate law enforcement is the lack of transport and fuel. Three officers are issued with a motorbike but funds are rarely available to fuel the two trucks, boats, or outboards so their range is restricted to town (where most of the offenses do not occur) and

infrequent mobile control outside Paramaribo. Until June 2001 they received a more or less similar project support out of the WWF-Nature Conservation Division project. Further the salaries are now so small, due to inflation (US $75 per month!), that most officers have second and third jobs. Once properly salaried, trained and equipped they could become an efficient wildlife trade monitoring-unit, as they appear to be motivated and eager to watch out for wildlife trade violations and smuggling.

- The CITES Secretariat requires detailed annual reports of CITES species. The CITES Permit office recently started a computerized wildlife export tracking system. As each of the 25 exporters has their own quota of listed species, this requires careful tracking. Until then all export trade data were entered manually on lists for each species and each exporter! The Permit Office is now looking into a computerized security-CITES permitting system similar to those used in other countries.

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- No rare woods monitoring or plant identification is done by Customs. There are no Customs ID manuals to identify CITES species, the many look-alike non-CITES reptiles, small birds and 28 orchids on the quota list.

Export of CITES species and quotas

- Suriname has scrupulously implemented CITES regulations since it ratified the Convention in 1981. The Permit Office of the Nature Conservation Division goes by the book. However permits are hand typed which may lead to subsequent falsification of documents in transit or reefer rotisnar

2. Such detailed information is lacking in both Suriname and Guyana. Also, Japan, once a large importer of laboratory primates, now has long quarantines and restrictive national regulations as well.
3. CITES regulations, in force since 1975, are well implemented by both exporting and importing signatory countries.
4. Many commercial passenger and cargo airlines ban the transport of wildlife, which force exporters to ship wildlife on special chartered flights.
5. There is a dwindling consumer interest in keeping wild pets and most zoos have captive breeding programs, making imports from the wild unnecessary. Trade in the rarer species is destined for specialized collectors.

- Wildlife exports, especially birds, are shipped mainly to the Netherlands, where they may be immediately re-exported, and, more recently, to Belgium. This is due to the long-standing commercial ties between Suriname and the Netherlands. Belgium became a principal destination when traders used City Bird airlines which allowed wildlife cargo flights and landed in Brussels. Shipments of *Saimiri sciureus* are shipped directly to Japan for the laboratory primate trade. Large shipments of reptiles go to the Unites States. Another 13 countries are listed as destinations in 2000 (Table 3c).

Export of Non-CITES species and quotas

- Suriname has set voluntary quotas for CITES and non-CITES species and minimal FOB prices since 1986. Today 85 birds, 9 mammals, 6 amphibians, 5 turtles, 7 lizards, and 4 reptile species are listed – a small portion of the country's rich biodiversity. The total quota for birds is for 25,232 specimens but in 2000, for instance, only 7,316 were actually exported (Table 2d). The reason for this is that the list covers species of small birds that are the most likely to be caught by mist netting. Rarer species are excluded from the list even though they may also be caught in the mist net. However, we were told by an animal exporter that when a protected species is mist netted by mistake, it is killed by the trapper and fed to the reptiles in his holding area!

- Of the 85 bird species on the quota list, specimens of only 63 species were actually exported in 2000 whereas specimens of all the reptile and amphibian species listed were exported with only two exceptions (Table 2d). We recommend that the number of species be reduced. Many of these small bird species are specialist feeders, some only insect eaters that are difficult to transport without high mortality and many are high forest or even canopy species that are prone to stress and unsuitable for the wildlife trade. We were told that a "specialist" in such birds exports the more "difficult" birds and that the mortality is at an acceptable level. During a previous evaluation of the wildlife trade in Suriname, the author reported " that approximately 30% of the songbirds [in the holding areas] appeared to be in poor condition" (Nash, S. V., 1997).

Stakeholders: Wildlife harvesters and exporters

- The Minister of Trade issued Animal Exporter Licenses on demand until recently. No proof of knowledge or training was necessary. However, now all exporters must meet a number of requirements regarding holding facilities, hygiene and administration

record-keeping before they are qualified to apply for CITES or LBB non-CITES export permits.

- The number of licensed traders has gone from 7 to 25 in 8 years – a fact which is deeply resented by the established wildlife traders who view this as unwelcome competition. (However, it must be noted that our first-hand observations of wildlife smuggling involved members of the two associations and not the "newcomers.") There are two wildlife exporter associations with 16 members, while another 9 exporters operate independently. (Table 5). LBB/NB has placed an additional 7 new exporters on a "waiting list" as it too feels there are now too many exporters.

- Licensed trappers (endorsed by their exporters) catch wildlife using mist nets at ground level and in the tree canopy. Larger macaws are snared from a concealed perch in a tree using a tethered tame macaw to attract others. Reptiles are gathered by hand one by one. .The open season for trapping parrots is from July 1 to December 31

- There are few middlemen in Suriname; this minimizes delay in getting animals from catching areas to holding areas in town. Exporters license their own team of trappers in the interior and pick up the shipments by plane or truck once or twice a week. Mortality is reported as being 10-30% during the first six weeks after capture (Schouten, K., 1995).

- In Apura I met with a wildlife catcher who took orders from traders in Paramaribo. He had a small holding facility with a few cages containing parrots, tortoises and agoutis. He told me there were many professional catchers in the Apura area and nearby Washabo who find other kinds of work during the closed season from January to July 1.

Hunting Pressure

Game species may be hunted during the open hunting season, as set by the Game Resolution of 1970 and the Ministerial Decree of 2001 on the basis of the Game Law of 1954. However the Game Law still only applies to the northern third of the country, leaving the vast interior unregulated with no closed season or controls. However if wildlife or bushmeat is transported from the unregulated interior into the area where the Game Law applies during the closed hunting or trapping season it will be confiscated if found.

- Suriname has a vast and remote interior where the Game Law regulations do not apply. The indigenous people rely on bush meat for food and on the trapping of wild species for cash. Some species are both hunted for food and trapped for export (Table 8). Formerly hunting pressure was sustainable due to the small size of the villages in the interior but today many of the larger villages are overcrowded. Further, hunting for food, ever-larger kitchen gardens, the commercial bush meat trade and the wildlife trade result in the overexploitation of the resource and habitat destruction in a radius of 25-50 km. In the Apura-Washabo region, hunters report having to walk at least 3 days in the forest to find larger species like peccaries or deer.

- There are also year-round commercial bush meat hunters in the interior who export bush meat and smoked fish by boat or small plane to town. There are many reports of the unregulated transport of bush meat and smoked fish to markets in Paramaribo, Nickerie and Albina – a growth industry.

- NB wildlife enforcement officers report that waterfowl, ibis, wood storks are in sharp decline due to hunting pressure in the coastal region. The Indians in Washabo report that hunters from Nickerie have reduced the number of once abundant wild Muscovy ducks, a CITES species, to only a few individuals. However, the wildlife trade rarely exports the Muscovy duck.

Reported Smuggling

- The Surinamese favor two species of song birds as pets *Oryzoborus crassirostris* (Large-billed finch or twatwa) and *Oryzoborus angolensis* (Lesser seed finch or Picolet). These birds are entered in singing competitions with cash prizes and top birds are valued at up to US $ 40,000 each! No export permits are given but birds are smuggled out of the country in personal baggage to the Netherlands. If caught at the airport, the birds are released immediately by the Military Police. Smuggling of these birds from Guyana, Brazil and French Guiana into Suriname has also been reported by the authorities. Ornithologists report that these two species are now practically absent from the coastal and rare in the Sipaliwini savannah regions and elsewhere.

- Maroon catchers smuggle parrots and small songbirds from Suriname to French Guiana, across the Marowijne River, and sell the birds along the road from Saint-Laurent to Kourou (as reported by the French Customs chief inspector). The birds are confiscated, treated at a rehabilitation center and/or released.

- We observed and photographed, in September 2000, Guyanese trappers catch scarlet macaws and blue and green macaws in the Apura region, in a creek along Suriname's Corantyne River. The birds are then smuggled into Guyana, usually by way of Nickerie. Since all parrots are listed on CITES Appendix II, this is a serious violation.

- We also personally observed and photographed 14 scarlet macaws in two small handmade wire mesh cages with no food or water (photograph 1) at the commercial boat landing near Nickerie at the mouth of the Corantyne River. There appeared to be no police or customs control at this boat landing. When we asked where they were going we were told they would be picked up by a trader and taken to Guyana – where there is a zero export quota for Scarlet macaws. We were later told by animal dealers that these illegally imported Scarlet macaws might then be exported from Guyana as Blue and Green macaws, a permitted species which they closely ressemble but we have no confirmation of this information. In Suriname the voluntary quota limits the export of Scarlet macaws to 100 per year. In any case, this another clear violation of CITES regulations and the Suriname Game Law as well as Guyana's animal import regulations.

- We personally observed on March 6 in the coastal town of Burnside, Coronie District, 8 Brown-throated parakeets (*Aratinga pertinax*) and 3 Green-rumped parakeets (*Forpus passerinus*) being held in small handmade mesh cages. However,

these species are considered "cage species", for which there are minimal requirements. The trapper that we interviewed said that some of these were being used as "callers" to trap other birds but that he had a "big" shipment awaiting pick-up by one of Suriname's main dealers. The legal trapping season for all parrots is from July 1 to December 31.

- Psittacines were also being trapped out of season in the Apura area in January 2000. Two dealers and one middleman from Paramaribo were seen requesting birds from the Amerindians for pick up in Washabo.

- Both LBB/NB wildlife enforcement officers and wildlife exporters acknowledge that non-CITES species shipments are not closely inspected, providing room for error and fraud.

- Animal exporters in Suriname and Guyana told us the "smaller traders" smuggle birds and reptiles routinely from Guyana to Suriname and vice versa to meet their export quotas.

- There are reports of sea turtles eggs, a species with a closed hunting season year-round, but an open egg collecting season in April in a limited area of the country, being smuggled from Suriname to French Guiana. However since sea turtle eggs are also poached (and protected) in Guyana and French Guiana it is hard to determine the country of origin. Sea turtle eggs that are confiscated from poachers or collected from doomed nests in Suriname and then sold legally by NB/LBB personnel to local markets should be dyed or marked to discourage the "look-alike" sale of illegally harvested eggs.

Photograph 1:

Findings and other considerations

- The national legislation dealing with the environment in Suriname can be found in several separate Acts, State Resolutions and Ministerial Decrees. The responsibility for the environment and species protection is given, due to this legislation, to several ministries. This results in overlap of jurisdiction and authority with the result that most acts, compounded by the financial constraints of low budgets and inflation, are not being properly enforced. Some of these laws are antiquated like the Game Act of 1954 that was written long before CITES existed. Amendments to the Game Act were proposed in 1982 but were not ratified. We were told that new ones were being drafted. Suriname needs an effective legal framework if it is to control its wildlife trade effectively. This will require a complete review and streamlining of its existing regulations as well as the administrative policies involved.

- Realistic voluntary quota levels have been set by Suriname for both CITES and non-CITES species. Even the wildlife exporters rarely fill the quotas set for most species (Tables, 2, 3, 9, 10). Quota levels are reviewed at regular intervals by the Permit Office and reset if necessary. The Service on Import-, Export- and Foreign Exchange Control (Ministry of Commerce and Industry) also checks the FOB prices with advice from the Permit Office.

- No recent scientific surveys in the wild of key export trade species such as parrots and reptiles have been made. LBB/NB has set this as a top priority in the future and requires assistance to implement this. The most recent bird survey, conducted in 1994, was funded by the Animal Exporters' Association (Schouten, K., 1995). The author is now a wildlife importer in the Netherlands. After this survey was completed some quotas were raised and some species were added to the quota list.

- There is fragmented government agency oversight. Different ministries are involved in wildlife management and wildlife export from the issuing of commercial licenses to traders, licensing of traders to apply for export permits, to paying fees and taxes, to Customs controls, and finally to veterinary inspection. For instance, the export of aquarium fish is regulated by the Fisheries Department under the Ministry of Agriculture not the Permit Authority. As a result there are only cursory inspections of aquarium fish shipments. Fortunately, the aquarium trade in Suriname is minimal with only a few shipments per year.

- The medicinal plant trade appears to be completely undocumented and uncontrolled – we received conflicting reports that "large amounts of medicinal plants were being smuggled out of Suriname on a weekly basis" while the authorities told us that "medicinal or traditional plants" were not exported "in significant quantities". We were unable to verify any of this. Marga Werkhoven of the National Herbarium reported that over 770 species of plants were being used in the medicinal plant trade. Further, she told us that large shipments of plants from the wild, used as raw materials in the making of essences and lotions, were being shipped to Holland and received only cursory inspection prior to export. In addition, there appears to be no commercial propagation of medicinal plants at this time.

Recommendations for Suriname

The export trade and permit-tracking of CITES-listed species appears to be well controlled in Suriname. The main problem with the wildlife trade in Suriname is lack of funds for enforcement -- which is minimal outside of Paramaribo. Funds are also urgently required to equip and pay enforcement personnel competitive salaries. Other problems include: updating legislation, appointing new members to re-activate the Nature Conservation Commission, and establishing communication lines with the Environmental Protection Agency and its Permit Office in Guyana.

Other recommendations include:

- Revamp hunting regulations under the Game Law of 1954 as soon as possible to cover the whole of Suriname, including the territorial sea and economical zone and to protect CITES-listed species in Suriname. Set control systems, realistic bag limits, possession limits and large penalties. As part of this effort, monitor the Paramaribo and Nickerie markets for illegal bushmeat and fish and the Zorg en Hoop airport in Paramaribo.

- Provide better-equipped and trained enforcement personnel. Motivated enforcement personnel should follow the Wildlife Trade Enforcement training course run by the Fish & Wildlife Service in the USA for overseas personnel.

- Establish cooperative, revenue-based, community wildlife programs via consultations with stakeholders in key trapping areas such as Apura, Tepu and Kwamalasamoetoe. Already there have been good results from consultations with the Galibi communities with regard to the management of Galibi Nature Reserve. As part of this effort, fees given to trappers have been reviewed, as compared to the fees paid to middlemen, and FOB prices for desirable species.

- Review long-term economic benefits that might be realized through better management techniques (including better animal husbandry) at the trapper level.

- Enforcement personnel should be assigned to train local, wildlife volunteers in the trapping areas to act as contact persons and report to them detrimental activities, smuggling or trapping out of season. These volunteers may be trained further to become volunteer enforcement officers. The desired benefit is to provide communities with a greater sense of control over their wildlife and a better understanding of the harmful effects of illegal access to their resources by others. This is particularly important in an area such as Apura where illegal trappers from Guyana catch and then smuggle out wildlife, often in large quantities. The Zorg en Hoop airport in Paramaribo that services the airstrips of the interior, should be monitored by enforcement personnel for illegal wildlife shipments (captured out of season or protected species) and for commercial bushmeat shipments.

- Export quotas and FOB prices set by Suriname and Guyana should be harmonized to discourage smuggling between both countries. Zero-quota or protected species of one country should not appear on the export quota list of the other. A zero-quota species is easily smuggled into the neighboring country, often just across the river, where it can be exported legally under its quota system (Tables 9, 10).

- Species, which are accidental or marginal in distribution in one country, should not appear on the quota list of the other country: e.g., Blue-fronted Amazon in Guyana (an IUCN Red Data Book species). *Dendrobates azureus*, a protected frog in Suriname, has an export quota of 500 per year in Guyana where it occurs only in very small numbers. A species similar in appearance as *D. azureus*, the blue specimen of *Dendrobates tinctorius*, occurs in both countries. In Suriname the blue *D. tinctorius* is treated in the same way as *D. azureus* and cannot be exported for commercial purposes.

- Provide annual or bi-annual audiovisual TRAFFIC presentations to update Customs and Wildlife Enforcement personnel about the international legal and illegal wildlife trade internationally. This could be done on a regional level.

- Supply Customs and enforcement personnel with species ID manual illustrated with the species targeted by the wildlife and plant trade in the Guianan region.

- Monitor species data and volume of the ornamental fish trade, rare woods, orchids, medicinal plants, and shark fins.

- Develop or strengthen wildlife or species conservation, education and public awareness efforts.

- Encourage and promote research on species that are being heavily exploited or under threat due to habitat degradation or change.

- Promote the formation of collaborative arrangements between research institutions such as local and foreign universities, regional conservation programmes such as WIDECAST, non-governmental organizations such as TRAFFIC, and Government agencies responsible for wildlife trade and natural resource management.

- Promote the establishment of eco-tourism programmes that focus on the non-extractive use of wildlife.
- Identify alternative economic uses for wildlife that do not threaten species survival but rather enhance conservation efforts.

Table 1. Geographic and Economic Profile of the Three Guianas

	Suriname	**Guyana**	**French Guiana**
Area (km2)	163,270	216,000	91,000
Population	431,303	740,000	172,605
Pop. Growth Rate p/a	0.65%	-0.10%	2.90%
GDP/per capita p/a	$3,400	$2,500	$6,000
Inflation Rate p/a	170%	5.50%	2.50%
Unemployment Rate p/a	20%	12%	21.40%
Budget (revenues) p/a	$393M	$220M	$225M
Exports p/a	$406.1M	$574M	$155M
Wildlife Trade Exports (1999 revenues)	$942,302.00	$1,210,610	N/A
Imports p/a	$461.4M	$620M	$625
Roads (km paved/unpaved)	1,178 / 3,352	590/7,380	727/1090
Airports (paved/unpaved)	5/41	5/46	4/17

Source: The World Factbook 2000, U.S. Government Publication

Table 2a(I). Suriname CITES Export Data -- 1997

	FOB (US$)	Quota	Exports	% Realized	Value (US$)
BIRDS					
Ara ararauna	300.00	738	723	97.97	216,900.00
Ara chloropterus	342.00	295	284	96.27	97,128.00
Ara macao	873.00	135	27	20.00	23,571.00
Ara severa	139.00	309	239	77.35	33,221.00
Ara nobilis	46.00	170	148	87.06	6,808.00
Ara manilata	56.00	539	197	36.55	11,032.00
Amazona amazonica	33.00	5,406	4,153	76.82	137,049.00
Amazona ochrocephala	86.00	678	604	89.09	51,944.00
Amazona dufresniana	306.00	85	88	103.53	26,928.00
Amazona farinosa	79.00	517	465	89.94	36,735.00
Deroptyrus acciputrinus	251.00	355	349	98.31	87,599.00
Aratinga aurea	17.00	115	30	26.09	510.00
Aratinga leucophthalmus	11.00	970	186	19.18	2,046.00
Aratinga pertinax	7.00	2,925	888	30.36	6,216.00
Pyrrhura picta	39.00	941	286	30.39	11,154.00
Forpus passerinus	4.00	4,707	504	10.71	2,016.00
Brotogeris chrysopterus	12.00	1,249	246	19.70	2,952.00
Pionites melanocephala	45.00	1,605	1,083	67.48	48,735.00
Pionus fuscus	45.00	821	233	28.38	10,485.00
Pionus menstruus	28.00	1,578	526	33.33	14,728.00
Ramphastos vitellinus	111.00	378	261	69.05	28,971.00
Ramphastos tucanus	135.00	258	124	48.06	16,740.00
Ptereglossus viridus	46.00	309	80	25.89	3,680.00
Ptereglossus aracari	39.00	328	179	54.57	6,981.00
	Total	**25,411**	**11,903**	**46.84**	**884,129.00**
MAMMALS					
Agouti paca	42.00	200	9	4.50	378.00
Cebus apella apella	325.00	151	24	15.89	7,800.00
Saguines midas midas	350.00	462	198	42.86	69,300.00
Saimiri sciureus sciureus	300.00	1,388	711	51.22	213,300.00
	Total	**2,201**	**942**	**42.80**	**290,778.00**
REPTILES /AMPHIBIANS					
Boa constrictor	50.00	1,120	355	31.70	17,750.00
Corallus enydris	10.00	2,061	492	23.87	4,920.00
Corallus caninus	85.00	970	380	39.18	32,300.00
Epicrates cenchris	90.00	175	127	72.57	11,430.00
Eunectes murinus	24.00	345	59	17.10	1,416.00
Phobobatus trivittatus	11.50	1,452	173	11.91	1,989.50
Dendrobates tinctorius	9.00	1,886	845	44.80	7,605.00
Geochelone carbonaria	17.00	702	1,031	146.87	17,527.00
Geochelone denticulata	17.00	760	494	65.00	8,398.00
Podocnemis unifilis	8.50	639	6	0.94	51.00
Caiman crocodilus	14.50	980	277	28.27	4,016.50
Tupinambis nigropunctatus	5.00	2,469	189	7.65	945.00
Iguana iguana	1.50	46,035	17,394	37.78	26,091.00
	Total	**59,594**	**21,822**	**36.62**	**134,439.00**

Table 2a(II). Suriname non-CITES Export Data for 1997

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Selenidera culik	84.00	83	21	25.30	1,764.00
Capito niger	20.00	181	67	37.02	1,340.00
Ramphocelus carbo	4.50	788	194	24.62	873.00
Tachophonus rufus	4.50	336	32	9.52	144.00
Tachophonus cristatus	9.00	54	24	44.44	216.00
Tachophonus surinamus	14.00	54	46	85.19	644.00
Tachophonus phoenicius	8.50	54	27	50.00	229.50
Hemithraupis guira	8.50	54	6	11.11	51.00
Hemithraupis flavicollis	9.50	54	5	9.26	47.50
Cyanocompsa cyanoides	17.00	272	38	13.97	646.00
Sporophila americana	3.50	676	75	11.09	262.50
Sporophila minuta	10.50	1,020	82	8.04	861.00
Sporophila schistacea	17.00	772	44	5.70	748.00
Sporophila lineola	5.00	748	112	14.97	560.00
Sporophila bouvronides	6.00	896	8	0.89	48.00
Sporophila plumbea	24.00	54	2	3.70	48.00
Sporophila castaneiventris	15.00	170		0.00	0.00
Cyanerpes caeruleus	8.50	820	410	50.00	3,485.00
Cyanerpes cyaneus	8.50	820	322	39.27	2,737.00
Dacnis lineata	8.50	980	601	61.33	5,108.50
Dacnis cayana	8.50	560	295	52.68	2,507.50
Chlorophanes spiza	8.50	198	114	57.58	969.00
Icterus chrysocephales	13.00	198	68	34.34	884.00
Euphonia minuta	8.50	320	19	5.94	161.50
Euphonia finshi	8.50	852	40	4.69	340.00
Euphonia violacea	8.50	1,112	397	35.70	3,374.50
Euphonia cayennesis	8.50	84	51	60.71	433.50
Tangara plumbea	8.50	84	13	15.48	110.50
Tangara mexicana	8.00	1,088	263	24.17	2,104.00
Tangara gyrola	10.00	54	28	51.85	280.00
Tangara cayana	8.50	122	92	75.41	782.00
Tangara velia	13.00	54	43	79.63	559.00
Tangara chilensis	24.00	108	93	86.11	2,232.00
Tangara punctata	9.00	156	90	57.69	810.00
Traupis palmarum	4.50	430	87	20.23	391.50
Traupis episcopis	4.50	1,120	192	17.14	864.00
Schistochlamys melanopis	6.50	108	48	44.44	312.00
Caryothaustus canadensis	14.00	80	37	46.25	518.00
Pitylus grossus	17.00	80	30	37.50	510.00
Volatinia jacarina	2.50	309	41	13.27	102.50
Cacinus haemoorhous	10.00	188	91	48.40	910.00
Cacinus cela	10.00	188	146	77.66	1,460.00
Psarocolius viridius	25.00	68	26	38.24	650.00
Molothrus bonariensis	2.50	1,152	26	2.26	65.00
Agelaius icterice phata	5.50	984	5	0.51	27.50
Psarocolius decumanus	13.00	236	91	38.56	1,183.00
Psohia crepitans	175.00	42	20	47.62	3,500.00
Crax alector	250.00	27	14	51.85	3,500.00
Tinamus major	11.00	146	1	0.68	11.00

Table 2a(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Penelope marail	79.00	122	2	1.64	158.00
Ortalis motmot	26.00	142	4	2.82	104.00
Jacana jacana	7.00	188	64	34.04	448.00
Porphyrula martinica	10.00	188		0.00	0.00
Pitangus sulphatua	4.50	188	12	6.38	54.00
Tyrannus melancholicus	4.50	324	9	2.78	40.50
Mimus gilvus	2.50	188	23	12.23	57.50
Columbina passerina	2.50	544	58	10.66	145.00
Columbina talpacoti	2.50	544		0.00	0.00
Columbina minota	2.50	544	88	16.18	220.00
Turdus leucomelas	2.50	324	67	20.68	167.50
Columba cayennensis	16.00	120	10	8.33	160.00
Colinus cristatus	15.00	94		0.00	0.00
Odontophorus gujanensis	13.00	94	4	4.26	52.00
Crypturellus variegatus	43.50	66		0.00	0.00
Crypturellus souii	21.50	66		0.00	0.00
Crypturellus cinerus	21.50	66		0.00	0.00
Anhinga anhinga	21.50	164		0.00	0.00
Phalacrocorax olivaceus	21.50	66		0.00	0.00
Dendrocygna autumnalis	17.00	212		0.00	0.00
Cairina moschata	17.00	120		0.00	0.00
Anas bahamensis	17.00	200		0.00	0.00
Scaphidura oryzivora	2.50	120	8	6.67	20.00
Galinago galinago	4.50	120		0.00	0.00
Trogon viridis	125.00	40	7	17.50	875.00
Trogon melanarus	125.00	20	6	30.00	750.00
Trogon violaceus	125.00	40	3	7.50	375.00
Phoenicircus carnifex	125.00	20	3	15.00	375.00
Cotinga cayana	125.00	100	19	19.00	2,375.00

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Table 2a(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
REPTILES/AMPHIBIANS					
Bufo spp	3.50	11,000	550	5.00	1,925.00
Ceratophtys spp	4.00	5,360	885	16.51	3,540.00
Pipa pipa	3.00	7,000	148	2.11	444.00
Hyla spp	1.00	6,030	2,640	43.78	2,640.00
Phrynophyas spp	1.00	3,006	209	6.95	209.00
Phyllomedusa spp	3.00	5,160	2,312	44.81	6,936.00
	Total	**37,556**	**6,744**	**17.96**	**15,694.00**
Kinosternon scorpioides	3.00	697	80	11.48	240.00
Phrynops giba	10.00	673	56	8.32	560.00
Phrynops nasuta	10.00	682	46	6.74	460.00
Platemys platycephala	6.00	725	257	35.45	1,542.00
Rhinaclemmys punctularia	3.00	838	236	28.16	708.00
	Total	**3,615**	**675**	**18.67**	**3,510.00**
Ameiva ameiva	1.00	1,787	706	39.51	706.00
Anolis punctatus	1.00	1,720	1	0.06	1.00
Polychrus marmurata	3.00	1,735	12	0.69	36.00
Chemidorhorus lemmiscatus	2.00	2,593	1,302	50.21	2,604.00
Plica plica	1.00	1,741	157	9.02	157.00
Uranoscodon supercilliosa	3.00	1,560	350	22.44	1,050.00
Uranoscodon azureum	12.00	740	4	0.54	48.00
	Total	**11,876**	**2,532**	**21.32**	**4,602.00**
Bothrops bilineatus	40.00	75		0	0.00
Colubridae spp	5.50	2,100	24	1.14	132.00
Botrops atrox	23.00	85	1	1.18	23.00
Lachesis muta	116.00	75	1	1.33	116.00
	Total	**2,335**	**26**	**1.11**	**271.00**

Table 2b(I). Suriname CITES Export Data -- 1998

	FOB (US$)	Quota	Exports	% Realized	Value (US$)
BIRDS					
Ara ararauna	300.00	650	537	82.62	161,100.00
Ara chloropterus	342.00	250	232	92.80	79,344.00
Ara macao	873.00	100		0.00	0.00
Ara severa	139.00	250	121	48.40	16,819.00
Ara nobilis	46.00	150	67	44.67	3,082.00
Ara manilata	56.00	470	102	21.70	5,712.00
Amazona amazonica	33.00	4,800	4,840	100.83	159,720.00
Amazona ochrocephala	86.00	580	455	78.45	39,130.00
Amazona dufresniana	306.00	70	66	94.29	20,196.00
Amazona farinosa	79.00	450	384	85.33	30,336.00
Deroptyrus acciputrinus	251.00	300	158	52.67	39,658.00
Aratinga aurea	17.00	100	32	32.00	544.00
Aratinga leucophthalmus	11.00	792	105	13.26	1,155.00
Aratinga pertinax	7.00	2,710	556	20.52	3,892.00
Pyrrhura picta	39.00	854	119	13.93	4,641.00
Forpus passerinus	4.00	4,632	380	8.20	1,520.00
Brotogeris chrysopterus	12.00	1,194	163	13.65	1,956.00
Pionites melanocephala	45.00	1,378	1,014	73.58	45,630.00
Pionus fuscus	45.00	800	629	78.63	28,305.00
Pionus menstruus	28.00	1,500	923	61.53	25,844.00
Ramphastos vitellinus	111.00	350	220	62.86	24,420.00
Ramphastos tucanus	135.00	250	187	74.80	25,245.00
Ptereglossus viridus	46.00	300	95	31.67	4,370.00
Ptereglossus aracari	39.00	300	122	40.67	4,758.00
	Total	**23,230**	**11,507**	**49.54**	**727,377.00**
MAMMALS					
Agouti paca	42.00	200	11	5.50	462.00
Cebus apella apella	325.00	114	29	25.44	9,425.00
Saguines midas midas	350.00	320	70	21.88	24,500.00
Saimiri sciureus sciureus	300.00	1,000	390	39.00	117,000.00
	Total	**1,634**	**500**	**30.60**	**151,387.00**
REPTILES /AMPHIBIANS					
Boa constrictor	50.00	1,010	466	46.14	23,300.00
Corallus enydris	10.00	1,900	464	24.42	4,640.00
Corallus caninus	85.00	900	428	47.56	36,380.00
Epicrates cenchris	90.00	160	116	72.50	10,440.00
Eunectes murinus	24.00	330	91	27.58	2,184.00
Phobobatus trivittatus	11.50	1,452	323	22.25	3,714.50
Dendrobates tinctorius	9.00	1,886	1,059	56.15	9,531.00
Geochelone carbonaria	17.00	630	656	104.13	11,152.00
Geochelone denticulata	17.00	692	491	70.95	8,347.00
Podocnemis unifilis	8.50	630	8	1.27	68.00
Caiman crocodilus	14.50	925	374	40.43	5,423.00
Tupinambis nigropunctatus	5.00	2,400	462	19.25	2,310.00
Iguana iguana	0.50	42,800	9,109	21.28	4,554.50
	Total	**55,715**	**14,047**	**25.21**	**122,044.00**

Table 2b(II). Suriname non-CITES Export Data for 1998

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Selenidera culik	84.00	80	28	35.00	2,352.00
Capito niger	20.00	178	56	31.46	1,120.00
Ramphocelus carbo	4.50	788	158	20.05	711.00
Tachophonus rufus	4.50	336	16	4.76	72.00
Tachophonus cristatus	9.00	54	6	11.11	54.00
Tachophonus surinamus	14.00	54	6	11.11	84.00
Tachophonus phoenicius	8.50	54	6	11.11	51.00
Hemithraupis guira	8.50	54	2	3.70	17.00
Hemithraupis flavicollis	9.50	54	2	3.70	19.00
Cyanocompsa cyanoides	17.00	272	11	4.04	187.00
Sporophila americana	3.50	676		0.00	0.00
Sporophila minuta	10.50	1,020		0.00	0.00
Sporophila schistacea	17.00	772		0.00	0.00
Sporophila lineola	5.00	748	47	6.28	235.00
Sporophila bouvronides	6.00	896		0.00	0.00
Sporophila plumbea	24.00	54		0.00	0.00
Sporophila castaneiventris	15.00	170		0.00	0.00
Cyanerpes caeruleus	8.50	820	286	34.88	2,431.00
Cyanerpes cyaneus	8.50	820	383	46.71	3,255.50
Dacnis lineata	8.50	980	87	8.88	739.50
Dacnis cayana	8.50	560	102	18.21	867.00
Chlorophanes spiza	8.50	198	22	11.11	187.00
Icterus chrysocephales	13.00	198	27	13.64	351.00
Euphonia minuta	8.50	320	11	3.44	93.50
Euphonia finshi	8.50	852	36	4.23	306.00
Euphonia violacea	8.50	1,112	330	29.68	2,805.00
Euphonia cayennesis	8.50	84	18	21.43	153.00
Tangara plumbea	8.50	84		0.00	0.00
Tangara mexicana	8.00	1,088	173	15.90	1,384.00
Tangara gyrola	10.00	54		0.00	0.00
Tangara cayana	8.50	122	32	26.23	272.00
Tangara velia	13.00	54	46	85.19	598.00
Tangara chilensis	24.00	108	41	37.96	984.00
Tangara punctata	9.00	156	22	14.10	198.00
Traupis palmarum	4.50	430	80	18.60	360.00
Traupis episcopis	4.50	1,120	196	17.50	882.00
Schistochlamys melanopis	6.50	108	14	12.96	91.00
Caryothaustus canadensis	14.00	80	8	10.00	112.00
Pitylus grossus	17.00	80	6	7.50	102.00
Volatinia jacarina	2.50	309		0.00	0.00
Cacinus haemoorhous	10.00	188	10	5.32	100.00
Cacinus cela	10.00	188	18	9.57	180.00
Psarocolius viridius	25.00	68	5	7.35	125.00
Molothrus bonariensis	2.50	1,152	20	1.74	50.00
Agelaius icterice phata	5.50	984		0.00	0.00
Psarocolius decumanus	13.00	236	17	7.20	221.00
Psohia crepitans	175.00	42	21	50.00	3,675.00
Crax alector	250.00	27		0.00	0.00
Tinamus major	11.00	146		0.00	0.00
Penelope marail	79.00	122		0.00	0.00
Ortalis motmot	26.00	142		0.00	0.00
Jacana jacana	7.00	188	10	5.32	70.00
Porphyrula martinica	10.00	188		0.00	0.00
Pitangus sulphatua	4.50	188	7	3.72	31.50
Tyrannus melancholicus	4.50	324	18	5.56	81.00
Mimus gilvus	2.50	188		0.00	0.00
Columbina passerina	2.50	544	11	2.02	27.50
Columbina talpacoti	2.50	544	44	8.09	110.00
Columbina minota	2.50	544	44	8.09	110.00

Table 2b(II) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Turdus leucomelas	2.50	324	25	7.72	62.50
Columba cayennensis	16.00	120	6	5.00	96.00
Colinus cristatus	15.00	94		0.00	0.00
Odontophorus gujanensis	13.00	94		0.00	0.00
Crypturellus variegatus	43.50	66		0.00	0.00
Crypturellus souii	21.50	66		0.00	0.00
Crypturellus cinerus	21.50	66		0.00	0.00
Anhinga anhinga	21.50	164		0.00	0.00
Phalacrocorax olivaceus	21.50	66		0.00	0.00
Dendrocygna autumnalis	17.00	212		0.00	0.00
Cairina moschata	17.00	120		0.00	0.00
Anas bahamensis	17.00	200		0.00	0.00
Scaphidura oryzivora	2.50	120	6	5.00	15.00
Galinago galinago	4.50	120		0.00	0.00
Trogon viridis	125.00	40	5	12.50	625.00
Trogon melanarus	125.00	20	4	20.00	500.00
Trogon violaceus	125.00	40	7	17.50	875.00
Phoenicircus carnifex	125.00	20	1	5.00	125.00
Cotinga cayana	125.00	100	35	35.00	4,375.00
Cotinga cotinga	125.00	20	4	20.00	500.00
Xipholena punicea	125.00	100	24	24.00	3,000.00
Lipaugus vociferans	50.00	50	5	10.00	250.00
Gymnoderus foetidus	75.00	100	23	23.00	1,725.00
Querula purpurata	125.00	50	5	10.00	625.00
Perissocephalus tricolor	180.00	40		0.00	0.00
Pipra erythrocephala	50.00	400	80	20.00	4,000.00
Tersina viridis	50.00	400	141	35.25	7,050.00
	Total	**25,212**	**2,854**	**11.32**	**49,678.00**
MAMMALS					
Dasyprocta leporina	30.00	250	15	6	450.00
Dasyprocta cristata	30.00	200	10	5	300.00
Myoprocta exilis	23.00	100		0	0.00
Hydrochaeris hydrochaeris	126.00	150		0	0.00
Eira barbara	23.00	100		0	0.00
Didelphis marsupialis	12.00	200	6	3	72.00
Chironectes minimus	6.00	100		0	0.00
Metachirus nudicautatus	8.00	100		0	0.00
Herpestes auropunctatus	12.00	100		0	0.00
	Total	**1,300**	**31**	**2.38**	**822.00**
REPTILES/AMPHIBIANS					
Bufo spp	3.50	11,000	394	3.58	1,379.00
Ceratophtys spp	4.00	5,360	261	4.87	1,044.00
Pipa pipa	3.00	7,000	10	0.14	30.00
Hyla spp	1.00	6,030	1,184	19.64	1,184.00
Phrynophyas spp	1.00	3,006		0.00	0.00
Phyllomedusa spp	3.00	5,160	743	14.40	2,229.00
	Total	**37,556**	**2,592**	**6.90**	**5,866.00**
Kinosternon scorpioides	3.00	660	59	8.94	177.00
Phrynops giba	10.00	660	39	5.91	390.00
Phrynops nasuta	10.00	660	51	7.73	510.00
Platemys platycephala	6.00	720	230	31.94	1,380.00
Rhinaclemmys punctularia	3.00	730	227	31.10	681.00
	Total	**3,430**	**606**	**17.67**	**3,138.00**

Table 2b(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
REPTILES/AMPHIBIANS					
Ameiva ameiva	1.00	1,720	316	18.37	316.00
Anolis punctatus	1.00	1,720	2	0.12	2.00
Polychrus marmurata	3.00	1,720		0.00	0.00
Chemidorhorus lemmiscatus	2.00	2,590	600	23.17	1,200.00
Plica plica	1.00	1,720	93	5.41	93.00
Uranoscodon supercilliosa	3.00	1,520	278	18.29	834.00
Uranoscodon azureum	12.00	740	11	1.49	132.00
	Total	**11,730**	**1,300**	**11.08**	**2,577.00**
Bothrops bilineatus	40.00	75		0	0.00
Colubridae spp	5.50	2,100	10	0.48	55.00
Botrops atrox	23.00	85		0	0.00
Lachesis muta	116.00	75		0	0.00
	Total	**2,335**	**10**	**0.43**	**55.00**

Table 2c(I). Suriname CITES Export Data – 1999

	FOB (US$)	Quota	Exports	% Realized	Value (US$)
BIRDS					
Ara ararauna	300.00	650	559	86.00	167,700.00
Ara chloropterus	342.00	250	251	100.40	85,842.00
Ara macao	873.00	100		0.00	0.00
Ara severa	139.00	250	167	66.80	23,213.00
Ara nobilis	46.00	150	53	35.33	2,438.00
Ara manilata	56.00	470	142	30.21	7,952.00
Amazona amazonica	33.00	4,800	3,618	75.38	119,394.00
Amazona ochrocephala	86.00	580	484	83.45	41,624.00
Amazona dufresniana	306.00	70	60	85.71	18,360.00
Amazona farinosa	79.00	450	338	75.11	26,702.00
Deroptyrus acciputrinus	251.00	300	195	65.00	48,945.00
Aratinga aurea	17.00	100	16	16.00	272.00
Aratinga leucophthalmus	11.00	792	222	28.03	2,442.00
Aratinga pertinax	7.00	2,710	885	32.66	6,195.00
Pyrrhura picta	39.00	854	242	28.34	9,438.00
Forpus passerinus	4.00	4,632	1,243	26.84	4,972.00
Brotogeris chrysopterus	12.00	1,194	306	25.63	3,672.00
Pionites melanocephala	45.00	1,378	795	57.69	35,775.00
Pionus fuscus	45.00	800	299	37.38	13,455.00
Pionus menstruus	28.00	1,500	670	44.67	18,760.00
Ramphastos vitellinus	111.00	350	150	42.86	16,650.00
Ramphastos tucanus	135.00	250	109	43.60	14,715.00
Ptereglossus viridus	46.00	300	92	30.67	4,232.00
Ptereglossus aracari	39.00	300	105	35.00	4,095.00
	Total	**23,230**	**11,001**	**47.36**	**676,843.00**
MAMMALS					
Agouti paca	42.00	200		0.00	0.00
Cebus apella apella	325.00	114		0.00	0.00
Saguines midas midas	350.00	320	14	4.38	4,900.00
Saimiri sciureus sciureus	300.00	1,000	428	42.80	128,400.00
	Total	**1,634**	**442**	**27.05**	**133,300.00**
REPTILES /AMPHIBIANS					
Boa constrictor	50.00	1,010	310	30.69	15,500.00
Corallus enydris	10.00	1,900	316	16.63	3,160.00
Corallus caninus	85.00	900	215	23.89	18,275.00
Epicrates cenchris	90.00	160	76	47.50	6,840.00
Eunectes murinus	24.00	330	28	8.48	672.00
Phobobatus trivittatus	11.50	1,452	236	16.25	2,714.00
Dendrobates tinctorius	9.00	1,886	695	36.85	6,255.00
Geochelone carbonaria	17.00	630	483	76.67	8,211.00
Geochelone denticulata	17.00	692	165	23.84	2,805.00
Podocnemis unifilis	8.50	630		0.00	0.00
Caiman crocodilus	14.50	925	510	55.14	7,395.00
Tupinambis nigropunctatus	5.00	2,400	304	12.67	1,520.00
Iguana iguana	0.50	42,800	8,332	19.47	4,166.00
	Total	**55,715**	**11,670**	**20.95**	**77,513.00**

Table 2c(ll). Suriname non-CITES Export Data for 1999

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Selenidera culik	84.00	80	1	1.25	84.00
Capito niger	20.00	178	29	16.29	580.00
Ramphocelus carbo	4.50	788	81	10.28	364.50
Tachophonus rufus	4.50	336	43	12.80	193.50
Tachophonus cristatus	9.00	54		0.00	0.00
Tachophonus surinamus	14.00	54	26	48.15	364.00
Tachophonus phoenicius	8.50	54	27	50.00	229.50
Hemithraupis guira	8.50	54		0.00	0.00
Hemithraupis flavicollis	9.50	54		0.00	0.00
Cyanocompsa cyanoides	17.00	272	5	1.84	85.00
Sporophila americana	3.50	676	110	16.27	385.00
Sporophila minuta	10.50	1,020	77	7.55	808.50
Sporophila schistacea	17.00	772	59	7.64	1,003.00
Sporophila lineola	5.00	748	30	4.01	150.00
Sporophila bouvronides	6.00	896	23	2.57	138.00
Sporophila plumbea	24.00	54		0.00	0.00
Sporophila castaneiventris	15.00	170	8	4.71	120.00
Cyanerpes caeruleus	8.50	820	292	35.61	2,482.00
Cyanerpes cyaneus	8.50	820	396	48.29	3,366.00
Dacnis lineata	8.50	980	264	26.94	2,244.00
Dacnis cayana	8.50	560	133	23.75	1,130.50
Chlorophanes spiza	8.50	198	36	18.18	306.00
Icterus chrysocephales	13.00	198	5	2.53	65.00
Euphonia minuta	8.50	320		0.00	0.00
Euphonia finshi	8.50	852	36	4.23	306.00
Euphonia violacea	8.50	1,112	582	52.34	4,947.00
Euphonia cayennesis	8.50	84	15	17.86	127.50
Tangara plumbea	8.50	84		0.00	0.00
Tangara mexicana	8.00	1,088	320	29.41	2,560.00
Tangara gyrola	10.00	54	1	1.85	10.00
Tangara cayana	8.50	122	57	46.72	484.50
Tangara velia	13.00	54	51	94.44	663.00
Tangara chilensis	24.00	108	100	92.59	2,400.00
Tangara punctata	9.00	156	10	6.41	90.00
Traupis palmarum	4.50	430	95	22.09	427.50
Traupis episcopis	4.50	1,120	332	29.64	1,494.00
Schistochlamys melanopis	6.50	108	16	14.81	104.00
Caryothaustus canadensis	14.00	80	61	76.25	854.00
Pitylus grossus	17.00	80	43	53.75	731.00
Volatinia jacarina	2.50	309		0.00	0.00
Cacinus haemoorhous	10.00	188	51	27.13	510.00
Cacinus cela	10.00	188	39	20.74	390.00
Psarocolius viridius	25.00	68	25	36.76	625.00
Molothrus bonariensis	2.50	1,152		0.00	0.00
Agelaius icterice phata	5.50	984	243	24.70	1,336.50
Psarocolius decumanus	13.00	236	74	31.36	962.00
Psohia crepitans	175.00	42	4	9.52	700.00
Crax alector	250.00	27	2	7.41	500.00
Tinamus major	11.00	146		0.00	0.00

Table 2c(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Penelope marail	79.00	122		0.00	0.00
Ortalis motmot	26.00	142		0.00	0.00
Jacana jacana	7.00	188		0.00	0.00
Porphyrula martinica	10.00	188		0.00	0.00
Pitangus sulphatua	4.50	188	5	2.66	22.50
Tyrannus melancholicus	4.50	324	18	5.56	81.00
Mimus gilvus	2.50	188	14	7.45	35.00
Columbina passerina	2.50	544		0.00	0.00
Columbina talpacoti	2.50	544		0.00	0.00
Columbina minota	2.50	544		0.00	0.00
Turdus leucomelas	2.50	324	6	1.85	15.00
Columba cayennensis	16.00	120		0.00	0.00
Colinus cristatus	15.00	94		0.00	0.00
Odontophorus gujanensis	13.00	94		0.00	0.00
Crypturellus variegatus	43.50	66		0.00	0.00
Crypturellus souii	21.50	66		0.00	0.00
Crypturellus cinerus	21.50	66		0.00	0.00
Anhinga anhinga	21.50	164		0.00	0.00
Phalacrocorax olivaceus	21.50	66		0.00	0.00
Dendrocygna autumnalis	17.00	212		0.00	0.00
Cairina moschata	17.00	120		0.00	0.00
Anas bahamensis	17.00	200		0.00	0.00
Scaphidura oryzivora	2.50	120		0.00	0.00
Galinago galinago	4.50	120		0.00	0.00
Trogon viridis	125.00	40		0.00	0.00
Trogon melanarus	125.00	20		0.00	0.00
Trogon violaceus	125.00	40		0.00	0.00
Phoenicircus carnifex	125.00	20		0.00	0.00
Cotinga cayana	125.00	100	8	8.00	1,000.00
Cotinga cotinga	125.00	20		0.00	0.00
Xipholena punicea	125.00	100		0.00	0.00
Lipaugus vociferans	50.00	50	3	6.00	150.00
Gymnoderus foetidus	75.00	100		0.00	0.00
Querula purpurata	125.00	50		0.00	0.00
Perissocephalus tricolor	180.00	40		0.00	0.00
Pipra erythrocephala	50.00	400	3	0.75	150.00
Tersina viridis	50.00	400	22	5.50	1,100.00
	Total	**25,212**	**3,881**	**15.39**	**36,874.00**
MAMMALS					
Dasyprocta leporina	30.00	250		0.00	0.00
Dasyprocta cristata	30.00	200		0.00	0.00
Myoprocta exilis	23.00	100		0.00	0.00
Hydrochaeris hydrochaeris	126.00	150		0.00	0.00
Eira barbara	23.00	100		0.00	0.00
Didelphis marsupialis	12.00	200		0.00	0.00
Chironectes minimus	6.00	100		0.00	0.00
Metachirus nudicautatus	8.00	100		0.00	0.00
Herpestes auropunctatus	12.00	100		0.00	0.00
	Total	**1,300**	**0**	**0.00**	**0.00**

Table 2c(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
REPTILES/AMPHIBIANS					
Bufo spp	3.50	11,000	558	5.07	1,953.00
Ceratophtys spp	4.00	5,360	444	8.28	1,776.00
Pipa pipa	3.00	7,000	15	0.21	45.00
Hyla spp	1.00	6,030	1,433	23.76	1,433.00
Phrynophyas spp	1.00	3,006	44	1.46	44.00
Phyllomedusa spp	3.00	5,160	1,926	37.33	5,778.00
	Total	**37,556**	**4,420**	**11.77**	**11,029.00**
Kinosternon scorpioides	3.00	660	75	11.36	225.00
Phrynops giba	10.00	660	25	3.79	250.00
Phrynops nasuta	10.00	660	43	6.52	430.00
Platemys platycephala	6.00	720	276	38.33	1,656.00
Rhinaclemmys punctularia	3.00	730	295	40.41	885.00
	Total	**3,430**	**714**	**20.82**	**3,446.00**
Ameiva ameiva	1.00	1,720	555	32.27	555.00
Anolis punctatus	1.00	1,720		0.00	0.00
Polychrus marmurata	3.00	1,720	10	0.58	30.00
Chemidorhorus lemmiscatus	2.00	2,590	665	25.68	1,330.00
Plica plica	1.00	1,720	37	2.15	37.00
Uranoscodon supercilliosa	3.00	1,560	266	17.05	798.00
Uranoscodon azureum	12.00	740		0.00	0.00
	Total	**11,770**	**1,533**	**13.02**	**2,750.00**
Bothrops bilineatus	40.00	75	1	1.33	40.00
Colubridae spp	5.50	2,100	8	0.38	44.00
Botrops atrox	23.00	85	5	5.88	115.00
Lachesis muta	116.00	75	3	4.00	348.00
	Total	**2,335**	**17**	**0.73**	**547.00**

Table 2d(I). Suriname CITES Export Data -- 2000

	FOB (US$)	Quota	Exports	% Realized	Value (US$)	Overrun	Value (US$)	Total
NOTE: An overrun consists of wildlife that has received permits in the last calendar year but not been exported until the next calendar year.								
BIRDS								
Ara ararauna	300.00	650	520	80.00	156,000	104	31,200.00	187,200.00
Ara chloropterus	342.00	250	187	74.80	63,954	27	9,234.00	73,188.00
Ara macao	873.00	100	0	0.00	0	10	8,730.00	8,730.00
Ara severa	139.00	250	49	19.60	6,811	11	1,529.00	8,340.00
Ara nobilis	46.00	150	2	1.33	92	46	2,116.00	2,208.00
Ara manilata	56.00	470	102	21.70	5,712	57	3,192.00	8,904.00
Amazona amazonica	33.00	4,800	2934	61.13	96,822	310	10,230.00	107,052.00
Amazona ochrocephala	86.00	580	377	65.00	32,422	87	7,482.00	39,904.00
Amazona dufresniana	306.00	70	42	60.00	12,852	9	2,754.00	15,606.00
Amazona farinosa	79.00	450	234	52.00	18,486	87	6,873.00	25,359.00
Deroptyrus acciputrinus	251.00	300	84	28.00	21,084	27	6,777.00	27,861.00
Aratinga aurea	17.00	100	6	6.00	102	10	170.00	272.00
Aratinga leucophthalmus	11.00	792	162	20.45	1,782	30	330.00	2,112.00
Aratinga pertinax	7.00	2,710	293	10.81	2,051	262	1,834.00	3,885.00
Pyrrhura picta	39.00	854	83	9.72	3,237	23	897.00	4,134.00
Forpus passerinus	4.00	4,632	348	7.51	1,392	195	780.00	2,172.00
Brotogeris chrysopterus	12.00	1,194	81	6.78	972	18	216.00	1,188.00
Pionites melanocephala	45.00	1,378	332	24.09	14,940	109	4,905.00	19,845.00
Pionus fuscus	45.00	800	17	2.13	765	22	990.00	1,755.00
Pionus menstruus	28.00	1,500	376	25.07	10,528	82	2,296.00	12,824.00
Ramphastos vitellinus	111.00	350	169	48.29	18,759	35	3,885.00	22,644.00
Ramphastos tucanus	135.00	250	47	18.80	6,345	21	2,835.00	9,180.00
Ptereglossus viridus	46.00	300	55	18.33	2,530	20	920.00	3,450.00
Ptereglossus aracari	39.00	300	64	21.33	2,496	29	1,131.00	3,627.00
	Total	**23,230**	**6564**	**28.26**	**480,134**	**1,631**	**111,306.00**	**591,440.00**
MAMMALS								
Agouti paca	42.00	200	0	0	0			
Cebus apella apella	325.00	114	0	0	0	11	3,575.00	3,575.00
Saguines midas midas	350.00	320	0	0	0	28	9,800.00	9,800.00
Saimiri sciureus sciureus	300.00	1,000	0	0	0	244	73,200.00	73,200.00
	Total	**1,634**	**0**	**0**	**0**		**86,575.00**	**86,575.00**
REPTILES /AMPHIBIANS								
Boa constrictor	50.00	1,010	481	47.62	24,050	7	350.00	24,400.00
Corallus enydris	10.00	1,900	1202	63.26	12,020		0.00	12,020.00
Corallus caninus	85.00	900	474	52.67	40,290	5	425.00	40,715.00
Epicrates cenchris	90.00	160	56	35.00	5,040	6	540.00	5,580.00
Eunectes murinus	24.00	330	72	21.82	1,728		0.00	1,728.00
Phobobatus trivittatus	11.50	1,452	429	29.55	4,934	41	471.50	5,405.00
Dendrobates tinctorius	9.00	1,886	1300	68.93	11,700	148	1,332.00	13,032.00
Geochelone carbonaria	17.00	630	483	76.67	8,211	61	1,037.00	9,248.00
Geochelone denticulata	17.00	692	282	40.75	4,794	55	935.00	5,729.00
Podocnemis unifilis	8.50	630	0	0.00	0		0.00	0.00
Caiman crocodilus	14.50	925	0	0.00	0	336	4,872.00	4,872.00
Tupinambis nigropunctatus	5.00	2,400	29	1.21	145		0.00	145.00
Iguana iguana	0.50	42,800	5574	13.02	2,787	2,374	1,187.00	3,974.00
	Total	**55,715**	**10382**	**18.63**	**115,699**	**3,033**	**11,149.50**	**126,848.00**

Table 2d(ll). Suriname non-CITES Export Data for 2000

	FOB (US$)	Quota	Exports	% realized	Value	Overrun	Value	Total
BIRDS								
Selenidera culik	84.00	80	68	85.00	5,712	2	168.00	5,880.00
Capito niger	20.00	178	133	74.72	2,660		0.00	2,660.00
Ramphocelus carbo	4.50	788	248	31.47	1,116		0.00	1,116.00
Tachyphonus rufus	4.50	336	76	22.62	342		0.00	342.00
Tachyphonus cristatus	9.00	54	8	14.81	72		0.00	72.00
Tachyphonus surinamus	14.00	54	49	90.74	686		0.00	686.00
Tachyphonus phoenicius	8.50	54	29	53.70	247		0.00	246.50
Hemithraupis guira	8.50	54	6	11.11	51		0.00	51.00
Hemithraupis flavicollis	9.50	54	4	7.41	38		0.00	38.00
Cyanocompsa cyanoides	17.00	272	128	47.06	2,176		0.00	2,176.00
Sporophila americana	3.50	676	204	30.18	714		0.00	714.00
Sporophila minuta	10.50	1,020	6	0.59	63		0.00	63.00
Sporophila schistacea	17.00	772	20	2.59	340		0.00	340.00
Sporophila lineola	5.00	748	122	16.31	610		0.00	610.00
Sporophila bouvronides	6.00	896	61	6.81	366		0.00	366.00
Sporophila plumbea	24.00	54	2	3.70	48		0.00	48.00
Sporophila castaneiventris	15.00	170	5	2.94	75		0.00	75.00
Cyanerpes caeruleus	8.50	820	627	76.46	5,330		0.00	5,329.50
Cyanerpes cyaneus	8.50	820	671	81.83	5,704		0.00	5,703.50
Dacnis lineata	8.50	980	435	44.39	3,698		0.00	3,697.50
Dacnis cayana	8.50	560	376	67.14	3,196		0.00	3,196.00
Chlorophanes spiza	8.50	198	195	98.48	1,658		0.00	1,657.50
Icterus chrysocephales	13.00	198	39	19.70	507		0.00	507.00
Euphonia minuta	8.50	320	15	4.69	128		0.00	127.50
Euphonia finshi	8.50	852	23	2.70	196		0.00	195.50
Euphonia violacea	8.50	1,112	1001	90.02	8,509		0.00	8,508.50
Euphonia cayennesis	8.50	84	52	61.90	442		0.00	442.00
Euphonia plumbea	8.50	84	0	0.00	0		0.00	0.00
Tangara mexicana	8.00	1,088	538	49.45	4,304		0.00	4,304.00
Tangara gyrola	10.00	54	20	37.04	200		0.00	200.00
Tangara cayana	8.50	122	84	68.85	714		0.00	714.00
Tangara velia	13.00	54	61	112.96	793		0.00	793.00
Tangara chilensis	24.00	108	131	121.30	3,144		0.00	3,144.00
Tangara punctata	9.00	156	104	66.67	936		0.00	936.00
Thraupis palmarum	4.50	430	139	32.33	626		0.00	625.50
Thraupis episcopis	4.50	1,120	253	22.59	1,139		0.00	1,138.50
Schistochlamys melanopis	6.50	108	53	49.07	345		0.00	344.50
Caryothaustus canadensis	14.00	80	50	62.50	700		0.00	700.00
Pitylus grossus	17.00	80	37	46.25	629		0.00	629.00
Volatinia jacarina	2.50	309	39	12.62	98		0.00	97.50
Cacicus haemoorhous	10.00	188	83	44.15	830		0.00	830.00
Cacicus cela	10.00	188	75	39.89	750		0.00	750.00
Psarocolius viridius	25.00	68	33	48.53	825		0.00	825.00
Molothrus bonariensis	2.50	1,152	0	0.00	0		0.00	0.00

Table 2d(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value	Overrun	Value	Total
BIRDS								
Agelaius ictero cephalus	5.50	984	149	15.14	820		0.00	819.50
Psarocolius decumanus	13.00	236	88	37.29	1,144		0.00	1,144.00
Psohia crepitans	175.00	42	20	47.62	3,500		0.00	3,500.00
Crax alector	250.00	27	0	0.00	0		0.00	0.00
Tinamus major	11.00	146	0	0.00	0		0.00	0.00
Penelope marail	79.00	122	0	0.00	0		0.00	0.00
Ortalis motmot	26.00	142	0	0.00	0		0.00	0.00
Jacana jacana	7.00	188	90	47.87	630		0.00	630.00
Porphyrula martinica	10.00	188	0	0.00	0		0.00	0.00
Pitangus sulphatua	4.50	188	66	35.11	297		0.00	297.00
Tyrannus melancholicus	4.50	324	42	12.96	189		0.00	189.00
Mimus gilvus	2.50	188	148	78.72	370		0.00	370.00
Columbina passerina	2.50	544	70	12.87	175		0.00	175.00
Columbina talpacoti	2.50	544	13	2.39	33		0.00	32.50
Columbina minuta	2.50	544	0	0.00	0		0.00	0.00
Turdus leucomelas	2.50	324	20	6.17	50		0.00	50.00
Columba cayennensis	16.00	120		0.00	0		0.00	0.00
Colinus cristatus	15.00	94		0.00	0		0.00	0.00
Odontophorus gujanensis	13.00	94		0.00	0		0.00	0.00
Crypturellus variegatus	43.50	66		0.00	0		0.00	0.00
Crypturellus souii	21.50	66		0.00	0		0.00	0.00
Crypturellus cinerus	21.50	66		0.00	0		0.00	0.00
Anhinga anhinga	21.50	164		0.00	0		0.00	0.00
Phalacrocorax olivaceus	21.50	66		0.00	0		0.00	0.00
Dendrocygna autumnalis	17.00	212		0.00	0		0.00	0.00
Cairina moschata	17.00	120		0.00	0		0.00	0.00
Anas bahamensis	17.00	200		0.00	0		0.00	0.00
Scaphidura oryzivora	2.50	120	5	4.17	13		0.00	12.50
Galinago galinago	4.50	120	0	0.00	0		0.00	0.00
Trogon viridis	125.00	40	6	15.00	750		0.00	750.00
Trogon melanarus	125.00	40	0	0.00	0		0.00	0.00
Trogon violaceus	125.00	40	12	30.00	1,500		0.00	1,500.00
Phoenicircus carnifex	125.00	20	0	0.00	0		0.00	0.00
Cotinga cayana	125.00	100	100	100.00	12,500		0.00	12,500.00
Cotinga cotinga	125.00	20	16	80.00	2,000		0.00	2,000.00
Xipholena punicea	125.00	100	54	54.00	6,750		0.00	6,750.00
Lipaugus vociferans	50.00	50	5	10.00	250		0.00	250.00
Gymnoderus foetidus	75.00	100	5	5.00	375		0.00	375.00
Querula purpurata	125.00	50	10	20.00	1,250		0.00	1,250.00
Perissocephalus tricolor	180.00	40	6	15.00	1,080		0.00	1,080.00
Pipra erythrocephala	50.00	400	24	6.00	1,200		0.00	1,200.00
Tersina viridis	50.00	400	64	16.00	3,200		0.00	3,200.00
	Total	**25,232**	**7316**	**28.99**	**98,786**	**2**	**168.00**	**98,953.50**

Table 2d(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value	Overrun	Value	Total
MAMMALS								
Dasyprocta leporina	30.00	250	62	24.80	1,860			
Dasyprocta cristata	30.00	200	10	5.00	300			
Myoprocta exilis	23.00	100	0	0.00	0			
Hydrochaeris hydrochaeris	126.00	150	0	0.00	0		No overrun	
Eira barbara	23.00	100	0	0.00	0			
Didelphis marsupialis	12.00	200	0	0.00	0			
Chironectes minimus	6.00	100	0	0.00	0			
Metachirus nudicautatus	8.00	100	0	0.00	0			
Herpestes auropunctatus	12.00	100	0	0.00	0			
	Total	**1,300**	**72**	**5.54**	**2,160**			
REPTILES/AMPHIBIANS								
Bufo spp	3.50	11,000	616	5.60	2,156	25	87.50	2,243.50
Ceratophtys spp	4.00	5,360	909	16.96	3,636		0.00	3,636.00
Pipa pipa	3.00	7,000	146	2.09	438		0.00	438.00
Hyla spp	1.00	6,030	4691	77.79	4,691	450	450.00	5,141.00
Phrynophyas spp	1.00	3,006	0	0.00	0		0.00	0.00
Phyllomedusa spp	3.00	5,160	4275	82.85	12,825	438	1,314.00	14,139.00
	Total	**37,556**	**10637**	**28.32**	**23,746**	913	1,851.50	**25,597.50**
Kinosternon scorpioides	3.00	660	81	12.27	243		0.00	243.00
Phrynops giba	10.00	660	25	3.79	250		0.00	250.00
Phrynops nasuta	10.00	660	40	6.06	400	6	60.00	460.00
Platemys platycephala	6.00	720	247	34.31	1,482		0.00	1,482.00
Rhinaclemmys punctularia	3.00	730	303	41.51	909		0.00	909.00
	Total	**3,430**	**696**	**20.29**	**3,284**	6	60.00	**3,344.00**
Ameiva ameiva	1.00	1,720	375	21.80	375			
Anolis punctatus	1.00	1,720	7	0.41	7			
Polychrus marmurata	3.00	1,720	101	5.87	303			
Chemidorhorus lemmiscatus	2.00	2,590	491	18.96	982		No overrun	
Plica plica	1.00	1,720	81	4.71	81			
Uranoscodon supercilliosa	3.00	1,560	408	26.15	1,224			
Uranoscodon azureum	12.00	740	5	0.68	60			
	Total	**11,770**	**1468**	**12.47**	**3,032**			
Bothrops bilineatus	40.00	75	1	1.33	40			
Colubridae spp	5.50	2,100	21	1.00	116		No overrun	
Botrops atrox	23.00	85	0	0.00	0			
Lachesis muta	116.00	75	3	4.00	348			
	Total	**2,335**	**25**	**1.07**	**504**			

Table 3a(l). Destination of CITES and non-CITES species exported from Suriname in 1998

(in percentage of total exports)

	Neth.	*Belgium*	*Germany*	*Portugal*	*Spain*	*Greece*	*Aruba*	*Quatar*	*Dom. Rep.*	*Thailand*	*USA*	*France*	*Czech Rep.*	*Canada*	*Japan*	*Russia*	*Malaysia*	*Great Britain*	*Philippines*	*Singapore*
	NL	**BE**	**DE**	**PT**	**ES**	**GR**	**AW**	**QA**	**DM**	**TH**	**US**	**FR**	**CZ**	**CA**	**JP**	**RU**	**MY**	**GB**	**PH**	**SG**
BIRDS																				
Ara ararauna	62.30	8.35	4.06	1.35	5.64	6.09			3.16	9.03										
Ara chloropterus	67.74	7.53	3.76		8.56	3.76			2.15	0.05										
Ara macao								68.42	31.58											
Ara severa	62.73	14.55		5.45	4.55	10.00	2.73													
Ara nobilis	83.08	13.85					3.08													
Ara manilata	94.59						5.41													
Amazona amazonica	59.03	14.27	7.35	4.71	13.23	0.78	0.10		0.52											
Amazona ochrocephala	65.96	3.19	4.26	3.99	0.14	5.85	0.53		2.66											
Amazona dufresniana	58.21		2.99	8.96	23.88	5.97														
Amazona farinosa	74.35	1.74	0.87		11.30	8.26	0.87		2.61											
Deroptyrus acciputrinus	67.14	7.14	10.71	0.00	10.00	3.57			1.43											
Aratinga aurea	33.33	29.63	22.22	14.81																
Aratinga leucophthalmus	63.04	10.87			17.39		8.70													
Aratinga pertinax	75.57	7.56	6.80	7.56			2.52													
Pyrrhura picta	67.44		10.47				10.47		11.63											
Forpus passerinus	35.09	8.38			54.58		1.95													
Brotogeris chrysopterus	66.52	22.47	6.61				4.41													
Pionites melanocephala	62.83	15.55	8.86	1.56	1.87	2.80	0.93		5.60											
Pionus fuscus	58.82	9.41	4.47		11.76	13.65	0.94		0.94											
Pionus menstruus	57.33	20.61	7.98		8.27	1.45	0.58		3.77											
Ramphastos vitellinus	81.87		1.10			7.14	1.10		8.79											
Ramphastos tucanus	88.44		3.40			2.72	1.36		4.08											
Ptereglossus viridus	86.54		9.62				3.85													
Ptereglossus aracari	90.16		6.56				3.28													
Total	**61.32**	**11.84**	**6.02**	**2.84**	**11.89**	**2.52**	**0.93**	**0.14**	**1.88**	**0.54**										
MAMMALS																				
Agouti paca	100.00																			
Cebus apella apella									25.00						70.00		5.00			
Saguines midas midas													15.91		47.73		9.09	22.73	4.55	
Saimiri sciureus sciureus									2.48						96.28		1.24			
Total	**3.00**								**3.21**				**1.50**		**90.58**		**2.14**	**2.14**	**0.43**	
REPTILES /AMPHIBIANS																				
Boa constrictor	23.70	18.21			8.96						23.70	10.69	1.73	6.94	6.07					
Corallus enydris	24.93	11.53			0.80	0.80					32.17	1.07	5.36	13.94	8.04	1.34				
Corallus caninus	39.89	31.69	17.49		5.46	2.73					42.08		1.64	8.20	5.46					
Epicrates cenchris	27.78	18.52			5.56						24.07			12.96	3.70	7.41				
Eunectes murinus	18.18	16.88			6.49	2.60					28.57	18.18			9.09					
Phobobatus trivittatus	41.54										21.94			36.52						
Dendrobates tinctorius	32.28										36.08			7.91	23.73					

Table 3a(l) continued

	NL	BE	DE	PT	ES	GR	AW	QA	DM	TH	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG
REPTILES /AMPHIBIANS																				
Geochelone carbonaria	35.20	14.64			23.36						26.79									
Geochelone denticulata	26.86	17.94			21.81						24.73		1.86		6.65					
Podocnemis unifilis					10.00										90.00					
Caiman crocodilus	14.33	18.79			16.56						27.71	11.15			9.24	2.23				
Tupinambis nigropunctatus	25.60	23.19			42.51						7.73		0.97							
Iguana iguana	5.11				7.13						83.28	1.03	0.02	3.02		0.41				
Total	**8.24**	**1.23**	**0.10**		**7.29**	**0.03**					**76.36**	**1.17**	**0.13**	**3.93**	**1.41**	**0.41**				

Table 3a(ll). Suriname non-CITES Export Data for 1998

	NL	BE	DE	PT	ES	GR	AW	QA	DM	TH	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG
BIRDS																				
Selenidera culik	75.00						3.57				21.43									
Capito niger	78.57										3.57									17.86
Ramphocelus carbo	93.67																			6.33
Tachophonus rufus	100.00																			
Tachophonus cristatus	100.00																			
Tachophonus surinamus	100.00																			
Tachophonus phoenicius	100.00																			
Hemithraupis guira	100.00																			
Cyanocompsa cyanoides	63.64						36.36													
Sporophila americana																				
Sporophila minuta																				
Sporophila schistacea																				
Sporophila lineola *Sporophila bouvronides*											100.00									
Sporophila plumbea																				
Sporophila castaneiventris																				
Cyanerpes caeruleus	54.90		5.59								36.01									3.50
Cyanerpes cyaneus	71.28		5.22								23.50									
Dacnis lineata *Dacnis cayana*	100.00 75.49		 9.80								 14.71									
Chlorophanes spiza	54.55																			45.45
Icterus chrysocephales	66.67										33.33									
Euphonia minuta	100.00																			
Euphonia finshi	55.56		44.44																	
Euphonia violacea	79.57		8.70				4.35				3.04									4.35
Tangara plumbea																				
Tangara mexicana	76.88		11.56				5.78													5.78

Table 3a(ll) continued

BIRDS	NL	BE	DE	PT	ES	GR	AW	QA	DM	TH	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG
Tangara gyrola																				
Tangara cayana	21.88		18.75				31.25				28.13									
Tangara velia	21.74		8.70				4.35				13.04									52.17
Tangara chilensis	53.66		14.63				9.76													21.95
Tangara punctata	27.27		27.27				18.18				13.64									40.91
Traupis palmarum	65.00						5.00				30.00									
Traupis episcopis	87.24						5.10				7.65									
Schistochlamys melanopis	50.00						50.00													
Caryothaustus canadensis	50.00						50.00													
Pitylus grossus	33.33						66.67													
Volatinia jacarina																				
Cacinus haemoorhous	100.00																			
Cacinus cela	100.00																			
Psarocolius viridius	100.00																			
Molothrus bonariensis	100.00																			
Agelaius icterice phata																				
Psarocolius decumanus	100.00																			
Psohia crepitans	100.00																			
Crax alector																				
Penelope marail																				
Ortalis motmot																				
Jacana jacana	100.00																			
Porphyrula martinica																				
Pitangus sulphatua	100.00																			
Tyrannus melancholicus	100.00																			
Mimus gilvus																				
Columbina passerina	100.00																			
Columbina talpacoti *Columbina minota*	100.00 100.00																			
Turdus leucomelas	100.00																			
Columba cayennensis	6.00																			
Colinus cristatus																				
Odontophorus gujanensis																				
Crypturellus variegatus *Crypturellus souii*																				
Crypturellus cinerus																				
Anhinga anhinga																				
Dendrocygna autumnalis																				
Cairina moschata																				

Table 3a(II) continued

	NL	BE	DE	PT	ES	GR	AW	QA	DM	TH	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG
BIRDS																				
Anas bahamensis																				
Scaphidura oryzivora	100.00																			
Galinago galinago																				
Trogon viridis	100.00																			
Trogon melanarus	80.00										20.00									
Trogon violaceus	57.14										42.86									
Phoenicircus carnifex											100.00									
Cotinga cayana	100.00																			
Cotinga cotinga	50.00										50.00									
Xipholena punicea	100.00																			
Lipaugus vociferans	100.00																			
Gymnoderus foetidus	100.00																			
Querula purpurata	100.00																			
Perissocephalus tricolor																				
Pipra erythrocephala	93.75										6.25									
Tersina viridis	64.54						6.62				26.49									
Total	**74.50**		**4.79**				**3.38**				**13.97**									**3.35**
MAMMALS																				
Dasyprocta leporina	100.00																			
Dasyprocta cristata	100.00																			
Myoprocta exilis *Hydrochaeris hydrochaeris*																				
Eira barbara																				
Didelphis marsupialis	100.00																			
Chironectes minimus																				
Metachirus nudicautatus																				
Herpestes auropunctatus																				
Total	**100.00**																			
REPTILES/AMPHIBIANS																				
Bufo spp	13.96										30.71		38.07	9.64	7.61					
Ceratophtys spp											23.37				76.63					
Pipa pipa	100.00																			
Hyla spp	28.18										42.05			7.22	22.55					
Phrynophyas spp																				
Phyllomedusa spp	30.82										28.13			6.73	34.32					
Total	**23.70**										**33.29**		**6.54**	**6.62**	**29.85**					
Kinosternon scorpioides	25.42	49.15			10.17						15.25									
Phrynops giba	25.64				2.56						20.51				51.28					

Table 3a(ll) continued

	NL	BE	DE	PT	ES	GR	AW	QA	DM	TH	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG
REPTILES/AMPHIBIANS																				
Phrynops nasuta											60.78				39.22					
Platemys platycephala	21.74	8.70			6.09						20.00				43.48					
Rhinaclemmys punctularia	22.03	8.37			17.62						45.81		6.17							
Total	**20.63**	**11.22**			**10.07**						**32.67**		**2.31**		**23.10**					
Ameiva ameiva	84.18	9.49									6.33									
Anolis punctatus														100.00						
Polychrus marmurata																				
Chemidorhorus lemmiscatus	83.00	3.33									10.33		3.33							
Plica plica	19.35	43.01												5.38	32.26					
Uranoscodon supercilliosa	73.94	6.38												14.36	53.19					
Uranoscodon azureum		90.91												9.09						
Total	**70.44**	**8.74**									**6.40**		**1.56**	**2.73**	**10.14**					
Bothrops bilineatus																				
Colubridae spp					20.00						70.00			10.00						
Botrops atrox																				
Lachesis muta																				
Total					**20.00**						**70.00**			**10.00**						

Table 3b(I). Destination of CITES and non-CITES species exported from Suriname in 1999

(in percentage of total exports)

	Netherl.	Belgium	Germ.	Portu	Spain	Greece	Neth. Antill.	Quatar	Dom. R.	Hungary	USA	Fran	Czech.	Canada	Japan	Russia	Malays	G. Britain	Philip	Singapo	Mexico
	NL	**BE**	**DE**	**PT**	**ES**	**GR**	**AN**	**QA**	**DM**	**HU**	**US**	**FR**	**CZ**	**CA**	**JP**	**RU**	**MY**	**GB**	**PH**	**SG**	**MX**
BIRDS																					
Ara ararauna	61.46	2.63		2.48	5.42	5.57	2.48	0.774		4.02			2.32		1.55		0.46			2.48	8.36
Ara chloropterus	70.04	2.53		2.17	3.97	4.69				3.25			4.33				0.72			3.61	4.69
Ara macao							17.07	14.63													53.66
Ara severa	54.59	4.08			7.65			3.06		2.04			2.04		11.22		7.14			2.04	6.12
Ara nobilis	28.57	14.29			14.29																42.86
Ara manilata	24.19	5.65			25.40		18.55						1.61		16.13						8.47
Amazona amazonica	69.62	2.85		3.22	9.23	3.32	3.81	0.74		4.70			1.19		1.31						
Amazona ochrocephala	58.06	2.61		2.30	3.23	3.23	15.36	0.61		5.84			1.54		7.22						
Amazona dufresniana	58.21	2.99		2.99	2.99	1.49	17.91			1.49			2.99							2.99	5.97
Amazona farinosa	61.54	1.65			4.67	10.99	1.10	1.65					8.79		7.69						1.92
Deroptyrus acciputrinus	54.29	4.29			3.33	3.81	1.90	1.90					10.48		5.24					2.86	11.90
Aratinga aurea						50.00									50.00						
Aratinga leucophthalmus	28.57	9.66		7.98			21.01	12.61							11.34						8.82
Aratinga pertinax	30.01	9.03		8.23	21.91	7.97	9.30	6.64					2.52		1.59						2.79
Pyrrhura picta	18.40			16.00		24.00	11.20								30.40						
Forpus passerinus	6.81			13.21		14.68	5.24	5.24					7.86		12.37						
Brotogeris chrysopterus	20.00			21.60		16.00		6.40							36.00						
Pionites melanocephala	60.41	5.09		4.51	7.28	3.06	5.82						7.57							1.46	4.80
Pionus fuscus	28.24				2.73	1.02	1.37	1.71					15.02		7.85					3.07	1.02
Pionus menstruus	46.59	1.58		5.55	13.63	4.44	7.77	1.58					5.71		10.14					1.58	1.43
Ramphastos vitellinus	32.69				26.92	9.62															5.07
Ramphastos tucanus	12.20				23.17	9.76									19.51						35.37
Ptereglossus viridus	30.88				29.41																39.71
Ptereglossus aracari					53.97																46.03
Total	**52.31**	**3.07**		**4.49**	**11.82**	**5.29**	**5.69**	**2.02**					**3.44**		**5.11**		**0.17**			**0.61**	**3.43**
MAMMALS																					
Agouti paca															100.00						
Cebus apella apella																18.18	36.36				45.45
Saguines midas midas															51.28		5.13				43.59
Saimiri sciureus sciureus										6.17					65.95	0.80	3.22				23.86
Total										**5.30**					**61.98**	**1.61**	**5.07**				**26.73**
REPTILES /AMPHIBIANS																					
Boa constrictor	20.16				3.95	3.95					63.24			3.95	1.58		3.16				
Corallus enydris	22.44		2.49		1.25	3.49					47.88			5.99	12.22	1.50	2.74				
Corallus caninus	10.56		3.52		1.76	1.41					70.77			3.52	5.99	0.70	1.76				
Epicrates cenchris	50.00					4.55					34.09				11.36						
Eunectes murinus					4.72						69.81			0.94	14.15	3.77	6.60				

Table 3b(l) continued

	NL	BE	DE	PT	ES	GR	AN	QA	DM	HU	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG	MX
REPTILES /AMPHIBIANS																					
Phobobatus trivittatus	41.69						7.73				50.59										
Dendrobates tinctorius	4.97		1.21				1.64				84.90				6.06	1.21					
Geochelone carbonaria	17.82				4.46						73.02				3.22		1.49				
Geochelone denticulata	2.16										91.89				4.05		5.95				
Podocnemis unifilis															100.00						
Caiman crocodilus	72.18				16.53						8.87					2.42					
Tupinambis nigropunctatus	30.14				44.52	6.85					18.49										
Iguana iguana	1.91					2.08					96.01										
Total	**5.76**		**0.23**		**0.85**	**1.90**	**0.34**				**89.06**			**0.26**	**1.29**	**0.22**	**0.34**				

Table 3b(ll). Suriname non-CITES Export Data for 1999

	NL	BE	DE	PT	ES	GR	AN	QA	DM	HU	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG	MX
BIRDS																					
Selenidera culik	100																				
Capito niger	48.28					51.72															
Ramphocelus carbo	70.37					4.94														24.69	
Tachophonus rufus	81.40					4.65														13.95	
Tachophonus cristatus																					
Tachophonus surinamus	88.46					11.54															
Tachophonus phoenicius	85.19					14.81															
Hemithraupis guira																					
Hemithraupis flavicollis																					
Cyanocompsa cyanoides						100.0															
Sporophila americana	89.09										10.91										
Sporophila minuta	48.05																			51.95	
Sporophila schistacea											100										
Sporophila lineola																				100.0	
Sporophila bouvronides	100																				
Sporophila plumbea																					
Sporophila castaneiventris																				100.0	
Cyanerpes caeruleus	69.86						0.68				17.12									12.33	
Cyanerpes cyaneus	70.96										18.94									10.10	
Dacnis lineata	82.95																			17.05	
Dacnis cayana	49.62										19.55									30.83	
Chlorophanes spiza	41.67					27.78					5.56									25.00	
Icterus chrysocephales	100																				
Euphonia minuta																					
Euphonia finshi	100																				

Table 3b(II) continued

BIRDS	NL	BE	DE	PT	ES	GR	AN	QA	DM	HU	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG	MX
Euphonia violacea	64.09					8.59					14.60									12.71	
Euphonia cayennesis	80.00																			20.00	
Tangara plumbea																					
Tangara mexicana	48.13					15.63					17.19									19.06	
Tangara gyrola											100										
Tangara cayana	57.89					12.28					21.05									8.77	
Tangara velia	56.86					13.73					25.49									3.92	
Tangara chilensis	78.00					5.00					11.00									6.00	
Tangara punctata	100																				
Traupis palmarum	77.89					22.11															
Traupis episcopis	83.13					16.87															
Schistochlamys melanopis	94.12					5.88															
Caryothaustus canadensis	95.08					4.92															
Pitylus grossus	100																				
Volatinia jacarina																					
Cacinus haemoorhous	100																				
Cacinus cela	100																				
Psarocolius viridius	92.00										8.00										
Molothrus bonariensis																					
Agelaius icterice phata	55.97					13.58					30.45										
Psarocolius decumanus	86.49										15.63										
Psohia crepitans	100																				
Crax alector																					100
Tinamus major																					
Penelope marail																					
Ortalis motmot																					
Jacana jacana																					
Porphyrula martinica																					
Pitangus sulphatua						100.00															
Tyrannus melancholicus	72.22					27.78															
Mimus gilvus	35.71					64.29															
Columbina passerina																					
Columbina talpacoti																					
Columbina minota																					
Turdus leucomelas	100																				
Columba cayennensis																					
Colinus cristatus																					
Odontophorus gujanensis																					
Crypturellus variegatus																					
Crypturellus souii																					
Crypturellus cinerus																					

Table 3b(II) continued

	NL	BE	DE	PT	ES	GR	AN	QA	DM	HU	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG	MX
BIRDS																					
Anhinga anhinga																					
Phalacrocorax olivaceus																					
Dendrocygna autumnalis																				100	
Cairina moschata																					
Anas bahamensis																					
Scaphidura oryzivora																					
Galinago galinago																					
Trogon viridis																					
Trogon melanarus																					
Trogon violaceus																					
Phoenicircus carnifex																					
Cotinga cayana	100																				
Cotinga cotinga																					
Xipholena punicea																					
Lipaugus vociferans	66.67										33.33										
Gymnoderus foetidus																					
Querula purpurata																					
Perissocephalus tricolor																					
Pipra erythrocephala											100										
Tersina viridis	100																				
Total	**68.73**					**7.59**	**0.05**				**12.63**									**10.95**	**0.05**
MAMMALS																					
Dasyprocta leporina																					
Dasyprocta cristata																					
Myoprocta exilis																					
Hydrochaeris hydrochaeris																					
Eira barbara																					
Didelphis marsupialis																					
Chironectes minimus																					
Metachirus nudicautatus																					
Herpestes auropunctatus																					
REPTILES/AMPHIBIANS																					
Bufo spp	6.63		3.58								67.20			12.90	1.79	7.89					
Ceratophtys spp			2.30								23.96			23.04	50.69						
Pipa pipa											23.96			23.04	50.69						
Hyla spp	8.80										80.92			7.04	0.92	3.24					
Phrynophyas spp											100.00										
Phyllomedusa spp	1.53										78.02			4.60	14.62	1.23					
Total	**4.61**		**0.68**								**72.31**			**8.18**	**11.95**	**2.58**					

Table 3b(II) continued

REPTILES/AMPHIBIANS	NL	BE	DE	PT	ES	GR	AN	QA	DM	HU	US	FR	CZ	CA	JP	RU	MY	GB	PH	SG	MX
Kinosternon scorpioides	32.00										52.00				16.00						
Phrynops giba	20.00										40.00				40.00						
Phrynops nasuta	27.27										68.18				2.27						
Platemys platycephala	10.87										66.30				22.10	0.72					
Rhinaclemmys punctularia	16.95				9.49						55.59				15.25	2.71					
Total	**17.62**				**3.92**						**58.88**				**18.04**	**1.40**					
Ameiva ameiva	73.15										24.32					2.52					
Anolis punctatus																					
Polychrus marmurata											100.00										
Chemidorhorus lemmiscatus	71.43										28.57										
Plica plica											89.19					10.81					
Uranoscodon supercilliosa	71.80										25.19					3.01					
Uranoscodon azureum																					
Total	**69.93**										**28.38**					**1.70**					
Bothrops bilineatus											100.00										
Colubridae spp					12.50									12.50		75					
Botrops atrox											100.00										
Lachesis muta											100.00										
Total					**5.88**						**52.94**			**5.88**		**35.29**					

Table 3c(I). Destination of CITES and non-CITES species exported from Suriname in 2000

(in percentage of total exports)

	Netherlands	Belgium	N. Antilles	Aruba	Canada	Czech R.	Germany	Spain	Greece	Hungary	Italy	Japan	Malaysia	Portugal	Qatar	USA	Mexico
	NL	**BE**	**AN**	**AW**	**CA**	**CZ**	**DE**	**ES**	**GR**	**HU**	**IT**	**JP**	**MY**	**PT**	**QA**	**US**	**MX**
BIRDS																	
Ara ararauna	47.19	8.28				5.63	0.94	5.63	3.91	0.94	7.19		7.81	8.13	0.94		2.50
Ara chloropterus	49.04	10.58					2.88	5.29	4.81	2.88	2.40		6.73	12.02	1.92		1.44
Ara macao															100.00		
Ara severa	31.73	11.54				19.23	3.85	18.27	5.77	3.85			5.77				
Ara nobilis	17.54						10.53	61.40							22.81		
Ara manilata	9.43	13.21					5.03	40.25	16.35					9.43			6.29
Amazona amazonica	43.45	12.40	0.16			1.01	2.54	18.52	5.39	1.52	9.04			4.12	0.32		
Amazona ochrocephala	51.00	7.98					7.32	13.75	6.87		6.65			4.88	1.55		
Amazona dufresniana	49.06	11.32				11.32	7.55		20.75								
Amazona farinosa	43.58	8.06					7.16	20.60	10.75	4.18				3.88	1.79		
Deroptyrus acciputrinus	58.70	9.42				2.17	11.59	5.07					4.35	5.80	2.90		
Aratinga aurea	61.11							16.67	22.22								
Aratinga leucophthalmus	34.88	20.93						44.19									
Aratinga pertinax	32.52	14.36				5.42		36.18	11.52								
Pyrrhura picta	13.21	35.85						32.08	18.87								
Forpus passerinus	16.34	14.80				12.29		56.56									
Brotogeris chrysopterus	19.19	25.25						10.10	55.56								
Pionites melanocephala	56.07	9.29	0.36			4.29	7.14	8.04	5.71	3.93				5.54			
Pionus fuscus	12.00					10.00	32.00	22.00	20.00	4.00							
Pionus menstruus	40.40					4.24	8.26	34.60	4.69					7.81			
Ramphastos vitellinus	70.56	6.09				5.08	5.58	8.12	2.54					2.03			
Ramphastos tucanus	61.25	1.25				12.50	7.50	12.50	5.00								
Ptereglossus viridus	72.99					9.48	3.79	9.00	1.90					2.84			
Ptereglossus aracari	55.10					17.69	4.08	18.37						4.76			
Total	**41.90**	**10.81**	**0.08**			**3.83**	**10.84**	**21.82**	**6.27**	**1.15**	**4.14**		**0.86**	**3.93**	**0.68**		**0.26**
MAMMALS																	
Agouti paca	66.67															33.33	
Cebus apella apella													100.00				
Saguines midas midas													100.00				
Saimiri sciureus sciureus												74.59	25.41				
Total	**1.38**											**62.98**	**34.95**			**0.69**	
REPTILES /AMPHIBIANS																	
Boa constrictor	39.53				10.38			0.89								49.19	
Corallus enydris	18.66				3.96			1.37				1.14				74.87	
Corallus caninus	22.20				9.21			0.72				1.81				66.06	
Epicrates cenchris	51.56				7.81			3.13				3.13				34.38	

Table 3c(I) continued

	NL	BE	AN	AW	CA	CZ	DE	ES	GR	HU	IT	JP	MY	PT	QA	US	MX
REPTILES /AMPHIBIANS																	
Eunectes murinus					10.89			3.96								85.15	
Phobobatus trivittatus	11.86				20.07											43.98	
Dendrobates tinctorius	29.90				15.72		4.85					3.36				46.17	
Geochelone carbonaria	32.65	3.14						7.69				5.18				52.28	
Geochelone denticulata												17.74				82.26	
Podocnemis unifilis																	
Caiman crocodilus	66.28						5.04		28.68								
Tupinambis nigropunctatus	68.89							31.11									
Iguana iguana	21.69				36.11				3.23							37.72	
Total	**24.23**	**0.13**			**25.23**		**0.65**	**0.62**	**2.41**			**1.20**				**44.71**	

Table 3c(II). Suriname non-CITES Export Data for 2000

	Netherl.	*Belgium*	*N.Antilles*	*Aruba*	*Canada*	*Czech R.*	*Germany*	*Spain*	*Greece*	*Hungary*	*Italy*	*Japan*	*Malaysia*	*Portugal*	*Qatar*	*USA*	*Mexico*
	NL	**BE**	**AN**	**AW**	**CA**	**CZ**	**DE**	**ES**	**GR**	**HU**	**IT**	**JP**	**MY**	**PT**	**QA**	**US**	**MX**
BIRDS																	
Selenidera culik	85.33			5.33				5.33								4.00	
Capito niger	100.00																
Ramphocelus carbo	92.25			7.75													
Tachophonus rufus	95.59																
Tachophonus cristatus	75.00			25.00													
Tachophonus surinamus	100.00																
Tachophonus phoenicius	100.00																
Hemithraupis guira																	
Hemithraupis flavicollis	100.00																
Cyanocompsa cyanoides	86.96			7.25					5.80								
Sporophila americana	94.48			5.52													
Sporophila minuta	94.06			5.94													
Sporophila schistacea	77.42			22.58													
Sporophila lineola	90.20			9.80													
Sporophila bouvronides	83.87			16.13													
Sporophila plumbea				100.00													
Sporophila castaneiventris				100.00													
Cyanerpes caeruleus	99.04			0.96													
Cyanerpes cyaneus	99.09			0.91													
Dacnis lineata	100.00																
Dacnis cayana	98.29			1.71													
Chlorophanes spiza	100.00																

Table 3c(ll) continued

BIRDS	NL	BE	AN	AW	CA	CZ	DE	ES	GR	HU	IT	JP	MY	PT	QA	US	MX
Icterus chrysocephales	82.86			5.71												11.43	
Euphonia minuta	66.67			33.33													
Euphonia finshi	85.00			15.00													
Euphonia violacea	99.45			0.55													
Euphonia cayennesis	100.00																
Tangara plumbea																	
Tangara mexicana	95.34			1.08					3.58								
Tangara gyrola	100.00																
Tangara cayana	100.00																
Tangara velia	94.20								5.80								
Tangara chilensis	97.76								2.24								
Tangara punctata	96.49			3.51													
Traupis palmarum	92.81			7.19													
Traupis episcopis	96.79			3.21													
Schistochlamys melanopis	95.92			4.08													
Caryothaustus canadensis	94.34			5.66													
Pitylus grossus	92.86			7.14													
Volatinia jacarina	100.00																
Cacinus haemoorhous	92.77			7.23													
Cacinus cela	95.24			4.76													
Psarocolius viridius	72.99																
Molothrus bonariensis																	
Agelaius icterice phata	97.70			2.30													
Psarocolius decumanus	96.19			3.81													
Psohia crepitans	81.82	18.18															
Crax alector																	
Tinamus major																	
Penelope marail *Ortalis motmot*																	
Jacana jacana	100.00																
Porphyrula martinica																	
Pitangus sulphatua	100.00																
Tyrannus melancholicus	100.00																
Mimus gilvus *Columbina passerina*	100.00 100.00																
Columbina talpacoti	100.00																
Columbina minota																	
Turdus leucomelas	100.00																
Columba cayennensis																	
Colinus cristatus																	

Table 3c(ll) continued

	NL	BE	AN	AW	CA	CZ	DE	ES	GR	HU	IT	JP	MY	PT	QA	US	MX
BIRDS																	
Odontophorus gujanensis																	
Crypturellus variegatus																	
Crypturellus souii																	
Crypturellus cinerus																	
Anhinga anhinga																	
Phalacrocorax olivaceus																	
Dendrocygna autumnalis																	
Cairina moschata																	
Anas bahamensis																	
Scaphidura oryzivora	100.00																
Galinago galinago																	
Trogon viridis	90.00			10.00													
Trogon melanarus	100.00																
Trogon violaceus	100.00																
Phoenicircus carnifex																	
Cotinga cayana	86.54			3.85												9.62	
Cotinga cotinga	100.00																
Xipholena punicea	85.19																
Lipaugus vociferans	100.00																
Gymnoderus foetidus	100.00																
Querula purpurata	100.00																
Perissocephalus tricolor	100.00																
Pipra erythrocephala	83.33			16.67													
Tersina viridis	100.00																
Total	**95.03**			**2.57**				**0.05**	**0.45**							**0.22**	

MAMMALS																	
Dasyprocta leporina																100.00	
Dasyprocta cristata																100.00	
Myoprocta exilis																	
Hydrochaeris hydrochaeris																	
Eira barbara																	
Didelphis marsupialis																	
Chironectes minimus																	
Metachirus nudicautatus																	
Herpestes auropunctatus																	
Total																**100.00**	

Table 3c(ll) continued

	NL	BE	AN	AW	CA	CZ	DE	ES	GR	HU	IT	JP	MY	PT	QA	US	MX
REPTILES/AMPHIBIANS																	
Bufo spp	4.80				40.45											54.75	
Ceratophtys spp					30.74							6.49				62.78	
Pipa pipa																100.00	
Hyla spp	6.81				19.33											73.87	
Phrynophyas spp	23.08															76.92	
Phyllomedusa spp	7.18				12.12		0.19					0.74				79.78	
Total	**6.87**				**17.64**		**0.09**					**0.75**				**75.15**	
Kinosternon scorpioides	32.93															67.07	
Phrynops giba	16.00	16.00														68.00	
Phrynops nasuta								2.22								97.78	
Platemys platycephala	14.17							4.86								80.97	
Rhinaclemmys punctularia	8.25	3.30						16.50								71.95	
Total	**13.85**	**1.99**						**8.97**								**76.07**	
Ameiva ameiva	74.36	15.13														10.51	
Anolis punctatus																100.00	
Polychrus marmurata	14.85				0.99							9.90				74.26	
Chemidorhorus lemmiscatus	75.60	1.85			9.24											13.31	
Plica plica	12.35				19.75							22.22				45.68	
Uranoscodon supercilliosa	41.32				4.89							22.74				31.05	
Uranoscodon azureum																100.00	
Total	**58.67**	**4.51**			**5.68**							**7.90**				**23.58**	
Bothrops bilineatus																100.00	
Colubridae spp																100.00	
Botrops atrox																	
Lachesis muta																100.00	
Total																**100.00**	

Table 4. Orchids which may be exported from Suriname

ORCHID NAME	Minimum FOB price (US $)
Brassavola martiana	2.50
Campylocentrum micranthum	2.50
Catasetum macrocarpum	2.50
Dichaea picta	2.50
Dimerandra stenopetala	2.50
Encyclia fragrans	2.50
Encyclia oncidioides	2.50
Encyclia selligera	2.50
Encyclia vespa	2.50
Epidendrum nocturnum	2.50
Epidendrum	2.50
Ionopsis utricularioides	2.50
Maxillaria camaridii	2.50
Maxillaria discolor	2.50
Maxillaria rufescens	2.50
Maxillaria superflua	2.50
Maxillaria violaceopunctata	2.50
Octomeria deltoglossa	2.50
Pleurothaffis picta	2.50
Pleurothaffis grobyi	2.50
Rodriguezia lanceolata	2.50
Scaphygolds amethystina	2.50
Schomburgkia crispa	2.50
Stelis argentata	2.50
Trigonidium acuminatum	2.50
Brassia lanceana	12.50
Oncidium lanceanum	12.50

Table 5. Animal Exporters Association of Suriname
(Vereniging van Vogel en Dierenexporteurs)

Owner	Company	Address	Tel.	Fax.
G. van Dijk	Animal International	Costerstraat 17	472468/472974	474034
D. Fernandes	Fanna's Pet Shop	Dr. J.F. Nassylaan 75	473229/0805432	473229
I. Hasnoe	Amazona Pets	Kankantristraat 30	403010/403011	402586
T. Henzen	Henzen's Tropical Wildlife	Pallisadeweg II no. 17	0367040	0367040
H. Kruisland	Aqua Fish	Lelydorperweg 49	551717/0852096	
M. Lelienhof	N.V. Hofex	Ceresburgweg 1	486676	463362
H. Sanches	----------	Wayambostraat 19	491889/474948	497189
Wildlife Exporters and Breeders (Secretariat: Gelebekstraat 2, Saramacca, Suriname)				
Ch. Bousaid	Exotic Fauna N.V.	Coppernicusstraat 63	457810	457810
E. Calor	Calani N.V.	Larecoweg 200	455047	455047
R. Heath	Heath's Wildlife	Powisistraat 136	452246	452246
G. Meye	----------	Gelebekstraat 2 (Sar)	0327021/0803497	0327021
G. Pinas	Alpha Exotic	Tata Colinstraat 43	457665	457665
H. Plet	----------	Aboenawrokostraat 23	454972	------
J. Roesmin	Selva's Reptiles	Libanonweg 176	0803237	474040
B. Soechitram	Surinam Tropical Wildlife and Plants	Kwattaweg 861	0330539	0330539
G. Wittenberg	Suri Wild Flowers and Animals	Nw. Weergevondenweg 391	483303/0805808	483303
Non Associated Animal Exporters				
S. Brank	----------	Poesoegroenoestraat 26	497014/464077	------
S. Cheng A June	----------	Zwartehovenbrugstr 246	477215/477708	477215
U. Gonesh	----------	Zwartehovenbrugstr 189	477459	------
E. Graanoogst	Graanoogst Animal Export	Reebergproject 24	0803233	0803233
J. Henzen	Tropical Paradise	Pallisadeweg II no. 17	0367040/0367968	0367040
M. Joemai-Ozir	----------	Welgedacht C weg 464	0350032	------
V. Leckie	Tropical Birds and Reptiles	Kasabaholoweg 67	462218	462218
S. Ramsaran	The Amazon Group N.V.	Twee kinderenwg 27	454253/0808000	454253
V. Tjon Kwam Paw	Surinam Exotic Distributors	Indira Gandhiweg 578	0366367/0367968	------
R. Wittenberg	----------	Nw Weergevondenweg 738	485712/0350504	------
M. Sewnath E. Eriks	---------- ----------	Mijnzorgweg 42 Lelydorperweg 123	0366670 0366525	

Part 2. Guyana Situation Analysis

REPTILES/AMPHIBIANS

The Cooperative Republic of Guyana is the largest of the three Guianas in size and population. With a population approaching 740,000 inhabitants in an area of 216,000 km², it is, like Suriname, one of the least populated tropical countries in the world. Ninety percent of the people live along the coast or 10% of the area so the interior remains largely unpopulated. However, the interior of Guyana is more accessible than that of Suriname and there is a road system linking Guyana to Brazil, Venezuela and Suriname. Already in 1993, 9.1 million hectatres of the estimated 16 milion ha of forest in Guyana were under lease by logging concessionaires (Reichart, H. A., *et. al*., 1997).

Guyana does not have the protected areas, Natural Parks and Reserves that have made Suriname famous. Indeed there is only one small National Park, Kaeiteur in Region VIII, which covers 63,000 hectares and takes up less than one-tenth of one percent of Guyana's area, as compared to Suriname's parks 7%. However, other areas are currently under consideration as protected areas.

Overview

Guyana has been a very active exporter of wildlife for decades, particularly psittacines (Roet, Mack, Duplaix, 1981). In 1984, for instance, CITES reported that Guyana exported 51,671 psittacines compared to Suriname's 1,764. Not surprising that there have been charges of over-exploitation (Thomsen, J. B. & A. Brautigam, 1991) and rampant smuggling from Venezuela (Desenne and Strahl, 1991). Today, a better legal framework, including a quota system introduced in 1985, manages the wildlife trade more effectively.

Legal Framework and Hunting Regulations

Guyana ratified CITES in 1977 but had no permitting entity and no laws to meet the legal requirements mandated by CITES . In 1986 the Wildlife Services Division of the Ministry of Agriculture was established as the permitting agency to control the export trade in wildlife. Draft Wildlife Trade legislation was prepared in 1987 to address Guyana's requirement under CITES but it was not adopted by Parliament. A moratorium was then placed on the wildlife trade, effectively banning all legal exports, from January to October 1987, while more comprehensive legislation was drafted and a new set of quotas devised. The amendments to the new regulations placed emphasis on standards for the holding facilities, requirements for transport and veterinary inspections. In 1988, when the trade had re-opened, closed seasons and quota allocations among the exporters were implemented.

A second moratorium shut down the wildlife trade from February 1993 to November 1995 when the European Union, CITES and the international community reported that Guyana's harvest levels were detrimental to the wild populations. During these two moratoria, Suriname continued its wildlife export trade. CITES put considerable pressure on the government of Guyana to develop adequate wildlife laws and regulations. These two export trade bans created economic hardship to both the traders and the Amerindian communities in the interior who harvest the wildlife.

Now strong new legislation is in place. The Environmental Protection Act of 1996 and the Species Protection Regulations of September 1999 have completely changed the infrastructure of Wildlife Management and permitting in Guyana. However, the draft Wildlife Management and Conservation Regulations, which deal with broader wildlife management issues, are currently undergoing consultation with the various stakeholders and and are not currently in force. The new Environmental Agency, fully staffed and functioning since 1998, reports directly to the Office of the President. Its mandate covers various aspects of forestry, pollution, mining, wildlife conservation regulations and implementation international treaties requirements including CITES.

The Scientific Authority comes under the National Biodiversity Advisory Committee (NBAC) whose members include: representatives of the 1) EPA, 2) the Guyana Forest Commission, 3) the Ministry of Fisheries, Crops and Livestock, 4) the Ministry of Agriculture, 5) the Ministry of Foreign Affairs, 6) the University of Guyana, Department of Biology, 7) the Ministry of Amerindian Affairs, Wildlife Unit, Guyana Natural Resources Agency and 8) the Guyana Geology and Mines Commission. The NBAC does not conduct any research on species or ecosystems itself but is responsible for identifying areas for research and encouraging this research by the EPA. The NBAC also meets frequently and consults with the traders' associations. The EPA uses the quotas set in 1987 but has recently increased some quotas based on the findings of a parrot survey made in 1997 (see below).

Revenues generated by the licensing of stakeholders, and from the permitting and export of wildlife, including taxes on revenues, are placed in a special fund to cover the operating costs of the Wildlife Division, including enforcement -- about US $ 112,000/year.

However reports from both the EPA and the stakeholders indicate that while fully operational, EPA has not implemented all of its mandates such as the issuing of licenses for trappers, middlemen and exporters, and the impositions of fines. Also the new regulations have met with some resistance on the part of the stakeholders and consultations are taking place to modify them.

Some confusion remains as to the implementation also, of regulations during this transition period. The Fisheries Department used to monitor the export of ornamental aquarium fish, now the EPA licenses it, even though Fisheries personnel still handles the inspections. Some new aquarium fish exporters appear on the EPA list of licensed exporters but not on the list at the Fisheries Department.

We were impressed with the level of motivation and commitment of the directors and senior staff at the EPA. All realize that this is a new beginning, a clean slate and that the next few years will determine whether the new legislation is a success. Activities are being planned including field surveys for key species, training sessions for enforcement personnel and the revision of the hunting regulations.

Enforcement and record keeping

- EPA promised "no exceptions" enforcement but so far there have been no prosecutions due to insufficient resources for effective monitoring and response. Reports indicate that, on occasion, other measures have been used in response to non-

compliance such as the withholding or withdrawing of export licenses. For instance, contraventions of the Act specify a one to three month suspension of the trader's license, effectively stopping commercial activities – a considerable loss of revenue if it occurs during the open trapping season. The fine structure is detailed and the fines set are high by Guyanese standards.

- Like Suriname, Guyana's Wildlife Enforcement, Veterinary inspectors and Customs agents need training and identification manuals for the species listed in the quota list.

- Record keeping has only just been computerized. When we requested detailed information covering a four-year period we were unable to obtain detailed records that Suriname provided quickly and willingly. After six weeks and repeated requests, we received a two-year list of CITES and non-CITES exports but no information as to destination countries (Table 6).

Export of CITES Species and quotas

- Guyana has been one of the major exporters of parrots in South America. The capture of parrots make up the majority of the income for trappers, middlemen and exporters. In 1999, the revenue realized from parrot exports alone was close to US $ 1 million (Table 6b).

- In 1997, Andrew Kratter conducted a survey of the parrot populations in Guyana and made specific quota recommendations, without consulting local ornithologists or the international bird conservation groups such as Birds International. For instance, he advised that Guyana maintain its zero quotas for all its rare parrots except for *Pionus fuscus* (quota of 500 suggested) and *Amazona dufresnia* (quota of 200). In 2001 Guyana raised the quotas for these two from 0 to 780 (*P. fuscus*), 0 to 520 (*A. dufresnia*), as well as 0 to 780 for *Deroptyus accipitrinus*.

Export of Non-CITES Species and quotas

- When the quota system was established in 1987, the figures were based on the review of the export records for different species between 1981-1986 by the Wildlife Services Division and were approved by the Senior Minister of Agriculture. They were extremely high, roughly ten times higher than Suriname's export rate.

- Guyana has specialized in the non-CITES reptile trade: 21 species of CITES-listed reptiles and 38 non-CITES species of reptiles are listed on the quotas. In 1999, Guyana exported over 36,000 non-CITES reptiles, while Suriname exported 12,286 individuals of 22 species of non-CITES reptiles.
- Quotas have been set in Guyana for more CITES and non-CITES mammals than Suriname including: 2,200 *Saimiri sciureus*, 600 *Cebus apella* and 242 *Cebus nigrivittatus* for which Suriname has a zero quota. Other mammals exported by Guyana but not by Suriname include: *Choloepus didactylus* (110), *Coendou prehensilis* (44), *Cyclopes didactylus* (10), and *Potos flavus* (110) among others. Such a discrepancy between the export quotas of these two neighboring countries is undesirable (Tables 9, 10).

- The ornamental aquarium trade in Guyana is well established but due to time constraints we were unable to investigate this.

Stakeholders: Wildlife harvesters and exporters

- The number of fully licensed traders increased between 1993 and 2001 from 9 to 28 – as in Suriname (Table 7 which lists 36 traders, some not fully licensed). Now the EPA has also placed a "freeze" on the licensing of new traders. Again the established traders, particularly those in associations, resent the newcomers sharing their quotas. EPA restricts the licenses of the new traders to deal with only certain categories of wildlife depending on their area of expertise. However, they usually permit them to share the parrot quota, as it is a major source of income.

- Middlemen and trappers are licensed. They supply and pay for their own equipment. The middlemen that we interviewed stated that they did not understand the zero-quota system. They said that zero-quota parrots (*A. dufresnia, A. festiva, A. macao, A. severa*) were so plentiful that farmers considered them pests! Since then the quotas set for 2001 have removed the zero-quota status for *A. dufresnia* and *A. festiva* (520 may be exported/year).

- As in Suriname, Amerindian communities in the interior trap and harvest the wildlife and sell it to middlemen. It is a preferred seasonal source of cash revenue.

- Exporters expressed an interest in receiving expertise and assistance in setting up captive breeding or ranching projects. They are willing to provide the facilities but need training in captive management and husbandry techniques. This would be a costly proposition. Some exporters suggested exporting breeding stock to breeding facilities overseas to save time and reduce expense. However, such breeding facilities already exist in Europe, Asia and the United States.

Hunting Pressure

- As in Suriname there are no hunting regulations, enforcement or bag limits in the interior.

- Recreational hunting is common along the coast, especially for ducks and sea birds. Unlike Suriname, hunters are not licensed and hunting is not regulated yet in Guyana.

- Unlike Suriname there appears to be no commercial bushmeat trade in Guyana.

Reported Smuggling

- Smuggling was not witnessed first-hand in Guyana because we spent only one day in Georgetown. However, we received many reports of smuggling from traders, middlemen and biologists both in Guyana and Suriname. Usually Suriname was said to smuggle wildlife *out* of Guyana. Guyanese sources denied the smuggling of parrots or reptiles from Suriname *into* Guyana even though we saw this first-hand in Suriname on at least two occasions.

- A biologist in Guyana reports that *A. dufresnia* (quota = 520), *A. festiva* (520) , and *D. accipitrinus* (780), all zero-quota species until this year, are often seen in cages or observed awaiting shipment at collection points in the interior. He suggested that they were leaving through Suriname but Suriname has had a long-standing zero or low quotas for all these species including in 2001: *A. dufresnia* (70), *A. festiva* (0), and *D. accipitrinus* (300).

Findings and other considerations

- Guyana's new regulations have imposed a trade regulation, including:
    1. The licensing of trappers, middlemen, exporters, and holding facilities with annual fees.
    2. Regular veterinary inspections of the holding facilities and the inspection of all shipments prior to departure.
    3. Export quotas (based on past exports and, for parrots, a recent survey.)
    4. Sanctions including fines and the suspension of licenses for contraventions of the regulations.
    5. Computerized record keeping and reporting procedures.
    6. The revenues from taxes derived from exports, fees from the sale of export permits and licenses and fines are placed in a special fund that finances EPA's operating costs and special projects such as wildlife surveys.

Recommendations for Guyana

- Export Quotas have been increased for 2001, including the lifting of Zero Quotas for certain CITES-listed parrots (Table 10). These should be reviewed. It is recommended that the *Amazona festiva* and *Deroptyus accipitrinus* quotas be returned to zero and *Amazona dufresnia* and *Pionus fuscus* quotas be reduced to 200, or below, for the 2001 season and beyond.

- Export quotas and FOB prices set by Suriname and Guyana should be harmonized to discourage smuggling between both countries. Low or zero quotas are meaningless in assuring the protection of a species if there is a high quota literally across the river in the other country. Zero-Quota or protected species of one country should not appear on the export quota list of the other. When a species in one country has a zero quota and is heavily exported by its neighbor this encourages smuggling. Suriname exports the Scarlet Macaw (100 per year), Guyana does not. (See Table 10). Guyana exports *Cebus nigrivittatus*, Suriname does not. Species that are accidental or marginal in a one country should also not appear on the quota list of either country.

- Species which are endemic and protected in one country and only have tiny populations in the other should not appear on the Quota list of the other country: the Blue Poison Arrow frog *Dendrobates azureus* occurs only in one locality in the Sipaliwini Savannah Nature Reserve in Suriname where it is protected with a zero export quota. This species appears on the Quota list of Guyana (500/year) but is found only near Gunn's strip, due west of the Sipaliwni. A species similar in appearance, *Dendrobates tinctorius*, occurs in both countries. (Table 10)

- Provide annual or bi-annual audiovisual TRAFFIC presentations to update Customs and EPA personnel about the international legal and illegal international wildlife trade.

- Provide Customs and enforcement personnel with species ID manual with illustrations of the species targeted by the wildlife and plant trade.

- Monitoring, species data and volume is needed on the ornamental fish trade, rare woods, medicinal plants, and shark fins.

Photograph 2

Smuggling of wildlife between Suriname and Guyana often occurs on small canoes like the one shown here.

Table 6a(I). Guyana CITES Export Data – 1998

	FOB (US$)	Quota	Exports	% Realized	Value (US$)
BIRDS					
Ara ararauna	252.00	720	614	85.28	154,728.00
Ara chloropterus	288.00	900	807	89.67	232,416.00
Ara nobilis	50.00	1,000	588	58.80	29,400.00
Ara manilata	65.00	1,500	384	25.60	24,960.00
Amazona amazonica	32.00	9,000	7,043	78.25	225,376.00
Amazona ochrocephala	86.00	1,000	869	86.90	74,734.00
Amazona farinosa	72.00	1,000	798	79.80	57,456.00
Aratinga leucophthalmus	72.00	300	18	6.00	1,296.00
Aratinga pertinax	14.00	500	46	9.20	644.00
Pyrrhura picta	101.00	300	29	9.67	2,929.00
Forpus passerinus	22.00	600	38	6.33	836.00
Brotogeris chrysopterus	22.00	180	15	8.33	330.00
Pionites melanocephala	50.00	600	532	88.67	26,600.00
Pionus menstruus	36.00	900	678	75.33	24,408.00
Ramphastos vitellinus	115.00	120	108	90.00	12,420.00
Ramphastos toco	144.00	200	153	76.50	22,032.00
Ramphastos tucanus	115.00	170	135	79.41	11,525.00
Ptereglossus viridis	65.00	52	36	69.23	2,340.00
Ptereglossus aracari	65.00	300	134	44.67	8,710.00
Pyrrhura egregia egregia	36.00	120	0	0.00	0.00
	Total	**19,342**	**13,025**	**67.34**	**913,140.00**
MAMMALS					
Cebus nigrivittatus	79.00	242	70	28.93	5,530.00
Cebus apella	79.00	600	359	59.83	28,361.00
Saguinus midas	58.00	200	169	84.50	9,802.00
Saimiri sciureus	65.00	2,200	1,661	75.50	107,965.00
	Total	**3,242**	**2,259**	**69.68**	**151,658.00**
REPTILES /AMPHIBIANS					
Boa constrictor constrictor	15.00	1,400	1,146	81.86	17,190.00
Corallus enydris	5.00	3,000	2,370	79.00	11,850.00
Corallus caninus	58.00	880	779	88.52	45,182.00
Epicrates cenchria cenchria	13.00	500	360	72.00	4,680.00
Epicrates cenchria maurus	6.50	500	224	44.80	1,456.00
Eunectes murinus	9.00	1,000	646	64.60	5,814.00
Phobobatus trivittatus	1.00	500	0	0.00	0.00
Dendrobates azureus	1.00	500	0	0.00	0.00
Epipedobates femoralis	1.00	500	0	0.00	0.00
Epipedobates pictus	1.00	500	0	0.00	0.00
Epipedobates trivittatus	1.00	500	0	0.00	0.00
Dendrobates tinctorius	1.00	500	16	3.20	16.00
Dendrobates leucomelas	1.00	500	0	0.00	0.00
Geochelone carbonaria	17.00	704	704	100.00	11,968.00
Geochelone denticulata	17.00	704	704	100.00	11,968.00
Paleosuchus palpebrosus	3.00	500	459	91.80	1,377.00
Paleosuchus trigonatus	3.00	500	324	64.80	972.00
Caiman crocodilus crocodilus	3.00	10,000	7,754	77.54	23,262.00
Tupinambis nigropunctatus	3.60	7,200	2,532	35.17	91,152.00
Iguana iguana	1.40	8,400	1,247	14.85	1,745.80
Podocnemis erythocephala	6.50	50	0	0.00	0.00
	Total	**38,838**	**19,265**	**49.60**	**228,632.80**

Table 6a(ll). Guyana non-CITES Export Data -- 1998

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Psophia crepitans	230.00	90	28	53.85	6,440.00
Crax alector	180.00	52	49	54.44	8,820.00
Penelope grantii	108.00	18	0	0.00	0.00
	Total	**160**	**77**	**48.13**	**15,260.00**
MAMMALS					
Choloepus didactylus	72.00	110	100	90.91	7,200.00
Coendou prehensilis	70.00	44	19	43.18	1,330.00
Cuniculus paca	16.00	110	31	31.00	496.00
Cyclopes didactylus	66.00	10	4	40.00	264.00
Dasyprocta aguti	19.00	350	176	50.29	3,344.00
Dasypus novemcinctus	69.00	50	10	20.00	690.00
Euphractus sexcinctus	21.00	50	18	36.00	378.00
Nasua nasua	14.00	44	26	59.09	364.00
Philander nudicaudatus	6.00	88	39	44.32	234.00
Potos flavus	72.00	110	92	83.64	6,624.00
Procyon cancrivorus	18.00	44	5	11.36	90.00
Tamandua tetradactyla	115.00	44	35	79.55	4,025.00
Hydrochaeris hydrochaeris	230.00	10	0	0.00	0.00
Eira barbara	14.00	10	0	0.00	0.00
Didelphis marsupialia	6.00	25	0	0.00	0.00
	Total	**1,099**	**555**	**50.50**	**25,039.00**
REPTILES/AMPHIBIANS					
Bufo guttata	1.80	1,500	561	37.40	1,009.80
Bufo marinus	0.40	1,500	266	17.73	106.40
Bufo typhonius	0.70	750	354	47.20	247.80
Hyla crepitans	0.40	1,000	153	15.30	61.20
Pipa pipa	1.80	500	144	28.80	259.20
Hyla boans	0.40	1,000	175	17.50	70.00
Leptodactylus pentadactylus	0.40	500	221	44.20	88.40
Phyllomedusa bicolor	0.70	500	294	58.80	205.80
Pseudis paradoxus	0.40	5,000	345	6.90	138.00
	Total	**12,250**	**2,513**	**20.51**	**2,186.60**
Kinosternon scorpioides	2.00	250	160	64.00	320.00
Chelus fimbriatus	15.00	132	132	100.00	1,980.00
Phrynops gibbus	5.00	600	464	77.33	2,320.00
Phrynops geoffranus	5.00	600	421	70.17	2,105.00
Platemys platycephala	1.80	500	270	54.00	486.00
Rhinoclemmys punctularia	3.00	1,500	1,146	76.40	3,438.00
Phrynops nasuta	1.80	600	0	0.00	0.00
	Total	**4,182**	**2,593**	**62.00**	**10,649.00**
Ameiva ameiva	0.70	20,000	11,587	57.94	40.56
Anolis roquet	0.40	24,000	16,330	68.04	27.22
Polychrus marmoratus	0.70	2,000	1,681	84.05	58.84
Chemidophorus lemmiscatus	0.40	2,000	1,235	61.75	494.00

Table 6a(ll) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
REPTILES/AMPHIBIANS					
Plica plica	0.70	2,800	2,465	88.04	1,725.50
Plica umbra	1.10	2,800	2,152	76.86	2,367.20
Thecadactylus rapicauda	0.70	450	64	14.22	44.80
Tropidurus hispidus	0.40	20,000	12,777	63.89	5,110.80
Uranoscodon supercilliosus	0.70	6,500	4,381	67.40	3,066.70
	Total	**80,550**	**52,672**	**65.39**	**12,935.62**
Bothrops bilineatus	8.00	100	12	12.00	96.00
Crotalus durissus dryhinus	12.00	150	5	3.33	60.00
Botrops atrox	8.00	100	1	1.00	8.00
Lachesis muta	58.00	50	1	2.00	58.00
Micrurus surinamensis	9.00	50	1	2.00	9.00
Leptophis ahaetulla	1.20	200	0	0.00	0.00
Oxybelis fulgidus	1.20	100	32	32.00	38.40
Clelia clelia	8.00	50	0	0.00	0.00
Chironius carinatus	1.80	105	24	22.86	43.30
Drymarchoran corais corais	8.00	100	27	27.00	216.00
Mabuya mabouya	0.40	700	64	9.14	25.60
Pseutes sulphureus	6.00	100	8	8.00	48.00
Spilotes pullatus	6.00	200	108	54.00	648.00
	Total	**2,005**	**283**	**14.11**	**1,250.30**

Table 6b(I). Guyana CITES Export Data – 1999

	FOB (US$)	Quota	Exports	% Realized	Value (US$)
BIRDS					
Ara ararauna	252.00	720	678	94.17	170,856.00
Ara chloropterus	288.00	900	792	88.00	228,096.00
Ara nobilis	50.00	1,000	475	47.50	23,750.00
Ara manilata	65.00	1,500	506	33.73	32,890.00
Amazona amazonica	32.00	9,000	7,132	79.20	228,224.00
Amazona ochrocephala	86.00	1,000	852	85.20	73,272.00
Amazona farinosa	72.00	1,000	875	85.50	63,000.00
Aratinga leucophthalmus	72.00	300	0	0.00	0.00
Aratinga pertinax	14.00	500	0	0.00	0.00
Pyrrhura picta	101.00	300	0	0.00	0.00
Forpus passerinus	22.00	600	3	0.50	66.00
Brotogeris chrysopterus	22.00	180	5	2.78	110.00
Pionites melanocephala	50.00	600	517	86.17	25,850.00
Pionus menstruus	36.00	900	711	79.00	25,596.00
Ramphastos vitellinus	115.00	120	93	77.50	10,695.00
Ramphastos toco	144.00	200	107	53.50	15,408.00
Ramphastos tucanus	115.00	170	104	61.18	11,960.00
Ptereglossus viridis	65.00	52	18	34.62	1,170.00
Ptereglossus aracari	65.00	300	129	43.00	8,385.00
Pyrrhura egregia egregia	36.00	120	4	3.33	144.00
	Total	**19,462**	**12,997**	**66.78**	**919,472.00**
MAMMALS					
Cebus nigrivittatus	79.00	242	68	28.09	5,372.00
Cebus apella	79.00	600	122	20.33	9,638.00
Saguinus midas	58.00	200	134	67.00	7,772.00
Saimiri sciureus	65.00	2,200	1,260	57.27	81,900.00
	Total	**3,242**	**1,584**	**48.86**	**104,682.00**
REPTILES /AMPHIBIANS					
Boa constrictor constrictor	15.00	1,400	1,220	87.14	18,300.00
Corallus enydris	5.00	3,000	2,196	73.20	10,980.00
Corallus caninus	58.00	880	719	81.70	41,702.00
Epicrates cenchria cenchria	13.00	500	309	61.80	4,017.00
Epicrates cenchria maurus	6.50	500	165	33.00	1,072.50
Eunectes murinus	9.00	1,000	746	74.60	6,714.00
Phobobatus trivittatus	1.00	500	211	42.20	211.00
Dendrobates azureus	1.00	500	42	8.40	42.00
Epipedobates femoralis	1.00	500	13	2.60	13.00
Epipedobates pictus	1.00	500	1	0.20	1.00
Epipedobates trivittatus	1.00	500	284	56.80	284.00
Dendrobates tinctorius	1.00	500	100	20.00	100.00
Dendrobates leucomelas	1.00	500	0	0.00	0.00
Geochelone carbonaria	17.00	704	635	90.19	10,795.00
Geochelone denticulata	17.00	704	554	78.69	9,418.00
Paleosuchus palpebrosus	3.00	500	409	81.80	1,227.00
Paleosuchus trigonatus	3.00	500	270	54.00	810.00
Caiman crocodilus crocodilus	3.00	10,000	9,880	98.80	29,640.00
Tupinambis nigropunctatus	3.60	7,200	2,306	32.03	8,301.60
Iguana iguana	1.40	8,400	566	6.74	792.40
Podocnemis erythocephala	6.50	50	47	94.00	305.50
	Total	**38,838**	**20,673**	**53.23**	**144,726.00**

Table 6b(ll). Guyana non-CITES Export Data for 1999

	FOB (US$)	Quota	Exports	% realized	Value (US$)
BIRDS					
Psohia crepitans	230.00	90	15	16.67	3,450.00
Crax alector	180.00	52	8	15.38	1,440.00
Penelope grantii	108.00	18	0	0.00	0.00
	Total	**160**	**23**	**14.38**	**4,890.00**
MAMMALS					
Choloepus didactylus	72.00	110	66	60.00	4,752.00
Coendou prehensilis	70.00	44	14	31.82	980.00
Agouti paca	16.00	110	22	20.00	352.00
Cyclopes didactylus	66.00	10	1	10.00	66.00
Dasyprocta aguti	19.00	350	67	19.14	1,273.00
Dasypus novemcinctus	69.00	50	1	2.00	69.00
Euphractus sexcinctus	21.00	50	15	30.00	315.00
Nasua nasua	14.00	44	26	35.12	364.00
Philander nudicaudatus	6.00	88	33	37.50	198.00
Potos flavus	72.00	110	58	52.73	4,176.00
Procyon cancrivorus	18.00	44	8	18.18	144.00
Tamandua tetradactyla	115.00	44	20	50.00	2,300.00
Hydrochaeris hydrochaeris	230.00	10	0	0.00	0.00
Eira barbara	14.00	10	1	2.00	14.25
Didelphis marsupialia	6.00	25	1	4.00	
	Total	**1,089**	**333**	**30.58**	**15,003.25**
REPTILES/AMPHIBIANS					
Bufo guttata	1.80	1,500	148	9.87	266.40
Bufo marinus	0.40	1,500	242	16.13	6.45
Bufo typhonius	0.70	750	128	17.07	89.60
Hyla crepitans	0.40	1,000	99	9.90	39.60
Pipa pipa	1.80	500	78	15.60	140.40
Hyla boans	0.40	1,000	268	26.80	107.20
Leptodactylus pentadactylus	0.40	500	125	25.00	50.00
Phyllomedusa bicolor	0.70	500	133	26.60	18.62
Pseudis paradoxus	0.40	5,000	10	0.20	4.00
	Total	**7,250**	**1,231**	**16.98**	**722.27**
Kinosternon scorpioides	2.00	250	84	33.60	168.00
Chelus fimbriatus	15.00	132	89	67.42	1,335.00
Phrynops gibbus	5.00	600	337	56.17	1,685.00
Phrynops geoffranus	5.00	600	416	69.33	2,080.00
Platemys platycephala	1.80	500	269	53.80	484.20
Rhinoclemmys punctularia	3.00	1,500	974	64.93	2,922.00
Phrynops nasuta	1.80	600	15	2.50	27.00
	Total	**4,182**	**2,184**	**52.22**	**8,701.20**
Ameiva ameiva	0.70	20,000	6,594	32.97	23.08
Anolis roquet	0.40	24,000	12,880	53.67	21.47
Polychrus marmoratus	0.70	2,000	1,137	56.85	39.79

Table 6b(II) continued

	FOB (US$)	Quota	Exports	% realized	Value (US$)
REPTILES/AMPHIBIANS					
Chemidophorus lemmiscatus	0.40	2,000	460	23.00	184.00
Plica plica	0.70	2,800	1,747	62.39	43.67
Plica umbra	1.10	2,800	1,573	56.18	61.79
Thecadactylus rapicauda	0.70	450	10	2.22	7.00
Tropidurus hispidus	0.40	20,000	9,186	45.93	3,674.40
Uranoscodon supercilliosus	0.70	6,500	2,461	37.86	1,722.70
	Total	**80,550**	**36,048**	**44.75**	**5,777.90**
Bothrops bilineatus	8.00	100	4	4.00	32.00
Crotalus durissus bryhinus	12.00	150	51	34.00	612.00
Botrops atrox	8.00	100	3	3.00	24.00
Lachesis muta	58.00	50	2	4.00	116.00
Micrurus surinamensis	9.00	50	1	2.00	9.00
Leptophis ahaetulla	1.20	200	0	0.00	0.00
Oxybelis fulgidus	1.20	100	12	12.00	14.40
Clelia clelia	8.00	50	0	0.00	0.00
Chironius carinatus	1.80	105	3	2.86	5.40
Drymarchan corais corais	8.00	100	24	24.00	192.00
Mabuya mabouya	0.40	700	10	1.43	4.00
Pseutes sulphureus	6.00	100	1	1.00	6.00
Spilotes pullatus	6.00	200	64	32.00	384.00
	Total	**400**	**60**	**15.00**	**1,398.80**
Aviculari aviculari	0.40	20,000	11,349	56.75	4,539.60
Morpho menelaus	1.40	20,000	500	2.5	700.00
	Total	**40,000**	**11,849**	**29.62**	**5,239.00**

Table 7. Animal and Ornamental Aquarium Fish Exporters – Guyana

Name of owner	Company	Address	Tel.	Fax
1. Sebastian G Abrams	Nature's Products	Timehrijce House Road End, ECD	612187	612229
2. Nizam Esahack	Guyana Aquarium & Pet Co.	19 Friendship, EBD	066-2241	066-2458
3. Charles Fung-A-Fat	Guyana Live Tropical Fish	25 Goedverwagting, ECD	020-2201	
4. Samuel Hawker		196 Nelson St. Mocha, EBD		
5. Kurt Herzog	Herzog's Wildlife Farm	10 A Kersaint Park, LBI, ECD	020-2817	
6. Akhtar Hussain		c/o Zaladin Juman, # 78 C/ton	039-2217	
7. Franklin Jawaheer		4 Station St., Kitty, G/Town	02-56105	41480
8. Mohan& Mahadai Lall		183E, Quamina St., G/Town	02-63721	02-63721
9. Carmen Low		66 Dowding St., Kitty, G/town	02-72959	02-72959
10. Louis Martins	Tropical Flora and Fauna	148 Fabricating St., Eccles, EBD	02-64101	02-63138
11. Praimnauth Mohanlall	Animal Farm	159 Rupununi St. Bel Air Park	02-52096	
12. Eugene Nardin		187 Almond St., Q/town	02-56256	
13. Mohamed Nazmul		23 Three Friends v/ge, Esseq.	071-323	
14. Lester A Patoir		21 Public Rd. Herstelling	065-4176	065-4176
15. Chaitam Persaud		Aurora Village, EWq.Coast		
16, Andrea G Rudder	Rudder Import/Export Co	45 Old Rd, Eccles, EBD	02-50106	02-50106
17. M.A. Raymond Shaw	Guyana Wildlife Trappers & Exporters	Plot #18, Timehri Base Rd.	061-2411	
18. Mark Pierre	Tameshia Wildlife Traders	238 Quamina St. S/C/burg	02-52396	
19. Firzadudeen Shaw		25 Three Friends Village, Esseq.	071-323	
20. Clayton Rodney	Rodney's Wildlife Enterprise	28 First St. Prospect, EBD	065-4406	
21. Anand Singh		7 Grant 1779 Crabwood Creek	039-2213	
22 Jessie Sowatilall	Jessie's Bird Enterprise	87 Leopold St., Werk-En-Rust	02-53668	
23. C.M. Fox		73 Brickdam, Gttown	02-61908	
24. L. & C Van Sertima	Van Sertima's Biological Prod.	163 Waterloo St. G/town	02-50103	02-50103
25. Anil Jawaheer		68 Robb & Cummings St. G/town		
26. Rajendra Persaud		8 Haslington, ECD	070-6423	
27. Michael Sukhu		312 Determa St. Linden		
28. Thelma Reece		Princess St. G/town	02-77506	
29. Roxanne Reece	P & R Imports & Exports	J Lama Ave, Bel Air Park,	02-69098	02-69098
30. Eduardo Uruena		Croal Street, Stabroek, G/Town	02-71905	

Table 7a Ornamental Aquarium Fish Exporters – Guyana

Name of owner	Company	Address	Tel.	Fax
1. Oli Mohamed	Mohamed's Aquarium Entpz	22 Fort St. Kingston, G/town		
2. Cecil Persaud	Guyana Muadum Traders	Naith, Land of Canaan	061-2206	
3. Ram Sukhu	Ram Sukhu & Sons Aqu.	I E Chateau Margot, ECD	020-3079	020-307
4. S & N Persaud		Gordon Table, M/cony Ck, ECD		
5. Physy Rahaman		Timehri Public Road		
6. Dewan C Shrikant & B Maraj		Macouba, Mahaicony RiverECD	020-3371	

Part 3. French Guiana Situation Analysis

Overview

French Guiana is the smallest of the three Guianas but it also has the same rich biodiversity, the same remote and forested interior (Table 1). It also shares the same problems of encroaching pressures: In 1988, 97% of the country was forested of which almost 200,000 ha was under logging concession and 110,000 m³ of timber was being harvested per year (Reichart, H. A., *et. al*., 1997). This timber harvesting has decreased: only 54,000 m³ was harvested in 1997 (Association Kwata, pers. comm., 2001). Further, like its two neighbors, the threat of gold mining and its attendant pollution looms large in the south, far from the arm of the law in Cayenne.

Legal Framework and Hunting Regulations

French Guiana, unlike Suriname and Guyana, is not an independent country but an overseas department of France – a piece of France located in South America. As such it does not have a separate legal framework but comes under French and European Union jurisdiction and law enforcement.

- France has been a party to CITES since August 9, 1978 and as a founding member of the European Union comes also under its CITES legal framework.

- International commerce in endangered species is covered by the law of 1986 and the amended law of 1 March 1993 and applies only to French Guiana. This decree, for all intents and purposes, forbids the capture, killing, holding, export, transit, import, sale or resale of all wild vertebrate fauna and wild flora *occurring in French Guiana*, including their parts and derivatives. Further, sympatric species (CITES or non-CITES) that also occur in Guyana and/or Suriname, or indeed any Guyanese species held in captivity in any other country, would not be allowed into France even with an export permit from its country of origin or re-export. Therefore, theoretically, there is no legal wildlife export trade of any kind from French Guiana (with a few exceptions for preserved Arachnids and *Morpho* butterflies exported in small quantities for personal use). There is no legal intemal pet trade of any kind either (1982 regulations and 1983 amendments.)

- Wildlife species are divided into one of the following categories: 1) Totally protected – the majority, 2) May be hunted, 3) Forbidden in trade, and 4) Open to local but not export trade. These last three categories list the species that may or may not be hunted or traded.

- The few species that may be hunted for personal use or sold commercially by licensed restaurants that must keep detailed bush meat records subject to inspection (8 mammal, 3 bird, 1 reptile species - see table below) under the decree of 1995. It must be noted that French Guiana is the only French department that does not require hunting permits, this being in consideration of the ancestral hunting rights of the Amerindians and Maroons of the interior.

- The law of 1986 prohibits the sale of stuffed specimens or their derivatives, with the exception of some species (like piranhas or *Bufo* toads) that may be sold locally but not exported. It is under this regulation that sea turtles, sea turtle eggs, and Black caimans (including eggs) may not be collected or sold. Further, all sea turtles are also protected under the law of 1991(including accidental mutilation, capture, egg collecting and sale of meat). Marine mammals (whales, dolphins and manatees) are completely protected under the law of 1995.

Enforcement and record keeping

- There are no hunting licenses and there is no closed hunting season in French Guiana. Hunting bag limits were set in 1975 but include, for instance, 2 tapirs per hunter per outing, a species that may be then sold in licensed bushmeat restaurants. The tapir has decreased dramatically from the coastal region. However, with only three enforcement officers, hunting remains under-regulated on the coast and unregulated in the interior. The road system of French Guiana is much better than that in Suriname. Further, the last 18 km of the eastern end of the highway, linking French Guiana to Brazil, will be completed by the end of 2002, giving hunters better access to the interior along the many dirt tracks radiating from it.

- Implementation of the game laws was weak until 1993 when the *Office National de la Chasse et de la Faune Sauvage* known as the ONC (Hunting and Wildlife Management Office) opened an office in Cayenne. Now controls are made along the roads of the well-populated coastal zone and in restaurants. Illegal bush meat is seized and destroyed while live animals, usually pet parrots or monkeys, are transferred to a holding facility, treated if necessary and released. As a result, it is now uncommon to see illegal pets or smuggled bush meat in markets or for sale in unauthorized restaurants in the cities. However, there are few wildlife inspectors patrolling a large area…

Hunting pressure

- The ONC chief Wildlife Manager confided that the present wildlife management and open hunting season regulations, in particular, were not compatible with the long-term sustainable use of some species like the tapir and the Howler monkey. He thinks that hunting regulations and bag limits should be updated and amended. This is also the opinion of conservation organizations such as l'Association Kwata based on field surveys conducted over the last three years.

- It is reported that caimans from the Coesewijne River in northeastern Suriname are shot for their meat and are destined for the restaurants of French Guiana (where its sale as bushmeat is forbidden). We heard this claim on many occasions – in fact bush meat of all kinds is said to be smuggled to French Guiana on a regular basis. The main source of this bush meat appears to come from the Marowijne (Maronie) River area.

Reported Smuggling and Enforcement

- Both the ONC and Customs officials we interviewed reported several recent smuggling incidents by German tourists involving Dendrobatid frogs, rare reptiles

and hummingbirds that were smuggled on their persons and in their luggage. The cases were successfully prosecuted and the smugglers were fined and imprisoned.

- The export of souvenirs made from preserved tarantulas and *Morpho* butterfly wings is allowed for personal use. Insects are not listed on the game laws of 1986 or 1993. There have been some attempts to export large quantities of live tarantulas (e.g., 1200 in one postal shipment) that have been prosecuted.

Recommendations

- Update hunting regulations and bag limits. Remove the tapir from the list of hunted and commercial bush meat lists. Studies in Belize have shown that the tapir quickly disappears from areas where it is over-hunted (Fragozo, J.M., 1991).

- Review the status of certain species which are subject to considerable hunting pressure such as the Black curassow, *Crax alector*.

- Conduct a study in cooperation with the ONC to determine the quantity of bushmeat consumed in the licensed restaurants and their area of provenance. However, the official restaurant bushmeat logbooks may only contain a portion of the bushmeat consumed and/or sold.

- The Chief Customs Inspector requested an annual or bi-annual audio-visual presentation by a wildlife trade expert or by TRAFFIC personnel. He felt that this would motivate his inspectors, who concentrate their efforts on drug trafficking, and who need to be reminded of the international importance of animal smuggling, particularly its dollar value on the retail and collectors' market.

- Provide Customs and enforcement personnel with ID manuals for species targeted by the wildlife and plant trade. Create posters with species illustrations, their local names, and degree of endangerment due to over-hunting or trade.

- Provide Customs and ONC with current overseas retail prices for Guyanese wildlife in the European wildlife trade retail market in order to assist them in setting fines and penalties for smugglers.

Table 8. The more common species hunted for bushmeat that may also occur in trade.

Species	Name	Hunting Pressure (* - ***)			Harvest for Trade (Quota/year)	
		Suriname	Guyana	Fr. Guiana	Suriname	Guyana
Birds						
Ara ararauna	Blue and Gold Macaw	***	***	***	650	720
Ara chloroptera	Red and Green Macaw	***	***	***	250	900
Ara macao	Scarlet Macaw	***	***	***	100	0
Ramphastos species	Larger toucans	**	***	***	0	200
Crax alector	Powisi, Black curassow	*** (1)	***	***	27	52
Psophia crepitans	Agami, Grey-winged trumpeter	*** (1)	***	***	42	90
Penelope marail	Marail guan, marai, marudi	*** (1)	***	***	122	0
Tinamus major	Greater tinamou	***	***	***	146	0
Caira moschata	Muscovy duck	***	***	***	120	0
Mammals						
Agouti paca	Paca, labba	*** (1)	***	***	200	110
Dasyprocta cristata/leporina	Agouti	*** (1)	***	***	200	350
Myoprocta exilis	Acouchi	**	**	**	100	0
Cebus nigrivittatus	Weeper capuchin, keskesi	***	***	***	0	242
Cebus apella	Tufted capuchin	***	***	***	114	600
Samiri sciureus	Squirrel monkey	*	*	*	1,000	2,200
Ateles paniscus	Spider monkey, kwata	***	***	***	0	0
Alouatta palliata	Howler monkey	***	***	***	0	0
Tayassu pecari	White-lipped peccary, pingo	*** (1)	***	***	0	0
Tayassu tajacu	Collared peccary, pakira	*** (1)	***	***	0	10
Hydrochaerus hydrochaeris	Capybara, Watra	** (1)	***	***	150	0
Mazama americana	Red brocket deer	***	***	***	0	0
Mazama gouazoubira	Brown brocket deer	***	***	***	0	0
Tapirus terrestris (endangered)	Tapir	*** (1)	***	***	0	0
Dasypus novemcinctus	Nine-banded armadillo	*** (1)	***	***	0	50
Dasypus kappleri	Eight-banded armadillo	** (1)	**	***	0	0
Reptiles						
Geochelone carbonaria	Red-footed tortoise	***	***	***	630	704
Geochelone denticulata	Yellow-footed tortoise	***	***	***	692	704
Iguana iguana	Iguana	** (1)	**	***	42,800	8,400
Caiman crocodylus	Caiman	**	**	***	925	10,000

(1) sold in licensed restaurants in F. Guiana

Discussion and Conclusions

Common issues

Suriname and Guyana are the two last countries to export wildlife for the pet trade legally in South America. Both countries wish to maintain a sustainable use of their wildlife resources and not over-exploit them. However, when the data of both countries are compared, differences are clear:

Quotas: When the quotas of Suriname and Guyana are compared (Tables 9, 10) several problems arise:

- Suriname has much lower quotas and far lower realized export figures than Guyana (Tables 2, 6) but higher FOB prices. Suriname has long believed that larger parrots cannot sustain large annual harvests and has set its quotas accordingly; Guyana has taken a different approach and in fact recently increased their parrot quotas. In other words, for a similar overall annual revenue from the wildlife trade, Guyana is exporting more wildlife at a lower price.
- Guyana and Suriname have zero quotas for different species (Table 10). Just taking the case of parrots, *Amazona festiva* has a zero quota in Suriname while Guyana allows an export quota of 520 even though it is equally uncommon over the border. Meanwhile Suriname allows an annual export of 100 *Ara macao* and *Ara severa* while Guyana does not. Such differences in quotas for uncommon species give a clear incentive for cross-border smuggling. Harmonization of the quota lists of both countries is essential to discourage smuggling.
- Quotas are set in both countries for the wildlife that is exported. It might be wise to consider setting a harvest quotum for each harvest area as well so as to insure that the harvest areas, some which have been used for years, are not being over harvested, particularly when local hunting for bushmeat is also putting pressure on the resource (Table 8). (Suriname's regulations stipulate that an exporter may not harvest more than 25% of his quotum, per species, from any given area – which is hard to enforce.) Community-based harvest quotas could be part of the wildlife-monitoring program and help the community withstand the pressure from the middlemen/exporters of over harvesting certain favored species.

Quotas for the capture of wildlife, and particularly parrots, should be established on the basis of the best information available and not be based on average exports over a given period. Both parrot surveys undertaken recently in Guyana (Kratter, A.W., 1998) and in Suriname (Schouten, K., 1995), which resulted in increased quotas in both countries, were considered inadequate by the international scientific community. Closer consultation with both the IUCN-Species Survival Commission parrot specialists and the parrot trappers themselves should be an active and ongoing process as part of the monitoring of wildlife export activities.

Revenue: The wildlife trade is a lucrative business, but the revenue is not distributed equally. The trappers who rely on this seasonal activity for precious cash in the cashless interior receive a few dollars for birds that sell for hundreds or thousands overseas. This creates the incentives to catch wildlife fast and indiscriminately to raise as much cash as

possible during a short season, which is detrimental to the sustainable use of the resource. Communities must be involved in managing their wild populations including deciding the numbers of animals to be trapped and setting a fair market price for their wildlife.

Breeding and/or ranching (taking eggs from the wild) of birds may be a costly but viable alternative for certain species of birds and reptiles and could be a community-based activity if the expertise and funds are available to launch the effort. Both the Amerindian communities and the exporters in Suriname support this suggestion.

Lack of revenue affects the other end of the spectrum too -- Guyana's Environmental Protection Agency keeps the permit fees and taxes imposed on wildlife trade revenues, the Suriname's Permit Office does not and now has severe budgetary constraints. Lack of revenue has hampered Suriname's wildlife regulation enforcement for years. Export tax revenues should be allocated to the government entity responsible in Suriname for controlling wildlife harvests and exports, i.e LBB/NB. Further, these revenues should also be used to support wildlife population monitoring programs and other activities associated with the sustainable use of wildlife resources.

International organizations should bring whatever pressure necessary on the Office of the President and the Ministry of Natural Resources in Suriname to allow the allocation of revenues generated from wildlife exports to the operation expenses of the LBB/NB Permit Office, including its wildlife enforcement activities.

International cooperation: To date there has been little cooperation between Suriname and Guyana over wildlife trade issues. Exporters from both countries believe that the other side smuggles birds over the border in huge numbers. Indeed one researcher reports that 50% of Guyana's parrots go to Suriname (Kratter, 1998)! While we don't believe this to be the case, we feel that smuggling does take place in both directions and that smuggling routes are well established and some of the offenders, well known. Clearly a monitoring program needs to be set up along the border between Suriname and Guyana, preferably in key areas such as Apura and Nickerie as well as at the local airports.

Both countries have active and long-established wildlife trader associations whose members, on the whole, comply with export regulations and the quotas set by the regulating agencies. However, smuggling activities by members of these associations were seen first-hand in Suriname. While the mechanisms for issuing permits and establishing quotas are in place, there is no infrastructure to monitor the traders except the trader associations themselves. Until there are effective border patrols, hardly feasible when the Corantyne can be paddled across day and night unimpeded, cooperation between the regulating agencies in both countries would establish a broader information exchange base and monitoring infrastructure.

Further, cooperation between the traders' associations in both countries may help manage the resource more effectively and promote cooperation. Informal regional meetings, involving both agencies and stakeholders, to discuss broad issues, such as the preparation of a CITES meeting, may help establish mutual trust between the agencies and trader associations.

Rural community involvement and benefit: Trappers in the rural areas of Guyana and Suriname, usually Amerindians, derive significant cash revenues from the capture and sale of wildlife. The amount paid to the wild animal trappers is only a tiny fraction of what the birds or reptiles sell for in importing countries. Clearly there is an incentive to review the economic benefits of all concerned in the wildlife trade.

Long-term economic benefits can be realized through better management techniques (including better animal husbandry) at the trapper level. Such local education programs would be profitable to both the trappers and the wildlife. For instance, the placement of additional nesting boxes on trees for macaws and parrots has been successful in Peru (Thomsen, J. B. & A. Brautigam, 1991). Of course, these wildlife conservation techniques should be compatible with cultural systems and acceptable to community leaders. In our experience with Amerindian communities, there exists an interest in learning new techniques in the management of wildlife particularly if there is a direct economic benefit.

The desired benefit is to share information between all the stakeholders, create a sense of trust and participation in the management of the local wildlife resources, thus ultimately reduce the motivation to over-hunt and over-trap. The Amerindian communities are closer to the wildlife than the exporters or permitting agencies and yet they have no say in setting quotas. At present there is no relationship between the actual harvest and export quotas. There is no information as to level of effort by trappers in the interior to meet the quotas set in town. The same harvest areas are used for years and the exporters expect the same returns from these areas during the open season.

Monitoring: A closer monitoring of the wildlife trade, both legal and illegal, needs to be done in both Suriname and Guyana. This will require a network based on cooperation and trust at all levels and involve all the stakeholders from the "bottom up" as well a close working relationship with the governmental agencies and ministries involved. It is not an easy task as heretofore, the level of cooperation between each country, between governmental agencies, and between stakeholders has been lacking. Regional meetings and an informal newsletter reporting on wildlife trade activities in the region and internationally would be helpful in getting the process started.

Table 9. Guyana and Suriname CITES Export Quotas for 2001

(FOB= minimum Free on Board price. Only includes quotas for CITES species traded)

	CITES App.	Guyana 2001 Quota	Guyana FOB (US$)	Suriname 2001 Quota	Suriname FOB (US$)
BIRDS					
Amazona amazonica	II	9,900	32.00	4,800	33.00
Amazona dufresniana	II	520	216.00	70	306.00
Amazona ochrocephala	II	1,000	86.00	580	86.00
Amazona festiva	II	520	86.00	0	N/A
Amazona farinosa	II	1,100	72.00	450	79.00
Ara chloroptera	II	990	288.00	250	342.00
Ara macao	II	0	N/A	100	873.00
Ara nobilis	II	1,100	50.00	150	46.00
Ara ararauna	II	792	252.00	650	300.00
Ara severa	II	0	N/A	250	139.00
Ara manilata	II	1,650	65.00	470	56.00
Aratinga leucophthalmus	II	300	72.00	792	11.00
Aratinga aurea	II	0	N/A	100	17.00
Aratinga pertinax	II	500	14.00	2,710	7.00
Brotogeris chrysopterus	II	180	22.00	1,194	12.00
Deroptyus accipitrinus	II	780	360.00	300	251.00
Forpus passerinus	II	600	22.00	4,632	4.00
Pionites melanocephala	II	600	50.00	1,378	45.00
Pionus fuscus	II	780	86.00	800	45.00
Pionus menstruus	II	900	36.00	1,500	28.00
Pteroglossus aracari	II	300	65.00	300	39.00
Pteroglossus viridis	II	52	65.00	300	46.00
Pyrrhura picta	II	300	110.00	854	39.00
Pyrrhura e. egregia	II	120	36.00	0	N/A
Ramphastos vitellinus	II	120	115.00	350	110.00
Ramphastos tucanus	II	170	115.00	250	135.00
Ramphastos toco	II	200	144.00	0	N/A
MAMMALS					
Cebus a apella	II	600	79.00	114	325.00
Cebus nigrivittatus	II	242	79.00	0	N/A
Saimiri sciureus	II	2,200	65.00	1,000	300.00
Saguinus midas	II	200	58.00	320	350.00
Agouti paca	III (S)	110	16.00	200	42.00
Eira barbara	III (S,G)	10	14.00	100	23.00
Herpestes auropunctatus	III (S)	0	N/A	100	12.00
Nasua nasua	III(G)	74	14.00	0	N/A
Potos flavus	III(G)	110	72.00	0	N/A
Tamandua tridactyla	III(G)	44	115.00	0	N/A

Table 9 continued

	CITES App.	Guyana 2001 Quota	Guyana FOB (US$)	Suriname 2001 Quota	Suriname FOB (US$)
REPTILES and AMPHIBIANS					
Caiman crocodilus	II	10,000	3.00	925	14.50
Paleosuchus palpebrosus	II	500	3.00	0	N/A
Paleosuchus trigonatus	II	500	3.00	0	N/A
Boa constrictor	II	3,000	15.00	1,010	50.00
Corallus enydris	II	1,900	5.00	1,900	10.00
Corallus caninus	II	880	58.00	900	85.00
Phobobatus trivittatus	II	1,452	1.00	1,452	11.50
Dendrobates tinctorius	II	1,886	1.00	1,886	9.00
Dendrobates leucomel as	II	500	1.00	0	N/A
Dendrobates azureus	II	500	1.00	0	N/A
Epipedobates femoralis	II	500	1.00	0	N/A
Epipedobates pictus	II	500	1.00	0	N/A
Epicrates cenchris	II	160	13.00	160	90.00
Eunectes murinus	II	330	6.50	330	24.00
Geochelone carbonaria	II	704	17.00	630	17.00
Geochelone denticulata	II	704	17.00	692	17.00
Iguana iguana	II	8,400	1.40	42,800	0.50
Podocnemis unifilis	II	0	N/A	630	8.50
Tupinambis nigropunctatus	II	7,200	3.60	2,400	5.00

Table 10. Guyana and Suriname CITES Export Quotas 1998-2001

	CITES App.	Guyana 2001 Quota	Guyana 1998 Quota	Suriname 98-'01 Quotas	Problem Species
BIRDS					
Amazona amazonica	II	**9,900**	9,000	4,800	←
Amazona dufresniana	II	**520 ***	0	70	←
NOTE: Zero quota suspended in 2001. ***A. dufresnia*** *has only small,scattered populations in Guyana.*					
Amazona ochrocephala	II	1,000	1,000	580	
Amazona festiva	II	**520 ***	0	0	←
NOTE: Zero quota suspended in 2001. ***A. festiva*** *has few records in Guyana. Mainly found in Venezuela.*					
Amazona farinosa	II	**1,100**	1,000	450	←
Ara chloroptera	II	990	900	250	←
NOTE: ***A. choroptera*** *has been reported as declining over most of its range.*					
Ara macao	II (S)	0	0	100	←
Ara nobilis	II	**1,100**	1,000	150	←
Ara ararauna	II	792	720	650	
Ara severa	II	0	0	250	
Ara manilata	II	**1,650**	1,500	470	←
Aratinga leucophthalmus	II	300	300	792	
Aratinga aurea	II	0	0	100	←
NOTE: Does not occur in Guyana. ***A. aurea*** *as only small,scattered populations in Suriname. Mainly Brazil.*					
Aratinga pertinax	II	500	500	2,710	
Brotogeris chrysopterus	II	180	180	1,194	
Deroptyus accipitrinus	II	**780 ***	0	300	←
NOTE: Zero quota suspended in 2001. ***D. accipitrinus*** *Patchy distribution in the interior, uncommon.*					
Forpus passerinus	II	600	600	4,632	
Pionites melanocephala	II	600	600	1,378	
Pionus fuscus	II	**780 ***	0	800	←
NOTE: Zero quota suspended in 2001. ***P. fuscus*** *is found mainly in Venezuela.*					
Pionus menstruus	II	900	900	1,500	
Pteroglossus aracari	II	300	300	300	
Pteroglossus viridis	II	52	52	300	
Pyrrhura picta	II	300	300	854	
Pyrrhura e. egregia	II	**120 ***	120	0	←
NOTE: ***P. e. egregia*** *is uncommon in Guyana and Suriname. Mainly found in Brazil.*					
Ramphastos vitellinus	II	120	120	350	
Ramphastos tucanus	II	170	170	250	
Ramphastos toco	II	200	200	0	←
Cairina moschata	III (S)	0	0	120	←
NOTE: ***Carina moschata*** *declining over most of its range due to hunting pressure.*					
Dendrocygna autumnalis	III (S)	0	0	212	←
MAMMALS					
Cebus a apella	II	600	600	114	
Cebus nigrivittatus	II	242	242	0	←
Saimiri sciureus	II	2,200	2,200	1,000	
Saguinus midas	II	200	200	320	

Table 10 continued

	CITES App.	Guyana 2001 Quota	Guyana 1998 Quota	Suriname 98-'01 Quotas	Problem Species
MAMMALS					
Agouti paca	III (S)	110	110	200	
Eira barbara	III (S,G)	10	10	100	
Herpestes auropunctatus	III (S)	0	0	100	
Nasua nasua	III(G)	74	74	0	←
Potos flavus	III(G)	110	110	0	←
Tamandua tridactyla	III(G)	44	44	0	←
REPTILES and AMPHIBIANS					
Caiman crocodilus	II	10,000	10,000	925	
Paleosuchus palpebrosus	II	500	500	0	←
Paleosuchus trigonatus	II	500	500	0	←
Boa constrictor	II	1,400	1,400	1,010	
Corallus enydris	II	3,000	3,000	1,900	
Corallus caninus	II	880	880	900	
Phobobatus trivittatus	II	**500**	100	1,452	←
Dendrobates tinctorius	II	**500**	100	1,886	←
Dendrobates leucomelas	II	**500**	100	0	←
Dendrobates azureus	II	**500 ***	100	0	←
*NOTE: **Dendrobates azureus**' main population is found in hills on the Sipaliwini savannah in Suriname and is a protected species that may not be exported. It occurs in Guyana in very small numbers.*					
Epipedobates femoralis	II	**500**	100	0	←
Epipedobates pictus	II	**500**	100	0	←
Epicrates cenchris	II	500	160	160	
Eunectes murinus	II	1,000	1,000	330	
Geochelone carbonaria	II	704	704	630	
Geochelone denticulata	II	704	704	692	
Iguana iguana	II	8,400	8,400	42,800	
Podocnemis unifilis	II	0	0	630	←
Tupinambis nigropunctatus	II	7,200	7,200	2,400	

Table 11a. Wildlife Trade Management Arrangements in Suriname

Institutions	Mandate	Regulatory Instruments	Inadequacies/ conflicts
Nature Conservation Division (NB) of the Suriname Forest Service (LBB) of the Ministry of Natural Resources	Enforces the Game Law and CITES and issues export permits for CITES and Non-CITES wildlife.	1. Nature Preservation Act 1954, #26 2. Game Law 1954 3. Game Resolution 1970 4. Law on Forest Management	• Max. penalties for violation of the Game Law and Game Resolution are small. • The Game Law applies only to the northern part of Suriname. • Enforcement officers are poorly equipped and compensated. • Confiscated wildlife is released without consideration for their conservation status and/or chances of survival. • Until the Game Law is adjusted, some CITES Appendix II species are not listed and thus not protected in Suriname. • Revenue derived from the issuing of export permits and security stamps are not retained by NB/LBB. • There is no clear legislation regulating the trade of non-timber forests products. • Absence of a computerized system for issuing permits. Permits are hand-written and therefore subject to falsification. • No regulations specific to medicinal plants exist. • Non-CITES shipments are often not inspected. • Reports indicate that smuggling of wildlife is significant.
Suriname Forest Service (LBB) of the Ministry of Natural Resources	Implementation of laws governing the country's natural resources. Priority is placed on conservation and sustainable development.		
Nature Conservation Commission Ministry of Trade	Advisory body on the Nature Conservation Law and Game Law. CITES Scientific Authority. Issues Animal Exporter Licenses.		There is currently only a Chairman, hence no research and monitoring of species populations occur within this Authority.

Fisheries Division of the Ministry of Agriculture	Enforces the Fish Protection Act.	1. Fish Protection Act 1961 2. The Fish Protection resolution 1961 # 101 3. Sea Fisheries Act 1980 # 144	
Other Ministries	Environment and Species Protection.	Wide range of Acts, Decrees, Regulations and Guidelines.	The responsibility for the environment and species protection is shared between several Ministries of Government.
Customs Department	Monitor exports and inspect cargo and permits.		Inspection officers require species identification aids and training.

Table 11b. Wildlife Trade Management and Institutional Arrangements for Guyana

Institutions	**Mandate**	**Regulatory Instruments**	**Inadequacies/conflicts**
Office of the President(OP) Environmental Protection agency (EPA)	Designation of Management and Scientific Authority to administer Wildlife Trade (OP-Wildlife Division) in accordance with CITES. To co-ordinate the establishment and maintenance of a national parks and protected area system and a wildlife protection management programme.	1. Convention on International Trade on Endangered Species (CITES) 2. Environmental Protection Act 1996 3. Species Protection Regulations 1999 4. Wildlife Management and Conservation Regulations (draft) 5. Customs and Excise Act 6. Fisheries Act	• Some stakeholders are not in full agreement with all existing EPA regulations. • Enforcement officers need training and species identification aids. • There are no hunting regulations, enforcement or bag limits in the interior of Guyana. • Hunters are not licensed. • It is alleged that smuggling of wildlife is significant.
National Biodiversity Advisory Committee (NBAC)	To advise the government on strategies, plans and programmes for biodiversity conservation and management in Guyana.		
Customs Department	Monitor exports and inspect cargo and permits.		• Inspection officers require species identification aids and training.
Department of Fisheries (DOF)	Conducts inspections of holding facilities for aquarium fishes.		• Inspections should be done by EPA

Table 11c. Wildlife Trade Management Arrangements in French Guiana

Institutions	Mandate	Regulatory Instruments	Inadequacies/conflicts
Office Nationale et de la Faune Sauvage, ONC (Hunting and Wildlife Management Office)	Wildlife Management	International Commerce in Endangered Species Law 1986	• No hunting licenses are required. • There is no closed hunting season. • Hunting is under-regulated along the coast due to the lack of enforcement personnel and not regulated in the interior. • Present regulations are not believed to be compatible with long-term sustainable use of certain species. • Smuggling is believed to be a significant problem.
Customs Department	Monitor exports and inspect cargo and permits.		Inspection officers require species identification aids and training.

Appendix I. List of People interviewed outside the Guianas

IUCN- Sustainable Use: Dr Steve Edwards sea turtles,ed yuts)stain147uianas

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